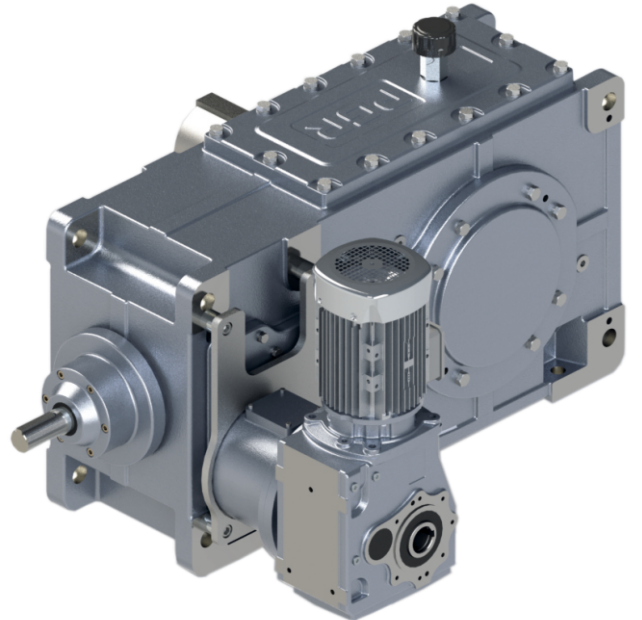
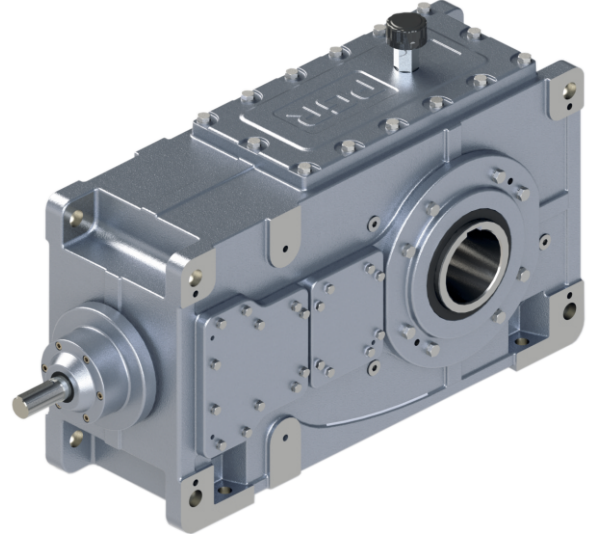
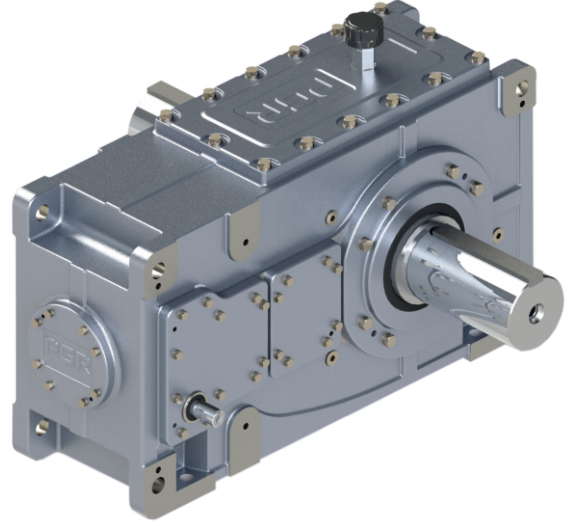


Endüstriyel Tip Redüktörler  
&  
Yardımcı Tahrikli Redüktörler

Industrial Type Gear Units  
&  
Bucket Elevator Drives

Industriegetriebe  
&  
Becherwerksantriebe

**PH/PB SERIES**





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TR

## KALİTE POLİTİKAMIZ

POLAT GROUP REDÜKTÖR A.Ş. ürünlerinin kalitesinde en iyiye yakalamak için; sektöründeki teknolojik gelişmeleri takip etmeyi, pazar payındaki istikrarını sürdürmek için müşterilerinin istek ve beklentilerine eksiksiz ve zamanında cevap vererek, sürekli artan müşteri memnuniyetini sağlamayı, eğitimli çalışanlarının performansını huzurlu bir çalışma ortamı sağlayarak arttırmayı ve bu şekilde kalite yönetim sistemini sürekli iyileştirmeyi kalite politikası olarak benimsemiştir.

## VİZYONUMUZ

Müşteri ve çalışan memnuniyetini en üst düzeyde tutan, gelişmeleri izleyen değil yaratan bir dünya şirketi olmaktır.

## MİSYONUMUZ

Müşterilerimizin ihtiyaçlarını karşılayacak çözümleri bilgi teknolojilerini kullanarak en verimli ve kaliteli şekilde sunmaktır.

Polat Group Redüktör olarak birçok farklı ürün yelpazesi ile, müşteri ihtiyacını maksimum seviyede karşılamak için eş zamanlı mühendislik yöntemlerini kullanarak çalışmalarını sürdürmektedir. Tasarım faaliyetleri, ürün geliştirme programları ve bilgisayar destekli çalışmalarımız sürekli gelişen bir grafik çizmektedir. Rekabetçi ve güçlü kalite politikamız müşteri yelpazemizi genişletmektedir.

EN

## OUR QUALITY POLICY

To achieve the best quality of its products, POLAT GROUP REDÜKTÖR A.Ş. adopts with its own quality politics by following the technological developments of its sector, in order to keep up the stabilization on its own market share ensuring the customers' gladness increasing permanently by answering the customers' wishes and expectations completely at the right time to have the well-educated staffs increase their performance by providing a peaceful working place and making better the quality management system all the time.

## OUR VISION

Our vision is to become a world company which keeps the customer satisfaction at the top level and which does not only follow the developments but also creates the developments itself.

## OUR MISSION

Our mission is to provide the solutions to our customers in most efficient and qualified way by make use of the information technologies.

Our reducer group carries out its works using simultaneous engineering methods in order to meet the demands of our customers by presenting several different product ranges. Promotion activities, product development programmes and computer supporting work show a continuously growing chart. Our competitive and strong quality policy is to develop our customer spectrum.

DE

## UNSERE QUALITÄTSPOLITIK

Wir verfolgen ständig alle technologischen Entwicklungen in unserem Sektor, um die beste Qualität an den Produkten von POLAT GROUP REDÜKTÖR GmbH zu schaffen. Wir erfüllen und liefern die Anforderungen und Erwartungen unserer Kunden vollständig und pünktlich, um die Stabilität unseres Marktanteils zu halten, und eine ständig steigende Kundenzufriedenheit zu verwirklichen. Wir haben unsere Qualitätspolitik verinnerlicht und verbessern die Qualitätsverwaltungssystem ständig in entsprechender Weise und versuchen dauernd, unsere Arbeitsumgebung noch gemüthlicher zu gestalten, um die Leistungsfähigkeit unserer erfahrenen Mitarbeiter und Mitarbeiterinnen ständig zu erhöhen.

## UNSERE VISION

Unsere Vision ist ein Weltunternehmen zu erschaffen, das die Kunden- und Mitarbeiterzufriedenheit ständig im höchsten Zustand hält und die Entwicklungen nicht nur verfolgt, sondern auch gestaltet.

## UNSER ZIEL

Unser Ziel ist unseren Kunden die Produkte, Qualitäts- und Dienstleistungen sowie Lösungen, die die Kundenerwartungen übertreffen und im besten und leistungsfähigsten Zustand mit Hilfe der neuesten Informationstechnologien zu bieten.

Polat Group Redüktör GmbH führt sämtliche Tätigkeiten des Ingenieurwesens gleichzeitig weiter, um die Kundenerwartungen an alle unsere Produkte aus verschiedenen Produktpaletten im höchsten Zustand zu übertreffen. Unsere Entwurfstätigkeiten und Produktentwicklungsprogramme und EDV unterstützten Arbeitsprozesse zeigen eine steigende Grafik. Unsere wettbewerbsfähige und kräftige Qualitätspolitik vergrößert unseren Kundenumfang weiter.

TR

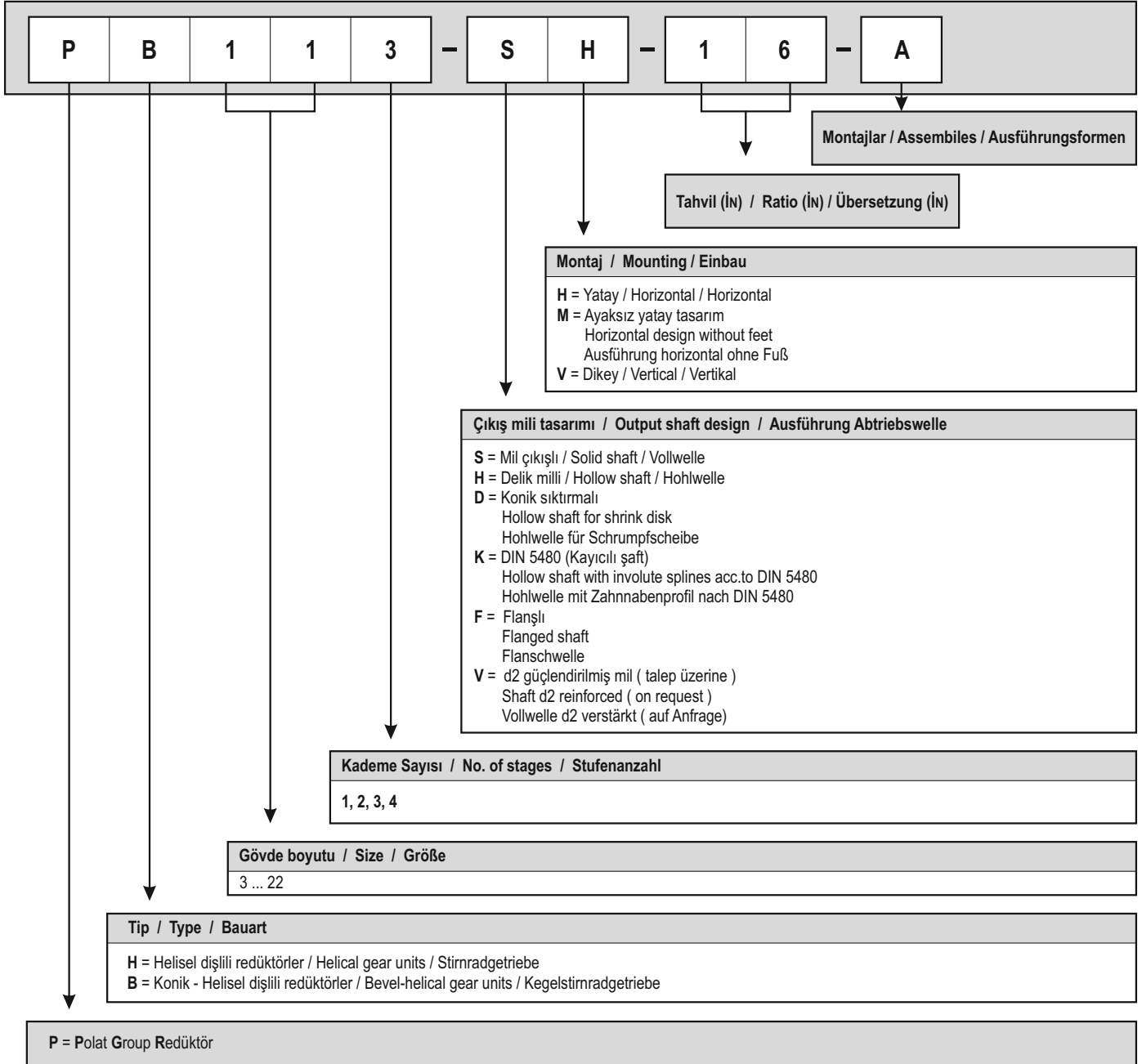
TEMEL TİPLER

EN

SUMMARY OF BASIC TYPES

DE

BAUARTENÜBERSICHT



## Sipariş için gerekli ayrıntılı bilgiler:

Aktarım oranı i , A, B, C, D, vb dizayn,



66 - 67

## Further details required in orders:

Transmission ratio i, designs A, B, C, D, etc.

## Weitere bei Bestellung notwendige Angaben:

Übersetzung i, Ausführungen A, B, C, D, usw.

## Örnek PB113-SH

Helisel- konik dişli redüktör, boyut 11, 3 kademe, i= 16, dizayn A, çıkış mili tasarımı,  
Yatay montaj pozisyonu,

## Example PB113-SH

Bevel - helical gear unit, size 11, 3 stage, i= 16, design A, solid output shaft design,  
Horizontal mounting position.

## Beispiel PB113-SH

Kegelstirnradgetriebe, Größe 11, 3- stufig, i= 16, Ausführung A, Abtrieb in Vollwellenausführung,  
Horizontale Einbaulage.

TR

TEMEL TİPLER

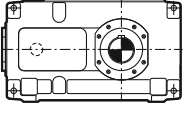
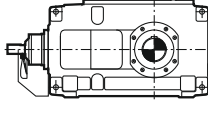
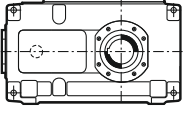
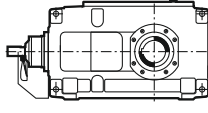
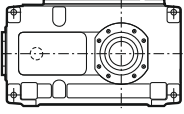
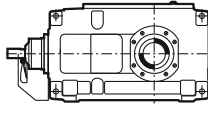
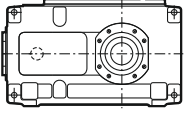
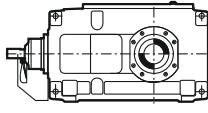
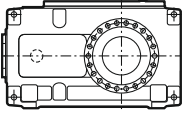
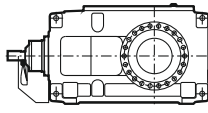
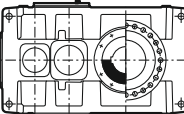
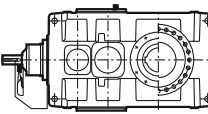
EN

SUMMARY OF BASIC TYPES

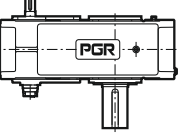
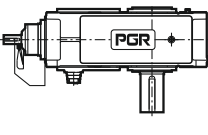
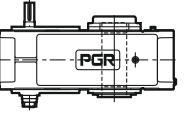
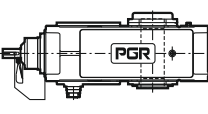
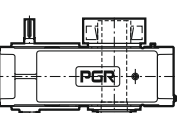
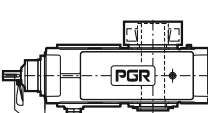
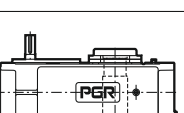
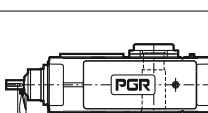
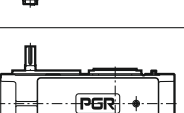
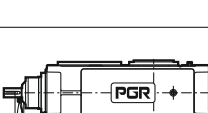
DE

BAUARTENÜBERSICHT

Yatay montaj pozisyonu / Horizontal mounting position / Einbaulage horizontal

|                                                                                     |                                              |                                                                                                                                                                                                                                   |                                                                                      |                                              |                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | PH...-SH                                     | <p>Helisel dişlili redüktörler<br/>Helical gear units<br/>Stirnradgetriebe</p> <p>Tip / Type / Bauart<br/>PH...1<br/>PH...2<br/>PH...3<br/>PH...4</p> <p>1... 4 Kademe<br/>1... 4 Stage<br/>1... 4 Stufig<br/>iN = 1.25 - 450</p> |    | PB...-SH                                     | <p>Helisel-Konik Dişlili Redüktörler<br/>Bevel - Helical Gear Units<br/>Kegelstirnradgetriebe</p> <p>Tip / Type / Bauart<br/>PB...2<br/>PB...3<br/>PB...4</p> <p>2...4 Kademe<br/>2...4 Stage<br/>2...4 Stufig<br/>iN = 5 - 400</p> |
|    | PH...-HH                                     |                                                                                                                                                                                                                                   |    | PB...-HH                                     |                                                                                                                                                                                                                                     |
|    | PH...-DH                                     |                                                                                                                                                                                                                                   |    | PB...-DH                                     |                                                                                                                                                                                                                                     |
|    | PH...-KH                                     |                                                                                                                                                                                                                                   |    | PB...-KH                                     |                                                                                                                                                                                                                                     |
|   | PH...-FH                                     |                                                                                                                                                                                                                                   |   | PB...-FH                                     |                                                                                                                                                                                                                                     |
|  | PH...-HM<br>PH...-DM<br>PH...-KM<br>PH...-FM |                                                                                                                                                                                                                                   |  | PB...-HM<br>PB...-DM<br>PB...-KM<br>PB...-FM |                                                                                                                                                                                                                                     |

Dikey montaj pozisyonu / Vertical mounting position / Einbaulage vertikal

|                                                                                     |          |                                                                                                                                                                                                                    |                                                                                      |          |                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | PH...-SV | <p>Helisel dişlili redüktörler<br/>Helical gear units<br/>Stirnradgetriebe</p> <p>Tip / Type / Bauart<br/>PH...2<br/>PH...3<br/>PH...4</p> <p>2...4 Kademe<br/>2...4 Stage<br/>2...4 Stufig<br/>iN = 6.3 - 450</p> |  | PB...-SV | <p>Helisel-Konik Dişlili Redüktörler<br/>Bevel - Helical Gear Units<br/>Kegelstirnradgetriebe</p> <p>Tip / Type / Bauart<br/>PB...2<br/>PB...3<br/>PB...4</p> <p>2...4 Kademe<br/>2...4 Stage<br/>2...4 Stufig<br/>iN = 5 - 400</p> |
|  | PH...-HV |                                                                                                                                                                                                                    |  | PB...-HV |                                                                                                                                                                                                                                     |
|  | PH...-DV |                                                                                                                                                                                                                    |  | PB...-DV |                                                                                                                                                                                                                                     |
|  | PH...-KV |                                                                                                                                                                                                                    |  | PB...-KV |                                                                                                                                                                                                                                     |
|  | PH...-FV |                                                                                                                                                                                                                    |  | PB...-FV |                                                                                                                                                                                                                                     |

## TR KARAKTERİSTİK ÖZELLİKLER

## İmalat

PGR dişli redüktörleri, tamamen yeniden dizayn edildi. Avantajları:

- Daha az parçayla, daha fazla gövde büyüklüğü,
- Artan güç kapasitesi ile daha yüksek işletme şartlarında güvenilirlik,
- Ağırlıklı olarak temassız, aşınmaya dayanıklı labirent keçelerinde mevcuttur.
- Redüktör montajını kolaylaştıran ve daha az yer gerektiren flanşlı çıkış millerimiz de mevcuttur (Talep edildiğinde).

## Montaj Şekilleri

PGR dişli redüktörleri, yatay veya dikey montajlı şekilde teslim edilmektedir.

Firmamızla görüşülerek, diğer düzenlemelerin uygulanması da ayrıca mümkündür. Müşteri talebi üzerine, seçilen redüktörlere örneğin motor montaj adaptörü, tork kolu veya kilit v.b farklı donanımların eklenmesi mümkündür.

## Gürültü Seviyesi

PGR dişli redüktörlerinde, gürültü seviyesi kesin ve kalıcı bir şekilde azaltılabilmektedir. İşbu kapsamda:

- Konik dişliler taşlanırlar,
- CNC bilgisayar programıyla, gürültü seviyesini azaltacak şekilde bir gövde ve
- Yüksek kalitede dişli sistemi geliştirilir.

## Isı İletkenliği

PGR dişli redüktörlerinin avantajları, sadece gövdenin daha büyük olmasıyla sınırlı değildir, ayrıca

- Büyük yüzey alanı sayesinde;
- Temassız ve aşınmaz tipteki labirent keçesi donanımlarıyla ve
- Yeni bir ısı iletim şekli sağlayan fan kapaklı güçlendirilmiş büyük fanlarıyla,

Redüktör seçiminde PGR, gereken en düşük maksimum yağ sıcaklığını temel olarak alır. Bu sayede, işyeri güvenliği artar ve yağlama aralıklarının daha uzun olması nedeniyle, bakım masrafları da azalır.

## Depolama

PGR dişli redüktörleri, yeni bir modüler sisteme göre tasarlandı. Bu sayede, farklı montaj parçalarının sayısı azaltıldı. İlgili montaj parçalarının oldukça büyük bölümü, stoklarımızda mevcuttur.

## EN CHARACTERISTIC FEATURES

## Design

PGR gear units are a completely new design. Advantages are:

- More sizes with a reduced variety of parts;
- Higher operational reliability combined with increased power capacity;
- Predominantly non-contacting wear-resistant labyrinth seals are possible;
- Flanged output shafts to facilitate assembly of gear units in confined spaces (on request).

## Mounting position

PGR gear units can be supplied for either horizontal or vertical installation.

Other arrangements are also possible on request. The basic gear unit can be optimally adapted to customer requirements by fitting different add-on pieces like motor bell housings, gear unit swing-bases or backstops.

## Noise behaviour

New concepts were applied to clearly improve the noise emission of the gear units by

- Grinding the bevel gears;
- Designing noise-absorbing housings by means of the CNC computing program; and
- Achieving exceptionally large contact ratios.

## Thermal conduction

PGR-gear units not only have a high efficiency but also a favourable thermal conduction.

- Through enlarged housing surface areas;
- Because non-contacting labyrinth seals can be used; and
- Because large fans incorporating a new type of air conduction fan cowl are being used.

The selection of PGR gear units is based on a lower maximum oil temperature. By that the operational reliability will be increased and the cost of maintenance reduced due to longer oil change intervals.

## Storing

PGR gear units have been designed according to a new unit construction principle. Through this, the variety of parts could be reduced.

## DE CHARAKTERISTISCHE VORZÜGE

## Konstruktion

PGR Zahnradgetriebe wurden völlig neukonzipiert. Pluspunkte sind:

- Mehr Baugrößen bei weniger Bauteilvarianten,
- Höhere Betriebssicherheit bei gesteigerter Leistungsdichte,
- Überwiegend berührungs- und verschleiß-freie Labyrinthdichtungen möglich,
- Flanschabtriebswellen zur leichteren Getriebemontage bei kleinem Raumbedarf (auf Anfrage).

## Einbaulage

PGR - Zahnradgetriebe sind für horizontale und vertikale Einbaulage lieferbar.

Auch andere Anordnungen sind nach Rücksprache möglich. Das Grundgetriebe kann durch unterschiedliche Anbauteile wie z.B. Motorlaternen, Getriebschwingen oder Rücklaufsperrn optimal an die Kundenanforderungen angepasst werden.

## Geräuschverhalten

Bei PGR - Zahnradgetrieben konnte das Geräuschverhalten entscheidend verbessert werden. Dazu wurden:

- Die Kegelräder geschliffen,
- Die geräuschkämpfenden Gehäuse mit CNC-Rechenprogramm entwickelt und
- Außergewöhnlich hohe Überdeckungsgrade der Verzahnung erreicht.

## Temperaturverhalten

PGR - Zahnradgetriebe haben bei einem guten Wirkungsgrad ein günstiges Temperaturverhalten, weil

- Die Gehäuseoberflächen vergrößert wurden
- Überwiegend berührungsfreie Labyrinthdichtungen eingesetzt werden können und
- Große Lüfter mit einem neu entwickelten Luftleitsystem zur Anwendung kommen

Bei der Getriebeauswahl legt PGR eine niedrige maximale Öltemperatur zugrunde. Die Betriebssicherheit wird dadurch erhöht und der Wartungsaufwand verringert sich durch längere Ölstandszeiten.

## Vorratshaltung

PGR - Zahnradgetriebe sind nach einem neuen Baukastensystem konstruiert. Dadurch konnte die Zahl der Bauteilvarianten reduziert werden.

TR

## GENEL BİLGİLER

### Dikkat!

Aşağıda belirtilen unsurlara mutlaka dikkat edilmelidir!

- Burada yer alan resim ve çizimler sadece örnek olarak gösterilmiştir ve bağlayıcı değildir. Firmamızın ölçüleri değiştirme hakkı saklıdır.
- Belirtilen ağırlıklar, ortalama değerlerdir ve bağlayıcı değildir.
- Hareketli parçalara kazayla temas edilmemesi için, alıcı tarafından gereken tedbirler alınmalıdır. İlgili ülkede geçerli ve yürürlükte olan güvenlik yönetmeliklerine, mutlaka dikkat edilmelidir.
- Kullanmaya başlamadan önce, kullanma ve çalıştırma kılavuzu mutlaka incelenmelidir. Redüktörler, kullanıma hazır, ancak yağ doldurulmadan teslim edilir.
- Burada belirtilen yağ miktarları, sadece önerilen değerlerdir ve bağlayıcı değildir. İşbu kapsamda, yağ ölçme çubuğuyla tespit edilen yağ seviyesi belirleyicidir.
- Yağ viskozitesi, mutlaka etikette belirtilen değere uygun olmalıdır.
- Sadece onaylanan yağ tipleri kullanılmalıdır. En güncel kullanma kılavuzu ve yağ tipi tabloları, web sitemizde yer almaktadır: [www.pgr.com.tr](http://www.pgr.com.tr)
- Redüktörler, döner mil keçeleri takılı durumda teslim edilir. Diğer sızdırmazlık yöntemleri, sipariş üzerine uygulanır.
- Dönme yönü bilgileri, d<sub>2</sub> çıkış miline bağlıdır.
- Redüktörün açık bir alanda monte edilmesi durumunda, güneş ışınlarından korunmalıdır. İlgili önlem ve tedbirlerin alınması, müşterinin sorumluluğundadır.

Ölçülü çizimlerdeki sembollerin açıklamaları:

-  = Yağ ölçme çubuğu
-  = Havalandırma
-  = Yağ boşaltma Tapası
-  = Yağ doldurma Tapası

EN

## GENERAL INFORMATION

### Attention!

The following items are absolutely to be observed!

- Illustrations are examples only and are not strictly binding. Dimensions are subject to change.
- The weights are mean values and not strictly binding.
- To prevent accidents, all rotating parts should be guarded according to local and national safety regulations.
- Prior to commissioning, the operating instructions must be observed. The gear units are delivered ready for operation but without oil filling.
- Oil quantities given are guide values only. The exact quantity of oil depends on the marks on the oil dipstick.
- The oil viscosity has to correspond to the data given on the name plate.
- Approved lubricants may be used only. You will find current operating instructions and lubricant selection tables on our home page at: [www.pgr.com.tr](http://www.pgr.com.tr)
- The gear units are supplied with radial shaft seals. Other sealing variants on request.
- Directions of rotation referring to output shaft d<sub>2</sub>.
- In case of outdoor installation, insolation is to be avoided. The customer has to provide adequate protection.

Explanation of symbols used in the dimensioned drawings.

-  = Oil dipstick
-  = Breather
-  = Oil drain
-  = Oil filler

DE

## ALLGEMEINE HINWEISE

### Achtung!

Folgende Punkte sind unbedingt zu beachten!

- Abbildungen sind beispielhaft und nicht verbindlich. Maßänderungen bleiben vorbehalten.
- Die angegebenen Gewichte sind unverbindliche Mittelwerte.
- Umlaufende Teile müssen vom Käufer gegen unbeabsichtigtes Berühren geschützt werden. Die gültigen Sicherheitsbestimmungen des jeweiligen Einsatzlandes sind zu beachten.
- Vor Inbetriebnahme ist die Betriebsanleitung zu beachten. Die Getriebe werden betriebsfertig, jedoch ohne Ölfüllung geliefert.
- Ölmengenangaben sind unverbindliche Richtwerte. Maßgebend ist die Ölstandsmarkierung am Ölmesstab.
- Ölviskosität muss den Angaben des Typenschildes entsprechen.
- Es dürfen nur freigegebene Schmierstoffe verwendet werden. Aktuelle Betriebsanleitungen und Schmierstofftabellen finden Sie auf unserer Homepage unter: [www.pgr.com.tr](http://www.pgr.com.tr)
- Die Getriebe werden mit Radialwellendichtringen ausgeliefert. Andere Dichtungsvarianten auf Anfrage.
- Drehrichtungsangaben beziehen sich auf die Abtriebswelle d<sub>2</sub>.
- Bei Aufstellung im Freien ist Sonnenbestrahlung zu vermeiden. Entsprechende Schutzeinrichtungen sind kundenseitig vorzusehen.

Erklärung der Symbole in den Maßzeichnungen:

-  = Ölmesstab
-  = Entlüftung
-  = Ölablass
-  = Öleinfüllung

Gövde büyüklüğü 13... ve üzeri olan redüktörlerde basınç vidaları, gövde ayağında ve gövdenin üst kısmındaki ayar yüzeylerinde yer alır.

Gövde üzerinde bulunan sabitleme deliklerine vidalanması gereken taban civatalarının mukavemet sınıfı en az 8.8'dir. DIN EN 20273'e göre.

Redüktörlerin korozyona karşı korunması sağlanmış ve RAL 7000 renk tonunda boyanmıştır.

From size 13... up jack screws in the housing feet and leveling pads on the upper housing part.

Foundation bolts of min. property class 8.8. Tolerance of the clearance holes in the housing acc. to DIN EN 20273- "coarse" series.

The gear housings are protected against corrosion and sprayed in RAL 7000.

Ab Getriebegröße 13... Druckschrauben im Gehäusefuß und Ausrichtflächen auf dem Oberteil des Gehäuses.

Fußschrauben mit Mindest-Festigkeitsklasse 8.8. Toleranz der Befestigungsbohrungen im Gehäuse nach DIN EN 20273 - Reihe "grob".

Die Getriebe sind konserviert und im Farbton RAL 7000 lackiert.

DIN EN ISO 9001'e göre

Certified acc.to DIN EN ISO 9001

Zertifiziert nach DIN EN ISO 9001

**1. Redüktörün Tipi ve Boyutunun Belirlenmesi**

Determination of gear unit type and size

Bestimmung von Getriebebauart und Größe

- 1.1 Tahvil oranının belirlenmesi  
Find the trasmission ratio  
Bestimmung der Übersetzung

$$is = \frac{n1}{n2}$$

- 1.2 Redüktör nominal gücünü belirleme  
Determine nominal power rating of the gear unit  
Bestimmung der Getriebennennleistung

$$P2N \geq P2 \times f1 \times f2$$

Aşağıdakileri belirleyebiliyorsanız,  
şirketimize danışmanıza gerek yoktur.  
It is not necessary to consult us, if,  
Rücksprache nicht erforderlich, wenn.

$$3.33 \times P2 \geq P2N$$

- 1.3 Örneğin, redüktörün en yüksek çalışma momenti, başlangıç momenti ve frenleme momenti benzeri, maksimum momentlerinin kontrol edilmesi,  
Check for maximum torque, e.g. peak operating-, starting- or braking torque  
Kontrolle auf Maximalmoment z.B.; Betriebsspitzen-, Anfahr- oder Bremsmoment

$$P2N \geq \frac{Ta \times n1}{9550} \times f3$$

iN ve P2N'e göre redüktör boyutları ve Kademe sayıları tabloda verilmiştir.  
Gear unit sizes and number of reduction stages are given in rating tables depending on iN and P2N  
Getriebegrößen und Stufenanzahl sind in den Leistungstabellen abhängig von iN und P2N festgelegt

- 1.4 Çıkış milinin maruz kalacağı ilave yüklerin kontrol edilmesi için, lütfen 60 ve 61. sayfalara bakın.  
Check whether additional forces on the output shaft are permissible; see pages 60 and 61  
Prüfung der Zulässigkeit von Zusatzkräften auf die Abtriebswelle; siehe Seiten 60 und 61

- 1.5 Öngörülen i tahvil değerinin, uygun olup olmadığının kontrol edilmesi için, lütfen 56 ile 59 arası sayfalara bakın.  
Check whether the actual ratio i as per tables on pages 56 - 59 is acceptable  
Prüfung, ob Ist-Übersetzung i geeignet ist, siehe Seiten 56 - 59

**Montaj pozisyonu / Mounting position / Einbaulage****Yatay / Horizontal / Horizontal****Dikey / Vertical / Vertikal****2. Kullanılacak Yağ Tipinin Belirlenmesi**  
Determination of oil supply  
Bestimmung der Ölversorgung

Yağlanması gereken tüm parçalar, yağ içerisine konularak veya benzer şekilde, sıçramalı yağlama uygulanarak yağlanır. Basınçlı yağlama, ancak istek ve sipariş üzerine temin edilir.

All parts to be lubricated are lying in the oil or are splash lubricated  
Forced lubrication on request

Alle zu schmierenden Elemente liegen im Öl bzw. werden mit Spritzöl versorgt  
Druckschmierung auf Anfrage

**Yağlama Tipleri:**

- Yağ içerisine daldırma yöntemiyle yağlama.
  - Flanş pompası ve motor pompası yardımıyla, basınçlı yağlama.
- Tercih edilen uygulama yöntemleri ve seçme kriterleri için, lütfen 137 ile 158 arası sayfalara bakın.

**Possible oil supply variations:**

- Dip lubrication
  - Forced lubrication by means of flanged-on pump or motor pump
- For preferred variants and criteria for selection, see pages 137 - 158

**Mögliche Ölversorgungsvarianten:**

- Tauchschmierung
  - Druckschmierung mittels Flansch- oder Motorpumpe
- Vorzugsvarianten und Auswahlkriterien siehe Seiten 137 - 158

**TR** TERMAL KAPASİTE SEÇİMİ İÇİN KURALLAR

**3. Gerekli Termal Kapasite Belirlenmesi Pt**

**Gereken Veriler:**

- Tip, Boyut, Nominal tahvil
- Ortam sıcaklığı
- Giriş devir hızı (1000 / 1200 / 1500 / 1800 d/d)
- Daldırma yöntemiyle yağlamalı redüktör

**Müteakip Hesaplamalarda, Aşağıda Belirtilenler Geçerlidir:**

- Çalışma döngüsü: 100%
- Büyük bir alanda kurulduğunda (rüzgar hızı >= .4 m/s), Rakım 1000 m'ye kadar
- ISO-VG460 tipi mineral yağı redüktörler

**EN** GUIDELINES FOR THE SELECTION THERMAL CAPACITIES

**3. Determination of required thermal capacity Pt.**

**Data required:**

- Type, Size, Nominal ratio
- Ambient temperature
- Input speed (1000 / 1200 / 1500 / 1800 min<sup>-1</sup>)
- Gear unit with dip lubrication

**For the calculation below the following has been assumed:**

- Operating cycle: 100 %
- Installation in a large hall (wind velocity >= 1.4 m/s),
- Altitude up to 1000 m
- Gear unit with mineral oil ISO-VG460

**DE** RICHTLINIEN FÜR DIE AUSWAHL KONSTANTE LEISTUNG THERMISCH

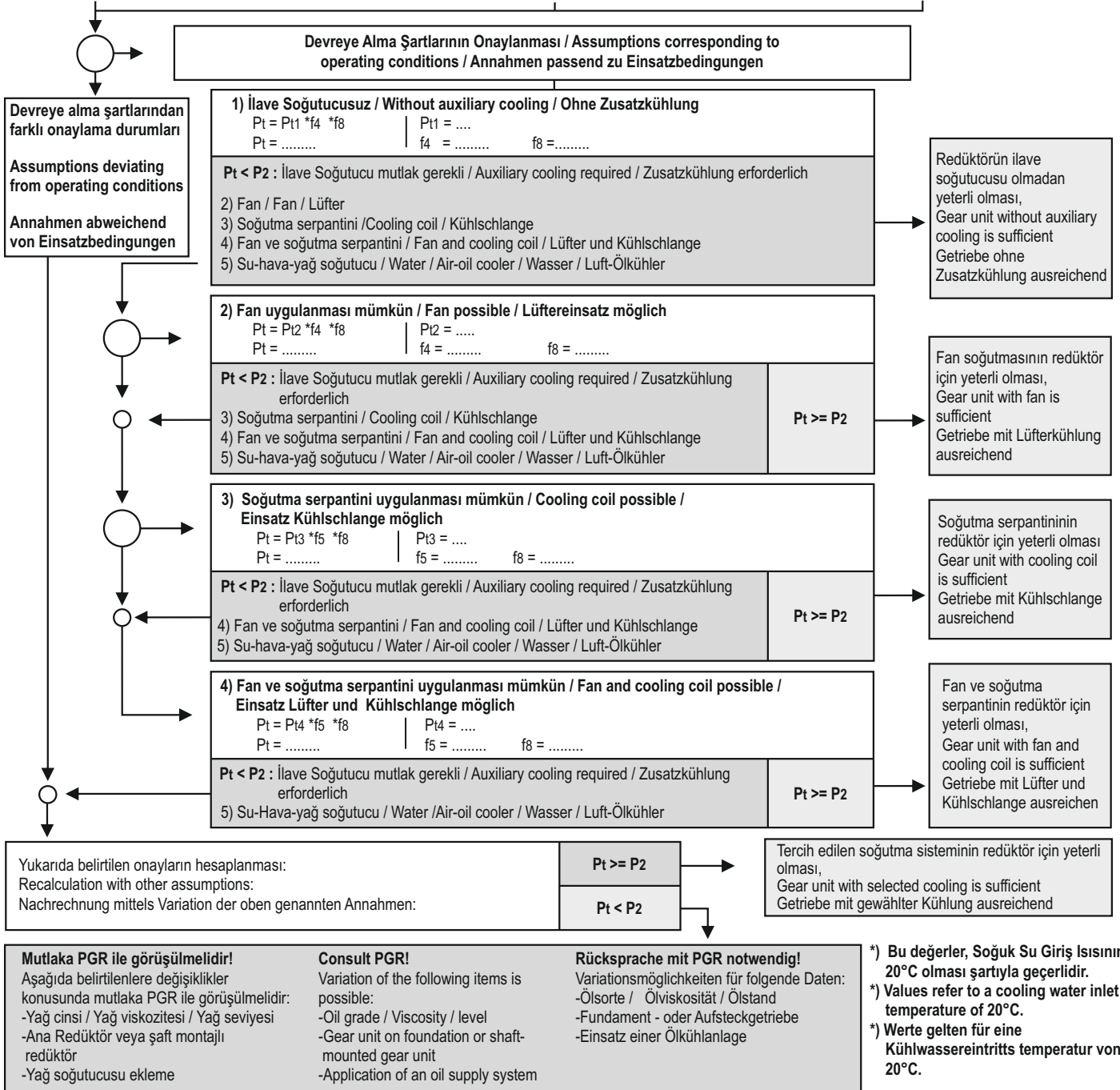
**3. Bestimmung der erforderlichen**

**Wärmegrenzleistungen Pt Notwendige Daten:**

- Bauart, Größe, Nennübersetzung
- Umgebungstemperatur
- Antriebsdrehzahl (1000 / 1200 / 1500 / 1800 min<sup>-1</sup>)
- Getriebe mit Tauchschnürung

**Für die nachfolgende Rechnung gelten folgende Annahmen:**

- Einschaltdauer: 100%
- Aufstellung in großer Halle (Windgeschwindigkeit >= 1.4 m/s),
- Höhenlage bis 1000 m
- Getriebe mit Mineralöl ISO-VG460



Gerek olması halinde, ilave edilecek ekstra soğutucu tipinin belirlenmesi, müşterinin işletmesindeki mevcut şartlara bağlıdır (Toz / kir durumu, soğuk su bağlantısının mevcut olup olmadığı ve benzeri şartlara bağlıdır)

The type of the possibly required additional cooling is dependent on the operating conditions at the customer's (dust, cooling water connection, etc.)

Die Art der gegebenenfalls notwendigen Zusatzkühlung ist von den Einsatzbedingungen beim Kunden (Staubbelastung, Kühlwasseranschluss usw.) abhängig.

## TR DEĞİŞKEN GÜÇ SEÇİMİ İÇİN KURALLAR

Devir sayısı sabit ve gücü değişken iş makineleri için redüktör tespiti, güç denkliliğine göre belirlenebilir. Bu kapsamda, I, II...n fazları için sırasıyla  $P_I, P_{II}...P_n$  güçlerini gerektiren iş döngüsü, temel olarak alınır ve burada, ilgili güçlerin her birinin sırasıyla  $X_I, X_{II}...X_n$  şeklinde yüzdelik süre dilimleri vardır. Bu verilerle, eşdeğer güç aşağıda belirtilen formüle göre hesaplanır:

$$P_{2\dot{a}q} = \sqrt[6.6]{P_I^{6.6} \times \frac{X_I}{100} + P_{II}^{6.6} \times \frac{X_{II}}{100} + \dots + P_n^{6.6} \times \frac{X_n}{100}}$$

Ardından redüktör büyüklüğünün belirlenmesi, 1.1'den 1.5'e kadar ve 3 numaralı maddelerde belirtildiği üzere, yapılır. Bu kapsamda, aşağıda belirtilenler geçerlidir:

$$P_{2N} \geq P_{2\dot{a}q} \times f_1 \times f_2$$

$P_{2N}$  değerinin tespit edildikten sonra, güç ve süre dilimi değerleri, aşağıda belirtilen şartlara göre kontrol edilir.

- 1)  $P_I, P_{II}...P_n$  güç değerlerinin her birinin,  $0.4 \times P_{2N}$  değerinden daha büyük olması gerekir.
- 2)  $P_I, P_{II}...P_n$  güç değerlerinin hiçbirisi,  $1.4 \times P_{2N}$  değerini aşmamalıdır.
- 3)  $P_{2N}$  değerinden daha büyük olan  $P_I, P_{II}...P_n$  güç değerlerinde,  $X_I, X_{II}...X_n$  süre dilimlerinin toplamı en fazla %10 olmalıdır.

Bu üç şarttan herhangi birinin sağlanamaması durumunda,  $P_{2\dot{a}q}$  değeri yeniden hesaplanır.

Bu kapsamda,  $P_{2\dot{a}q}$  değerinin tespit edilmesinde, dikkate alınmayan kısa süreli ani bir güç artışı değerinin, asla  $P_{max} = 2 \times P_{2N}$  değerinden yüksek olamayacağına, dikkat edilmelidir..

Dönme momentleri değişken, ancak devir sayısı sabit olan işlerde, redüktör seçimi eşdeğer belirli uygulamalarda, sadece kullanma ömrü redüktör seçimi için yeterlidir.

Bu kapsama, örneğin düzensiz çalışma veya düşük çıkış devir sayıları dahildir. ( $n_2 < 4$  d/d)

For driven machines with constant speeds and variable power ratings the gear unit can be designed according to the equivalent power rating. For this, a working cycle where phases I, II...n require power  $P_I, P_{II}...P_n$  and the respective power ratings operate for time fractions  $X_I, X_{II}...X_n$  is taken as a basis. The equivalent power rating can be calculated from these specifications with the following formula:

The size of the gear unit can then be determined analogously to points 1.1...1.5 and 3. as follows:

Then, when  $P_{2N}$  has been determined, the power and time fractions must be checked by applying the following requirements:

- 1) The individual power fractions  $P_I, P_{II}...P_n$  must be greater than  $0.4 \times P_{2N}$ .
- 2) The individual power fractions  $P_I, P_{II}...P_n$  must not exceed  $1.4 \times P_{2N}$ .
- 3) If power fractions  $P_I, P_{II}...P_n$  are greater than  $P_{2N}$ , the sum of time fractions  $X_I, X_{II}...X_n$  must not exceed 10%.

If any one of the three requirements is not met,  $P_{2\dot{a}q}$  must be recalculated.

It must be borne in mind that a brief peak power rating not included in the calculation of  $P_{2\dot{a}q}$  must not be greater than  $P_{max} = 2 \times P_{2N}$ .

In applications where the **torque is variable** but the **speed constant** the gear unit can be designed on the basis of the so-called equivalent torque.

A gear unit design which is **finite-life fatigue-resistant** can be sufficient for certain applications, for example, sporadic operation (lock-gate drives) or low output speeds. ( $n_2 < 4$  min<sup>-1</sup>)

## DE RICHTLINIEN FÜR DIE AUSWAHL VARIABLE LEISTUNG

Für Arbeitsmaschinen mit konstanten Drehzahlen und variablen Leistungen kann das Getriebe nach der sogenannten äquivalenten Leistung ausgelegt werden. Dabei wird ein Arbeitszyklus zugrunde gelegt, dessen Phasen I, II...n die Leistungen  $P_I, P_{II}...P_n$  erfordern, wobei die jeweiligen Leistungen den prozentualen Zeitanteil  $X_I, X_{II}...X_n$  haben. Mit diesen Angaben wird die äquivalente Leistung nach folgender Formel berechnet:

Die Bestimmung der Getriebegröße erfolgt dann analog den Punkten 1.1...1.5 und 3. Dabei gilt:

Anschließend, nachdem  $P_{2N}$  bestimmt wurde, sind die Leistungs- und Zeitanteile nach folgenden Bedingungen zu prüfen.

- 1) Die einzelnen Leistungsanteile  $P_I, P_{II}...P_n$  müssen größer  $0.4 \times P_{2N}$  sein.
- 2) Die einzelnen Leistungsanteile  $P_I, P_{II}...P_n$  dürfen  $1.4 \times P_{2N}$  nicht überschreiten.
- 3) Bei den Leistungsanteilen  $P_I, P_{II}...P_n$ , die größer als  $P_{2N}$  sind, darf die Summe der Zeitanteile  $X_I, X_{II}...X_n$  maximal 10% betragen.

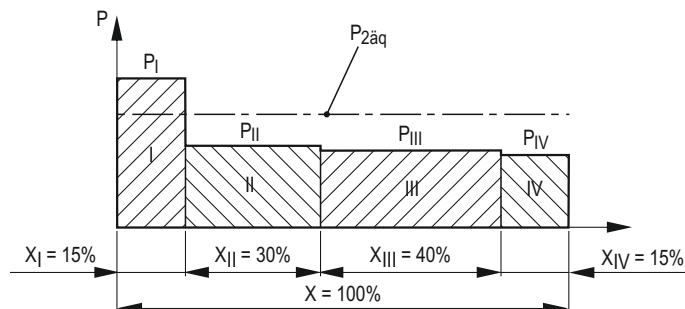
Falls eine der drei Bedingungen nicht erfüllt wird, so ist eine erneute Berechnung von  $P_{2\dot{a}q}$  notwendig.

Grundsätzlich ist zu berücksichtigen, dass eine kurzzeitige Spitzenleistung, die nicht bei der Ermittlung von  $P_{2\dot{a}q}$  erfasst wird, nicht größer als  $P_{max} = 2 \times P_{2N}$  sein darf.

In Einsatzfällen mit **variablen Drehmomenten** aber **konstanter Drehzahl** erfolgt die Getriebeauslegung auf der Basis des sogenannten **äquivalenten Drehmomentes**.

Für bestimmte Anwendungen kann eine **zeitfeste Auslegung** des Getriebes ausreichend sein. Dazu gehören zum Beispiel sporadischer Einsatz (Schleusenantriebe) oder geringe Abtriebsdrehzahlen. ( $n_2 < 4$  min<sup>-1</sup>)

Örnek:  
Ortak çalışma  
Example:  
Service classification  
Beispiel:  
Lastkollektiv



**REDÜKTÖR SEÇİMİNDE MEKANİK GÜÇ DEĞERİ HESAPLANMASI İÇİN KURALLAR**

**Verilenler:**

**GÜÇ KAYNAĞI**

Elektrik motoru: P<sub>1</sub> = 30 kW  
Motor devir sayısı: n<sub>1</sub> = 1500 d/d  
Max. hareket momenti: TA = 300 Nm

**İŞ MAKİNELERİ**

Bantlı konveyör: P<sub>2</sub> = 22 kW  
Devir sayısı: n<sub>2</sub> = 35 d/d  
Çalışma süresi: 8 h / gün

Saatlik çalışma sayısı: 10  
Saat başı çalışma süresi: ED = 100%  
Ortam sıcaklığı: 30 °C  
Büyük alanda kurulum: Rüzgar hızı >=1.4 m/s  
Rakım durumu: Deniz seviyesi

**REDÜKTÖR TASARIMI:**

Helisel-Konik dişli redüktör: Yatay  
Montaj pozisyonu: Sağ,uygulama  
d2 Çıkış mili : tasarım C, milli  
d2 Çıkış milinin dönüş yönü: Sol

**Gereken:**

Redüktör tipi ve boyutu

**1) Redüktör tipi ve boyutunun seçimi**

1.1 Tahvil oranının hesaplanması

**Know criteria:**

**PRIME MOVER**

Electric motor: P<sub>1</sub> = 30 kW  
Motor speed: n<sub>1</sub> = 1500 min<sup>-1</sup>  
Max. starting torque: TA = 300 Nm

**DRIVEN MACHINE**

Belt conveyor: P<sub>2</sub> = 22 kW  
Speed: n<sub>2</sub> = 35 min<sup>-1</sup>  
Duty: 8 h / day

Stars per hour: 10  
Operating cycle per hour: ED = 100%  
Ambient temperature: 30 °C  
Installation in large hall: wind velocity >=1.4 m/s  
Altitude: sea level

**GEAR UNIT DESIGN**

Bevel-helical gear unit: Horizontal  
Mounting position: on right hand side  
Output shaft d2: design C, solid shaft  
Direction of rotation of output shaft d2 : ccw

**Required:**

Type and size of gear unit

**1. Selection of gear unit type and size**

1.1 Calculation of transmission ratio

$$i_s = \frac{n_1}{n_2} = \frac{1500}{35} = 42.9 \quad i_N = 45$$

1.2 Redüktör nominal güç değerinin belirlenmesi

1.2 Determination of the gear unit nominal power rating

**RICHTLINIEN FÜR DIE AUSWAHL BERECHNUNGSBEISPIEL MECHANISCH**

**Gegeben:**

**ANTRIEBSMASCHINE**

Elektromotor: P<sub>1</sub> = 30 kW  
Motordrehzahl: n<sub>1</sub> = 1500 min<sup>-1</sup>  
Max. Anfahrmoment: TA = 300 Nm

**ARBEITSMASCHINE**

Gurtbandförderer: P<sub>2</sub> = 22 kW  
Drehzahl: n<sub>2</sub> = 35 min<sup>-1</sup>  
Betriebsdauer: 8 h / Tag

Anläufe je Stunde: 10  
Einschaltdauer je Stunde: ED = 100%  
Umgebungstemperatur: 30 °C  
Aufstellung in großer Halle: windgeschwindigkeit >=1.4m/s  
Höhenlage: Meereshöhe

**GETRIEBEAUSFÜHRUNG**

Kegelstrinradgetriebe Einbau: Horizontal  
Abtriebswelle d2: rechts, Ausführung  
Drehrichtung der C, Vollwelle  
Abtriebswelle d2: links

**Gesucht:**

Getriebebauart, Getriebegröße

**1. Bestimmung der Getriebebauart und Größe**

1.1 Bestimmung der Übersetzung

$$P_{2N} \geq P_2 \times f_1 \times f_2 = 22 \times 1.3 \times 1 = 28.6 \text{ kW}$$

PB53...SH tipi redüktör, P<sub>2N</sub> = 41 kW ile: güç oranı tablodan seçilebilir

Selected from power rating table: type PB53...SH with P<sub>2N</sub> = 41 kW

Aus Leistungstabelle Bauart PB53...SH, mit P<sub>2N</sub> = 41 kW gewählt.

$$3.33 \times P_2 \geq P_{2N} \quad 3.33 \times 22 = 73.3 \text{ kW} > P_{2N}$$

Bize danışmaya gerek yok  
It is not necessary to consult us  
Rücksprache nicht erforderlich

1.3 Başlangıç momenti kontrolü

1.3 Checking the starting torque

1.3 Kontrolle auf Anfahrmoment

$$P_{2N} \geq \frac{T_A \times n_1}{9550} \times f_3 = \frac{300 \times 1500}{9550} \times 0.65 = 30.6 \text{ kW} \quad P_{2N} = 41 \text{ kW} > 30.6 \text{ kW}$$

**2. Yağlama Şeklinin Belirlenmesi**

Daldırma yöntemiyle yağlamalı redüktörler

**2. Determination of oil supply**

Gear unit with dip lubrication

**2. Bestimmung der Ölversorgung**

Getriebe mit Tauchschiemung

| TR          | SEMBOLLER                                                                                                                                     | EN          | KEY TO SYMBOLS                                                                                   | DE          | ERKLÄRUNG DER BEZEICHNUNGEN                                                                           |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------|
| ED          | = Saatte Çalışma döngüsü %, e.g. ED= 80% / h                                                                                                  | ED          | = Operating cycle per hour in %, e.g. ED = 80% / h                                               | ED          | = Einschaltdauer in % (z.B. ED = 80% je Stunde)                                                       |
| f1          | = İş makineleri faktörü (Tablo 1). sayfa 14-15                                                                                                | f1          | = Factor for driven machine (table 1). page 14-15                                                | f1          | = Arbeitsmaschinenfaktor (Tabelle 1), Seite 14-15                                                     |
| f2          | = Harekete geçirme (tahrik) makineleri faktörü (tablo 2). sayfa 16                                                                            | f2          | = Factor for prime mover (table 2). page 16                                                      | f2          | = Antriebsmaschinenfaktor (Tabelle 2), Seite 16                                                       |
| f3          | = Ani yüksek tork faktörü (Tablo 3). sayfa 16                                                                                                 | f3          | = Peak torque factor (table 3). page 16                                                          | f3          | = Spitzenmomentfaktor (Tabelle 3), Seite 16                                                           |
| f4          | = Termal faktörler (Tablo 4). sayfa 16                                                                                                        | f4          | = Thermal factors (table 4). page 16                                                             | f4          | = Wärmefaktoren (Tabelle 4), Seite 16                                                                 |
| f5          | = Termal faktörler (Tablo 5). sayfa 16                                                                                                        | f5          | = Thermal factors (table 5). page 16                                                             | f5          | = Wärmefaktoren (Tabelle 5), Seite 16                                                                 |
| f8          | = Dikey redüktörlerde yağlama faktörü (Tablo 8), sayfa 16 Yatay redüktörlerde: f8 = 1                                                         | f8          | = Oil supply factor for vertical gear units (table 8), page 16 For horizontal gear units: f8 = 1 | f8          | = Ölversorgungsfaktor bei Vertikalgetrieben, (Tabelle 8), Seite 16. Bei Horizontalgetrieben: f8=1     |
| i           | = Gerçek tahvil                                                                                                                               | i           | = Actual ratio                                                                                   | i           | = Ist-Übersetzung                                                                                     |
| iN          | = Nominal tahvil                                                                                                                              | iN          | = Nominal ratio                                                                                  | iN          | = Nennübersetzung                                                                                     |
| is          | = Gereken tahvil                                                                                                                              | is          | = Required ratio                                                                                 | is          | = Soll-Übersetzung                                                                                    |
| n1          | = Giriş devir sayısı (d/d)                                                                                                                    | n1          | = Input speed (min <sup>-1</sup> )                                                               | n1          | = Antriebsdrehzahl (min <sup>-1</sup> )                                                               |
| n2          | = Çıkış devir sayısı (d/d)                                                                                                                    | n2          | = Output speed (min <sup>-1</sup> )                                                              | n2          | = Abtriebsdrehzahl (min <sup>-1</sup> )                                                               |
| Pt          | = Gereken termal kapasite                                                                                                                     | Pt          | = Required thermal capacity                                                                      | Pt          | = Erforderliche Wärmegrenzleistung                                                                    |
| Pt1         | = İlave soğutucusu olmayan redüktörlerde termal kapasite sayfa 20-55 bakınız                                                                  | Pt1         | = Thermal capacity for gear units without auxiliary cooling, pages 20-55                         | Pt1         | = Wärmegrenzleistung für Getriebe ohne Zusatzkühlung, Seiten 20-55                                    |
| Pt2         | = Fan soğutmalı redüktörlerde termal kapasite Sayfa 20-55 bakınız                                                                             | Pt2         | = Thermal capacity for gear units with fan cooling. pages 20-55                                  | Pt2         | = Wärmegrenzleistung für Getriebe mit Lüfterkühlung, Seiten 20-55                                     |
| Pt3         | = Monte edilmiş soğutma serpantinli redüktörlerde termal kapasite sayfa 20-55 bakınız                                                         | Pt3         | = Thermal capacity for gear units with built-in cooling coil, pages 20-55                        | Pt3         | = Wärmegrenzleistung für Getriebe mit eingebauter Kühlschlange, Seiten 20-55                          |
| Pt4         | = Fanlı ve monte edilmiş soğutma serpantinli redüktörlerde termal kapasite sayfa 20-55 bakınız                                                | Pt4         | = Thermal capacity for gear units with built-in cooling coil and fan, pages 20-55                | Pt4         | = Wärmegrenzleistung für Getriebe mit eingebauter Kühlschlange und Lüfter, Seiten 20-55               |
| P2N         | = Redüktör nominal gücü (kW) değer tablolarına bakın. sayfa 18-55 bakınız                                                                     | P2N         | = Nominal power rating of gear unit (kW) see rating tables. pages 18-55                          | P2N         | = Getriebennennleistung (Kw), siehe Leistungstabellen Seiten 18-55                                    |
| P2          | = Sürücü makinenin güç oranı (kW)                                                                                                             | P2          | = Power rating of driven machine (kW)                                                            | P2          | = Leistung der Arbeitsmaschine (kW)                                                                   |
| t           | = Ortam sıcaklığı(°C)                                                                                                                         | t           | = Ambient temperature (°C)                                                                       | t           | = Umgebungstemperatur (°C)                                                                            |
| TA          | = Ömeğin, redüktörün en yüksek çalışma momenti, hareket momenti ve frenleme momenti (Nm) benzeri giriş milinde ortaya çıkan max.dönme momenti | TA          | = Max. torque occurring on input shaft, e.g. peak operating-, starting or braking torque (Nm)    | TA          | = Max. auftretendes Drehmoment an Eingangswelle z.B.: Betriebsspitzen-, Anfahr- oder Bremsmoment (Nm) |
| T2N         | = Nominal çıkış momenti (kNm), sayfa 19-53 bakınız                                                                                            | T2N         | = Nominal output torque (kNm), pages 19-53                                                       | T2N         | = Nenn-Abtriebsdrehmoment (kNm), Seiten 19-53                                                         |
| P2äq        | = Eşdeğer güç oranı (kW)                                                                                                                      | P2äq        | = Equivalent power rating (kW)                                                                   | P2äq        | = äquivalente Leistung (kW)                                                                           |
| PI, PII, PN | = Ortak çalışma randımanı payları (kW)                                                                                                        | PI, PII, PN | = Fractions of power rating (kW) obtained from service classification                            | PI, PII, PN | = Leistungsanteile (kW) aus Lastkollektiv                                                             |
| XI, XII, XN | = Ortak çalışma süresi içerisindeki paylar (%)                                                                                                | XI, XII, XN | = Fractions of time (%) obtained from service classification                                     | XI, XII, XN | = Zeitanteile (%) aus Lastkollektiv                                                                   |

TR

### TERMAL KAPASİTE SEÇİMİ İÇİN HESAPLAMA ÖRNEĞİ

EN

### GUIDELINES FOR THE SELECTION CALCULATION EXAMPLE THERMAL CAPACITY

DE

### RICHTLINIEN FÜR DIE AUSWAHL BERECHNUNGSBEISPIEL MECHANISCH

#### 3. Gerekli Termal Kapasite Belirlenmesi Pt

##### Gerekli Veri:

- Tip: PB53-SH
- Nominal tahvil:  $i_N = 45$
- Ortam sıcaklığı:  $t = 30^\circ\text{C}$
- Giriş devir sayısı:  $n_1 = 1500 \text{ d/d}$
- Daldırma Yağlamalı Redüktör

##### Hesaplama için Aşağıda Belirtilen Onaylar Gereklidir:

- Çalışma döngüsü 100 %
- Büyük bir alanda kurulduysa (rüzgar hızı  $> 1.4 \text{ m/s}$ ), Rakım 1000 m'ye kadar
- ISO VG460 Tipi Mineral Yağlı Redüktörler

#### 3. Determination of required thermal capacity Pt

##### Data required:

- Type: PB53-SH
- Nominal ratio:  $i_N = 45$
- Ambient temperature:  $t = 30^\circ\text{C}$
- Input speed:  $n_1 = 1500 \text{ min}^{-1}$
- Gear unit with dip lubrication

##### For the calculation below the following has been assumed:

- Operating cycle: 100 %
- Installation in a large hall (wind velocity  $> 1.4 \text{ m/s}$ ), altitude up to 1000m
- Gear unit with mineral oil ISO-VG460

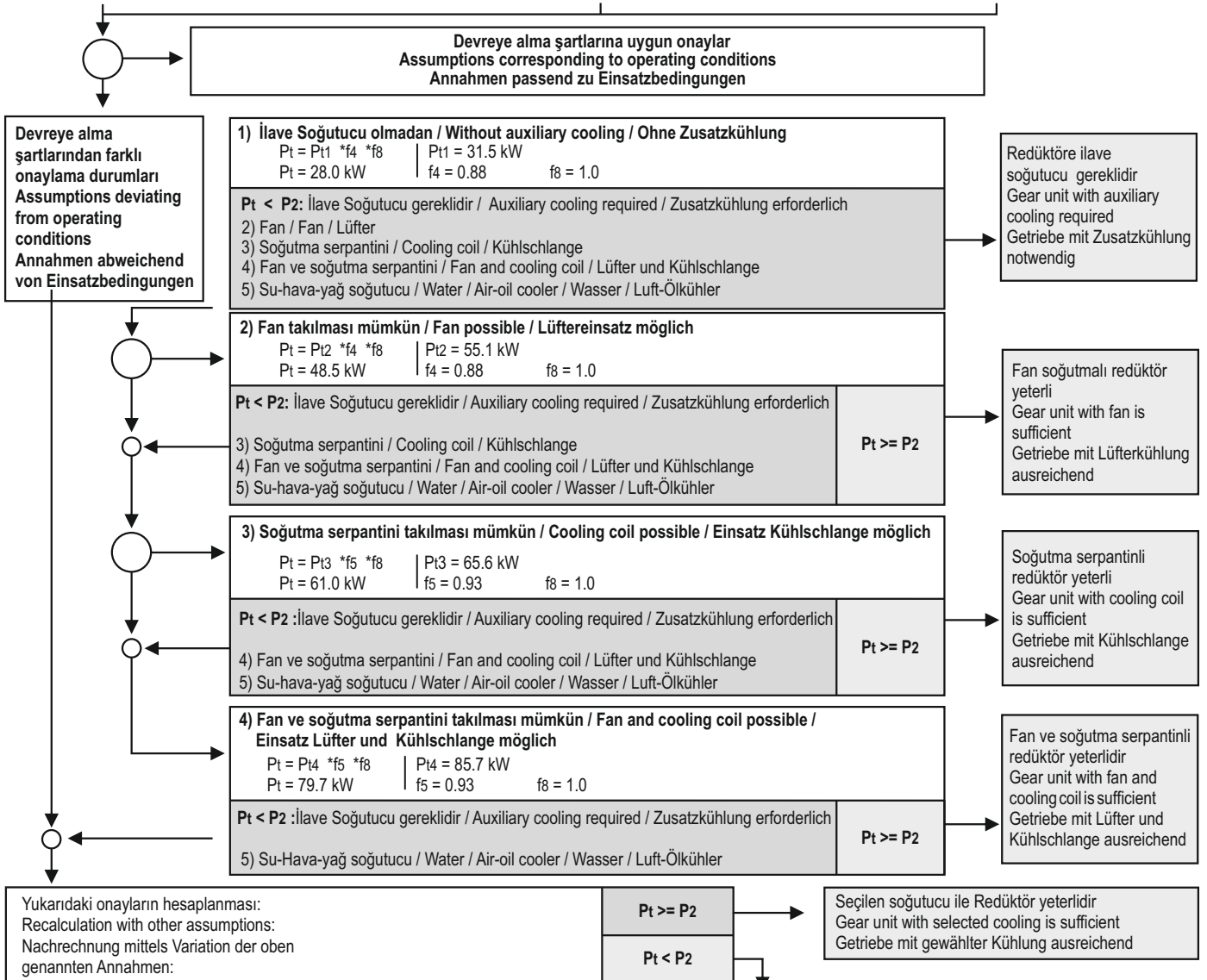
#### 3. Bestimmung der erforderlichen Wärmegrenzleistungen Pt

##### Notwendige Daten:

- Bauart: PB53-SH
- Nennübersetzung:  $i_N = 45$
- Umgebungstemperatur:  $t = 30^\circ\text{C}$
- Antriebsdrehzahl:  $n_1 = 1500 \text{ min}^{-1}$
- Getriebe mit Tauchschnierung

##### Für die nachfolgende Rechnung gelten folgende Annahmen:

- Einschaltdauer: 100 %
- Aufstellung in großer Halle (Windgeschwindigkeit  $> 1.4 \text{ m/s}$ ), Höhenlage bis 1000m
- Getriebe mit Mineralöl ISO-VG460



##### Mutlaka PGR ile görüşülmelidir!

Aşağıda belirtilenlere değişiklikler konusunda mutlaka PGR ile görüşülmelidir:

- Yağ cinsi / Yağ viskozitesi / Yağ seviyesi
- Ana redüktör veya şaft montajlı redüktör
- Yağ soğutucusu ekleme

##### Consult PGR!

Variation of the following items is possible:

- Oil grade / viscosity / level
- Gear unit on foundation or shaft-mounted gear unit
- Application of an oil supply system

##### Rücksprache mit PGR notwendig!

Variationsmöglichkeiten für folgende Daten:

- Ölsorte / Ölviskosität / Ölstand
- Fundament - oder Aufsteckgetriebe
- Einsatz einer Ölkühlanlage

\* Bu değerler, Soğuk Su Giriş Isısının  $20^\circ\text{C}$  olması şartıyla geçerlidir.

\* Values refer to a cooling water inlet temperature of  $20^\circ\text{C}$ .

\* Werte gelten für eine Kühlwassereintrittstemperatur von  $20^\circ\text{C}$ .

$i_N = 45$  değerli seçilen PB53-SH kodlu redüktör modeline uygun bir ilave soğutucu aksamı takılır. Müşterinin tesisindeki şartlara göre, en az bir adet fan veya soğutma serpantini takılır.

For the selected gear unit PB53-SH with  $i_N=45$  suitable auxiliary cooling is to be provided. Dependent on the operating conditions at the customer's, at least a fan or a cooling coil is to be provided.

Das gewählte Getriebe PB53-SH mit  $i_N = 45$  ist mit einer geeigneten Zusatzkühlung auszurüsten. Je nach Einsatzbedingungen beim Kunden ist mindestens ein Lüfter oder eine Kühlschlange vorzusehen.

## TR SERVİS FAKTÖRÜ - KULLANIM ALANLARI

## EN SERVICE FACTORS - APPLICATION AREAS

## DE BETRIEBSFAKTOREN - EINSATZGEBIETE

Tablo 1 Tahrik makinaları için faktör f1

Table 1 Factor for driven machines f1

Tabelle 1 Arbeitsmaschinenfaktor f1

| Tahrik Makinaları / Driven Machines / Arbeitsmaschinen |                                        |                                  | 1)<br>≤ 0.5    > 0.5-10    > 10 |     |     |
|--------------------------------------------------------|----------------------------------------|----------------------------------|---------------------------------|-----|-----|
| <b>Atık Su</b>                                         | <b>Waste water treatment</b>           | <b>Abwasser</b>                  |                                 |     |     |
| Yoğunlaştırıcılar (merkezi tahrikli)                   | Thickeners (central drive)             | Eindicker (Zentralantrieb)       | -                               | -   | 1.2 |
| Filtre presleri                                        | Filter presses                         | Filterpressen                    | 1.0                             | 1.3 | 1.5 |
| Kabartma Malaksörleri                                  | Flocculation apparata                  | Flockungsrührer                  | 0.8                             | 1.0 | 1.3 |
| Santrifüj Havalandırıcılar                             | Aerators                               | Kreiselbelüfter                  | -                               | 1.8 | 2.0 |
| Bilgisayar tesisleri                                   | Raking equipment                       | Rechenanlagen                    | 1.0                             | 1.2 | 1.3 |
| Dairesel ve Doğrusal Sıyırıcılar                       | Combined longitudinal and rotary rakes | Rund-und Längsräumer             | 1.0                             | 1.3 | 1.5 |
| Ön Yoğunlaştırıcılar                                   | Pre-thickeners                         | Voreindicker                     | -                               | 1.1 | 1.3 |
| Salyangoz Su Pompaları                                 | Screw pumps                            | Wasserschneckenpumpen            | -                               | 1.3 | 1.5 |
| Su türbinleri                                          | Water turbines                         | Wasserturbinen                   | -                               | -   | 2.0 |
| <b>Pompalar</b>                                        | <b>Pumps</b>                           | <b>Pumpen</b>                    |                                 |     |     |
| Santrifüj pompalar                                     | Centrifugal pumps                      | Kreiselpumpen                    | 1.0                             | 1.2 | 1.3 |
| Tazyikli Pompaları                                     | Positive-displacement pumps            | Verdrängerpumpen                 |                                 |     |     |
| 1 piston                                               | 1 piston                               | 1 Kolben                         | 1.3                             | 1.4 | 1.8 |
| > 1 piston                                             | > 1 piston                             | > 1 Kolben                       | 1.2                             | 1.4 | 1.5 |
| <b>Elavatörler</b>                                     | <b>Dredgers</b>                        | <b>Bagger</b>                    |                                 |     |     |
| Kovalı Elavatörler                                     | Bucket conveyors                       | Eimerketten                      | -                               | 1.6 | 1.6 |
| Damperli Araçlar                                       | Dumping devices                        | Kippwerke                        | -                               | 1.3 | 1.5 |
| Paletli Araçlar                                        | Carterpillar travelling gears          | Raupenfahrzeuge                  | 1.2                             | 1.6 | 1.8 |
| <b>Küreme Ekskavatörleri</b>                           | <b>Bucket wheel excavators</b>         | <b>Schaufelräder</b>             |                                 |     |     |
| Hammadde Taşıyıcıları                                  | As pick-up                             | Als Aufnehmer                    | -                               | 1.7 | 1.7 |
|                                                        | For primitive material                 | Für urmaterial                   | -                               | 2.2 | 2.2 |
| Doğrama Üniteleri                                      | Cutter heads                           | Schneidköpfe                     | -                               | 2.2 | 2.2 |
| Kaldırma Vinçleri                                      | Slewing gears *                        | Schwenkwerke *                   | -                               | 1.4 | 1.8 |
| <b>Sac Kıvırma Makineleri</b>                          | <b>Plate bending machines *</b>        | <b>Blechbiegemaschinen</b>       | -                               | 1.0 | 1.0 |
| <b>Kimya Endüstrisi</b>                                | <b>Chemical Industry</b>               | <b>Chemische Industrie</b>       |                                 |     |     |
| Ekstrüzyon Makineleri                                  | Extruders                              | Extruder                         | -                               | -   | 1.6 |
| Yoğurma Makineleri                                     | Dough mills                            | Gummiknetter                     | -                               | 1.8 | 1.8 |
| Perdah Makineleri                                      | Rubber calenders                       | Gummikalander                    | -                               | 1.5 | 1.5 |
| Soğutma Tamburları                                     | Cooling drums                          | Kühltrommeln                     | -                               | 1.3 | 1.4 |
| <b>Mikserler</b>                                       | <b>Mixers for</b>                      | <b>Mischer für</b>               |                                 |     |     |
| Eşit Oranlı Malzeme                                    | Uniform media                          | Gleichmäßiger Gut                | 1.0                             | 1.3 | 1.4 |
| Orantısız Malzeme                                      | Non-uniform media                      | Ungleichmäßiger Gut              | 1.4                             | 1.6 | 1.7 |
| <b>Malzeme Karıştırıcılar</b>                          | <b>Agitators for media with</b>        | <b>Rührwerke für Rührgut mit</b> |                                 |     |     |
| Eşit Oranlı Yoğunlukta                                 | Uniform density                        | Gleichmäßiger Dichte             | 1.0                             | 1.3 | 1.5 |
| Orantısız Yoğunlukta                                   | Non-uniform density                    | Ungleichmäßiger Dichte           | 1.2                             | 1.4 | 1.6 |
| Orantısız Gazlama Tesisleri                            | Non-uniform gas absorption             | Ungleichmäßige Begasung          | 1.4                             | 1.6 | 1.8 |
| Tost Makineleri                                        | Toasters                               | Toaster                          | 1.0                             | 1.3 | 1.5 |
| Santrifüjler                                           | Centrifuges                            | Zentrifugen                      | 1.0                             | 1.2 | 1.3 |
| <b>Demir Metalürjisi</b>                               | <b>Metal working mills</b>             | <b>Eisenhüttenwesen</b>          |                                 |     |     |
| Sac Haddehaneleri                                      | Plate tilters                          | Blechwender                      | 1.0                             | 1.0 | 1.2 |
| Tomruk İtçiler                                         | Ingot pushers                          | Blockdrücker                     | 1.0                             | 1.2 | 1.2 |
| Sarma Makineleri                                       | Winding machines                       | Haspeln                          | -                               | 1.6 | 1.6 |
| Soğutma Yatağına İtçiler                               | Cooling bed transfer frames            | Kühlbettschieber                 | -                               | 1.5 | 1.5 |
| Makara Düzeltme Makineleri                             | Roller straighteners                   | Rollenrichtmaschinen             | -                               | 1.6 | 1.6 |
| <b>Merdane Yollu Tablalar</b>                          | <b>Roller tables</b>                   | <b>Rollgänge</b>                 |                                 |     |     |
| Yollu Tablalar                                         | Continuous                             | Durchlauf                        | -                               | 1.5 | 1.5 |
| Sarsıntılı                                             | Intermittent                           | Stoßartig                        | -                               | 2.0 | 2.0 |
| Boru Haddehaneleri                                     | Reversing tube mills                   | Rohr-revers                      | -                               | 1.8 | 1.8 |
| <b>Makaslar</b>                                        | <b>Shears</b>                          | <b>Scheren</b>                   |                                 |     |     |
| Sürekli Kesim *                                        | Continous *                            | Kontschnitt *                    | -                               | 1.5 | 1.5 |
| Krank Tipi Kesim *                                     | Crank type *                           | Kurbelschnitt *                  | 1.0                             | 1.0 | 1.0 |
| Kesintisiz Döküm Sürücüler *                           | Continuous casting drives*             | Strangussstreiber *              | -                               | 1.4 | 1.4 |
| <b>Tüp değirmenler</b>                                 | <b>Rolls</b>                           | <b>Walzen</b>                    |                                 |     |     |
| Haddehaneler                                           | Reversing blooming mills               | Blech-revers                     | -                               | 2.5 | 2.5 |
| Kütük Demir Haddehaneleri                              | Reversing slabbing mills               | Brammen-revers                   | -                               | 2.5 | 2.5 |
| Tel Haddehaneleri                                      | Reversing wire mills                   | Draht-revers                     | -                               | 1.8 | 1.8 |
| İnce Sac Haddehaneleri                                 | Reversing sheet mills                  | Feinblech-revers                 | -                               | 2.0 | 2.0 |
| Kaba Sac Haddehaneleri                                 | Reversing plate mills                  | Grobblech-revers                 | -                               | 1.8 | 1.8 |
| Silindir Ayarlama Sürücüler                            | Roll adjusment drives                  | Walzenanstellungen               | 0.9                             | 1.0 | -   |

TR SERVİS FAKTÖRÜ - KULLANIM ALANLARI

EN SERVICE FACTORS - APPLICATION AREAS

DE BETRIEBSFAKTOREN - EINSATZGEBIETE

Tablo 1 Tahrik makinaları için faktör f1

Table 1 Factor for driven machines f1

Tabelle 1 Arbeitsmaschinenfaktor f1

| Tahrik Makinaları / Driven Machines / Arbeitsmaschinen |                                            |                                | 1)<br>≤ 0.5   > 0.5-10   > 10 |     |     |
|--------------------------------------------------------|--------------------------------------------|--------------------------------|-------------------------------|-----|-----|
| <b>Taşıyıcı Tertibatlar</b>                            | <b>Conveyors</b>                           | <b>Förderanlagen</b>           |                               |     |     |
| Kovalı Elavatörler                                     | Bucket conveyors                           | Becherwerke                    | -                             | 1.4 | 1.5 |
| Maden Ocağı Vinçleri                                   | Hauling winches                            | Förderhaspel                   | 1.4                           | 1.6 | 1.6 |
| Taşıyıcı Makineler                                     | Hoists                                     | Fördermaschinen                | -                             | 1.5 | 1.8 |
| Kayıslı Taşıyıcılar ≤150kW                             | Belt conveyors ≤150kW                      | Gurtbandförderer ≤150kW        | 1.0                           | 1.2 | 1.3 |
| Kayıslı Taşıyıcılar ≥150kW                             | Belt conveyors ≥ 150kW                     | Gurtbandförderer ≥150kW        | 1.1                           | 1.3 | 1.4 |
| Yük Asansörleri *                                      | Goods lifts *                              | Lastaufzüge *                  | -                             | 1.2 | 1.5 |
| İnsan Taşıma Asansörleri *                             | Passenger lifts *                          | Personenaufzüge *              | -                             | 1.5 | 1.8 |
| Yürüyen Bantlar                                        | Apron conveyors                            | Plattenbänder                  | -                             | 1.2 | 1.5 |
| Yürüyen Merdivenler                                    | Escalators                                 | Rolltreppen                    | 1.0                           | 1.2 | 1.4 |
| Raylı Araçlar                                          | Railway vehicles                           | Schienenfahrzeuge              | -                             | 1.5 | -   |
| <b>Frekans Dönüştürücüler</b>                          | <b>Frequency converters</b>                | <b>Frequenzumformer</b>        | -                             | 1.8 | 2.0 |
| <b>Piston Sıkıştırıcılar</b>                           | <b>Reciprocating compressors</b>           | <b>Kolbenverdichter</b>        | -                             | 1.8 | 1.9 |
| <b>Vinç Tertibatları **</b>                            | <b>Cranes **</b>                           | <b>Krananlagen**</b>           |                               |     |     |
| Torna Tertibatları                                     | Slewing gears *                            | Drehwerke                      | 1.0                           | 1.4 | 1.8 |
| Kaldırma Tertibatları                                  | Lufting gears                              | Einziehwerke                   | 1.0                           | 1.1 | 1.4 |
| Vasıta Hareket Tertibatları                            | Travelling gears                           | Fahrwerke                      | 1.1                           | 1.6 | 2.0 |
| Kaldırma Tertibatları                                  | Hoisting gears                             | Hubwerke                       | 1.0                           | 1.1 | 1.4 |
| Kollu Vinç Tertibatları                                | Derricking jib cranes                      | Wippwerke                      | 1.0                           | 1.2 | 1.6 |
| <b>Soğutma Kuleleri</b>                                | <b>Cooling towers</b>                      | <b>Kühltürme</b>               |                               |     |     |
| Soğutma kulesi fanları                                 | Cooling tower fans                         | Kühlturnlüfter                 | -                             |     | 2.0 |
| Havalandırıcılar (Eksenel ve radyal)                   | Blowers (axial and radial)                 | Gebläse (axial und radial)     | -                             | 1.4 | 1.5 |
| <b>Gıda Maddeleri Sanayi</b>                           | <b>Food industry</b>                       | <b>Nahrungsmittelindustrie</b> |                               |     |     |
| <b>Ham Şeker Üretimi</b>                               | <b>Cane sugar production</b>               | <b>Rohrzuckerherstellung</b>   |                               |     |     |
| Şeker Kamışı Bıçakları *                               | Cane knives *                              | Zuckerrohrmesser *             | -                             | -   | 1.7 |
| Şeker Kamışı Değirmenleri *                            | Cane mills                                 | Zuckerrohrmühle *              | -                             | -   | 1.7 |
| <b>Pancar Şekeri Üretimi</b>                           | <b>Beet sugar production</b>               | <b>Rübenzuckerherstellung</b>  |                               |     |     |
| Pancar Kesme Makineleri                                | Beet cossettes macerators                  | Schnitzelmaische               | -                             | -   | 1.2 |
| Vakumlu Kazanlar                                       | Extraction plants Mechanical refrigerators | Extraktionsanlage Kuhlmaschine | -                             | -   | 1.4 |
| Pancar Yıkama Makineleri                               | Juice boilers                              | Kochapparat                    | -                             | -   | 1.5 |
| Kesme Makineleri                                       | Sugar beet washing machines                | Rübenwäsche                    | -                             | -   | 1.5 |
|                                                        | Sugar beet cutters                         | Schneidmaschine                | -                             | -   | 1.5 |
| <b>Kağıt İmalat Makineleri</b>                         | <b>Paper machines</b>                      | <b>Papiermaschinen</b>         |                               |     |     |
| Her Tür ***                                            | of all kind ***                            | alle Arten ***                 | -                             | 1.8 | 2.0 |
| Kağıt Hamuru Makineleri (istek üzerine)                | Pulper drives (on request)                 | Pulperantriebe (auf Anfrage)   | -                             | 1.8 | 2.0 |
| <b>Santrifüjlü Kompresörler</b>                        | <b>Centrifugal compressors</b>             | <b>Rotierende Verdichter</b>   | -                             | 1.4 | 1.5 |
| <b>Teleferik Hatları</b>                               | <b>Cableways</b>                           | <b>Seilbahnen</b>              |                               |     |     |
| Malzeme Teleferik Hatları                              | Material ropeways                          | Materialbahnen                 | -                             | 1.3 | 1.4 |
| Havada Asılı Teleferik Hatları                         | To-and-fro system aerial ropeways          | Pendelbahnen                   | -                             | 1.6 | 1.8 |
| Kayak Teleferik Hatları                                | T-bar lifts                                | Schlepplifte                   | -                             | 1.3 | 1.4 |
| Tek Kablo Lu Teleferikler                              | Continuous ropeways                        | Umlaufbahnen                   | -                             | 1.4 | 1.6 |
| <b>Çimento Sanayi</b>                                  | <b>Cement industry</b>                     | <b>Zementindustrie</b>         |                               |     |     |
| Beton Karıştırıcıları                                  | Concrete mixers                            | Betonmischer                   | -                             | 1.5 | 1.5 |
| Kırıcılar *                                            | Breakers *                                 | Brecher *                      | -                             | 1.2 | 1.4 |
| Döner fırınlar                                         | Rotary kilns                               | Drehöfen                       | -                             | -   | 2.0 |
| Silindirik Değirmenler                                 | Tube mills                                 | Rohrmühle                      | -                             | -   | 2.0 |
| Seperatörler                                           | Seperators                                 | Sichter                        | -                             | 1.6 | 1.6 |
| Silindirli Değirmenler                                 | Roll crushers                              | Walzenmühlen                   | -                             | -   | 2.0 |

P<sub>2</sub> gücü iş makinelerinin seçiminde:

\*) Seçim, max. moment değerine göre yapılmalı

\*\*) Maruz kalan yük sınıfının doğru sınıflandırması, örneğin FEM 1001 göre yapılabilir.

\*\*\*) Termal kapasite mutlaka gereklidir.

Burada belirtilen değerler, tecrübeyle tespit edilmiş değerlerdir. Burada belirtilen makine veya tertibatlar kapsamında uygulamanız için, genel olarak bilinen imalat ve yük şartlarının geçerli olduğu varsayılır. Ancak, uygulamanızın normal bilinenlerden farklı olması halinde ve burada yer verilmemiş iş makineleri için, mutlaka işletmemizle görüşmelisiniz.

1) Yük altında günlük çalışma süresi, saat cinsinden belirtilmelidir.

Design for power rating of driven machine P<sub>2</sub>

\*) Designed power corresponding to max. torque.

\*\*) Load can be exactly classified, for instance, according to FEM 1001.

\*\*\*) A check for thermal capacity is absolutely essential.

The listed factors are empirical values. Prerequisite for their application is that the machinery and equipment mentioned correspond to generally accepted design and load specifications. In case of deviations from standard conditions, please refer to us. For driven machines which are not listed in this table, please refer to us.

1) Effective daily operating period under load in hours.

Auslegung für Arbeitsmaschinenleistung P<sub>2</sub>

\*) Auslegung entsprechend dem Maximalmoment

\*\*) Genaue Einstufung der Belastung kann z.B. nach FEM 1001 erfolgen.

\*\*\*) Thermische Überprüfung generell erforderlich.

Die aufgeführten Faktoren sind Erfahrungswerte. Ihre Anwendung setzt für die genannten Maschinen oder Anlagen hierfür allgemein bekannte Konstruktions- und Belastungsbedingungen voraus. Bei Abweichung von Normalbedingungen ist Rückfrage erforderlich.

Für nicht aufgeführte Arbeitsmaschinen bitten wir um Rückfrage.

1) Tatsächliche tägliche Laufzeit unter Last in Stunden.

Tablo 2 / Table 2 / Tabelle 2

| Harekete geçiren (tahrik) makine faktörü /<br>Factor for prime mover / Antriebsmaschinenfaktor                                                                                                             | f <sub>2</sub> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Elektrik motorları, Hidrolik motorlar, Türbinler<br>Electric motors, hydraulic motors, turbines<br>Elektromotoren, Hydromotoren, Turbinen                                                                  | 1.0            |
| 4-6 silindirli motorlar, uyumsuzluk derecesi 1:100-1:200 arası<br>Piston engines 4-6 cylinders, cyclic variation 1:100 to 1:200 /<br>Kolbenmaschinen 4-6 Zylinder, Ungleichförmigkeitsgrad 1:100 bis 1:200 | 1.25           |
| 1-3 silindirli motorlar, uyumsuzluk derecesi 1:100<br>Piston engines 1-3 cylinders, cyclic variation up to 1:100 /<br>Kolbenmaschinen 1-3 Zylinder Ungleichförmigkeitsgrad 1:100                           | 1.5            |

Tablo 3 / Table 3 / Tabelle 3

| Pik moment faktörü / Peak torque factor / Spitzenmomentfaktor f <sub>3</sub>              |       |        |          |       |
|-------------------------------------------------------------------------------------------|-------|--------|----------|-------|
| Saatteki en yüksek moment sayısı<br>Load peaks per hour /<br>Belastungsspitzen pro Stunde | 1 - 5 | 6 - 30 | 31 - 100 | > 100 |
| Sabit yük yönü<br>Steady direction of load<br>Gleichbleibende Lasttrichtung               | 0.5   | 0.65   | 0.7      | 0.85  |
| Değişen yük yönü<br>Alternating direction of load<br>Wechselnde Lasttrichtung             | 0.7   | 0.95   | 1.10     | 1.25  |

Tablo 4 / Table 4 / Tabelle 4

| Termal faktör / Thermal factor / Wärmefaktor                 | (İlave soğutucu veya fan soğutucusu olmayan Redüktörler)<br>(Gear units without auxiliary cooling or with fan)<br>(Getriebe ohne Zusatzkühlung oder mit Lüfterkühlung) |      |      |      |      |      |      |      |      | f <sub>4</sub> |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|----------------|
| Ortam sıcaklığı / Ambient temperature<br>Umgebungstemperatur | 10°C                                                                                                                                                                   | 15°C | 20°C | 25°C | 30°C | 35°C | 40°C | 45°C | 50°C |                |
| f <sub>4</sub>                                               | 1.11                                                                                                                                                                   | 1.06 | 1.00 | 0.94 | 0.88 | 0.82 | 0.75 | 0.69 | 0.63 |                |

Tablo 5 / Table 5 / Tabelle 5

| Termal faktör / Thermal factor / Wärmefaktor                 | (Soğutucu serpantinli veya fan ve soğutucu serpantinli)<br>(For cooling with cooling coil, or with fan and cooling coil)<br>(Mit Kühlung durch Kühlschlange oder mit Kühlung durch Lüfter und Kühlschlange) |      |      |      |      |      |      |      |      | f <sub>5</sub> |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|----------------|
| Ortam sıcaklığı / Ambient temperature<br>Umgebungstemperatur | 10°C                                                                                                                                                                                                        | 15°C | 20°C | 25°C | 30°C | 35°C | 40°C | 45°C | 50°C |                |
| f <sub>5</sub>                                               | 1.05                                                                                                                                                                                                        | 1.03 | 1.00 | 0.97 | 0.93 | 0.90 | 0.87 | 0.84 | 0.81 |                |

Tablo 8 / Table 8 / Tabelle 8

| Dikey redüktörlerde yağlama faktörü. Yatay Redüktörlerde f8 = 1.0, ve basınçlı yağlamada f8=1.05<br>Oil supply factor for vertical gear units. For horizontal gear units f8 = 1.0, and in case of forced lubrication f8 = 1.05<br>Ölversorgungsfaktor bei vertikalgetriebenen. Bei Horizontalgetriebenen f8 = 1.0, und f8 = 1.05 bei druckschmierung |                                                          |                                                                                        |                                                |                                                                   |                                                                                                   |                                                                                        |                                                |                                                                   |                                                                                                   | f8 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----|
| Redüktör<br>tipi<br>Gear unit<br>type<br>Getriebe-<br>bauart                                                                                                                                                                                                                                                                                         | Yağ Şekli<br>Oil supply<br>Ölversorgung                  | Boyut / Sizes / Größen 4... - 12...                                                    |                                                |                                                                   |                                                                                                   | Boyut / Sizes / Größen 13... - 18...                                                   |                                                |                                                                   |                                                                                                   |    |
|                                                                                                                                                                                                                                                                                                                                                      |                                                          | Olmadan<br>Without /ohne<br>İlave<br>soğutucu<br>Auxiliary<br>cooling<br>Zusatzkühlung | Birlikte<br>With / mit<br>Fan<br>Fan<br>Lüfter | Birlikte<br>With / mit<br>Soğutma<br>Cooling coil<br>Kühlschlange | Birlikte<br>With / mit<br>Fan ve soğutma<br>Fan and cooling<br>coil<br>Lüfter und<br>Kühlschlange | Olmadan<br>Without /ohne<br>İlave<br>soğutucu<br>Auxiliary<br>cooling<br>Zusatzkühlung | Birlikte<br>With / mit<br>Fan<br>Fan<br>Lüfter | Birlikte<br>With / mit<br>Soğutma<br>Cooling coil<br>Kühlschlange | Birlikte<br>With / mit<br>Fan ve soğutma<br>Fan and cooling<br>coil<br>Lüfter und<br>Kühlschlange |    |
| PH...2-V<br>PH...3-V<br>PH...4-V                                                                                                                                                                                                                                                                                                                     | Daldırmalı yağlama<br>Dip lubrication<br>Tauchschrerung  | 0.95                                                                                   | #                                              | 0.95                                                              | #                                                                                                 | #                                                                                      | #                                              | #                                                                 | #                                                                                                 |    |
|                                                                                                                                                                                                                                                                                                                                                      | Basınçlı yağlama<br>Forced lubrication<br>Druckschrerung | 1.15                                                                                   | #                                              | 1.05                                                              | #                                                                                                 | 1.15                                                                                   | #                                              | 1.05                                                              | #                                                                                                 |    |
| PB...2-V<br>PB...3-V<br>PB...4-V                                                                                                                                                                                                                                                                                                                     | Daldırmalı yağlama<br>Dip lubrication<br>Tauchschrerung  | 0.95                                                                                   | 0.95                                           | 0.95                                                              | 0.95                                                                                              | #                                                                                      | #                                              | #                                                                 | #                                                                                                 |    |
|                                                                                                                                                                                                                                                                                                                                                      | Basınçlı yağlama<br>Forced lubrication<br>Druckschrerung | 1.15                                                                                   | 1.10                                           | 1.10                                                              | 1.10                                                                                              | 1.15                                                                                   | 1.10                                           | 1.10                                                              | 1.10                                                                                              |    |

#) Talep edildiğinde

#) On request

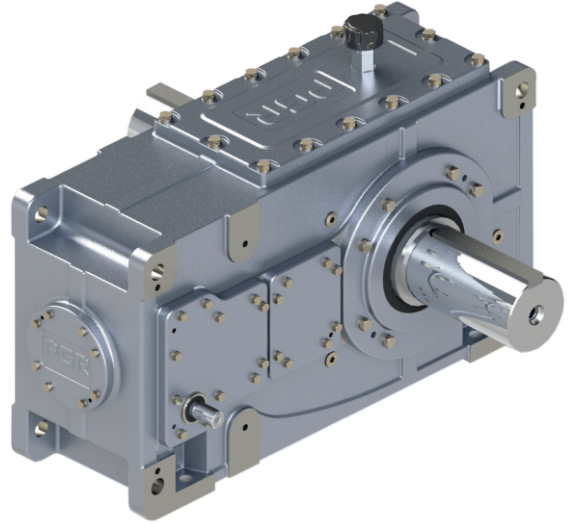
#) Auf Anfrage

## Seçim Tabloları

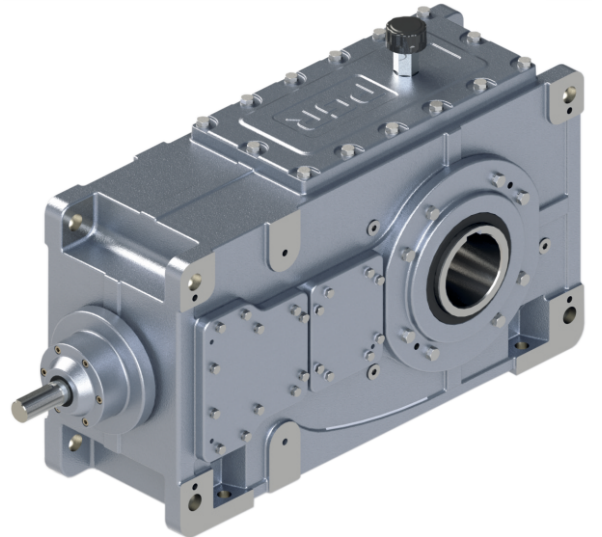
Selection of Gear Unit

Auswahl Des Getriebes

PH...



PB...



PH / PB

NOMİNAL GÜÇ DEĞERİ P<sub>2N</sub> (kW)NOMINAL POWER RATINGS P<sub>2N</sub> (kW)NENNLEISTUNGEN P<sub>2N</sub> (kW)

| iN   | n1<br>[min <sup>-1</sup> ] | n2<br>[min <sup>-1</sup> ] | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
|------|----------------------------|----------------------------|-------------------------------------------------------|----|------|----|-------|----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-----|-----|
|      |                            |                            | 31                                                    | 41 | 51   | 61 | 71    | 81 | 91    | 101 | 111   | 121 | 131   | 141 | 151   | 161 | 171   | 181 | 191   | 201 | 211 | 221 |
| 1.25 | 1800                       | 1440                       | 446                                                   |    | 1230 |    | 2337* |    | 3798* |     | -     |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1500                       | 1200                       | 371                                                   |    | 1025 |    | 1947  |    | 3165  |     | -     |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1200                       | 960                        | 297                                                   |    | 820  |    | 1558  |    | 2532  |     | -     |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1000                       | 800                        | 247                                                   |    | 683  |    | 1298  |    | 2110  |     | -     |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 1.4  | 1800                       | 1286                       | 425                                                   |    | 1126 |    | 2184* |    | 3516* |     | -     |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1500                       | 1071                       | 354                                                   |    | 937  |    | 1819  |    | 2927  |     | -     |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1200                       | 857                        | 284                                                   |    | 750  |    | 1455  |    | 2343  |     | -     |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1000                       | 714                        | 236                                                   |    | 625  |    | 1212  |    | 1951  |     | -     |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 1.6  | 1800                       | 1125                       | 396                                                   |    | 1033 |    | 1958* |    | 3256* |     | -     |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1500                       | 938                        | 330                                                   |    | 861  |    | 1632  |    | 2714  |     | 4608  |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1200                       | 750                        | 264                                                   |    | 689  |    | 1306  |    | 2171  |     | 3684  |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1000                       | 625                        | 219                                                   |    | 573  |    | 1087  |    | 1808  |     | 3070  |     | 4498  |     | -     |     | -     |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 1.8  | 1800                       | 1000                       | 288                                                   |    | 939  |    | 1857* |    | 2990* |     | 5084* |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1500                       | 833                        | 240                                                   |    | 782  |    | 1547  |    | 2491  |     | 4234  |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1200                       | 667                        | 192                                                   |    | 626  |    | 1239  |    | 1994  |     | 3390  |     | 5050* |     | -     |     | -     |     | -     |     |     |     |
|      | 1000                       | 556                        | 160                                                   |    | 522  |    | 1033  |    | 1663  |     | 2826  |     | 4210  |     | -     |     | -     |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 2.0  | 1800                       | 900                        | 268                                                   |    | 903  |    | 1711* |    | 2758* |     | 4720* |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1500                       | 750                        | 223                                                   |    | 753  |    | 1425  |    | 2298  |     | 3933  |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1200                       | 600                        | 179                                                   |    | 602  |    | 1140  |    | 1839  |     | 3146  |     | 4672* |     | -     |     | -     |     | -     |     |     |     |
|      | 1000                       | 500                        | 149                                                   |    | 502  |    | 950   |    | 1532  |     | 2621  |     | 3892  |     | -     |     | -     |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 2.24 | 1800                       | 804                        | 240                                                   |    | 824  |    | 1528* |    | 2464* |     | 4344* |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1500                       | 670                        | 200                                                   |    | 686  |    | 1273  |    | 2053  |     | 3620  |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1200                       | 536                        | 160                                                   |    | 549  |    | 1019  |    | 1642  |     | 2896  |     | 4304* |     | -     |     | -     |     | -     |     |     |     |
|      | 1000                       | 446                        | 133                                                   |    | 457  |    | 848   |    | 1367  |     | 2410  |     | 3581  |     | -     |     | -     |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 2.5  | 1800                       | 720                        | 222                                                   |    | 737  |    | 1368* |    | 2206* |     | 3890* |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1500                       | 600                        | 186                                                   |    | 615  |    | 1140  |    | 1839  |     | 3243  |     | 4934* |     | -     |     | -     |     | -     |     |     |     |
|      | 1200                       | 480                        | 148                                                   |    | 492  |    | 912   |    | 1471  |     | 2594  |     | 3947* |     | -     |     | -     |     | -     |     |     |     |
|      | 1000                       | 400                        | 123                                                   |    | 410  |    | 760   |    | 1226  |     | 2161  |     | 3290  |     | 4998  |     | -     |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 2.8  | 1800                       | 643                        | 212                                                   |    | 659  |    | 1174* |    | 1868* |     | 3474* |     | -     |     | -     |     | -     |     | -     |     |     |     |
|      | 1500                       | 536                        | 176                                                   |    | 549  |    | 978   |    | 1557  |     | 2896  |     | 4407* |     | -     |     | -     |     | -     |     |     |     |
|      | 1200                       | 429                        | 142                                                   |    | 440  |    | 783   |    | 1245  |     | 2318  |     | 3527* |     | -     |     | -     |     | -     |     |     |     |
|      | 1000                       | 357                        | 117                                                   |    | 365  |    | 652   |    | 1036  |     | 1929  |     | 2936  |     | 4575  |     | -     |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 3.15 | 1800                       | 571                        | 189                                                   |    | 584  |    | 1061  |    | 1714  |     | 2933* |     | 4457* |     | -     |     | -     |     | -     |     |     |     |
|      | 1500                       | 476                        | 157                                                   |    | 488  |    | 884   |    | 1428  |     | 2445  |     | 3716  |     | -     |     | -     |     | -     |     |     |     |
|      | 1200                       | 381                        | 125                                                   |    | 390  |    | 708   |    | 1143  |     | 1956  |     | 2974  |     | 5046* |     | -     |     | -     |     |     |     |
|      | 1000                       | 317                        | 104                                                   |    | 324  |    | 589   |    | 951   |     | 1628  |     | 2475  |     | 4198  |     | -     |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 3.55 | 1800                       | 507                        | 172                                                   |    | 514  |    | 963   |    | 1548  |     | 2718* |     | 4028* |     | -     |     | -     |     | -     |     |     |     |
|      | 1500                       | 423                        | 144                                                   |    | 428  |    | 804   |    | 1291  |     | 2267  |     | 3361  |     | -     |     | -     |     | -     |     |     |     |
|      | 1200                       | 338                        | 115                                                   |    | 343  |    | 642   |    | 1032  |     | 1812  |     | 2686  |     | 4548* |     | -     |     | -     |     |     |     |
|      | 1000                       | 282                        | 95.9                                                  |    | 286  |    | 536   |    | 861   |     | 1512  |     | 2240  |     | 3794  |     | -     |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 4.0  | 1800                       | 450                        | 153                                                   |    | 461  |    | 855   |    | 1379  |     | 2432* |     | 3638* |     | -     |     | -     |     | -     |     |     |     |
|      | 1500                       | 375                        | 128                                                   |    | 384  |    | 712   |    | 1149  |     | 2026  |     | 3031  |     | -     |     | -     |     | -     |     |     |     |
|      | 1200                       | 300                        | 102                                                   |    | 307  |    | 570   |    | 919   |     | 1621  |     | 2426  |     | 4165* |     | -     |     | -     |     |     |     |
|      | 1000                       | 250                        | 84.7                                                  |    | 256  |    | 474   |    | 766   |     | 1350  |     | 2021  |     | 3471  |     | 4619  |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 4.5  | 1800                       | 400                        | 106                                                   |    | 328  |    | 674   |    | 1051  |     | 1965  |     | 2632* |     | 4656* |     | -     |     | -     |     |     |     |
|      | 1500                       | 333                        | 88.7                                                  |    | 273  |    | 561   |    | 874   |     | 1635  |     | 2190  |     | 3876  |     | -     |     | -     |     |     |     |
|      | 1200                       | 267                        | 70.4                                                  |    | 219  |    | 450   |    | 701   |     | 1312  |     | 1756  |     | 3108  |     | 4163* |     | -     |     |     |     |
|      | 1000                       | 222                        | 59.2                                                  |    | 182  |    | 374   |    | 582   |     | 1090  |     | 1460  |     | 2584  |     | 3461  |     | -     |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 5.0  | 1800                       | 360                        | 91.8                                                  |    | 276  |    | 530   |    | 903   |     | 1487  |     | 2241* |     | 3653* |     | 4767* |     | -     |     |     |     |
|      | 1500                       | 300                        | 76.5                                                  |    | 231  |    | 442   |    | 753   |     | 1239  |     | 1868  |     | 3044  |     | 3973  |     | -     |     |     |     |
|      | 1200                       | 240                        | 61.2                                                  |    | 184  |    | 353   |    | 602   |     | 991   |     | 1494  |     | 2435  |     | 3178  |     | 4459* |     |     |     |
|      | 1000                       | 200                        | 51.0                                                  |    | 153  |    | 295   |    | 502   |     | 826   |     | 1244  |     | 2029  |     | 2648  |     | 3716  |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |
| 5.6  | 1800                       | 321                        | 78.5                                                  |    | 236  |    | 449   |    | 689   |     | 1251  |     | 1899* |     | 3099* |     | 4045* |     | -     |     |     |     |
|      | 1500                       | 268                        | 65.3                                                  |    | 197  |    | 374   |    | 575   |     | 1044  |     | 1585  |     | 2587  |     | 3377* |     | 4293* |     |     |     |
|      | 1200                       | 214                        | 52.0                                                  |    | 157  |    | 299   |    | 459   |     | 833   |     | 1266  |     | 2066  |     | 2697  |     | 3428* |     |     |     |
|      | 1000                       | 179                        | 43.9                                                  |    | 132  |    | 250   |    | 384   |     | 698   |     | 1059  |     | 1728  |     | 2255  |     | 2867  |     |     |     |
|      |                            |                            |                                                       |    |      |    |       |    |       |     |       |     |       |     |       |     |       |     |       |     |     |     |

Yatay redüktörlerde basınçlı yağlama gereklidir.

Forced lubrication required on horizontal gear units

Druckschmierung bei Horizontalgetrieben erforderlich

★ Talep edildiğinde yapılan redüktörler.

★ Gear units only on request

★ Getriebe nur auf Anfrage

**TR** NÖMİNAL ÇIKIŞ MOMENTLERİ T<sub>2N</sub> (kNm)

**EN** NOMINAL OUTPUT TORQUES T<sub>2N</sub> (kNm)

**DE** NENN-ABTRIEBSDREHMOMENTE T<sub>2N</sub> (kNm)

| İN   | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |    |      |    |      |    |      |     |      |     |      |     |      |     |     |     |     |     |     |     |
|------|-------------------------------------------------------|----|------|----|------|----|------|-----|------|-----|------|-----|------|-----|-----|-----|-----|-----|-----|-----|
|      | 31                                                    | 41 | 51   | 61 | 71   | 81 | 91   | 101 | 111  | 121 | 131  | 141 | 151  | 161 | 171 | 181 | 191 | 201 | 211 | 221 |
| 1.25 | 2.96                                                  |    | 8.16 |    | 16.0 |    | 25.0 |     | -    |     | -    |     | -    |     | -   |     | -   |     |     |     |
| 1.4  | 3.16                                                  |    | 8.36 |    | 16.0 |    | 26.0 |     | -    |     | -    |     | -    |     | -   |     | -   |     |     |     |
| 1.6  | 3.37                                                  |    | 8.77 |    | 17.0 |    | 28.0 |     | 47.0 |     | 68.7 |     | -    |     | -   |     | -   |     |     |     |
| 1.8  | 2.75                                                  |    | 8.98 |    | 18.0 |    | 29.0 |     | 49.0 |     | 72.3 |     | -    |     | -   |     | -   |     |     |     |
| 2.0  | 2.86                                                  |    | 9.59 |    | 18.0 |    | 29.0 |     | 50.0 |     | 74.4 |     | 132  |     | -   |     | -   |     |     |     |
| 2.24 | 2.86                                                  |    | 9.79 |    | 18.0 |    | 29.0 |     | 52.0 |     | 76.7 |     | 133  |     | -   |     | -   |     |     |     |
| 2.5  | 2.96                                                  |    | 9.79 |    | 18.0 |    | 29.0 |     | 52.0 |     | 78.5 |     | 119  |     | -   |     | -   |     |     |     |
| 2.8  | 3.16                                                  |    | 9.79 |    | 17.0 |    | 28.0 |     | 52.0 |     | 78.5 |     | 122  |     | 174 |     | -   |     |     |     |
| 3.15 | 3.16                                                  |    | 9.79 |    | 18.0 |    | 29.0 |     | 49.0 |     | 74.6 |     | 126  |     | 176 |     | -   |     |     |     |
| 3.55 | 3.26                                                  |    | 9.69 |    | 18.0 |    | 29.0 |     | 51.0 |     | 75.9 |     | 129  |     | 176 |     | -   |     |     |     |
| 4.0  | 3.26                                                  |    | 9.79 |    | 18.0 |    | 29.0 |     | 52.0 |     | 77.2 |     | 133  |     | 176 |     | 250 |     |     |     |
| 4.5  | 2.55                                                  |    | 7.85 |    | 16.0 |    | 25.0 |     | 47.0 |     | 62.8 |     | 111  |     | 149 |     | 220 |     |     |     |
| 5.0  | 2.45                                                  |    | 7.34 |    | 14.0 |    | 24.0 |     | 39.0 |     | 59.5 |     | 96.9 |     | 126 |     | 177 |     |     |     |
| 5.6  | 2.35                                                  |    | 7.04 |    | 13.0 |    | 21.0 |     | 37.0 |     | 56.5 |     | 92.2 |     | 120 |     | 153 |     |     |     |

TR

THERMAL KAPASİTELER Pt (kW)

EN

THERMAL CAPACITIES Pt (kW)

DE

WÄRMEGRENZLEISTUNGEN Pt (kW)

| İN   | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |    |     |    |      |    |      |     |      |     |      |     |      |     |      |     |      | n <sub>1</sub> =1000 min <sup>-1</sup> |     |     |  |  |
|------|------------|-------------------------------------------------------|----|-----|----|------|----|------|-----|------|-----|------|-----|------|-----|------|-----|------|----------------------------------------|-----|-----|--|--|
|      |            | 31                                                    | 41 | 51  | 61 | 71   | 81 | 91   | 101 | 111  | 121 | 131  | 141 | 151  | 161 | 171  | 181 | 191  | 201                                    | 211 | 221 |  |  |
| 1.25 | Pt1        | 64.5                                                  |    | *   |    | *    |    | *    |     | -    |     | -    |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt2        | 191                                                   |    | 410 |    | 527  |    | 547  |     | -    |     | -    |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt3        | 276                                                   |    | 652 |    | 929  |    | 1314 |     | -    |     | -    |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt4        | 385                                                   |    | 953 |    | 1348 |    | 1819 |     | -    |     | -    |     | -    |     | -    |     | -    |                                        |     |     |  |  |
| 1.4  | Pt1        | 66.7                                                  |    | *   |    | *    |    | *    |     | -    |     | -    |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt2        | 190                                                   |    | 417 |    | 545  |    | 590  |     | -    |     | -    |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt3        | 269                                                   |    | 642 |    | 910  |    | 1303 |     | -    |     | -    |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt4        | 373                                                   |    | 934 |    | 1324 |    | 1795 |     | -    |     | -    |     | -    |     | -    |     | -    |                                        |     |     |  |  |
| 1.6  | Pt1        | 70.0                                                  |    | *   |    | *    |    | *    |     | *    |     | *    |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt2        | 187                                                   |    | 420 |    | 551  |    | 643  |     | 744  |     | 520  |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt3        | 253                                                   |    | 607 |    | 850  |    | 1255 |     | 2098 |     | 2508 |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt4        | 354                                                   |    | 887 |    | 1238 |    | 1740 |     | 2895 |     | 3379 |     | -    |     | -    |     | -    |                                        |     |     |  |  |
| 1.8  | Pt1        | 81.5                                                  |    | *   |    | *    |    | *    |     | *    |     | *    |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt2        | 209                                                   |    | 418 |    | 572  |    | 668  |     | 837  |     | 687  |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt3        | 274                                                   |    | 572 |    | 835  |    | 1211 |     | 2066 |     | 2465 |     | -    |     | -    |     | -    |                                        |     |     |  |  |
|      | Pt4        | 384                                                   |    | 844 |    | 1220 |    | 1683 |     | 2858 |     | 3329 |     | -    |     | -    |     | -    |                                        |     |     |  |  |
| 2.0  | Pt1        | 80.1                                                  |    | 106 |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt2        | 201                                                   |    | 405 |    | 560  |    | 664  |     | 869  |     | 772  |     | *    |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt3        | 261                                                   |    | 542 |    | 794  |    | 1153 |     | 1994 |     | 2415 |     | 2114 |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt4        | 365                                                   |    | 795 |    | 1158 |    | 1604 |     | 2754 |     | 3254 |     | 3178 |     | *    |     | *    |                                        |     |     |  |  |
| 2.24 | Pt1        | 79.6                                                  |    | 111 |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt2        | 193                                                   |    | 390 |    | 530  |    | 658  |     | 905  |     | 868  |     | 533  |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt3        | 246                                                   |    | 506 |    | 718  |    | 1084 |     | 1901 |     | 2336 |     | 2089 |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt4        | 345                                                   |    | 748 |    | 1050 |    | 1515 |     | 2640 |     | 3166 |     | 3134 |     | *    |     | *    |                                        |     |     |  |  |
| 2.5  | Pt1        | 74.3                                                  |    | 110 |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt2        | 179                                                   |    | 369 |    | 504  |    | 633  |     | 902  |     | 906  |     | 633  |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt3        | 220                                                   |    | 468 |    | 662  |    | 1006 |     | 1788 |     | 2217 |     | 2056 |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt4        | 310                                                   |    | 693 |    | 969  |    | 1409 |     | 2486 |     | 3014 |     | 3056 |     | *    |     | *    |                                        |     |     |  |  |
| 2.8  | Pt1        | 71.0                                                  |    | 107 |    | 136  |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt2        | 167                                                   |    | 347 |    | 521  |    | 662  |     | 882  |     | 920  |     | 721  |     | 510  |     | *    |                                        |     |     |  |  |
|      | Pt3        | 203                                                   |    | 427 |    | 668  |    | 1014 |     | 1658 |     | 2075 |     | 1996 |     | 2247 |     | *    |                                        |     |     |  |  |
|      | Pt4        | 287                                                   |    | 632 |    | 978  |    | 1418 |     | 2310 |     | 2825 |     | 2950 |     | 3287 |     | *    |                                        |     |     |  |  |
| 3.15 | Pt1        | 74.5                                                  |    | 130 |    | 193  |    | 221  |     | *    |     | *    |     | *    |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt2        | 164                                                   |    | 355 |    | 613  |    | 746  |     | 1039 |     | 1151 |     | 1169 |     | 1061 |     | *    |                                        |     |     |  |  |
|      | Pt3        | 197                                                   |    | 424 |    | 784  |    | 1113 |     | 1716 |     | 2117 |     | 2223 |     | 2567 |     | *    |                                        |     |     |  |  |
|      | Pt4        | 275                                                   |    | 624 |    | 1163 |    | 1579 |     | 2396 |     | 2901 |     | 3237 |     | 3696 |     | *    |                                        |     |     |  |  |
| 3.55 | Pt1        | 69.0                                                  |    | 130 |    | 182  |    | 213  |     | *    |     | *    |     | *    |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt2        | 150                                                   |    | 347 |    | 564  |    | 696  |     | 968  |     | 1100 |     | 1163 |     | 1118 |     | *    |                                        |     |     |  |  |
|      | Pt3        | 177                                                   |    | 406 |    | 703  |    | 1008 |     | 1549 |     | 1934 |     | 2068 |     | 2435 |     | *    |                                        |     |     |  |  |
|      | Pt4        | 249                                                   |    | 597 |    | 1048 |    | 1435 |     | 2171 |     | 2655 |     | 3001 |     | 3480 |     | *    |                                        |     |     |  |  |
| 4.0  | Pt1        | 63.1                                                  |    | 120 |    | 170  |    | 193  |     | 240  |     | *    |     | *    |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt2        | 137                                                   |    | 315 |    | 508  |    | 597  |     | 909  |     | 1044 |     | 1146 |     | 1155 |     | 1053 |                                        |     |     |  |  |
|      | Pt3        | 158                                                   |    | 360 |    | 616  |    | 836  |     | 1399 |     | 1749 |     | 1888 |     | 2256 |     | *    |                                        |     |     |  |  |
|      | Pt4        | 221                                                   |    | 531 |    | 920  |    | 1199 |     | 1966 |     | 2411 |     | 2746 |     | 3221 |     | *    |                                        |     |     |  |  |
| 4.5  | Pt1        | 71.1                                                  |    | 132 |    | 187  |    | 243  |     | 272  |     | 310  |     | *    |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt2        | 147                                                   |    | 322 |    | 514  |    | 680  |     | 889  |     | 1129 |     | 1315 |     | 1333 |     | 1299 |                                        |     |     |  |  |
|      | Pt3        | 168                                                   |    | 361 |    | 611  |    | 926  |     | 1336 |     | 1819 |     | 1946 |     | 2272 |     | *    |                                        |     |     |  |  |
|      | Pt4        | 235                                                   |    | 531 |    | 907  |    | 1320 |     | 1892 |     | 2523 |     | 2815 |     | 3233 |     | *    |                                        |     |     |  |  |
| 5.0  | Pt1        | 65.2                                                  |    | 128 |    | 188  |    | 233  |     | 296  |     | 347  |     | *    |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt2        | 134                                                   |    | 307 |    | 498  |    | 620  |     | 886  |     | 1109 |     | 1343 |     | 1572 |     | 1617 |                                        |     |     |  |  |
|      | Pt3        | 150                                                   |    | 340 |    | 575  |    | 817  |     | 1268 |     | 1720 |     | 1856 |     | 2472 |     | *    |                                        |     |     |  |  |
|      | Pt4        | 209                                                   |    | 500 |    | 858  |    | 1168 |     | 1805 |     | 2395 |     | 2695 |     | 3516 |     | *    |                                        |     |     |  |  |
| 5.6  | Pt1        | 58.3                                                  |    | 113 |    | 169  |    | 224  |     | 283  |     | 317  |     | *    |     | *    |     | *    |                                        |     |     |  |  |
|      | Pt2        | 118                                                   |    | 271 |    | 444  |    | 593  |     | 839  |     | 998  |     | 1219 |     | 1444 |     | 1698 |                                        |     |     |  |  |
|      | Pt3        | 131                                                   |    | 294 |    | 504  |    | 760  |     | 1187 |     | 1508 |     | 1640 |     | 2200 |     | *    |                                        |     |     |  |  |
|      | Pt4        | 183                                                   |    | 434 |    | 754  |    | 1092 |     | 1696 |     | 2106 |     | 2385 |     | 3130 |     | *    |                                        |     |     |  |  |

[\*] Talep edildiğinde

A) Değerler aşağıda belirtilen şartlar için geçerlidir:

Saatlik çalışma döngüsü: %100

Büyük bir alanda kurulum rakım 1000 m'ye kadar

B) Değerler aşağıda belirtilen şartlar için geçerlidir:

Soğutma suyu, çıkış su sıcaklığı ne olursa olsun, soğuk su giriş sıcaklığı 20°C olmalıdır.

Soğutma suyu çıkış sıcaklığının sınırlanmasına ilişkin hesaplama, ancak talep edildiğinde sağlanır.

[\*] On request

A) Values refer to:

Operating cycle: 100%

Installation in a large hall Altitude up to 1000 m

B) Values refer to:

A cooling water inlet temperature of 20°C with unlimited cooling water outlet temperature.

A recalculation with a limited cooling water outlet temperature is possible on request.

[\*] Auf Anfrage

A) Werte gelten für:

Einschaltdauer: 100%

Aufstellung in großer Halle Höhenlage bis 1000 m

B) Werte gelten für:

Eine Kühlwassereintrittstemperatur von 20°C ohne Begrenzung der Kühlwasseraustrittstemperatur.

Die Nachrechnung mit Begrenzung der Kühlwasseraustrittstemperatur ist auf Anfrage möglich.

Pt1 Redüktörler, ilave soğutucusu yok. A

Pt2 Redüktörler, fan soğutuculu. A

Pt3 Redüktörler, monte edilmiş serpantinli soğutucu. A,B

Pt4 Redüktörler, fanlı ve monte edilmiş serpantinli soğutucu. A,B

Pt1 Gear units without auxiliary cooling A

Pt2 Gear units with fan A

Pt3 Gear units with built-in cooling coil A,B

Pt4 Gear units with fan and built-in cooling coil A,B

Pt1 Getriebe ohne Zusatzkühlung A

Pt2 Getriebe mit Lüfterkühlung A

Pt3 Getriebe mit eingebauter Kühlschlange A,B

Pt4 Getriebe mit Lüfter und eingebauter Kühlschlange A,B

**TR** TERMAL KAPASİTELER Pt (kW)

**EN** THERMAL CAPACITIES Pt (kW)

**DE** WÄRMEGRENZLEISTUNGEN Pt (kW)

|      |            | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |    |      |    |      |    |      |     |      |     |      |     |      |     |      |     |      |     |     | n <sub>1</sub> =1200 min <sup>-1</sup> |  |  |  |
|------|------------|-------------------------------------------------------|----|------|----|------|----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|----------------------------------------|--|--|--|
| İN   | Pt<br>(kW) | 31                                                    | 41 | 51   | 61 | 71   | 81 | 91   | 101 | 111  | 121 | 131  | 141 | 151  | 161 | 171  | 181 | 191  | 201 | 211 | 221                                    |  |  |  |
| 1.25 | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt2        | 205                                                   |    | 405  |    | 490  |    | 455  |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt3        | 302                                                   |    | 679  |    | 941  |    | 1279 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt4        | 441                                                   |    | 1071 |    | 1497 |    | 1985 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
| 1.4  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt2        | 205                                                   |    | 418  |    | 517  |    | 511  |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt3        | 295                                                   |    | 673  |    | 931  |    | 1285 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt4        | 428                                                   |    | 1054 |    | 1476 |    | 1971 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
| 1.6  | Pt1        | 58.0                                                  |    | *    |    | *    |    | *    |     | *    |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt2        | 204                                                   |    | 432  |    | 544  |    | 596  |     | 539  |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt3        | 278                                                   |    | 647  |    | 886  |    | 1271 |     | 1962 |     | 2120 |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt4        | 408                                                   |    | 1007 |    | 1392 |    | 1932 |     | 3106 |     | 3474 |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
| 1.8  | Pt1        | 70.5                                                  |    | *    |    | *    |    | *    |     | *    |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt2        | 230                                                   |    | 438  |    | 581  |    | 646  |     | 683  |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt3        | 304                                                   |    | 616  |    | 883  |    | 1250 |     | 1997 |     | 2200 |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt4        | 443                                                   |    | 961  |    | 1379 |    | 1883 |     | 3110 |     | 3502 |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
| 2.0  | Pt1        | 70.1                                                  |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 222                                                   |    | 426  |    | 573  |    | 651  |     | 732  |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 290                                                   |    | 584  |    | 843  |    | 1196 |     | 1949 |     | 2193 |     | 1692 |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 421                                                   |    | 907  |    | 1312 |    | 1800 |     | 3011 |     | 3448 |     | 3196 |     | *    |     | *    |     |     |                                        |  |  |  |
| 2.24 | Pt1        | 71.3                                                  |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 214                                                   |    | 416  |    | 552  |    | 660  |     | 808  |     | 638  |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 273                                                   |    | 550  |    | 769  |    | 1139 |     | 1897 |     | 2191 |     | 1769 |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 399                                                   |    | 856  |    | 1193 |    | 1709 |     | 2912 |     | 3402 |     | 3225 |     | *    |     | *    |     |     |                                        |  |  |  |
| 2.5  | Pt1        | 67.3                                                  |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 199                                                   |    | 397  |    | 528  |    | 644  |     | 826  |     | 705  |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 246                                                   |    | 510  |    | 713  |    | 1063 |     | 1803 |     | 2114 |     | 1787 |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 359                                                   |    | 794  |    | 1104 |    | 1592 |     | 2754 |     | 3260 |     | 3179 |     | *    |     | *    |     |     |                                        |  |  |  |
| 2.8  | Pt1        | 65.0                                                  |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 187                                                   |    | 373  |    | 551  |    | 680  |     | 828  |     | 753  |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 226                                                   |    | 467  |    | 722  |    | 1078 |     | 1689 |     | 2008 |     | 1780 |     | 1891 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 332                                                   |    | 726  |    | 1117 |    | 1608 |     | 2570 |     | 3076 |     | 3102 |     | 3374 |     | *    |     |     |                                        |  |  |  |
| 3.15 | Pt1        | 71.5                                                  |    | 115  |    | 162  |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 185                                                   |    | 393  |    | 671  |    | 805  |     | 1076 |     | 1131 |     | 1044 |     | 877  |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 221                                                   |    | 472  |    | 865  |    | 1217 |     | 1834 |     | 2202 |     | 2219 |     | 2494 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 320                                                   |    | 721  |    | 1340 |    | 1813 |     | 2722 |     | 3258 |     | 3571 |     | 4030 |     | *    |     |     |                                        |  |  |  |
| 3.55 | Pt1        | 66.3                                                  |    | 116  |    | 156  |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 169                                                   |    | 384  |    | 619  |    | 753  |     | 1010 |     | 1093 |     | 1061 |     | 953  |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 200                                                   |    | 452  |    | 776  |    | 1105 |     | 1662 |     | 2023 |     | 2081 |     | 2389 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 290                                                   |    | 690  |    | 1208 |    | 1648 |     | 2469 |     | 2989 |     | 3322 |     | 3811 |     | *    |     |     |                                        |  |  |  |
| 4.0  | Pt1        | 61.2                                                  |    | 110  |    | 150  |    | 159  |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 154                                                   |    | 351  |    | 560  |    | 650  |     | 961  |     | 1061 |     | 1086 |     | 1038 |     | 890  |     |     |                                        |  |  |  |
|      | Pt3        | 177                                                   |    | 402  |    | 683  |    | 921  |     | 1512 |     | 1849 |     | 1932 |     | 2257 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 257                                                   |    | 615  |    | 1063 |    | 1379 |     | 2244 |     | 2726 |     | 3061 |     | 3558 |     | *    |     |     |                                        |  |  |  |
| 4.5  | Pt1        | 69.8                                                  |    | 123  |    | 172  |    | 215  |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 166                                                   |    | 362  |    | 573  |    | 752  |     | 963  |     | 1191 |     | 1329 |     | 1309 |     | 1234 |     |     |                                        |  |  |  |
|      | Pt3        | 190                                                   |    | 405  |    | 682  |    | 1029 |     | 1465 |     | 1964 |     | 2052 |     | 2361 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 273                                                   |    | 616  |    | 1051 |    | 1525 |     | 2174 |     | 2879 |     | 3180 |     | 3629 |     | *    |     |     |                                        |  |  |  |
| 5.0  | Pt1        | 64.5                                                  |    | 123  |    | 177  |    | 215  |     | 253  |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 152                                                   |    | 346  |    | 558  |    | 692  |     | 972  |     | 1194 |     | 1406 |     | 1613 |     | 1624 |     |     |                                        |  |  |  |
|      | Pt3        | 169                                                   |    | 383  |    | 646  |    | 912  |     | 1401 |     | 1880 |     | 1994 |     | 2629 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 244                                                   |    | 580  |    | 996  |    | 1353 |     | 2082 |     | 2748 |     | 3069 |     | 3985 |     | *    |     |     |                                        |  |  |  |
| 5.6  | Pt1        | 57.7                                                  |    | 109  |    | 160  |    | 206  |     | 242  |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 135                                                   |    | 305  |    | 498  |    | 660  |     | 921  |     | 1075 |     | 1276 |     | 1482 |     | 1705 |     |     |                                        |  |  |  |
|      | Pt3        | 148                                                   |    | 330  |    | 566  |    | 850  |     | 1313 |     | 1648 |     | 1763 |     | 2339 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 212                                                   |    | 504  |    | 874  |    | 1265 |     | 1955 |     | 2416 |     | 2715 |     | 3548 |     | *    |     |     |                                        |  |  |  |

**\*** Talep edildiğinde

A) Değerler aşağıda belirtilen şartlar için geçerlidir:

Saatlik çalışma döngüsü: %100

Büyük bir alanda kurulum rakım 1000 m'ye kadar

B) Değerler aşağıda belirtilen şartlar için geçerlidir:

Soğutma suyu, çıkış su sıcaklığı ne olursa olsun, soğuk su giriş sıcaklığı 20°C olmalıdır.

Soğutma suyu çıkış sıcaklığının sınırlanmasına ilişkin hesaplama, ancak talep edildiğinde sağlanır.

**\*** On request

A) Values refer to:

Operating cycle: 100%

Installation in a large hall Altitude up to 1000 m

B) Values refer to:

A cooling water inlet temperature of 20°C with unlimited cooling water outlet temperature.

A recalculation with a limited cooling water outlet temperature is possible on request.

**\*** Auf Anfrage

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Einschaltdauer: 100%

Aufstellung in großer Halle Höhenlage bis 1000 m

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Eine Kühlwassereintrittstemperatur von 20°C ohne Begrenzung der Kühlwasseraustrittstemperatur.

Die Nachrechnung mit Begrenzung der Kühlwasser austrittstemperatur ist auf Anfrage möglich.

**Pt1** Redüktörler, ilave soğutucusu yok. **A**

**Pt2** Redüktörler, fan soğutuculu. **A**

**Pt3** Redüktörler, monte edilmiş serpantinli soğutucu. **A,B**

**Pt4** Redüktörler, fanlı ve monte edilmiş serpantinli soğutucu. **A,B**

**Pt1** Gear units without auxiliary cooling **A**

**Pt2** Gear units with fan **A**

**Pt3** Gear units with built-in cooling coil **A,B**

**Pt4** Gear units with fan and built-in cooling coil **A,B**

**Pt1** Getriebe ohne Zusatzkühlung **A**

**Pt2** Getriebe mit Lüfterkühlung **A**

**Pt3** Getriebe mit eingebauter Kühlschlange **A,B**

**Pt4** Getriebe mit Lüfter und eingebauter Kühlschlange **A,B**

TR

THERMAL KAPASİTELER Pt (kW)

EN

THERMAL CAPACITIES Pt (kW)

DE

WÄRMEGRENZLEISTUNGEN Pt (kW)

|      |            | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |    |      |    |      |    |      |     |      |     |      |     |      |     |      |     |      |     |     | n <sub>1</sub> =1500 min <sup>-1</sup> |  |  |  |
|------|------------|-------------------------------------------------------|----|------|----|------|----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|----------------------------------------|--|--|--|
| İN   | Pt<br>(kW) | 31                                                    | 41 | 51   | 61 | 71   | 81 | 91   | 101 | 111  | 121 | 131  | 141 | 151  | 161 | 171  | 181 | 191  | 201 | 211 | 221                                    |  |  |  |
| 1.25 | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt2        | 214                                                   |    | 379  |    | 416  |    | *    |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt3        | 313                                                   |    | 700  |    | 965  |    | 1302 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt4        | 481                                                   |    | 1139 |    | 1568 |    | 2031 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
| 1.4  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt2        | 216                                                   |    | 400  |    | 456  |    | 383  |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt3        | 305                                                   |    | 694  |    | 956  |    | 1311 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt4        | 468                                                   |    | 1126 |    | 1553 |    | 2032 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
| 1.6  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt2        | 217                                                   |    | 428  |    | 510  |    | 505  |     | *    |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt3        | 290                                                   |    | 668  |    | 912  |    | 1302 |     | 1983 |     | 2101 |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt4        | 447                                                   |    | 1084 |    | 1481 |    | 2022 |     | 3100 |     | 3251 |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
| 1.8  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt2        | 246                                                   |    | 444  |    | 565  |    | 587  |     | *    |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt3        | 315                                                   |    | 638  |    | 912  |    | 1284 |     | 2030 |     | 2204 |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
|      | Pt4        | 488                                                   |    | 1039 |    | 1479 |    | 1992 |     | 3168 |     | 3395 |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |
| 2.0  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 239                                                   |    | 436  |    | 564  |    | 602  |     | 519  |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 301                                                   |    | 605  |    | 869  |    | 1231 |     | 1986 |     | 2204 |     | 1659 |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 464                                                   |    | 983  |    | 1410 |    | 1910 |     | 3087 |     | 3379 |     | 2883 |     | *    |     | *    |     |     |                                        |  |  |  |
| 2.24 | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 232                                                   |    | 430  |    | 555  |    | 632  |     | 644  |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 284                                                   |    | 569  |    | 795  |    | 1174 |     | 1940 |     | 2215 |     | 1753 |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 440                                                   |    | 931  |    | 1289 |    | 1826 |     | 3023 |     | 3403 |     | 3022 |     | *    |     | *    |     |     |                                        |  |  |  |
| 2.5  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 215                                                   |    | 413  |    | 536  |    | 626  |     | 690  |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 256                                                   |    | 528  |    | 737  |    | 1097 |     | 1846 |     | 2144 |     | 1781 |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 396                                                   |    | 865  |    | 1195 |    | 1707 |     | 2875 |     | 3293 |     | 3031 |     | *    |     | *    |     |     |                                        |  |  |  |
| 2.8  | Pt1        | 51.0                                                  |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 203                                                   |    | 392  |    | 564  |    | 671  |     | 719  |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 236                                                   |    | 485  |    | 748  |    | 1113 |     | 1732 |     | 2042 |     | 1783 |     | 1873 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 366                                                   |    | 793  |    | 1213 |    | 1729 |     | 2700 |     | 3137 |     | 3006 |     | 3149 |     | *    |     |     |                                        |  |  |  |
| 3.15 | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 204                                                   |    | 423  |    | 716  |    | 845  |     | 1076 |     | 1054 |     | 832  |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 231                                                   |    | 491  |    | 899  |    | 1262 |     | 1895 |     | 2265 |     | 2267 |     | 2537 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 355                                                   |    | 795  |    | 1471 |    | 1980 |     | 2937 |     | 3462 |     | 3707 |     | 4116 |     | *    |     |     |                                        |  |  |  |
| 3.55 | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 187                                                   |    | 415  |    | 662  |    | 794  |     | 1018 |     | 1034 |     | 877  |     | 692  |     | *    |     |     |                                        |  |  |  |
|      | Pt3        | 208                                                   |    | 469  |    | 807  |    | 1146 |     | 1719 |     | 2083 |     | 2129 |     | 2435 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 320                                                   |    | 761  |    | 1327 |    | 1803 |     | 2669 |     | 3185 |     | 3465 |     | 3916 |     | *    |     |     |                                        |  |  |  |
| 4.0  | Pt1        | *                                                     |    | 86.8 |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 169                                                   |    | 381  |    | 603  |    | 691  |     | 983  |     | 1032 |     | 957  |     | 837  |     | 635  |     |     |                                        |  |  |  |
|      | Pt3        | 185                                                   |    | 418  |    | 710  |    | 956  |     | 1565 |     | 1907 |     | 1982 |     | 2308 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 286                                                   |    | 678  |    | 1170 |    | 1513 |     | 2435 |     | 2923 |     | 3222 |     | 3698 |     | *    |     |     |                                        |  |  |  |
| 4.5  | Pt1        | *                                                     |    | 108  |    | 138  |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 184                                                   |    | 397  |    | 623  |    | 811  |     | 1014 |     | 1217 |     | 1286 |     | 1216 |     | 1090 |     |     |                                        |  |  |  |
|      | Pt3        | 198                                                   |    | 421  |    | 710  |    | 1070 |     | 1519 |     | 2032 |     | 2117 |     | 2430 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 304                                                   |    | 682  |    | 1160 |    | 1679 |     | 2377 |     | 3123 |     | 3406 |     | 3855 |     | *    |     |     |                                        |  |  |  |
| 5.0  | Pt1        | *                                                     |    | 113  |    | 154  |    | 172  |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 168                                                   |    | 380  |    | 611  |    | 753  |     | 1040 |     | 1252 |     | 1423 |     | 1591 |     | 1557 |     |     |                                        |  |  |  |
|      | Pt3        | 176                                                   |    | 398  |    | 672  |    | 949  |     | 1456 |     | 1949 |     | 2062 |     | 2713 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 271                                                   |    | 644  |    | 1102 |    | 1493 |     | 2287 |     | 3001 |     | 3320 |     | 4286 |     | *    |     |     |                                        |  |  |  |
| 5.6  | Pt1        | 57.1                                                  |    | 101  |    | 139  |    | 166  |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |
|      | Pt2        | 149                                                   |    | 337  |    | 546  |    | 718  |     | 986  |     | 1126 |     | 1291 |     | 1462 |     | 1636 |     |     |                                        |  |  |  |
|      | Pt3        | 154                                                   |    | 344  |    | 589  |    | 883  |     | 1364 |     | 1709 |     | 1823 |     | 2414 |     | *    |     |     |                                        |  |  |  |
|      | Pt4        | 237                                                   |    | 559  |    | 968  |    | 1397 |     | 2148 |     | 2638 |     | 2938 |     | 3816 |     | *    |     |     |                                        |  |  |  |

[\*] Talep edildiğinde

A) Değerler aşağıda belirtilen şartlar için geçerlidir:

Saatlik çalışma döngüsü: %100

Büyük bir alanda kurulum rakım 1000 m'ye kadar

B) Değerler aşağıda belirtilen şartlar için geçerlidir:

Soğutma suyu, çıkış su sıcaklığı ne olursa olsun, soğuk su giriş sıcaklığı 20°C olmalıdır.

Soğutma suyu çıkış sıcaklığının sınırlanmasına ilişkin hesaplama, ancak talep edildiğinde sağlanır.

[\*] On request

A) Values refer to:

Operating cycle: 100%

Installation in a large hall Altitude up to 1000 m

B) Values refer to:

A cooling water inlet temperature of 20°C with unlimited cooling water outlet temperature.

A recalculation with a limited cooling water outlet temperature is possible on request.

[\*] Auf Anfrage

A) Werte gelten für:

Einschaltdauer: 100%

Aufstellung in großer Halle Höhenlage bis 1000 m

B) Werte gelten für:

Eine Kühlwassereintrittstemperatur von 20°C ohne Begrenzung der Kühlwasseraustrittstemperatur.

Die Nachrechnung mit Begrenzung der Kühlwasser austrittstemperatur ist auf Anfrage möglich.

Pt1 Redüktörler, ilave soğutucusu yok. A

Pt2 Redüktörler, fan soğutuculu. A

Pt3 Redüktörler, monte edilmiş serpantinli soğutucu. A,B

Pt4 Redüktörler, fanlı ve monte edilmiş serpantinli soğutucu. A,B

Pt1 Gear units without auxiliary cooling A

Pt2 Gear units with fan A

Pt3 Gear units with built-in cooling coil A,B

Pt4 Gear units with fan and built-in cooling coil A,B

Pt1 Getriebe ohne Zusatzkühlung A

Pt2 Getriebe mit Lüfterkühlung A

Pt3 Getriebe mit eingebauter Kühlschlange A,B

Pt4 Getriebe mit Lüfter und eingebauter Kühlschlange A,B

**TR** TERMAL KAPASİTELER Pt (kW)

**EN** THERMAL CAPACITIES Pt (kW)

**DE** WÄRMEGRENZLEISTUNGEN Pt (kW)

| İN   | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |    |      |    |      |    |      |     |      |     |      |     |      |     |      |     |      |     |     | n <sub>1</sub> =1800 min <sup>-1</sup> |  |  |  |  |
|------|------------|-------------------------------------------------------|----|------|----|------|----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-----|----------------------------------------|--|--|--|--|
|      |            | 31                                                    | 41 | 51   | 61 | 71   | 81 | 91   | 101 | 111  | 121 | 131  | 141 | 151  | 161 | 171  | 181 | 191  | 201 | 211 | 221                                    |  |  |  |  |
| 1.25 | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt2        | 214                                                   |    | 301  |    | *    |    | *    |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt3        | 320                                                   |    | 663  |    | 868  |    | 1079 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt4        | 524                                                   |    | 1187 |    | 1585 |    | 1959 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
| 1.4  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt2        | 218                                                   |    | 334  |    | 306  |    | *    |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt3        | 314                                                   |    | 665  |    | 876  |    | 1118 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt4        | 512                                                   |    | 1181 |    | 1587 |    | 1992 |     | -    |     | -    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
| 1.6  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt2        | 223                                                   |    | 387  |    | 405  |    | *    |     | *    |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt3        | 300                                                   |    | 656  |    | 865  |    | 1169 |     | 1494 |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt4        | 492                                                   |    | 1154 |    | 1543 |    | 2042 |     | 2840 |     | 2535 |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
| 1.8  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt2        | 257                                                   |    | 419  |    | 490  |    | 428  |     | *    |     | *    |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt3        | 329                                                   |    | 635  |    | 884  |    | 1194 |     | 1658 |     | 1457 |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
|      | Pt4        | 538                                                   |    | 1117 |    | 1562 |    | 2052 |     | 3031 |     | 2905 |     | -    |     | -    |     | -    |     |     |                                        |  |  |  |  |
| 2.0  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt2        | 250                                                   |    | 417  |    | 501  |    | 463  |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt3        | 314                                                   |    | 607  |    | 850  |    | 1158 |     | 1661 |     | 1533 |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt4        | 513                                                   |    | 1060 |    | 1496 |    | 1982 |     | 2993 |     | 2967 |     | 2012 |     | *    |     | *    |     |     |                                        |  |  |  |  |
| 2.24 | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt2        | 245                                                   |    | 422  |    | 514  |    | 529  |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt3        | 298                                                   |    | 577  |    | 788  |    | 1127 |     | 1694 |     | 1684 |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt4        | 488                                                   |    | 1010 |    | 1379 |    | 1917 |     | 3004 |     | 3131 |     | 2365 |     | *    |     | *    |     |     |                                        |  |  |  |  |
| 2.5  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt2        | 228                                                   |    | 410  |    | 506  |    | 543  |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt3        | 269                                                   |    | 539  |    | 736  |    | 1064 |     | 1645 |     | 1694 |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt4        | 440                                                   |    | 940  |    | 1284 |    | 1803 |     | 2891 |     | 3094 |     | 2486 |     | *    |     | *    |     |     |                                        |  |  |  |  |
| 2.8  | Pt1        | *                                                     |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt2        | 216                                                   |    | 394  |    | 542  |    | 601  |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt3        | 249                                                   |    | 496  |    | 752  |    | 1090 |     | 1574 |     | 1672 |     | 1175 |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt4        | 407                                                   |    | 865  |    | 1309 |    | 1837 |     | 2744 |     | 3006 |     | 2567 |     | 2437 |     | *    |     |     |                                        |  |  |  |  |
| 3.15 | Pt1        | 53.3                                                  |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt2        | 221                                                   |    | 447  |    | 741  |    | 849  |     | 986  |     | 824  |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt3        | 247                                                   |    | 515  |    | 933  |    | 1293 |     | 1872 |     | 2139 |     | 1981 |     | 2092 |     | *    |     |     |                                        |  |  |  |  |
|      | Pt4        | 397                                                   |    | 879  |    | 1619 |    | 2160 |     | 3135 |     | 3599 |     | 3683 |     | 3960 |     | *    |     |     |                                        |  |  |  |  |
| 3.55 | Pt1        | 51.0                                                  |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt2        | 203                                                   |    | 440  |    | 689  |    | 804  |     | 949  |     | 840  |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt3        | 222                                                   |    | 494  |    | 840  |    | 1179 |     | 1707 |     | 1986 |     | 1890 |     | 2052 |     | *    |     |     |                                        |  |  |  |  |
|      | Pt4        | 359                                                   |    | 844  |    | 1463 |    | 1972 |     | 2860 |     | 3330 |     | 3475 |     | 3814 |     | *    |     |     |                                        |  |  |  |  |
| 4.0  | Pt1        | 49.7                                                  |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt2        | 185                                                   |    | 406  |    | 632  |    | 709  |     | 945  |     | 896  |     | 640  |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt3        | 198                                                   |    | 442  |    | 743  |    | 989  |     | 1573 |     | 1851 |     | 1815 |     | 2027 |     | *    |     |     |                                        |  |  |  |  |
|      | Pt4        | 319                                                   |    | 754  |    | 1293 |    | 1661 |     | 2627 |     | 3089 |     | 3290 |     | 3685 |     | *    |     |     |                                        |  |  |  |  |
| 4.5  | Pt1        | 62.2                                                  |    | *    |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt2        | 202                                                   |    | 427  |    | 666  |    | 854  |     | 1025 |     | 1165 |     | 1103 |     | 944  |     | 736  |     |     |                                        |  |  |  |  |
|      | Pt3        | 212                                                   |    | 448  |    | 750  |    | 1122 |     | 1561 |     | 2039 |     | 2046 |     | 2290 |     | *    |     |     |                                        |  |  |  |  |
|      | Pt4        | 341                                                   |    | 761  |    | 1290 |    | 1858 |     | 2598 |     | 3366 |     | 3590 |     | 4002 |     | *    |     |     |                                        |  |  |  |  |
| 5.0  | Pt1        | *                                                     |    | 94.4 |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt2        | 186                                                   |    | 414  |    | 659  |    | 804  |     | 1080 |     | 1255 |     | 1336 |     | 1421 |     | 1307 |     |     |                                        |  |  |  |  |
|      | Pt3        | 190                                                   |    | 424  |    | 714  |    | 1003 |     | 1516 |     | 1995 |     | 2056 |     | 2657 |     | *    |     |     |                                        |  |  |  |  |
|      | Pt4        | 305                                                   |    | 720  |    | 1230 |    | 1661 |     | 2520 |     | 3272 |     | 3564 |     | 4552 |     | *    |     |     |                                        |  |  |  |  |
| 5.6  | Pt1        | 54.3                                                  |    | 83.9 |    | *    |    | *    |     | *    |     | *    |     | *    |     | *    |     | *    |     |     |                                        |  |  |  |  |
|      | Pt2        | 164                                                   |    | 365  |    | 589  |    | 767  |     | 1024 |     | 1129 |     | 1213 |     | 1306 |     | 1373 |     |     |                                        |  |  |  |  |
|      | Pt3        | 165                                                   |    | 367  |    | 625  |    | 933  |     | 1420 |     | 1749 |     | 1817 |     | 2364 |     | *    |     |     |                                        |  |  |  |  |
|      | Pt4        | 266                                                   |    | 625  |    | 1080 |    | 1553 |     | 2367 |     | 2876 |     | 3154 |     | 4052 |     | *    |     |     |                                        |  |  |  |  |

☐ \* Talep edildiğinde

- A) Değerler aşağıda belirtilen şartlar için geçerlidir:  
Saatlik çalışma döngüsü: %100  
Büyük bir alanda kurulum rakım 1000 m'ye kadar
- B) Değerler aşağıda belirtilen şartlar için geçerlidir:  
Soğutma suyu, çıkış su sıcaklığı ne olursa olsun, soğuk su giriş sıcaklığı 20°C olmalıdır.  
Soğutma suyu çıkış sıcaklığının sınırlandırılmasına ilişkin hesaplama, ancak talep edildiğinde sağlanır.

☐ \* On request

- A) Values refer to:  
Operating cycle: 100%  
Installation in a large hall Altitude up to 1000 m
- B) Values refer to:  
A cooling water inlet temperature of 20°C with unlimited cooling water outlet temperature.  
A recalculation with a limited cooling water outlet temperature is possible on request.

☐ \* Auf Anfrage

- A) Werte gelten für:  
Einschaltdauer: 100%  
Aufstellung in großer Halle Höhenlage bis 1000 m
- B) Werte gelten für:  
Eine Kühlwassereintrittstemperatur von 20°C ohne Begrenzung der Kühlwasseraustrittstemperatur.  
Die Nachrechnung mit Begrenzung der Kühlwasseraustrittstemperatur ist auf Anfrage möglich.

Pt1 Redüktörler, ilave soğutucusu yok. A

Pt2 Redüktörler, fan soğutuculu. A

Pt3 Redüktörler, monte edilmiş serpantinli soğutucu. A,B

Pt4 Redüktörler, fanlı ve monte edilmiş serpantinli soğutucu. A,B

Pt1 Gear units without auxiliary cooling A

Pt2 Gear units with fan A

Pt3 Gear units with built-in cooling coil A,B

Pt4 Gear units with fan and built-in cooling coil A,B

Pt1 Getriebe ohne Zusatzkühlung A

Pt2 Getriebe mit Lüfterkühlung A

Pt3 Getriebe mit eingebauter Kühlschlange A,B

Pt4 Getriebe mit Lüfter und eingebauter Kühlschlange A,B



TR NÖMİNAL ÇIKIŞ MOMENTLERİ T<sub>2N</sub> (kNm)

EN NOMINAL OUTPUT TORQUES T<sub>2N</sub> (kNm)

DE NENN-ABTRIEBSDREHMOMENTE T<sub>2N</sub> (kNm)

| İn   | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |      |     |     |     |     |     |     |     |     |     |
|------|-------------------------------------------------------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 42                                                    | 52   | 62   | 72   | 82   | 92   | 102  | 112  | 122  | 132  | 142 | 152 | 162 | 172 | 182 | 192 | 202 | 212 | 222 |
| 6.3  | 6.4                                                   | 10.9 | -    | 20.7 | -    | 34.4 | -    | 60.5 | -    | 87.7 | -   | 146 | -   | 199 | -   | 298 | -   | -   | -   |
| 7.1  | 6.6                                                   | 11.4 | -    | 20.7 | -    | 34.4 | -    | 60.5 | -    | 87.7 | -   | 146 | 163 | 199 | 235 | 298 | 342 | 418 | -   |
| 8.0  | 6.8                                                   | 11.4 | 13.8 | 20.7 | 26.1 | 34.4 | 43.0 | 60.5 | 75.3 | 87.7 | 109 | 146 | 163 | 199 | 235 | 298 | 342 | 418 | 467 |
| 9.0  | 6.8                                                   | 11.4 | 14.7 | 20.7 | 26.1 | 34.4 | 43.0 | 60.5 | 75.3 | 87.7 | 109 | 146 | 163 | 199 | 235 | 298 | 342 | 418 | 467 |
| 10.0 | 6.4                                                   | 10.7 | 14.7 | 20.7 | 26.1 | 34.4 | 43.0 | 60.5 | 75.3 | 87.7 | 109 | 146 | 163 | 199 | 235 | 298 | 342 | 418 | 467 |
| 11.2 | 6.4                                                   | 10.8 | 14.7 | 20.7 | 26.1 | 34.4 | 43.0 | 60.5 | 75.3 | 87.7 | 109 | 146 | 163 | 199 | 235 | 298 | 342 | 418 | 467 |
| 12.5 | 6.8                                                   | 11.4 | 13.8 | 20.6 | 26.1 | 34.4 | 43.0 | 60.5 | 75.3 | 87.7 | 109 | 146 | 163 | 199 | 235 | 298 | 342 | 418 | 467 |
| 14.0 | 6.8                                                   | 11.4 | 13.8 | 20.7 | 26.1 | 34.4 | 43.0 | 60.5 | 75.3 | 87.7 | 109 | 146 | 163 | 199 | 235 | 298 | 342 | 418 | 467 |
| 16.0 | 6.8                                                   | 11.4 | 14.7 | 20.7 | 26.0 | 34.4 | 43.0 | 60.5 | 75.3 | 87.7 | 109 | 146 | 163 | 199 | 235 | 298 | 342 | 418 | 467 |
| 18.0 | 6.4                                                   | 10.7 | 14.7 | 19.4 | 26.1 | 34.4 | 43.0 | 60.5 | 75.3 | 87.7 | 109 | 146 | 163 | 199 | 235 | 298 | 342 | 418 | 467 |
| 20.0 | 6.7                                                   | 11.4 | 14.7 | 19.4 | 26.1 | 34.4 | 43.0 | 60.5 | 75.3 | 87.7 | 109 | 146 | 163 | 199 | 235 | 298 | 342 | 418 | 467 |
| 22.4 | 6.4                                                   | 11.1 | 13.8 | 20.2 | 24.5 | 33.8 | 43.0 | 59.5 | 75.3 | 87.7 | 109 | 146 | 163 | 199 | 235 | -   | 342 | -   | 467 |
| 25.0 | -                                                     | -    | 14.6 | -    | 24.5 | -    | 43.0 | -    | 75.3 | -    | 109 | -   | -   | -   | -   | -   | -   | -   | -   |
| 28.0 | -                                                     | -    | 14.2 | -    | 25.5 | -    | 42.4 | -    | 74.0 | -    | 109 | -   | -   | -   | -   | -   | -   | -   | -   |











TR NÖMİNAL ÇIKIŞ MOMENTLERİ T<sub>2N</sub> (kNm)

EN NOMINAL OUTPUT TORQUES T<sub>2N</sub> (kNm)

DE NENN-ABTRIEBSDREHMOMENTE T<sub>2N</sub> (kNm)

| İn   | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |     |     |     |     |     |     |     |     |     |
|------|-------------------------------------------------------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 53                                                    | 63   | 73   | 83   | 93   | 103  | 113  | 123  | 133  | 143 | 153 | 163 | 173 | 183 | 193 | 203 | 213 | 223 |
| 22.4 | -                                                     | -    | -    | -    | -    | -    | -    | -    | 89.8 | -   | 156 | -   | 204 | -   | 306 | -   | 428 | -   |
| 25.0 | 11.8                                                  | -    | 22.1 | -    | 36.4 | -    | 64.8 | -    | 89.8 | -   | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 28.0 | 11.8                                                  | -    | 22.1 | -    | 36.4 | -    | 64.8 | -    | 89.8 | 111 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 31.5 | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 89.8 | 111 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 35.5 | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 89.8 | 111 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 40.0 | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 89.8 | 111 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 45.0 | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 89.8 | 111 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 50.0 | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 89.8 | 111 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 56.0 | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 89.8 | 111 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 63.0 | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 89.8 | 111 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 71.0 | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 89.8 | 111 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 80.0 | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 89.8 | 111 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 90.0 | 11.8                                                  | 15.8 | 20.4 | 27.7 | 35.2 | 44.7 | 64.8 | 78.7 | 89.8 | 111 | 156 | 176 | 204 | 245 | 296 | 352 | 418 | 479 |
| 100  | -                                                     | 14.8 | -    | 27.7 | -    | 44.7 | -    | 78.7 | -    | 111 | -   | 176 | -   | 231 | -   | 342 | -   | 474 |
| 112  | -                                                     | 15.3 | -    | 25.7 | -    | 43.7 | -    | 78.7 | -    | 111 | -   | -   | -   | -   | -   | -   | -   | -   |









TR NÖMİNAL GÜÇ DEĞERLERİ P<sub>2N</sub> (kW)EN NOMINAL POWER RATINGS P<sub>2N</sub> (kW)DE NENNLEISTUNGEN P<sub>2N</sub> (kW)

| iN  | n1<br>min-1 | n2<br>min-1 | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |      |      |      |      |      |     |     |
|-----|-------------|-------------|-------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|
|     |             |             | 74                                                    | 84   | 94   | 104  | 114  | 124  | 134  | 144  | 154  | 164  | 174  | 184  | 194  | 204  | 214 | 224 |
| 100 | 1800        | 18.0        | 41.0                                                  | -    | 68.0 | -    | 118  | -    | 173  | -    | 294  | -    | 384  | -    | 576  | -    | 807 | -   |
|     | 1500        | 15.0        | 35.0                                                  | -    | 57.0 | -    | 98.0 | -    | 145  | -    | 245  | -    | 320  | -    | 480  | -    | 672 | -   |
|     | 1200        | 12.0        | 28.0                                                  | -    | 45.0 | -    | 79.0 | -    | 115  | -    | 196  | -    | 256  | -    | 384  | -    | 538 | -   |
|     | 1000        | 10.0        | 22.0                                                  | -    | 38.0 | -    | 65.0 | -    | 96.0 | -    | 163  | -    | 213  | -    | 320  | -    | 448 | -   |
| 112 | 1800        | 16.1        | 37.0                                                  | -    | 61.0 | -    | 105  | -    | 155  | -    | 262  | 297  | 344  | 412  | 515  | 593  | 722 | 808 |
|     | 1500        | 13.4        | 31.0                                                  | -    | 51.0 | -    | 88.0 | -    | 130  | -    | 218  | 247  | 286  | 343  | 428  | 494  | 601 | 672 |
|     | 1200        | 10.7        | 24.0                                                  | -    | 40.0 | -    | 70.0 | -    | 103  | -    | 174  | 197  | 228  | 273  | 343  | 394  | 479 | 537 |
|     | 1000        | 8.9         | 20.0                                                  | -    | 34.0 | -    | 58.0 | -    | 86.0 | -    | 145  | 164  | 190  | 227  | 285  | 327  | 399 | 447 |
| 125 | 1800        | 14.4        | 33.0                                                  | 42.0 | 54.0 | 67.0 | 94.0 | 119  | 139  | 173  | 235  | 265  | 307  | 368  | 461  | 530  | 646 | 722 |
|     | 1500        | 12.0        | 28.0                                                  | 35.0 | 45.0 | 56.0 | 79.0 | 100  | 115  | 144  | 196  | 221  | 256  | 307  | 384  | 442  | 538 | 602 |
|     | 1200        | 9.6         | 21.0                                                  | 28.0 | 36.0 | 45.0 | 62.0 | 80.0 | 93.0 | 115  | 156  | 176  | 205  | 246  | 307  | 353  | 430 | 481 |
|     | 1000        | 8.0         | 18.0                                                  | 22.0 | 30.0 | 38.0 | 52.0 | 66.0 | 77.0 | 96.0 | 131  | 147  | 170  | 205  | 256  | 295  | 358 | 401 |
| 140 | 1800        | 12.9        | 30.0                                                  | 37.0 | 49.0 | 60.0 | 85.0 | 107  | 124  | 155  | 210  | 238  | 275  | 330  | 413  | 475  | 578 | 647 |
|     | 1500        | 10.7        | 25.0                                                  | 31.0 | 40.0 | 50.0 | 70.0 | 89.0 | 103  | 129  | 174  | 197  | 228  | 273  | 343  | 394  | 479 | 537 |
|     | 1200        | 8.6         | 19.0                                                  | 25.0 | 33.0 | 40.0 | 56.0 | 71.0 | 83.0 | 103  | 140  | 158  | 184  | 220  | 275  | 316  | 386 | 431 |
|     | 1000        | 7.1         | 16.0                                                  | 20.0 | 27.0 | 33.0 | 46.0 | 58.0 | 68.0 | 86.0 | 115  | 131  | 151  | 182  | 227  | 261  | 318 | 356 |
| 160 | 1800        | 11.3        | 26.0                                                  | 33.0 | 43.0 | 53.0 | 73.0 | 94.0 | 109  | 136  | 185  | 208  | 241  | 289  | 361  | 416  | 506 | 567 |
|     | 1500        | 9.4         | 21.0                                                  | 27.0 | 36.0 | 44.0 | 61.0 | 78.0 | 91.0 | 113  | 153  | 173  | 200  | 241  | 301  | 346  | 421 | 471 |
|     | 1200        | 7.5         | 17.0                                                  | 21.0 | 29.0 | 35.0 | 49.0 | 62.0 | 72.0 | 90.0 | 122  | 138  | 160  | 192  | 240  | 275  | 336 | 376 |
|     | 1000        | 6.3         | 14.0                                                  | 17.0 | 24.0 | 30.0 | 41.0 | 52.0 | 60.0 | 76.0 | 102  | 116  | 134  | 161  | 201  | 232  | 283 | 316 |
| 180 | 1800        | 10.0        | 22.0                                                  | 29.0 | 38.0 | 47.0 | 65.0 | 83.0 | 96.0 | 120  | 163  | 185  | 213  | 256  | 320  | 368  | 448 | 502 |
|     | 1500        | 8.3         | 18.0                                                  | 24.0 | 32.0 | 39.0 | 54.0 | 68.0 | 80.0 | 100  | 135  | 153  | 176  | 212  | 265  | 305  | 372 | 416 |
|     | 1200        | 6.7         | 15.0                                                  | 19.0 | 26.0 | 32.0 | 44.0 | 55.0 | 64.0 | 81.0 | 109  | 123  | 143  | 171  | 214  | 247  | 300 | 336 |
|     | 1000        | 5.6         | 12.0                                                  | 15.0 | 20.0 | 26.0 | 37.0 | 46.0 | 54.0 | 67.0 | 91.0 | 103  | 119  | 143  | 179  | 206  | 251 | 281 |
| 200 | 1800        | 9.0         | 20.0                                                  | 26.0 | 34.0 | 42.0 | 59.0 | 75.0 | 87.0 | 108  | 147  | 166  | 192  | 231  | 288  | 332  | 403 | 451 |
|     | 1500        | 7.5         | 17.0                                                  | 21.0 | 29.0 | 35.0 | 49.0 | 62.0 | 72.0 | 90.0 | 122  | 138  | 160  | 192  | 240  | 275  | 336 | 376 |
|     | 1200        | 6.0         | 13.0                                                  | 17.0 | 22.0 | 28.0 | 39.0 | 50.0 | 57.0 | 71.0 | 98.0 | 110  | 128  | 153  | 192  | 220  | 268 | 301 |
|     | 1000        | 5.0         | 11.0                                                  | 14.0 | 18.0 | 24.0 | 33.0 | 41.0 | 48.0 | 60.0 | 82.0 | 92.0 | 106  | 128  | 160  | 184  | 223 | 251 |
| 224 | 1800        | 8.0         | 18.0                                                  | 22.0 | 30.0 | 38.0 | 52.0 | 66.0 | 77.0 | 96.0 | 131  | 147  | 170  | 205  | 256  | 295  | 358 | 401 |
|     | 1500        | 6.7         | 15.0                                                  | 19.0 | 26.0 | 32.0 | 44.0 | 55.0 | 64.0 | 81.0 | 109  | 123  | 143  | 171  | 214  | 247  | 300 | 336 |
|     | 1200        | 5.4         | 12.0                                                  | 15.0 | 20.0 | 25.0 | 35.0 | 45.0 | 52.0 | 64.0 | 88.0 | 99.0 | 115  | 138  | 172  | 199  | 242 | 270 |
|     | 1000        | 4.5         | 10.0                                                  | 12.0 | 16.0 | 20.0 | 30.0 | 37.0 | 43.0 | 54.0 | 73.0 | 83.0 | 96.0 | 115  | 144  | 165  | 201 | 225 |
| 250 | 1800        | 7.2         | 16.0                                                  | 20.0 | 27.0 | 34.0 | 47.0 | 59.0 | 69.0 | 87.0 | 117  | 133  | 153  | 184  | 231  | 265  | 322 | 361 |
|     | 1500        | 6.0         | 13.0                                                  | 17.0 | 22.0 | 28.0 | 39.0 | 50.0 | 57.0 | 71.0 | 98.0 | 110  | 128  | 153  | 192  | 220  | 268 | 301 |
|     | 1200        | 4.8         | 10.0                                                  | 13.0 | 17.0 | 22.0 | 31.0 | 40.0 | 46.0 | 57.0 | 76.0 | 88.0 | 102  | 122  | 153  | 176  | 215 | 241 |
|     | 1000        | 4.0         | 9.0                                                   | 11.0 | 14.0 | 18.0 | 26.0 | 33.0 | 38.0 | 48.0 | 65.0 | 73.0 | 85.0 | 102  | 128  | 147  | 179 | 200 |
| 280 | 1800        | 6.4         | 14.0                                                  | 18.0 | 24.0 | 30.0 | 42.0 | 53.0 | 61.0 | 77.0 | 104  | 117  | 137  | 163  | 205  | 236  | 287 | 320 |
|     | 1500        | 5.4         | 12.0                                                  | 15.0 | 20.0 | 25.0 | 35.0 | 45.0 | 52.0 | 64.0 | 88.0 | 99.0 | 115  | 138  | 172  | 199  | 242 | 270 |
|     | 1200        | 4.3         | 10.0                                                  | 12.0 | 16.0 | 19.0 | 28.0 | 36.0 | 41.0 | 51.0 | 69.0 | 79.0 | 92.0 | 110  | 138  | 158  | 193 | 215 |
|     | 1000        | 3.6         | 8.0                                                   | 10.0 | 13.0 | 16.0 | 24.0 | 30.0 | 35.0 | 43.0 | 58.0 | 66.0 | 77.0 | 92.0 | 115  | 133  | 161 | 181 |
| 315 | 1800        | 5.7         | 12.0                                                  | 16.0 | 21.0 | 27.0 | 37.0 | 47.0 | 55.0 | 68.0 | 93.0 | 105  | 121  | 146  | 183  | 209  | 255 | 286 |
|     | 1500        | 4.8         | 10.0                                                  | 13.0 | 17.0 | 22.0 | 31.0 | 40.0 | 46.0 | 57.0 | 78.0 | 88.0 | 102  | 122  | 153  | 176  | 215 | 241 |
|     | 1200        | 3.8         | 9.0                                                   | 10.0 | 14.0 | 17.0 | 25.0 | 32.0 | 37.0 | 45.0 | 61.0 | 69.0 | 81.0 | 97.0 | 121  | 140  | 170 | 191 |
|     | 1000        | 3.2         | 7.0                                                   | 9.0  | 11.0 | 14.0 | 20.0 | 27.0 | 31.0 | 38.0 | 52.0 | 58.0 | 68.0 | 82.0 | 102  | 117  | 143 | 160 |
| 355 | 1800        | 5.1         | 10.0                                                  | 14.0 | 19.0 | 24.0 | 33.0 | 42.0 | 49.0 | 61.0 | 76.0 | 94.0 | 104  | 131  | 157  | 188  | 222 | 255 |
|     | 1500        | 4.2         | 9.0                                                   | 11.0 | 15.0 | 19.0 | 28.0 | 35.0 | 40.0 | 50.0 | 62.0 | 78.0 | 86.0 | 107  | 130  | 154  | 184 | 210 |
|     | 1200        | 3.4         | 7.0                                                   | 10.0 | 12.0 | 15.0 | 21.0 | 28.0 | 33.0 | 41.0 | 50.0 | 62.0 | 69.0 | 87.0 | 105  | 124  | 148 | 170 |
|     | 1000        | 2.8         | 6.0                                                   | 8.0  | 10.0 | 12.0 | 18.0 | 22.0 | 27.0 | 34.0 | 42.0 | 51.0 | 57.0 | 71.0 | 87.0 | 103  | 122 | 140 |
| 400 | 1800        | 4.5         | -                                                     | 12.0 | -    | 20.0 | -    | 37.0 | -    | 54.0 | -    | 76.0 | -    | 107  | -    | 160  | -   | 223 |
|     | 1500        | 3.8         | -                                                     | 10.0 | -    | 17.0 | -    | 32.0 | -    | 45.0 | -    | 63.0 | -    | 90.0 | -    | 136  | -   | 189 |
|     | 1200        | 3.0         | -                                                     | 9.0  | -    | 13.0 | -    | 25.0 | -    | 36.0 | -    | 50.0 | -    | 71.0 | -    | 107  | -   | 149 |
|     | 1000        | 2.5         | -                                                     | 7.0  | -    | 11.0 | -    | 20.0 | -    | 30.0 | -    | 42.0 | -    | 59.0 | -    | 89.0 | -   | 123 |
| 450 | 1800        | 4.0         | -                                                     | 10.0 | -    | 17.0 | -    | 33.0 | -    | 48.0 | -    | -    | -    | -    | -    | -    | -   | -   |
|     | 1500        | 3.3         | -                                                     | 9.0  | -    | 14.0 | -    | 27.0 | -    | 40.0 | -    | -    | -    | -    | -    | -    | -   | -   |
|     | 1200        | 2.7         | -                                                     | 7.0  | -    | 12.0 | -    | 22.0 | -    | 32.0 | -    | -    | -    | -    | -    | -    | -   | -   |
|     | 1000        | 2.2         | -                                                     | 6.0  | -    | 10.0 | -    | 17.0 | -    | 27.0 | -    | -    | -    | -    | -    | -    | -   | -   |

TR NÖMİNAL ÇIKIŞ MOMENTLERİ T<sub>2N</sub> (kNm)

EN NOMINAL OUTPUT TORQUES T<sub>2N</sub> (kNm)

DE NENN-ABTRIEBSDREHMOMENTE T<sub>2N</sub> (kNm)

| İN  | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |
|-----|-------------------------------------------------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|     | 74                                                    | 84   | 94   | 104  | 114  | 124  | 134  | 144   | 154   | 164   | 174   | 184   | 194   | 204   | 214   | 224   |
| 100 | 22.1                                                  | -    | 36.4 | -    | 62.8 | -    | 92.5 | -     | 156.1 | -     | 204.0 | -     | 306.0 | -     | 428.4 | -     |
| 112 | 22.1                                                  | -    | 36.4 | -    | 62.8 | -    | 92.5 | -     | 156.1 | 176.5 | 204.0 | 244.8 | 306.0 | 351.9 | 428.4 | 479.4 |
| 125 | 22.1                                                  | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115.3 | 156.1 | 176.5 | 204.0 | 244.8 | 306.0 | 351.9 | 428.4 | 479.4 |
| 140 | 22.1                                                  | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115.3 | 156.1 | 176.5 | 204.0 | 244.8 | 306.0 | 351.9 | 428.4 | 479.4 |
| 160 | 22.1                                                  | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115.3 | 156.1 | 176.5 | 204.0 | 244.8 | 306.0 | 351.9 | 428.4 | 479.4 |
| 180 | 22.1                                                  | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115.3 | 156.1 | 176.5 | 204.0 | 244.8 | 306.0 | 351.9 | 428.4 | 479.4 |
| 200 | 22.1                                                  | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115.3 | 156.1 | 176.5 | 204.0 | 244.8 | 306.0 | 351.9 | 428.4 | 479.4 |
| 224 | 22.1                                                  | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115.3 | 156.1 | 176.5 | 204.0 | 244.8 | 306.0 | 351.9 | 428.4 | 479.4 |
| 250 | 22.1                                                  | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115.3 | 156.1 | 176.5 | 204.0 | 244.8 | 306.0 | 351.9 | 428.4 | 479.4 |
| 280 | 22.1                                                  | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115.3 | 156.1 | 176.5 | 204.0 | 244.8 | 306.0 | 351.9 | 428.4 | 479.4 |
| 315 | 22.1                                                  | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115.3 | 156.1 | 176.5 | 204.0 | 244.8 | 306.0 | 351.9 | 428.4 | 479.4 |
| 355 | 20.0                                                  | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115.3 | 142.8 | 176.5 | 195.8 | 244.8 | 295.8 | 351.9 | 418.2 | 479.4 |
| 400 | -                                                     | 27.7 | -    | 45.1 | -    | 79.6 | -    | 115.3 | -     | 161.2 | -     | 227.5 | -     | 341.7 | -     | 474.3 |
| 450 | -                                                     | 25.8 | -    | 43.7 | -    | 79.6 | -    | 115.3 | -     | -     | -     | -     | -     | -     | -     | -     |

TR

TERMAL KAPASİTELER Pt (kW)

EN

THERMAL CAPACITIES Pt (kW)

DE

WÄRMEGRENZLEISTUNGEN Pt (kW)

| İN  | Pt<br>(kW)      | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |     |     |     |     |     | n <sub>1</sub> =1000 min <sup>-1</sup> |     |     |
|-----|-----------------|-------------------------------------------------------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|----------------------------------------|-----|-----|
|     |                 | 74                                                    | 84   | 94   | 104  | 114  | 124  | 134  | 144  | 154 | 164 | 174 | 184 | 194 | 204                                    | 214 | 224 |
| 100 | Pt <sub>1</sub> | 44.5                                                  | -    | 62.0 | -    | 91.9 | -    | 122  | -    | 164 | -   | 184 | -   | 258 | -                                      | 353 | -   |
| 112 | Pt <sub>1</sub> | 42.8                                                  | -    | 59.4 | -    | 91.2 | -    | 119  | -    | 157 | 169 | 176 | 189 | 248 | 265                                    | 347 | 357 |
| 125 | Pt <sub>1</sub> | 41.6                                                  | 47.7 | 57.5 | 62.3 | 87.5 | 102  | 116  | 131  | 152 | 163 | 170 | 181 | 240 | 254                                    | 337 | 351 |
| 140 | Pt <sub>1</sub> | 39.5                                                  | 45.8 | 55.7 | 59.7 | 84.7 | 101  | 112  | 128  | 147 | 156 | 164 | 174 | 232 | 246                                    | 319 | 341 |
| 160 | Pt <sub>1</sub> | 37.9                                                  | 44.5 | 52.6 | 57.8 | 80.6 | 97.2 | 106  | 123  | 141 | 151 | 157 | 168 | 222 | 237                                    | 307 | 323 |
| 180 | Pt <sub>1</sub> | 36.5                                                  | 42.2 | 50.4 | 56.0 | 77.7 | 93.6 | 102  | 120  | 139 | 145 | 154 | 161 | 212 | 228                                    | 303 | 310 |
| 200 | Pt <sub>1</sub> | 35.1                                                  | 40.7 | 48.8 | 52.8 | 73.4 | 89.4 | 100  | 113  | 135 | 142 | 149 | 159 | 205 | 218                                    | 286 | 306 |
| 224 | Pt <sub>1</sub> | 33.0                                                  | 39.0 | 46.8 | 50.6 | 70.4 | 86.1 | 95.6 | 109  | 125 | 139 | 139 | 154 | 197 | 210                                    | 273 | 289 |
| 250 | Pt <sub>1</sub> | 31.6                                                  | 37.7 | 44.7 | 49.2 | 66.9 | 81.3 | 90.9 | 106  | 119 | 129 | 133 | 144 | 187 | 202                                    | 258 | 275 |
| 280 | Pt <sub>1</sub> | 30.7                                                  | 35.4 | 43.4 | 47.1 | 64.4 | 78.2 | 88.0 | 101  | 115 | 122 | 129 | 136 | 180 | 192                                    | 248 | 260 |
| 315 | Pt <sub>1</sub> | 30.0                                                  | 34.0 | 41.3 | 45.0 | 62.8 | 74.2 | 84.5 | 97.4 | 110 | 118 | 123 | 133 | 175 | 185                                    | 238 | 250 |
| 355 | Pt <sub>1</sub> | 28.7                                                  | 32.9 | 40.6 | 43.7 | 59.8 | 71.3 | 80.5 | 93.7 | 108 | 113 | 120 | 126 | 167 | 181                                    | 226 | 241 |
| 400 | Pt <sub>1</sub> | -                                                     | 32.2 | -    | 41.6 | -    | 69.7 | -    | 90.1 | -   | 111 | -   | 123 | -   | 171                                    | -   | 230 |
| 450 | Pt <sub>1</sub> | -                                                     | 30.7 | -    | 40.9 | -    | 66.2 | -    | 85.9 | -   | -   | -   | -   | -   | -                                      | -   | -   |

| İN  | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |     |     |     |     |     |     | n <sub>1</sub> =1200 min <sup>-1</sup> |     |  |
|-----|------------|-------------------------------------------------------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|----------------------------------------|-----|--|
|     |            | 74                                                    | 84   | 94   | 104  | 114  | 124  | 134  | 144  | 154 | 164 | 174 | 184 | 194 | 204 | 214                                    | 224 |  |
| 100 | Pt1        | 46.3                                                  | -    | 64.4 | -    | 94.2 | -    | 123  | -    | 163 | -   | 182 | -   | 251 | -   | 332                                    | -   |  |
| 112 | Pt1        | 44.8                                                  | -    | 61.8 | -    | 94.2 | -    | 122  | -    | 159 | 170 | 176 | 189 | 246 | 262 | 336                                    | 342 |  |
| 125 | Pt1        | 43.6                                                  | 50.0 | 60.0 | 65.0 | 90.8 | 105  | 119  | 135  | 155 | 165 | 172 | 183 | 242 | 255 | 332                                    | 342 |  |
| 140 | Pt1        | 41.4                                                  | 48.0 | 58.2 | 62.3 | 88.2 | 104  | 116  | 132  | 151 | 161 | 167 | 179 | 236 | 250 | 320                                    | 339 |  |
| 160 | Pt1        | 39.9                                                  | 46.6 | 55.2 | 60.6 | 84.2 | 101  | 110  | 129  | 146 | 156 | 162 | 173 | 228 | 243 | 311                                    | 325 |  |
| 180 | Pt1        | 38.5                                                  | 44.5 | 53.0 | 58.9 | 81.6 | 98.1 | 107  | 125  | 145 | 151 | 160 | 168 | 220 | 237 | 312                                    | 319 |  |
| 200 | Pt1        | 37.0                                                  | 42.8 | 51.3 | 55.6 | 77.2 | 93.9 | 105  | 119  | 142 | 149 | 156 | 166 | 215 | 228 | 298                                    | 319 |  |
| 224 | Pt1        | 34.9                                                  | 41.1 | 49.4 | 53.4 | 74.3 | 90.8 | 101  | 115  | 133 | 147 | 147 | 162 | 208 | 221 | 289                                    | 305 |  |
| 250 | Pt1        | 33.4                                                  | 39.8 | 47.1 | 51.8 | 70.6 | 85.7 | 95.9 | 112  | 125 | 136 | 140 | 151 | 197 | 213 | 272                                    | 291 |  |
| 280 | Pt1        | 32.3                                                  | 37.3 | 45.8 | 49.7 | 67.9 | 82.5 | 92.9 | 106  | 122 | 129 | 136 | 144 | 190 | 202 | 262                                    | 274 |  |
| 315 | Pt1        | 31.7                                                  | 35.8 | 43.7 | 47.4 | 66.2 | 78.2 | 89.0 | 102  | 116 | 124 | 130 | 140 | 186 | 195 | 251                                    | 264 |  |
| 355 | Pt1        | 30.2                                                  | 34.7 | 42.8 | 46.1 | 63.0 | 75.3 | 85.0 | 98.8 | 114 | 120 | 126 | 134 | 176 | 191 | 240                                    | 254 |  |
| 400 | Pt1        | -                                                     | 34.1 | -    | 44.0 | -    | 73.4 | -    | 95.1 | -   | 117 | -   | 131 | -   | 181 | -                                      | 243 |  |
| 450 | Pt1        | -                                                     | 32.3 | -    | 43.1 | -    | 69.9 | -    | 90.6 | -   | -   | -   | -   | -   | -   | -                                      | -   |  |

Pt1 (kW) İlave soğutmasız redüktörler \*\*)

\*\*) Değerlere Bakınız:

Saatlik Çalışma döngüsü: %100  
Büyük bir alanda kurulum  
Rakım 1000m'ye kadar

Pt1(kW) Gear units without auxiliary cooling \*\*)

\*\*) Values refer to:

Operating cycle: 100%  
Installation in a large hall  
Altitude up to 1000 m

Pt1 (kW) Getriebe ohne Zusatzkühlung \*\*)

\*\*) Werte gelten für:

Einschaltdauer: 100 %  
Aufstellung in großer Halle  
Höhenlage bis 1000 m

TR

TERMAL KAPASİTELER Pt (kW)

EN

THERMAL CAPACITIES Pt (kW)

DE

WÄRMEGRENZLEISTUNGEN Pt (kW)

| İN  | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |     |     |     |     | n <sub>1</sub> =1500 min <sup>-1</sup> |     |     |     |
|-----|------------|-------------------------------------------------------|------|------|------|------|------|------|------|-----|-----|-----|-----|----------------------------------------|-----|-----|-----|
|     |            | 74                                                    | 84   | 94   | 104  | 114  | 124  | 134  | 144  | 154 | 164 | 174 | 184 | 194                                    | 204 | 214 | 224 |
| 100 | Pt1        | 49.7                                                  | -    | 69.0 | -    | 101  | -    | 133  | -    | 175 | -   | 194 | -   | 269                                    | -   | 355 | -   |
| 112 | Pt1        | 48.0                                                  | -    | 66.4 | -    | 101  | -    | 132  | -    | 170 | 183 | 190 | 202 | 264                                    | 282 | 359 | 365 |
| 125 | Pt1        | 46.7                                                  | 53.6 | 64.4 | 69.7 | 97.4 | 112  | 129  | 145  | 166 | 177 | 185 | 196 | 259                                    | 273 | 355 | 366 |
| 140 | Pt1        | 44.4                                                  | 51.5 | 62.5 | 66.9 | 94.7 | 112  | 125  | 142  | 161 | 172 | 180 | 192 | 253                                    | 268 | 343 | 363 |
| 160 | Pt1        | 42.7                                                  | 50.1 | 59.2 | 65.0 | 90.3 | 108  | 118  | 138  | 156 | 167 | 174 | 186 | 245                                    | 260 | 334 | 349 |
| 180 | Pt1        | 41.2                                                  | 47.6 | 56.9 | 63.1 | 87.5 | 105  | 115  | 135  | 155 | 162 | 172 | 181 | 237                                    | 254 | 336 | 342 |
| 200 | Pt1        | 39.7                                                  | 46.0 | 55.1 | 59.7 | 82.9 | 101  | 112  | 129  | 152 | 160 | 167 | 179 | 231                                    | 245 | 320 | 342 |
| 224 | Pt1        | 37.4                                                  | 44.1 | 53.0 | 57.3 | 79.7 | 97.4 | 108  | 123  | 143 | 157 | 157 | 173 | 223                                    | 238 | 309 | 327 |
| 250 | Pt1        | 35.8                                                  | 42.7 | 50.6 | 55.6 | 75.7 | 92.0 | 102  | 120  | 135 | 146 | 150 | 162 | 212                                    | 228 | 293 | 311 |
| 280 | Pt1        | 34.7                                                  | 40.1 | 49.2 | 53.3 | 72.8 | 88.5 | 99.7 | 114  | 131 | 138 | 146 | 154 | 203                                    | 217 | 282 | 295 |
| 315 | Pt1        | 34.0                                                  | 38.4 | 46.8 | 50.9 | 71.1 | 83.8 | 95.6 | 110  | 124 | 134 | 139 | 150 | 199                                    | 208 | 269 | 284 |
| 355 | Pt1        | 32.4                                                  | 37.2 | 46.0 | 49.5 | 67.6 | 80.8 | 91.2 | 106  | 122 | 129 | 136 | 144 | 190                                    | 204 | 257 | 272 |
| 400 | Pt1        | -                                                     | 36.5 | -    | 47.1 | -    | 78.8 | -    | 102  | -   | 125 | -   | 141 | -                                      | 194 | -   | 260 |
| 450 | Pt1        | -                                                     | 34.7 | -    | 46.3 | -    | 75.0 | -    | 97.2 | -   | -   | -   | -   | -                                      | -   | -   | -   |

| İN  | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |     |     |     |     |     |     | n <sub>1</sub> =1800 min <sup>-1</sup> |     |     |
|-----|------------|-------------------------------------------------------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|----------------------------------------|-----|-----|
|     |            | 74                                                    | 84   | 94   | 104  | 114  | 124  | 134  | 144 | 154 | 164 | 174 | 184 | 194 | 204                                    | 214 | 224 |
| 100 | Pt1        | 52.1                                                  | -    | 72.1 | -    | 104  | -    | 137  | -   | 177 | -   | 195 | -   | 268 | -                                      | 342 | -   |
| 112 | Pt1        | 50.5                                                  | -    | 69.6 | -    | 105  | -    | 136  | -   | 174 | 187 | 193 | 205 | 267 | 285                                    | 356 | 358 |
| 125 | Pt1        | 49.1                                                  | 56.3 | 67.6 | 73.1 | 102  | 117  | 134  | 150 | 171 | 183 | 190 | 201 | 264 | 278                                    | 357 | 365 |
| 140 | Pt1        | 46.8                                                  | 54.3 | 65.8 | 70.4 | 99.2 | 117  | 131  | 148 | 168 | 179 | 187 | 198 | 260 | 276                                    | 350 | 368 |
| 160 | Pt1        | 45.1                                                  | 52.7 | 62.3 | 68.4 | 94.9 | 113  | 124  | 145 | 163 | 174 | 182 | 194 | 254 | 270                                    | 343 | 357 |
| 180 | Pt1        | 43.6                                                  | 50.4 | 60.1 | 66.6 | 92.2 | 110  | 121  | 142 | 163 | 170 | 181 | 189 | 248 | 266                                    | 349 | 355 |
| 200 | Pt1        | 42.0                                                  | 48.7 | 58.2 | 63.1 | 87.5 | 106  | 118  | 136 | 160 | 168 | 176 | 188 | 243 | 258                                    | 336 | 359 |
| 224 | Pt1        | 39.7                                                  | 46.6 | 56.1 | 60.7 | 84.4 | 103  | 114  | 131 | 151 | 166 | 166 | 184 | 237 | 252                                    | 327 | 347 |
| 250 | Pt1        | 37.8                                                  | 45.2 | 53.6 | 58.9 | 80.1 | 97.3 | 108  | 128 | 143 | 154 | 158 | 171 | 224 | 242                                    | 310 | 329 |
| 280 | Pt1        | 36.7                                                  | 42.4 | 52.0 | 56.4 | 77.1 | 93.6 | 105  | 120 | 139 | 146 | 154 | 163 | 215 | 230                                    | 298 | 312 |
| 315 | Pt1        | 36.0                                                  | 40.6 | 49.6 | 53.9 | 75.2 | 88.7 | 101  | 116 | 132 | 142 | 147 | 158 | 211 | 220                                    | 286 | 300 |
| 355 | Pt1        | 34.3                                                  | 39.4 | 48.7 | 52.3 | 71.5 | 85.5 | 96.5 | 112 | 130 | 137 | 144 | 152 | 201 | 216                                    | 272 | 289 |
| 400 | Pt1        | -                                                     | 38.7 | -    | 49.9 | -    | 83.4 | -    | 107 | -   | 133 | -   | 149 | -   | 205                                    | -   | 275 |
| 450 | Pt1        | -                                                     | 36.7 | -    | 49.0 | -    | 79.4 | -    | 102 | -   | -   | -   | -   | -   | -                                      | -   | -   |

Pt1 (kW) İlave soğutmasız redüktörler \*\*)

**\*\*) Değerlere Bakınız:**

Saatlik çalışma döngüsü: %100  
Büyük bir alanda kurulum  
Rakım 1000m'ye kadar

Pt1 (kW) Gear units without auxiliary cooling\*\*)

**\*\*) Values refer to:**

Operating cycle: 100%  
Installation in a large hall  
Altitude up to 1000 m

Pt1 (kW) Getriebe ohne Zusatzkühlung\*\*)

**\*\*) Werte gelten für:**

Einschaltdauer: 100 %  
Aufstellung in großer Halle  
Höhenlage bis 1000 m

**TR** NÖMİNAL GÜÇ DEĞERLERİ P<sub>2N</sub> (kW)

**EN** NOMINAL POWER RATINGS P<sub>2N</sub> (kW)

**DE** NENNLEISTUNGEN P<sub>2N</sub> (kW)

| İn   | n1<br>min <sup>-1</sup> | n2<br>min <sup>-1</sup> | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |     |     |      |      |       |      |       |       |       |       |       |       |     |     |     |     |
|------|-------------------------|-------------------------|-------------------------------------------------------|------|------|-----|-----|------|------|-------|------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|
|      |                         |                         | 42                                                    | 52   | 62   | 72  | 82  | 92   | 102  | 112   | 122  | 132   | 142   | 152   | 162   | 172   | 182   | 192 | 202 | 212 | 222 |
| 5.0  | 1800                    | 360                     | 234                                                   | 361  | -    | 730 | -   | 1150 | -    | 1769* | -    | 2637* | -     | 4690* | -     | -     | -     | -   | -   | -   | -   |
|      | 1500                    | 300                     | 195                                                   | 301  | -    | 608 | -   | 958  | -    | 1474  | -    | 2197  | -     | 3909* | -     | -     | -     | -   | -   | -   | -   |
|      | 1200                    | 240                     | 156                                                   | 241  | -    | 487 | -   | 766  | -    | 1179  | -    | 1757  | -     | 3126* | -     | -     | -     | -   | -   | -   | -   |
|      | 1000                    | 200                     | 130                                                   | 200  | -    | 405 | -   | 639  | -    | 982   | -    | 1465  | -     | 2605  | -     | -     | -     | -   | -   | -   | -   |
| 5.6  | 1800                    | 321                     | 212                                                   | 321  | -    | 651 | -   | 1025 | -    | 1648* | -    | 2386* | -     | 4182* | 4628* | -     | -     | -   | -   | -   | -   |
|      | 1500                    | 268                     | 176                                                   | 268  | -    | 544 | -   | 856  | -    | 1376  | -    | 1992  | -     | 3491* | 3864* | -     | -     | -   | -   | -   | -   |
|      | 1200                    | 214                     | 141                                                   | 214  | -    | 434 | -   | 683  | -    | 1099  | -    | 1590  | -     | 2788* | 3086* | 4456* | -     | -   | -   | -   | -   |
|      | 1000                    | 179                     | 118                                                   | 180  | -    | 363 | -   | 571  | -    | 919   | -    | 1330  | -     | 2332  | 2581  | 3727* | -     | -   | -   | -   | -   |
| 6.3  | 1800                    | 286                     | 189                                                   | 287  | 366  | 580 | 726 | 913  | 1161 | 1533* | 1795 | 2254* | 2602* | 3971* | 4306* | -     | -     | -   | -   | -   | -   |
|      | 1500                    | 238                     | 157                                                   | 239  | 305  | 482 | 605 | 760  | 966  | 1276  | 1494 | 1876  | 2165  | 3304* | 3583* | 4956* | -     | -   | -   | -   | -   |
|      | 1200                    | 190                     | 125                                                   | 191  | 243  | 386 | 482 | 606  | 771  | 1018  | 1192 | 1497  | 1729  | 2638* | 2861* | 3957* | -     | -   | -   | -   | -   |
|      | 1000                    | 159                     | 105                                                   | 159  | 203  | 322 | 404 | 507  | 645  | 852   | 998  | 1253  | 1446  | 2207  | 2394  | 3311* | -     | -   | -   | -   | -   |
| 7.1  | 1800                    | 254                     | 167                                                   | 255  | 325  | 515 | 646 | 811  | 1030 | 1421* | 1651 | 2058* | 2367* | 3580* | 3933* | -     | -     | -   | -   | -   | -   |
|      | 1500                    | 211                     | 139                                                   | 211  | 270  | 427 | 536 | 673  | 856  | 1180  | 1372 | 1710  | 1967  | 2974* | 3267* | 4394* | -     | -   | -   | -   | -   |
|      | 1200                    | 169                     | 111                                                   | 169  | 216  | 343 | 429 | 540  | 685  | 946   | 1099 | 1370  | 1575  | 2382* | 2616* | 3519* | 4151* | -   | -   | -   | -   |
|      | 1000                    | 141                     | 93.0                                                  | 141  | 181  | 286 | 358 | 450  | 572  | 788   | 917  | 1142  | 1314  | 1987  | 2183  | 2937  | 3463* | -   | -   | -   | -   |
| 8.0  | 1800                    | 225                     | 149                                                   | 225  | 288  | 456 | 571 | 718  | 913  | 1297  | 1516 | 1922* | 2198* | 3171* | 3556* | 4686* | -     | -   | -   | -   | -   |
|      | 1500                    | 188                     | 124                                                   | 189  | 241  | 381 | 477 | 600  | 763  | 1084  | 1267 | 1605  | 1837  | 2650  | 2971* | 3915* | 4618* | -   | -   | -   | -   |
|      | 1200                    | 150                     | 99.0                                                  | 150  | 192  | 304 | 380 | 478  | 608  | 865   | 1011 | 1281  | 1466  | 2114  | 2370* | 3123* | 3684* | -   | -   | -   | -   |
|      | 1000                    | 125                     | 83.0                                                  | 125  | 160  | 253 | 317 | 399  | 507  | 720   | 842  | 1068  | 1221  | 1762  | 1976  | 2603  | 3070  | -   | -   | -   | -   |
| 9.0  | 1800                    | 200                     | 132                                                   | 200  | 256  | 405 | 508 | 639  | 811  | 1153  | 1392 | 1732* | 2021* | 2819* | 3161* | 4165* | 4912* | -   | -   | -   | -   |
|      | 1500                    | 167                     | 110                                                   | 167  | 213  | 339 | 424 | 532  | 677  | 963   | 1163 | 1446  | 1687  | 2354  | 2640  | 3477* | 4101* | -   | -   | -   | -   |
|      | 1200                    | 133                     | 88.0                                                  | 133  | 170  | 269 | 338 | 424  | 540  | 767   | 926  | 1152  | 1343  | 1875  | 2102  | 2769* | 3267* | -   | -   | -   | -   |
|      | 1000                    | 111                     | 73.0                                                  | 111  | 142  | 224 | 282 | 354  | 450  | 640   | 772  | 961   | 1121  | 1565  | 1754  | 2311  | 2726  | -   | -   | -   | -   |
| 10.0 | 1800                    | 180                     | 118                                                   | 181  | 231  | 365 | 457 | 574  | 730  | 1037  | 1274 | 1559* | 1899* | 2537* | 2845* | 3749* | 4422* | -   | -   | -   | -   |
|      | 1500                    | 150                     | 99.0                                                  | 150  | 192  | 304 | 380 | 478  | 608  | 865   | 1062 | 1298  | 1582  | 2114  | 2370  | 3123* | 3684* | -   | -   | -   | -   |
|      | 1200                    | 120                     | 79.0                                                  | 120  | 153  | 243 | 305 | 383  | 487  | 692   | 850  | 1039  | 1266  | 1691  | 1896  | 2499* | 2948* | -   | -   | -   | -   |
|      | 1000                    | 100                     | 65.0                                                  | 100  | 128  | 202 | 254 | 319  | 405  | 576   | 708  | 866   | 1055  | 1410  | 1580  | 2082  | 2456  | -   | -   | -   | -   |
| 11.2 | 1800                    | 161                     | 106                                                   | 161  | 206  | 326 | 409 | 514  | 653  | 928   | 1139 | 1394* | 1743* | 2270* | 2545* | 3353* | 3955* | -   | -   | -   | -   |
|      | 1500                    | 134                     | 88.0                                                  | 134  | 171  | 271 | 340 | 427  | 544  | 772   | 949  | 1160  | 1450  | 1889  | 2118  | 2791* | 3292* | -   | -   | -   | -   |
|      | 1200                    | 107                     | 70.0                                                  | 107  | 137  | 216 | 271 | 342  | 434  | 617   | 757  | 926   | 1159  | 1508  | 1691  | 2228* | 2628* | -   | -   | -   | -   |
|      | 1000                    | 89.0                    | 58.0                                                  | 89.0 | 113  | 181 | 225 | 284  | 361  | 513   | 629  | 770   | 963   | 1255  | 1407  | 1853  | 2186  | -   | -   | -   | -   |
| 12.5 | 1800                    | 144                     | -                                                     | -    | 184  | -   | 365 | -    | 583  | -     | 1019 | -     | 1559* | -     | 2276* | -     | 3537* | -   | -   | -   | -   |
|      | 1500                    | 120                     | -                                                     | -    | 153  | -   | 305 | -    | 487  | -     | 850  | -     | 1299  | -     | 1896  | -     | 2948  | -   | -   | -   | -   |
|      | 1200                    | 96.0                    | -                                                     | -    | 122  | -   | 244 | -    | 389  | -     | 679  | -     | 1039  | -     | 1517  | -     | 2358  | -   | -   | -   | -   |
|      | 1000                    | 80.0                    | -                                                     | -    | 102  | -   | 203 | -    | 324  | -     | 566  | -     | 866   | -     | 1264  | -     | 1965  | -   | -   | -   | -   |
| 14.0 | 1800                    | 129                     | -                                                     | -    | 165  | -   | 327 | -    | 523  | -     | 913  | -     | 1396* | -     | -     | -     | -     | -   | -   | -   | -   |
|      | 1500                    | 107                     | -                                                     | -    | 137  | -   | 271 | -    | 434  | -     | 757  | -     | 1159  | -     | -     | -     | -     | -   | -   | -   | -   |
|      | 1200                    | 86.0                    | -                                                     | -    | 110  | -   | 218 | -    | 349  | -     | 609  | -     | 931   | -     | -     | -     | -     | -   | -   | -   | -   |
|      | 1000                    | 71.0                    | -                                                     | -    | 91.0 | -   | 180 | -    | 288  | -     | 502  | -     | 768   | -     | -     | -     | -     | -   | -   | -   | -   |

Yatay redüktörlerde basınçlı yağlama gereklidir.

Forced lubrication required on horizontal gear units

Druckschmierung bei Horizontalgetrieben erforderlich

\* Talep edildiğinde yapılan redüktörler.

\* Gear units only on request

\* Getriebe nur auf Anfrage

**TR** NÖMİNAL ÇIKIŞ MOMENTLERİ T<sub>2N</sub> (kNm)

**EN** NOMINAL OUTPUT TORQUES T<sub>2N</sub> (kNm)

**DE** NENN-ABTRIEBSDREHMOMENTE T<sub>2N</sub> (kNm)

| İN   | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |     |      |      |      |      |      |      |      |      |      |     |     |     |     |     |     |     |     |
|------|-------------------------------------------------------|-----|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 42                                                    | 52  | 62   | 72   | 82   | 92   | 102  | 112  | 122  | 132  | 142  | 152 | 162 | 172 | 182 | 192 | 202 | 212 | 222 |
| 5.0  | 6.2                                                   | 9.6 | -    | 19.4 | -    | 30.5 | -    | 46.9 | -    | 70.0 | -    | 124 | -   | -   | -   | -   | -   | -   | -   |
| 5.6  | 6.3                                                   | 9.6 | -    | 19.4 | -    | 30.5 | -    | 49.1 | -    | 71.0 | -    | 124 | 138 | 199 | -   | -   | -   | -   | -   |
| 6.3  | 6.3                                                   | 9.6 | 12.2 | 19.4 | 24.3 | 30.5 | 38.8 | 51.2 | 60.0 | 75.3 | 86.9 | 133 | 144 | 199 | -   | -   | -   | -   | -   |
| 7.1  | 6.3                                                   | 9.6 | 12.2 | 19.4 | 24.3 | 30.5 | 38.8 | 53.4 | 62.1 | 77.4 | 89.0 | 135 | 148 | 199 | 235 | -   | -   | -   | -   |
| 8.0  | 6.3                                                   | 9.6 | 12.2 | 19.4 | 24.3 | 30.5 | 38.8 | 55.1 | 64.4 | 81.6 | 93.3 | 135 | 151 | 199 | 235 | -   | -   | -   | -   |
| 9.0  | 6.3                                                   | 9.6 | 12.2 | 19.4 | 24.3 | 30.5 | 38.8 | 55.1 | 66.5 | 82.7 | 96.5 | 135 | 151 | 199 | 235 | -   | -   | -   | -   |
| 10.0 | 6.3                                                   | 9.6 | 12.2 | 19.4 | 24.3 | 30.5 | 38.8 | 55.1 | 67.6 | 82.7 | 101  | 135 | 151 | 199 | 235 | -   | -   | -   | -   |
| 11.2 | 6.3                                                   | 9.6 | 12.2 | 19.4 | 24.3 | 30.5 | 38.8 | 55.1 | 67.6 | 82.7 | 103  | 135 | 151 | 199 | 235 | -   | -   | -   | -   |
| 12.5 | -                                                     | -   | 12.2 | -    | 24.3 | -    | 38.8 | -    | 67.6 | -    | 103  | -   | 151 | -   | 235 | -   | -   | -   | -   |
| 14.0 | -                                                     | -   | 12.2 | -    | 24.3 | -    | 38.8 | -    | 67.6 | -    | 103  | -   | -   | -   | -   | -   | -   | -   | -   |



TERMAL KAPASİTELER Pt (kW)



THERMAL CAPACITIES Pt (kW)



WÄRMEGRENZLEISTUNGEN Pt (kW)

| iN   | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |      |      |      |      |      | n <sub>1</sub> =1000 min <sup>-1</sup> |     |     |     |     |  |
|------|------------|-------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------------------|-----|-----|-----|-----|--|
|      |            | 42                                                    | 52   | 62   | 72   | 82   | 92   | 102  | 112  | 122  | 132  | 142  | 152  | 162  | 172  | 182                                    | 192 | 202 | 212 | 222 |  |
| 5.0  | Pt1        | 49.3                                                  | 59.8 | -    | 78.9 | -    | 88.8 | -    | *    | -    | *    | -    | *    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | 115                                                   | 158  | -    | 251  | -    | 303  | -    | 497  | -    | 698  | -    | 804  | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | 140                                                   | 210  | -    | 325  | -    | 406  | -    | 691  | -    | 1371 | -    | 1857 | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | 198                                                   | 297  | -    | 477  | -    | 590  | -    | 1004 | -    | 1875 | -    | 2431 | -    | -    | -                                      | -   | -   | -   | -   |  |
| 5.6  | Pt1        | 48.7                                                  | 61.0 | -    | 79.9 | -    | 92.0 | -    | 122  | -    | *    | -    | *    | -    | *    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | 111                                                   | 156  | -    | 237  | -    | 288  | -    | 491  | -    | 702  | -    | 820  | -    | 876  | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | 135                                                   | 203  | -    | 299  | -    | 374  | -    | 656  | -    | 1315 | -    | 1798 | -    | 2096 | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | 191                                                   | 288  | -    | 441  | -    | 546  | -    | 962  | -    | 1825 | -    | 2380 | -    | 2743 | -                                      | -   | -   | -   | -   |  |
| 6.3  | Pt1        | 47.9                                                  | 59.9 | 69.7 | 77.3 | 91.7 | 91.2 | 100  | 124  | 145  | *    | *    | *    | *    | *    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | 107                                                   | 148  | 173  | 220  | 266  | 270  | 306  | 450  | 567  | 650  | 786  | 795  | 855  | 867  | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | 129                                                   | 189  | 269  | 271  | 396  | 340  | 469  | 577  | 996  | 1155 | 1439 | 1660 | 1818 | 1947 | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | 183                                                   | 268  | 366  | 401  | 559  | 499  | 656  | 851  | 1367 | 1605 | 1993 | 2211 | 2413 | 2581 | -                                      | -   | -   | -   | -   |  |
| 7.1  | Pt1        | 45.9                                                  | 58.3 | 70.4 | 75.8 | 90.7 | 90.9 | 101  | 135  | 161  | 154  | 180  | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 101                                                   | 140  | 169  | 207  | 251  | 255  | 290  | 445  | 557  | 650  | 783  | 771  | 831  | 855  | 915                                    | -   | -   | -   | -   |  |
|      | Pt3        | 118                                                   | 174  | 262  | 249  | 364  | 312  | 430  | 556  | 950  | 1119 | 1379 | 1538 | 1678 | 1823 | 1957                                   | -   | -   | -   | -   |  |
|      | Pt4        | 167                                                   | 248  | 356  | 369  | 516  | 460  | 606  | 824  | 1304 | 1572 | 1933 | 2069 | 2248 | 2434 | 2609                                   | -   | -   | -   | -   |  |
| 8.0  | Pt1        | 43.7                                                  | 55.9 | 68.5 | 73.5 | 87.8 | 89.1 | 99.7 | 132  | 158  | 157  | 185  | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 94.8                                                  | 131  | 160  | 196  | 234  | 242  | 272  | 408  | 508  | 600  | 719  | 719  | 800  | 809  | 891                                    | -   | -   | -   | -   |  |
|      | Pt3        | 109                                                   | 160  | 242  | 231  | 329  | 289  | 391  | 492  | 833  | 998  | 1209 | 1383 | 1562 | 1653 | 1829                                   | -   | -   | -   | -   |  |
|      | Pt4        | 155                                                   | 230  | 330  | 343  | 468  | 427  | 552  | 733  | 1152 | 1403 | 1696 | 1867 | 2100 | 2217 | 2450                                   | -   | -   | -   | -   |  |
| 9.0  | Pt1        | 41.8                                                  | 53.8 | 65.8 | 71.6 | 84.4 | 87.5 | 97.2 | 132  | 165  | 162  | 197  | 172  | 180  | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 89.6                                                  | 123  | 151  | 186  | 219  | 231  | 256  | 391  | 500  | 576  | 713  | 698  | 745  | 789  | 839                                    | -   | -   | -   | -   |  |
|      | Pt3        | 101                                                   | 147  | 222  | 216  | 303  | 272  | 359  | 463  | 807  | 932  | 1175 | 1309 | 1395 | 1573 | 1656                                   | -   | -   | -   | -   |  |
|      | Pt4        | 144                                                   | 210  | 305  | 322  | 432  | 404  | 510  | 693  | 1116 | 1322 | 1658 | 1776 | 1890 | 2120 | 2232                                   | -   | -   | -   | -   |  |
| 10.0 | Pt1        | 35.3                                                  | 50.3 | 62.3 | 67.7 | 80.8 | 83.5 | 93.5 | 128  | 156  | 160  | 192  | 175  | 186  | 179  | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 74.3                                                  | 113  | 141  | 172  | 206  | 216  | 242  | 366  | 456  | 546  | 655  | 656  | 718  | 752  | 815                                    | -   | -   | -   | -   |  |
|      | Pt3        | 80.5                                                  | 132  | 204  | 196  | 279  | 249  | 332  | 425  | 714  | 863  | 1038 | 1193 | 1322 | 1460 | 1577                                   | -   | -   | -   | -   |  |
|      | Pt4        | 114                                                   | 189  | 282  | 294  | 400  | 370  | 471  | 639  | 991  | 1224 | 1473 | 1628 | 1795 | 1974 | 2127                                   | -   | -   | -   | -   |  |
| 11.2 | Pt1        | 34.2                                                  | 45.3 | 59.6 | 61.0 | 77.6 | 76.0 | 90.8 | 116  | 153  | 148  | 189  | 165  | 185  | 172  | 191                                    | -   | -   | -   | -   |  |
|      | Pt2        | 71.7                                                  | 101  | 134  | 153  | 196  | 191  | 231  | 324  | 435  | 486  | 625  | 593  | 675  | 682  | 775                                    | -   | -   | -   | -   |  |
|      | Pt3        | 76.9                                                  | 115  | 187  | 171  | 262  | 216  | 313  | 368  | 672  | 749  | 971  | 1051 | 1206 | 1292 | 1468                                   | -   | -   | -   | -   |  |
|      | Pt4        | 109                                                   | 165  | 257  | 257  | 375  | 322  | 447  | 554  | 936  | 1067 | 1383 | 1439 | 1648 | 1754 | 1979                                   | -   | -   | -   | -   |  |
| 12.5 | Pt1        | -                                                     | -    | 55.6 | -    | 73.6 | -    | 86.8 | -    | 148  | -    | 187  | -    | 179  | -    | 190                                    | -   | -   | -   | -   |  |
|      | Pt2        | -                                                     | -    | 121  | -    | 183  | -    | 216  | -    | 408  | -    | 591  | -    | 610  | -    | 705                                    | -   | -   | -   | -   |  |
|      | Pt3        | -                                                     | -    | 166  | -    | 239  | -    | 286  | -    | 616  | -    | 900  | -    | 1060 | -    | 1302                                   | -   | -   | -   | -   |  |
|      | Pt4        | -                                                     | -    | 230  | -    | 344  | -    | 409  | -    | 862  | -    | 1280 | -    | 1459 | -    | 1765                                   | -   | -   | -   | -   |  |
| 14.0 | Pt1        | -                                                     | -    | 50.0 | -    | 66.5 | -    | 78.5 | -    | 134  | -    | 171  | -    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | -                                                     | -    | 108  | -    | 162  | -    | 193  | -    | 360  | -    | 524  | -    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | -                                                     | -    | 145  | -    | 209  | -    | 248  | -    | 532  | -    | 778  | -    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | -                                                     | -    | 200  | -    | 299  | -    | 355  | -    | 748  | -    | 1114 | -    | -    | -    | -                                      | -   | -   | -   | -   |  |

[\*] Talep edildiğinde

- A) Değerler aşağıda belirtilen şartlar için geçerlidir:**  
 Saatlik çalışma döngüsü: %100  
 Büyük bir alanda kurulum rakım 1000 m'ye kadar
- B) Değerler aşağıda belirtilen şartlar için geçerlidir:**  
 Soğutma suyu, çıkış su sıcaklığı ne olursa olsun, soğuk su giriş sıcaklığı 20°C olmalıdır.  
 Soğutma suyu çıkış sıcaklığının sınırlandırılmasına ilişkin hesaplama, ancak talep edildiğinde sağlanır.

[\*] On request

- A) Values refer to:**  
 Operating cycle: 100%  
 Installation in a large hall Altitude up to 1000 m
- B) Values refer to:**  
 A cooling water inlet temperature of 20°C with unlimited cooling water outlet temperature.  
 A recalculation with a limited cooling water outlet temperature is possible on request.

[\*] Auf Anfrage

- A) Werte gelten für:**  
 Einschaltdauer: 100%  
 Aufstellung in großer Halle Höhenlage bis 1000 m
- B) Werte gelten für:**  
 Eine Kühlwassereintrittstemperatur von 20°C ohne Begrenzung der Kühlwasseraustrittstemperatur.  
 Die Nachrechnung mit Begrenzung der Kühlwasser austrittstemperatur ist auf Anfrage möglich.

Pt1 Redüktörler, ilave soğutucusu yok. A

Pt2 Redüktörler, fan soğutuculu. A

Pt3 Redüktörler, monte edilmiş serpantinli soğutucu. A,B

Pt4 Redüktörler, fanlı ve monte edilmiş serpantinli soğutucu. A,B

Pt1 Gear units without auxiliary cooling A

Pt2 Gear units with fan A

Pt3 Gear units with built-in cooling coil A,B

Pt4 Gear units with fan and built-in cooling coil A,B

Pt1 Getriebe ohne Zusatzkühlung A

Pt2 Getriebe mit Lüfterkühlung A

Pt3 Getriebe mit eingebauter Kühlschlange A,B

Pt4 Getriebe mit Lüfter und eingebauter Kühlschlange A,B

**TR** TERMAL KAPASİTELER Pt (kW)

**EN** THERMAL CAPACITIES Pt (kW)

**DE** WÄRMEGRENZLEISTUNGEN Pt (kW)

| iN   | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |      |      |      |      |      | n <sub>1</sub> =1200 min <sup>-1</sup> |     |     |     |     |  |
|------|------------|-------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------------------|-----|-----|-----|-----|--|
|      |            | 42                                                    | 52   | 62   | 72   | 82   | 92   | 102  | 112  | 122  | 132  | 142  | 152  | 162  | 172  | 182                                    | 192 | 202 | 212 | 222 |  |
| 5.0  | Pt1        | 48.1                                                  | 54.5 | -    | 67.3 | -    | *    | -    | *    | -    | *    | -    | *    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | 135                                                   | 182  | -    | 282  | -    | 332  | -    | 510  | -    | 658  | -    | 653  | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | 156                                                   | 233  | -    | 360  | -    | 450  | -    | 759  | -    | 1496 | -    | 2007 | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | 233                                                   | 345  | -    | 549  | -    | 670  | -    | 1107 | -    | 1992 | -    | 2438 | -    | -    | -                                      | -   | -   | -   | -   |  |
| 5.6  | Pt1        | 48.5                                                  | 57.6 | -    | 72.2 | -    | 77.3 | -    | *    | -    | *    | -    | *    | -    | *    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | 131                                                   | 181  | -    | 270  | -    | 322  | -    | 522  | -    | 703  | -    | 738  | -    | 732  | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | 150                                                   | 226  | -    | 333  | -    | 414  | -    | 723  | -    | 1442 | -    | 1956 | -    | 2268 | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | 225                                                   | 337  | -    | 511  | -    | 626  | -    | 1079 | -    | 1989 | -    | 2483 | -    | 2781 | -                                      | -   | -   | -   | -   |  |
| 6.3  | Pt1        | 48.2                                                  | 57.7 | 66.4 | 71.9 | 83.0 | 80.2 | 85.5 | *    | *    | *    | *    | *    | *    | *    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | 128                                                   | 172  | 201  | 254  | 304  | 307  | 344  | 490  | 603  | 670  | 805  | 755  | 794  | 777  | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | 144                                                   | 210  | 299  | 301  | 440  | 377  | 520  | 638  | 1098 | 1270 | 1582 | 1814 | 1983 | 2118 | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | 216                                                   | 314  | 427  | 467  | 649  | 577  | 755  | 963  | 1530 | 1775 | 2193 | 2357 | 2549 | 2686 | -                                      | -   | -   | -   | -   |  |
| 7.1  | Pt1        | 46.7                                                  | 57.5 | 68.9 | 72.8 | 85.5 | 84.0 | 91.6 | 110  | *    | *    | *    | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 119                                                   | 164  | 198  | 242  | 291  | 294  | 332  | 495  | 610  | 697  | 833  | 777  | 825  | 827  | 866                                    | -   | -   | -   | -   |  |
|      | Pt3        | 132                                                   | 194  | 292  | 277  | 405  | 347  | 477  | 616  | 1050 | 1235 | 1521 | 1688 | 1839 | 1993 | 2138                                   | -   | -   | -   | -   |  |
|      | Pt4        | 198                                                   | 292  | 418  | 432  | 602  | 536  | 703  | 944  | 1480 | 1768 | 2166 | 2262 | 2442 | 2614 | 2777                                   | -   | -   | -   | -   |  |
| 8.0  | Pt1        | 44.8                                                  | 55.9 | 68.0 | 72.0 | 84.7 | 84.7 | 93.0 | 114  | 130  | *    | *    | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 112                                                   | 154  | 189  | 230  | 272  | 279  | 314  | 460  | 566  | 656  | 782  | 750  | 823  | 816  | 885                                    | -   | -   | -   | -   |  |
|      | Pt3        | 121                                                   | 179  | 269  | 257  | 366  | 321  | 435  | 546  | 922  | 1103 | 1335 | 1523 | 1717 | 1816 | 2004                                   | -   | -   | -   | -   |  |
|      | Pt4        | 185                                                   | 270  | 390  | 403  | 550  | 500  | 644  | 847  | 1319 | 1593 | 1922 | 2073 | 2318 | 2426 | 2660                                   | -   | -   | -   | -   |  |
| 9.0  | Pt1        | 43.1                                                  | 54.3 | 66.1 | 71.1 | 82.7 | 84.9 | 92.9 | 118  | 143  | 133  | *    | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 107                                                   | 147  | 180  | 218  | 258  | 269  | 298  | 446  | 565  | 643  | 791  | 747  | 788  | 823  | 864                                    | -   | -   | -   | -   |  |
|      | Pt3        | 112                                                   | 164  | 248  | 241  | 338  | 303  | 400  | 515  | 895  | 1033 | 1301 | 1443 | 1538 | 1731 | 1822                                   | -   | -   | -   | -   |  |
|      | Pt4        | 170                                                   | 249  | 360  | 380  | 508  | 474  | 597  | 804  | 1286 | 1514 | 1894 | 1995 | 2114 | 2354 | 2462                                   | -   | -   | -   | -   |  |
| 10.0 | Pt1        | 36.5                                                  | 51.1 | 63.0 | 67.8 | 80.1 | 81.9 | 90.7 | 117  | 140  | 137  | 160  | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 88.8                                                  | 135  | 167  | 203  | 243  | 254  | 283  | 421  | 518  | 613  | 733  | 712  | 774  | 799  | 856                                    | -   | -   | -   | -   |  |
|      | Pt3        | 89.9                                                  | 147  | 228  | 218  | 311  | 277  | 369  | 472  | 793  | 957  | 1152 | 1319 | 1460 | 1609 | 1737                                   | -   | -   | -   | -   |  |
|      | Pt4        | 137                                                   | 223  | 333  | 347  | 471  | 435  | 553  | 744  | 1149 | 1409 | 1691 | 1842 | 2024 | 2210 | 2368                                   | -   | -   | -   | -   |  |
| 11.2 | Pt1        | 35.5                                                  | 46.2 | 60.5 | 61.4 | 77.4 | 75.1 | 88.7 | 108  | 139  | 130  | 163  | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 86.0                                                  | 120  | 158  | 181  | 232  | 224  | 270  | 374  | 498  | 550  | 705  | 650  | 734  | 734  | 825                                    | -   | -   | -   | -   |  |
|      | Pt3        | 85.9                                                  | 129  | 208  | 191  | 292  | 241  | 348  | 409  | 748  | 830  | 1077 | 1162 | 1332 | 1427 | 1619                                   | -   | -   | -   | -   |  |
|      | Pt4        | 131                                                   | 196  | 304  | 304  | 443  | 379  | 524  | 646  | 1087 | 1232 | 1594 | 1637 | 1868 | 1977 | 2219                                   | -   | -   | -   | -   |  |
| 12.5 | Pt1        | -                                                     | -    | 56.8 | -    | 74.2 | -    | 86.0 | -    | 138  | -    | 167  | -    | *    | -    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | -                                                     | -    | 145  | -    | 216  | -    | 255  | -    | 471  | -    | 672  | -    | 674  | -    | 765                                    | -   | -   | -   | -   |  |
|      | Pt3        | -                                                     | -    | 186  | -    | 266  | -    | 318  | -    | 685  | -    | 999  | -    | 1173 | -    | 1437                                   | -   | -   | -   | -   |  |
|      | Pt4        | -                                                     | -    | 272  | -    | 406  | -    | 481  | -    | 1005 | -    | 1483 | -    | 1665 | -    | 1996                                   | -   | -   | -   | -   |  |
| 14.0 | Pt1        | -                                                     | -    | 51.3 | -    | 67.4 | -    | 78.4 | -    | 128  | -    | 157  | -    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | -                                                     | -    | 130  | -    | 193  | -    | 227  | -    | 417  | -    | 601  | -    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | -                                                     | -    | 162  | -    | 233  | -    | 276  | -    | 592  | -    | 865  | -    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | -                                                     | -    | 237  | -    | 354  | -    | 419  | -    | 873  | -    | 1295 | -    | -    | -    | -                                      | -   | -   | -   | -   |  |

★ Talep edildiğinde

- A)** Değerler aşağıda belirtilen şartlar için geçerlidir:  
Saatlik çalışma döngüsü: %100  
Büyük bir alanda kurulum rakım 1000 m'ye kadar
- B)** Değerler aşağıda belirtilen şartlar için geçerlidir:  
Soğutma suyu, çıkış su sıcaklığı ne olursa olsun, soğuk su giriş sıcaklığı 20°C olmalıdır.  
Soğutma suyu çıkış sıcaklığının sınırlandırılmasına ilişkin hesaplama, ancak talep edildiğinde sağlanır.

★ On request

- A)** Values refer to:  
Operating cycle: 100%  
Installation in a large hall Altitude up to 1000 m
- B)** Values refer to:  
A cooling water inlet temperature of 20°C with unlimited cooling water outlet temperature.  
A recalculation with a limited cooling water outlet temperature is possible on request.

★ Auf Anfrage

- A)** Werte gelten für:  
Einschaltdauer: 100%  
Aufstellung in großer Halle Höhenlage bis 1000 m
- B)** Werte gelten für:  
Eine Kühlwassereintrittstemperatur von 20°C ohne Begrenzung der Kühlwasseraustrittstemperatur.  
Die Nachrechnung mit Begrenzung der Kühlwasser austrittstemperatur ist auf Anfrage möglich.

**Pt1** Redüktörler, ilave soğutucusu yok. **A**

**Pt2** Redüktörler, fan soğutuculu. **A**

**Pt3** Redüktörler, monte edilmiş serpantinli soğutucu. **A,B**

**Pt4** Redüktörler, fanlı ve monte edilmiş serpantinli soğutucu. **A,B**

**Pt1** Gear units without auxiliary cooling **A**

**Pt2** Gear units with fan **A**

**Pt3** Gear units with built-in cooling coil **A,B**

**Pt4** Gear units with fan and built-in cooling coil **A,B**

**Pt1** Getriebe ohne Zusatzkühlung **A**

**Pt2** Getriebe mit Lüfterkühlung **A**

**Pt3** Getriebe mit eingebauter Kühlschlange **A,B**

**Pt4** Getriebe mit Lüfter und eingebauter Kühlschlange **A,B**



TERMAL KAPASİTELER Pt (kW)



THERMAL CAPACITIES Pt (kW)



WÄRMEGRENZLEISTUNGEN Pt (kW)

| iN   | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |      |      |      |      |      | n <sub>1</sub> =1500 min <sup>-1</sup> |     |     |     |     |  |
|------|------------|-------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------------------|-----|-----|-----|-----|--|
|      |            | 42                                                    | 52   | 62   | 72   | 82   | 92   | 102  | 112  | 122  | 132  | 142  | 152  | 162  | 172  | 182                                    | 192 | 202 | 212 | 222 |  |
| 5.0  | Pt1        | 36.0                                                  | *    | -    | *    | -    | *    | -    | *    | -    | *    | -    | *    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | 142                                                   | 188  | -    | 289  | -    | 335  | -    | 488  | -    | 585  | -    | 496  | -    | -    | -                                      | -   | -   | -   |     |  |
|      | Pt3        | 162                                                   | 243  | -    | 375  | -    | 468  | -    | 789  | -    | 1554 | -    | 2081 | -    | -    | -                                      | -   | -   | -   |     |  |
|      | Pt4        | 254                                                   | 373  | -    | 593  | -    | 719  | -    | 1167 | -    | 2059 | -    | 2434 | -    | -    | -                                      | -   | -   | -   |     |  |
| 5.6  | Pt1        | 39.4                                                  | *    | -    | *    | -    | *    | -    | *    | -    | *    | -    | *    | -    | *    | -                                      | -   | -   | -   |     |  |
|      | Pt2        | 138                                                   | 189  | -    | 279  | -    | 328  | -    | 514  | -    | 659  | -    | 630  | -    | 576  | -                                      | -   | -   | -   |     |  |
|      | Pt3        | 157                                                   | 236  | -    | 347  | -    | 432  | -    | 753  | -    | 1499 | -    | 2032 | -    | 2353 | -                                      | -   | -   | -   |     |  |
|      | Pt4        | 246                                                   | 366  | -    | 554  | -    | 675  | -    | 1149 | -    | 2085 | -    | 2539 | -    | 2794 | -                                      | -   | -   | -   |     |  |
| 6.3  | Pt1        | 40.8                                                  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | -                                      | -   | -   | -   |     |  |
|      | Pt2        | 135                                                   | 182  | 210  | 264  | 314  | 316  | 352  | 489  | 593  | 646  | 768  | 677  | 698  | 659  | -                                      | -   | -   | -   |     |  |
|      | Pt3        | 150                                                   | 219  | 312  | 314  | 458  | 393  | 542  | 664  | 1142 | 1321 | 1645 | 1884 | 2059 | 2198 | -                                      | -   | -   | -   |     |  |
|      | Pt4        | 236                                                   | 343  | 465  | 507  | 704  | 624  | 815  | 1030 | 1628 | 1876 | 2312 | 2441 | 2625 | 2743 | -                                      | -   | -   | -   |     |  |
| 7.1  | Pt1        | 41.4                                                  | 44.9 | 51.6 | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *                                      | -   | -   | -   |     |  |
|      | Pt2        | 128                                                   | 172  | 208  | 253  | 304  | 305  | 343  | 503  | 613  | 690  | 820  | 734  | 769  | 755  | 775                                    | -   | -   | -   |     |  |
|      | Pt3        | 138                                                   | 203  | 304  | 290  | 422  | 361  | 498  | 642  | 1093 | 1286 | 1583 | 1756 | 1913 | 2072 | 2221                                   | -   | -   | -   |     |  |
|      | Pt4        | 217                                                   | 319  | 456  | 471  | 655  | 581  | 762  | 1016 | 1587 | 1885 | 2306 | 2378 | 2555 | 2719 | 2873                                   | -   | -   | -   |     |  |
| 8.0  | Pt1        | 40.7                                                  | 46.0 | 54.5 | 54.1 | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *                                      | -   | -   | -   |     |  |
|      | Pt2        | 119                                                   | 163  | 199  | 241  | 286  | 293  | 327  | 472  | 575  | 659  | 783  | 727  | 791  | 771  | 824                                    | -   | -   | -   |     |  |
|      | Pt3        | 126                                                   | 186  | 282  | 268  | 383  | 335  | 453  | 568  | 961  | 1149 | 1391 | 1584 | 1786 | 1888 | 2084                                   | -   | -   | -   |     |  |
|      | Pt4        | 202                                                   | 296  | 425  | 439  | 598  | 544  | 700  | 914  | 1420 | 1707 | 2056 | 2195 | 2448 | 2549 | 2784                                   | -   | -   | -   |     |  |
| 9.0  | Pt1        | 40.1                                                  | 46.6 | 55.5 | 56.9 | 62.8 | 60.8 | *    | *    | *    | *    | *    | *    | *    | *    | *                                      | -   | -   | -   |     |  |
|      | Pt2        | 113                                                   | 156  | 190  | 231  | 271  | 283  | 312  | 461  | 579  | 653  | 801  | 738  | 774  | 798  | 828                                    | -   | -   | -   |     |  |
|      | Pt3        | 117                                                   | 171  | 258  | 251  | 353  | 316  | 417  | 537  | 933  | 1076 | 1356 | 1503 | 1601 | 1801 | 1895                                   | -   | -   | -   |     |  |
|      | Pt4        | 187                                                   | 272  | 394  | 415  | 554  | 517  | 650  | 870  | 1390 | 1630 | 2036 | 2127 | 2248 | 2493 | 2600                                   | -   | -   | -   |     |  |
| 10.0 | Pt1        | 34.4                                                  | 44.9 | 54.4 | 56.2 | 63.5 | 62.0 | 65.2 | *    | *    | *    | *    | *    | *    | *    | *                                      | -   | -   | -   |     |  |
|      | Pt2        | 94.7                                                  | 143  | 177  | 215  | 256  | 266  | 297  | 438  | 536  | 628  | 749  | 712  | 768  | 785  | 834                                    | -   | -   | -   |     |  |
|      | Pt3        | 93.7                                                  | 153  | 238  | 228  | 324  | 290  | 385  | 493  | 826  | 998  | 1200 | 1374 | 1520 | 1675 | 1807                                   | -   | -   | -   |     |  |
|      | Pt4        | 150                                                   | 245  | 363  | 379  | 515  | 474  | 603  | 807  | 1242 | 1520 | 1823 | 1972 | 2160 | 2352 | 2513                                   | -   | -   | -   |     |  |
| 11.2 | Pt1        | 33.7                                                  | 41.2 | 53.1 | 52.0 | 63.1 | 58.9 | 66.5 | *    | *    | *    | *    | *    | *    | *    | *                                      | -   | -   | -   |     |  |
|      | Pt2        | 91.6                                                  | 128  | 168  | 192  | 245  | 237  | 285  | 390  | 516  | 566  | 723  | 654  | 735  | 728  | 813                                    | -   | -   | -   |     |  |
|      | Pt3        | 89.7                                                  | 134  | 217  | 199  | 304  | 251  | 363  | 426  | 779  | 866  | 1123 | 1210 | 1387 | 1486 | 1685                                   | -   | -   | -   |     |  |
|      | Pt4        | 143                                                   | 214  | 334  | 333  | 483  | 414  | 572  | 702  | 1179 | 1332 | 1722 | 1756 | 1999 | 2109 | 2361                                   | -   | -   | -   |     |  |
| 12.5 | Pt1        | -                                                     | -    | 51.1 | -    | 62.9 | -    | 68.2 | -    | *    | -    | *    | -    | *    | -    | *                                      | -   | -   | -   |     |  |
|      | Pt2        | -                                                     | -    | 154  | -    | 228  | -    | 269  | -    | 491  | -    | 695  | -    | 682  | -    | 764                                    | -   | -   | -   |     |  |
|      | Pt3        | -                                                     | -    | 193  | -    | 277  | -    | 333  | -    | 715  | -    | 1041 | -    | 1222 | -    | 1497                                   | -   | -   | -   |     |  |
|      | Pt4        | -                                                     | -    | 298  | -    | 444  | -    | 525  | -    | 1091 | -    | 1605 | -    | 1789 | -    | 2135                                   | -   | -   | -   |     |  |
| 14.0 | Pt1        | -                                                     | -    | 46.9 | -    | 58.5 | -    | 64.4 | -    | *    | -    | *    | -    | -    | -    | -                                      | -   | -   | -   |     |  |
|      | Pt2        | -                                                     | -    | 138  | -    | 204  | -    | 241  | -    | 437  | -    | 623  | -    | -    | -    | -                                      | -   | -   | -   |     |  |
|      | Pt3        | -                                                     | -    | 169  | -    | 243  | -    | 289  | -    | 617  | -    | 902  | -    | -    | -    | -                                      | -   | -   | -   |     |  |
|      | Pt4        | -                                                     | -    | 260  | -    | 388  | -    | 458  | -    | 950  | -    | 1405 | -    | -    | -    | -                                      | -   | -   | -   |     |  |

[\*] Talep edildiğinde

A) Değerler aşağıda belirtilen şartlar için geçerlidir:

Saatlik çalışma döngüsü: %100

Büyük bir alanda kurulum rakım 1000 m'ye kadar

B) Değerler aşağıda belirtilen şartlar için geçerlidir:

Soğutma suyu, çıkış su sıcaklığı ne olursa olsun, soğuk su giriş sıcaklığı 20°C olmalıdır.

Soğutma suyu çıkış sıcaklığının sınırlandırılmasına ilişkin hesaplama, ancak talep edildiğinde sağlanır.

[\*] On request

A) Values refer to:

Operating cycle: 100%

Installation in a large hall Altitude up to 1000 m

B) Values refer to:

A cooling water inlet temperature of 20°C with unlimited cooling water outlet temperature.

A recalculation with a limited cooling water outlet temperature is possible on request.

[\*] Auf Anfrage

A) Werte gelten für:

Einschaltdauer: 100%

Aufstellung in großer Halle Höhenlage bis 1000 m

B) Werte gelten für:

Eine Kühlwassereintrittstemperatur von 20°C ohne Begrenzung der Kühlwasseraustrittstemperatur.

Die Nachrechnung mit Begrenzung der Kühlwasser austrittstemperatur ist auf Anfrage möglich.

Pt1 Redüktörler, ilave soğutucusu yok. A

Pt2 Redüktörler, fan soğutuculu. A

Pt3 Redüktörler, monte edilmiş serpantinli soğutucu. A,B

Pt4 Redüktörler, fanlı ve monte edilmiş serpantinli soğutucu. A,B

Pt1 Gear units without auxiliary cooling A

Pt2 Gear units with fan A

Pt3 Gear units with built-in cooling coil A,B

Pt4 Gear units with fan and built-in cooling coil A,B

Pt1 Getriebe ohne Zusatzkühlung A

Pt2 Getriebe mit Lüfterkühlung A

Pt3 Getriebe mit eingebauter Kühlschlange A,B

Pt4 Getriebe mit Lüfter und eingebauter Kühlschlange A,B

**TR** TERMAL KAPASİTELER Pt (kW)

**EN** THERMAL CAPACITIES Pt (kW)

**DE** WÄRMEGRENZLEISTUNGEN Pt (kW)

| iN   | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |     |     |      |      |      |      |      |      |      | n <sub>1</sub> =1800 min <sup>-1</sup> |     |     |     |     |  |
|------|------------|-------------------------------------------------------|------|------|------|------|-----|-----|------|------|------|------|------|------|------|----------------------------------------|-----|-----|-----|-----|--|
|      |            | 42                                                    | 52   | 62   | 72   | 82   | 92  | 102 | 112  | 122  | 132  | 142  | 152  | 162  | 172  | 182                                    | 192 | 202 | 212 | 222 |  |
| 5.0  | Pt1        | *                                                     | *    | -    | *    | -    | *   | -   | *    | -    | *    | -    | *    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | 152                                                   | 194  | -    | 289  | -    | 319 | -   | 400  | -    | 357  | -    | *    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | 173                                                   | 255  | -    | 391  | -    | 479 | -   | 780  | -    | 1475 | -    | 1850 | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | 282                                                   | 409  | -    | 643  | -    | 768 | -   | 1197 | -    | 2005 | -    | 2146 | -    | -    | -                                      | -   | -   | -   | -   |  |
| 5.6  | Pt1        | *                                                     | *    | -    | *    | -    | *   | -   | *    | -    | *    | -    | *    | -    | *    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | 150                                                   | 198  | -    | 288  | -    | 327 | -   | 462  | -    | 503  | -    | *    | -    | *    | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | 167                                                   | 249  | -    | 363  | -    | 448 | -   | 759  | -    | 1464 | -    | 1888 | -    | 2117 | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | 273                                                   | 403  | -    | 605  | -    | 730 | -   | 1206 | -    | 2107 | -    | 2402 | -    | 2513 | -                                      | -   | -   | -   | -   |  |
| 6.3  | Pt1        | 31.6                                                  | *    | *    | *    | *    | *   | *   | *    | *    | *    | *    | *    | *    | *    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | 147                                                   | 193  | 222  | 275  | 324  | 321 | 353 | 459  | 529  | 539  | 624  | 427  | *    | *    | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | 160                                                   | 233  | 330  | 330  | 480  | 410 | 562 | 676  | 1150 | 1311 | 1624 | 1793 | 1940 | 2037 | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | 263                                                   | 378  | 514  | 557  | 769  | 679 | 882 | 1094 | 1706 | 1932 | 2368 | 2389 | 2532 | 2584 | -                                      | -   | -   | -   | -   |  |
| 7.1  | Pt1        | 34.7                                                  | *    | *    | *    | *    | *   | *   | *    | *    | *    | *    | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 139                                                   | 186  | 223  | 268  | 319  | 317 | 353 | 495  | 583  | 628  | 735  | 574  | 571  | 513  | 482                                    | -   | -   | -   | -   |  |
|      | Pt3        | 148                                                   | 216  | 323  | 307  | 446  | 379 | 522 | 663  | 1119 | 1301 | 1595 | 1721 | 1859 | 1990 | 2111                                   | -   | -   | -   | -   |  |
|      | Pt4        | 243                                                   | 354  | 505  | 521  | 721  | 638 | 833 | 1094 | 1692 | 1985 | 2418 | 2414 | 2569 | 2692 | 2806                                   | -   | -   | -   | -   |  |
| 8.0  | Pt1        | 35.7                                                  | *    | *    | *    | *    | *   | *   | *    | *    | *    | *    | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 132                                                   | 176  | 215  | 258  | 304  | 308 | 343 | 476  | 567  | 628  | 737  | 621  | 654  | 604  | 612                                    | -   | -   | -   | -   |  |
|      | Pt3        | 136                                                   | 199  | 300  | 285  | 405  | 354 | 477 | 592  | 992  | 1175 | 1419 | 1580 | 1769 | 1851 | 2026                                   | -   | -   | -   | -   |  |
|      | Pt4        | 226                                                   | 329  | 473  | 487  | 662  | 600 | 769 | 992  | 1530 | 1821 | 2186 | 2275 | 2516 | 2590 | 2798                                   | -   | -   | -   | -   |  |
| 9.0  | Pt1        | 35.7                                                  | 36.7 | *    | *    | *    | *   | *   | *    | *    | *    | *    | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 125                                                   | 169  | 206  | 249  | 291  | 301 | 330 | 474  | 585  | 643  | 781  | 671  | 687  | 682  | 684                                    | -   | -   | -   | -   |  |
|      | Pt3        | 125                                                   | 184  | 276  | 268  | 375  | 336 | 442 | 562  | 971  | 1112 | 1396 | 1519 | 1610 | 1796 | 1876                                   | -   | -   | -   | -   |  |
|      | Pt4        | 210                                                   | 304  | 439  | 462  | 615  | 572 | 717 | 952  | 1510 | 1755 | 2187 | 2239 | 2352 | 2584 | 2671                                   | -   | -   | -   | -   |  |
| 10.0 | Pt1        | 31.6                                                  | 36.7 | 43.9 | *    | *    | *   | *   | *    | *    | *    | *    | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 104                                                   | 157  | 194  | 234  | 276  | 286 | 316 | 456  | 548  | 629  | 744  | 668  | 708  | 702  | 726                                    | -   | -   | -   | -   |  |
|      | Pt3        | 101                                                   | 164  | 255  | 244  | 346  | 308 | 408 | 518  | 864  | 1035 | 1243 | 1400 | 1541 | 1686 | 1808                                   | -   | -   | -   | -   |  |
|      | Pt4        | 167                                                   | 273  | 406  | 422  | 572  | 526 | 667 | 885  | 1356 | 1646 | 1971 | 2093 | 2282 | 2464 | 2615                                   | -   | -   | -   | -   |  |
| 11.2 | Pt1        | 30.6                                                  | 34.7 | 43.9 | 40.8 | *    | *   | *   | *    | *    | *    | *    | *    | *    | *    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | 101                                                   | 140  | 184  | 208  | 264  | 255 | 305 | 409  | 532  | 573  | 727  | 626  | 693  | 669  | 729                                    | -   | -   | -   | -   |  |
|      | Pt3        | 95.9                                                  | 144  | 234  | 213  | 325  | 267 | 387 | 450  | 817  | 903  | 1168 | 1239 | 1415 | 1506 | 1697                                   | -   | -   | -   | -   |  |
|      | Pt4        | 160                                                   | 240  | 372  | 370  | 539  | 460 | 634 | 772  | 1290 | 1448 | 1868 | 1876 | 2125 | 2227 | 2477                                   | -   | -   | -   | -   |  |
| 12.5 | Pt1        | -                                                     | -    | 43.9 | -    | 49.0 | -   | *   | -    | *    | -    | *    | -    | *    | -    | *                                      | -   | -   | -   | -   |  |
|      | Pt2        | -                                                     | -    | 169  | -    | 249  | -   | 290 | -    | 513  | -    | 711  | -    | 663  | -    | 715                                    | -   | -   | -   | -   |  |
|      | Pt3        | -                                                     | -    | 207  | -    | 297  | -   | 354 | -    | 753  | -    | 1089 | -    | 1258 | -    | 1524                                   | -   | -   | -   | -   |  |
|      | Pt4        | -                                                     | -    | 334  | -    | 495  | -   | 584 | -    | 1200 | -    | 1752 | -    | 1920 | -    | 2265                                   | -   | -   | -   | -   |  |
| 14.0 | Pt1        | -                                                     | -    | 40.8 | -    | 47.9 | -   | *   | -    | *    | -    | *    | -    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt2        | -                                                     | -    | 152  | -    | 222  | -   | 260 | -    | 460  | -    | 646  | -    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt3        | -                                                     | -    | 182  | -    | 260  | -   | 308 | -    | 653  | -    | 948  | -    | -    | -    | -                                      | -   | -   | -   | -   |  |
|      | Pt4        | -                                                     | -    | 291  | -    | 432  | -   | 510 | -    | 1048 | -    | 1539 | -    | -    | -    | -                                      | -   | -   | -   | -   |  |

☐ \* Talep edildiğinde

- A)** Değerler aşağıda belirtilen şartlar için geçerlidir:  
Saatlik çalışma döngüsü: %100  
Büyük bir alanda kurulum rakım 1000 m'ye kadar
- B)** Değerler aşağıda belirtilen şartlar için geçerlidir:  
Soğutma suyu, çıkış su sıcaklığı ne olursa olsun, soğuk su giriş sıcaklığı 20°C olmalıdır.  
Soğutma suyu çıkış sıcaklığının sınırlandırılmasına ilişkin hesaplama, ancak talep edildiğinde sağlanır.

☐ \* On request

- A)** Values refer to:  
Operating cycle: 100%  
Installation in a large hall Altitude up to 1000 m
- B)** Values refer to:  
A cooling water inlet temperature of 20°C with unlimited cooling water outlet temperature.  
A recalculation with a limited cooling water outlet temperature is possible on request.

☐ \* Auf Anfrage

- A)** Werte gelten für:  
Einschaltdauer: 100%  
Aufstellung in großer Halle Höhenlage bis 1000 m
- B)** Werte gelten für:  
Eine Kühlwassereintrittstemperatur von 20°C ohne Begrenzung der Kühlwasseraustrittstemperatur.  
Die Nachrechnung mit Begrenzung der Kühlwasser austrittstemperatur ist auf Anfrage möglich.

**Pt1** Redüktörler, ilave soğutucusu yok. **A**

**Pt2** Redüktörler, fan soğutuculu. **A**

**Pt3** Redüktörler, monte edilmiş serpantinli soğutucu. **A,B**

**Pt4** Redüktörler, fanlı ve monte edilmiş serpantinli soğutucu. **A,B**

**Pt1** Gear units without auxiliary cooling **A**

**Pt2** Gear units with fan **A**

**Pt3** Gear units with built-in cooling coil **A,B**

**Pt4** Gear units with fan and built-in cooling coil **A,B**

**Pt1** Getriebe ohne Zusatzkühlung **A**

**Pt2** Getriebe mit Lüfterkühlung **A**

**Pt3** Getriebe mit eingebauter Kühlschlange **A,B**

**Pt4** Getriebe mit Lüfter und eingebauter Kühlschlange **A,B**



TR NÖMİNAL ÇIKIŞ MOMENTLERİ T<sub>2N</sub> (kNm)

EN NOMINAL OUTPUT TORQUES T<sub>2N</sub> (kNm)

DE NENN-ABTRIEBSDREHMOMENTE T<sub>2N</sub> (kNm)

|      | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |      |     |     |     |     |     |     |     |     |     |
|------|-------------------------------------------------------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| İN   | 43                                                    | 53   | 63   | 73   | 83   | 93   | 103  | 113  | 123  | 133  | 143 | 153 | 163 | 173 | 183 | 193 | 203 | 213 | 223 |
| 12.5 | 5.6                                                   | 9.6  | -    | 17.3 | -    | 28.6 | -    | 53.4 | -    | 81.1 | -   | 135 | -   | 199 | -   | 255 | -   | 347 | -   |
| 14.0 | 6.1                                                   | 10.0 | -    | 18.6 | -    | 30.1 | -    | 57.8 | -    | 83.2 | -   | 140 | 151 | 199 | 235 | 267 | 301 | 367 | 413 |
| 16.0 | 6.7                                                   | 10.7 | 12.2 | 20.2 | 21.9 | 31.6 | 36.3 | 61.1 | 67.6 | 85.5 | 101 | 145 | 157 | 204 | 235 | 281 | 314 | 388 | 430 |
| 18.0 | 6.8                                                   | 11.5 | 12.9 | 21.5 | 23.6 | 34.6 | 38.3 | 63.2 | 70.9 | 88.4 | 104 | 151 | 163 | 204 | 245 | 294 | 326 | 408 | 447 |
| 20.0 | 6.8                                                   | 11.8 | 13.5 | 22.1 | 25.5 | 36.4 | 40.1 | 64.8 | 74.2 | 92.5 | 107 | 156 | 170 | 204 | 245 | 306 | 339 | 428 | 464 |
| 22.4 | 6.8                                                   | 11.8 | 14.5 | 22.1 | 27.0 | 36.4 | 42.6 | 64.8 | 77.1 | 92.5 | 110 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 25.0 | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 28.0 | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 31.5 | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 35.5 | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 40.0 | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 45.0 | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 50.0 | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 56.0 | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 63.0 | 6.7                                                   | 11.6 | 15.8 | 21.8 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 71.0 | 6.7                                                   | 11.2 | 15.8 | 20.4 | 27.7 | 34.7 | 44.7 | 61.2 | 78.7 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 80.0 | -                                                     | -    | 14.3 | -    | 27.4 | -    | 44.7 | -    | 78.7 | -    | 115 | -   | 176 | -   | 245 | -   | 352 | -   | 479 |
| 90.0 | -                                                     | -    | 14.3 | -    | 25.7 | -    | 43.9 | -    | 76.5 | -    | 115 | -   | -   | -   | -   | -   | -   | -   | -   |











**TR** NÖMİNAL ÇIKIŞ MOMENTLERİ T<sub>2N</sub> (kNm)

**EN** NOMINAL OUTPUT TORQUES T<sub>2N</sub> (kNm)

**DE** NENN-ABTRIEBSDREHMOMENTE T<sub>2N</sub> (kNm)

| İN   | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |     |     |     |     |     |     |     |     |     |
|------|-------------------------------------------------------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 54                                                    | 64   | 74   | 84   | 94   | 104  | 114  | 124  | 134  | 144 | 154 | 164 | 174 | 184 | 194 | 204 | 214 | 224 |
| 80.0 | 11.8                                                  | -    | 22.1 | -    | 36.4 | -    | 62.8 | -    | 92.5 | -   | 156 | -   | 204 | -   | 306 | -   | 428 | -   |
| 90.0 | 11.8                                                  | -    | 22.1 | -    | 36.4 | -    | 62.8 | -    | 92.5 | -   | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 100  | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 112  | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 125  | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 140  | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 160  | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 180  | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 200  | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 224  | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 250  | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.4 | 45.1 | 62.8 | 79.6 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 280  | 11.8                                                  | 15.8 | 22.1 | 27.7 | 36.0 | 45.1 | 62.8 | 79.6 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 315  | 11.4                                                  | 15.8 | 20.9 | 27.7 | 34.7 | 45.1 | 61.2 | 79.6 | 92.5 | 115 | 156 | 176 | 204 | 245 | 306 | 352 | 428 | 479 |
| 355  | -                                                     | 15.8 | -    | 27.0 | -    | 45.1 | -    | 79.6 | -    | 115 | -   | 176 | -   | 245 | -   | 352 | -   | 479 |
| 400  | -                                                     | 14.8 | -    | 26.0 | -    | 43.9 | -    | 76.5 | -    | 115 | -   | -   | -   | -   | -   | -   | -   | -   |

TR

THERMAL KAPASİTELER Pt (kW)

EN

THERMAL CAPACITIES Pt (kW)

DE

WÄRMEGRENZLEISTUNGEN Pt (kW)

| İN   | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |      |      |      |     |     | n <sub>1</sub> =1000 min <sup>-1</sup> |     |     |     |
|------|------------|-------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|----------------------------------------|-----|-----|-----|
|      |            | 54                                                    | 64   | 74   | 84   | 94   | 104  | 114  | 124  | 134  | 144  | 154  | 164  | 174 | 184 | 194                                    | 204 | 214 | 224 |
| 80.0 | Pt1        | 29.2                                                  | -    | 43.2 | -    | 61.0 | -    | 92.4 | -    | 123  | -    | 165  | -    | 187 | -   | 255                                    | -   | 358 | -   |
| 90.0 | Pt1        | 28.5                                                  | -    | 41.8 | -    | 60.0 | -    | 89.7 | -    | 120  | -    | 158  | 170  | 179 | 192 | 245                                    | 261 | 346 | 362 |
| 100  | Pt1        | 27.1                                                  | 31.2 | 39.6 | 46.2 | 57.0 | 61.6 | 86.1 | 103  | 114  | 133  | 149  | 163  | 167 | 184 | 232                                    | 251 | 325 | 351 |
| 112  | Pt1        | 26.1                                                  | 30.5 | 38.1 | 44.9 | 55.0 | 60.2 | 82.0 | 100  | 109  | 129  | 142  | 154  | 160 | 172 | 220                                    | 237 | 315 | 328 |
| 125  | Pt1        | 25.0                                                  | 29.2 | 36.4 | 42.4 | 52.0 | 57.1 | 78.5 | 95.1 | 104  | 121  | 135  | 147  | 152 | 164 | 209                                    | 225 | 297 | 319 |
| 140  | Pt1        | 23.9                                                  | 28.1 | 34.6 | 40.9 | 49.0 | 55.0 | 74.3 | 90.6 | 100  | 116  | 131  | 140  | 147 | 157 | 202                                    | 215 | 287 | 300 |
| 160  | Pt1        | 21.9                                                  | 26.8 | 31.5 | 39.0 | 45.0 | 52.3 | 67.7 | 86.8 | 94.2 | 112  | 123  | 135  | 139 | 151 | 191                                    | 207 | 270 | 290 |
| 180  | Pt1        | 21.5                                                  | 25.6 | 30.7 | 37.1 | 44.0 | 49.7 | 65.9 | 82.2 | 88.9 | 105  | 116  | 126  | 131 | 142 | 179                                    | 195 | 253 | 274 |
| 200  | Pt1        | 20.8                                                  | 23.6 | 30.5 | 33.9 | 43.0 | 45.5 | 64.5 | 75.1 | 86.9 | 100  | 114  | 119  | 129 | 135 | 177                                    | 183 | 245 | 256 |
| 224  | Pt1        | 19.4                                                  | 23.2 | 28.4 | 33.0 | 40.0 | 44.3 | 60.6 | 73.2 | 81.5 | 95.1 | 107  | 118  | 119 | 133 | 166                                    | 183 | 228 | 248 |
| 250  | Pt1        | 18.9                                                  | 22.2 | 27.4 | 32.7 | 39.0 | 43.4 | 58.7 | 71.5 | 78.8 | 92.4 | 104  | 110  | 116 | 124 | 161                                    | 171 | 221 | 232 |
| 280  | Pt1        | 18.0                                                  | 20.8 | 25.7 | 30.6 | 37.0 | 40.6 | 56.1 | 67.1 | 74.5 | 86.9 | 96.9 | 106  | 109 | 119 | 151                                    | 164 | 211 | 224 |
| 315  | Pt1        | 16.8                                                  | 20.2 | 24.1 | 29.4 | 35.0 | 39.2 | 52.3 | 65.0 | 71.0 | 84.0 | 91.5 | 100  | 103 | 112 | 143                                    | 156 | 197 | 214 |
| 355  | Pt1        | -                                                     | 19.4 | -    | 27.6 | -    | 37.3 | -    | 62.0 | -    | 79.4 | -    | 94.2 | -   | 106 | -                                      | 147 | -   | 200 |
| 400  | Pt1        | -                                                     | 18.1 | -    | 25.9 | -    | 35.2 | -    | 57.8 | -    | 75.6 | -    | -    | -   | -   | -                                      | -   | -   | -   |

| İN   | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |      |      |     |     |     |     | n <sub>1</sub> =1200 min <sup>-1</sup> |     |     |  |
|------|------------|-------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|----------------------------------------|-----|-----|--|
|      |            | 54                                                    | 64   | 74   | 84   | 94   | 104  | 114  | 124  | 134  | 144  | 154  | 164 | 174 | 184 | 194 | 204                                    | 214 | 224 |  |
| 80.0 | Pt1        | 31.1                                                  | -    | 46.0 | -    | 65.0 | -    | 96.8 | -    | 128  | -    | 168  | -   | 187 | -   | 253 | -                                      | 341 | -   |  |
| 90.0 | Pt1        | 30.5                                                  | -    | 44.6 | -    | 63.0 | -    | 94.1 | -    | 125  | -    | 162  | 173 | 180 | 193 | 245 | 260                                    | 334 | 343 |  |
| 100  | Pt1        | 29.1                                                  | 33.4 | 42.2 | 49.2 | 60.0 | 65.4 | 90.7 | 108  | 119  | 138  | 153  | 166 | 170 | 186 | 233 | 252                                    | 317 | 337 |  |
| 112  | Pt1        | 28.1                                                  | 32.6 | 40.7 | 47.8 | 58.0 | 64.0 | 86.6 | 104  | 114  | 135  | 147  | 158 | 164 | 176 | 223 | 240                                    | 312 | 320 |  |
| 125  | Pt1        | 26.8                                                  | 31.2 | 39.0 | 45.3 | 55.0 | 60.9 | 83.1 | 100  | 110  | 128  | 141  | 152 | 157 | 169 | 214 | 231                                    | 297 | 315 |  |
| 140  | Pt1        | 25.6                                                  | 30.1 | 37.0 | 43.8 | 52.0 | 58.7 | 78.8 | 96.0 | 105  | 122  | 137  | 146 | 152 | 162 | 208 | 221                                    | 290 | 300 |  |
| 160  | Pt1        | 23.6                                                  | 28.8 | 33.9 | 41.8 | 48.0 | 56.0 | 72.1 | 92.2 | 100  | 118  | 130  | 141 | 145 | 158 | 198 | 214                                    | 276 | 294 |  |
| 180  | Pt1        | 23.2                                                  | 27.5 | 33.0 | 39.8 | 47.0 | 53.2 | 70.4 | 87.6 | 94.7 | 112  | 122  | 134 | 138 | 149 | 187 | 204                                    | 261 | 282 |  |
| 200  | Pt1        | 22.3                                                  | 25.4 | 32.7 | 36.4 | 46.0 | 48.8 | 69.1 | 80.3 | 92.8 | 107  | 121  | 128 | 137 | 143 | 187 | 193                                    | 256 | 266 |  |
| 224  | Pt1        | 20.8                                                  | 24.9 | 30.6 | 35.6 | 43.0 | 47.6 | 65.1 | 78.5 | 87.3 | 102  | 114  | 125 | 128 | 141 | 177 | 194                                    | 242 | 261 |  |
| 250  | Pt1        | 20.4                                                  | 24.0 | 29.6 | 35.3 | 42.0 | 46.7 | 63.1 | 76.9 | 84.8 | 99.3 | 111  | 118 | 124 | 134 | 172 | 184                                    | 237 | 248 |  |
| 280  | Pt1        | 19.4                                                  | 22.4 | 27.7 | 32.9 | 40.0 | 43.9 | 60.5 | 72.4 | 80.4 | 93.8 | 104  | 115 | 117 | 130 | 163 | 177                                    | 228 | 242 |  |
| 315  | Pt1        | 18.2                                                  | 21.8 | 26.0 | 31.7 | 37.0 | 42.3 | 56.5 | 70.1 | 76.7 | 90.8 | 98.8 | 108 | 111 | 121 | 155 | 168                                    | 213 | 232 |  |
| 355  | Pt1        | -                                                     | 20.9 | -    | 29.8 | -    | 40.4 | -    | 66.9 | -    | 85.7 | -    | 102 | -   | 115 | -   | 158                                    | -   | 215 |  |
| 400  | Pt1        | -                                                     | 19.5 | -    | 27.9 | -    | 38.0 | -    | 62.4 | -    | 81.6 | -    | -   | -   | -   | -   | -                                      | -   | -   |  |

Pt1 (kW) İlave soğutmasız redüktörler \*\*)

\*\*) Değerlere Bakınız:

Saatlik çalışma döngüsü: %100

Büyük bir alanda kurulum

Rakım 1000m'ye kadar

Pt1(kW) Gear units without auxiliary cooling\*\*)

\*\*) Values refer to:

Operating cycle: 100%

Installation in a large hall

Altitude up to 1000 m

Pt1 (kW) Getriebe ohne Zusatzkühlung\*\*)

\*\*) Werte gelten für:

Einschaltdauer: 100 %

Aufstellung in großer Halle

Höhenlage bis 1000 m

TR

TERMAL KAPASİTELER Pt (kW)

EN

THERMAL CAPACITIES Pt (kW)

DE

WÄRMEGRENZLEISTUNGEN Pt (kW)

| İN   | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |      |     |     |     |     |     |     |     | n <sub>1</sub> =1500 min <sup>-1</sup> |  |  |
|------|------------|-------------------------------------------------------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|----------------------------------------|--|--|
|      |            | 54                                                    | 64   | 74   | 84   | 94   | 104  | 114  | 124  | 134  | 144  | 154 | 164 | 174 | 184 | 194 | 204 | 214 | 224                                    |  |  |
| 80.0 | Pt1        | 32.3                                                  | -    | 47.8 | -    | 67.0 | -    | 101  | -    | 133  | -    | 174 | -   | 193 | -   | 261 | -   | 350 | -                                      |  |  |
| 90.0 | Pt1        | 31.7                                                  | -    | 46.4 | -    | 66.0 | -    | 97.8 | -    | 131  | -    | 167 | 179 | 187 | 199 | 253 | 269 | 344 | 352                                    |  |  |
| 100  | Pt1        | 30.2                                                  | 34.7 | 44.0 | 51.2 | 63.0 | 68.0 | 94.2 | 112  | 123  | 143  | 159 | 172 | 176 | 192 | 241 | 260 | 327 | 346                                    |  |  |
| 112  | Pt1        | 29.2                                                  | 34.0 | 42.3 | 49.8 | 60.0 | 66.6 | 90.1 | 108  | 118  | 140  | 152 | 164 | 170 | 183 | 232 | 248 | 321 | 329                                    |  |  |
| 125  | Pt1        | 27.9                                                  | 32.4 | 40.5 | 47.1 | 58.0 | 63.3 | 86.5 | 104  | 114  | 133  | 146 | 158 | 162 | 175 | 222 | 239 | 306 | 324                                    |  |  |
| 140  | Pt1        | 26.6                                                  | 31.3 | 38.6 | 45.5 | 55.0 | 61.1 | 82.0 | 100  | 109  | 128  | 142 | 151 | 158 | 168 | 215 | 230 | 300 | 310                                    |  |  |
| 160  | Pt1        | 24.6                                                  | 30.0 | 35.2 | 43.6 | 50.0 | 58.3 | 75.1 | 96.0 | 103  | 123  | 135 | 146 | 150 | 163 | 206 | 222 | 287 | 304                                    |  |  |
| 180  | Pt1        | 24.1                                                  | 28.7 | 34.4 | 41.5 | 49.0 | 55.4 | 73.2 | 91.1 | 98.4 | 116  | 128 | 139 | 143 | 155 | 194 | 212 | 271 | 292                                    |  |  |
| 200  | Pt1        | 23.3                                                  | 26.4 | 34.2 | 37.9 | 48.0 | 50.8 | 71.9 | 83.5 | 96.6 | 111  | 126 | 133 | 142 | 149 | 195 | 200 | 265 | 276                                    |  |  |
| 224  | Pt1        | 21.7                                                  | 25.9 | 31.8 | 37.1 | 45.0 | 49.6 | 67.8 | 81.8 | 90.9 | 106  | 119 | 131 | 133 | 147 | 185 | 202 | 251 | 271                                    |  |  |
| 250  | Pt1        | 21.2                                                  | 25.0 | 30.8 | 36.7 | 43.0 | 48.8 | 65.8 | 80.2 | 88.3 | 103  | 116 | 122 | 130 | 139 | 180 | 191 | 246 | 257                                    |  |  |
| 280  | Pt1        | 20.2                                                  | 23.4 | 29.0 | 34.4 | 41.0 | 45.7 | 63.0 | 75.5 | 83.7 | 97.8 | 108 | 119 | 122 | 135 | 170 | 186 | 238 | 252                                    |  |  |
| 315  | Pt1        | 19.0                                                  | 22.7 | 27.1 | 33.0 | 39.0 | 44.1 | 59.0 | 73.0 | 80.0 | 94.6 | 102 | 112 | 115 | 126 | 161 | 175 | 221 | 241                                    |  |  |
| 355  | Pt1        | -                                                     | 21.7 | -    | 31.0 | -    | 42.0 | -    | 69.8 | -    | 89.4 | -   | 105 | -   | 119 | -   | 165 | -   | 224                                    |  |  |
| 400  | Pt1        | -                                                     | 20.3 | -    | 29.2 | -    | 39.7 | -    | 65.1 | -    | 85.1 | -   | -   | -   | -   | -   | -   | -   | -                                      |  |  |

| İN   | Pt<br>(kW) | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |      |     |     |     |     |     |     |     | n <sub>1</sub> =1800 min <sup>-1</sup> |  |  |
|------|------------|-------------------------------------------------------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|----------------------------------------|--|--|
|      |            | 54                                                    | 64   | 74   | 84   | 94   | 104  | 114  | 124  | 134  | 144  | 154 | 164 | 174 | 184 | 194 | 204 | 214 | 224                                    |  |  |
| 80.0 | Pt1        | 33.7                                                  | -    | 49.6 | -    | 69.0 | -    | 102  | -    | 133  | -    | 171 | -   | 188 | -   | 250 | -   | 318 | -                                      |  |  |
| 90.0 | Pt1        | 32.9                                                  | -    | 48.1 | -    | 68.0 | -    | 99.9 | -    | 132  | -    | 166 | 176 | 182 | 194 | 244 | 258 | 317 | 317                                    |  |  |
| 100  | Pt1        | 31.5                                                  | 36.1 | 45.7 | 53.0 | 65.0 | 70.2 | 96.6 | 114  | 125  | 145  | 158 | 171 | 173 | 189 | 235 | 252 | 307 | 318                                    |  |  |
| 112  | Pt1        | 30.4                                                  | 35.4 | 44.1 | 51.6 | 63.0 | 68.9 | 92.5 | 111  | 120  | 142  | 153 | 164 | 168 | 181 | 227 | 243 | 306 | 308                                    |  |  |
| 125  | Pt1        | 29.1                                                  | 33.9 | 42.2 | 49.0 | 60.0 | 65.6 | 89.0 | 107  | 116  | 136  | 147 | 158 | 163 | 174 | 220 | 236 | 296 | 309                                    |  |  |
| 140  | Pt1        | 27.8                                                  | 32.6 | 40.2 | 47.4 | 57.0 | 63.4 | 84.8 | 102  | 111  | 131  | 144 | 153 | 159 | 169 | 216 | 228 | 294 | 300                                    |  |  |
| 160  | Pt1        | 25.7                                                  | 31.3 | 36.8 | 45.4 | 52.0 | 60.7 | 77.7 | 99.1 | 106  | 126  | 138 | 149 | 153 | 165 | 208 | 224 | 284 | 298                                    |  |  |
| 180  | Pt1        | 25.2                                                  | 30.0 | 35.9 | 43.4 | 51.0 | 57.7 | 76.1 | 94.5 | 102  | 120  | 132 | 143 | 146 | 158 | 198 | 215 | 271 | 291                                    |  |  |
| 200  | Pt1        | 24.4                                                  | 27.6 | 35.7 | 39.7 | 50.0 | 53.0 | 74.9 | 86.9 | 100  | 115  | 131 | 137 | 146 | 153 | 200 | 205 | 269 | 279                                    |  |  |
| 224  | Pt1        | 22.7                                                  | 27.2 | 33.4 | 38.9 | 47.0 | 51.9 | 70.9 | 85.4 | 94.8 | 110  | 123 | 136 | 138 | 152 | 191 | 209 | 258 | 278                                    |  |  |
| 250  | Pt1        | 22.2                                                  | 26.2 | 32.3 | 38.6 | 45.0 | 51.1 | 69.0 | 83.9 | 92.4 | 108  | 121 | 129 | 136 | 145 | 188 | 199 | 256 | 267                                    |  |  |
| 280  | Pt1        | 21.3                                                  | 24.6 | 30.4 | 36.1 | 44.0 | 48.0 | 66.3 | 79.3 | 88.0 | 102  | 114 | 125 | 129 | 142 | 179 | 195 | 250 | 265                                    |  |  |
| 315  | Pt1        | 19.9                                                  | 24.0 | 28.5 | 34.8 | 41.0 | 46.3 | 61.9 | 76.7 | 83.9 | 99.3 | 108 | 118 | 121 | 134 | 169 | 184 | 233 | 253                                    |  |  |
| 355  | Pt1        | -                                                     | 22.8 | -    | 32.6 | -    | 44.2 | -    | 73.2 | -    | 93.8 | -   | 111 | -   | 125 | -   | 173 | -   | 236                                    |  |  |
| 400  | Pt1        | -                                                     | 21.4 | -    | 30.6 | -    | 41.6 | -    | 68.3 | -    | 89.4 | -   | -   | -   | -   | -   | -   | -   | -                                      |  |  |

Pt1 (kW) İlave soğutmasız redüktörler \*\*)

\*\*) Değerlere Bakınız:

Saatlik çalışma döngüsü: %100

Büyük bir alanda kurulum

Rakım 1000m'ye kadar

Pt1(kW)Gear units without auxiliary cooling\*\*)

\*\*) Values refer to:

Operating cycle: 100%

Installation in a large hall

Altitude up to 1000 m

Pt1 (kW) Getriebe ohne Zusatzkühlung\*\*)

\*\*) Werte gelten für:

Einschaltdauer: 100 %

Aufstellun in großer Halle

Höhenlage bis 1000 m

TR

GERÇEK TAHVİLLER (i)

EN

ACTUAL RATIOS (i)

DE

IST - ÜBERSETZUNGEN (i)

| İN   | 31    | 41 | 51    | 61 | 71    | 81 | 91    | 101 | 111   | 121 |
|------|-------|----|-------|----|-------|----|-------|-----|-------|-----|
| 1.25 | 1.243 | –  | 1.256 | –  | 1.263 | –  | 1.270 | –   | –     | –   |
| 1.4  | 1.371 | –  | 1.378 | –  | 1.389 | –  | 1.400 | –   | –     | –   |
| 1.6  | 1.594 | –  | 1.588 | –  | 1.606 | –  | 1.625 | –   | 1.636 | –   |
| 1.8  | 1.829 | –  | 1.839 | –  | 1.774 | –  | 1.800 | –   | 1.806 | –   |
| 2.0  | 2.000 | –  | 2.034 | –  | 1.966 | –  | 2.000 | –   | 2.000 | –   |
| 2.24 | 2.194 | –  | 2.259 | –  | 2.308 | –  | 2.231 | –   | 2.222 | –   |
| 2.5  | 2.536 | –  | 2.520 | –  | 2.583 | –  | 2.500 | –   | 2.480 | –   |
| 2.8  | 2.808 | –  | 2.826 | –  | 2.800 | –  | 2.741 | –   | 2.783 | –   |
| 3.15 | 3.125 | –  | 3.190 | –  | 3.130 | –  | 3.208 | –   | 3.080 | –   |
| 3.55 | 3.500 | –  | 3.591 | –  | 3.524 | –  | 3.591 | –   | 3.478 | –   |
| 4.0  | 3.950 | –  | 4.050 | –  | 4.000 | –  | 4.050 | –   | 3.905 | –   |
| 4.5  | 4.435 | –  | 4.619 | –  | 4.400 | –  | 4.381 | –   | 4.421 | –   |
| 5.0  | 4.952 | –  | 4.900 | –  | 4.905 | –  | 4.947 | –   | 5.150 | –   |
| 5.6  | 5.579 | –  | 5.556 | –  | 5.526 | –  | 5.684 | –   | 5.474 | –   |

| İN   |   | 42     | 52     | 62     | 72     | 82     | 92     | 102    | 112    | 122    |
|------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 6.3  | – | 6.319  | 6.286  | –      | 6.088  | –      | 6.260  | –      | 6.246  | –      |
| 7.1  | – | 6.857  | 7.213  | –      | 7.048  | –      | 7.247  | –      | 6.900  | –      |
| 8.0  | – | 7.778  | 7.889  | 7.792  | 7.799  | 7.676  | 8.018  | 7.848  | 7.644  | 7.941  |
| 9.0  | – | 8.485  | 8.652  | 8.940  | 8.660  | 8.887  | 8.904  | 9.085  | 8.974  | 8.772  |
| 10.0 | – | 9.722  | 10.002 | 9.778  | 9.660  | 9.833  | 9.932  | 10.053 | 10.046 | 9.718  |
| 11.2 | – | 10.694 | 11.075 | 10.724 | 10.648 | 10.920 | 11.138 | 11.163 | 10.889 | 11.410 |
| 12.5 | – | 12.444 | 12.326 | 12.397 | 11.807 | 12.180 | 12.574 | 12.452 | 12.174 | 12.773 |
| 14.0 | – | 13.865 | 13.806 | 13.726 | 13.939 | 13.426 | 14.152 | 13.964 | 13.704 | 13.844 |
| 16.0 | – | 15.556 | 15.581 | 15.278 | 15.717 | 14.887 | 15.962 | 15.765 | 15.556 | 15.478 |
| 18.0 | – | 17.602 | 17.493 | 17.111 | 17.598 | 17.576 | 18.204 | 17.743 | 17.111 | 17.423 |
| 20.0 | – | 19.444 | 19.534 | 19.311 | 19.742 | 19.817 | 19.312 | 20.012 | 19.074 | 19.778 |
| 22.4 | – | 22.037 | 22.006 | 21.681 | 20.982 | 22.189 | 21.895 | 22.824 | 21.491 | 21.756 |
| 25.0 | – | –      | –      | 24.212 | –      | 24.892 | –      | 24.212 | –      | 24.251 |
| 28.0 | – | –      | –      | 27.275 | –      | 26.456 | –      | 27.451 | –      | 27.325 |

| İN   |   |   | 53     | 63      | 73     | 83      | 93     | 103     | 113    | 123     |
|------|---|---|--------|---------|--------|---------|--------|---------|--------|---------|
| 25.0 | – | – | 25.011 | –       | 25.540 | –       | 25.439 | –       | 24.706 | –       |
| 28.0 | – | – | 28.490 | –       | 27.711 | –       | 29.187 | –       | 28.602 | –       |
| 31.5 | – | – | 31.161 | 30.999  | 31.433 | 32.202  | 31.924 | 31.894  | 31.648 | 31.412  |
| 35.5 | – | – | 34.177 | 35.312  | 34.291 | 34.940  | 35.013 | 36.593  | 35.144 | 36.366  |
| 40.0 | – | – | 39.508 | 38.622  | 39.292 | 39.633  | 40.474 | 40.024  | 39.200 | 40.238  |
| 45.0 | – | – | 43.745 | 42.360  | 43.221 | 43.236  | 44.816 | 43.897  | 43.210 | 44.683  |
| 50.0 | – | – | 48.689 | 48.967  | 50.293 | 49.542  | 49.881 | 50.744  | 47.911 | 49.840  |
| 56.0 | – | – | 54.532 | 54.220  | 56.033 | 54.496  | 55.866 | 56.187  | 56.566 | 54.938  |
| 63.0 | – | – | 61.543 | 60.347  | 62.867 | 63.413  | 63.049 | 62.537  | 63.778 | 60.916  |
| 71.0 | – | – | 69.742 | 67.589  | 71.139 | 70.651  | 70.787 | 70.041  | 71.414 | 71.919  |
| 80.0 | – | – | 78.723 | 76.279  | 78.583 | 79.267  | 79.049 | 79.046  | 80.111 | 81.089  |
| 90.0 | – | – | 86.806 | 86.440  | 89.061 | 89.696  | 89.050 | 88.748  | 85.146 | 90.798  |
| 100  | – | – | –      | 97.572  | –      | 99.083  | –      | 99.106  | –      | 101.856 |
| 112  | – | – | –      | 107.590 | –      | 112.294 | –      | 111.645 | –      | 108.257 |

| İN  |   |   |   |   | 74      | 84      | 94      | 104     | 114     | 124     |
|-----|---|---|---|---|---------|---------|---------|---------|---------|---------|
| 100 | – | – | – | – | 101.554 | –       | 101.210 | –       | 103.639 | –       |
| 112 | – | – | – | – | 115.256 | –       | 115.290 | –       | 112.450 | –       |
| 125 | – | – | – | – | 125.733 | 128.046 | 126.098 | 126.890 | 127.556 | 131.769 |
| 140 | – | – | – | – | 143.985 | 145.322 | 138.301 | 144.542 | 139.152 | 142.973 |
| 160 | – | – | – | – | 158.251 | 158.533 | 159.874 | 158.093 | 159.444 | 162.178 |
| 180 | – | – | – | – | 174.630 | 181.546 | 177.022 | 173.392 | 175.389 | 176.921 |
| 200 | – | – | – | – | 193.629 | 199.533 | 197.028 | 200.439 | 204.089 | 202.722 |
| 224 | – | – | – | – | 228.606 | 220.185 | 220.671 | 221.938 | 227.382 | 222.994 |
| 250 | – | – | – | – | 257.753 | 244.141 | 249.043 | 247.020 | 255.111 | 259.484 |
| 280 | – | – | – | – | 288.615 | 288.242 | 282.219 | 276.663 | 288.678 | 289.100 |
| 315 | – | – | – | – | 305.352 | 324.993 | 318.563 | 312.234 | 318.889 | 324.356 |
| 355 | – | – | – | – | 344.112 | 363.906 | 351.273 | 353.827 | 361.407 | 367.034 |
| 400 | – | – | – | – | –       | 385.010 | –       | 399.393 | –       | 405.444 |
| 450 | – | – | – | – | –       | 433.881 | –       | 440.402 | –       | 459.504 |

TR

GERÇEK TAHVİLLER (i)

EN

ACTUAL RATIOS (i)

DE

IST - ÜBERSETZUNGEN (i)

| İN   | 131   | 141 | 151   | 161 | 171   | 181 | 191   | 201 | 211 | 221 |
|------|-------|-----|-------|-----|-------|-----|-------|-----|-----|-----|
| 1.25 | –     | –   | –     | –   | –     | –   | –     | –   | –   | –   |
| 1.4  | –     | –   | –     | –   | –     | –   | –     | –   | –   | –   |
| 1.6  | 1.588 | –   | –     | –   | –     | –   | –     | –   | –   | –   |
| 1.8  | 1.839 | –   | –     | –   | –     | –   | –     | –   | –   | –   |
| 2.0  | 2.034 | –   | 2.000 | –   | 2.000 | –   | 1.967 | –   | –   | –   |
| 2.24 | 2.259 | –   | 2.231 | –   | 2.250 | –   | 2.296 | –   | –   | –   |
| 2.5  | 2.520 | –   | 2.481 | –   | 2.481 | –   | 2.560 | –   | –   | –   |
| 2.8  | 2.826 | –   | 2.760 | –   | 2.760 | –   | 2.870 | –   | –   | –   |
| 3.15 | 3.208 | –   | 3.087 | –   | 3.087 | –   | 3.238 | –   | –   | –   |
| 3.55 | 3.591 | –   | 3.476 | –   | 3.476 | –   | 3.450 | –   | –   | –   |
| 4.0  | 4.050 | –   | 3.947 | –   | 3.947 | –   | 3.944 | –   | –   | –   |
| 4.5  | 4.619 | –   | 4.579 | –   | 4.526 | –   | 4.400 | –   | –   | –   |
| 5.0  | 4.900 | –   | 5.100 | –   | 4.900 | –   | 4.950 | –   | –   | –   |
| 5.6  | 5.556 | –   | 5.778 | –   | 5.556 | –   | 5.700 | –   | –   | –   |

| İN   | 132    | 142    | 152    | 162    | 172    | 182    | 192    | 202    | 212    | 222    |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 6.3  | 6.410  | –      | 6.449  | –      | 6.154  | –      | 6.410  | –      | 6.500  | –      |
| 7.1  | 7.100  | –      | 7.120  | 7.316  | 7.125  | 7.147  | 7.100  | 7.312  | 7.200  | 7.265  |
| 8.0  | 7.889  | 7.944  | 7.882  | 8.076  | 7.884  | 8.274  | 7.889  | 8.100  | 8.000  | 8.047  |
| 9.0  | 8.799  | 8.800  | 8.758  | 8.941  | 8.755  | 9.155  | 8.799  | 9.000  | 8.923  | 8.941  |
| 10.0 | 9.861  | 9.778  | 9.774  | 9.935  | 9.765  | 10.167 | 9.788  | 10.038 | 9.926  | 9.973  |
| 11.2 | 10.811 | 10.906 | 10.967 | 11.087 | 10.951 | 11.340 | 10.887 | 11.167 | 11.040 | 11.094 |
| 12.5 | 12.655 | 12.222 | 12.139 | 12.440 | 12.432 | 12.717 | 12.176 | 12.420 | 12.348 | 12.339 |
| 14.0 | 14.164 | 13.399 | 13.708 | 13.769 | 13.915 | 14.438 | 13.712 | 13.891 | 13.905 | 13.801 |
| 16.0 | 15.975 | 15.685 | 15.389 | 15.550 | 15.694 | 16.159 | 15.570 | 15.643 | 15.789 | 15.541 |
| 18.0 | 17.280 | 17.556 | 17.424 | 17.457 | 17.899 | 18.225 | 18.061 | 17.763 | 18.316 | 17.647 |
| 20.0 | 19.515 | 19.800 | 20.297 | 19.765 | 18.988 | 20.786 | 20.117 | 20.605 | 20.400 | 20.471 |
| 22.4 | –      | 21.418 | –      | 23.024 | –      | 22.050 | –      | 22.950 | –      | 22.800 |
| 25.0 | –      | 24.187 | –      | –      | –      | –      | –      | –      | –      | –      |

| İN   | 133    | 143     | 153    | 163    | 173    | 183    | 193    | 203     | 213    | 223    |
|------|--------|---------|--------|--------|--------|--------|--------|---------|--------|--------|
| 22.4 | 22.020 | –       | 21.374 | –      | 20.930 | –      | 21.782 | –       | 22.368 | –      |
| 25.0 | 25.372 | –       | 24.716 | 24.245 | 24.202 | 24.306 | 25.283 | 24.850  | 25.837 | 25.000 |
| 28.0 | 29.373 | 27.292  | 27.304 | 28.036 | 26.736 | 28.106 | 28.006 | 28.844  | 28.523 | 28.877 |
| 31.5 | 32.501 | 31.447  | 30.248 | 30.971 | 29.619 | 31.048 | 31.117 | 31.950  | 31.579 | 31.879 |
| 35.5 | 36.092 | 36.406  | 35.514 | 34.311 | 34.776 | 34.397 | 34.708 | 35.500  | 35.088 | 35.294 |
| 40.0 | 40.257 | 40.283  | 39.756 | 40.284 | 38.929 | 40.385 | 38.897 | 39.596  | 39.158 | 39.216 |
| 45.0 | 45.147 | 44.733  | 43.090 | 45.096 | 42.194 | 45.208 | 42.642 | 44.375  | 43.936 | 43.765 |
| 50.0 | 50.968 | 49.896  | 48.175 | 48.878 | 47.174 | 49.000 | 49.917 | 48.648  | 48.632 | 49.105 |
| 56.0 | 57.365 | 55.957  | 54.229 | 54.647 | 53.102 | 54.783 | 55.870 | 56.948  | 54.920 | 54.353 |
| 63.0 | 64.699 | 63.171  | 61.557 | 61.514 | 60.278 | 61.667 | 63.013 | 63.739  | 61.654 | 61.381 |
| 71.0 | 73.789 | 71.100  | 67.713 | 69.826 | 66.306 | 70.000 | 68.162 | 71.888  | 69.806 | 68.908 |
| 80.0 | 78.278 | 80.190  | 75.481 | 76.809 | 73.912 | 77.000 | 76.974 | 77.762  | 81.316 | 78.019 |
| 90.0 | 88.750 | 91.457  | 85.046 | 85.620 | 83.279 | 85.833 | 88.439 | 87.816  | 86.427 | 90.882 |
| 100  | –      | 97.020  | –      | 96.471 | –      | 96.711 | –      | 100.895 | –      | 96.594 |
| 112  | –      | 110.000 | –      | –      | –      | –      | –      | –       | –      | –      |

| İN  | 134     | 144     | 154     | 164     | 174     | 184     | 194     | 204     | 214     | 224     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 100 | 103.114 | –       | 97.768  | –       | 95.735  | –       | 100.079 | –       | 99.020  | –       |
| 112 | 118.306 | –       | 113.186 | 110.901 | 110.833 | 111.176 | 115.862 | 114.174 | 109.386 | 110.670 |
| 125 | 129.398 | 127.803 | 125.238 | 128.390 | 122.634 | 128.710 | 128.198 | 132.180 | 121.182 | 122.255 |
| 140 | 141.920 | 146.633 | 139.074 | 142.060 | 136.183 | 142.414 | 142.362 | 146.254 | 142.279 | 135.439 |
| 160 | 164.058 | 160.380 | 155.125 | 157.756 | 151.900 | 158.148 | 158.792 | 162.413 | 159.273 | 159.017 |
| 180 | 181.654 | 175.901 | 170.993 | 175.962 | 167.438 | 176.400 | 178.079 | 181.156 | 172.632 | 178.011 |
| 200 | 202.184 | 203.339 | 189.597 | 193.962 | 185.656 | 194.444 | 201.040 | 203.160 | 193.004 | 192.941 |
| 224 | 226.446 | 225.149 | 223.845 | 215.065 | 219.192 | 215.600 | 226.272 | 229.355 | 217.257 | 215.711 |
| 250 | 255.560 | 250.594 | 252.385 | 253.914 | 247.139 | 254.545 | 255.201 | 258.141 | 246.617 | 242.817 |
| 280 | 286.925 | 280.665 | 282.605 | 286.288 | 276.730 | 287.000 | 291.058 | 291.144 | 271.278 | 275.630 |
| 315 | 320.413 | 316.751 | 317.021 | 320.566 | 310.431 | 321.364 | 308.761 | 332.052 | 302.399 | 303.193 |
| 355 | 360.951 | 355.625 | 336.946 | 359.606 | 329.942 | 360.500 | 350.069 | 352.249 | 340.720 | 337.975 |
| 400 | –       | 397.131 | –       | 382.207 | –       | 383.158 | –       | 399.375 | –       | 380.805 |
| 450 | –       | 447.376 | –       | –       | –       | –       | –       | –       | –       | –       |

TR

GERÇEK TAHVİLLER (i)

EN

ACTUAL RATIOS (i)

DE

IST - ÜBERSETZUNGEN (i)

| i <sub>N</sub> | 42     | 52     | 62     | 72     | 82     | 92     | 102    | 112    | 122    |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5.0            | 4.936  | 5.006  | –      | 4.865  | –      | 5.002  | –      | 4.897  | –      |
| 5.6            | 5.480  | 5.488  | –      | 5.333  | –      | 5.483  | –      | 5.534  | –      |
| 6.3            | 6.296  | 6.386  | 6.205  | 6.206  | 6.135  | 6.381  | 6.271  | 6.296  | 6.226  |
| 7.1            | 6.959  | 7.058  | 6.802  | 6.860  | 6.725  | 7.053  | 6.875  | 7.037  | 7.036  |
| 8.0            | 7.549  | 7.657  | 7.915  | 7.880  | 7.825  | 8.101  | 8.000  | 7.994  | 8.005  |
| 9.0            | 8.693  | 8.817  | 8.749  | 8.569  | 8.649  | 8.810  | 8.842  | 8.693  | 8.947  |
| 10.0           | 9.872  | 10.108 | 9.490  | 9.823  | 9.935  | 10.099 | 10.157 | 9.965  | 10.164 |
| 11.2           | 10.769 | 10.923 | 10.928 | 10.615 | 10.804 | 10.914 | 11.045 | 10.769 | 11.052 |
| 12.5           | –      | –      | 12.528 | –      | 12.385 | –      | 12.662 | –      | 12.670 |
| 14.0           | –      | –      | 13.538 | –      | 13.385 | –      | 13.683 | –      | 13.692 |

| i <sub>N</sub> | 43     | 53     | 63     | 73     | 83     | 93     | 103    | 113    | 123    |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 12.5           | 12.034 | 12.703 | –      | 12.433 | –      | 12.554 | –      | 12.334 | –      |
| 14.0           | 13.484 | 13.964 | –      | 13.515 | –      | 14.137 | –      | 13.821 | –      |
| 16.0           | 15.601 | 15.835 | 15.826 | 16.275 | 15.773 | 15.952 | 15.693 | 15.522 | 15.888 |
| 18.0           | 17.482 | 17.407 | 17.307 | 17.692 | 17.041 | 17.963 | 17.724 | 17.393 | 17.572 |
| 20.0           | 19.614 | 19.645 | 19.729 | 19.948 | 20.648 | 20.259 | 19.940 | 19.744 | 19.995 |
| 22.4           | 21.919 | 21.954 | 21.575 | 22.146 | 22.308 | 22.208 | 22.520 | 21.643 | 22.114 |
| 25.0           | 25.380 | 25.421 | 24.349 | 25.446 | 25.152 | 25.843 | 25.400 | 25.185 | 25.103 |
| 28.0           | 27.836 | 27.881 | 27.211 | 28.125 | 27.923 | 28.563 | 27.842 | 27.836 | 27.517 |
| 31.5           | 30.196 | 30.245 | 31.508 | 30.509 | 32.084 | 30.985 | 32.400 | 31.975 | 32.021 |
| 35.5           | 34.771 | 34.827 | 34.557 | 35.131 | 35.461 | 35.679 | 35.811 | 34.771 | 35.392 |
| 40.0           | 39.487 | 39.551 | 37.486 | 39.896 | 38.468 | 40.902 | 38.846 | 39.861 | 40.654 |
| 45.0           | 43.077 | 43.146 | 43.166 | 43.523 | 44.296 | 44.202 | 44.732 | 43.077 | 44.209 |
| 50.0           | 49.060 | 49.139 | 49.021 | 49.568 | 50.304 | 50.341 | 51.280 | 49.060 | 50.681 |
| 56.0           | 55.152 | 55.240 | 53.477 | 55.723 | 54.877 | 56.592 | 55.417 | 55.152 | 54.769 |
| 63.0           | 60.808 | 60.906 | 60.904 | 61.438 | 62.499 | 62.396 | 63.114 | 60.808 | 62.376 |
| 71.0           | 69.293 | 69.404 | 68.467 | 70.011 | 70.259 | 71.102 | 70.951 | 69.293 | 70.121 |
| 80.0           | –      | –      | 75.489 | –      | 77.465 | –      | 78.228 | –      | 77.313 |
| 90.0           | –      | –      | 86.022 | –      | 88.274 | –      | 89.143 | –      | 88.101 |

| i <sub>N</sub> | 54 | 64      | 74      | 84      | 94      | 104     | 114     | 124     |
|----------------|----|---------|---------|---------|---------|---------|---------|---------|
| 80.0           | –  | 77.598  | –       | 79.267  | –       | 79.497  | –       | 80.949  |
| 90.0           | –  | 86.720  | –       | 88.585  | –       | 88.842  | –       | 89.869  |
| 100            | –  | 100.413 | 96.178  | 102.572 | 99.945  | 102.869 | 99.667  | 103.259 |
| 112            | –  | 110.130 | 107.484 | 112.498 | 111.694 | 112.824 | 111.384 | 114.129 |
| 125            | –  | 119.466 | 124.455 | 122.035 | 129.330 | 122.389 | 128.971 | 123.804 |
| 140            | –  | 137.567 | 136.499 | 140.525 | 141.846 | 140.933 | 141.452 | 142.562 |
| 160            | –  | 156.225 | 148.071 | 159.585 | 153.871 | 160.047 | 153.443 | 161.897 |
| 180            | –  | 170.427 | 170.506 | 174.092 | 177.184 | 174.597 | 176.692 | 176.615 |
| 200            | –  | 194.098 | 193.631 | 198.272 | 201.215 | 198.847 | 200.656 | 201.145 |
| 224            | –  | 218.199 | 211.234 | 222.891 | 219.508 | 223.537 | 218.898 | 226.121 |
| 250            | –  | 240.578 | 240.572 | 245.752 | 249.995 | 246.464 | 249.300 | 249.313 |
| 280            | –  | 274.147 | 270.443 | 280.042 | 281.036 | 280.855 | 280.256 | 284.101 |
| 315            | –  | 302.121 | 298.181 | 308.618 | 309.861 | 309.513 | 309.000 | 313.091 |
| 355            | –  | –       | 339.788 | –       | 353.097 | –       | 352.116 | –       |
| 400            | –  | –       | 374.460 | –       | 389.127 | –       | 388.046 | –       |

TR

GERÇEK TAHVİLLER (i)

EN

ACTUAL RATIOS (i)

DE

IST - ÜBERSETZUNGEN (i)

| i <sub>N</sub> | 132    | 142    | 152    | 162    | 172    | 182    | 192 | 202 | 212 | 222 |
|----------------|--------|--------|--------|--------|--------|--------|-----|-----|-----|-----|
| 5.0            | 4.967  | –      | 4.963  | –      | –      | –      | –   | –   | –   | –   |
| 5.6            | 5.613  | –      | 5.609  | 5.630  | 5.514  | –      | –   | –   | –   | –   |
| 6.3            | 6.386  | 6.156  | 6.340  | 6.362  | 6.234  | –      | –   | –   | –   | –   |
| 7.1            | 7.138  | 6.957  | 7.132  | 7.192  | 7.012  | 7.239  | –   | –   | –   | –   |
| 8.0            | 8.108  | 7.915  | 8.101  | 8.090  | 7.965  | 8.143  | –   | –   | –   | –   |
| 9.0            | 8.817  | 8.847  | 8.810  | 9.190  | 8.662  | 9.250  | –   | –   | –   | –   |
| 10.0           | 10.108 | 10.049 | 10.099 | 9.993  | 9.930  | 10.059 | –   | –   | –   | –   |
| 11.2           | 10.923 | 10.928 | 10.914 | 11.456 | 10.731 | 11.531 | –   | –   | –   | –   |
| 12.5           | –      | 12.528 | –      | 12.380 | –      | 12.462 | –   | –   | –   | –   |
| 14.0           | –      | 13.538 | –      | –      | –      | –      | –   | –   | –   | –   |

| i <sub>N</sub> | 133    | 143    | 153    | 163    | 173    | 183    | 193    | 203    | 213    | 223    |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 12.5           | 12.482 | –      | 12.172 | –      | 12.770 | –      | 12.062 | –      | 12.256 | –      |
| 14.0           | 13.721 | –      | 13.810 | 13.832 | 13.790 | 14.654 | 13.709 | 13.698 | 13.902 | 13.719 |
| 16.0           | 16.354 | 15.552 | 15.215 | 15.665 | 16.226 | 16.014 | 15.192 | 15.640 | 15.436 | 15.538 |
| 18.0           | 17.978 | 17.007 | 17.262 | 17.290 | 17.522 | 18.620 | 17.267 | 17.252 | 17.510 | 17.279 |
| 20.0           | 20.276 | 20.376 | 19.379 | 19.581 | 19.762 | 20.348 | 19.607 | 19.698 | 19.883 | 19.570 |
| 22.4           | 22.226 | 22.282 | 21.900 | 21.982 | 22.333 | 22.950 | 22.158 | 22.368 | 22.470 | 22.222 |
| 25.0           | 25.864 | 25.131 | 24.916 | 24.842 | 25.409 | 25.936 | 25.048 | 25.278 | 25.400 | 25.113 |
| 28.0           | 28.587 | 27.548 | 27.847 | 28.263 | 28.398 | 29.507 | 28.175 | 28.576 | 28.571 | 28.389 |
| 31.5           | 32.838 | 32.057 | 31.634 | 31.588 | 32.259 | 32.979 | 32.005 | 32.143 | 32.456 | 31.933 |
| 35.5           | 35.709 | 35.432 | 34.400 | 35.883 | 35.080 | 37.463 | 34.804 | 36.513 | 35.294 | 36.275 |
| 40.0           | 40.936 | 40.700 | 39.435 | 39.021 | 40.215 | 40.738 | 39.899 | 39.706 | 40.461 | 39.446 |
| 45.0           | 44.238 | 44.259 | 42.617 | 44.732 | 43.460 | 46.702 | 43.117 | 45.518 | 43.725 | 45.221 |
| 50.0           | 50.383 | 50.737 | 48.536 | 48.341 | 49.496 | 50.469 | 49.106 | 49.190 | 49.798 | 48.869 |
| 56.0           | 56.639 | 54.831 | 54.562 | 55.055 | 55.641 | 57.479 | 55.203 | 56.022 | 55.981 | 55.656 |
| 63.0           | 62.448 | 62.446 | 60.158 | 61.892 | 61.348 | 64.616 | 60.865 | 62.978 | 61.722 | 62.567 |
| 71.0           | 71.161 | 70.200 | 68.553 | 68.239 | 69.909 | 71.243 | 69.358 | 69.438 | 70.335 | 68.984 |
| 80.0           | –      | 77.400 | –      | 77.761 | –      | 81.184 | –      | 79.127 | –      | 78.610 |
| 90.0           | –      | 88.200 | –      | –      | –      | –      | –      | –      | –      | –      |

| i <sub>N</sub> | 134     | 144     | 154     | 164     | 174     | 184     | 194     | 204     | 214     | 224     |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 80.0           | 82.118  | –       | 78.131  | –       | 76.506  | –       | 79.977  | –       | 77.639  | –       |
| 90.0           | 90.016  | –       | 85.645  | 88.626  | 83.865  | 88.846  | 87.670  | 91.242  | 87.739  | 86.772  |
| 100            | 104.750 | 101.780 | 99.664  | 97.150  | 97.593  | 97.391  | 102.020 | 100.017 | 99.821  | 98.061  |
| 112            | 115.777 | 111.569 | 110.155 | 113.052 | 107.865 | 113.333 | 112.759 | 116.389 | 111.565 | 111.565 |
| 125            | 125.592 | 129.831 | 126.535 | 124.952 | 123.904 | 125.263 | 129.526 | 128.641 | 126.733 | 124.690 |
| 140            | 144.621 | 143.498 | 137.599 | 143.532 | 134.739 | 143.889 | 140.851 | 147.769 | 137.815 | 141.643 |
| 160            | 165.791 | 155.663 | 157.741 | 156.082 | 154.462 | 156.471 | 161.470 | 160.690 | 157.989 | 154.029 |
| 180            | 179.166 | 179.248 | 170.467 | 178.930 | 166.923 | 179.375 | 174.496 | 184.212 | 170.735 | 176.576 |
| 200            | 204.050 | 205.487 | 194.143 | 193.365 | 190.107 | 193.846 | 198.732 | 199.073 | 194.448 | 190.821 |
| 224            | 229.386 | 222.065 | 218.249 | 220.222 | 213.712 | 220.769 | 223.408 | 226.722 | 218.592 | 217.324 |
| 250            | 252.913 | 252.907 | 240.634 | 247.566 | 235.631 | 248.182 | 246.322 | 254.874 | 241.012 | 244.309 |
| 280            | 288.204 | 284.310 | 274.210 | 272.957 | 268.510 | 273.636 | 280.692 | 281.015 | 274.641 | 269.366 |
| 315            | 317.612 | 313.470 | 302.191 | 311.045 | 295.909 | 311.818 | 309.334 | 320.226 | 302.666 | 306.952 |
| 355            | –       | 357.210 | –       | 342.784 | –       | 343.636 | –       | 352.902 | –       | 338.273 |
| 400            | –       | 393.660 | –       | –       | –       | –       | –       | –       | –       | –       |

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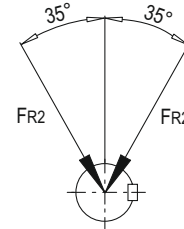
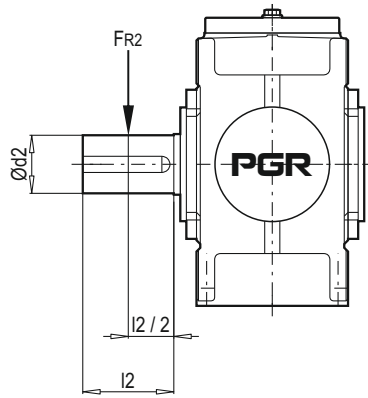
 ÇIKIŞ MİLİ ÜZERİNDE İZİN VERİLEN  
 RADYAL KUVVETLER  $d_2^{(1)}$  / (S)

EN

 PERMISSIBLE ADDITIONAL RADIAL FORCES  
 ON OUTPUT SHAFT  $d_2^{(1)}$  / SOLID SHAFT(S)

DE

 ZULÄSSIGE RADIALE ZUSATZKRÄFTE AN  
 ABTRIEBSWELLE  $d_2^{(1)}$  VOLLWELLE (S)

 Milin merkezine uygulanan kuvvet  
 Application of force on centre of shaft end  
 Kraftangriff auf Mitte Wellenende

 İzin verilen kuvvet yönü  
 Permissible direction of force  
 Zulässige Kraftrichtung

Tablo1 / Table1 / Tabelle1

 Milin merkezinde uygulanacak olan kuvvetler için izin verilen radyal kuvvetler FR2 (kN)  
 Permissible additional radial forces FR2 in kN with application of force on centre of shaft end <sup>3)</sup>  
 Zulässige radiale Zusatzkräfte FR2 in kN bei Kraftangriff Mitte Wellenende

| Tip<br>Type<br>Bauart | Dizayn<br>Design<br>Ausführung | Redüktör gövdeleri / Gear unit sizes / Getriebegrößen <sup>1) 4)</sup> |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |
|-----------------------|--------------------------------|------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|
|                       |                                | 3..                                                                    | 4.. | 5.. | 6.. | 7.. | 8.. | 9.. | 10.. | 11.. | 12.. | 13.. | 14.. | 15.. | 16.. | 17.. | 18.. |
| PH..1SH               | A / B                          | 2)                                                                     | –   | 2)  | –   | 2)  | –   | 2)  | –    | 2)   | –    | 2)   | –    | 2)   |      | 2)   |      |
| PH..2S                | A / B / G / H                  | –                                                                      | 10  | 22  | 22  | 30  | 30  | 30  | 45   | 64   | 64   | 150  | 150  | 140  | 205  | 205  | 205  |
|                       | C / D                          | –                                                                      | 10  | 13  | 13  | 18  | 18  | 10  | 28   | 35   | 35   | 112  | 112  | 85   | 135  | 135  | 135  |
| PB..2S                | A / C                          | –                                                                      | 13  | 27  | 27  | 37  | 37  | 38  | 55   | 78   | 78   | 160  | 160  | 150  | 210  | 210  | 210  |
|                       | B / D                          | –                                                                      | 12  | 15  | 15  | 17  | 17  | 10  | 30   | 35   | 38   | 110  | 110  | 75   | 145  | 100  | 100  |
| PH..3S                | A / B / G / H                  | –                                                                      | –   | 29  | 29  | 40  | 40  | 40  | 60   | 85   | 85   | 190  | 190  | 185  | 265  | 265  | 265  |
| PH..4S                | C / D                          | –                                                                      | –   | –   | –   |     |     |     |      |      |      |      |      |      |      |      |      |
| PB..3S                | A / C                          | –                                                                      | 14  | 29  | 29  |     |     |     |      |      |      |      |      |      |      |      |      |
| PB..4S                | A / C                          | –                                                                      | –   |     |     |     |     |     |      |      |      |      |      |      |      |      |      |
| PH..3S                | C / D                          | –                                                                      | –   | 18  | 18  | 26  | 26  | 18  | 40   | 50   | 50   | 150  | 150  | 120  | 185  | 185  | 190  |
| PH..4S                | A / B                          | –                                                                      | –   | –   | –   |     |     |     |      |      |      |      |      |      |      |      |      |
| PB..3S                | B / D                          | –                                                                      | 9   | 18  | 18  |     |     |     |      |      |      |      |      |      |      |      |      |
| PB..4S                | B / D                          | –                                                                      | –   |     |     |     |     |     |      |      |      |      |      |      |      |      |      |

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ÇIKIŞ MİLİ ÜZERİNDE İZİN VERİLEN  
RADYAL KUVVETLER  $d_2^{(1)}$  / (S)

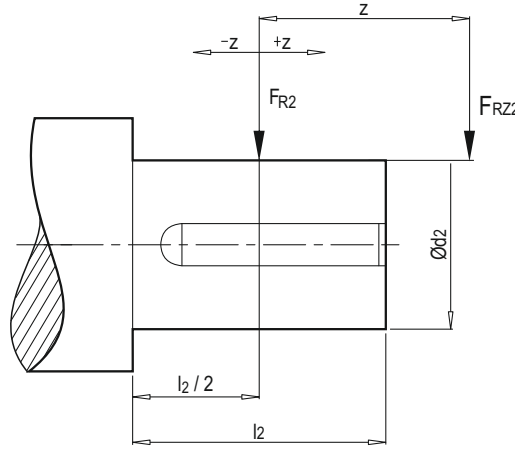
EN

PERMISSIBLE ADDITIONAL RADIAL FORCES  
ON OUTPUT SHAFT  $d_2^{(1)}$  / SOLID SHAFT(S)

DE

ZULÄSSIGE RADIALE ZUSATZKRÄFTE AN  
ABTRIEBSWELLE  $d_2^{(1)}$  VOLLWELLE (S)

Mil merkezinin dışında oluşan  
kuvvet uygulamaları  
Application of force outside the  
centre of the shaft end  
Kraftangriff außerhalb Mitte  
Wellenende



$$F_{R22} = F_{R2} \times k$$

FR22 İzin verilen dış radyal kuvvet  
Permissible external radial force  
Zulässige äußere Radialkraft

Fr2 İzin verilen dış radyal kuvvet  
Tablo 1 sayfa 60'a göre  
Permissible external radial force  
acc. to table 1 Page 60  
Zulässige radiale Zusatzkraft ent-  
sprechend Tabelle 1 Seite 60

k Tabloya göre kuvvet uygulama  
faktörü  
Factor of application of force acc.  
to table  
Kraftangriffsfaktor entsprechend  
Tabelle

Tablo2 / Table2 / Tabelle 2

| Kuvvet uygulama Faktörü k / Factor of application of force k/ Kraftangriffsfaktor k |                                                    |       |       |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------------------------------------------------------------------|----------------------------------------------------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| Gövde<br>Size<br>Größe                                                              | Z mesafesi mm / Distance z in mm / Abstand z in mm |       |       |      |      |      |      |      |      |      |      |      |      |      |      |
|                                                                                     | - 200                                              | - 150 | - 100 | - 75 | - 50 | - 25 | 0    | 25   | 50   | 75   | 100  | 150  | 200  | 250  | 300  |
| 3                                                                                   |                                                    |       |       |      | 1.21 | 1.09 | 1.00 | 0.85 | 0.74 | 0.65 | 0.58 | 0.48 |      |      |      |
| 4                                                                                   |                                                    |       |       |      | 1.17 | 1.08 | 1.00 | 0.86 | 0.76 | 0.68 | 0.62 | 0.52 | 0.44 |      |      |
| 5 + 6                                                                               |                                                    |       |       | 1.22 | 1.14 | 1.06 | 1.00 | 0.88 | 0.79 | 0.72 | 0.66 | 0.56 | 0.49 | 0.43 |      |
| 7 + 8                                                                               |                                                    |       |       | 1.19 | 1.12 | 1.06 | 1.00 | 0.89 | 0.81 | 0.74 | 0.68 | 0.58 | 0.51 | 0.46 | 0.41 |
| 9 + 10                                                                              |                                                    |       | 1.22  | 1.15 | 1.10 | 1.05 | 1.00 | 0.90 | 0.82 | 0.76 | 0.70 | 0.61 | 0.54 | 0.48 | 0.44 |
| 11 + 12                                                                             |                                                    |       | 1.18  | 1.13 | 1.08 | 1.04 | 1.00 | 0.91 | 0.84 | 0.78 | 0.73 | 0.64 | 0.57 | 0.51 | 0.47 |
| 13 + 14                                                                             |                                                    | 1.24  | 1.15  | 1.11 | 1.07 | 1.03 | 1.00 | 0.92 | 0.86 | 0.80 | 0.75 | 0.67 | 0.60 | 0.55 | 0.50 |
| 15 + 16                                                                             |                                                    | 1.20  | 1.12  | 1.09 | 1.06 | 1.03 | 1.00 | 0.93 | 0.87 | 0.82 | 0.77 | 0.69 | 0.63 | 0.58 | 0.53 |
| 17 + 18                                                                             | 1.25                                               | 1.17  | 1.11  | 1.08 | 1.05 | 1.03 | 1.00 | 0.94 | 0.88 | 0.84 | 0.79 | 0.72 | 0.66 | 0.60 | 0.56 |

- 1) Tablo değerleri, en düşük değerlerdir ve  $f_1 \geq 1.2$  durumu için geçerlidir. Bir kuvvetin uygulama açısı ve dönme yönü bilindiğinde, genellikle daha yüksek ilave kuvvetlere izin verilebilir. Lütfen, bu konuyu mutlaka PGR ile görüşün.  
Gerek varsa, güçlendirilmiş bir çıkış mili kullanılabilir.
- 2) Talep edildiğinde temin edilir.
- 3) Mil ucunun ortasına dıştan kuvvet uygulanması durumu için, lütfen sayfa 61'e bakın.
- 4) Civata kalitesi en az 8.8 olan taban vidaları kullanılır. Zemin, kuru ve yağsız olmalıdır.

- 1) Values in tables are minimum values. They are valid for  $f_1 \geq 1.2$ . If the angle of application of force and the direction of rotation are given, significantly higher additional forces can mostly be allowed.  
Please consult us.  
If necessary, a reinforced output shaft (V) can be used.
- 2) On request
- 3) For application of force outside the centre of the shaft end, see page 61.
- 4) Use foundation bolts of min. property class 8.8 foundation must be dry and grease-free.

- 1) Tabellenwerte sind Mindestwerte, Sie gelten für  $f_1 \geq 1.2$ . Unter Angabe von Angriffswinkel und Drehrichtung können meist bedeutend höhere Zusatzkräfte zugelassen werden.  
Rücksprache ist erforderlich.  
Gegebenfalls ist der Einsatz einer verstärkten Abtriebswelle (V) möglich.
- 2) Auf Anfrage
- 3) Bei Kraftangriff außerhalb Mitte Wellenende siehe Seite 61
- 4) Fußschrauben mit Mindest - Festigkeitsklasse 8.8 verwenden. Fundament muss trocken und fettfrei sein.

Talep edildiğinde:

- d1 Giriş milinde izin verilen ilave radyal kuvvetler,
- Her iki taraftaki çıkış millerinde (E modeli ve I) izin verilen ilave radyal kuvvetler,
- 19 - 22 gövde büyüklükleri için, izin verilen ilave radyal kuvvetler, temin edilir.

On request:

- Permissible additional radial forces on input shaft  $d_1$ .
- Permissible additional radial forces on solid output shafts on both sides (assemblies E, F and I).
- Permissible additional radial forces for gear unit sizes 19 - 22

Auf Anfrage:

- zulässige radiale Zusatzkräfte an Antriebswelle  $d_1$ .
- zulässige radiale Zusatzkräfte an beidseitigen Abtriebsvollwellen (Ausführungen E, F und I).
- zulässige radiale Zusatzkräfte für die Getriebegrößen 19 - 22.

TR KÜTLE ATALET MOMENTİ J1 (kgm<sup>2</sup>)

EN MASS MOMENTS OF INERTIA J1 IN kgm<sup>2</sup>  
REFERRING TO SHAFT d1

DE MASSENTRÄGHEITSMOMENTE J1 IN kgm<sup>2</sup>  
BEZOGEN AUF WELLE d1

| i <sub>N</sub> | Redüktör gövdeleri / Gear unit sizes / Getriebegrößen |         |         |         |         |         |         |         |         |         |
|----------------|-------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                | 31                                                    | 41      | 51      | 61      | 71      | 81      | 91      | 101     | 111     | 121     |
| 1.25           | 0.02855                                               | —       | 0.15709 | —       | 0.42300 | —       | 0.92932 | —       | —       | —       |
| 1.4            | 0.02589                                               | —       | 0.14349 | —       | 0.38558 | —       | 0.84322 | —       | —       | —       |
| 1.6            | 0.02243                                               | —       | 0.12352 | —       | 0.33519 | —       | 0.72861 | —       | 1.74977 | —       |
| 1.8            | 0.01974                                               | —       | 0.10903 | —       | 0.30515 | —       | 0.66019 | —       | 1.58798 | —       |
| 2.0            | 0.01820                                               | —       | 0.09932 | —       | 0.27747 | —       | 0.59704 | —       | 1.43757 | —       |
| 2.24           | 0.01677                                               | —       | 0.09029 | —       | 0.23964 | —       | 0.53840 | —       | 1.29698 | —       |
| 2.5            | 0.01479                                               | —       | 0.08187 | —       | 0.21652 | —       | 0.48366 | —       | 1.16495 | —       |
| 2.8            | 0.01347                                               | —       | 0.07398 | —       | 0.20156 | —       | 0.44378 | —       | 1.04055 | —       |
| 3.15           | 0.00915                                               | —       | 0.05006 | —       | 0.14031 | —       | 0.31089 | —       | 0.84211 | —       |
| 3.55           | 0.00807                                               | —       | 0.04369 | —       | 0.12256 | —       | 0.27320 | —       | 0.73595 | —       |
| 4.0            | 0.00702                                               | —       | 0.03797 | —       | 0.10584 | —       | 0.23756 | —       | 0.64640 | —       |
| 4.5            | 0.00522                                               | —       | 0.02975 | —       | 0.08623 | —       | 0.19980 | —       | 0.49550 | —       |
| 5.0            | 0.00451                                               | —       | 0.02756 | —       | 0.07492 | —       | 0.17089 | —       | 0.40618 | —       |
| 5.6            | 0.00384                                               | —       | 0.02332 | —       | 0.06407 | —       | 0.14114 | —       | 0.37471 | —       |
| JL             | 0.060                                                 | —       | 0.045   | —       | 0.100   | —       | 0.100   | —       | 0.290   | —       |
|                | 32                                                    | 42      | 52      | 62      | 72      | 82      | 92      | 102     | 112     | 122     |
| 6.3            | —                                                     | 0.01493 | 0.03380 | —       | 0.09209 | —       | 0.20124 | —       | 0.52103 | —       |
| 7.1            | —                                                     | 0.01340 | 0.02812 | —       | 0.07563 | —       | 0.16652 | —       | 0.45488 | —       |
| 8.0            | —                                                     | 0.01138 | 0.02503 | 0.03969 | 0.06630 | 0.11062 | 0.14592 | 0.23956 | 0.39684 | 0.63968 |
| 9.0            | —                                                     | 0.01020 | 0.02227 | 0.03260 | 0.05805 | 0.08946 | 0.12771 | 0.19511 | 0.32236 | 0.55211 |
| 10.0           | —                                                     | 0.00860 | 0.01857 | 0.02877 | 0.05058 | 0.07759 | 0.11102 | 0.16927 | 0.27967 | 0.47606 |
| 11.2           | —                                                     | 0.00757 | 0.01619 | 0.02538 | 0.04457 | 0.06721 | 0.09506 | 0.14665 | 0.25168 | 0.37982 |
| 12.5           | —                                                     | 0.00527 | 0.01187 | 0.02089 | 0.03379 | 0.05794 | 0.07209 | 0.12624 | 0.19234 | 0.32553 |
| 14.0           | —                                                     | 0.00453 | 0.01013 | 0.01809 | 0.02691 | 0.05063 | 0.06102 | 0.10716 | 0.16348 | 0.29072 |
| 16.0           | —                                                     | 0.00384 | 0.00853 | 0.01340 | 0.02264 | 0.03872 | 0.05133 | 0.08159 | 0.13633 | 0.22357 |
| 18.0           | —                                                     | 0.00320 | 0.00758 | 0.01136 | 0.02005 | 0.03044 | 0.04385 | 0.06852 | 0.12189 | 0.18813 |
| 20.0           | —                                                     | 0.00276 | 0.00649 | 0.00949 | 0.01712 | 0.02542 | 0.04039 | 0.05722 | 0.10460 | 0.15546 |
| 22.4           | —                                                     | 0.00230 | 0.00550 | 0.00834 | 0.01578 | 0.02227 | 0.03414 | 0.04838 | 0.08840 | 0.13769 |
| 25.0           | —                                                     | —       | —       | 0.00710 | —       | 0.01888 | —       | 0.04442 | —       | 0.11733 |
| 28.0           | —                                                     | —       | —       | 0.00598 | —       | 0.01734 | —       | 0.03728 | —       | 0.09842 |
| JL             | —                                                     | 0.006   | 0.010   | 0.010   | 0.045   | 0.045   | 0.045   | 0.045   | 0.100   | 0.100   |
|                | 33                                                    | 43      | 53      | 63      | 73      | 83      | 93      | 103     | 113     | 123     |
| 22.4           | —                                                     | —       | —       | —       | —       | —       | —       | —       | —       | —       |
| 25.0           | —                                                     | —       | 0.00645 | —       | 0.01629 | —       | 0.03910 | —       | 0.10272 | —       |
| 28.0           | —                                                     | —       | 0.00536 | —       | 0.01447 | —       | 0.03237 | —       | 0.08333 | —       |
| 31.5           | —                                                     | —       | 0.00474 | 0.00682 | 0.01209 | 0.01734 | 0.02874 | 0.04142 | 0.07242 | 0.11030 |
| 35.5           | —                                                     | —       | 0.00418 | 0.00565 | 0.01070 | 0.01536 | 0.02550 | 0.03413 | 0.06284 | 0.08898 |
| 40.0           | —                                                     | —       | 0.00343 | 0.00498 | 0.00888 | 0.01278 | 0.02129 | 0.03021 | 0.05440 | 0.07704 |
| 45.0           | —                                                     | —       | 0.00301 | 0.00438 | 0.00782 | 0.01129 | 0.01874 | 0.02673 | 0.04799 | 0.06659 |
| 50.0           | —                                                     | —       | 0.00228 | 0.00358 | 0.00570 | 0.00933 | 0.01359 | 0.02221 | 0.03603 | 0.05741 |
| 56.0           | —                                                     | —       | 0.00194 | 0.00313 | 0.00487 | 0.00819 | 0.01162 | 0.01949 | 0.02835 | 0.05047 |
| 63.0           | —                                                     | —       | 0.00163 | 0.00238 | 0.00413 | 0.00597 | 0.00982 | 0.01419 | 0.02386 | 0.03805 |
| 71.0           | —                                                     | —       | 0.00123 | 0.00202 | 0.00324 | 0.00509 | 0.00738 | 0.01210 | 0.01900 | 0.02979 |
| 80.0           | —                                                     | —       | 0.00102 | 0.00169 | 0.00278 | 0.00430 | 0.00624 | 0.01020 | 0.01595 | 0.02500 |
| 90.0           | —                                                     | —       | 0.00088 | 0.00128 | 0.00229 | 0.00337 | 0.00520 | 0.00768 | 0.01453 | 0.01991 |
| 100            | —                                                     | —       | —       | 0.00106 | —       | 0.00289 | —       | 0.00648 | —       | 0.01667 |
| 112            | —                                                     | —       | —       | 0.00091 | —       | 0.00238 | —       | 0.00539 | —       | 0.01517 |
| JL             | —                                                     | —       | 0.006   | 0.006   | 0.010   | 0.010   | 0.020   | 0.020   | 0.045   | 0.045   |
|                | 34                                                    | 44      | 54      | 64      | 74      | 84      | 94      | 104     | 114     | 124     |
| 100            | —                                                     | —       | —       | —       | 0.00328 | —       | 0.00667 | —       | 0.01753 | —       |
| 112            | —                                                     | —       | —       | —       | 0.00274 | —       | 0.00552 | —       | 0.01560 | —       |
| 125            | —                                                     | —       | —       | —       | 0.00243 | 0.00334 | 0.00486 | 0.00683 | 0.01310 | 0.01796 |
| 140            | —                                                     | —       | —       | —       | 0.00202 | 0.00279 | 0.00428 | 0.00564 | 0.01164 | 0.01597 |
| 160            | —                                                     | —       | —       | —       | 0.00176 | 0.00247 | 0.00348 | 0.00496 | 0.00970 | 0.01338 |
| 180            | —                                                     | —       | —       | —       | 0.00153 | 0.00205 | 0.00300 | 0.00436 | 0.00848 | 0.01188 |
| 200            | —                                                     | —       | —       | —       | 0.00124 | 0.00178 | 0.00230 | 0.00354 | 0.00595 | 0.00988 |
| 224            | —                                                     | —       | —       | —       | 0.00097 | 0.00155 | 0.00195 | 0.00305 | 0.00508 | 0.00863 |
| 250            | —                                                     | —       | —       | —       | 0.00081 | 0.00126 | 0.00163 | 0.00234 | 0.00428 | 0.00606 |
| 280            | —                                                     | —       | —       | —       | 0.00065 | 0.00098 | 0.00134 | 0.00199 | 0.00354 | 0.00517 |
| 315            | —                                                     | —       | —       | —       | 0.00060 | 0.00082 | 0.00112 | 0.00165 | 0.00304 | 0.00435 |
| 355            | —                                                     | —       | —       | —       | 0.00050 | 0.00066 | 0.00097 | 0.00136 | 0.00252 | 0.00360 |
| 400            | —                                                     | —       | —       | —       | —       | 0.00060 | —       | 0.00114 | —       | 0.00309 |
| 450            | —                                                     | —       | —       | —       | —       | 0.00050 | —       | 0.00098 | —       | 0.00256 |

Redüktörün d<sub>2</sub> çıkış miline ilişkin kgm<sup>2</sup> cinsinden J2 Atalet Momenti, şu formülle hesaplanır: J<sub>2</sub>=i<sub>N</sub><sup>2</sup>xJ<sub>1</sub> kgm<sup>2</sup> cinsinden J<sub>1</sub> Atalet Momentleri, redüktörün d<sub>1</sub> giriş miline bağlıdır ve fansız d<sub>1</sub> giriş milleri için geçerlidir.  
Fanlı d<sub>1</sub> millerinde ise JL ilave edilir.  
Fanlı milli redüktörlerin değerleri, talep üzerine temin edilir.

The mass moment of inertia J2 in kgm<sup>2</sup> refers to the output shaft d2 of a gear unit and is calculated with the following formula: J<sub>2</sub> = i<sub>N</sub><sup>2</sup> x J<sub>1</sub>. The mass moment of inertia J<sub>1</sub> in kgm<sup>2</sup> refers to the input shaft d1 of a gear unit without fan.  
For shaft d1 with fan, JL has to be added.  
Values for gear units with flanged shaft on request.

Das auf Welle d<sub>2</sub> eines Getriebes bezogene Massenträgheitsmoment J2 in kgm<sup>2</sup> wird nach folgender Formel errechnet: J<sub>2</sub> = i<sub>N</sub><sup>2</sup> x J<sub>1</sub>. Die Massenträgheitsmomente J<sub>1</sub> in kgm<sup>2</sup> sind auf Welle d<sub>1</sub> der Getriebe bezogen und gelten für Welle d<sub>1</sub> ohne Lüfter.  
Bei Welle d<sub>1</sub> mit Lüfter ist JL zu addieren.  
Werte für Flanschwellengetriebe auf Anfrage.



TR KÜTLE ATALET MOMENTİ J<sub>1</sub> (kgm<sup>2</sup>)

EN MASS MOMENTS OF INERTIA J<sub>1</sub> IN kgm<sup>2</sup>  
REFERRING TO SHAFT d<sub>1</sub>

DE MASSENTRÄGHEITSMOMENTE J<sub>1</sub> IN kgm<sup>2</sup>  
BEZOGEN AUF WELLE d<sub>1</sub>

| i <sub>N</sub> | Redüktör gövdeleri / Gear unit sizes / Getriebegrößen |         |         |         |         |         |         |         |         |
|----------------|-------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                | 42                                                    | 52      | 62      | 72      | 82      | 92      | 102     | 112     | 122     |
| 5.0            | 0.03211                                               | 0.07501 | –       | 0.20154 | –       | 0.44627 | –       | 1.29058 | –       |
| 5.6            | 0.03024                                               | 0.06915 | –       | 0.17137 | –       | 0.37934 | –       | 1.08250 | –       |
| 6.3            | 0.02673                                               | 0.05791 | 0.08406 | 0.13819 | 0.23057 | 0.30248 | 0.50622 | 0.85265 | 1.48203 |
| 7.1            | 0.02249                                               | 0.04955 | 0.07668 | 0.11905 | 0.19554 | 0.25734 | 0.42923 | 0.73360 | 1.23242 |
| 8.0            | 0.01814                                               | 0.03799 | 0.06347 | 0.08858 | 0.15603 | 0.18973 | 0.33932 | 0.53110 | 0.96847 |
| 9.0            | 0.01486                                               | 0.03115 | 0.05410 | 0.07952 | 0.13365 | 0.17287 | 0.28749 | 0.48051 | 0.82632 |
| 10.0           | 0.01037                                               | 0.02538 | 0.04185 | 0.06883 | 0.09965 | 0.14614 | 0.21259 | 0.41113 | 0.60295 |
| 11.2           | 0.00931                                               | 0.02176 | 0.03406 | 0.05956 | 0.08888 | 0.12482 | 0.19220 | 0.35269 | 0.54127 |
| 12.5           | –                                                     | –       | 0.02760 | –       | 0.07596 | –       | 0.16085 | –       | 0.45737 |
| 14.0           | –                                                     | –       | 0.02366 | –       | 0.06566 | –       | 0.13741 | –       | 0.39227 |
| JL             | 0.020                                                 | 0.045   | 0.045   | 0.100   | 0.100   | 0.100   | 0.100   | 0.290   | 0.290   |
|                | 43                                                    | 53      | 63      | 73      | 83      | 93      | 103     | 113     | 123     |
| 12.5           | 0.00756                                               | 0.01615 | –       | 0.04549 | –       | 0.10285 | –       | 0.27616 | –       |
| 14.0           | 0.00734                                               | 0.01575 | –       | 0.04455 | –       | 0.09999 | –       | 0.26878 | –       |
| 16.0           | 0.00623                                               | 0.01371 | 0.01750 | 0.03768 | 0.04966 | 0.08727 | 0.11205 | 0.23571 | 0.30357 |
| 18.0           | 0.00610                                               | 0.01346 | 0.01695 | 0.03713 | 0.04831 | 0.08550 | 0.10750 | 0.23105 | 0.29302 |
| 20.0           | 0.00569                                               | 0.01248 | 0.01458 | 0.03464 | 0.04011 | 0.07999 | 0.09297 | 0.21547 | 0.25301 |
| 22.4           | 0.00527                                               | 0.01157 | 0.01422 | 0.03229 | 0.03933 | 0.07329 | 0.09015 | 0.18297 | 0.24635 |
| 25.0           | 0.00456                                               | 0.01073 | 0.01308 | 0.02828 | 0.03637 | 0.06097 | 0.08364 | 0.14675 | 0.22734 |
| 28.0           | 0.00394                                               | 0.00881 | 0.01206 | 0.02376 | 0.03369 | 0.05206 | 0.07633 | 0.12605 | 0.19285 |
| 31.5           | 0.00335                                               | 0.00730 | 0.01109 | 0.01922 | 0.02934 | 0.04011 | 0.06322 | 0.09389 | 0.15405 |
| 35.5           | 0.00271                                               | 0.00586 | 0.00911 | 0.01568 | 0.02463 | 0.03275 | 0.05390 | 0.08401 | 0.13203 |
| 40.0           | 0.00190                                               | 0.00416 | 0.00755 | 0.01100 | 0.01996 | 0.02660 | 0.04168 | 0.07225 | 0.09842 |
| 45.0           | 0.00177                                               | 0.00393 | 0.00605 | 0.00984 | 0.01624 | 0.02280 | 0.03393 | 0.06249 | 0.08784 |
| 50.0           | 0.00129                                               | 0.00301 | 0.00431 | 0.00812 | 0.01143 | 0.01784 | 0.02750 | 0.04683 | 0.07516 |
| 56.0           | 0.00105                                               | 0.00248 | 0.00405 | 0.00682 | 0.01020 | 0.01462 | 0.02357 | 0.03850 | 0.06498 |
| 63.0           | 0.00087                                               | 0.00207 | 0.00310 | 0.00589 | 0.00840 | 0.01242 | 0.01844 | 0.03265 | 0.04876 |
| 71.0           | 0.00067                                               | 0.00157 | 0.00256 | 0.00467 | 0.00705 | 0.00997 | 0.01509 | 0.02622 | 0.04002 |
| 80.0           | –                                                     | –       | 0.00213 | –       | 0.00607 | –       | 0.01280 | –       | 0.03390 |
| 90.0           | –                                                     | –       | 0.00162 | –       | 0.00481 | –       | 0.01027 | –       | 0.02719 |
| JL             | 0.006                                                 | 0.010   | 0.010   | 0.020   | 0.020   | 0.045   | 0.045   | 0.100   | 0.100   |
|                | 44                                                    | 54      | 64      | 74      | 84      | 94      | 104     | 114     | 124     |
| 80.0           | –                                                     | 0.00240 | –       | 0.00589 | –       | 0.01293 | –       | 0.03573 | –       |
| 90.0           | –                                                     | 0.00227 | –       | 0.00543 | –       | 0.01193 | –       | 0.03317 | –       |
| 100            | –                                                     | 0.00200 | 0.00244 | 0.00468 | 0.00600 | 0.01100 | 0.01317 | 0.02895 | 0.03644 |
| 112            | –                                                     | 0.00176 | 0.00230 | 0.00404 | 0.00551 | 0.00903 | 0.01212 | 0.02431 | 0.03375 |
| 125            | –                                                     | 0.00145 | 0.00202 | 0.00344 | 0.00474 | 0.00749 | 0.01114 | 0.01969 | 0.02939 |
| 140            | –                                                     | 0.00117 | 0.00178 | 0.00278 | 0.00409 | 0.00600 | 0.00915 | 0.01603 | 0.02467 |
| 160            | –                                                     | 0.00091 | 0.00147 | 0.00195 | 0.00348 | 0.00427 | 0.00759 | 0.01127 | 0.01999 |
| 180            | –                                                     | 0.00085 | 0.00118 | 0.00181 | 0.00281 | 0.00402 | 0.00608 | 0.01007 | 0.01626 |
| 200            | –                                                     | 0.00058 | 0.00092 | 0.00132 | 0.00198 | 0.00308 | 0.00433 | 0.00830 | 0.01145 |
| 224            | –                                                     | 0.00047 | 0.00086 | 0.00108 | 0.00183 | 0.00254 | 0.00407 | 0.00696 | 0.01021 |
| 250            | –                                                     | 0.00043 | 0.00058 | 0.00090 | 0.00134 | 0.00211 | 0.00312 | 0.00600 | 0.00841 |
| 280            | –                                                     | 0.00033 | 0.00047 | 0.00069 | 0.00109 | 0.00160 | 0.00257 | 0.00476 | 0.00705 |
| 315            | –                                                     | 0.00028 | 0.00043 | 0.00058 | 0.00091 | 0.00136 | 0.00214 | 0.00405 | 0.00608 |
| 355            | –                                                     | –       | 0.00034 | –       | 0.00070 | –       | 0.00162 | –       | 0.00482 |
| 400            | –                                                     | –       | 0.00028 | –       | 0.00059 | –       | 0.00138 | –       | 0.00409 |

Redüktörün d<sub>2</sub> çıkış miline ilişkin kgm<sup>2</sup> cinsinden J<sub>2</sub> Atalet Momenti, şu formülle hesaplanır:  $J_2 = i_N^2 \times J_1$  kgm<sup>2</sup> cinsinden J<sub>1</sub> Atalet Momentleri, redüktörün d<sub>1</sub> giriş miline bağlıdır ve fansız d<sub>1</sub> giriş milleri için geçerlidir.  
Fanlı d<sub>1</sub> millerinde ise JL ilave edilir.  
Fanlı milli redüktörlerin değerleri, talep üzerine temin edilir.

The mass moment of inertia J<sub>2</sub> in kgm<sup>2</sup> refers to the output shaft d<sub>2</sub> of a gear unit and is calculated with the following formula:  $J_2 = i_N^2 \times J_1$ . The mass moment of inertia J<sub>1</sub> in kgm<sup>2</sup> refers to the input shaft d<sub>1</sub> of a gear unit without fan.  
For shaft d<sub>1</sub> with fan, JL has to be added.  
Values for gear units with flanged shaft on request.

Das auf Welle d<sub>2</sub> eines Getriebes bezogene Massenträgheitsmoment J<sub>2</sub> in kgm<sup>2</sup> wird nach folgender Formel errechnet:  $J_2 = i_N^2 \times J_1$ . Die Massenträgheitsmomente J<sub>1</sub> in kgm<sup>2</sup> sind auf Welle d<sub>1</sub> der Getriebe bezogen und gelten für Welle d<sub>1</sub> ohne Lüfter.  
Bei Welle d<sub>1</sub> mit Lüfter ist JL zu addieren.  
Werte für Flanschwellengetriebe auf Anfrage.

TR KÜTLE ATALET MOMENTİ J1 (kgm<sup>2</sup>)

EN MASS MOMENTS OF INERTIA J1 IN kgm<sup>2</sup>  
REFERRING TO SHAFT d1

DE MASSENTRÄGHEITSMOMENTE J1 IN kgm<sup>2</sup>  
BEZOGEN AUF WELLE d1

| i <sub>N</sub> | Redüktör gövdeleri / Gear unit sizes / Getriebegrößen |         |         |         |          |         |         |         |         |         |
|----------------|-------------------------------------------------------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
|                | 132                                                   | 142     | 152     | 162     | 172      | 182     | 192     | 202     | 212     | 222     |
| 5.0            | 2.79496                                               | –       | 6.25795 | –       | –        | –       | –       | –       | –       | –       |
| 5.6            | 2.36141                                               | –       | 5.40648 | 6.66677 | 10.37011 | –       | –       | –       | –       | –       |
| 6.3            | 1.86785                                               | 3.10156 | 4.49760 | 5.72660 | 8.58657  | –       | –       | –       | –       | –       |
| 7.1            | 1.63448                                               | 2.60149 | 3.77001 | 4.74810 | 7.14219  | 9.06446 | –       | –       | –       | –       |
| 8.0            | 1.18384                                               | 2.05333 | 2.78214 | 3.96800 | 5.01824  | 7.51989 | –       | –       | –       | –       |
| 9.0            | 1.06973                                               | 1.78297 | 2.53133 | 2.93557 | 4.52494  | 5.31094 | –       | –       | –       | –       |
| 10.0           | 0.92751                                               | 1.29891 | 2.16711 | 2.66107 | 3.85677  | 4.77245 | –       | –       | –       | –       |
| 11.2           | 0.80120                                               | 1.16704 | 1.81377 | 2.26584 | 3.32075  | 4.04511 | –       | –       | –       | –       |
| 12.5           | –                                                     | 1.00155 | –       | 1.89831 | –        | 3.48202 | –       | –       | –       | –       |
| 14.0           | –                                                     | 0.86460 | –       | –       | –        | –       | –       | –       | –       | –       |
| JL             | 0.690                                                 | 0.690   | 0.690   | 0.690   | 0.690    | 0.690   | –       | –       | –       | –       |
|                | 133                                                   | 143     | 153     | 163     | 173      | 183     | 193     | 203     | 213     | 223     |
| 12.5           | 0.61844                                               | –       | 1.69718 | –       | 3.48560  | –       | 7.88960 | –       | 8.38770 | –       |
| 14.0           | 0.60537                                               | –       | 1.65740 | 1.76004 | 3.44624  | 3.60423 | 7.73050 | 8.06590 | 8.21860 | 8.60520 |
| 16.0           | 0.51600                                               | 0.66451 | 1.48103 | 1.70973 | 3.06690  | 3.54418 | 6.99890 | 7.84000 | 7.44080 | 8.36430 |
| 18.0           | 0.50838                                               | 0.64618 | 1.45557 | 1.52126 | 3.04252  | 3.14038 | 6.83980 | 6.95600 | 7.27170 | 7.41420 |
| 20.0           | 0.47566                                               | 0.54284 | 1.37309 | 1.48906 | 2.88266  | 3.10318 | 6.37936 | 6.83990 | 6.79596 | 7.29720 |
| 22.4           | 0.40380                                               | 0.53216 | 1.14711 | 1.39966 | 2.43009  | 2.93035 | 5.50155 | 6.46478 | 5.82775 | 6.91637 |
| 25.0           | 0.32054                                               | 0.49435 | 0.90256 | 1.16792 | 1.92090  | 2.46743 | 4.57199 | 5.56843 | 4.82726 | 5.92204 |
| 28.0           | 0.27212                                               | 0.41936 | 0.77356 | 0.91864 | 1.67696  | 1.94976 | 3.82881 | 4.62433 | 4.03056 | 4.90105 |
| 31.5           | 0.20094                                               | 0.33203 | 0.56206 | 0.78643 | 1.21675  | 1.70005 | 2.82771 | 3.87017 | 2.98405 | 4.08888 |
| 35.5           | 0.18235                                               | 0.28152 | 0.50670 | 0.57204 | 1.09757  | 1.23465 | 2.56986 | 2.85976 | 2.70207 | 3.02924 |
| 40.0           | 0.15335                                               | 0.20806 | 0.43106 | 0.51513 | 0.94869  | 1.11270 | 2.19643 | 2.59697 | 2.29704 | 2.74029 |
| 45.0           | 0.13099                                               | 0.18837 | 0.36975 | 0.43748 | 0.81933  | 0.96021 | 1.83887 | 2.21706 | 1.92502 | 2.32612 |
| 50.0           | 0.10268                                               | 0.15794 | 0.27673 | 0.37524 | 0.57171  | 0.82919 | 1.40288 | 1.85654 | 1.46929 | 1.94992 |
| 56.0           | 0.08549                                               | 0.13492 | 0.22863 | 0.28096 | 0.46952  | 0.57931 | 1.14615 | 1.41650 | 1.19871 | 1.48849 |
| 63.0           | 0.07262                                               | 0.10571 | 0.19582 | 0.23198 | 0.40563  | 0.47553 | 1.04477 | 1.15693 | 1.08801 | 1.21390 |
| 71.0           | 0.05866                                               | 0.08789 | 0.15881 | 0.19858 | 0.33347  | 0.41058 | 0.84654 | 1.05364 | 0.87983 | 1.10050 |
| 80.0           | –                                                     | 0.07459 | –       | 0.16093 | –        | 0.33728 | –       | 0.85337 | –       | 0.88945 |
| 90.0           | –                                                     | 0.06017 | –       | –       | –        | –       | –       | –       | –       | –       |
| JL             | 0.290                                                 | 0.290   | 0.290   | 0.290   | 0.690    | 0.690   | 0.690   | 0.690   | 0.690   | 0.690   |
|                | 134                                                   | 144     | 154     | 164     | 174      | 184     | 194     | 204     | 214     | 224     |
| 80.0           | 0.08226                                               | –       | 0.22213 | –       | 0.22783  | –       | 0.49622 | –       | 1.41079 | –       |
| 90.0           | 0.07518                                               | –       | 0.18851 | 0.22377 | 0.19326  | 0.23101 | 0.42091 | 0.50136 | 1.17663 | 1.41869 |
| 100            | 0.06237                                               | 0.08339 | 0.15085 | 0.18988 | 0.15435  | 0.19590 | 0.33318 | 0.42519 | 0.92537 | 1.18281 |
| 112            | 0.05320                                               | 0.07613 | 0.12941 | 0.15185 | 0.13227  | 0.15630 | 0.28247 | 0.33633 | 0.79182 | 0.93015 |
| 125            | 0.04108                                               | 0.06307 | 0.09644 | 0.13023 | 0.09861  | 0.13387 | 0.20878 | 0.28505 | 0.57621 | 0.79564 |
| 140            | 0.03348                                               | 0.05377 | 0.08616 | 0.09706 | 0.08799  | 0.09982 | 0.18898 | 0.21073 | 0.51866 | 0.57917 |
| 160            | 0.02716                                               | 0.04157 | 0.07389 | 0.08669 | 0.07528  | 0.08902 | 0.15840 | 0.19063 | 0.44016 | 0.52117 |
| 180            | 0.02328                                               | 0.03385 | 0.06389 | 0.07429 | 0.06509  | 0.07606 | 0.13531 | 0.15966 | 0.37754 | 0.44207 |
| 200            | 0.01821                                               | 0.02744 | 0.04791 | 0.06423 | 0.04883  | 0.06575 | 0.10601 | 0.13639 | 0.28273 | 0.37918 |
| 224            | 0.01491                                               | 0.02352 | 0.03935 | 0.04818 | 0.04008  | 0.04935 | 0.08813 | 0.10684 | 0.23338 | 0.28399 |
| 250            | 0.01266                                               | 0.01840 | 0.03335 | 0.03956 | 0.03395  | 0.04049 | 0.07479 | 0.08879 | 0.19973 | 0.23438 |
| 280            | 0.01016                                               | 0.01506 | 0.02676 | 0.03353 | 0.02723  | 0.03429 | 0.06032 | 0.07533 | 0.16181 | 0.20055 |
| 315            | 0.00812                                               | 0.01278 | 0.02169 | 0.02690 | 0.02207  | 0.02748 | 0.04934 | 0.06074 | 0.12885 | 0.16245 |
| 355            | –                                                     | 0.01025 | –       | 0.02180 | –        | 0.02228 | –       | 0.04968 | –       | 0.12937 |
| 400            | –                                                     | 0.00820 | –       | –       | –        | –       | –       | –       | –       | –       |

Redüktörün d<sub>2</sub> çıkış miline ilişkin kgm<sup>2</sup> cinsinden J2 Atalet Momenti, şu formülle hesaplanır:  $J_2 = i_N^2 \times J_1$  kgm<sup>2</sup> cinsinden J<sub>1</sub> Atalet Momentleri, redüktörün d<sub>1</sub> giriş miline bağlıdır ve fansız d<sub>1</sub> giriş milleri için geçerlidir.  
Fanlı d<sub>1</sub> millerinde ise JL ilave edilir.  
Fanlı millili redüktörlerin değerleri, talep üzerine temin edilir.

The mass moment of inertia J2 in kgm<sup>2</sup> refers to the output shaft d<sub>2</sub> of a gear unit and is calculated with the following formula:  $J_2 = i_N^2 \times J_1$ . The mass moment of inertia J1 in kgm<sup>2</sup> refers to the input shaft d1 of a gear unit without fan.  
For shaft d1 with fan, JL has to be added.  
Values for gear units with flanged shaft on request.

Das auf Welle d<sub>2</sub> eines Getriebes bezogene Massenträgheitsmoment J2 in kgm<sup>2</sup> wird nach folgender Formel errechnet:  $J_2 = i_N^2 \times J_1$ . Die Massenträgheitsmomente J1 in kgm<sup>2</sup> sind auf Welle d1 der Getriebe bezogen und gelten für Welle d1 ohne Lüfter.  
Bei Welle d1 mit Lüfter ist JL zu addieren.  
Werte für Flanschwellengetriebe auf Anfrage.

TR

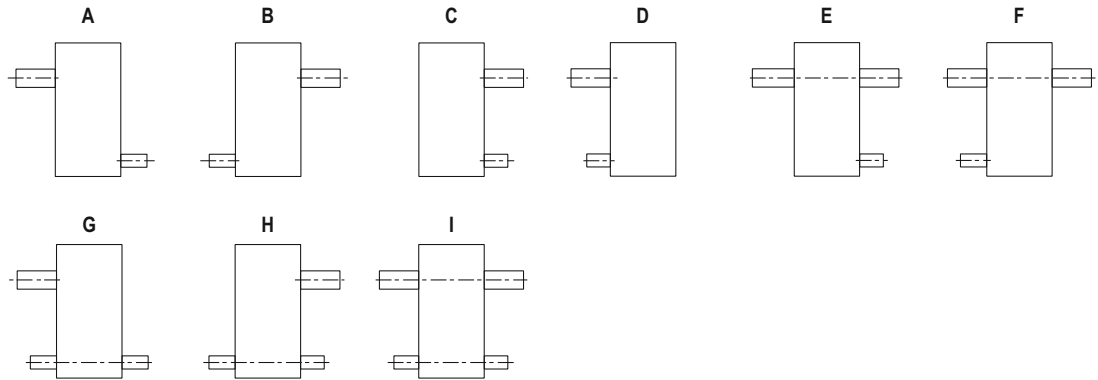
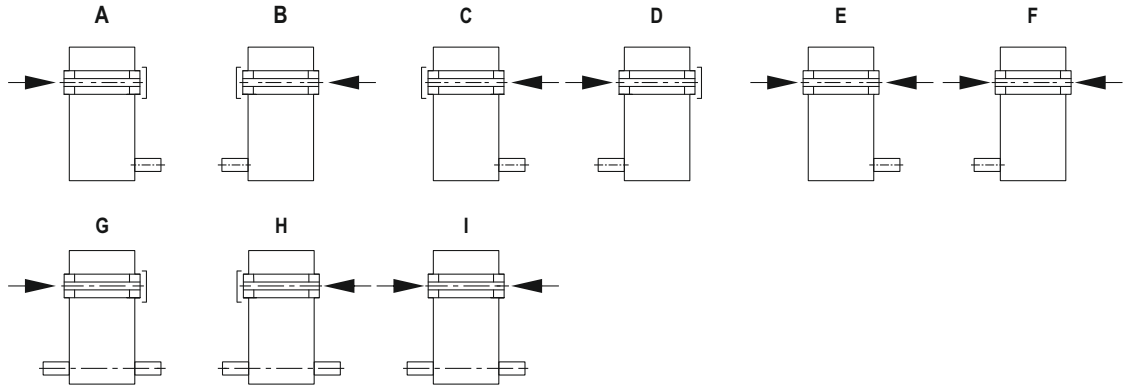
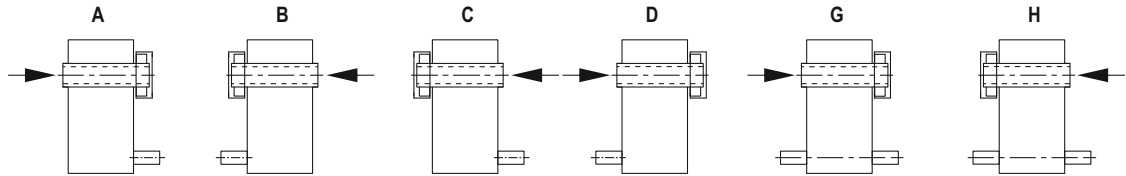
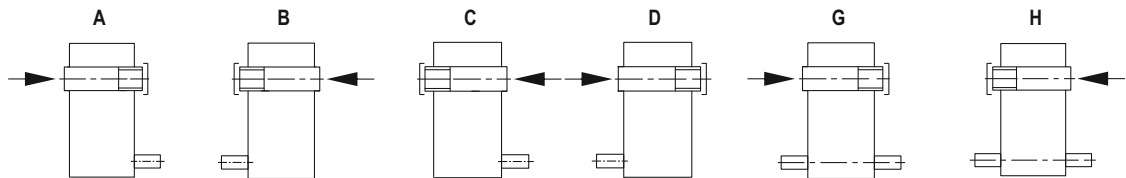
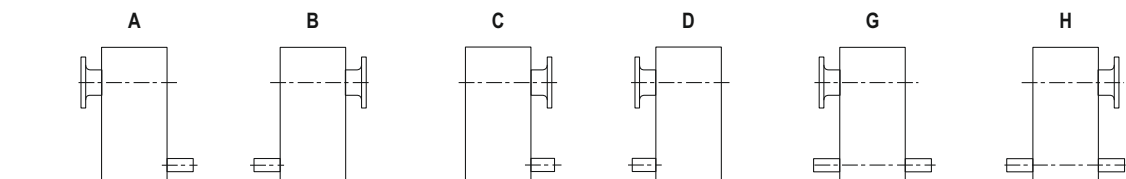
MONTAJLAR

EN

ASSEMBLIES

DE

AUSFÜHRUNGSFORMEN

 PH...-SH  
 PH...-SV

 PH...-HH  
 PH...-HV  
 PH...-HM

 PH...-DH  
 PH...-DV  
 PH...-DM

 PH...-KH  
 PH...-KV  
 PH...-KM

 PH...-FH  
 PH...-FV  
 PH...-FM


Hareket verilecek makina millerini takma yönü, ok işareti ile gösterilmiştir.  
 The arrow indicates the direction of insertion of the driven machine shaft  
 Der Pfeil kennzeichnet die Einführrichtung der Arbeitsmaschinenwelle

TR

MONTAJLAR

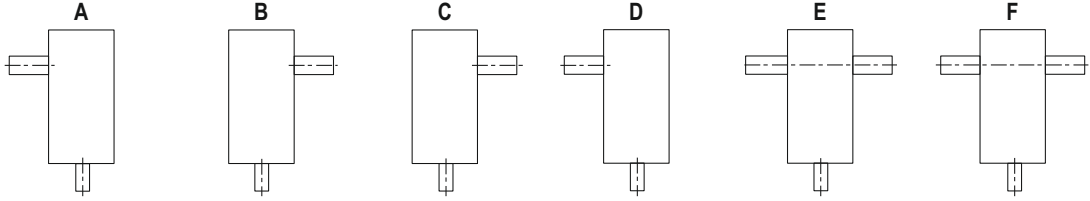
EN

ASSEMBLIES

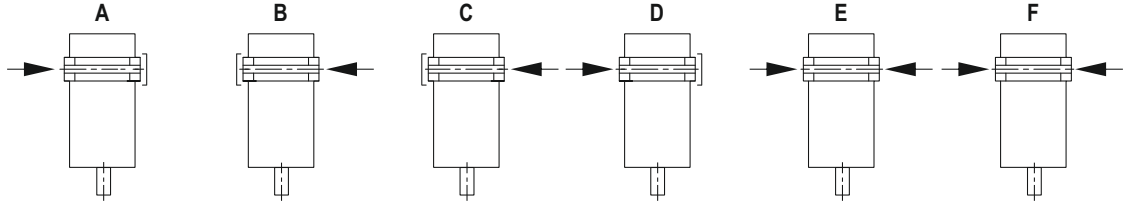
DE

AUSFÜHRUNGSFORMEN

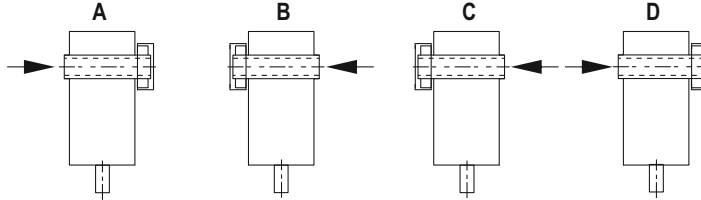
PB...-SH  
PB...-SV



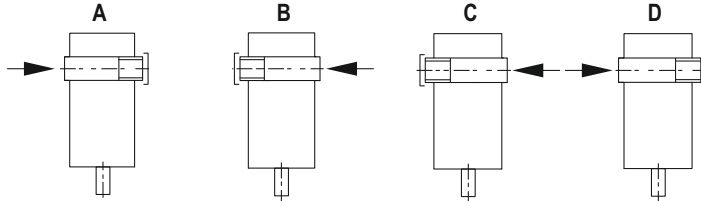
PB...-HH  
PB...-HV  
PB...-HM



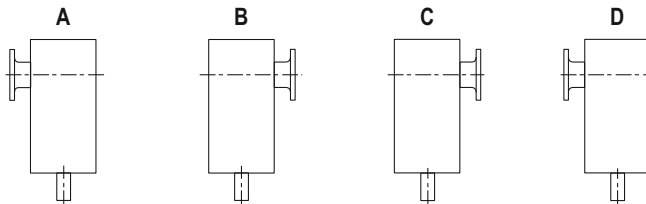
PB...-DH  
PB...-DV  
PB...-DM



PB...-KH  
PB...-KV  
PB...-KM



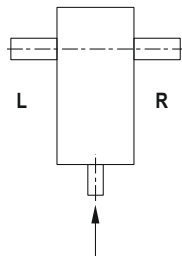
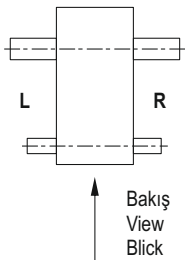
PB...-FH  
PB...-FV  
PB...-FM



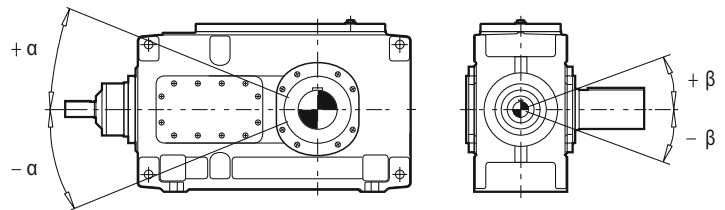
Yan montaj / Attachment side / Anbauseite

L Sol taraftan bağlantılı  
Attachment on LH side  
Anbau links

R Sağ taraftan bağlantılı  
Attachment on RH side  
Anbau rechts



Redüktör eğimi / Gear unit inclination / Getriebeneigung



α veya β > 0 ise, miller yukarıya doğru  
α or β > 0, if shaft points up upward  
α oder β > 0, wenn Welle nach oben zeigt



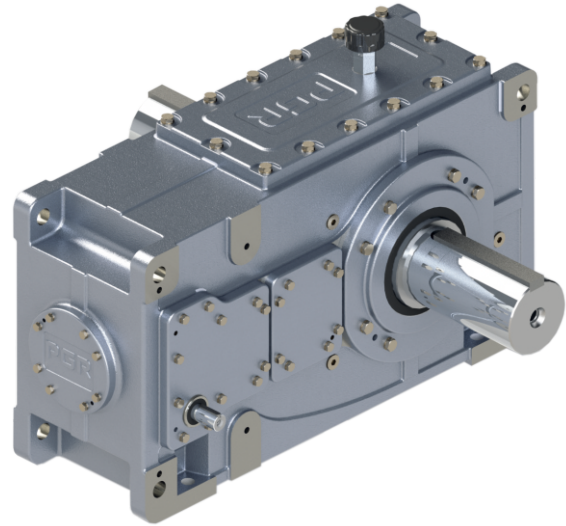
Blank page with horizontal dotted lines for writing.

Ölçü Tabloları

Dimension Tables

Größe Tabellen

PH...



**TEK KADEME / SINGLE STAGE / EINSTUFIG**

**İKİ KADEME / DOUBLE STAGE / ZWEISTUFIG**

**ÜÇ KADEME / THREE STAGE / DREISTUFIG**

**DÖRT KADEME / FOUR STAGE / VIERSTUFIG**

**PH SERİSİ / YATAY**  
**PH SERIES / HORIZONTAL**  
**PH SERIE / HORIZONTAL**

TR

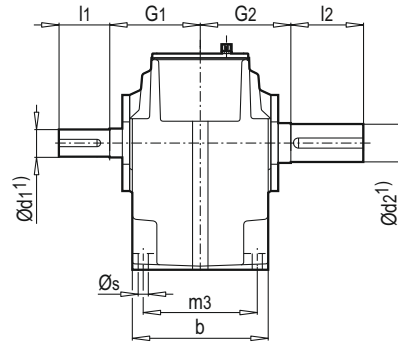
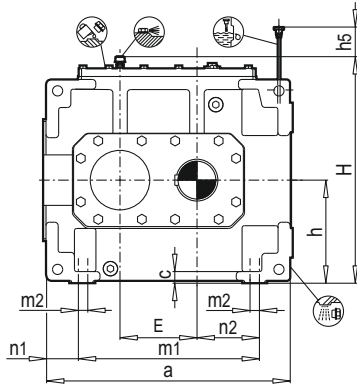
TEK KADEMELİ - YATAY

EN

SINGLE STAGE - HORIZONTAL

DE

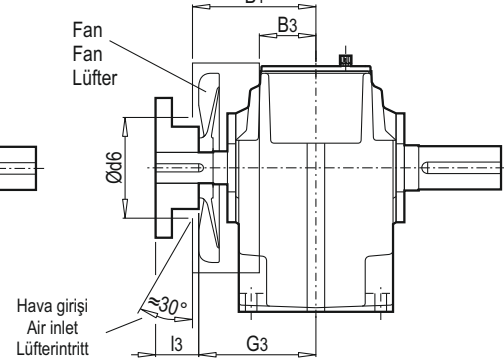
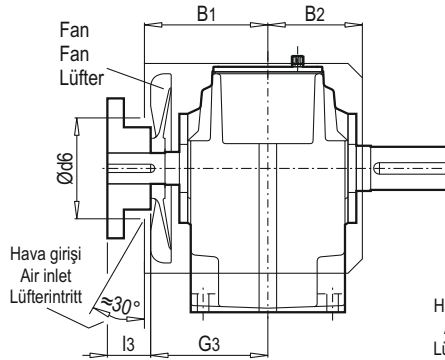
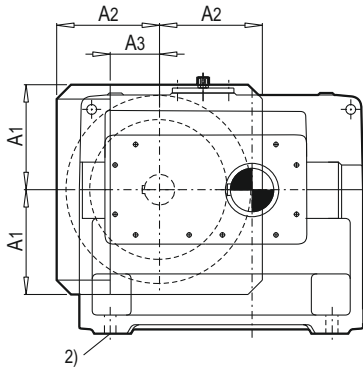
EINSTUFIG - HORIZONTAL



SH Fanlı / with fan / mit Lüfter

Gövdeler / Sizes / Größen 31 - 111

Gövdeler / Sizes / Größen 131 - 191



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |     |                |     |     |              |     |     |               |     |     |                |     |     |     | Fan / Fan / Lüfter |     |     |     |     |     |     |     |
|------------------------|-------------------------|-----|-----|----------------|-----|-----|--------------|-----|-----|---------------|-----|-----|----------------|-----|-----|-----|--------------------|-----|-----|-----|-----|-----|-----|-----|
|                        | İN = 1.25 - 2.8         |     |     | İN = 1.6 - 2.8 |     |     | İN = 2 - 2.8 |     |     | İN = 3.15 - 4 |     |     | İN = 4.5 - 5.6 |     |     | G1  | G3                 | A1  | A2  | A3  | B1  | B2  | B3  | Ød6 |
|                        | Ød1                     | l1  | l3  | Ød1            | l1  | l3  | Ød1          | l1  | l3  | Ød1           | l1  | l3  | Ød1            | l1  | l3  |     |                    |     |     |     |     |     |     |     |
| 31                     | 60                      | 125 | 105 | -              | -   | -   | -            | -   | -   | 45            | 100 | 80  | 32             | 80  | 60  | 170 | 190                | 152 | 147 | 85  | 210 | 132 | -   | 130 |
| 51                     | 85                      | 160 | 130 | -              | -   | -   | -            | -   | -   | 60            | 135 | 105 | 50             | 110 | 80  | 210 | 240                | 227 | 217 | 120 | 260 | 187 | -   | 190 |
| 71                     | 100                     | 200 | 165 | -              | -   | -   | -            | -   | -   | 75            | 140 | 105 | 60             | 140 | 105 | 250 | 285                | 257 | 252 | 125 | 305 | 232 | -   | 245 |
| 91                     | 110                     | 200 | 165 | -              | -   | -   | -            | -   | -   | 90            | 165 | 130 | 75             | 140 | 105 | 280 | 315                | 302 | 267 | 145 | 335 | 267 | -   | 280 |
| 111                    | -                       | -   | -   | 130            | 240 | 205 | -            | -   | -   | 110           | 205 | 170 | 90             | 170 | 135 | 325 | 360                | 362 | 332 | 195 | 380 | 322 | -   | 350 |
| 131                    | -                       | -   | -   | 150            | 245 | 200 | -            | -   | -   | 130           | 245 | 200 | 100            | 210 | 165 | 365 | 410                | 417 | 352 | -   | 435 | -   | 150 | 350 |
| 151                    | -                       | -   | -   | -              | -   | -   | 180          | 290 | 240 | 150           | 250 | 200 | 125            | 250 | 200 | 360 | 410                | 502 | 432 | -   | 435 | -   | 120 | 450 |
| 171                    | -                       | -   | -   | -              | -   | -   | 200          | 330 | 280 | 170           | 290 | 240 | 140            | 250 | 200 | 400 | 450                | 552 | 432 | -   | 475 | -   | 150 | 445 |
| 191                    | -                       | -   | -   | -              | -   | -   | 220          | 340 | 290 | 190           | 340 | 290 | 160            | 300 | 250 | 440 | 490                | 632 | 477 | -   | 515 | -   | 190 | 445 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear units / Zahnradgetriebe |     |    |     |      |        |     |      |     |     |     |     |    |
|------------------------|--------------------------------------------|-----|----|-----|------|--------|-----|------|-----|-----|-----|-----|----|
|                        | a                                          | b   | c  | E   | H    | h (-1) | h5  | m1   | m2  | m3  | n1  | n2  | Øs |
| 31                     | 424                                        | 200 | 30 | 130 | 380  | 200    | 85  | 310  | -   | 160 | 57  | 110 | 19 |
| 51                     | 584                                        | 285 | 37 | 185 | 530  | 290    | 100 | 440  | -   | 240 | 72  | 160 | 24 |
| 71                     | 694                                        | 375 | 47 | 225 | 630  | 350    | 75  | 540  | -   | 315 | 77  | 195 | 28 |
| 91                     | 809                                        | 425 | 52 | 265 | 740  | 420    | 50  | 625  | -   | 350 | 92  | 225 | 35 |
| 111                    | 964                                        | 515 | 62 | 320 | 880  | 500    | 40  | 770  | -   | 440 | 97  | 280 | 35 |
| 131                    | 1104                                       | 580 | 72 | 370 | 1025 | 580    | 40  | 870  | -   | 490 | 117 | 315 | 42 |
| 151                    | 1299                                       | 545 | 82 | 442 | 1120 | 600    | 10  | 1025 | -   | 450 | 137 | 370 | 48 |
| 171                    | 1414                                       | 615 | 82 | 490 | 1240 | 670    | -   | 1170 | 130 | 530 | 122 | 425 | 42 |
| 191                    | 1594                                       | 690 | 92 | 555 | 1400 | 760    | -   | 1290 | 150 | 590 | 152 | 465 | 48 |

Ölçüler mm'dir.

1) Şaftlar

m6&lt;=Ø100; n6&gt;Ø100

Kama kanalı DIN 6885/1,

Kama kanalı genişliği ISO JS9 a göre

Kama DIN 6885/1 form B

Ayrıntılar için sayfa 127-136'ya bakılabilir.

2) Bağlantı civatalarını takmadan önce havalandırma kapağını çıkartınız.

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.

Şaft keçeleri için sayfa 159-161 bakınız.

\*\*) Redüktörler yağsızdır.

Dimensions in mm

1) Shafts:

m6&lt;=Ø100; n6&gt;Ø100

Keyway acc.to DIN 6885/1,

Hub keyway width acc.to ISO JS9

Parallel key acc.to DIN 6885/1 form B

For details, see pages 127-136.

2) Remove air guide cover before fitting the foundation bolts.

\*) Approximate values; exact data acc.to order related documentation.

For shaft seals, see pages 159-161

\*\*) Without oil filling

Abmessungen in mm

1) Wellen:

m6&lt;=Ø100; n6&gt;Ø100

Passfedernut nach DIN 6885/1

Nabennutbreite nach ISO JS9

Passfeder nach DIN 6885/1 Form B

Einzelheiten siehe Seiten 127-136

2) Vor dem Befestigen der fußschrauben ist die Luftleithaube zu entfernen.

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

Wellenabdichtungen siehe seiten 159-161

\*\*) ohne Ölfüllung

TR

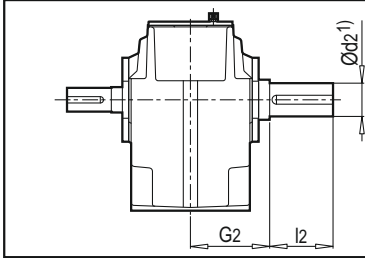
TEK KADEMELİ - YATAY

EN

SINGLE STAGE - HORIZONTAL

DE

EINSTUFIG - HORIZONTAL



**PH31-SH ... PH191-SH**

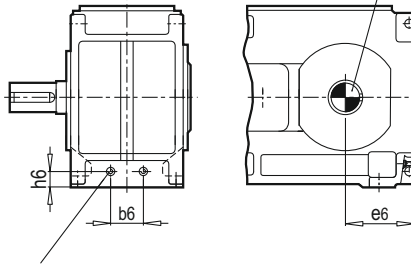
Mil Çıkışı  
Solid shaft  
Vollwelle

|     | Ød2 | l2  | G2  |
|-----|-----|-----|-----|
| 31  | 60  | 125 | 170 |
| 51  | 85  | 160 | 210 |
| 71  | 105 | 200 | 250 |
| 91  | 125 | 210 | 270 |
| 111 | 150 | 240 | 320 |
| 131 | 180 | 310 | 360 |
| 151 | 220 | 350 | 360 |
| 171 | 240 | 400 | 400 |
| 191 | 270 | 450 | 440 |

| Gövde<br>Size<br>Größe | Yağ miktarı /<br>Oil quantity / Ölmenge (l)*       |                                                      | Ağırlık<br>Weight<br>Gewicht<br>(kg) * ) **) |
|------------------------|----------------------------------------------------|------------------------------------------------------|----------------------------------------------|
|                        | Çıkış keçesi<br>Shaft seal<br>Wellen-<br>dichtring | Labirent keçe<br>Labyrinth seal<br>Labyrinthdichtung |                                              |
| 31                     | 7                                                  | 5.2                                                  | 130                                          |
| 51                     | 22                                                 | 18                                                   | 305                                          |
| 71                     | 42                                                 | 34                                                   | 550                                          |
| 91                     | 68                                                 | 57                                                   | 865                                          |
| 111                    | 120                                                | 100                                                  | 1520                                         |
| 131                    | 175                                                | 155                                                  | 2400                                         |
| 151                    | 190                                                | 156                                                  | 3210                                         |
| 171                    | 270                                                | 225                                                  | 4260                                         |
| 191                    | 390                                                | 330                                                  | 5850                                         |

**Soğutma serpantini / Cooling coil / Kühlschlange**

Çıkış / Output / Abtrieb



Soğutma serpantini su bağlantısı G1/2"  
Water connection for cooling coil G1/2"  
Wasseranschluß für Kühlschlange G1/2"

Soğutma sistemi deniz suyu ve acı su için uygundur.  
Cooling coil suitable for fresh, sea and brackish water  
Kühlschlange geeignet für Süß- See- und Brackwasser

x) Gerekli soğutma suyu miktarı; basıncı 8 bar  
Cooling water quantity required, max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge, max. kühlwasserdruck: 8 bar

| Gövde<br>Size<br>Größe | b6                                         | e6  | h6  | l/min<br>x) |
|------------------------|--------------------------------------------|-----|-----|-------------|
| 31                     | 48                                         | 205 | 74  | 4           |
| 51                     | 88                                         | 270 | 90  | 4           |
| 71                     | 124                                        | 310 | 135 | 4           |
| 91                     | 116                                        | 365 | 110 | 8           |
| 111                    | 146                                        | 425 | 130 | 8           |
| 131                    | 152                                        | 480 | 150 | 8           |
| 151                    | 172                                        | 560 | 130 | 8           |
| 171                    | 202                                        | 600 | 145 | 8           |
| 191                    | Talep üzerine<br>On request<br>Auf Anfrage |     |     |             |

TR

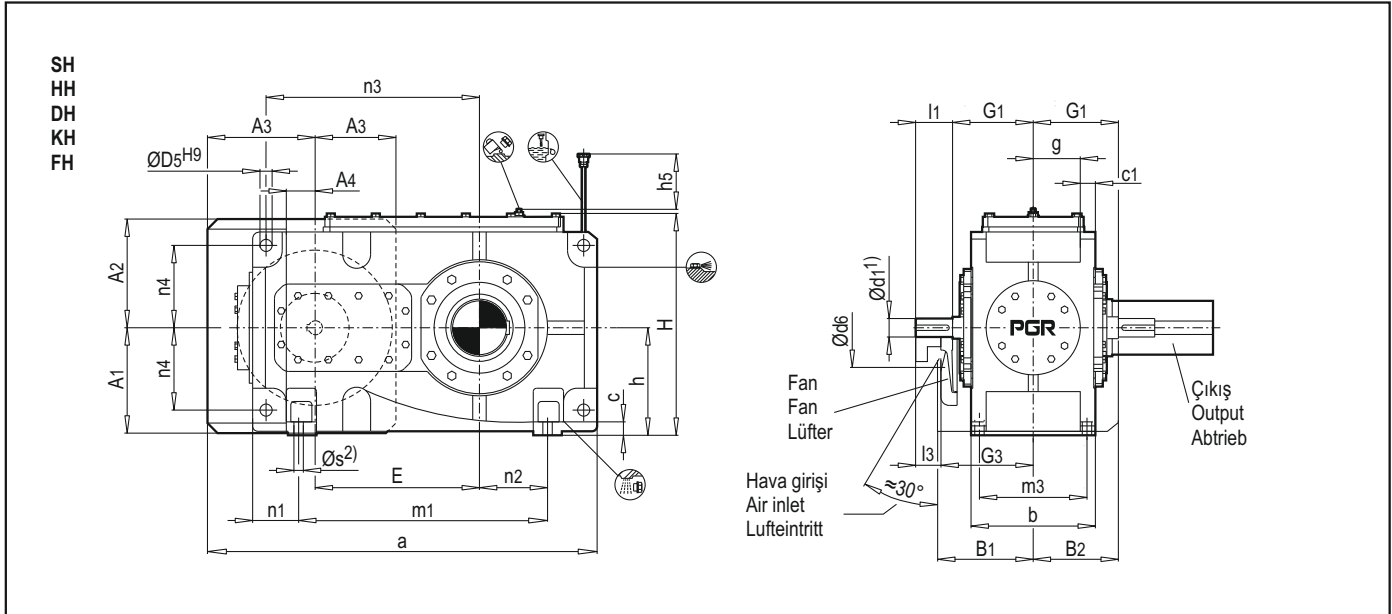
İKİ KADEMELİ - YATAY

EN

TWO STAGE - HORIZONTAL

DE

ZWEISTUFIG - HORIZONTAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |     |                  |     |     |             |     |     |              |     |     |     |     | Fan / Fan / Lüfter |     |     |     |     |     |     |  |
|------------------------|-------------------------|-----|-----|------------------|-----|-----|-------------|-----|-----|--------------|-----|-----|-----|-----|--------------------|-----|-----|-----|-----|-----|-----|--|
|                        | İN = 6.3 - 11.2         |     |     | İN = 12.5 - 22.4 |     |     | İN = 8 - 14 |     |     | İN = 16 - 28 |     |     | G1  | G3  | A1                 | A2  | A3  | A4  | B1  | B2  | Ød6 |  |
|                        | Ød1                     | l1  | l3  | Ød1              | l1  | l3  | Ød1         | l1  | l3  | Ød1          | l1  | l3  |     |     |                    |     |     |     |     |     |     |  |
| 42                     | 45                      | 100 | 80  | 32               | 80  | 60  | -           | -   | -   | -            | -   | -   | 170 | 190 | 197                | 227 | 152 | 32  | 207 | 160 | 136 |  |
| 52                     | 50                      | 100 | 80  | 38               | 80  | 60  | -           | -   | -   | -            | -   | -   | 195 | 215 | 227                | 262 | 177 | 57  | 232 | 180 | 150 |  |
| 62                     | -                       | -   | -   | -                | -   | -   | 50          | 100 | 80  | 38           | 80  | 60  | 195 | 215 | 227                | 262 | 177 | 57  | 232 | 180 | 150 |  |
| 72                     | 60                      | 135 | 105 | 50               | 110 | 80  | -           | -   | -   | -            | -   | -   | 210 | 240 | 274                | 307 | 212 | 72  | 257 | 212 | 200 |  |
| 82                     | -                       | -   | -   | -                | -   | -   | 60          | 135 | 105 | 50           | 110 | 80  | 210 | 240 | 274                | 307 | 212 | 72  | 257 | 212 | 200 |  |
| 92                     | 75                      | 140 | 110 | 60               | 140 | 110 | -           | -   | -   | -            | -   | -   | 240 | 270 | 314                | 357 | 242 | 102 | 287 | 247 | 200 |  |
| 102                    | -                       | -   | -   | -                | -   | -   | 75          | 140 | 110 | 60           | 140 | 110 | 240 | 270 | 314                | 357 | 242 | 102 | 287 | 247 | 200 |  |
| 112                    | 90                      | 165 | 130 | 70               | 140 | 105 | -           | -   | -   | -            | -   | -   | 275 | 310 | 374                | 422 | 287 | 137 | 327 | 287 | 210 |  |
| 122                    | -                       | -   | -   | -                | -   | -   | 90          | 165 | 130 | 70           | 140 | 105 | 275 | 310 | 374                | 422 | 287 | 137 | 327 | 287 | 210 |  |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |    |    |     |     |     |     |       |     |     |     |     |     |     |     | Kilit<br>Backstop<br>Rücklaufsperre |          |
|------------------------|--------------------------------------------|-----|----|----|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-------------------------------------|----------|
|                        | a                                          | b   | c  | c1 | ØD5 | E   | g   | H   | h(-1) | h5  | m1  | m3  | n1  | n2  | n3  | n4  | Øs                                  | 84<br>G8 |
| 42                     | 569                                        | 215 | 30 | 31 | 24  | 270 | 78  | 420 | 200   | 110 | 355 | 180 | 107 | 85  | 345 | 150 | 19                                  | 209      |
| 52                     | 644                                        | 255 | 30 | 31 | 24  | 315 | 98  | 487 | 230   | 150 | 430 | 220 | 107 | 100 | 405 | 180 | 19                                  | 255      |
| 62                     | 724                                        | 255 | 30 | 31 | 24  | 350 | 98  | 487 | 230   | 150 | 510 | 220 | 107 | 145 | 440 | 180 | 19                                  | 255      |
| 72                     | 789                                        | 300 | 37 | 37 | 28  | 385 | 115 | 577 | 280   | 190 | 545 | 260 | 122 | 130 | 500 | 215 | 24                                  | 282      |
| 82                     | 894                                        | 300 | 37 | 37 | 28  | 430 | 115 | 587 | 280   | 190 | 650 | 260 | 122 | 190 | 545 | 215 | 24                                  | 282      |
| 92                     | 929                                        | 370 | 42 | 47 | 36  | 450 | 141 | 667 | 320   | 205 | 635 | 320 | 147 | 155 | 585 | 245 | 28                                  | 333      |
| 102                    | 1029                                       | 370 | 42 | 47 | 36  | 500 | 141 | 667 | 320   | 215 | 735 | 320 | 147 | 205 | 635 | 245 | 28                                  | 333      |
| 112                    | 1109                                       | 430 | 52 | 56 | 40  | 545 | 162 | 787 | 380   | 250 | 775 | 370 | 167 | 180 | 710 | 300 | 35                                  | 394      |
| 122                    | 1264                                       | 430 | 52 | 56 | 40  | 615 | 162 | 795 | 380   | 250 | 930 | 370 | 167 | 265 | 780 | 300 | 35                                  | 394      |

+) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir.  
Ölçüler mm'dir.

+) Max. dimensions; details acc. to order related documentation.  
Dimensions in mm

+) max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.  
Abmessungen in mm

## 1) Şaftlar

m6<=Ø100; n6>Ø100  
Kama kanalı DIN 6885/1,  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.

## 2) Bağlantı civatalarını takmadan önce havalandırma kapağını çıkartınız.

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.  
Şaft keçeleri için sayfa 159-161 bakınız.

\*\*) Redüktörler yağsızdır.

## 1) Shafts:

m6<=Ø100; n6>Ø100  
Keyway acc.to DIN 6885/1,  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136.

## 2) Remove air guide cover before fitting the foundation bolts.

\*) Approximate values; exact data acc.to order related documentation.  
For shaft seals, see pages 159-161.

\*\*) Without oil filling

## 1) Wellen:

m6<=Ø100; n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136.

## 2) Vor dem Befestigen der fußschrauben ist die Luftleithaube zu entfernen.

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.  
Wellenabdichtungen siehe seiten 159-161.

\*\*) ohne Ölfüllung

TR

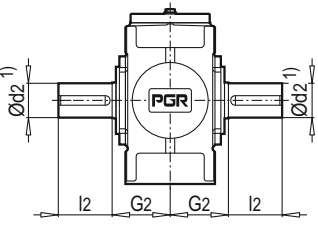
İKİ KADEMELİ - YATAY

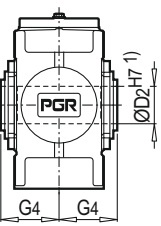
EN

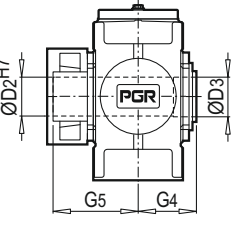
TWO STAGE - HORIZONTAL

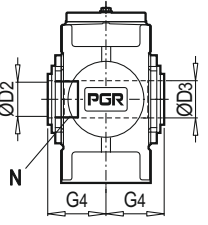
DE

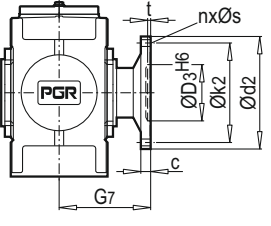
ZWEISTUFIG - HORIZONTAL

|  | PH42-SH ... PH122-SH<br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |     |     |     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------|-----|-----|-----|
|                                                                                   | Ød2                                                             | l2  | G2  |     |
|                                                                                   | 42                                                              | 80  | 170 | 140 |
|                                                                                   | 52                                                              | 100 | 210 | 165 |
|                                                                                   | 62                                                              | 110 | 210 | 165 |
|                                                                                   | 72                                                              | 120 | 210 | 195 |
|                                                                                   | 82                                                              | 130 | 250 | 195 |
|                                                                                   | 92                                                              | 140 | 250 | 235 |
|                                                                                   | 102                                                             | 160 | 300 | 235 |
|                                                                                   | 112                                                             | 170 | 300 | 270 |
|                                                                                   | 122                                                             | 180 | 300 | 270 |

|  | PH42-HH ... PH122-HH<br>Delik millî<br>Hollow shaft<br>Hohlwelle |     |     |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------|-----|-----|
|                                                                                   | ØD2                                                              | G4  |     |
|                                                                                   | 42                                                               | 80  | 140 |
|                                                                                   | 52                                                               | 95  | 165 |
|                                                                                   | 62                                                               | 105 | 165 |
|                                                                                   | 72                                                               | 115 | 195 |
|                                                                                   | 82                                                               | 125 | 195 |
|                                                                                   | 92                                                               | 135 | 235 |
|                                                                                   | 102                                                              | 150 | 235 |
|                                                                                   | 112                                                              | 165 | 270 |
|                                                                                   | 122                                                              | 180 | 270 |

|  | PH42-DH ... PH122-DH<br>Konik Sıkırtmalı<br>Hollow shaft for shrink disk<br>Hohlwelle für schrumpfscheibe |     |     |     |     |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|
|                                                                                    | ØD2                                                                                                       | ØD3 | G4  | G5  |     |
|                                                                                    | 42                                                                                                        | 85  | 85  | 140 | 205 |
|                                                                                    | 52                                                                                                        | 100 | 100 | 165 | 240 |
|                                                                                    | 62                                                                                                        | 110 | 110 | 165 | 240 |
|                                                                                    | 72                                                                                                        | 120 | 120 | 195 | 280 |
|                                                                                    | 82                                                                                                        | 130 | 130 | 195 | 285 |
|                                                                                    | 92                                                                                                        | 140 | 145 | 235 | 330 |
|                                                                                    | 102                                                                                                       | 150 | 155 | 235 | 350 |
|                                                                                    | 112                                                                                                       | 165 | 170 | 270 | 400 |
|                                                                                    | 122                                                                                                       | 180 | 185 | 270 | 405 |

|  | PH42-KH ... PH122-KH<br>Spline DIN 5480<br>Hollow shaft with involute splines acc. to DIN 5480<br>Hohlwelle mit Zahnab-<br>profil nach DIN 5480 |                  |     |     |     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----|-----|-----|
|                                                                                     | N / DIN 5480                                                                                                                                    |                  | ØD2 | ØD3 | G4  |
|                                                                                     | 42                                                                                                                                              | -                | -   | -   | -   |
|                                                                                     | 52                                                                                                                                              | N 95x3x30x30x9H  | 89  | 100 | 165 |
|                                                                                     | 62                                                                                                                                              | N 95x3x30x30x9H  | 89  | 110 | 165 |
|                                                                                     | 72                                                                                                                                              | N 120x3x30x38x9H | 114 | 120 | 195 |
|                                                                                     | 82                                                                                                                                              | N 120x3x30x38x9H | 114 | 130 | 195 |
|                                                                                     | 92                                                                                                                                              | N 140x3x30x45x9H | 134 | 145 | 235 |
|                                                                                     | 102                                                                                                                                             | N 140x3x30x45x9H | 134 | 155 | 235 |
|                                                                                     | 112                                                                                                                                             | N 170x5x30x32x9H | 160 | 170 | 270 |
|                                                                                     | 122                                                                                                                                             | N 170x5x30x32x9H | 160 | 185 | 270 |

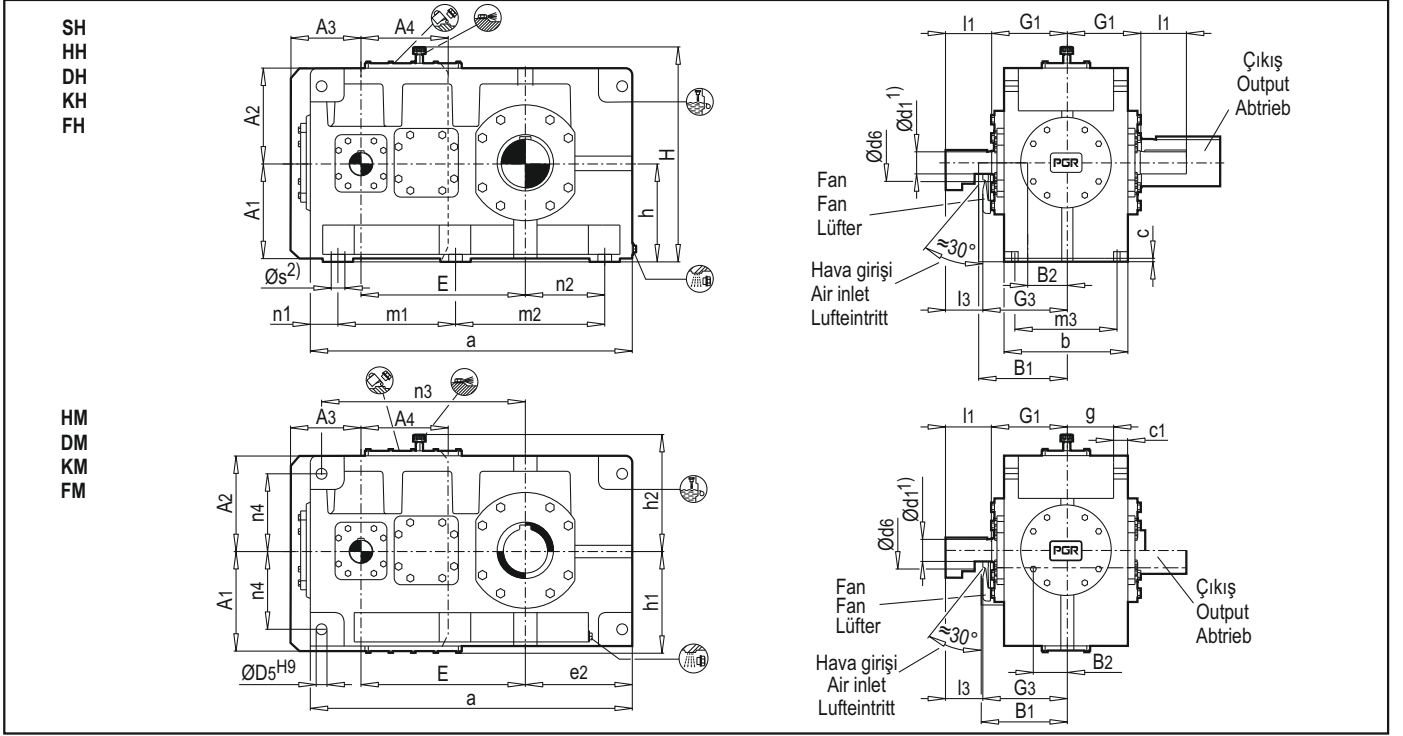
|  | PH42-FH ... PH122-FH<br>Flanşlı şaft<br>Flanged shaft<br>Flanschwelle |     |     |     |        |         |    |     |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----|-----|-----|--------|---------|----|-----|
|                                                                                     | c                                                                     | Ød2 | ØD3 | Øk2 | n x Øs | t       | G7 |     |
|                                                                                     | 42                                                                    | -   | -   | -   | -      | -       | -  | -   |
|                                                                                     | 52                                                                    | 25  | 300 | 150 | 260    | 16 x 22 | 10 | 255 |
|                                                                                     | 62                                                                    | 25  | 320 | 160 | 280    | 18 x 22 | 10 | 255 |
|                                                                                     | 72                                                                    | 30  | 370 | 180 | 320    | 16 x 26 | 10 | 300 |
|                                                                                     | 82                                                                    | 30  | 390 | 190 | 340    | 18 x 26 | 10 | 300 |
|                                                                                     | 92                                                                    | 38  | 430 | 220 | 380    | 20 x 26 | 12 | 350 |
|                                                                                     | 102                                                                   | 38  | 470 | 240 | 420    | 22 x 26 | 12 | 350 |
|                                                                                     | 112                                                                   | 42  | 510 | 260 | 450    | 18 x 33 | 12 | 400 |
|                                                                                     | 122                                                                   | 42  | 540 | 280 | 480    | 22 x 33 | 12 | 400 |

| Gövde<br>Size<br>Größe | Yağ miktarı / Oil quantity<br>/ Ölmenge (l) *)        |                                                                | Ağırlık / Weight<br>Gewicht (kg)<br>***) |      | Soğutma serpantini / Cooling coil / Kühlschlange                                                                            |                            | Gövde<br>Size<br>Größe |     |    |             |  |
|------------------------|-------------------------------------------------------|----------------------------------------------------------------|------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------|-----|----|-------------|--|
|                        | Çıkış<br>keçesi<br>Shaft seal<br>Wellen-<br>dichtring | Labirent keçe<br>Labyrinth<br>seal /<br>Labyrinth-<br>dichtung | SH<br>HH<br>DH<br>KH                     | FH   | Soğutma serpantini su bağlantısı G1/2"<br>Water connection for cooling coil G1/2"<br>Wasseranschluss für Kühlschlange G1/2" | Çıkış<br>Output<br>Abtrieb | b6                     | e6  | h6 | l/min<br>x) |  |
| 42                     | 10                                                    | 7                                                              | 195                                      | -    |                                                                                                                             |                            | 90                     | 157 | 59 | 4           |  |
| 52                     | 15                                                    | 11                                                             | 305                                      | 340  |                                                                                                                             |                            | 100                    | 169 | 65 | 4           |  |
| 62                     | 16                                                    | 12                                                             | 360                                      | 400  |                                                                                                                             |                            | 100                    | 214 | 65 | 4           |  |
| 72                     | 27                                                    | 21                                                             | 510                                      | 560  |                                                                                                                             |                            | 100                    | 208 | 77 | 4           |  |
| 82                     | 30                                                    | 23                                                             | 600                                      | 655  |                                                                                                                             |                            | 100                    | 266 | 77 | 4           |  |
| 92                     | 44                                                    | 33                                                             | 840                                      | 925  |                                                                                                                             |                            | 130                    | 246 | 75 | 8           |  |
| 102                    | 45                                                    | 34                                                             | 970                                      | 1060 |                                                                                                                             |                            | 130                    | 294 | 75 | 8           |  |
| 112                    | 74                                                    | 58                                                             | 1350                                     | 1480 |                                                                                                                             |                            | 140                    | 275 | 90 | 8           |  |
| 122                    | 82                                                    | 60                                                             | 1630                                     | 1770 |                                                                                                                             |                            | 140                    | 360 | 90 | 8           |  |

Soğutma serpantini su bağlantısı G1/2"  
Water connection for cooling coil G1/2"  
Wasseranschluss für Kühlschlange G1/2"

x) Gereklİ soğutma suyu miktarı; basıncı 8 bar  
Cooling water quantity required, max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge, max. kühlwasserdruck: 8 bar  
Soğutma sistemi deniz suyu ve acı su için uygundur.  
Cooling coil suitable for fresh, sea and brackish water  
Kühlschlange geeignet für Süß- See- und Brackwasser

x) Gerekli soğutma suyu miktarı; basıncı 8 bar  
Cooling water quantity required, max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge, max. kühlwasserdruck: 8 bar  
Soğutma sistemi deniz suyu ve acı su için uygundur.  
Cooling coil suitable for fresh, sea and brackish water  
Kühlschlange geeignet für Süß- See- und Brackwasser



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |     |                |     |     |                 |     |     |                |     |     |             |     |     |              |     |     | Fan / Fan / Lüfter |     |     |     |     |     |     |     |     |
|------------------------|-------------------------|-----|-----|----------------|-----|-----|-----------------|-----|-----|----------------|-----|-----|-------------|-----|-----|--------------|-----|-----|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                        | İN = 6.3 - 11.2         |     |     | İN = 12.5 - 20 |     |     | İN = 7.1 - 12.5 |     |     | İN = 14 - 22.5 |     |     | İN = 8 - 14 |     |     | İN = 16 - 25 |     |     | G1                 | G3  | A1  | A2  | A3  | A4  | B1  | B2  | Ød6 |
|                        | Ød1                     | l1  | l3  | Ød1            | l1  | l3  | Ød1             | l1  | l3  | Ød1            | l1  | l3  | Ød1         | l1  | l3  | Ød1          | l1  | l3  |                    |     |     |     |     |     |     |     |     |
| 132                    | 100                     | 205 | 170 | 85             | 170 | 135 | -               | -   | -   | -              | -   | -   | -           | -   | -   | -            | -   | -   | 330                | 365 | 432 | 462 | 332 | 367 | 387 | 137 | 250 |
| 142                    | -                       | -   | -   | -              | -   | -   | -               | -   | -   | -              | -   | -   | 100         | 205 | 170 | 85           | 170 | 135 | 330                | 365 | 432 | 462 | 332 | 367 | 387 | 137 | 250 |
| 152                    | 120                     | 210 | 165 | 100            | 210 | 165 | -               | -   | -   | -              | -   | -   | -           | -   | -   | -            | -   | -   | 365                | 410 | 492 | 502 | 372 | 442 | 432 | 157 | 280 |
| 162                    | -                       | -   | -   | -              | -   | -   | 120             | 210 | 165 | 100            | 210 | 165 | -           | -   | -   | -            | -   | -   | 365                | 410 | 492 | 502 | 372 | 442 | 432 | 157 | 280 |
| 172                    | 125                     | 245 | 200 | 110            | 210 | 165 | -               | -   | -   | -              | -   | -   | -           | -   | -   | -            | -   | -   | 420                | 465 | 542 | 567 | 437 | 507 | 487 | 142 | 280 |
| 182                    | -                       | -   | -   | -              | -   | -   | 125             | 245 | 200 | 110            | 210 | 165 | -           | -   | -   | -            | -   | -   | 420                | 465 | 542 | 567 | 437 | 507 | 487 | 142 | 280 |
| 192                    | 150                     | 245 | 200 | 120            | 210 | 165 | -               | -   | -   | -              | -   | -   | -           | -   | -   | -            | -   | -   | 475                | 520 | 602 | 602 | 502 | 452 | 542 | 192 | 310 |
| 202                    | -                       | -   | -   | -              | -   | -   | 150             | 245 | 200 | 120            | 210 | 165 | -           | -   | -   | -            | -   | -   | 475                | 520 | 602 | 602 | 502 | 452 | 542 | 192 | 310 |
| 212                    | 170                     | 290 | 240 | 140            | 250 | 200 | -               | -   | -   | -              | -   | -   | -           | -   | -   | -            | -   | -   | 495                | 545 | 682 | 682 | 502 | 612 | 567 | 202 | 450 |
| 222                    | -                       | -   | -   | -              | -   | -   | 170             | 290 | 240 | 140            | 250 | 200 | -           | -   | -   | -            | -   | -   | 495                | 545 | 682 | 682 | 502 | 612 | 567 | 202 | 450 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |     |     |     |      |     |     |      |       |     |     |     |      |     |     |     |      |     |    | Kilit<br>Backstop<br>Rücklaufsperre                                                            |  |
|------------------------|--------------------------------------------|-----|-----|-----|-----|------|-----|-----|------|-------|-----|-----|-----|------|-----|-----|-----|------|-----|----|------------------------------------------------------------------------------------------------|--|
|                        | a                                          | b   | c   | c1  | ØD5 | E    | e2  | g   | H    | h(-1) | h1  | h2  | m1  | m2   | m3  | n1  | n2  | n3   | n4  | Øs |  84<br>G8 |  |
|                        |                                            |     |     |     |     |      |     |     |      |       |     |     |     |      |     |     |     |      |     |    |                                                                                                |  |
| 132                    | 1294                                       | 550 | 62  | 63  | 48  | 635  | 407 | 212 | 905  | 440   | 450 | 463 | 545 | 545  | 475 | 102 | 305 | 835  | 340 | 35 | 450                                                                                            |  |
| 142                    | 1434                                       | 550 | 62  | 63  | 48  | 705  | 477 | 212 | 905  | 440   | 450 | 463 | 545 | 685  | 475 | 102 | 375 | 905  | 340 | 35 | 450                                                                                            |  |
| 152                    | 1554                                       | 620 | 72  | 74  | 55  | 762  | 487 | 239 | 1005 | 500   | 490 | 503 | 655 | 655  | 535 | 122 | 365 | 1005 | 375 | 42 | 529                                                                                            |  |
| 162                    | 1644                                       | 625 | 72  | 74  | 55  | 808  | 532 | 239 | 1005 | 500   | 490 | 503 | 655 | 745  | 535 | 122 | 410 | 1050 | 375 | 42 | 529                                                                                            |  |
| 172                    | 1744                                       | 690 | 82  | 83  | 55  | 860  | 527 | 260 | 1115 | 550   | 555 | 563 | 735 | 735  | 600 | 137 | 390 | 1145 | 425 | 42 | 578                                                                                            |  |
| 182                    | 1864                                       | 690 | 82  | 83  | 55  | 920  | 587 | 260 | 1115 | 550   | 555 | 563 | 735 | 855  | 600 | 137 | 450 | 1205 | 425 | 42 | 578                                                                                            |  |
| 192                    | 2014                                       | 790 | 92  | 93  | 65  | 997  | 592 | 300 | 1245 | 620   | 615 | 623 | 850 | 850  | 690 | 157 | 435 | 1345 | 475 | 48 | 672                                                                                            |  |
| 202                    | 2134                                       | 790 | 92  | 93  | 65  | 1057 | 652 | 300 | 1245 | 620   | 615 | 623 | 850 | 970  | 690 | 157 | 495 | 1405 | 475 | 48 | 672                                                                                            |  |
| 212                    | 2144                                       | 830 | 102 | 102 | 75  | 1067 | 657 | 311 | 1395 | 700   | 685 | 693 | 900 | 900  | 720 | 172 | 485 | 1400 | 520 | 56 | 692                                                                                            |  |
| 222                    | 2254                                       | 830 | 102 | 102 | 75  | 1122 | 712 | 311 | 1395 | 700   | 685 | 693 | 900 | 1010 | 720 | 172 | 540 | 1455 | 520 | 56 | 692                                                                                            |  |

Ölçüler mm'dir.

- 1) **Şaftlar**  
m6<=Ø100; n6>Ø100  
Kama kanalı DIN 6885/1.  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B'ye göre  
Ayrıntılar için sayfa 127-136'ya bakılabilir.
- 2) Bağlantı civatalarını takmadan önce havalandırma kapağını çıkartınız.
- 3) Şaft montajlı redüktörlerde (PH...2-M) Labirent keçe yoktur.
- 6) 132 ve 152 gövdelerin sadece İN= 6.3 - 18  
172 ve 192 gövdelerin sadece İN= 6.3 - 16
- \*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.  
Mil keçesi için sayfa 159-161'e bakınız.
- \*\*) Redüktörler yağsızdır.

Dimensions in mm

- 1) **Shafts:**  
m6<=Ø100; n6>Ø100  
Keyway acc.to DIN 6885/1.  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136
- 2) Remove air guide cover before fitting the foundation bolts.
- 3) Shaft-mounted gear unit (PH...2-M) not with labyrinth seal
- 6) Sizes 132 and 152 : only İN=6.3 - 18  
Sizes 172 and 192 : only İN=6.3 - 16
- \*) Approximate values; exact data acc. to order related documentation.  
For shaft seals, see pages 159-161
- \*\*) Without oil filling

Abmessungen in mm

- 1) **Wellen:**  
m6<=Ø100; n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136
- 2) Vor dem Befestigen der fußschrauben ist die Lufteithaube zu entfernen.
- 3) Aufsteckgetriebe (PH...2-M) nicht mit Labyrinthdichtung.
- 6) Größen 132 und 152 : nur İN= 6.3 - 18  
Größen 172 und 192 : nur İN= 6.3 - 16
- \*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.  
Wellenabdichtungen siehe seiten 159-161
- \*\*) ohne Ölfüllung

TR

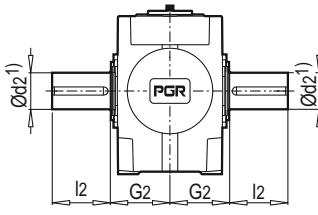
İKİ KADEMELİ - YATAY

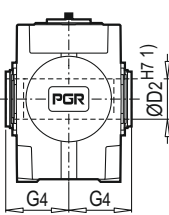
EN

TWO STAGE - HORIZONTAL

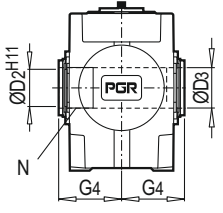
DE

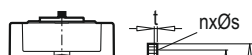
ZWEISTUFIG - HORIZONTAL

|                                                                                   |                                                                          |     |     |     |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------|-----|-----|-----|
|  | <b>PH132- SH ... PH222-SH</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle | Ød2 | l2  | G2  |
|                                                                                   |                                                                          | 132 | 200 | 350 |
|                                                                                   |                                                                          | 142 | 210 | 350 |
|                                                                                   |                                                                          | 152 | 230 | 410 |
|                                                                                   |                                                                          | 162 | 240 | 410 |
|                                                                                   |                                                                          | 172 | 250 | 410 |
|                                                                                   |                                                                          | 182 | 270 | 470 |
|                                                                                   |                                                                          | 192 | 290 | 470 |
|                                                                                   |                                                                          | 202 | 300 | 500 |
|                                                                                   |                                                                          | 212 | 320 | 500 |
|                                                                                   |                                                                          | 222 | 340 | 550 |

|                                                                                   |                                                                                                       |       |     |     |    |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------|-----|-----|----|
|  | <p>PH132-HH ... PH222-HH<br/>PH132-HM ... PH222-HM<br/>Delik milli<br/>Hollow shaft<br/>Hohlwelle</p> | 3) 6) |     | ØD2 | G2 |
|                                                                                   |                                                                                                       | 132   | 190 | 335 |    |
|                                                                                   |                                                                                                       | 142   | 210 | 335 |    |
|                                                                                   |                                                                                                       | 152   | 230 | 380 |    |
|                                                                                   |                                                                                                       | 162   | 240 | 380 |    |
|                                                                                   |                                                                                                       | 172   | 250 | 415 |    |
|                                                                                   |                                                                                                       | 182   | 275 | 415 |    |
|                                                                                   |                                                                                                       | 192   | -   | -   |    |
|                                                                                   |                                                                                                       | 202   | -   | -   |    |
|                                                                                   |                                                                                                       | 212   | -   | -   |    |
|                                                                                   |                                                                                                       | 222   | -   | -   |    |

|  |                                                                                                                                                |       |     |     |     |     |    |
|--|------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|-----|-----|-----|----|
|  | <p>PH132-DH ... PH222-DH<br/>PH132-DM ... PH222-DM<br/>Konik Sıktırmalı<br/>Hollow shaft for shrink disk<br/>Hohlwelle für schrumpfscheibe</p> | 3) 6) |     | ØD2 | ØD3 | G4  | G5 |
|  |                                                                                                                                                | 132   | 190 | 195 | 335 | 480 |    |
|  |                                                                                                                                                | 142   | 210 | 215 | 335 | 480 |    |
|  |                                                                                                                                                | 152   | 230 | 235 | 380 | 550 |    |
|  |                                                                                                                                                | 162   | 240 | 245 | 380 | 550 |    |
|  |                                                                                                                                                | 172   | 250 | 260 | 415 | 600 |    |
|  |                                                                                                                                                | 182   | 280 | 285 | 415 | 600 |    |
|  |                                                                                                                                                | 192   | 285 | 295 | 465 | 670 |    |
|  |                                                                                                                                                | 202   | 310 | 315 | 465 | 670 |    |
|  |                                                                                                                                                | 212   | 330 | 335 | 490 | 715 |    |
|  |                                                                                                                                                | 222   | 340 | 345 | 490 | 725 |    |

|                                                                                     |                                                                                                                                                                                     |       |                                            |     |     |     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------|-----|-----|-----|
|  | <b>PH132-KH ... PH222-KH</b><br><b>PH132-KM ... PH222-KM</b><br>Spline DIN 5480<br>Hollow shaft with involute splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil nach DIN 5480 | 3) 6) | N / DIN 5480                               | ØD2 | ØD3 | G4  |
|                                                                                     |                                                                                                                                                                                     | 132   | N 190x5x30x36x9H                           | 180 | 195 | 335 |
|                                                                                     |                                                                                                                                                                                     | 142   | N 190x5x30x36x9H                           | 180 | 215 | 335 |
|                                                                                     |                                                                                                                                                                                     | 152   | N 220x5x30x42x9H                           | 210 | 235 | 380 |
|                                                                                     |                                                                                                                                                                                     | 162   | N 220x5x30x42x9H                           | 210 | 245 | 380 |
|                                                                                     |                                                                                                                                                                                     | 172   | N 250x5x30x48x9H                           | 240 | 260 | 415 |
|                                                                                     |                                                                                                                                                                                     | 182   | N 250x5x30x48x9H                           | 240 | 285 | 415 |
|                                                                                     |                                                                                                                                                                                     | 192   | İstek üzerine<br>On request<br>Auf Anfrage |     |     |     |
|                                                                                     |                                                                                                                                                                                     | 202   |                                            |     |     |     |
|                                                                                     |                                                                                                                                                                                     | 212   |                                            |     |     |     |
|                                                                                     |                                                                                                                                                                                     | 222   |                                            |     |     |     |

|                                                                                     |                                                                                                                            |            |          |            |            |            |               |          |           |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------|----------|------------|------------|------------|---------------|----------|-----------|
|  | <p><b>PH132-FH ... PH222-FH</b><br/><b>PH132-FM ... PH222-FM</b><br/>Flanşlı shaft<br/>Flanged shaft<br/>Flanschswelle</p> |            | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>n x Øs</b> | <b>t</b> | <b>G7</b> |
|                                                                                     |                                                                                                                            | <b>132</b> | 48       | 580        | 310        | 500        | 20 x 33       | 14       | 480       |
|                                                                                     |                                                                                                                            | <b>142</b> | 48       | 620        | 310        | 540        | 24 x 33       | 14       | 480       |
|                                                                                     |                                                                                                                            | <b>152</b> | 55       | 710        | 360        | 630        | 28 x 33       | 17       | 550       |
|                                                                                     |                                                                                                                            | <b>162</b> | 55       | 740        | 360        | 660        | 30 x 33       | 17       | 550       |
|                                                                                     |                                                                                                                            | <b>172</b> | 60       | 750        | 410        | 660        | 24 x 39       | 18       | 600       |
|                                                                                     |                                                                                                                            | <b>182</b> | 60       | 800        | 410        | 710        | 26 x 39       | 18       | 600       |
|                                                                                     |                                                                                                                            | <b>192</b> | 65       | 860        | 460        | 770        | 30 x 39       | 18       | 670       |
|                                                                                     |                                                                                                                            | <b>202</b> | 65       | 930        | 460        | 830        | 32 x 39       | 18       | 670       |
|                                                                                     |                                                                                                                            | <b>212</b> | 75       | 950        | 520        | 850        | 28 x 45       | 20       | 710       |
|                                                                                     |                                                                                                                            | <b>222</b> | 75       | 1040       | 520        | 940        | 28 x 45       | 20       | 710       |

| Gövde<br>Size<br>Größe                                   | Yağ miktarı / Oil quantity<br>/ Ölmenge (l)*)                       |     |     | Ağırlık / Weight /<br>Gewicht (kg)**)*) |                |                                            |      | Soğutma serpantini<br>Cooling coil / Kühlschlange                                                                                                                                   |                                                                                                                                                                     |  |  |  |  |  |
|----------------------------------------------------------|---------------------------------------------------------------------|-----|-----|-----------------------------------------|----------------|--------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
|                                                          | H                                                                   |     | M   | SH<br>HH<br>DH<br>KH                    | HM<br>DM<br>KM | FH                                         | FM   | Soğutma serpantini su bağlantısı G1/2"<br>Water connection for cooling coil G1/2"<br>Wasseranschluß für Kühlschlange G1/2"                                                          |                                                                                                                                                                     |  |  |  |  |  |
| Çıkış<br>keçesi<br>Shaft<br>seal<br>Wellen-<br>dichtring | labirent<br>keçe /<br>Labyrinth<br>seal /<br>Labyrinth-<br>dichtung |     |     |                                         |                |                                            |      | Çıkış<br>Output<br>Abtrieb                                                                                                                                                          |                                                                                                                                                                     |  |  |  |  |  |
| 132                                                      | 135                                                                 | 120 | 110 | 2030                                    | 1910           | 2190                                       | 2070 | Çıkış<br>Output<br>Abtrieb                                                                                                                                                          |                                                                                                                                                                     |  |  |  |  |  |
| 142                                                      | 140                                                                 | 130 | 115 | 2600                                    | 2460           | 2770                                       | 2630 | Çıkış<br>Output<br>Abtrieb                                                                                                                                                          |                                                                                                                                                                     |  |  |  |  |  |
| 152                                                      | 210                                                                 | 190 | 160 | 3460                                    | 3270           | 3700                                       | 3510 | Çıkış<br>Output<br>Abtrieb                                                                                                                                                          |                                                                                                                                                                     |  |  |  |  |  |
| 162                                                      | 215                                                                 | 200 | 165 | 3700                                    | 3510           | 3955                                       | 3765 | Çıkış<br>Output<br>Abtrieb                                                                                                                                                          |                                                                                                                                                                     |  |  |  |  |  |
| 172                                                      | 290                                                                 | 260 | 230 | 4700                                    | 4470           | 5000                                       | 4770 | Çıkış<br>Output<br>Abtrieb                                                                                                                                                          |                                                                                                                                                                     |  |  |  |  |  |
| 182                                                      | 300                                                                 | 270 | 240 | 5150                                    | 4895           | 5525                                       | 5245 | Çıkış<br>Output<br>Abtrieb                                                                                                                                                          |                                                                                                                                                                     |  |  |  |  |  |
| 192                                                      | 320                                                                 | -   | 300 | 6650                                    | 6350           | İstek üzerine<br>On request<br>Auf Anfrage |      |                                                                                                                                                                                     | Soğutma sistemi deniz suyu ve acı su için uygundur<br>Cooling coil suitable for fresh, sea and brackish water<br>Kühlschlange geeignet für Süß-See- und Brackwasser |  |  |  |  |  |
| 202                                                      | 340                                                                 | -   | 320 | 7550                                    | 7250           |                                            |      |                                                                                                                                                                                     |                                                                                                                                                                     |  |  |  |  |  |
| 212                                                      | 320                                                                 | -   | 350 | 8960                                    | 8460           |                                            |      |                                                                                                                                                                                     |                                                                                                                                                                     |  |  |  |  |  |
| 222                                                      | 340                                                                 | -   | 370 | 9700                                    | 9300           |                                            |      |                                                                                                                                                                                     |                                                                                                                                                                     |  |  |  |  |  |
|                                                          |                                                                     |     |     |                                         |                |                                            |      | x) Gerekli soğutma suyu miktarı; basıncı 8 bar<br>Cooling water quantity required, max. cooling water pressure: 8 bar<br>Erforderliche Kühlwassermenge, max. kühlwasserdruck: 8 bar |                                                                                                                                                                     |  |  |  |  |  |

TR

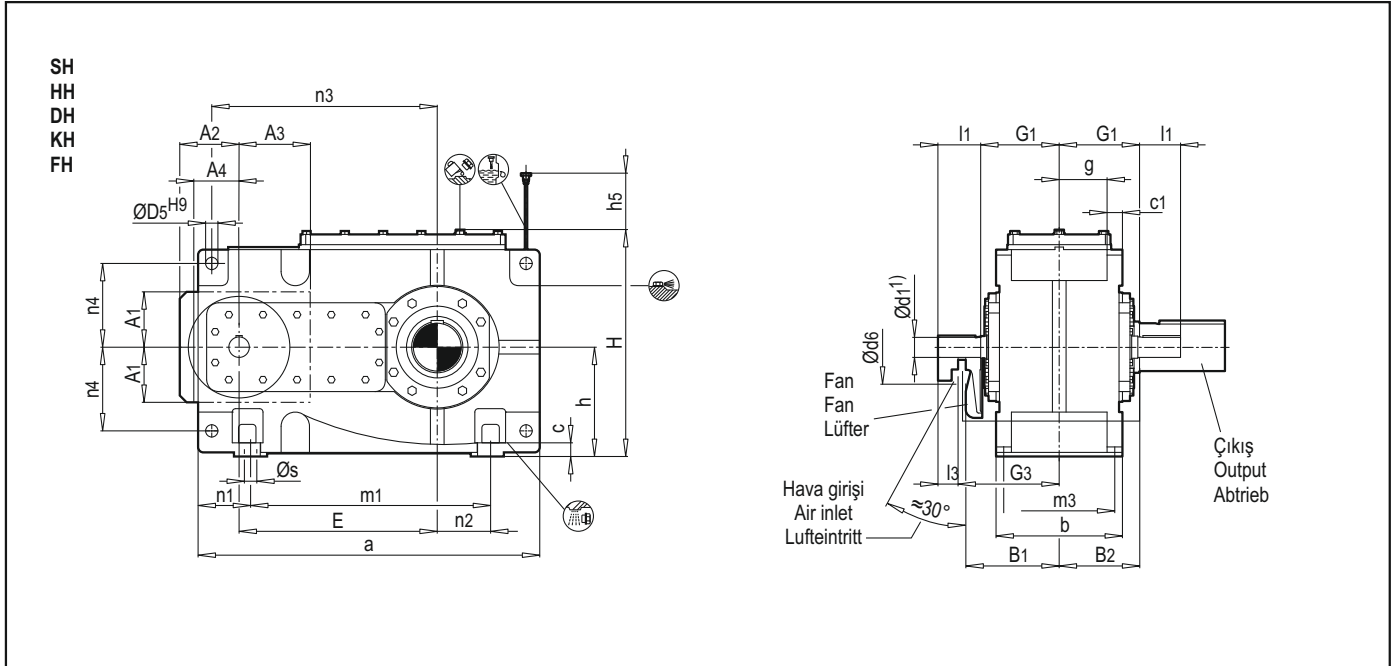
ÜÇ KADEMELİ - YATAY

EN

THREE STAGE - HORIZONTAL

DE

DREISTUFIG - HORIZONTAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |     |              |     |    |              |    |    |                |     |     |              |     |    |               |    |    | Fan / Fan / Lüfter |     |     |     |     |     |     |     |     |
|------------------------|-------------------------|-----|-----|--------------|-----|----|--------------|----|----|----------------|-----|-----|--------------|-----|----|---------------|----|----|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                        | İN = 25 - 45            |     |     | İN = 50 - 63 |     |    | İN = 71 - 90 |    |    | İN = 31.5 - 56 |     |     | İN = 63 - 80 |     |    | İN = 90 - 112 |    |    | G1                 | G3  | A1  | A2  | A3  | A4  | B1  | B2  | Ød6 |
|                        | Ød1                     | l1  | l3  | Ød1          | l1  | l3 | Ød1          | l1 | l3 | Ød1            | l1  | l3  | Ød1          | l1  | l3 | Ød1           | l1 | l3 |                    |     |     |     |     |     |     |     |     |
| 53                     | 40                      | 70  | 70  | 30           | 50  | 50 | 24           | 40 | 40 | -              | -   | -   | -            | -   | -  | -             | -  | -  | 160                | 220 | 139 | 137 | 142 | 82  | 217 | 177 | 60  |
| 63                     | -                       | -   | -   | -            | -   | -  | -            | -  | -  | 40             | 70  | 70  | 30           | 50  | 50 | 24            | 40 | 40 | 160                | 220 | 139 | 137 | 142 | 82  | 217 | 177 | 60  |
| 73                     | 45                      | 80  | 80  | 35           | 60  | 60 | 28           | 50 | 50 | -              | -   | -   | -            | -   | -  | -             | -  | -  | 185                | 250 | 159 | 162 | 182 | 102 | 247 | 207 | 75  |
| 83                     | -                       | -   | -   | -            | -   | -  | -            | -  | -  | 45             | 80  | 80  | 35           | 60  | 60 | 28            | 50 | 50 | 185                | 250 | 159 | 162 | 182 | 102 | 247 | 207 | 75  |
| 93                     | 60                      | 125 | 105 | 45           | 100 | 80 | 32           | 80 | 60 | -              | -   | -   | -            | -   | -  | -             | -  | -  | 230                | 300 | 184 | 192 | 207 | 122 | 297 | 242 | 90  |
| 103                    | -                       | -   | -   | -            | -   | -  | -            | -  | -  | 60             | 125 | 105 | 45           | 100 | 80 | 32            | 80 | 60 | 230                | 300 | 184 | 192 | 207 | 122 | 297 | 242 | 90  |
| 113                    | 70                      | 120 | 120 | 50           | 80  | 80 | 42           | 70 | 70 | -              | -   | -   | -            | -   | -  | -             | -  | -  | 255                | 330 | 220 | 222 | 257 | 152 | 327 | 282 | 100 |
| 123                    | -                       | -   | -   | -            | -   | -  | -            | -  | -  | 70             | 120 | 120 | 50           | 80  | 80 | 42            | 70 | 70 | 255                | 330 | 220 | 222 | 257 | 152 | 327 | 282 | 100 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |    |    |     |     |     |     |       |     |      |     |     |     |     |     | Kilit<br>Backstop<br>Rücklaufsperre |       |
|------------------------|--------------------------------------------|-----|----|----|-----|-----|-----|-----|-------|-----|------|-----|-----|-----|-----|-----|-------------------------------------|-------|
|                        | a                                          | b   | c  | c1 | ØD5 | E   | g   | H   | h(-1) | h5  | m1   | m3  | n1  | n2  | n3  | n4  | Øs                                  | 84 G8 |
| 53                     | 694                                        | 255 | 30 | 31 | 24  | 405 | 98  | 487 | 230   | 130 | 480  | 220 | 107 | 100 | 455 | 180 | 19                                  | 236   |
| 63                     | 774                                        | 255 | 30 | 31 | 24  | 440 | 98  | 487 | 230   | 130 | 560  | 220 | 107 | 145 | 490 | 180 | 19                                  | 236   |
| 73                     | 849                                        | 300 | 37 | 37 | 28  | 495 | 115 | 577 | 280   | 170 | 605  | 260 | 122 | 130 | 560 | 215 | 24                                  | 289   |
| 83                     | 954                                        | 300 | 37 | 37 | 28  | 540 | 115 | 587 | 280   | 160 | 710  | 260 | 122 | 190 | 605 | 215 | 24                                  | 289   |
| 93                     | 1004                                       | 370 | 42 | 47 | 36  | 580 | 141 | 667 | 320   | 185 | 710  | 320 | 147 | 155 | 660 | 245 | 28                                  | 319   |
| 103                    | 1104                                       | 370 | 42 | 47 | 36  | 630 | 141 | 667 | 320   | 185 | 810  | 320 | 147 | 205 | 710 | 245 | 28                                  | 319   |
| 113                    | 1204                                       | 430 | 52 | 56 | 40  | 705 | 162 | 787 | 380   | 180 | 870  | 370 | 167 | 180 | 805 | 300 | 35                                  | 371   |
| 123                    | 1359                                       | 430 | 52 | 56 | 40  | 775 | 162 | 797 | 380   | 170 | 1025 | 370 | 167 | 265 | 875 | 300 | 35                                  | 371   |

Ölçüler mm'dir.

## 1) Şaftlar

k6=Ø24; Ø28≤m6≤Ø100; n6&gt;Ø100

Kama kanalı DIN 6885/1.

Kama kanalı genişliği ISO JS9 a göre

Kama DIN 6885/1 form B

Ayrıntılar için sayfa 127-136'ya bakılabilir

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dökümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

Dimensions in mm

## 1) Shafts:

k6=Ø24; Ø28≤m6≤Ø100; n6&gt;Ø100

Keyway acc.to DIN 6885/1.

Hub keyway width acc.to ISO JS9

Parallel key acc.to DIN 6885/1 form B

For details, see pages 127-136

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

Abmessungen in mm

## 1) Wellen:

k6=Ø24; Ø28≤m6≤Ø100; n6&gt;Ø100

Passfedernut nach DIN 6885/1

Nabennutbreite nach ISO JS9

Passfeder nach DIN 6885/1 Form B

Einzelheiten siehe Seiten 127-136

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

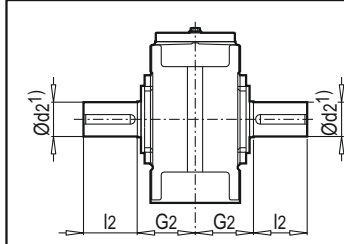
ÜÇ KADEMELİ - YATAY

EN

THREE STAGE - HORIZONTAL

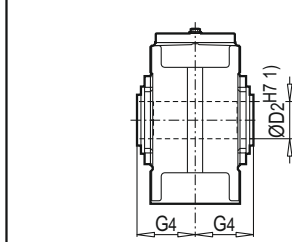
DE

DREISTUFIG - HORIZONTAL



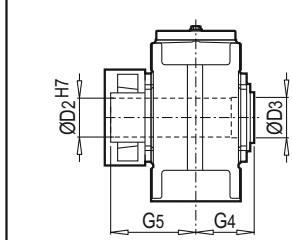
**PH53-SH ... PH123-SH**  
Mil Çıkışı  
Solid shaft  
Vollwelle

|     | Ød2 | l2  | G2  |
|-----|-----|-----|-----|
| 53  | 100 | 210 | 165 |
| 63  | 110 | 210 | 165 |
| 73  | 120 | 210 | 195 |
| 83  | 130 | 250 | 195 |
| 93  | 140 | 250 | 235 |
| 103 | 160 | 300 | 235 |
| 113 | 170 | 300 | 270 |
| 123 | 180 | 300 | 270 |



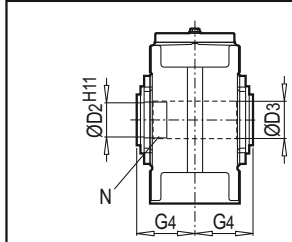
**PH53-HH ... PH123-HH**  
Delik milli  
Hollow shaft  
Hohlwelle

|     | ØD2 | G4  |
|-----|-----|-----|
| 53  | 95  | 165 |
| 63  | 105 | 165 |
| 73  | 115 | 195 |
| 83  | 125 | 195 |
| 93  | 135 | 235 |
| 103 | 150 | 235 |
| 113 | 165 | 270 |
| 123 | 180 | 270 |



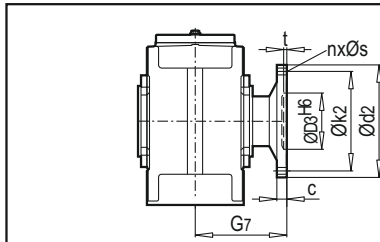
**PH53-DH ... PH123-DH**  
Konik Sıktırma  
Hollow shaft for shrink disk  
Hohlwelle für schrumpf-  
scheibe

|     | ØD2 | ØD3 | G4  | G5  |
|-----|-----|-----|-----|-----|
| 53  | 100 | 100 | 165 | 240 |
| 63  | 110 | 110 | 165 | 240 |
| 73  | 120 | 120 | 195 | 280 |
| 83  | 130 | 130 | 195 | 285 |
| 93  | 140 | 145 | 235 | 330 |
| 103 | 150 | 155 | 235 | 350 |
| 113 | 165 | 170 | 270 | 400 |
| 123 | 180 | 185 | 270 | 405 |



**PH53-KH ... PH123-KH**  
Spline DIN 5480  
Hollow shaft with involute  
splines acc. to DIN 5480  
Hohlwelle mit Zahnaben  
profil nach DIN 5480

|     | N / DIN 5480     | ØD2 | ØD3 | G4  |
|-----|------------------|-----|-----|-----|
| 53  | N 95x3x30x30x9H  | 89  | 100 | 165 |
| 63  | N 95x3x30x30x9H  | 89  | 110 | 165 |
| 73  | N 120x3x30x38x9H | 114 | 120 | 195 |
| 83  | N 120x3x30x38x9H | 114 | 130 | 195 |
| 93  | N 140x3x30x45x9H | 134 | 145 | 235 |
| 103 | N 140x3x30x45x9H | 134 | 155 | 235 |
| 113 | N 170x5x30x32x9H | 160 | 170 | 270 |
| 123 | N 170x5x30x32x9H | 160 | 185 | 270 |



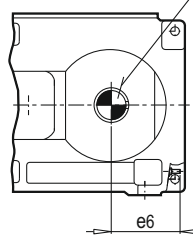
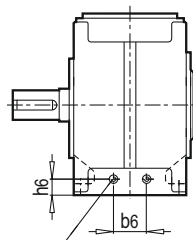
**PH53-FH ... PH123-FH**  
Flanşlı şaft  
Flanged shaft  
Flanschswelle

|     | c  | Ød2 | ØD3 | Øk2 | n x Øs  | t  | G7  |
|-----|----|-----|-----|-----|---------|----|-----|
| 53  | 25 | 300 | 150 | 260 | 16 x 22 | 10 | 255 |
| 63  | 25 | 320 | 160 | 280 | 18 x 22 | 10 | 255 |
| 73  | 30 | 370 | 180 | 320 | 16 x 26 | 10 | 300 |
| 83  | 30 | 390 | 190 | 340 | 18 x 26 | 10 | 300 |
| 93  | 38 | 430 | 220 | 380 | 20 x 26 | 12 | 350 |
| 103 | 38 | 470 | 240 | 420 | 22 x 26 | 12 | 350 |
| 113 | 42 | 510 | 260 | 450 | 18 x 33 | 12 | 400 |
| 123 | 42 | 540 | 280 | 480 | 22 x 33 | 12 | 400 |

| Gövde<br>Size<br>Größe | Yağ<br>miktarı<br>Oil quantity<br>Ölmenge<br>(l)* | Ağırlık / Weight<br>Gewicht (kg)***) |      |
|------------------------|---------------------------------------------------|--------------------------------------|------|
|                        |                                                   | SH<br>HH<br>DH<br>KH                 | FH   |
| 53                     | 16                                                | 325                                  | 360  |
| 63                     | 18                                                | 370                                  | 410  |
| 73                     | 30                                                | 550                                  | 600  |
| 83                     | 35                                                | 635                                  | 685  |
| 93                     | 48                                                | 890                                  | 975  |
| 103                    | 52                                                | 1040                                 | 1130 |
| 113                    | 85                                                | 1430                                 | 1560 |
| 123                    | 93                                                | 1705                                 | 1845 |

**Soğutma serpantini / Cooling coil / Kühlschlange**

Soğutma serpantini su bağlantısı G1/2"  
Water connection for cooling coil G1/2"  
Wasseranschluß für Kühlschlange G1/2"



Çıkış  
Output  
Abtrieb

Soğutma sistemi deniz suyu ve acı su için uygundur  
Cooling coil suitable for fresh, sea and brackish water  
Kühlschlange geeignet für Süß-See- und Brackwasser

x) Gerekli soğutma suyu miktarı; basıncı 8 bar  
Cooling water quantity required, max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge, max. kühlwasserdruck: 8 bar

| Gövde<br>Size<br>Größe | b6  | e6  | h6 | l/min<br>x) |
|------------------------|-----|-----|----|-------------|
| 53                     | 100 | 169 | 65 | 4           |
| 63                     | 100 | 214 | 65 | 4           |
| 73                     | 100 | 208 | 77 | 4           |
| 83                     | 80  | 266 | 77 | 4           |
| 93                     | 130 | 246 | 75 | 4           |
| 103                    | 130 | 294 | 75 | 4           |
| 113                    | 140 | 275 | 90 | 8           |
| 123                    | 140 | 360 | 90 | 8           |



TR

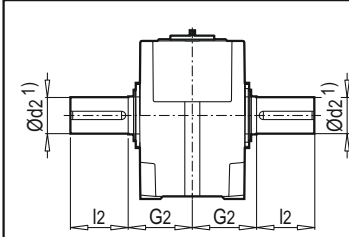
ÜÇ KADEMELİ - YATAY

EN

THREE STAGE - HORIZONTAL

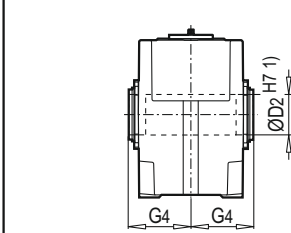
DE

DREISTUFIG - HORIZONTAL



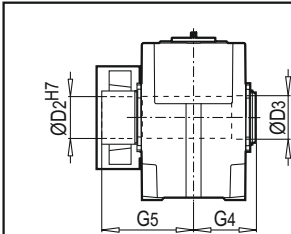
**PH133-SH ... PH223-SH**  
Mil Çıkışı  
Solid shaft  
Vollwelle

|     | Ød2 | l2  | G2  |
|-----|-----|-----|-----|
| 133 | 200 | 350 | 335 |
| 143 | 210 | 350 | 335 |
| 153 | 230 | 410 | 380 |
| 163 | 240 | 410 | 380 |
| 173 | 250 | 410 | 415 |
| 183 | 270 | 470 | 415 |
| 193 | 290 | 470 | 465 |
| 203 | 300 | 500 | 465 |
| 213 | 320 | 500 | 490 |
| 223 | 340 | 550 | 490 |



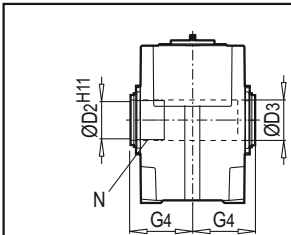
**PH133-HH ... PH223-HH**  
**PH133-HM ... PH223-HM**  
Delik milli  
Hollow shaft  
Hohlwelle

|     | ØD2 | G4  |
|-----|-----|-----|
| 133 | 190 | 335 |
| 143 | 210 | 335 |
| 153 | 230 | 380 |
| 163 | 240 | 380 |
| 173 | 250 | 415 |
| 183 | 275 | 415 |
| 193 | -   | -   |
| 203 | -   | -   |
| 213 | -   | -   |
| 223 | -   | -   |



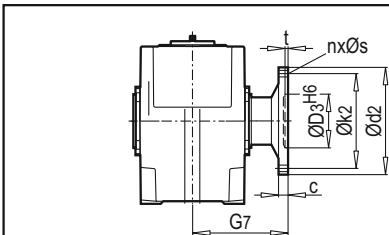
**PH133-DH ... PH223-DH**  
**PH133-DM ... PH223-DM**  
Konik Sıkırmalı  
Hollow shaft for shrink disk  
Hohlwelle für schrumpfscheibe

|     | ØD2 | ØD3 | G4  | G5  |
|-----|-----|-----|-----|-----|
| 133 | 190 | 195 | 335 | 480 |
| 143 | 210 | 215 | 335 | 480 |
| 153 | 230 | 235 | 380 | 550 |
| 163 | 240 | 245 | 380 | 550 |
| 173 | 250 | 260 | 415 | 600 |
| 183 | 280 | 285 | 415 | 600 |
| 193 | 285 | 295 | 465 | 670 |
| 203 | 310 | 315 | 465 | 670 |
| 213 | 330 | 335 | 490 | 715 |
| 223 | 340 | 345 | 490 | 725 |



**PH133-KH ... PH223-KH**  
**PH133-KM ... PH223-KM**  
Spline DIN 5480  
Hollow shaft with involute  
splines acc. to DIN 5480  
Hohlwelle mit Zahnradprofil  
nach DIN 5480

|     | N / DIN 5480                               | ØD2 | ØD3 | G4  |
|-----|--------------------------------------------|-----|-----|-----|
| 133 | N 190x5x30x36x9H                           | 180 | 195 | 335 |
| 143 | N 190x5x30x36x9H                           | 180 | 215 | 335 |
| 153 | N 220x5x30x42x9H                           | 210 | 235 | 380 |
| 163 | N 220x5x30x42x9H                           | 210 | 245 | 380 |
| 173 | N 250x5x30x48x9H                           | 240 | 260 | 415 |
| 183 | N 250x5x30x48x9H                           | 240 | 285 | 415 |
| 193 | İstek üzerine<br>On request<br>Auf Anfrage |     |     |     |
| 203 |                                            |     |     |     |
| 213 |                                            |     |     |     |
| 223 |                                            |     |     |     |



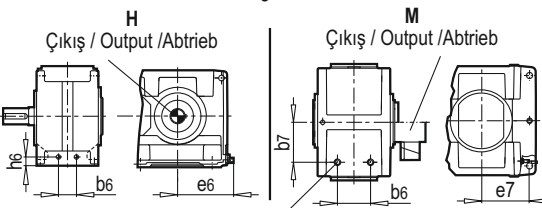
**PH133-FH ... PH223-FH**  
**PH133-FM ... PH223-FM**  
Flanşlı şaft  
Flanged shaft  
Flanschelle

|     | c  | Ød2  | ØD3 | Øk2 | n x Øs  | t  | G7  |
|-----|----|------|-----|-----|---------|----|-----|
| 133 | 48 | 580  | 310 | 500 | 20 x 33 | 14 | 480 |
| 143 | 48 | 620  | 310 | 540 | 24 x 33 | 14 | 480 |
| 153 | 55 | 710  | 360 | 630 | 28 x 33 | 17 | 550 |
| 163 | 55 | 740  | 360 | 660 | 30 x 33 | 17 | 550 |
| 173 | 60 | 750  | 410 | 660 | 24 x 39 | 18 | 600 |
| 183 | 60 | 800  | 410 | 710 | 26 x 39 | 18 | 600 |
| 193 | 65 | 860  | 460 | 770 | 30 x 39 | 18 | 670 |
| 203 | 65 | 930  | 460 | 830 | 32 x 39 | 18 | 670 |
| 213 | 75 | 950  | 520 | 850 | 28 x 45 | 20 | 710 |
| 223 | 75 | 1040 | 520 | 940 | 28 x 45 | 20 | 710 |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge (l)*) |     | Ağırlık / Weight /<br>Gewicht (kg)*)**) |                |                                            |      |
|------------------------|----------------------------------------------|-----|-----------------------------------------|----------------|--------------------------------------------|------|
|                        | H                                            | M   | SH<br>HH<br>DH<br>KH                    | HM<br>DM<br>KM | FH                                         | FM   |
| 133                    | 160                                          | 125 | 2320                                    | 2180           | 2480                                       | 2330 |
| 143                    | 165                                          | 130 | 2650                                    | 2515           | 2820                                       | 2685 |
| 153                    | 235                                          | 190 | 3500                                    | 3285           | 3740                                       | 3525 |
| 163                    | 245                                          | 195 | 3910                                    | 3660           | 4165                                       | 3915 |
| 173                    | 305                                          | 240 | 4595                                    | 4285           | 4895                                       | 4585 |
| 183                    | 315                                          | 250 | 5070                                    | 4780           | 5900                                       | 5130 |
| 193                    | 420                                          | 390 | 6750                                    | 6250           | İstek üzerine<br>On request<br>Auf Anfrage |      |
| 203                    | 450                                          | 415 | 8150                                    | 7650           |                                            |      |
| 213                    | 470                                          | 515 | 9200                                    | 8600           |                                            |      |
| 223                    | 490                                          | 540 | 9900                                    | 9400           |                                            |      |

**Soğutma serpantini / Cooling coil / Kühlschlange**

Soğutma serpantini su bağlantısı G1/2"  
Water connection for cooling coil G1/2"  
Wasseranschluss für Kühlschlange G1/2"



Soğutma sistemi deniz suyu ve acı su için uygundur.  
Cooling coil suitable for fresh, sea and brackish water  
Kühlschlange geeignet für Süß- See- und Brackwasser  
x) Gerekli soğutma suyu miktarı; basıncı 8 bar  
Cooling water quantity required, max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge, max. kühlwasserdruck: 8 bar

| Gövde<br>Size<br>Größe | b6  | e6  | e7  | h6  | h7  | l/min |
|------------------------|-----|-----|-----|-----|-----|-------|
| 133                    | 252 | 460 | 335 | 116 | 300 | 8     |
| 143                    | 252 | 530 | 405 | 116 | 300 | 8     |
| 153                    | 290 | 540 | 395 | 119 | 335 | 8     |
| 163                    | 290 | 585 | 440 | 119 | 335 | 8     |
| 173                    | 300 | 580 | 425 | 134 | 380 | 8     |
| 183                    | 300 | 580 | 485 | 134 | 380 | 8     |

İstek üzerine  
On request  
Auf Anfrage

TR

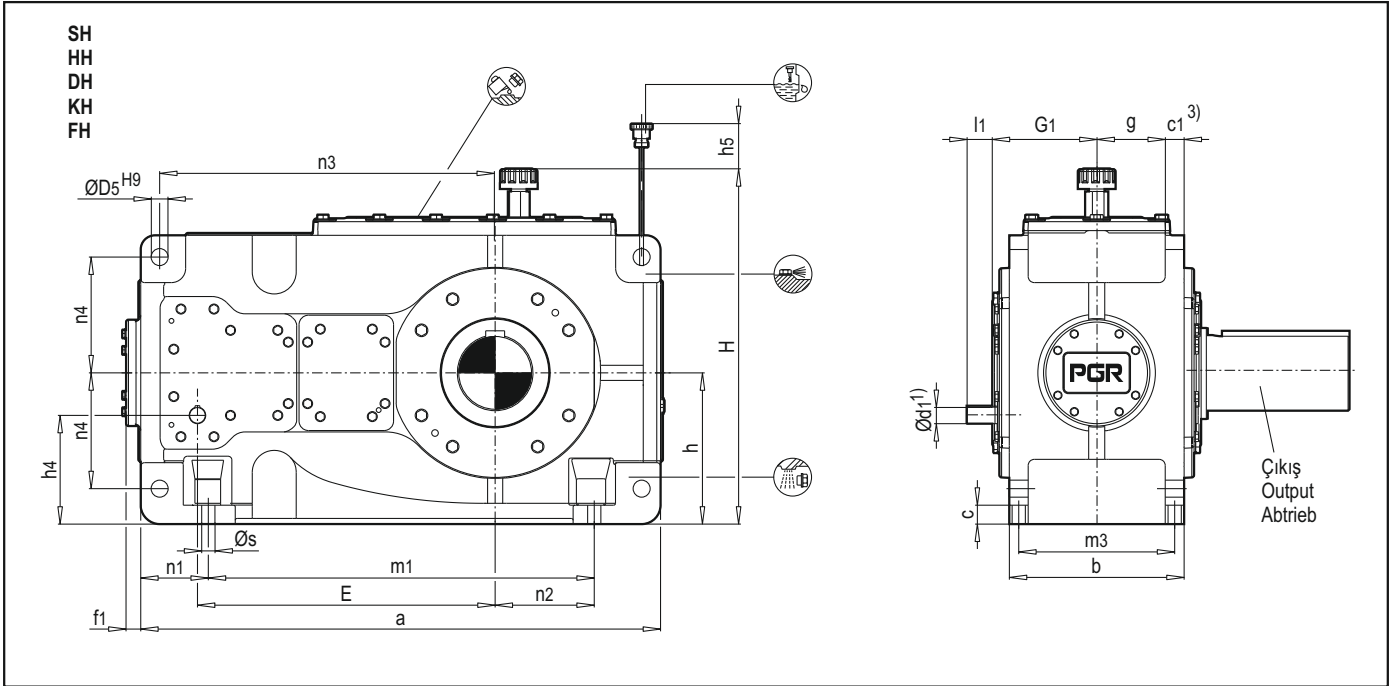
DÖRT KADEMELİ - YATAY

EN

FOUR STAGE - HORIZONTAL

DE

VIERSTUFIG - HORIZONTAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |                |    |                |     |                |    |     |
|------------------------|-------------------------|-----|----------------|----|----------------|-----|----------------|----|-----|
|                        | İN = 100 -180           |     | İN = 200 - 355 |    | İN = 125 - 224 |     | İN = 250 - 450 |    | G1  |
|                        | Ød1                     | l1  | Ød1            | l1 | Ød1            | l1  | Ød1            | l1 |     |
| 74                     | 30                      | 50  | 24             | 40 | -              | -   | -              | -  | 180 |
| 84                     | -                       | -   | -              | -  | 30             | 50  | 24             | 40 | 180 |
| 94                     | 35                      | 60  | 28             | 50 | -              | -   | -              | -  | 215 |
| 104                    | -                       | -   | -              | -  | 35             | 60  | 28             | 50 | 215 |
| 114                    | 45                      | 100 | 32             | 80 | -              | -   | -              | -  | 250 |
| 124                    | -                       | -   | -              | -  | 45             | 100 | 32             | 80 | 250 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |    |    |     |     |    |     |     |       |     |     |      |     |     |     |     |     |    | Kilit<br>Backstop                                                                                             |
|------------------------|--------------------------------------------|-----|----|----|-----|-----|----|-----|-----|-------|-----|-----|------|-----|-----|-----|-----|-----|----|---------------------------------------------------------------------------------------------------------------|
|                        | a                                          | b   | c  | c1 | ØD5 | E   | f1 | g   | H   | h(-1) | h4  | h5  | m1   | m3  | n1  | n2  | n3  | n4  | Øs | Rücklaufsperre<br> 84 G8 |
| 74                     | 849                                        | 300 | 37 | 37 | 28  | 495 | 37 | 115 | 577 | 280   | 200 | 140 | 605  | 260 | 122 | 130 | 560 | 215 | 24 | 288                                                                                                           |
| 84                     | 954                                        | 300 | 37 | 37 | 28  | 540 | 37 | 115 | 587 | 280   | 200 | 140 | 710  | 260 | 122 | 190 | 605 | 215 | 24 | 288                                                                                                           |
| 94                     | 1004                                       | 370 | 42 | 47 | 36  | 580 | 43 | 141 | 667 | 320   | 230 | 150 | 710  | 320 | 147 | 155 | 660 | 245 | 28 | 319                                                                                                           |
| 104                    | 1104                                       | 370 | 42 | 47 | 36  | 630 | 43 | 141 | 667 | 320   | 230 | 150 | 810  | 320 | 147 | 205 | 710 | 245 | 28 | 319                                                                                                           |
| 114                    | 1204                                       | 430 | 52 | 56 | 40  | 705 | 47 | 162 | 787 | 380   | 270 | 165 | 870  | 370 | 167 | 180 | 805 | 300 | 35 | 335                                                                                                           |
| 124                    | 1359                                       | 430 | 52 | 56 | 40  | 775 | 47 | 162 | 795 | 380   | 270 | 165 | 1025 | 370 | 167 | 265 | 875 | 300 | 35 | 335                                                                                                           |

+) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir.  
Ölçüler mm'dir.

#### 1) Şaftlar:

k6=Ø24; Ø28≤m6≤Ø100; n6>Ø100

Kama kanalı DIN 6885/1,

Kama kanalı genişliği ISO JS9 a göre

Kama DIN 6885/1 form B

Ayrıntılar için sayfa 127-136'ya bakılabilir.

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

+) Max. dimensions; details acc. to order-related documentation.

Dimensions in mm

#### 1) Shafts:

k6=Ø24; Ø28≤m6≤Ø100; n6>Ø100

Keyway acc.to DIN 6885/1,

Hub keyway width acc.to ISO JS9

Parallel key acc.to DIN 6885/1 form B

For details, see pages 127-136.

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

+) max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.  
Abmessungen in mm

#### 1) Wellen:

k6=Ø24; Ø28≤m6≤Ø100; n6>Ø100

Passfedernut nach DIN 6885/1

Nabennutbreite nach ISO JS9

Passfeder nach DIN 6885/1 Form B

Einzelheiten siehe Seiten 127-136.

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

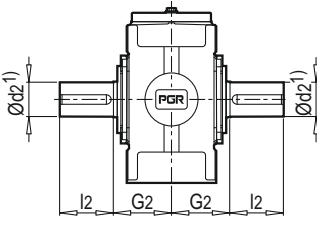
DÖRT KADEMELİ - YATAY

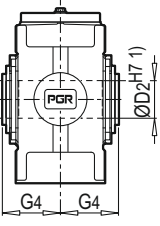
EN

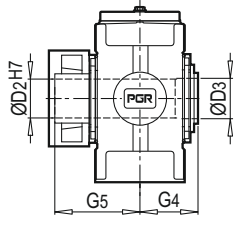
FOUR STAGE - HORIZONTAL

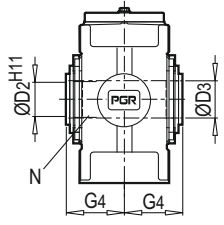
DE

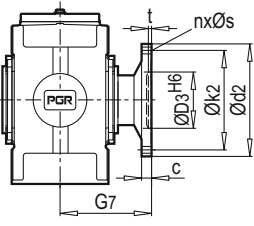
VIERTSTUFIG - HORIZONTAL

|                                                                                   |                                                                        |     |            |           |           |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------|-----|------------|-----------|-----------|
|  | <b>PH74-SH ... PH124-SH</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |     | <b>Ød2</b> | <b>l2</b> | <b>G2</b> |
|                                                                                   |                                                                        | 74  | 120        | 210       | 195       |
|                                                                                   |                                                                        | 84  | 130        | 250       | 195       |
|                                                                                   |                                                                        | 94  | 140        | 250       | 235       |
|                                                                                   |                                                                        | 104 | 160        | 300       | 235       |
|                                                                                   |                                                                        | 114 | 170        | 300       | 270       |
|                                                                                   |                                                                        | 124 | 180        | 300       | 270       |

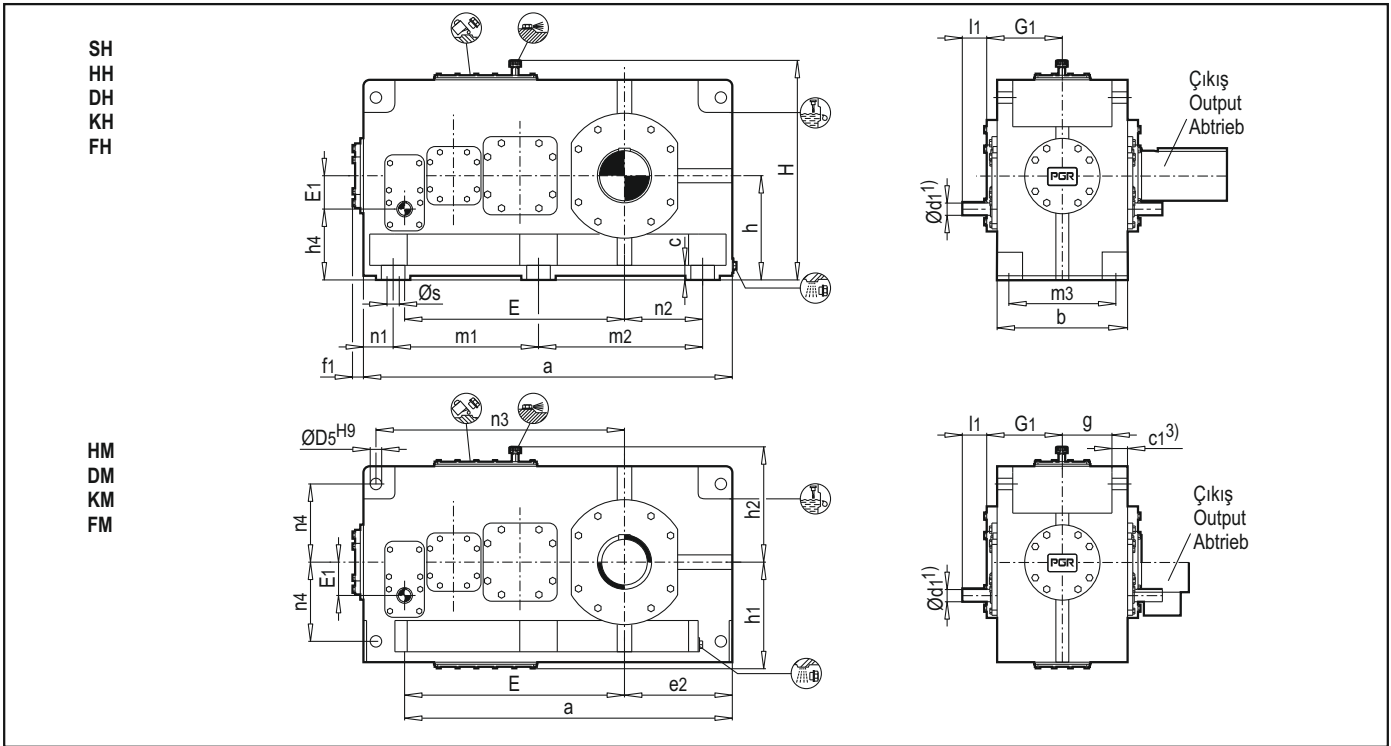
|                                                                                   |                                                                         |     |            |           |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----|------------|-----------|
|  | <b>PH74-HH ... PH124-HH</b><br>Delik milli<br>Hollow shaft<br>Hohlwelle |     | <b>ØD2</b> | <b>G4</b> |
|                                                                                   |                                                                         | 74  | 115        | 195       |
|                                                                                   |                                                                         | 84  | 125        | 195       |
|                                                                                   |                                                                         | 94  | 135        | 235       |
|                                                                                   |                                                                         | 104 | 150        | 235       |
|                                                                                   |                                                                         | 114 | 165        | 270       |
|                                                                                   |                                                                         | 124 | 180        | 270       |

|                                                                                    |                                                                                                                 |     |            |            |           |           |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----|------------|------------|-----------|-----------|
|  | <b>PH74-DH ... PH124-DH</b><br>Konik Sıkırmalı<br>Hollow shaft for shrink disk<br>Hohlwelle für schrumpfscheibe |     | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> | <b>G5</b> |
|                                                                                    |                                                                                                                 | 74  | 120        | 120        | 195       | 280       |
|                                                                                    |                                                                                                                 | 84  | 130        | 130        | 195       | 285       |
|                                                                                    |                                                                                                                 | 94  | 140        | 145        | 235       | 330       |
|                                                                                    |                                                                                                                 | 104 | 150        | 155        | 235       | 350       |
|                                                                                    |                                                                                                                 | 114 | 165        | 170        | 270       | 400       |
|                                                                                    |                                                                                                                 | 124 | 180        | 185        | 270       | 405       |

|                                                                                     |                                                                                                                                                             |     |                     |  |            |            |           |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------|--|------------|------------|-----------|
|  | <b>PH74-KH ... PH124-KH</b><br>Spline DIN 5480<br>Hollow shaft with involute<br>splines acc. to DIN 5480<br>Hohlwelle mit Zahnnaben profil<br>nach DIN 5480 |     | <b>N / DIN 5480</b> |  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|                                                                                     |                                                                                                                                                             | 74  | N 120x3x30x38x9H    |  | 114        | 120        | 195       |
|                                                                                     |                                                                                                                                                             | 84  | N 120x3x30x38x9H    |  | 114        | 130        | 195       |
|                                                                                     |                                                                                                                                                             | 94  | N 140x3x30x45x9H    |  | 134        | 145        | 235       |
|                                                                                     |                                                                                                                                                             | 104 | N 140x3x30x45x9H    |  | 134        | 155        | 235       |
|                                                                                     |                                                                                                                                                             | 114 | N 170x5x30x32x9H    |  | 160        | 170        | 270       |
|                                                                                     |                                                                                                                                                             | 124 | N 170x5x30x32x9H    |  | 160        | 185        | 270       |

|                                                                                     |                                                                              |     |          |            |            |            |               |          |           |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----|----------|------------|------------|------------|---------------|----------|-----------|
|  | <b>PH74-FH ... PH124-FH</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschwelle |     | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>n x Øs</b> | <b>t</b> | <b>G7</b> |
|                                                                                     |                                                                              | 74  | 30       | 370        | 180        | 320        | 16 x 26       | 10       | 300       |
|                                                                                     |                                                                              | 84  | 30       | 390        | 190        | 340        | 18 x 26       | 10       | 300       |
|                                                                                     |                                                                              | 94  | 38       | 430        | 220        | 380        | 20 x 26       | 12       | 350       |
|                                                                                     |                                                                              | 104 | 38       | 470        | 240        | 420        | 22 x 26       | 12       | 350       |
|                                                                                     |                                                                              | 114 | 42       | 510        | 260        | 450        | 18 x 33       | 12       | 400       |
|                                                                                     |                                                                              | 124 | 42       | 540        | 280        | 480        | 22 x 33       | 12       | 400       |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l)* | Ağırlık<br>Weight / Gewicht<br>(kg)*)** |      |
|------------------------|------------------------------------------------|-----------------------------------------|------|
|                        |                                                | SH<br>HH<br>DH<br>KH                    | FH   |
| 74                     | 29                                             | 560                                     | 610  |
| 84                     | 32                                             | 655                                     | 710  |
| 94                     | 49                                             | 890                                     | 975  |
| 104                    | 50                                             | 1030                                    | 1130 |
| 114                    | 85                                             | 1480                                    | 1610 |
| 124                    | 96                                             | 1750                                    | 1890 |



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |                |     |                |     |                |     |                |     |                |    |     |
|------------------------|-------------------------|-----|----------------|-----|----------------|-----|----------------|-----|----------------|-----|----------------|----|-----|
|                        | İN = 100 - 180          |     | İN = 200 - 355 |     | İN = 112 - 200 |     | İN = 224 - 400 |     | İN = 125 - 224 |     | İN = 250 - 450 |    | G1  |
|                        | Ød1                     | l1  | Ød1            | l1  | Ød1            | l1  | Ød1            | l1  | Ød1            | l1  | Ød1            | l1 |     |
| 134                    | 50                      | 100 | 38             | 80  | -              | -   | -              | -   | -              | -   | -              | -  | 305 |
| 144                    | -                       | -   | -              | -   | -              | -   | -              | -   | 50             | 100 | 38             | 80 | 305 |
| 154                    | 60                      | 135 | 50             | 110 | -              | -   | -              | -   | -              | -   | -              | -  | 345 |
| 164                    | -                       | -   | -              | -   | 60             | 135 | 50             | 110 | -              | -   | -              | -  | 345 |
| 174                    | 60                      | 105 | 50             | 80  | -              | -   | -              | -   | -              | -   | -              | -  | 380 |
| 184                    | -                       | -   | -              | -   | 60             | 105 | 50             | 80  | -              | -   | -              | -  | 380 |
| 194                    | 75                      | 105 | 60             | 105 | -              | -   | -              | -   | -              | -   | -              | -  | 440 |
| 204                    | -                       | -   | -              | -   | 75             | 105 | 60             | 105 | -              | -   | -              | -  | 440 |
| 214                    | 90                      | 165 | 70             | 140 | -              | -   | -              | -   | -              | -   | -              | -  | 460 |
| 224                    | -                       | -   | -              | -   | 90             | 165 | 70             | 140 | -              | -   | -              | -  | 460 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |     |     |     |      |     |     |    |     |      |       |     |     |     |       |       |     |     |     |      |     |    | Kilit<br>Backstop |    |
|------------------------|--------------------------------------------|-----|-----|-----|-----|------|-----|-----|----|-----|------|-------|-----|-----|-----|-------|-------|-----|-----|-----|------|-----|----|-------------------|----|
|                        | a                                          | b   | c   | c1  | ØD5 | E    | E1  | e2  | f1 | g   | H    | h(-1) | h1  | h2  | h4  | m1    | m2    | m3  | n1  | n2  | n3   | n4  | Øs | Rücklaufsperre    |    |
|                        |                                            |     |     |     |     |      |     |     |    |     |      |       |     |     |     |       |       |     |     |     |      |     |    | 84                | G8 |
| 134                    | 1399                                       | 550 | 62  | 63  | 48  | 820  | 130 | 407 | 47 | 212 | 905  | 440   | 450 | 460 | 310 | 597.5 | 597.5 | 475 | 100 | 307 | 940  | 340 | 35 | 393               |    |
| 144                    | 1539                                       | 550 | 62  | 63  | 48  | 890  | 130 | 477 | 47 | 212 | 905  | 440   | 450 | 460 | 310 | 597.5 | 737.5 | 475 | 100 | 377 | 1010 | 340 | 35 | 393               |    |
| 154                    | 1684                                       | 620 | 72  | 74  | 55  | 987  | 160 | 487 | 56 | 239 | 1005 | 500   | 490 | 500 | 340 | 720   | 720   | 535 | 120 | 367 | 1135 | 375 | 42 | 489               |    |
| 164                    | 1774                                       | 620 | 72  | 74  | 55  | 1033 | 160 | 532 | 56 | 239 | 1005 | 500   | 490 | 500 | 340 | 720   | 810   | 535 | 120 | 412 | 1180 | 375 | 42 | 489               |    |
| 174                    | 1774                                       | 690 | 82  | 83  | 55  | 1035 | 160 | 527 | 53 | 260 | 1115 | 550   | 555 | 560 | 390 | 750   | 750   | 600 | 135 | 392 | 1175 | 425 | 42 | 489               |    |
| 184                    | 1894                                       | 690 | 82  | 83  | 55  | 1095 | 160 | 587 | 53 | 260 | 1115 | 550   | 555 | 560 | 390 | 750   | 870   | 600 | 135 | 452 | 1235 | 425 | 42 | 489               |    |
| 194                    | 2034                                       | 790 | 92  | 93  | 65  | 1190 | 185 | 592 | 53 | 300 | 1245 | 620   | 615 | 620 | 435 | 860   | 860   | 690 | 155 | 437 | 1365 | 475 | 48 | 592               |    |
| 204                    | 2154                                       | 790 | 92  | 93  | 65  | 1250 | 185 | 652 | 53 | 300 | 1245 | 620   | 615 | 620 | 435 | 860   | 980   | 690 | 155 | 497 | 1425 | 475 | 48 | 592               |    |
| 214                    | 2344                                       | 830 | 102 | 102 | 75  | 1387 | 225 | 657 | 62 | 311 | 1395 | 700   | 685 | 690 | 475 | 1000  | 1000  | 720 | 170 | 487 | 1600 | 520 | 56 | 612               |    |
| 224                    | 2454                                       | 830 | 102 | 102 | 75  | 1442 | 225 | 712 | 62 | 311 | 1395 | 700   | 685 | 690 | 475 | 1000  | 1110  | 720 | 170 | 542 | 1655 | 520 | 56 | 612               |    |

+) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir.  
Ölçüler mm'dir.

1) **Şaftlar:**  
m6<=Ø100; n6>Ø100  
Kama kanalı DIN 6885/1,  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

+) Max. dimensions; details acc.to order-related documentation.

Dimensions in mm  
1) **Shafts:**  
m6<=Ø100; n6>Ø100  
Keyway acc.to DIN 6885/1,  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

+) max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.

Abmessungen in mm

1) **Wellen:**  
m6<=Ø100; n6>Ø100  
Passfedermut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

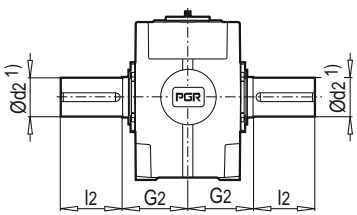
DÖRT KADEMELİ - YATAY

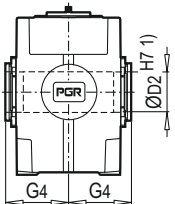
EN

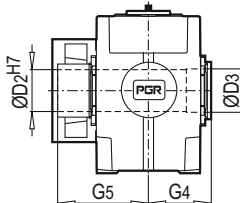
FOUR STAGE - HORIZONTAL

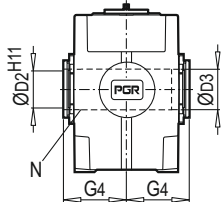
DE

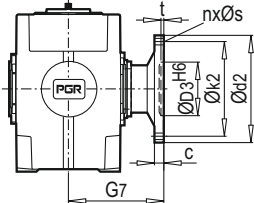
VIERTSTUFIG - HORIZONTAL

|                                                                                   |                                                                         |     |            |           |           |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----|------------|-----------|-----------|
|  | <b>PH134-SH ... PH224-SH</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |     | <b>Ød2</b> | <b>l2</b> | <b>G2</b> |
|                                                                                   |                                                                         | 134 | 200        | 350       | 335       |
|                                                                                   |                                                                         | 144 | 210        | 350       | 335       |
|                                                                                   |                                                                         | 154 | 230        | 410       | 380       |
|                                                                                   |                                                                         | 164 | 240        | 410       | 380       |
|                                                                                   |                                                                         | 174 | 250        | 410       | 415       |
|                                                                                   |                                                                         | 184 | 270        | 470       | 415       |
|                                                                                   |                                                                         | 194 | 290        | 470       | 465       |
|                                                                                   |                                                                         | 204 | 300        | 500       | 465       |
|                                                                                   |                                                                         | 214 | 320        | 500       | 490       |
|                                                                                   |                                                                         | 224 | 340        | 550       | 490       |

|                                                                                   |                                                                                                          |     |            |           |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----|------------|-----------|
|  | <b>PH134-HH ... PH224-HH</b><br><b>PH134-HM ... PH224-HM</b><br>Delik milli<br>Hollow shaft<br>Hohlwelle |     | <b>ØD2</b> | <b>G4</b> |
|                                                                                   |                                                                                                          | 134 | 190        | 335       |
|                                                                                   |                                                                                                          | 144 | 210        | 335       |
|                                                                                   |                                                                                                          | 154 | 230        | 380       |
|                                                                                   |                                                                                                          | 164 | 240        | 380       |
|                                                                                   |                                                                                                          | 174 | 250        | 415       |
|                                                                                   |                                                                                                          | 184 | 275        | 415       |
|                                                                                   |                                                                                                          | 194 | -          | -         |
|                                                                                   |                                                                                                          | 204 | -          | -         |
|                                                                                   |                                                                                                          | 214 | -          | -         |
|                                                                                   |                                                                                                          | 224 | -          | -         |

|                                                                                    |                                                                                                                                                   |     |            |            |           |           |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|------------|-----------|-----------|
|  | <b>PH134-DH ... PH224-DH</b><br><b>PH134-DM ... PH224-DM</b><br>Konik Sıkırtmalı<br>Hollow shaft for shrink disk<br>Hohlwelle für schrumpfscheibe |     | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> | <b>G5</b> |
|                                                                                    |                                                                                                                                                   | 134 | 190        | 195        | 335       | 480       |
|                                                                                    |                                                                                                                                                   | 144 | 210        | 215        | 335       | 480       |
|                                                                                    |                                                                                                                                                   | 154 | 230        | 235        | 380       | 550       |
|                                                                                    |                                                                                                                                                   | 164 | 240        | 245        | 380       | 550       |
|                                                                                    |                                                                                                                                                   | 174 | 250        | 260        | 415       | 600       |
|                                                                                    |                                                                                                                                                   | 184 | 280        | 285        | 415       | 600       |
|                                                                                    |                                                                                                                                                   | 194 | 285        | 295        | 465       | 670       |
|                                                                                    |                                                                                                                                                   | 204 | 310        | 315        | 465       | 670       |
|                                                                                    |                                                                                                                                                   | 214 | 330        | 335        | 490       | 715       |
|                                                                                    |                                                                                                                                                   | 224 | 340        | 345        | 490       | 725       |

|                                                                                     |            |                                            |            |            |           |
|-------------------------------------------------------------------------------------|------------|--------------------------------------------|------------|------------|-----------|
|  |            | <b>N / DIN 5480</b>                        | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|                                                                                     | <b>134</b> | N 190x5x30x36x9H                           | 180        | 195        | 335       |
|                                                                                     | <b>144</b> | N 190x5x30x36x9H                           | 180        | 215        | 335       |
|                                                                                     | <b>154</b> | N 220x5x30x42x9H                           | 210        | 235        | 380       |
|                                                                                     | <b>164</b> | N 220x5x30x42x9H                           | 210        | 245        | 380       |
|                                                                                     | <b>174</b> | N 250x5x30x48x9H                           | 240        | 260        | 415       |
|                                                                                     | <b>184</b> | N 250x5x30x48x9H                           | 240        | 285        | 415       |
|                                                                                     | <b>194</b> | İstek üzerine<br>On request<br>Auf Anfrage |            |            |           |
|                                                                                     | <b>204</b> |                                            |            |            |           |
|                                                                                     | <b>214</b> |                                            |            |            |           |
|                                                                                     | <b>224</b> |                                            |            |            |           |

|                                                                                     |                                                                                                               |     |          |            |            |            |               |          |           |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----|----------|------------|------------|------------|---------------|----------|-----------|
|  | <b>PH134-FH ... PH224-FH</b><br><b>PH134-FM ... PH224-FM</b><br>Flanşlı shaft<br>Flanged shaft<br>Flanschelle |     | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>n x Øs</b> | <b>t</b> | <b>G7</b> |
|                                                                                     |                                                                                                               | 134 | 48       | 580        | 310        | 500        | 20 x 33       | 14       | 480       |
|                                                                                     |                                                                                                               | 144 | 48       | 620        | 310        | 540        | 24 x 33       | 14       | 480       |
|                                                                                     |                                                                                                               | 154 | 55       | 710        | 360        | 630        | 28 x 33       | 17       | 550       |
|                                                                                     |                                                                                                               | 164 | 55       | 740        | 360        | 660        | 30 x 33       | 17       | 550       |
|                                                                                     |                                                                                                               | 174 | 60       | 750        | 410        | 660        | 24 x 39       | 18       | 600       |
|                                                                                     |                                                                                                               | 184 | 60       | 800        | 410        | 710        | 26 x 39       | 18       | 600       |
|                                                                                     |                                                                                                               | 194 | 65       | 860        | 460        | 770        | 30 x 39       | 18       | 670       |
|                                                                                     |                                                                                                               | 204 | 65       | 930        | 460        | 830        | 32 x 39       | 18       | 670       |
|                                                                                     |                                                                                                               | 214 | 75       | 950        | 520        | 850        | 28 x 45       | 20       | 710       |
|                                                                                     |                                                                                                               | 224 | 75       | 1040       | 520        | 940        | 28 x 45       | 20       | 710       |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l*) |     | Ağırlık<br>Weight / Gewicht<br>(kg)*)**) |                |                                            |      |
|------------------------|------------------------------------------------|-----|------------------------------------------|----------------|--------------------------------------------|------|
|                        | H                                              | M   | SH<br>HH<br>DH<br>KH                     | HM<br>DM<br>KM | FH                                         | FM   |
| 134                    | 130                                            | 120 | 2400                                     | 2280           | 2560                                       | 2440 |
| 144                    | 140                                            | 125 | 2750                                     | 2620           | 2920                                       | 2790 |
| 154                    | 230                                            | 170 | 3655                                     | 3460           | 3895                                       | 3700 |
| 164                    | 235                                            | 175 | 3990                                     | 3765           | 4245                                       | 4020 |
| 174                    | 290                                            | 225 | 4710                                     | 4475           | 5010                                       | 4775 |
| 184                    | 305                                            | 230 | 5220                                     | 5950           | 5570                                       | 5300 |
| 194                    | 430                                            | 310 | 6850                                     | 6350           | İstek üzerine<br>On request<br>Auf Anfrage |      |
| 204                    | 380                                            | 330 | 8250                                     | 7750           |                                            |      |
| 214                    | 395                                            | 430 | 9270                                     | 8670           |                                            |      |
| 224                    | 420                                            | 450 | 9990                                     | 9490           |                                            |      |

TR

KİLİT YÖNÜ

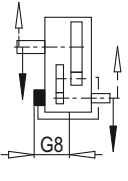
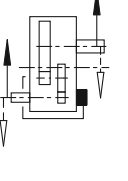
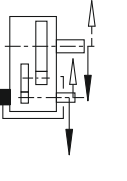
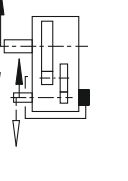
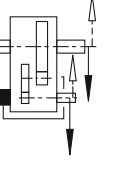
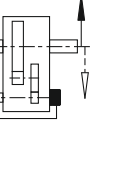
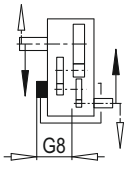
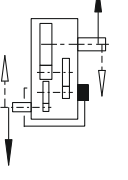
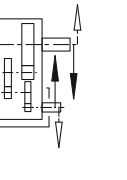
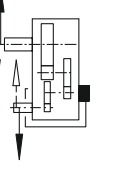
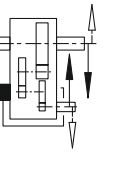
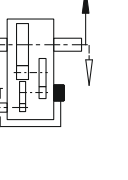
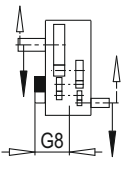
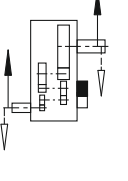
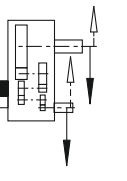
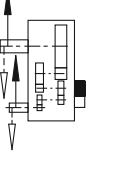
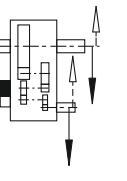
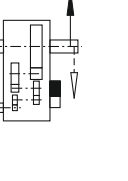
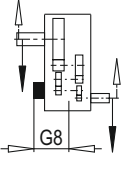
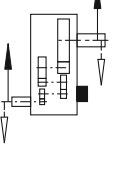
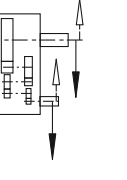
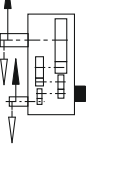
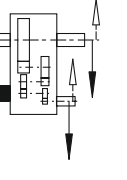
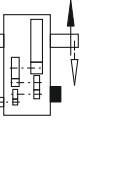
EN

BACKSTOP DIRECTION

DE

RÜCKLAUFSPERRE RICHTUNG

## HELİSEL DİŞLİLİ REDÜKTÖRLER / HELICAL GEAR UNITS / STIRNRADGETRIEBE

| İki kademe, Yatay / Double stage, Horizontal / Zweistufig, Horizontal - PH42-H ... 222-H / PH132-M ... 222-M 1)                                                              |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                             |    |    |    |    |    |
| Üç kademe, Yatay / Three stage, Horizontal / Dreistufig, Horizontal - PH53-H ... 223-H / PH133-M ... 223-M 1)                                                                |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |
|                                                                                             |    |    |    |    |    |
| Dört kademe, Yatay / Four stage, Horizontal / Vierstufig, Horizontal - PH74-H ... 124-H 1)                                                                                   |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |
|                                                                                           |  |  |  |  |  |
| <p>■ Kilit: Gövde 74-104 / Backstop: Sizes 74-104 / Rücklaufsperr: Größen 74-104</p> <p>□ Kilit: Gövde 114-124 / Backstop: Sizes 114-124 / Rücklaufsperr: Größen 114-124</p> |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |
| Dört kademe, Yatay / Four stage, Horizontal / Vierstufig, Horizontal - PH134-H ... 224-H / PH134-M ... 224-M 1)                                                              |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |
|                                                                                           |  |  |  |  |  |

## 1) Değişkenler:

G,H ve I tasarımlar ile kilit mümkün değil.

## 1) Variants:

Backstop not possible with G,H and I designs.

## 1) Varianten:

Rücklaufsperr nicht in Verbindung mit Ausführung G,H und I

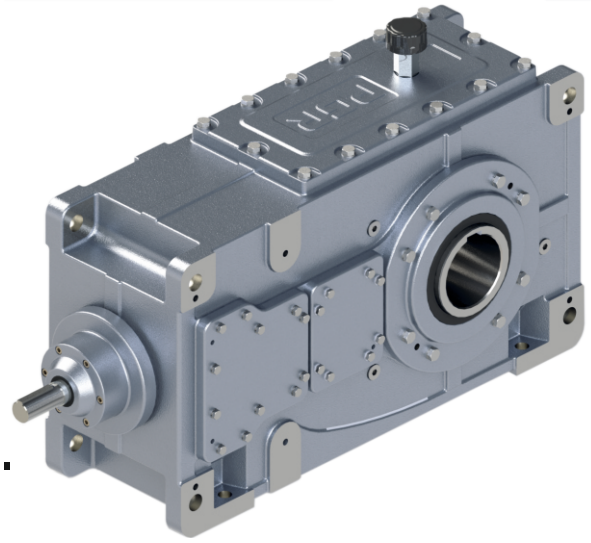
■ Kilit / Backstop / Rücklaufsperr

Ölçü Tabloları

Dimension Tables

Größe Tabellen

**PB...**



**İKİ KADEME / DOUBLE STAGE / ZWEISTUFIG**

**ÜÇ KADEME / THREE STAGE / DREISTUFIG**

**DÖRT KADEME / FOUR STAGE / VIERSTUFIG**

**PB SERİSİ / YATAY**  
**PB SERIES / HORIZONTAL**  
**PB SERIE / HORIZONTAL**

TR

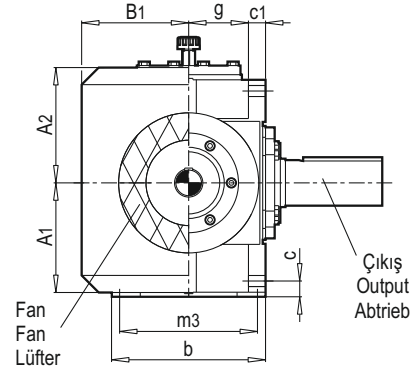
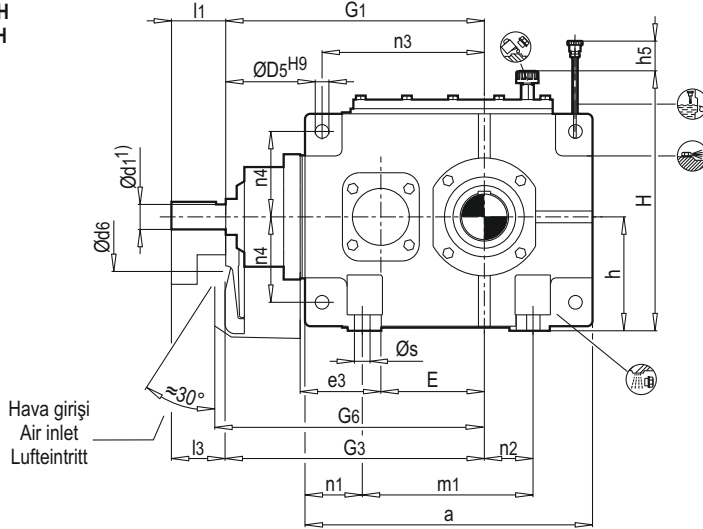
İKİ KADEMELİ - YATAY

EN

TWO STAGE - HORIZONTAL

DE

ZWEISTUFIG - HORIZONTAL

 SH  
 HH  
 DH  
 KH  
 FH


| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |     |               |     |     |     | Fan / Fan / Lüfter |     |     |     |     |
|------------------------|-------------------------|-----|-----|---------------|-----|-----|-----|--------------------|-----|-----|-----|-----|
|                        | İN = 5 - 11.2           |     |     | İN = 6.3 - 14 |     |     | G1  | G3                 | A1  | A2  | B1  | Ød6 |
|                        | Ød1                     | l1  | l3  | Ød1           | l1  | l3  |     |                    |     |     |     |     |
| 42                     | 45                      | 100 | 80  | -             | -   | -   | 465 | 485                | 197 | 202 | 190 | 150 |
| 52                     | 55                      | 110 | 80  | -             | -   | -   | 535 | 565                | 222 | 237 | 217 | 160 |
| 62                     | -                       | -   | -   | 55            | 110 | 80  | 570 | 600                | 222 | 237 | 217 | 160 |
| 72                     | 70                      | 135 | 105 | -             | -   | -   | 640 | 670                | 272 | 287 | 252 | 210 |
| 82                     | -                       | -   | -   | 70            | 135 | 105 | 685 | 715                | 272 | 287 | 252 | 210 |
| 92                     | 80                      | 165 | 130 | -             | -   | -   | 755 | 790                | 312 | 327 | 272 | 195 |
| 102                    | -                       | -   | -   | 80            | 165 | 130 | 805 | 840                | 312 | 327 | 272 | 195 |
| 112                    | 90                      | 165 | 130 | -             | -   | -   | 925 | 960                | 372 | 387 | 330 | 210 |
| 122                    | -                       | -   | -   | 90            | 165 | 130 | 995 | 1030               | 372 | 387 | 330 | 210 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |    |    |     |     |     |     |      |     |       |     |     |     |     |     |     |     |    | Kilit<br>Backstop                                                                           |  |
|------------------------|--------------------------------------------|-----|----|----|-----|-----|-----|-----|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|----|---------------------------------------------------------------------------------------------|--|
|                        | a                                          | b   | c  | c1 | ØD5 | E   | e3  | g   | G6   | H   | h(-1) | h5  | m1  | m3  | n1  | n2  | n3  | n4  | Øs | Rücklaufsperre                                                                              |  |
|                        |                                            |     |    |    |     |     |     |     |      |     |       |     |     |     |     |     |     |     |    |  98 G8 |  |
| 42                     | 509                                        | 270 | 30 | 31 | 24  | 160 | 160 | 106 | 495  | 420 | 200   | 80  | 295 | 235 | 107 | 85  | 285 | 150 | 19 | 286                                                                                         |  |
| 52                     | 569                                        | 320 | 30 | 31 | 24  | 185 | 185 | 131 | 575  | 487 | 230   | 150 | 355 | 285 | 107 | 100 | 330 | 180 | 19 | 325                                                                                         |  |
| 62                     | 649                                        | 320 | 30 | 31 | 24  | 220 | 185 | 131 | 610  | 487 | 230   | 150 | 435 | 285 | 107 | 145 | 365 | 180 | 19 | 325                                                                                         |  |
| 72                     | 694                                        | 380 | 37 | 37 | 28  | 225 | 225 | 155 | 685  | 587 | 280   | 180 | 450 | 340 | 122 | 130 | 405 | 215 | 24 | 377                                                                                         |  |
| 82                     | 799                                        | 380 | 37 | 37 | 28  | 270 | 225 | 155 | 730  | 587 | 280   | 190 | 555 | 340 | 122 | 190 | 450 | 215 | 24 | 377                                                                                         |  |
| 92                     | 824                                        | 440 | 42 | 50 | 36  | 265 | 265 | 173 | 805  | 667 | 320   | 205 | 530 | 390 | 147 | 155 | 480 | 245 | 28 | 454                                                                                         |  |
| 102                    | 924                                        | 440 | 42 | 50 | 36  | 315 | 265 | 173 | 855  | 667 | 320   | 215 | 630 | 390 | 147 | 205 | 530 | 245 | 28 | 454                                                                                         |  |
| 112                    | 979                                        | 530 | 52 | 56 | 40  | 320 | 320 | 212 | 980  | 795 | 380   | 240 | 645 | 470 | 167 | 180 | 580 | 300 | 35 | 499                                                                                         |  |
| 122                    | 1134                                       | 530 | 52 | 56 | 40  | 390 | 320 | 212 | 1050 | 795 | 380   | 250 | 800 | 470 | 167 | 265 | 650 | 300 | 35 | 499                                                                                         |  |

+) Max ölçülerdir. Ayrıntılara siparişte gönderilen dökümanlardan ulaşılabilir.  
Ölçüler mm'dir.

1) **Şaftlar:**  
m6<=Ø100; n6>Ø100  
Kama kanalı DIN 6885/1,  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dökümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

+) Max. dimensions; details acc.to order-related documentation.  
Dimensions in mm

1) **Shafts:**  
m6<=Ø100; n6>Ø100  
Keyway acc.to DIN 6885/1,  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

+) max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.  
Abmessungen in mm

1) **Wellen:**  
m6<=Ø100; n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

İKİ KADEMELİ - YATAY

EN

TWO STAGE - HORIZONTAL

DE

ZWEISTUFIG - HORIZONTAL

|  |                                                                        |            |           |           |
|--|------------------------------------------------------------------------|------------|-----------|-----------|
|  | <b>PB42-SH ... PB122-SH</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |            |           |           |
|  |                                                                        | <b>Ød2</b> | <b>l2</b> | <b>G2</b> |
|  | 42                                                                     | 80         | 170       | 170       |
|  | 52                                                                     | 100        | 210       | 200       |
|  | 62                                                                     | 110        | 210       | 200       |
|  | 72                                                                     | 120        | 210       | 235       |
|  | 82                                                                     | 130        | 250       | 235       |
|  | 92                                                                     | 140        | 250       | 270       |
|  | 102                                                                    | 160        | 300       | 270       |
|  | 112                                                                    | 170        | 300       | 320       |
|  | 122                                                                    | 180        | 300       | 320       |

|  |                                                                         |            |           |
|--|-------------------------------------------------------------------------|------------|-----------|
|  | <b>PB42-HH ... PB122-HH</b><br>Delik milli<br>Hollow shaft<br>Hohlwelle |            |           |
|  |                                                                         | <b>ØD2</b> | <b>G4</b> |
|  | 42                                                                      | 80         | 170       |
|  | 52                                                                      | 95         | 200       |
|  | 62                                                                      | 105        | 200       |
|  | 72                                                                      | 115        | 235       |
|  | 82                                                                      | 125        | 235       |
|  | 92                                                                      | 135        | 270       |
|  | 102                                                                     | 150        | 270       |
|  | 112                                                                     | 165        | 320       |
|  | 122                                                                     | 180        | 320       |

|  |                                                                                                                  |            |            |           |           |
|--|------------------------------------------------------------------------------------------------------------------|------------|------------|-----------|-----------|
|  | <b>PB42-DH ... PB122-DH</b><br>Konik Sıktırmalı<br>Hollow shaft for shrink disk<br>Hohlwelle für schrumpfscheibe |            |            |           |           |
|  |                                                                                                                  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> | <b>G5</b> |
|  | 42                                                                                                               | 85         | 85         | 170       | 235       |
|  | 52                                                                                                               | 100        | 100        | 200       | 275       |
|  | 62                                                                                                               | 110        | 110        | 200       | 275       |
|  | 72                                                                                                               | 120        | 120        | 235       | 320       |
|  | 82                                                                                                               | 130        | 130        | 235       | 325       |
|  | 92                                                                                                               | 140        | 145        | 270       | 365       |
|  | 102                                                                                                              | 150        | 155        | 270       | 385       |
|  | 112                                                                                                              | 165        | 170        | 320       | 450       |
|  | 122                                                                                                              | 180        | 185        | 320       | 455       |

|                                                                                     |                                                                                                                                                          |                     |            |            |           |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------|------------|-----------|
|  | <b>PB42-KH ... PB122-KH</b><br>Spline DIN 5480<br>Hollow shaft with involute<br>splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil<br>nach DIN 5480 |                     |            |            |           |
|                                                                                     |                                                                                                                                                          | <b>N / DIN 5480</b> | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|                                                                                     | <b>42</b>                                                                                                                                                | -                   | -          | -          | -         |
|                                                                                     | <b>52</b>                                                                                                                                                | N 95x3x30x30x9H     | 89         | 100        | 200       |
|                                                                                     | <b>62</b>                                                                                                                                                | N 95x3x30x30x9H     | 89         | 110        | 200       |
|                                                                                     | <b>72</b>                                                                                                                                                | N 120x3x30x38x9H    | 114        | 120        | 235       |
|                                                                                     | <b>82</b>                                                                                                                                                | N 120x3x30x38x9H    | 114        | 130        | 235       |
|                                                                                     | <b>92</b>                                                                                                                                                | N 140x3x30x45x9H    | 134        | 145        | 270       |
|                                                                                     | <b>102</b>                                                                                                                                               | N 140x3x30x45x9H    | 134        | 155        | 270       |
|                                                                                     | <b>112</b>                                                                                                                                               | N 170x5x30x32x9H    | 160        | 170        | 320       |
|                                                                                     | <b>122</b>                                                                                                                                               | N 170x5x30x32x9H    | 160        | 185        | 320       |

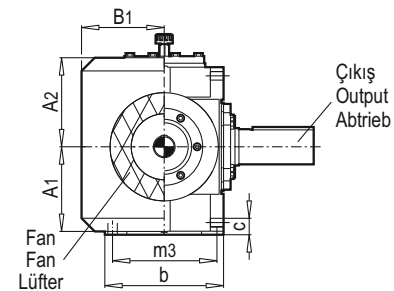
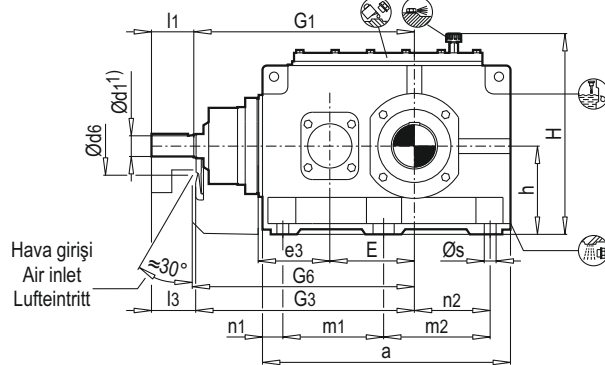
|  |                                                                               |          |            |            |            |             |          |           |
|--|-------------------------------------------------------------------------------|----------|------------|------------|------------|-------------|----------|-----------|
|  | <b>PB42-FH ... PB122-FH</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschswelle |          |            |            |            |             |          |           |
|  |                                                                               | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>nxØs</b> | <b>t</b> | <b>G7</b> |
|  | 42                                                                            | -        | -          | -          | -          | -           | -        | -         |
|  | 52                                                                            | 25       | 300        | 150        | 260        | 16 x 22     | 10       | 290       |
|  | 62                                                                            | 25       | 320        | 160        | 280        | 18 x 22     | 10       | 290       |
|  | 72                                                                            | 30       | 370        | 180        | 320        | 16 x 26     | 10       | 340       |
|  | 82                                                                            | 30       | 390        | 190        | 340        | 18 x 26     | 10       | 340       |
|  | 92                                                                            | 38       | 430        | 220        | 380        | 20 x 26     | 12       | 385       |
|  | 102                                                                           | 38       | 470        | 240        | 420        | 22 x 26     | 12       | 385       |
|  | 112                                                                           | 42       | 510        | 260        | 450        | 18 x 33     | 12       | 450       |
|  | 122                                                                           | 42       | 540        | 280        | 480        | 22 x 33     | 12       | 450       |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l)* | Ağırlık<br>Weight / Gewicht<br>(kg)** |      | Soğutma serpantini / Cooling coil / Kühlschlange<br>Soğutma serpantini su bağlantısı G1/2"<br>Water connection for cooling coil G1/2"<br>Wasseranschlus für Kühlschlange G1/2" | Gövde<br>Size<br>Größe | b6  | e6  | h6 | l/min<br>x) |
|------------------------|------------------------------------------------|---------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----|-----|----|-------------|
|                        |                                                | SH<br>HH<br>DH<br>KH                  | FH   |                                                                                                                                                                                |                        |     |     |    |             |
| 42                     | 10                                             | 240                                   | -    |                                                                                                                                                                                | 42                     | 90  | 157 | 59 | 4           |
| 52                     | 16                                             | 365                                   | 405  |                                                                                                                                                                                | 52                     | 100 | 169 | 65 | 8           |
| 62                     | 19                                             | 415                                   | 460  |                                                                                                                                                                                | 62                     | 100 | 214 | 65 | 4           |
| 72                     | 31                                             | 620                                   | 675  |                                                                                                                                                                                | 72                     | 100 | 208 | 77 | 8           |
| 82                     | 34                                             | 710                                   | 770  |                                                                                                                                                                                | 82                     | 100 | 266 | 77 | 4           |
| 92                     | 48                                             | 1010                                  | 1100 |                                                                                                                                                                                | 92                     | 130 | 246 | 75 | 8           |
| 102                    | 50                                             | 1165                                  | 1260 |                                                                                                                                                                                | 102                    | 130 | 294 | 75 | 8           |
| 112                    | 80                                             | 1655                                  | 1790 |                                                                                                                                                                                | 112                    | 140 | 275 | 90 | 8           |
| 122                    | 95                                             | 1930                                  | 2080 |                                                                                                                                                                                | 122                    | 140 | 360 | 90 | 8           |

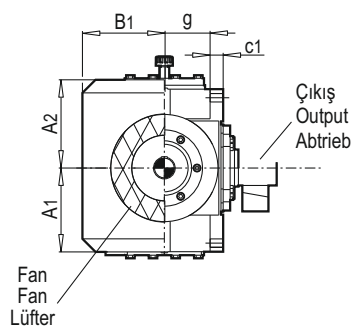
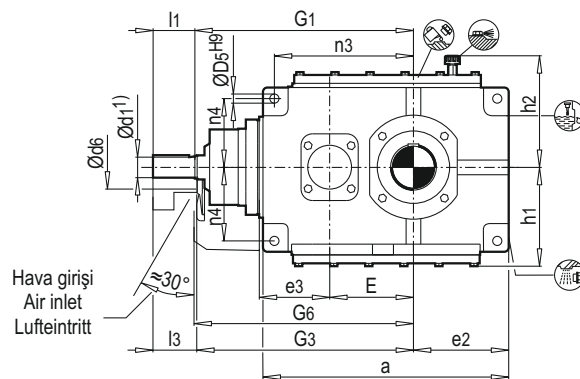
x) Gerekli soğutma suyu miktarı; basıncı 8 bar  
Cooling water quantity required, max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge, max. kühlwasserdruck: 8 bar

Soğutma sistemi deniz suyu  
ve acı su için uygundur  
Cooling coil suitable for  
fresh, sea and brackish water  
Kühlschlange geeignet für  
Süß- See- und Brackwasser

SH  
HH  
DH  
KH  
FH



HM  
DM  
KM  
FM



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |     |                 |     |     |               |     |     |                 |     |     |                 |     |     |      | Fan / Fan / Lüfter |     |     |     |     |
|------------------------|-------------------------|-----|-----|-----------------|-----|-----|---------------|-----|-----|-----------------|-----|-----|-----------------|-----|-----|------|--------------------|-----|-----|-----|-----|
|                        | İN = 5 - 11.2           |     |     | İN = 5.6 - 11.2 |     |     | İN = 6.3 - 14 |     |     | İN = 5.6 - 12.5 |     |     | İN = 7.1 - 12.5 |     |     | G1   | G3                 | A1  | A2  | B1  | Ød6 |
|                        | Ød1                     | l1  | l3  | Ød1             | l1  | l3  | Ød1           | l1  | l3  | Ød1             | l1  | l3  | Ød1             | l1  | l3  |      |                    |     |     |     |     |
| 132                    | 110                     | 205 | 165 | -               | -   | -   | -             | -   | -   | -               | -   | -   | -               | -   | -   | 1070 | 1110               | 432 | 452 | 377 | 245 |
| 142                    | -                       | -   | -   | -               | -   | -   | 110           | 205 | 165 | -               | -   | -   | -               | -   | -   | 1140 | 1180               | 432 | 452 | 377 | 245 |
| 152                    | 130                     | 245 | 200 | -               | -   | -   | -             | -   | -   | -               | -   | -   | -               | -   | -   | 1277 | 1322               | 492 | 497 | 437 | 280 |
| 162                    | -                       | -   | -   | -               | -   | -   | -             | -   | -   | 130             | 245 | 200 | -               | -   | -   | 1323 | 1368               | 492 | 497 | 437 | 280 |
| 172                    | -                       | -   | -   | 150             | 245 | 200 | -             | -   | -   | -               | -   | -   | -               | -   | -   | 1435 | 1480               | 542 | 557 | 507 | 380 |
| 182                    | -                       | -   | -   | -               | -   | -   | -             | -   | -   | -               | -   | -   | 150             | 245 | 200 | 1495 | 1540               | 542 | 557 | 507 | 380 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |    |    |     |     |     |     |     |      |      |       |     |     |     |     |     |     |     |     |     |    |                                                                                             | Kilit<br>Backstop |  |
|------------------------|--------------------------------------------|-----|----|----|-----|-----|-----|-----|-----|------|------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---------------------------------------------------------------------------------------------|-------------------|--|
|                        | a                                          | b   | c  | c1 | ØD5 | E   | e2  | e3  | g   | G6   | H    | h(-1) | h1  | h2  | m1  | m2  | m3  | n1  | n2  | n3  | n4  | Øs | Rücklaufsperre                                                                              |                   |  |
|                        |                                            |     |    |    |     |     |     |     |     |      |      |       |     |     |     |     |     |     |     |     |     |    |  98 G8 |                   |  |
| 132                    | 1134                                       | 655 | 62 | 63 | 48  | 370 | 407 | 370 | 265 | 1130 | 905  | 440   | 450 | 460 | 465 | 465 | 580 | 102 | 305 | 675 | 340 | 35 | 561                                                                                         |                   |  |
| 142                    | 1274                                       | 655 | 62 | 63 | 48  | 440 | 477 | 370 | 265 | 1200 | 905  | 440   | 450 | 460 | 465 | 605 | 580 | 102 | 375 | 745 | 340 | 35 | 561                                                                                         |                   |  |
| 152                    | 1354                                       | 765 | 72 | 74 | 55  | 442 | 487 | 442 | 309 | 1340 | 1005 | 500   | 490 | 500 | 555 | 555 | 670 | 122 | 365 | 805 | 375 | 42 | 587                                                                                         |                   |  |
| 162                    | 1444                                       | 765 | 72 | 74 | 55  | 488 | 532 | 442 | 309 | 1385 | 1005 | 500   | 490 | 500 | 555 | 645 | 670 | 122 | 410 | 850 | 375 | 42 | 587                                                                                         |                   |  |
| 172                    | 1494                                       | 885 | 82 | 83 | 65  | 490 | 527 | 490 | 357 | 1500 | 1115 | 550   | 555 | 560 | 610 | 610 | 780 | 137 | 390 | 895 | 420 | 48 | 705                                                                                         |                   |  |
| 182                    | 1614                                       | 885 | 82 | 83 | 65  | 550 | 587 | 490 | 357 | 1560 | 1115 | 550   | 555 | 560 | 610 | 730 | 780 | 137 | 450 | 955 | 420 | 48 | 705                                                                                         |                   |  |

+) Max ölçülerdir. Ayrıntılara siparişte gönderilen dökümanlardan ulaşılabilir.  
Ölçüler mm'dir.

1) **Şaftlar:**  
n6>Ø100  
Kama kanalı DIN 6885/1,  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.

**\*\*)** Redüktörler yağsızdır.

+) Max. dimensions; details acc.to order-related documentation.  
Dimensions in mm

1) **Shafts:**  
 $n_6 > \varnothing 100$   
 Keyway acc.to DIN 6885/1,  
 Hub keyway width acc.to ISO JS9  
 Parallel key acc.to DIN 6885/1 form B  
 For details, see pages 127-136

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

+) max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.  
Abmessungen in mm

1) **Wellen:**  
n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\* ) ohne Ölfüllung

TR

İKİ KADEMELİ - YATAY

EN

TWO STAGE - HORIZONTAL

DE

ZWEISTUFIG - HORIZONTAL

|  |                                                                          |     |     |     |
|--|--------------------------------------------------------------------------|-----|-----|-----|
|  | <b>PB132- SH ... PB182-SH</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle | Ød2 | l2  | G2  |
|  |                                                                          | 132 | 200 | 350 |
|  |                                                                          | 142 | 210 | 350 |
|  |                                                                          | 152 | 230 | 410 |
|  |                                                                          | 162 | 240 | 410 |
|  |                                                                          | 172 | 250 | 410 |
|  |                                                                          | 182 | 270 | 470 |

|  |                                                                                                          |     |     |
|--|----------------------------------------------------------------------------------------------------------|-----|-----|
|  | <b>PB132-HH ... PB182-HH</b><br><b>PB132-HM ... PB182-HM</b><br>Delik millî<br>Hollow shaft<br>Hohlwelle | ØD2 | G4  |
|  |                                                                                                          | 132 | -   |
|  |                                                                                                          | 142 | 210 |
|  |                                                                                                          | 152 | -   |
|  |                                                                                                          | 162 | 240 |
|  |                                                                                                          | 172 | -   |
|  |                                                                                                          | 182 | 275 |

|  |                                                                                                                                                   |     |     |     |     |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|
|  | <b>PB132-DH ... PB182-DH</b><br><b>PB132-DM ... PB182-DM</b><br>Konik Sıktırmalı<br>Hollow shaft for shrink disk<br>Hohlwelle für schrumpfscheibe | ØD2 | ØD3 | G4  | G5  |
|  |                                                                                                                                                   | 132 | -   | -   | -   |
|  |                                                                                                                                                   | 142 | 210 | 215 | 390 |
|  |                                                                                                                                                   | 152 | -   | -   | -   |
|  |                                                                                                                                                   | 162 | 240 | 245 | 450 |
|  |                                                                                                                                                   | 172 | -   | -   | -   |
|  |                                                                                                                                                   | 182 | 280 | 285 | 510 |

|  |                                                                                                                                                                                    |              |                  |     |     |     |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------|-----|-----|-----|
|  | <b>PB132-KH ... PB182-KH</b><br><b>PB132-KM ... PB182-KM</b><br>Spline DIN 5480<br>Hollow shaft with involute splines acc. to DIN 5480<br>Hohlwelle mit Zahnabprofil nach DIN 5480 | N / DIN 5480 |                  | ØD2 | ØD3 | G4  |
|  |                                                                                                                                                                                    | 132          | -                | -   | -   | -   |
|  |                                                                                                                                                                                    | 142          | N 190x5x30x36x9H | 180 | 215 | 390 |
|  |                                                                                                                                                                                    | 152          | -                | -   | -   | -   |
|  |                                                                                                                                                                                    | 162          | N 220x5x30x42x9H | 210 | 245 | 450 |
|  |                                                                                                                                                                                    | 172          | -                | -   | -   | -   |
|  |                                                                                                                                                                                    | 182          | N 250x5x30x48x9H | 240 | 285 | 510 |

### PB132-FH ... PB182-FH PB132-FM ... PB182-FM

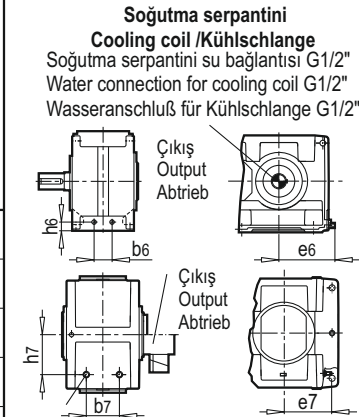
Flanşlı şaft

Flanged shaft

Flanschswelle

|     | c  | Ød2 | ØD3 | Øk2 | nxØs    | t  | G7  |
|-----|----|-----|-----|-----|---------|----|-----|
| 132 | 48 | 580 | 310 | 500 | 20 x 33 | 14 | 525 |
| 142 | 48 | 620 | 310 | 540 | 24 x 33 | 14 | 525 |
| 152 | 55 | 710 | 360 | 630 | 28 x 33 | 17 | 625 |
| 162 | 55 | 740 | 360 | 660 | 30 x 33 | 17 | 625 |
| 172 | 60 | 750 | 410 | 660 | 24 x 39 | 18 | 695 |
| 182 | 60 | 800 | 410 | 710 | 26 x 39 | 18 | 695 |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l) *) |     | Ağırlık<br>Weight / Gewicht<br>(kg)*)**) |                |      |      | Soğutma serpantini<br>Cooling coil / Kùhlschlange<br>Soğutma serpantini su bağlantısı G1/2"<br>Water connection for cooling coil G1/2"<br>Wasseranschluß für Kùhlschlange G1/2" |     |     |     |     |     |     |             |
|------------------------|--------------------------------------------------|-----|------------------------------------------|----------------|------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-------------|
|                        | H                                                | M   | SH<br>HH<br>DH<br>KH                     | HM<br>DM<br>KM | FH   | FM   | Gövde<br>Size<br>Größe                                                                                                                                                          | b6  | b7  | e6  | e7  | h6  | h7  | l/min<br>x) |
| 132                    | 140                                              | 120 | 2460                                     | 2360           | 2620 | 2520 | 132                                                                                                                                                                             | 324 | 324 | 460 | 335 | 116 | 300 | 8           |
| 142                    | 155                                              | 130 | 2845                                     | 2745           | 3005 | 2905 | 142                                                                                                                                                                             | 324 | 324 | 530 | 405 | 116 | 300 | 8           |
| 152                    | 220                                              | 180 | 4010                                     | 3815           | 4245 | 4050 | 152                                                                                                                                                                             | 396 | 396 | 540 | 395 | 119 | 335 | 8           |
| 162                    | 230                                              | 190 | 4350                                     | 4175           | 4615 | 4430 | 162                                                                                                                                                                             | 396 | 396 | 585 | 440 | 119 | 335 | 8           |
| 172                    | 320                                              | 260 | 5650                                     | 5350           | 5940 | 5640 | 172                                                                                                                                                                             | 468 | 324 | 580 | 425 | 134 | 380 | 8           |
| 182                    | 335                                              | 275 | 6200                                     | 5910           | 6520 | 6230 | 182                                                                                                                                                                             | 468 | 324 | 640 | 485 | 134 | 380 | 8           |



x) Gereklî soğutma suyu miktarı; basıncı 8 bar  
Cooling water quantity required, max. cooling water pressure: 8 bar  
Erforderliche Kùhlwassermenge, max. Kùhlwasserdruck: 8 bar

Soğutma sistemi deniz suyu ve acı su için uygundur  
Cooling coil suitable for fresh, sea and brackish water  
Kùhlschlange geeignet für Süß- See- und Brackwasser



TR

ÜÇ KADEMELİ - YATAY

EN

THREE STAGE - HORIZONTAL

DE

DREISTUFIG - HORIZONTAL

|  |     |     |     |     |
|--|-----|-----|-----|-----|
|  |     |     |     |     |
|  |     | Ød2 | l2  | G2  |
|  | 43  | 80  | 170 | 140 |
|  | 53  | 100 | 210 | 165 |
|  | 63  | 110 | 210 | 165 |
|  | 73  | 120 | 210 | 195 |
|  | 83  | 130 | 250 | 195 |
|  | 93  | 140 | 250 | 235 |
|  | 103 | 160 | 300 | 235 |
|  | 113 | 170 | 300 | 270 |
|  | 123 | 180 | 300 | 270 |

**PB43-SH ... PB123-SH**

Mil Çıkışlı  
Solid shaft  
Vollwelle

|  |     |     |     |    |
|--|-----|-----|-----|----|
|  |     |     | ØD2 | G4 |
|  | 43  | 80  | 140 |    |
|  | 53  | 95  | 165 |    |
|  | 63  | 105 | 165 |    |
|  | 73  | 115 | 195 |    |
|  | 83  | 125 | 195 |    |
|  | 93  | 135 | 235 |    |
|  | 103 | 150 | 235 |    |
|  | 113 | 165 | 270 |    |
|  | 123 | 180 | 270 |    |

**PB43-HH ... PB123-HH**

Delik milli  
Hollow shaft  
Hohlwelle

|  |     |     |     |     |
|--|-----|-----|-----|-----|
|  |     |     |     |     |
|  |     | ØD2 | ØD3 | G4  |
|  | 43  | 85  | 85  | 140 |
|  | 53  | 100 | 100 | 165 |
|  | 63  | 110 | 110 | 165 |
|  | 73  | 120 | 120 | 195 |
|  | 83  | 130 | 130 | 195 |
|  | 93  | 140 | 145 | 235 |
|  | 103 | 150 | 155 | 235 |
|  | 113 | 165 | 170 | 270 |
|  | 123 | 180 | 185 | 270 |

**PB43-DH ... PB123-DH**

Konik Sıkırmalı  
Hollow shaft for shrink disk  
Hohlwelle für schrumpfscheibe

|  |     |                  |  |     |
|--|-----|------------------|--|-----|
|  |     |                  |  |     |
|  |     | N / DIN 5480     |  | ØD2 |
|  | 43  | -                |  | -   |
|  | 53  | N 95x3x30x30x9H  |  | 89  |
|  | 63  | N 95x3x30x30x9H  |  | 89  |
|  | 73  | N 120x3x30x38x9H |  | 114 |
|  | 83  | N 120x3x30x38x9H |  | 114 |
|  | 93  | N 140x3x30x45x9H |  | 134 |
|  | 103 | N 140x3x30x45x9H |  | 134 |
|  | 113 | N 170x5x30x32x9H |  | 160 |
|  | 123 | N 170x5x30x32x9H |  | 160 |

**PB43-KH ... PB123-KH**

Spline DIN 5480  
Hollow shaft with involute  
splines acc. to DIN 5480  
Hohlwelle mit Zahnradprofil  
nach DIN 5480

|  |     |    |     |     |     |         |    |
|--|-----|----|-----|-----|-----|---------|----|
|  |     |    |     |     |     |         |    |
|  |     | c  | Ød2 | ØD3 | Øk2 | nxØs    | t  |
|  | 43  | -  | -   | -   | -   | -       | -  |
|  | 53  | 25 | 300 | 150 | 260 | 16 x 22 | 10 |
|  | 63  | 25 | 320 | 160 | 280 | 18 x 22 | 10 |
|  | 73  | 30 | 370 | 180 | 320 | 16 x 26 | 10 |
|  | 83  | 30 | 390 | 190 | 340 | 18 x 26 | 10 |
|  | 93  | 38 | 430 | 220 | 380 | 20 x 26 | 12 |
|  | 103 | 38 | 470 | 240 | 420 | 22 x 26 | 12 |
|  | 113 | 42 | 510 | 260 | 450 | 18 x 33 | 12 |
|  | 123 | 42 | 540 | 280 | 480 | 22 x 33 | 12 |

**PB43-FH ... PB123-FH**

Flanşlı şaft  
Flanged shaft  
Flanschelle

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l) *) | Ağırlık<br>Weight / Gewicht<br>(kg)*)** |      | Soğutma serpantini / Cooling coil / Kühlschlange                                                                           |                            | Gövde<br>Size<br>Größe | b6  | e6  | h6 | l/min<br>x) |
|------------------------|--------------------------------------------------|-----------------------------------------|------|----------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------|-----|-----|----|-------------|
|                        |                                                  | SH<br>HH<br>DH<br>KH                    | FH   | Soğutma serpantini su bağlantısı G1/2"<br>Water connection for cooling coil G1/2"<br>Wasseranschluß für Kühlschlange G1/2" | Çıkış<br>Output<br>Abtrieb |                        |     |     |    |             |
| 43                     | 9                                                | 215                                     | -    |                                                                                                                            |                            | 43                     | 90  | 157 | 59 | 4           |
| 53                     | 15                                               | 330                                     | 365  |                                                                                                                            |                            | 53                     | 100 | 169 | 65 | 4           |
| 63                     | 16                                               | 385                                     | 425  |                                                                                                                            |                            | 63                     | 100 | 214 | 65 | 4           |
| 73                     | 27                                               | 555                                     | 605  |                                                                                                                            |                            | 73                     | 100 | 208 | 77 | 4           |
| 83                     | 30                                               | 645                                     | 700  |                                                                                                                            |                            | 83                     | 100 | 266 | 77 | 4           |
| 93                     | 42                                               | 900                                     | 985  |                                                                                                                            |                            | 93                     | 130 | 246 | 75 | 8           |
| 103                    | 46                                               | 1030                                    | 1120 |                                                                                                                            |                            | 103                    | 130 | 294 | 75 | 8           |
| 113                    | 73                                               | 1470                                    | 1600 |                                                                                                                            |                            | 113                    | 140 | 275 | 90 | 8           |
| 123                    | 84                                               | 1745                                    | 1885 |                                                                                                                            |                            | 123                    | 140 | 360 | 90 | 8           |

x) Gereklı soğutma suyu miktarı; basıncı 8 bar  
Cooling water quantity required,  
max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge,  
max. kühlwasserdruck: 8 bar

Soğutma sistemi deniz suyu ve acı su için uygundur  
Cooling coil suitable for fresh, sea and brackish water  
Kühlschlange geeignet für Süß- See- und Brackwasser

TR

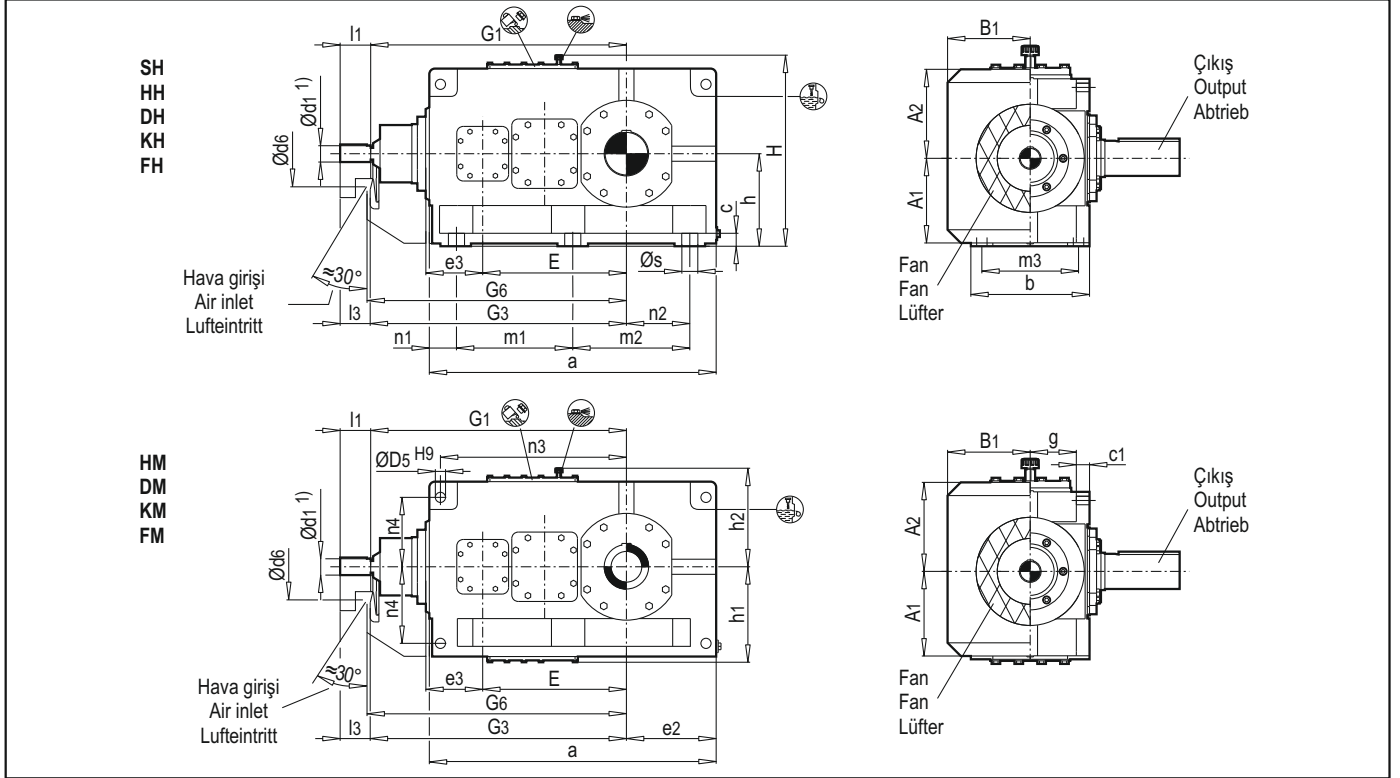
ÜÇ KADEMELİ - YATAY

EN

THREE STAGE - HORIZONTAL

DE

DREISTUFIG - HORIZONTAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |     |              |     |     |              |     |     |              |     |     |              |     |     |              |     |     | Fan / Fan / Lüfter |      |     |     |     |     |
|------------------------|-------------------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------------|------|-----|-----|-----|-----|
|                        | İN = 12.5 - 45          |     |     | İN = 50 - 71 |     |     | İN = 14 - 50 |     |     | İN = 56 - 80 |     |     | İN = 16 - 56 |     |     | İN = 63 - 90 |     |     | G1                 | G3   | A1  | A2  | B1  | Ød6 |
|                        | Ød1                     | l1  | l3  | Ød1          | l1  | l3  | Ød1          | l1  | l3  | Ød1          | l1  | l3  | Ød1          | l1  | l3  | Ød1          | l1  | l3  |                    |      |     |     |     |     |
| 133                    | 80                      | 165 | 130 | 60           | 140 | 105 | -            | -   | -   | -            | -   | -   | -            | -   | -   | -            | -   | -   | 1125               | 1160 | 427 | 437 | 327 | 210 |
| 143                    | -                       | -   | -   | -            | -   | -   | -            | -   | -   | -            | -   | -   | 80           | 165 | 130 | 60           | 140 | 105 | 1195               | 1230 | 427 | 437 | 327 | 210 |
| 153                    | 90                      | 165 | 130 | 70           | 140 | 105 | -            | -   | -   | -            | -   | -   | -            | -   | -   | -            | -   | -   | 1367               | 1402 | 487 | 522 | 367 | 210 |
| 163                    | -                       | -   | -   | -            | -   | -   | 90           | 165 | 130 | 70           | 140 | 105 | -            | -   | -   | -            | -   | -   | 1413               | 1448 | 487 | 522 | 367 | 210 |
| 173                    | 110                     | 205 | 165 | 80           | 170 | 130 | -            | -   | -   | -            | -   | -   | -            | -   | -   | -            | -   | -   | 1560               | 1600 | 537 | 572 | 397 | 230 |
| 183                    | -                       | -   | -   | -            | -   | -   | 110          | 205 | 165 | 80           | 170 | 130 | -            | -   | -   | -            | -   | -   | 1620               | 1660 | 537 | 572 | 397 | 230 |
| 193                    | 130                     | 245 | 200 | 100          | 210 | 165 | -            | -   | -   | -            | -   | -   | -            | -   | -   | -            | -   | -   | 1832               | 1877 | 612 | 632 | 450 | 245 |
| 203                    | -                       | -   | -   | -            | -   | -   | 130          | 245 | 200 | 100          | 210 | 165 | -            | -   | -   | -            | -   | -   | 1892               | 1937 | 612 | 632 | 450 | 245 |
| 213                    | 130                     | 245 | 200 | 100          | 210 | 165 | -            | -   | -   | -            | -   | -   | -            | -   | -   | -            | -   | -   | 1902               | 1947 | 692 | 692 | 475 | 280 |
| 223                    | -                       | -   | -   | -            | -   | -   | 130          | 245 | 200 | 100          | 210 | 165 | -            | -   | -   | -            | -   | -   | 1957               | 2002 | 692 | 692 | 475 | 280 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |     |     |     |      |     |     |     |      |      |       |     |     |     |      |     |     |     |      | Kilit<br>Backstop<br>Rücklaufsperre |    |                                                                                                |
|------------------------|--------------------------------------------|-----|-----|-----|-----|------|-----|-----|-----|------|------|-------|-----|-----|-----|------|-----|-----|-----|------|-------------------------------------|----|------------------------------------------------------------------------------------------------|
|                        | a                                          | b   | c   | c1  | ØD5 | E    | e2  | e3  | g   | G6   | H    | h(-1) | h1  | h2  | m1  | m2   | m3  | n1  | n2  | n3   | n4                                  | Øs |  98<br>G8 |
| 133                    | 1294                                       | 550 | 62  | 63  | 48  | 635  | 407 | 265 | 212 | 1180 | 905  | 440   | 450 | 460 | 545 | 545  | 475 | 102 | 305 | 835  | 340                                 | 35 | 453                                                                                            |
| 143                    | 1434                                       | 550 | 62  | 63  | 48  | 705  | 477 | 265 | 212 | 1250 | 905  | 440   | 450 | 460 | 545 | 685  | 475 | 102 | 375 | 905  | 340                                 | 35 | 453                                                                                            |
| 153                    | 1554                                       | 625 | 72  | 74  | 55  | 762  | 487 | 320 | 239 | 1420 | 1005 | 500   | 490 | 500 | 655 | 655  | 535 | 122 | 365 | 1005 | 375                                 | 42 | 499                                                                                            |
| 163                    | 1644                                       | 625 | 72  | 74  | 55  | 808  | 532 | 320 | 239 | 1470 | 1005 | 500   | 490 | 500 | 655 | 745  | 535 | 122 | 410 | 1050 | 375                                 | 42 | 499                                                                                            |
| 173                    | 1744                                       | 690 | 82  | 83  | 55  | 860  | 527 | 370 | 260 | 1620 | 1115 | 550   | 555 | 560 | 735 | 735  | 600 | 137 | 390 | 1145 | 425                                 | 42 | 566                                                                                            |
| 183                    | 1864                                       | 690 | 82  | 83  | 55  | 920  | 587 | 370 | 260 | 1680 | 1115 | 550   | 555 | 560 | 735 | 855  | 600 | 137 | 450 | 1205 | 425                                 | 42 | 566                                                                                            |
| 193                    | 2014                                       | 790 | 92  | 93  | 65  | 997  | 592 | 420 | 300 | 1900 | 1245 | 620   | 615 | 620 | 850 | 850  | 690 | 157 | 435 | 1345 | 475                                 | 48 | 623                                                                                            |
| 203                    | 2134                                       | 790 | 92  | 93  | 65  | 1057 | 652 | 420 | 300 | 1960 | 1245 | 620   | 615 | 620 | 850 | 970  | 690 | 157 | 495 | 1405 | 475                                 | 48 | 623                                                                                            |
| 213                    | 2144                                       | 830 | 102 | 102 | 75  | 1067 | 657 | 450 | 311 | 1970 | 1395 | 700   | 685 | 690 | 900 | 900  | 720 | 172 | 485 | 1400 | 520                                 | 56 | 642                                                                                            |
| 223                    | 2254                                       | 830 | 102 | 102 | 75  | 1122 | 712 | 450 | 311 | 2025 | 1395 | 700   | 685 | 690 | 900 | 1010 | 720 | 172 | 540 | 1455 | 520                                 | 56 | 642                                                                                            |

+) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir.  
Ölçüler mm'dir.

1) Şaftlar:

m6<=Ø100; n6>Ø100  
Kama kanalı DIN 6885/1,  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

+) Max.dimensions; details acc. to order-related documentation

Dimensions in mm

1) Shafts:

m6<=Ø100; n6>Ø100  
Keyway acc.to DIN 6885/1,  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

+) Max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.

Abmessungen in mm

1) Wellen:

m6<=Ø100; n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

ÜÇ KADEMELİ - YATAY

EN

THREE STAGE - HORIZONTAL

DE

DREISTUFIG - HORIZONTAL

|  |                                                                          |     |     |     |
|--|--------------------------------------------------------------------------|-----|-----|-----|
|  | <b>PB133- SH ... PB223-SH</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle | Ød2 | l2  | G2  |
|  |                                                                          | 133 | 200 | 350 |
|  |                                                                          | 143 | 210 | 350 |
|  |                                                                          | 153 | 230 | 410 |
|  |                                                                          | 163 | 240 | 410 |
|  |                                                                          | 173 | 250 | 410 |
|  |                                                                          | 183 | 270 | 470 |
|  |                                                                          | 193 | 290 | 470 |
|  |                                                                          | 203 | 300 | 500 |
|  |                                                                          | 213 | 320 | 500 |
|  |                                                                          | 223 | 340 | 550 |

|  |                                                                                                          |     |     |
|--|----------------------------------------------------------------------------------------------------------|-----|-----|
|  | <b>PB133-HH ... PB223-HH</b><br><b>PB133-HM ... PB223-HM</b><br>Delik millî<br>Hollow shaft<br>Hohlwelle | ØD2 | G4  |
|  |                                                                                                          | 133 | 190 |
|  |                                                                                                          | 143 | 210 |
|  |                                                                                                          | 153 | 230 |
|  |                                                                                                          | 163 | 240 |
|  |                                                                                                          | 173 | 250 |
|  |                                                                                                          | 183 | 275 |
|  |                                                                                                          | 193 | -   |
|  |                                                                                                          | 203 | -   |
|  |                                                                                                          | 213 | -   |
|  |                                                                                                          | 223 | -   |

|  |                                                                                                                                                   |     |     |     |     |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|
|  | <b>PB133-DH ... PB223-DH</b><br><b>PB133-DM ... PB223-DM</b><br>Konik Sıktırmalı<br>Hollow shaft for shrink disk<br>Hohlwelle für schrumpfscheibe | ØD2 | ØD3 | G4  | G5  |
|  |                                                                                                                                                   | 133 | 190 | 195 | 335 |
|  |                                                                                                                                                   | 143 | 210 | 215 | 335 |
|  |                                                                                                                                                   | 153 | 230 | 235 | 380 |
|  |                                                                                                                                                   | 163 | 240 | 245 | 380 |
|  |                                                                                                                                                   | 173 | 250 | 260 | 415 |
|  |                                                                                                                                                   | 183 | 280 | 285 | 415 |
|  |                                                                                                                                                   | 193 | 285 | 295 | 465 |
|  |                                                                                                                                                   | 203 | 310 | 315 | 465 |
|  |                                                                                                                                                   | 213 | 330 | 335 | 490 |
|  |                                                                                                                                                   | 223 | 340 | 345 | 490 |

|  |                                                                                                                                                                                     |              |                                            |     |     |     |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------|-----|-----|-----|
|  | <b>PB133-KH ... PB223-KH</b><br><b>PB133-KM ... PB223-KM</b><br>Spline DIN 5480<br>Hollow shaft with involute splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil nach DIN 5480 | N / DIN 5480 |                                            | ØD2 | ØD3 | G4  |
|  |                                                                                                                                                                                     | 133          | N 190x5x30x36x9H                           | 180 | 195 | 335 |
|  |                                                                                                                                                                                     | 143          | N 190x5x30x36x9H                           | 180 | 215 | 335 |
|  |                                                                                                                                                                                     | 153          | N 220x5x30x42x9H                           | 210 | 235 | 380 |
|  |                                                                                                                                                                                     | 163          | N 220x5x30x42x9H                           | 210 | 245 | 380 |
|  |                                                                                                                                                                                     | 173          | N 250x5x30x48x9H                           | 240 | 260 | 415 |
|  |                                                                                                                                                                                     | 183          | N 250x5x30x48x9H                           | 240 | 285 | 415 |
|  |                                                                                                                                                                                     | 193          | İstek üzerine<br>On request<br>Auf Anfrage |     |     |     |
|  |                                                                                                                                                                                     | 203          |                                            |     |     |     |
|  |                                                                                                                                                                                     | 213          |                                            |     |     |     |
|  |                                                                                                                                                                                     | 223          |                                            |     |     |     |

|  |                                                                                                                          |     |    |      |     |     |         |    |     |
|--|--------------------------------------------------------------------------------------------------------------------------|-----|----|------|-----|-----|---------|----|-----|
|  | <p><b>PB133-FH ... PB223-FH</b><br/><b>PB133-FM ... PB223-FM</b><br/>Flanşlı şaft<br/>Flanged shaft<br/>Flanschwelle</p> |     | c  | Ød2  | ØD3 | Øk2 | nxØs    | t  | G7  |
|  |                                                                                                                          | 133 | 48 | 580  | 310 | 500 | 20 x 33 | 14 | 480 |
|  |                                                                                                                          | 143 | 48 | 620  | 310 | 540 | 24 x 33 | 14 | 480 |
|  |                                                                                                                          | 153 | 55 | 710  | 360 | 630 | 28 x 33 | 17 | 550 |
|  |                                                                                                                          | 163 | 55 | 740  | 360 | 660 | 30 x 33 | 17 | 550 |
|  |                                                                                                                          | 173 | 60 | 750  | 410 | 660 | 24 x 39 | 18 | 600 |
|  |                                                                                                                          | 183 | 60 | 800  | 410 | 710 | 26 x 39 | 18 | 600 |
|  |                                                                                                                          | 193 | 65 | 860  | 460 | 770 | 30 x 39 | 18 | 670 |
|  |                                                                                                                          | 203 | 65 | 930  | 460 | 830 | 32 x 39 | 18 | 670 |
|  |                                                                                                                          | 213 | 75 | 950  | 520 | 850 | 28 x 45 | 20 | 710 |
|  |                                                                                                                          | 223 | 75 | 1040 | 520 | 940 | 28 x 45 | 20 | 710 |

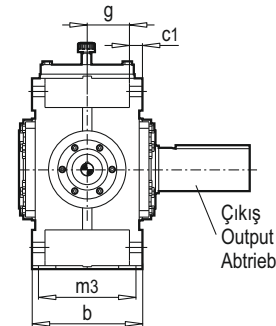
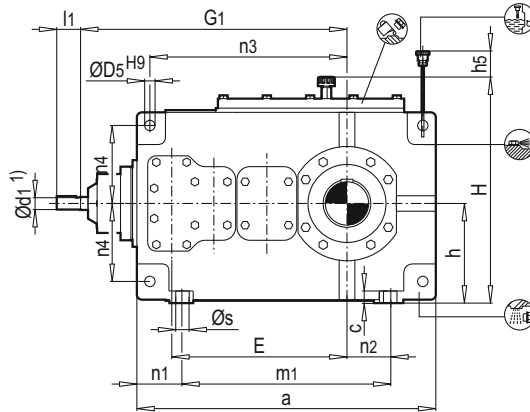
| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge (l)* |     | Ağırlık / Weight /<br>Gewicht (kg)***) |                |      |      | Soğutma serpantini / Cooling coil / Kùhlschlange |   |                            |                            |                            |                            |                            | Gövde<br>Size<br>Größe | b6                                         | e6  | e7  | h6  | h7  | l/min<br>x) |
|------------------------|---------------------------------------------|-----|----------------------------------------|----------------|------|------|--------------------------------------------------|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------------|--------------------------------------------|-----|-----|-----|-----|-------------|
|                        | H                                           | M   | SH<br>HH<br>DH<br>KH                   | HM<br>DM<br>KM | FH   | FM   | H                                                | M | Çıkış<br>Output<br>Abtrieb | Çıkış<br>Output<br>Abtrieb | Çıkış<br>Output<br>Abtrieb | Çıkış<br>Output<br>Abtrieb | Çıkış<br>Output<br>Abtrieb |                        |                                            |     |     |     |     |             |
| 133                    | 130                                         | 110 | 2400                                   | 2280           | 2560 | 2440 |                                                  |   |                            |                            |                            |                            |                            | 133                    | 252                                        | 455 | 335 | 116 | 300 | 8           |
| 143                    | 140                                         | 115 | 2770                                   | 2635           | 2940 | 2805 |                                                  |   |                            |                            |                            |                            |                            | 143                    | 252                                        | 525 | 405 | 116 | 300 | 8           |
| 153                    | 210                                         | 160 | 3760                                   | 3570           | 4000 | 3810 |                                                  |   |                            |                            |                            |                            |                            | 153                    | 290                                        | 535 | 395 | 119 | 335 | 8           |
| 163                    | 220                                         | 165 | 4025                                   | 3795           | 4280 | 4050 |                                                  |   |                            |                            |                            |                            |                            | 163                    | 290                                        | 580 | 440 | 119 | 335 | 8           |
| 173                    | 290                                         | 230 | 5025                                   | 4795           | 5325 | 5095 |                                                  |   |                            |                            |                            |                            |                            | 173                    | 340                                        | 575 | 425 | 134 | 380 | 8           |
| 183                    | 300                                         | 235 | 5530                                   | 5275           | 6080 | 5625 |                                                  |   |                            |                            |                            |                            |                            | 183                    | 340                                        | 635 | 485 | 134 | 380 | 8           |
| 193                    | 380                                         | 360 | 7040                                   | 6540           |      |      |                                                  |   |                            |                            |                            |                            |                            | 193                    | İstek üzerine<br>On request<br>Auf Anfrage |     |     |     |     |             |
| 203                    | 440                                         | 420 | 8150                                   | 7650           |      |      |                                                  |   |                            |                            |                            |                            |                            | 203                    |                                            |     |     |     |     |             |
| 213                    | 370                                         | 420 | 9250                                   | 8650           |      |      |                                                  |   |                            |                            |                            |                            |                            | 213                    |                                            |     |     |     |     |             |
| 223                    | 430                                         | 490 | 9990                                   | 9490           |      |      |                                                  |   |                            |                            |                            |                            |                            | 223                    |                                            |     |     |     |     |             |

x) Gerekli soğutma suyu miktarı; basıncı 8 bar  
Cooling water quantity required,  
max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge,  
max. kühlwasserdruck: 8 bar

Soğutma serpantini su bağlantısı G1/2"  
Water connection for cooling coil G1/2"  
Wasseranschluf für Kùhlschlange G1/2"

Soğutma sistemi deniz suyu ve acı su için uygundur  
Cooling coil suitable for fresh, sea and brackish water  
Kùhlschlange geeignet für Süß- See- und Brackwasser

SH  
HH  
DH  
KH  
FH



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |                |    |                |     |                |    |      |
|------------------------|-------------------------|-----|----------------|----|----------------|-----|----------------|----|------|
|                        | İN = 80 - 180           |     | İN = 200 - 315 |    | İN = 100 - 224 |     | İN = 250 - 400 |    | G1   |
|                        | Ød1                     | l1  | Ød1            | l1 | Ød1            | l1  | Ød1            | l1 |      |
| 54                     | 28                      | 55  | 20             | 50 | -              | -   | -              | -  | 615  |
| 64                     | -                       | -   | -              | -  | 28             | 55  | 20             | 50 | 650  |
| 74                     | 30                      | 70  | 25             | 60 | -              | -   | -              | -  | 725  |
| 84                     | -                       | -   | -              | -  | 30             | 70  | 25             | 60 | 770  |
| 94                     | 35                      | 80  | 28             | 60 | -              | -   | -              | -  | 840  |
| 104                    | -                       | -   | -              | -  | 35             | 80  | 28             | 60 | 890  |
| 114                    | 45                      | 100 | 35             | 80 | -              | -   | -              | -  | 1010 |
| 124                    | -                       | -   | -              | -  | 45             | 100 | 35             | 80 | 1080 |

| Gövdə<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |    |    |     |     |     |     |       |     |      |     |     |     |     |     |    | Kilit<br>Backstop                                                                                             |
|------------------------|--------------------------------------------|-----|----|----|-----|-----|-----|-----|-------|-----|------|-----|-----|-----|-----|-----|----|---------------------------------------------------------------------------------------------------------------|
|                        | a                                          | b   | c  | c1 | ØD5 | E   | g   | H   | h(-1) | h5  | m1   | m3  | n1  | n2  | n3  | n4  | Øs | Rücklaufsperre<br> 98 G8 |
| 54                     | 694                                        | 255 | 30 | 31 | 24  | 405 | 98  | 487 | 230   | 100 | 480  | 220 | 107 | 100 | 455 | 180 | 19 | 238                                                                                                           |
| 64                     | 774                                        | 255 | 30 | 31 | 24  | 440 | 98  | 487 | 230   | 100 | 560  | 220 | 107 | 145 | 490 | 180 | 19 | 238                                                                                                           |
| 74                     | 849                                        | 300 | 37 | 37 | 28  | 495 | 115 | 577 | 280   | 140 | 605  | 260 | 122 | 130 | 560 | 215 | 24 | 288                                                                                                           |
| 84                     | 954                                        | 300 | 37 | 37 | 28  | 540 | 115 | 587 | 280   | 130 | 710  | 260 | 122 | 190 | 605 | 215 | 24 | 288                                                                                                           |
| 94                     | 1004                                       | 370 | 42 | 47 | 36  | 580 | 141 | 667 | 320   | 135 | 710  | 320 | 147 | 155 | 660 | 245 | 28 | 319                                                                                                           |
| 104                    | 1104                                       | 370 | 42 | 47 | 36  | 630 | 141 | 667 | 320   | 135 | 810  | 320 | 147 | 205 | 710 | 245 | 28 | 319                                                                                                           |
| 114                    | 1204                                       | 430 | 52 | 56 | 40  | 705 | 162 | 787 | 380   | 170 | 870  | 370 | 167 | 180 | 805 | 300 | 35 | 335                                                                                                           |
| 124                    | 1359                                       | 430 | 52 | 56 | 40  | 775 | 162 | 795 | 380   | 160 | 1025 | 370 | 167 | 265 | 875 | 300 | 35 | 335                                                                                                           |

+) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir.  
Ölçüler mm'dir.

1) **Şaftlar:**  
 $k6=\varnothing 25$ ;  $\varnothing 28 \leq m6 \leq \varnothing 100$ ;  $n6 > \varnothing 100$   
 Kama kanalı DIN 6885/1,  
 Kama kanalı genişliği ISO JS9 a göre  
 Kama DIN 6885/1 form B  
 Ayrıntılar için sayfa 127-136'ya bakılabilir

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dökümanlardan ulaşılabilir.

**\*\*)** Redüktörler yağsızdır.

+ ) Max. dimensions; details acc. to orderrelated documentation

Dimensions in mm

1) **Shafts:**  
 $k6 \leq \varnothing 25$ ;  $\varnothing 28 \leq m6 \leq \varnothing 100$ ;  $n6 > \varnothing 100$   
 Keyway acc.to DIN 6885/1,  
 Hub keyway width acc.to ISO JS9  
 Parallel key acc.to DIN 6885/1 form B  
 For details, see pages 127-136

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

+) Max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.  
Abmessungen in mm

1) **Wellen:**  
 $k_6 = \emptyset 25$ ;  $\emptyset 28 \leq m_6 \leq \emptyset 100$ ;  $n_6 > \emptyset 100$   
 Passfedernut nach DIN 6885/1  
 Nabennutbreite nach ISO JS9  
 Passfeder nach DIN 6885/1 Form B  
 Einzelheiten siehe Seiten 127-136

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

DÖRT KADEMELİ - YATAY

EN

FOUR STAGE - HORIZONTAL

DE

VIERTSTUFIG - HORIZONTAL

|  |                                                                        |            |           |           |
|--|------------------------------------------------------------------------|------------|-----------|-----------|
|  | <b>PB54-SH ... PB124-SH</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |            |           |           |
|  |                                                                        | <b>Ød2</b> | <b>l2</b> | <b>G2</b> |
|  | 54                                                                     | 100        | 210       | 165       |
|  | 64                                                                     | 110        | 210       | 165       |
|  | 74                                                                     | 120        | 210       | 195       |
|  | 84                                                                     | 130        | 250       | 195       |
|  | 94                                                                     | 140        | 250       | 235       |
|  | 104                                                                    | 160        | 300       | 235       |
|  | 114                                                                    | 170        | 300       | 270       |
|  | 124                                                                    | 180        | 300       | 270       |

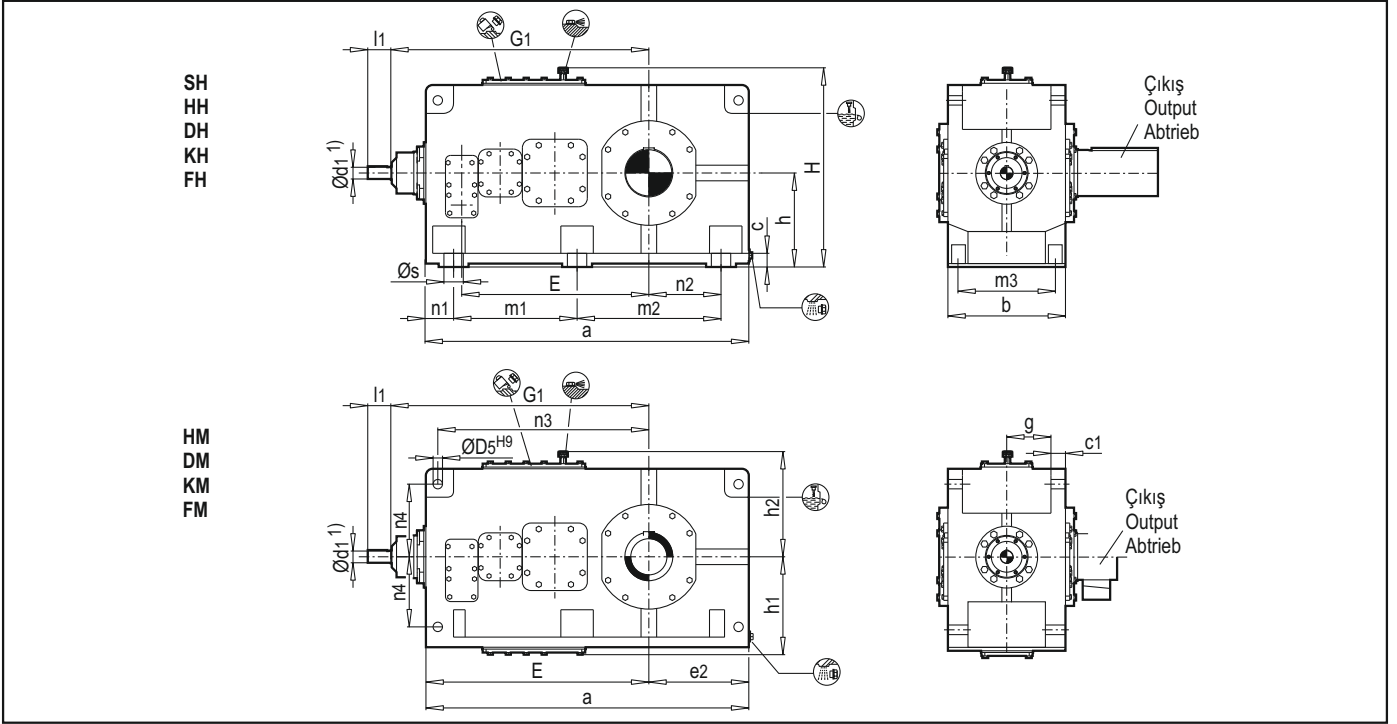
|  |                                                                         |            |           |  |
|--|-------------------------------------------------------------------------|------------|-----------|--|
|  | <b>PB54-HH ... PB124-HH</b><br>Delik milli<br>Hollow shaft<br>Hohlwelle |            |           |  |
|  |                                                                         | <b>ØD2</b> | <b>G4</b> |  |
|  | 54                                                                      | 95         | 165       |  |
|  | 64                                                                      | 105        | 165       |  |
|  | 74                                                                      | 115        | 195       |  |
|  | 84                                                                      | 125        | 195       |  |
|  | 94                                                                      | 135        | 235       |  |
|  | 104                                                                     | 150        | 235       |  |
|  | 114                                                                     | 165        | 270       |  |
|  | 124                                                                     | 180        | 270       |  |

|  |                                                                                                                  |            |            |           |
|--|------------------------------------------------------------------------------------------------------------------|------------|------------|-----------|
|  | <b>PB54-DH ... PB124-DH</b><br>Konik Sıkırtmalı<br>Hollow shaft for shrink disk<br>Hohlwelle für schrumpfscheibe |            |            |           |
|  |                                                                                                                  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|  | 54                                                                                                               | 100        | 100        | 165       |
|  | 64                                                                                                               | 110        | 110        | 165       |
|  | 74                                                                                                               | 120        | 120        | 195       |
|  | 84                                                                                                               | 130        | 130        | 195       |
|  | 94                                                                                                               | 140        | 145        | 235       |
|  | 104                                                                                                              | 150        | 155        | 235       |
|  | 114                                                                                                              | 165        | 170        | 270       |
|  | 124                                                                                                              | 180        | 185        | 270       |

|  |                                                                                                                                                    |                     |            |            |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------|------------|
|  | <b>PB54-KH ... PB124-KH</b><br>Spline DIN 5480<br>Hollow shaft with involute splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil nach DIN 5480 |                     |            |            |
|  |                                                                                                                                                    | <b>N / DIN 5480</b> | <b>ØD2</b> | <b>ØD3</b> |
|  | 54                                                                                                                                                 | N 95x3x30x30x9H     | 89         | 100        |
|  | 64                                                                                                                                                 | N 95x3x30x30x9H     | 89         | 110        |
|  | 74                                                                                                                                                 | N 120x3x30x38x9H    | 114        | 120        |
|  | 84                                                                                                                                                 | N 120x3x30x38x9H    | 114        | 130        |
|  | 94                                                                                                                                                 | N 140x3x30x45x9H    | 134        | 145        |
|  | 104                                                                                                                                                | N 140x3x30x45x9H    | 134        | 155        |
|  | 114                                                                                                                                                | N 170x5x30x32x9H    | 160        | 170        |
|  | 124                                                                                                                                                | N 170x5x30x32x9H    | 160        | 185        |

|  |                                                                               |          |            |            |
|--|-------------------------------------------------------------------------------|----------|------------|------------|
|  | <b>PB54-FH ... PB124-FH</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschswelle |          |            |            |
|  |                                                                               | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> |
|  | 54                                                                            | 25       | 300        | 150        |
|  | 64                                                                            | 25       | 320        | 160        |
|  | 74                                                                            | 30       | 370        | 180        |
|  | 84                                                                            | 30       | 390        | 190        |
|  | 94                                                                            | 38       | 430        | 220        |
|  | 104                                                                           | 38       | 470        | 240        |
|  | 114                                                                           | 42       | 510        | 260        |
|  | 124                                                                           | 42       | 540        | 280        |

| Gövde<br>Size<br>Größe | Yağ<br>miktarı<br>Oil quantity<br>Ölmenge<br>(l)* | Ağırlık / Weight<br>Gewicht (kg)***) |      |
|------------------------|---------------------------------------------------|--------------------------------------|------|
|                        |                                                   | SH<br>HH<br>DH<br>KH                 | FH   |
| 54                     | 16                                                | 340                                  | 375  |
| 64                     | 18                                                | 390                                  | 430  |
| 74                     | 30                                                | 560                                  | 610  |
| 84                     | 33                                                | 670                                  | 725  |
| 94                     | 48                                                | 905                                  | 990  |
| 104                    | 50                                                | 1040                                 | 1130 |
| 114                    | 80                                                | 1505                                 | 1640 |
| 124                    | 90                                                | 1770                                 | 1910 |



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |                |     |               |     |                |     |                |     |                |     |      |
|------------------------|-------------------------|-----|----------------|-----|---------------|-----|----------------|-----|----------------|-----|----------------|-----|------|
|                        | İn = 80 - 180           |     | İn = 200 - 315 |     | İn = 90 - 200 |     | İn = 224 - 355 |     | İn = 100 - 224 |     | İn = 250 - 400 |     | G1   |
|                        | Ød1                     | l1  | Ød1            | l1  | Ød1           | l1  | Ød1            | l1  | Ød1            | l1  | Ød1            | l1  |      |
| 134                    | 55                      | 110 | 40             | 100 | -             | -   | -              | -   | -              | -   | -              | -   | 1170 |
| 144                    | -                       | -   | -              | -   | -             | -   | -              | -   | 55             | 110 | 40             | 100 | 1240 |
| 154                    | 70                      | 135 | 50             | 110 | -             | -   | -              | -   | -              | -   | -              | -   | 1402 |
| 164                    | -                       | -   | -              | -   | 70            | 135 | 50             | 110 | -              | -   | -              | -   | 1448 |
| 174                    | 70                      | 135 | 50             | 110 | -             | -   | -              | -   | -              | -   | -              | -   | 1450 |
| 184                    | -                       | -   | -              | -   | 70            | 135 | 50             | 110 | -              | -   | -              | -   | 1510 |
| 194                    | 80                      | 165 | 60             | 140 | -             | -   | -              | -   | -              | -   | -              | -   | 1680 |
| 204                    | -                       | -   | -              | -   | 80            | 165 | 60             | 140 | -              | -   | -              | -   | 1740 |
| 214                    | 90                      | 165 | 70             | 140 | -             | -   | -              | -   | -              | -   | -              | -   | 1992 |
| 224                    | -                       | -   | -              | -   | 90            | 165 | 70             | 140 | -              | -   | -              | -   | 2047 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |     |     |     |      |     |     |      |       |     |     |       |       |     |     |     |      |     |    | Kilit<br>Backstop                                                                                    |     |    |
|------------------------|--------------------------------------------|-----|-----|-----|-----|------|-----|-----|------|-------|-----|-----|-------|-------|-----|-----|-----|------|-----|----|------------------------------------------------------------------------------------------------------|-----|----|
|                        | a                                          | b   | c   | c1  | ØD5 | E    | e2  | g   | H    | h(-1) | h1  | h2  | m1    | m2    | m3  | n1  | n2  | n3   | n4  | Øs |  Rücklaufsperre | 98  | G8 |
| 134                    | 1399                                       | 550 | 62  | 63  | 48  | 820  | 407 | 212 | 905  | 440   | 450 | 460 | 597.5 | 597.5 | 475 | 102 | 305 | 940  | 340 | 35 |                                                                                                      | 393 |    |
| 144                    | 1539                                       | 550 | 62  | 63  | 48  | 890  | 477 | 212 | 905  | 440   | 450 | 460 | 597.5 | 737.5 | 475 | 102 | 375 | 1010 | 340 | 35 |                                                                                                      | 393 |    |
| 154                    | 1684                                       | 625 | 72  | 74  | 55  | 987  | 487 | 239 | 1005 | 500   | 490 | 500 | 720   | 720   | 535 | 122 | 365 | 1135 | 375 | 42 |                                                                                                      | 489 |    |
| 164                    | 1774                                       | 625 | 72  | 74  | 55  | 1033 | 532 | 239 | 1005 | 500   | 490 | 500 | 720   | 810   | 535 | 122 | 410 | 1180 | 375 | 42 |                                                                                                      | 489 |    |
| 174                    | 1774                                       | 690 | 82  | 83  | 55  | 1035 | 527 | 260 | 1115 | 550   | 555 | 560 | 750   | 750   | 600 | 137 | 390 | 1175 | 425 | 42 |                                                                                                      | 489 |    |
| 184                    | 1894                                       | 690 | 82  | 83  | 55  | 1095 | 587 | 260 | 1115 | 550   | 555 | 560 | 750   | 870   | 600 | 137 | 450 | 1235 | 425 | 42 |                                                                                                      | 489 |    |
| 194                    | 2034                                       | 790 | 92  | 93  | 65  | 1190 | 592 | 300 | 1245 | 620   | 615 | 620 | 860   | 860   | 690 | 157 | 435 | 1365 | 475 | 48 |                                                                                                      | 563 |    |
| 204                    | 2154                                       | 790 | 92  | 93  | 65  | 1250 | 652 | 300 | 1245 | 620   | 615 | 620 | 860   | 980   | 690 | 157 | 495 | 1425 | 475 | 48 |                                                                                                      | 563 |    |
| 214                    | 2344                                       | 830 | 102 | 102 | 75  | 1387 | 657 | 311 | 1395 | 700   | 685 | 690 | 1000  | 1000  | 720 | 172 | 485 | 1600 | 520 | 56 |                                                                                                      | 582 |    |
| 224                    | 2454                                       | 830 | 102 | 102 | 75  | 1442 | 712 | 311 | 1395 | 700   | 685 | 690 | 1000  | 1110  | 720 | 172 | 540 | 1655 | 520 | 56 |                                                                                                      | 582 |    |

- +) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir. Ölçüler mm'dir.      +) Max. dimensions; details acc. to order-related documentation      +) Max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation. Abmessungen in mm
- 1) Şaftlar:      1) Shafts:      1) Wellen:
- k6=Ø25; Ø28≤m6≤Ø100; n6>Ø100      m6≤Ø100; n6>Ø100      m6≤Ø100; n6>Ø100
- Kama kanalı DIN 6885/1,      Keyway acc.to DIN 6885/1,      Passfedernut nach DIN 6885/1
- Kama kanalı genişliği ISO JS9 a göre      Hub keyway width acc.to ISO JS9      Nabennutbreite nach ISO JS9
- Kama DIN 6885/1 form B      Parallel key acc.to DIN 6885/1 form B      Passfeder nach DIN 6885/1 Form B
- Ayrıntılar için sayfa 127-136'ya bakılabilir.      For details, see pages 127-136      Einzelheiten siehe Seiten 127-136
- \*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.      \*) Approximate values; exact data acc. to order related documentation.      \*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.
- \*\*) Redüktörler yağsızdır.      \*\*) Without oil filling      \*\*) ohne Ölfüllung

TR

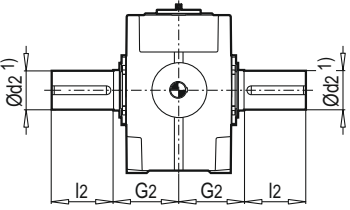
DÖRT KADEMELİ - YATAY

EN

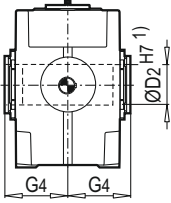
FOUR STAGE - HORIZONTAL

DE

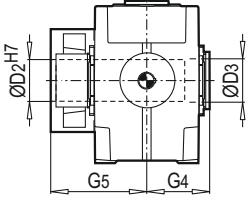
VIERTSTUFIG - HORIZONTAL

|  |     |     |     |
|-----------------------------------------------------------------------------------|-----|-----|-----|
|                                                                                   | Ød2 | l2  | G2  |
|                                                                                   | 134 | 200 | 350 |
|                                                                                   | 144 | 210 | 350 |
|                                                                                   | 154 | 230 | 410 |
|                                                                                   | 164 | 240 | 410 |
|                                                                                   | 174 | 250 | 410 |
|                                                                                   | 184 | 270 | 470 |
|                                                                                   | 194 | 290 | 470 |
|                                                                                   | 204 | 300 | 500 |
|                                                                                   | 214 | 320 | 500 |
|                                                                                   | 224 | 340 | 550 |

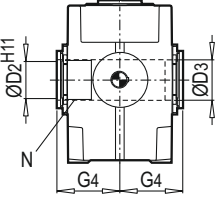
**PB134-SH ... PB224-SH**  
Mil Çıkışlı  
Solid shaft  
Vollwelle

|  |     |     |     |
|-----------------------------------------------------------------------------------|-----|-----|-----|
|                                                                                   | ØD2 | G4  |     |
|                                                                                   | 134 | 190 | 335 |
|                                                                                   | 144 | 210 | 335 |
|                                                                                   | 154 | 230 | 380 |
|                                                                                   | 164 | 240 | 380 |
|                                                                                   | 174 | 250 | 415 |
|                                                                                   | 184 | 275 | 415 |
|                                                                                   | 194 | -   | -   |
|                                                                                   | 204 | -   | -   |
|                                                                                   | 214 | -   | -   |
|                                                                                   | 224 | -   | -   |

**PB134-HH ... PB224-HH**  
**PB134-HM ... PB224-HM**  
Delik millî  
Hollow shaft  
Hohlwelle

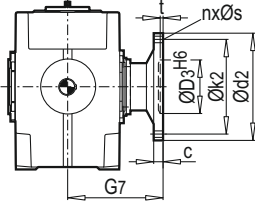
|  |     |     |     |     |
|------------------------------------------------------------------------------------|-----|-----|-----|-----|
|                                                                                    | ØD2 | ØD3 | G4  | G5  |
|                                                                                    | 134 | 190 | 195 | 335 |
|                                                                                    | 144 | 210 | 215 | 335 |
|                                                                                    | 154 | 230 | 235 | 380 |
|                                                                                    | 164 | 240 | 245 | 380 |
|                                                                                    | 174 | 250 | 260 | 415 |
|                                                                                    | 184 | 280 | 285 | 415 |
|                                                                                    | 194 | 285 | 295 | 465 |
|                                                                                    | 204 | 310 | 315 | 465 |
|                                                                                    | 214 | 330 | 335 | 490 |
|                                                                                    | 224 | 340 | 345 | 490 |

**PB134-DH ... PB224-DH**  
**PB134-DM ... PB224-DM**  
Konik Sıkırtmalı  
Hollow shaft for shrink disk  
Hohlwelle für schrumpfscheibe

|  |              |                  |     |
|-------------------------------------------------------------------------------------|--------------|------------------|-----|
|                                                                                     | N / DIN 5480 | ØD2              |     |
|                                                                                     | 134          | N 190x5x30x36x9H | 180 |
|                                                                                     | 144          | N 190x5x30x36x9H | 180 |
|                                                                                     | 154          | N 220x5x30x42x9H | 210 |
|                                                                                     | 164          | N 220x5x30x42x9H | 210 |
|                                                                                     | 174          | N 250x5x30x48x9H | 240 |
|                                                                                     | 184          | N 250x5x30x48x9H | 240 |
|                                                                                     | 194          | -                | -   |
|                                                                                     | 204          | -                | -   |
|                                                                                     | 214          | -                | -   |
|                                                                                     | 224          | -                | -   |

**PB134-KH ... PB224-KH**  
**PB134-KM ... PB224-KM**  
Spline DIN 5480  
Hollow shaft with involute  
splines acc. to DIN 5480  
Hohlwelle mit Zahnradprofil  
nach DIN 5480

İstek üzerine  
On request  
Auf Anfrage

|  |     |     |      |     |      |         |    |
|-------------------------------------------------------------------------------------|-----|-----|------|-----|------|---------|----|
|                                                                                     | c   | Ød2 | ØD3  | Øk2 | nxØs | t       | G7 |
|                                                                                     | 134 | 48  | 580  | 310 | 500  | 20 x 33 | 14 |
|                                                                                     | 144 | 48  | 620  | 310 | 540  | 24 x 33 | 14 |
|                                                                                     | 154 | 55  | 710  | 360 | 630  | 28 x 33 | 17 |
|                                                                                     | 164 | 55  | 740  | 360 | 660  | 30 x 33 | 17 |
|                                                                                     | 174 | 60  | 750  | 410 | 660  | 24 x 39 | 18 |
|                                                                                     | 184 | 60  | 800  | 410 | 710  | 26 x 39 | 18 |
|                                                                                     | 194 | 65  | 860  | 460 | 770  | 30 x 39 | 18 |
|                                                                                     | 204 | 65  | 930  | 460 | 830  | 32 x 39 | 18 |
|                                                                                     | 214 | 75  | 950  | 520 | 850  | 28 x 45 | 20 |
|                                                                                     | 224 | 75  | 1040 | 520 | 940  | 28 x 45 | 20 |

**PB134-FH ... PB224-FH**  
**PB134-FM ... PB224-FM**  
Flanşlı şaft  
Flanged shaft  
Flanschelle

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l *) |     | Ağırlık<br>Weight / Gewicht<br>(kg)*)** |                |                                            |      |
|------------------------|-------------------------------------------------|-----|-----------------------------------------|----------------|--------------------------------------------|------|
|                        | H                                               | M   | SH<br>HH<br>DH<br>KH                    | HM<br>DM<br>KM | FH                                         | FM   |
| 134                    | 145                                             | 120 | 2410                                    | 2295           | 2570                                       | 2455 |
| 144                    | 150                                             | 125 | 2750                                    | 2620           | 2920                                       | 2790 |
| 154                    | 230                                             | 170 | 3650                                    | 3455           | 3890                                       | 3695 |
| 164                    | 235                                             | 175 | 4005                                    | 3785           | 4260                                       | 4040 |
| 174                    | 295                                             | 230 | 4720                                    | 4485           | 5020                                       | 4785 |
| 184                    | 305                                             | 235 | 5030                                    | 4960           | 5580                                       | 5310 |
| 194                    | 480                                             | 440 | 6850                                    | 6350           | İstek üzerine<br>On request<br>Auf Anfrage |      |
| 204                    | 550                                             | 510 | 8250                                    | 7750           |                                            |      |
| 214                    | 540                                             | 590 | 9260                                    | 8660           |                                            |      |
| 224                    | 620                                             | 680 | 9990                                    | 9490           |                                            |      |

## KONİK - HELİSEL DİŞLİLİ REDÜKTÖRLER / BEVEL - HELICAL GEAR UNITS / KEGELSTIRNRADGETRIEBE

| İki kademe, Yatay / Double stage, Horizontal / Zweistufig, Horizontal - PB42-H ... 122-H                      |                  |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
|---------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|------------|--------|-------------------|-----------|-------------------|-----------|---------------|-----------|---------------|-----------|---------------|-----|---------------|-----------|
|                                                                                                               |                  |                                                                                    |  |  |  | Kilit uygulaması mümkün değildir<br>Backstop <b>not</b> possible for<br>Rückaufsperrenanbau <b>nicht</b> möglich für<br><b>SH</b> Dizayn / Design / Ausführung <b>A,C,E+F</b><br><b>FH</b> Dizayn / Design / Ausführung <b>A+C</b><br><b>DH</b> Dizayn / Design / Ausführung <b>B+D</b>                                                                                                                                                                                                                                                              |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| İki kademe, Yatay / Double stage, Horizontal / Zweistufig, Horizontal - PB132-H ... 182-H / PB132-M ... 182-M |                  |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
|                                                                                                               |                  |                                                                                    |  |  |  | Kilit uygulaması mümkün değildir<br>Backstop <b>not</b> possible for<br>Rückaufsperrenanbau <b>nicht</b> möglich für<br><table><tr><th>Dizayn / Design</th><th>Boyutlar / Sizes</th></tr><tr><th>Ausführung</th><th>Größen</th></tr><tr><td><b>SH</b> A-C-E-F</td><td>132 - 142</td></tr><tr><td><b>SH</b> B-D-E-F</td><td>152 - 182</td></tr><tr><td><b>FH</b> A-C</td><td>132 - 142</td></tr><tr><td><b>FH</b> B-D</td><td>152 - 182</td></tr><tr><td><b>DH</b> B-D</td><td>142</td></tr><tr><td><b>DH</b> A-C</td><td>162 - 182</td></tr></table> | Dizayn / Design | Boyutlar / Sizes | Ausführung | Größen | <b>SH</b> A-C-E-F | 132 - 142 | <b>SH</b> B-D-E-F | 152 - 182 | <b>FH</b> A-C | 132 - 142 | <b>FH</b> B-D | 152 - 182 | <b>DH</b> B-D | 142 | <b>DH</b> A-C | 162 - 182 |
| Dizayn / Design                                                                                               | Boyutlar / Sizes |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| Ausführung                                                                                                    | Größen           |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| <b>SH</b> A-C-E-F                                                                                             | 132 - 142        |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| <b>SH</b> B-D-E-F                                                                                             | 152 - 182        |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| <b>FH</b> A-C                                                                                                 | 132 - 142        |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| <b>FH</b> B-D                                                                                                 | 152 - 182        |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| <b>DH</b> B-D                                                                                                 | 142              |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| <b>DH</b> A-C                                                                                                 | 162 - 182        |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| ■ Kilit: Gövde 132-142<br>Backstop: Sizes 132-142<br>Rücklaufsperr: Größen 132-142                            |                  | □ Kilit: Gövde 152-182<br>Backstop: Sizes 152-182<br>Rücklaufsperr: Größen 152-182 |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| Üç kademe, Yatay / Three stage, Horizontal / Dreistufig, Horizontal - PB43-H ... 123-H                        |                  |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
|                                                                                                               |                  |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| Üç kademe, Yatay / Three stage, Horizontal / Dreistufig, Horizontal - PB133-H ... 223-H / PB133-M ... 223-M   |                  |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
|                                                                                                               |                  |                                                                                    |  |  |  | ■ Kilit: Gövde 133-183<br>Backstop: Sizes 133-183<br>Rücklaufsperr: Größen 133-183<br><br>□ Kilit: Gövde 193-223<br>Backstop: Sizes 193-223<br>Rücklaufsperr: Größen 193-223                                                                                                                                                                                                                                                                                                                                                                         |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| Dört kademe, Yatay / Four stage, Horizontal / Vierstufig, Horizontal - PB54-H ... 124-H                       |                  |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
|                                                                                                               |                  |                                                                                    |  |  |  | ■ Kilit: Gövde 54-104<br>Backstop: Sizes 54-104<br>Rücklaufsperr: Größen 54-104<br><br>□ Kilit: Gövde 114-124<br>Backstop: Sizes 114-124<br>Rücklaufsperr: Größen 114-124                                                                                                                                                                                                                                                                                                                                                                            |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
| Dört kademe, Yatay / Four stage, Horizontal / Vierstufig, Horizontal - PB134-H ... 224-H / PB134-M ... 224-H  |                  |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |
|                                                                                                               |                  |                                                                                    |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |        |                   |           |                   |           |               |           |               |           |               |     |               |           |

■ Kilit / Backstop / Rücklaufsperr

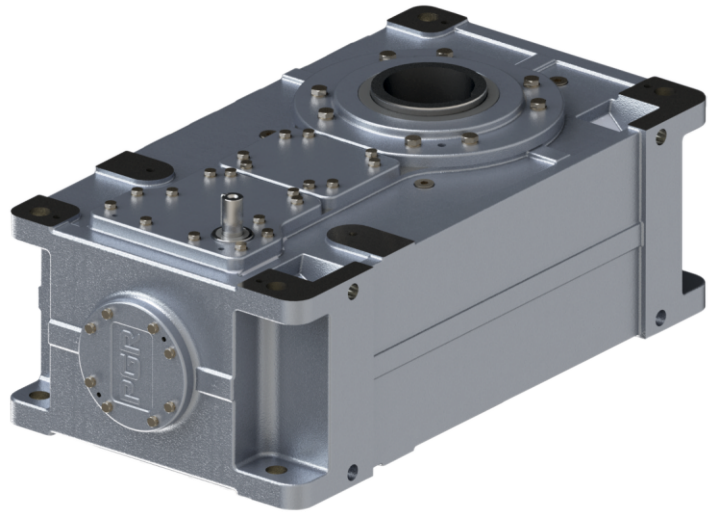
■ Kilit / Backstop / Rücklaufsperr

Ölçü Tabloları

Dimension Tables

Größe Tabellen

PH...



**İKİ KADEME** / DOUBLE STAGE / ZWEISTUFIG

**ÜÇ KADEME** / THREE STAGE / DREISTUFIG

**DÖRT KADEME** / FOUR STAGE / VIERSTUFIG

**PH SERİSİ / DİKEY**  
PH SERIES / VERTICAL  
PH SERIE / VERTIKAL

TR

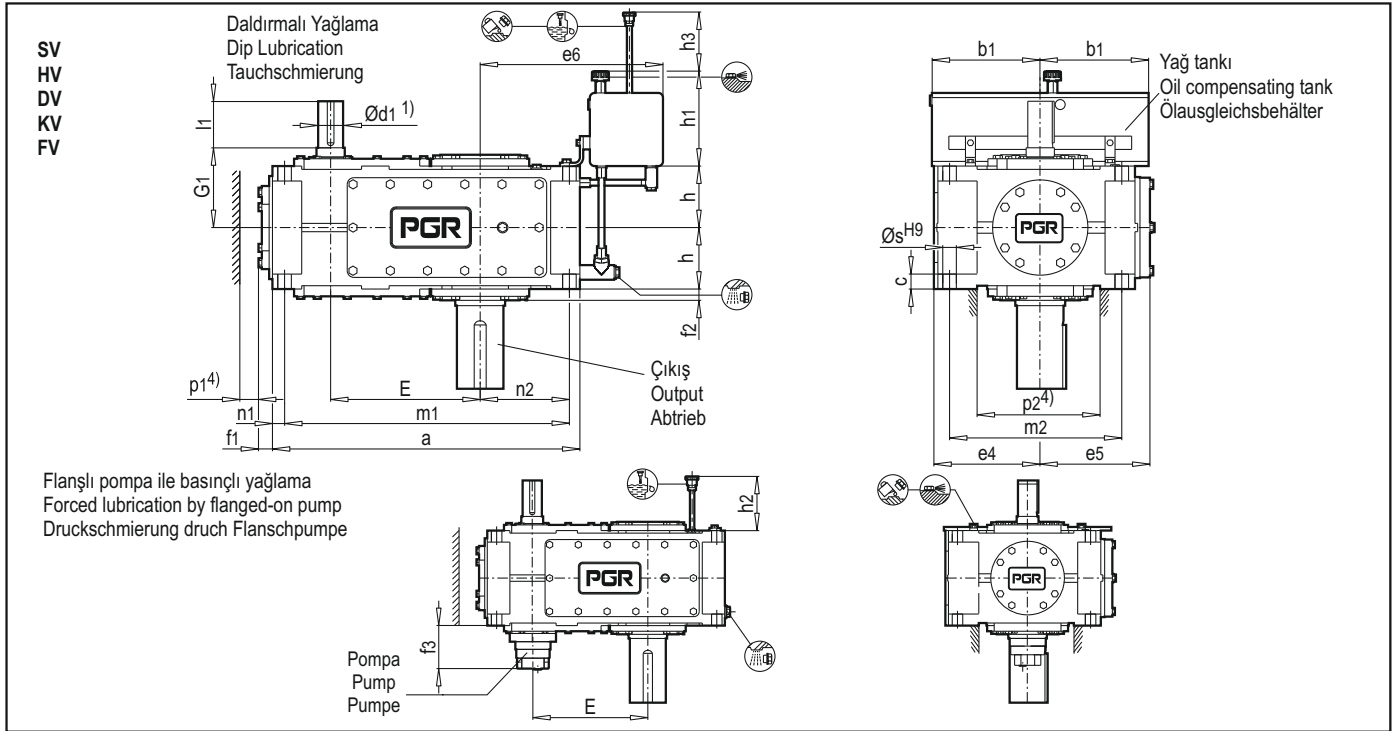
İKİ KADEMELİ - DİKEY

EN

TWO STAGE - VERTICAL

DE

ZWEISTUFIG - VERTIKAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb     |     |     |                              |     |     |                         |     |     |                          |     |     |                | Sadece G,H,I dizaynı için; İN<br>Design G,H,I only for; İN<br>Ausführung G,H,I nur für İN |
|------------------------|-----------------------------|-----|-----|------------------------------|-----|-----|-------------------------|-----|-----|--------------------------|-----|-----|----------------|-------------------------------------------------------------------------------------------|
|                        | İ <sub>N</sub> = 6.3 - 11.2 |     |     | İ <sub>N</sub> = 12.5 - 22.4 |     |     | İ <sub>N</sub> = 8 - 14 |     |     | İ <sub>N</sub> = 16 - 28 |     |     | G <sub>1</sub> |                                                                                           |
|                        | Ød1                         | l1  | l3  | Ød1                          | l1  | l3  | Ød1                     | l1  | l3  | Ød1                      | l1  | l3  |                |                                                                                           |
| 42                     | 45                          | 100 | 80  | 32                           | 80  | 60  | -                       | -   | -   | -                        | -   | -   | 170            | 6.3 - 18                                                                                  |
| 52                     | 50                          | 100 | 80  | 38                           | 80  | 60  | -                       | -   | -   | -                        | -   | -   | 195            | 6.3 - 18                                                                                  |
| 62                     | -                           | -   | -   | -                            | -   | -   | 50                      | 100 | 80  | 38                       | 80  | 60  | 195            | 8 - 22.4                                                                                  |
| 72                     | 60                          | 135 | 105 | 50                           | 110 | 80  | -                       | -   | -   | -                        | -   | -   | 210            | 6.3 - 16                                                                                  |
| 82                     | -                           | -   | -   | -                            | -   | -   | 60                      | 135 | 105 | 50                       | 110 | 80  | 210            | 8 - 20                                                                                    |
| 92                     | 75                          | 140 | 110 | 60                           | 140 | 110 | -                       | -   | -   | -                        | -   | -   | 240            | 6.3 - 16                                                                                  |
| 102                    | -                           | -   | -   | -                            | -   | -   | 75                      | 140 | 110 | 60                       | 140 | 110 | 240            | 8 - 20                                                                                    |
| 112                    | 90                          | 165 | 130 | 70                           | 140 | 105 | -                       | -   | -   | -                        | -   | -   | 275            | 6.3 - 18                                                                                  |
| 122                    | -                           | -   | -   | -                            | -   | -   | 90                      | 165 | 130 | 70                       | 140 | 105 | 275            | 8 - 22.4                                                                                  |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |    |     |     |     |     |    |    |                                               |       |     |     |     |      |     |    |     |    |     |    |
|------------------------|--------------------------------------------|-----|----|-----|-----|-----|-----|----|----|-----------------------------------------------|-------|-----|-----|-----|------|-----|----|-----|----|-----|----|
|                        | a                                          | b1  | c  | E   | e4  | e5  | e6  | f1 | f2 | <div>Pompa<br/>Pump<br/>Pumpe<br/>f3 2)</div> | h     | h1  | h2  | h3  | m1   | m2  | n1 | n2  | p1 | p2  | Øs |
| 42                     | 569                                        | 151 | 31 | 270 | 200 | 215 | 325 | 28 | 22 | -                                             | 107.5 | 170 | -   | 180 | 505  | 300 | 32 | 160 | 36 | 222 | 24 |
| 52                     | 644                                        | 241 | 31 | 315 | 230 | 252 | 390 | 38 | 28 | 155                                           | 127.5 | 210 | 190 | 240 | 580  | 360 | 32 | 175 | 36 | 272 | 24 |
| 62                     | 724                                        | 241 | 31 | 350 | 230 | 252 | 430 | 38 | 28 | 155                                           | 127.5 | 210 | 190 | 240 | 660  | 360 | 32 | 220 | 36 | 272 | 24 |
| 72                     | 789                                        | 241 | 37 | 385 | 280 | 292 | 430 | 42 | 30 | 150                                           | 150   | 210 | 165 | 250 | 715  | 430 | 37 | 215 | 36 | 332 | 28 |
| 82                     | 894                                        | 241 | 37 | 430 | 280 | 302 | 490 | 42 | 32 | 150                                           | 150   | 210 | 165 | 250 | 820  | 430 | 37 | 275 | 36 | 332 | 28 |
| 92                     | 929                                        | 331 | 47 | 450 | 320 | 342 | 565 | 42 | 32 | 140                                           | 185   | 280 | 205 | 330 | 845  | 490 | 42 | 260 | 41 | 372 | 36 |
| 102                    | 1029                                       | 331 | 47 | 500 | 320 | 342 | 615 | 42 | 32 | 140                                           | 185   | 280 | 205 | 330 | 945  | 490 | 42 | 310 | 41 | 372 | 36 |
| 112                    | 1109                                       | 331 | 56 | 545 | 380 | 402 | 600 | 48 | 35 | 150                                           | 215   | 280 | 240 | 340 | 1005 | 600 | 52 | 295 | 51 | 442 | 40 |
| 122                    | 1264                                       | 331 | 56 | 615 | 380 | 410 | 685 | 48 | 35 | 150                                           | 215   | 280 | 240 | 340 | 1160 | 600 | 52 | 380 | 51 | 442 | 40 |

Ölçüler mm'dir.

## 1) Şaftlar:

m6<=Ø100; n6>Ø100  
 Kama kanalı DIN 6885/1,  
 Kama kanalı genişliği ISO JS9 a göre  
 Kama DIN 6885/1 form B  
 Ayrıntılar için sayfa 127-136'ya bakılabilir.

## 2) Değişkenler: G,H ve I tasarımları ile flanşlı pompa mümkün değildir.

## 3) Soğutma serpantini:

A,C ve E dizaynları için Flanşlı pompa ile basınçlı yağlama mümkün değildir.

## 4) Pompa borusu ve koruyucusunun gerçek ölçülerinin boşluğu için lütfen PGR'ye danışınız.

## 5) Şaft montajlı redüktörler için A,D ve G montajı istendiğinde

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen doku-

manlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

Dimensions in mm

## 1) Shafts:

m6<=Ø100; n6>Ø100  
 Keyway acc.to DIN 6885/1,  
 Hub keyway width acc.to ISO JS9  
 Parallel key acc.to DIN 6885/1 form B  
 For details, see pages 127-136

## 2) Variants:

Flanged - on pump not possible with G,H and I designs

## 3) Cooling coil:

For A,C and E designs, forced lubrication by flanged-on pump not possible.

## 4) Space for pump pipes and cover; for exact dimensions, please refer to us.

## 5) For shaft-mounted gear units, designs A,D and G on request.

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

Abmessungen in mm

## 1) Wellen:

m6<=Ø100; n6>Ø100  
 Passfedernut nach DIN 6885/1  
 Nabennutbreite nach ISO JS9  
 Passfeder nach DIN 6885/1 Form B  
 Einzelheiten siehe Seiten 127-136

## 2) Varianten:

Flaschpumpe nicht in Verbindung mit Ausführung G, H und I

## 3) Kühltülle:

Ausführungen A,C und E mit Druckschrerung durch Flanschpumpe nicht möglich.

## 4) Freiraum für Pumpe, Rohre und Deckel genaue Maße ggf. anfragen.

## 5) Ausführungen A,D und G bei Aufsteckuasführungen auf anfrage.

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

İKİ KADEMELİ - DİKEY

EN

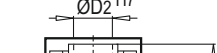
TWO STAGE - VERTICAL

DE

ZWEISTUFIG - VERTIKAL

|  |                                                                        |     |            |           |           |
|--|------------------------------------------------------------------------|-----|------------|-----------|-----------|
|  | <b>PH42-SV ... PH122-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |     | <b>Ød2</b> | <b>l2</b> | <b>G2</b> |
|  |                                                                        | 42  | 80         | 170       | 140       |
|  |                                                                        | 52  | 100        | 210       | 165       |
|  |                                                                        | 62  | 110        | 210       | 165       |
|  |                                                                        | 72  | 120        | 210       | 195       |
|  |                                                                        | 82  | 130        | 250       | 195       |
|  |                                                                        | 92  | 140        | 250       | 235       |
|  |                                                                        | 102 | 160        | 300       | 235       |
|  |                                                                        | 112 | 170        | 300       | 270       |
|  |                                                                        | 122 | 180        | 300       | 270       |

|  |                                                                         |     |            |           |
|--|-------------------------------------------------------------------------|-----|------------|-----------|
|  | <b>PH42-HV ... PH122-HV</b><br>Delik milli<br>Hollow shaft<br>Hohlwelle |     | <b>ØD2</b> | <b>G4</b> |
|  |                                                                         | 42  | 80         | 140       |
|  |                                                                         | 52  | 95         | 165       |
|  |                                                                         | 62  | 105        | 165       |
|  |                                                                         | 72  | 115        | 195       |
|  |                                                                         | 82  | 125        | 195       |
|  |                                                                         | 92  | 135        | 235       |
|  |                                                                         | 102 | 150        | 235       |
|  |                                                                         | 112 | 165        | 270       |
|  |                                                                         | 122 | 180        | 270       |

|                                                                                   |                                                                                                                     |     |     |     |     |     |    |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|----|
|  | <p>PH42-DV ... PH122-DV<br/>Konik Sıktırmalı<br/>Hollow shaft for shrink disk<br/>Hohlwelle für schrumpfscheibe</p> | 5)  |     | ØD2 | ØD3 | G4  | G5 |
|                                                                                   |                                                                                                                     | 42  | 85  | 85  | 140 | 205 |    |
|                                                                                   |                                                                                                                     | 52  | 100 | 100 | 165 | 240 |    |
|                                                                                   |                                                                                                                     | 62  | 110 | 110 | 165 | 240 |    |
|                                                                                   |                                                                                                                     | 72  | 120 | 120 | 195 | 280 |    |
|                                                                                   |                                                                                                                     | 82  | 130 | 130 | 195 | 285 |    |
|                                                                                   |                                                                                                                     | 92  | 140 | 145 | 235 | 330 |    |
|                                                                                   |                                                                                                                     | 102 | 150 | 155 | 235 | 350 |    |
|                                                                                   |                                                                                                                     | 112 | 165 | 170 | 270 | 400 |    |
|                                                                                   |                                                                                                                     | 122 | 180 | 185 | 270 | 405 |    |

|  |                                                                                                                                                          |     |                     |  |            |            |           |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------|--|------------|------------|-----------|
|  | <b>PH42-KV ... PH122-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute<br>splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil<br>nach DIN 5480 |     | <b>N / DIN 5480</b> |  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|  |                                                                                                                                                          | 42  | -                   |  | -          | -          | -         |
|  |                                                                                                                                                          | 52  | N 95x3x30x30x9H     |  | 89         | 100        | 165       |
|  |                                                                                                                                                          | 62  | N 95x3x30x30x9H     |  | 89         | 110        | 165       |
|  |                                                                                                                                                          | 72  | N 120x3x30x38x9H    |  | 114        | 120        | 195       |
|  |                                                                                                                                                          | 82  | N 120x3x30x38x9H    |  | 114        | 130        | 195       |
|  |                                                                                                                                                          | 92  | N 140x3x30x45x9H    |  | 134        | 145        | 235       |
|  |                                                                                                                                                          | 102 | N 140x3x30x45x9H    |  | 134        | 155        | 235       |
|  |                                                                                                                                                          | 112 | N 170x5x30x32x9H    |  | 160        | 170        | 270       |
|  |                                                                                                                                                          | 122 | N 170x5x30x32x9H    |  | 160        | 185        | 270       |

|  |                                                                               |     |          |            |            |            |             |          |           |
|--|-------------------------------------------------------------------------------|-----|----------|------------|------------|------------|-------------|----------|-----------|
|  | <b>PH42-FV ... PH122-FV</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschswelle |     | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>nxØs</b> | <b>t</b> | <b>G7</b> |
|  |                                                                               | 42  | -        | -          | -          | -          | -           | -        | -         |
|  |                                                                               | 52  | 25       | 300        | 150        | 260        | 16 x 22     | 10       | 255       |
|  |                                                                               | 62  | 25       | 320        | 160        | 280        | 18 x 22     | 10       | 255       |
|  |                                                                               | 72  | 30       | 370        | 180        | 320        | 16 x 26     | 10       | 300       |
|  |                                                                               | 82  | 30       | 390        | 190        | 340        | 18 x 26     | 10       | 300       |
|  |                                                                               | 92  | 38       | 430        | 220        | 380        | 20 x 26     | 12       | 350       |
|  |                                                                               | 102 | 38       | 470        | 240        | 420        | 22 x 26     | 12       | 350       |
|  |                                                                               | 112 | 42       | 510        | 260        | 450        | 18 x 33     | 12       | 400       |
|  |                                                                               | 122 | 42       | 540        | 280        | 480        | 22 x 33     | 12       | 400       |

| Gövde<br>Size<br>Größe | Yağ miktarı / Oil quantity<br>Ölmenge / (l) *                       |                                                                      | Ağırlık / Weight /<br>Gewicht (kg) **) |      | Sogutma serpantini / Cooling coil /<br>Kühlschlange 3) | Gövde<br>Size<br>Größe | m6  | n6  | e8  | l/min<br>x) |
|------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------|------|--------------------------------------------------------|------------------------|-----|-----|-----|-------------|
|                        | Daldırmalı<br>yağlama<br>Dip<br>lubrication<br>Tauch-<br>schmierung | Basınçlı<br>yağlama<br>Forced<br>lubrication<br>Druck-<br>schmierung | SV<br>HV<br>DV<br>KV                   | FV   |                                                        |                        |     |     |     |             |
| 42                     | 23                                                                  | 11.5                                                                 | 195                                    | -    | <p>Çıkış<br/>Output<br/>Abtrieb</p>                    | 42                     | 90  | 144 | 157 | 4           |
| 52                     | 35                                                                  | 17.5                                                                 | 305                                    | 340  |                                                        | 52                     | 100 | 165 | 169 | 4           |
| 62                     | 40                                                                  | 20                                                                   | 360                                    | 400  |                                                        | 62                     | 100 | 165 | 214 | 4           |
| 72                     | 62                                                                  | 31                                                                   | 515                                    | 565  |                                                        | 72                     | 100 | 203 | 208 | 4           |
| 82                     | 70                                                                  | 35                                                                   | 600                                    | 655  |                                                        | 82                     | 100 | 203 | 266 | 4           |
| 92                     | 100                                                                 | 50                                                                   | 840                                    | 925  |                                                        | 92                     | 130 | 245 | 246 | 8           |
| 102                    | 106                                                                 | 53                                                                   | 975                                    | 1065 |                                                        | 102                    | 130 | 245 | 294 | 8           |
| 112                    | 166                                                                 | 83                                                                   | 1350                                   | 1480 |                                                        | 112                    | 140 | 290 | 275 | 8           |
| 122                    | 180                                                                 | 90                                                                   | 1630                                   | 1770 |                                                        | 122                    | 140 | 290 | 360 | 8           |

TR

İKİ KADEMELİ - DİKEY

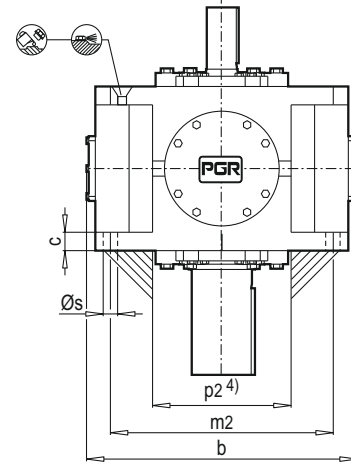
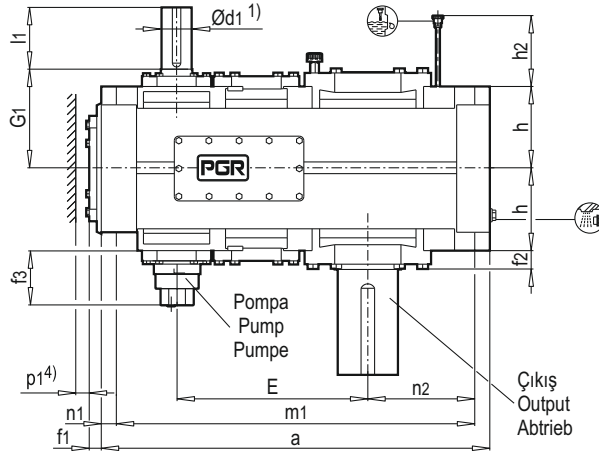
EN

TWO STAGE - VERTICAL

DE

ZWEISTUFIG - VERTIKAL

 SV  
 HV  
 DV  
 KV  
 FV

 Flanşlı pompa ile basınçlı yağlama  
 Forced lubrication by flanged-on pump  
 Druckschmierung durch Flanschpumpe


| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb                      |     |                |     |                 |     |                |     |             |     |              |     |     | G1       | 2)<br>Sadece G,H,I dizaynı için; İN<br>Design G,H,I only for; İN<br>Ausführung G,H,I nur für İN |
|------------------------|----------------------------------------------|-----|----------------|-----|-----------------|-----|----------------|-----|-------------|-----|--------------|-----|-----|----------|-------------------------------------------------------------------------------------------------|
|                        | İN = 6.3 - 11.2                              |     | İN = 12.5 - 20 |     | İN = 7.1 - 12.5 |     | İN = 14 - 22.4 |     | İN = 8 - 14 |     | İN = 16 - 25 |     |     |          |                                                                                                 |
|                        | Ød1                                          | l1  | Ød1            | l1  | Ød1             | l1  | Ød1            | l1  | Ød1         | l1  | Ød1          | l1  |     |          |                                                                                                 |
| 132                    | 100                                          | 205 | 85             | 170 | -               | -   | -              | -   | -           | -   | -            | -   | 330 | 6.3 - 16 |                                                                                                 |
| 142                    | -                                            | -   | -              | -   | -               | -   | -              | -   | 100         | 205 | 85           | 170 | 330 | 8 - 20   |                                                                                                 |
| 152                    | 120                                          | 210 | 100            | 210 | -               | -   | -              | -   | -           | -   | -            | -   | 365 | 6.3 - 16 |                                                                                                 |
| 162                    | -                                            | -   | -              | -   | 120             | 210 | 100            | 210 | -           | -   | -            | -   | 365 | 7.1 - 18 |                                                                                                 |
| 172                    | 125                                          | 245 | 110            | 210 | -               | -   | -              | -   | -           | -   | -            | -   | 420 | 6.3 - 16 |                                                                                                 |
| 182                    | -                                            | -   | -              | -   | 125             | 245 | 110            | 210 | -           | -   | -            | -   | 420 | 7.1 - 18 |                                                                                                 |
| 192...222              | Talep edildiğinde / On request / Auf Anfrage |     |                |     |                 |     |                |     |             |     |              |     |     |          |                                                                                                 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe   |      |    |     |    |    |                                 |       |     |      |     |    |     |    |     |    |
|------------------------|----------------------------------------------|------|----|-----|----|----|---------------------------------|-------|-----|------|-----|----|-----|----|-----|----|
|                        | a                                            | b    | c  | E   | f1 | f2 | Pompa<br>Pump<br>Pumpe<br>f3 2) | h     | h2  | m1   | m2  | n1 | n2  | p1 | p2  | Øs |
| 132                    | 1294                                         | 901  | 63 | 635 | 53 | 35 | 135                             | 272.5 | 300 | 1195 | 680 | 52 | 360 | 51 | 502 | 48 |
| 142                    | 1434                                         | 901  | 63 | 705 | 53 | 35 | 135                             | 272.5 | 300 | 1335 | 680 | 52 | 430 | 51 | 502 | 48 |
| 152                    | 1554                                         | 981  | 74 | 762 | 63 | 42 | 135                             | 310   | 340 | 1435 | 750 | 62 | 430 | 51 | 572 | 55 |
| 162                    | 1644                                         | 981  | 74 | 808 | 63 | 42 | 135                             | 310   | 340 | 1525 | 750 | 62 | 475 | 51 | 572 | 55 |
| 172                    | 1744                                         | 1111 | 83 | 860 | 60 | 42 | 175                             | 340   | 374 | 1610 | 850 | 72 | 465 | 71 | 632 | 55 |
| 182                    | 1864                                         | 1111 | 83 | 920 | 60 | 42 | 175                             | 340   | 374 | 1730 | 850 | 72 | 525 | 71 | 632 | 55 |
| 192...222              | Talep edildiğinde / On request / Auf Anfrage |      |    |     |    |    |                                 |       |     |      |     |    |     |    |     |    |

Ölçüler mm'dir.

## 1) Şaftlar:

m6<=Ø100; n6>Ø100  
 Kama kanalı DIN 6885/1,  
 Kama kanalı genişliği ISO JS9 a göre  
 Kama DIN 6885/1 form B  
 Ayrıntılar için sayfa 127-136'ya bakılabilir.

## 2) Değişkenler:

G,H ve I dizaynları ile flanşlı pompa mümkün değildir.

## 3) Soğutma serpantini:

A,C ve E dizaynları için Flanşlı pompa ile basınçlı yağlama mümkün değildir.

## 4) Pompa borusu ve koruyucusunun gerçek ölçülerinin boşluğu

için lütfen PGR'ye danışınız

## 5) Şaft montajlı redüktörler için A,D ve G montajı istendiğinde.

## 6) 132 ve 152 gövdelerin sadece İN= 6.3 -18

172 ve 192 gövdelerin sadece İN= 6.3 -16

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

Dimensions in mm

## 1) Shafts:

m6<=Ø100; n6>Ø100  
 Keyway acc.to DIN 6885/1,  
 Hub keyway width acc.to ISO JS9  
 Parallel key acc.to DIN6885/1 form B  
 For details, see pages 127-136

## 2) Variants:

Flanged-on pump not possible with G,H and I design

## 3) Cooling coil:

For A,C and E designs, forced lubrication by flanged-on pump not possible

## 4) Space for pump pipes and cover; for exact dimensions,

please refer to us.

## 5) For shaft-mounted gear units, designs A,D and G on request.

## 6) Sizes 132 and 152 : only İN= 6.3 - 18

Sizes 172 and 192 : only İN= 6.3 - 16

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

Abmessungen in mm

## 1) Wellen:

m6<=Ø100; n6>Ø100  
 Passfedernut nach DIN 6885/1  
 Nabennutbreite nach ISO JS9  
 Passfeder nach DIN 6885/1 Form B  
 Einzelheiten siehe Seiten 127-136

## 2) Varianten:

Flanschpumpe nicht in Verbindung mit Ausführung G,H und I

## 3) Kühlschlange:

Ausführungen A,C und E mit Druckschmierung durch Flanschpumpe nicht möglich.

## 4) Freiraum für Pumpe, Rohre und Deckel genaue Maße ggf. anfragen.

## 5) Ausführungen A,D und G bei Aufsteckausführungen auf Anfrage.

## 6) Größen 132 und 152: nur İN= 6.3 - 18

Größen 172 und 192: nur İN= 6.3 - 16

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

İKİ KADEMELİ - DİKEY

EN

TWO STAGE - VERTICAL

DE

ZWEISTUFIG - VERTIKAL

|  |                                                                          |                          |                                                |     |
|--|--------------------------------------------------------------------------|--------------------------|------------------------------------------------|-----|
|  | <b>PH132- SV ... PH222-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle | Ød2                      | l2                                             | G2  |
|  |                                                                          | 132                      | 200                                            | 350 |
|  |                                                                          | 142                      | 210                                            | 350 |
|  |                                                                          | 152                      | 230                                            | 410 |
|  |                                                                          | 162                      | 240                                            | 410 |
|  |                                                                          | 172                      | 250                                            | 410 |
|  |                                                                          | 182                      | 270                                            | 470 |
|  |                                                                          | 192<br>202<br>212<br>222 | Talep edildiğinde<br>On request<br>Auf Anfrage |     |

|  |                                                                          |                          |                                                |
|--|--------------------------------------------------------------------------|--------------------------|------------------------------------------------|
|  | <b>PH132-HV ... PH222-HV</b><br>Delik millî<br>Hollow shaft<br>Hohlwelle | ØD2                      | G4                                             |
|  |                                                                          | 132                      | 190                                            |
|  |                                                                          | 142                      | 210                                            |
|  |                                                                          | 152                      | 230                                            |
|  |                                                                          | 162                      | 240                                            |
|  |                                                                          | 172                      | 250                                            |
|  |                                                                          | 182                      | 275                                            |
|  |                                                                          | 192<br>202<br>212<br>222 | Talep edildiğinde<br>On request<br>Auf Anfrage |

|  |                                                                                                                  |                          |                                                |     |     |
|--|------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------|-----|-----|
|  | <b>PH132-DV ... PH222-DV</b><br>Konik Sıkırmalı<br>Hollow shaft for shrink disk<br>Hohlwelle für schrumpfscheibe | ØD2                      | ØD3                                            | G4  | G5  |
|  |                                                                                                                  | 132                      | 190                                            | 195 | 335 |
|  |                                                                                                                  | 142                      | 210                                            | 215 | 335 |
|  |                                                                                                                  | 152                      | 230                                            | 235 | 380 |
|  |                                                                                                                  | 162                      | 240                                            | 245 | 380 |
|  |                                                                                                                  | 172                      | 250                                            | 260 | 415 |
|  |                                                                                                                  | 182                      | 280                                            | 285 | 415 |
|  |                                                                                                                  | 192<br>202<br>212<br>222 | Talep edildiğinde<br>On request<br>Auf Anfrage |     |     |

|  |                                                                                                                                                              |                          |                                                |     |     |     |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------|-----|-----|-----|
|  | <b>PH132-KV ... PH222-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute<br>splines acc. to DIN 5480<br>Hohlwelle mit Zahnaben-<br>profil nach DIN 5480 | N / DIN 5480             |                                                | ØD2 | ØD3 | G4  |
|  |                                                                                                                                                              | 132                      | N 190x5x30x36x9H                               | 180 | 195 | 335 |
|  |                                                                                                                                                              | 142                      | N 190x5x30x36x9H                               | 180 | 215 | 335 |
|  |                                                                                                                                                              | 152                      | N 220x5x30x42x9H                               | 210 | 235 | 380 |
|  |                                                                                                                                                              | 162                      | N 220x5x30x42x9H                               | 210 | 245 | 380 |
|  |                                                                                                                                                              | 172                      | N 250x5x30x48x9H                               | 240 | 260 | 415 |
|  |                                                                                                                                                              | 182                      | N 250x5x30x48x9H                               | 240 | 285 | 415 |
|  |                                                                                                                                                              | 192<br>202<br>212<br>222 | Talep edildiğinde<br>On request<br>Auf Anfrage |     |     |     |

|  |                                                                                |                          |                                                |     |     |      |         |    |
|--|--------------------------------------------------------------------------------|--------------------------|------------------------------------------------|-----|-----|------|---------|----|
|  | <b>PH134-FV ... PH224-FV</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschswelle | c                        | Ød2                                            | ØD3 | Øk2 | nxØs | t       | G7 |
|  |                                                                                | 132                      | 48                                             | 580 | 310 | 500  | 20 x 33 | 14 |
|  |                                                                                | 142                      | 48                                             | 620 | 310 | 540  | 24 x 33 | 14 |
|  |                                                                                | 152                      | 55                                             | 710 | 360 | 630  | 28 x 33 | 17 |
|  |                                                                                | 162                      | 55                                             | 740 | 360 | 660  | 30 x 33 | 17 |
|  |                                                                                | 172                      | 60                                             | 750 | 410 | 660  | 24 x 39 | 18 |
|  |                                                                                | 182                      | 60                                             | 800 | 410 | 710  | 26 x 39 | 18 |
|  |                                                                                | 192<br>202<br>212<br>222 | Talep edildiğinde<br>On request<br>Auf Anfrage |     |     |      |         |    |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l) *) | Ağırlık / Weight /<br>Gewicht (kg)*)** |      | Soğutma serpantini su bağlantısı G1/2"<br>Water connection for cooling coil G1/2"<br>Wasseranschluf für Kühlschlange G1/2" | 3)                                                                                                                                                                    | Gövde<br>Size<br>Größe | m6                                             | n6  | e8  | l/min<br>x) |
|------------------------|--------------------------------------------------|----------------------------------------|------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------|-----|-----|-------------|
|                        |                                                  | SV<br>HV<br>DV<br>KV                   | FV   |                                                                                                                            |                                                                                                                                                                       |                        |                                                |     |     |             |
| 132                    | 120                                              | 1890                                   | 2050 |                                                                                                                            | Soğutma serpantini su bağlantısı G1/2"<br>Water connection for cooling coil G1/2"<br>Wasseranschluf für Kühlschlange G1/2"                                            | 132                    | 252                                            | 300 | 335 | 8           |
| 142                    | 135                                              | 2440                                   | 2610 |                                                                                                                            |                                                                                                                                                                       | 142                    | 252                                            | 300 | 405 | 8           |
| 152                    | 185                                              | 3255                                   | 3495 |                                                                                                                            |                                                                                                                                                                       | 152                    | 290                                            | 335 | 395 | 8           |
| 162                    | 200                                              | 3470                                   | 3735 |                                                                                                                            |                                                                                                                                                                       | 162                    | 290                                            | 335 | 440 | 8           |
| 172                    | 265                                              | 4440                                   | 4740 |                                                                                                                            |                                                                                                                                                                       | 172                    | 340                                            | 380 | 425 | 8           |
| 182                    | 285                                              | 4900                                   | 5250 |                                                                                                                            |                                                                                                                                                                       | 182                    | 340                                            | 380 | 485 | 8           |
| 192                    | Talep edildiğinde<br>On request<br>Auf Anfrage   |                                        |      |                                                                                                                            | Soğutma sistemi deniz suyu ve acı su için uygundur<br>Cooling coil suitable for fresh, sea and brackish water<br>Kühlschlange geeignet für Süß-, See- und Brackwasser | 192                    | Talep edildiğinde<br>On request<br>Auf Anfrage |     |     |             |
| 202                    |                                                  |                                        |      |                                                                                                                            |                                                                                                                                                                       | 202                    |                                                |     |     |             |
| 212                    |                                                  |                                        |      |                                                                                                                            |                                                                                                                                                                       | 212                    |                                                |     |     |             |
| 222                    |                                                  |                                        |      |                                                                                                                            |                                                                                                                                                                       | 222                    |                                                |     |     |             |

x) Gerekli soğutma suyu miktarı; basıncı 8 bar  
Cooling water quantity required;  
max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge,  
max. Kühlwasserdruck: 8 bar

TR

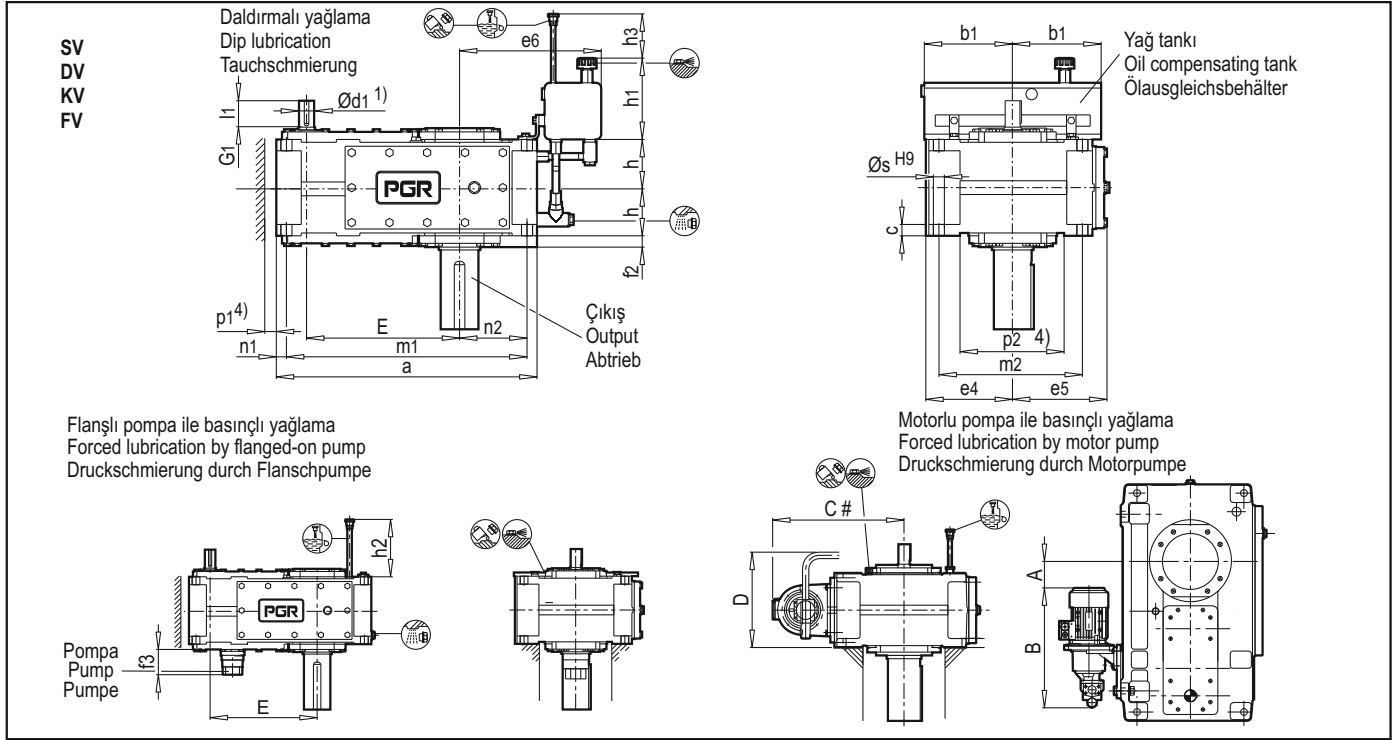
ÜÇ KADEMELİ - DİKEY

EN

THREE STAGE - VERTICAL

DE

DREISTUFIG - VERTIKAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |              |     |              |    |                |     |              |     |               |    | G1  |
|------------------------|-------------------------|-----|--------------|-----|--------------|----|----------------|-----|--------------|-----|---------------|----|-----|
|                        | İN = 25 - 45            |     | İN = 50 - 63 |     | İN = 71 - 90 |    | İN = 31.5 - 56 |     | İN = 63 - 80 |     | İN = 90 - 112 |    |     |
|                        | Ød1                     | l1  | Ød1          | l1  | Ød1          | l1 | Ød1            | l1  | Ød1          | l1  | Ød1           | l1 |     |
| 53                     | 40                      | 70  | 30           | 50  | 24           | 40 | -              | -   | -            | -   | -             | -  | 160 |
| 63                     | -                       | -   | -            | -   | -            | -  | 40             | 70  | 30           | 50  | 24            | 40 | 160 |
| 73                     | 45                      | 80  | 35           | 60  | 28           | 50 | -              | -   | -            | -   | -             | -  | 185 |
| 83                     | -                       | -   | -            | -   | -            | -  | 45             | 80  | 35           | 60  | 28            | 50 | 185 |
| 93                     | 60                      | 125 | 45           | 100 | 32           | 80 | -              | -   | -            | -   | -             | -  | 230 |
| 103                    | -                       | -   | -            | -   | -            | -  | 60             | 125 | 45           | 100 | 32            | 80 | 230 |
| 113                    | 70                      | 120 | 50           | 80  | 42           | 70 | -              | -   | -            | -   | -             | -  | 255 |
| 123                    | -                       | -   | -            | -   | -            | -  | 70             | 120 | 50           | 80  | 42            | 70 | 255 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe     |     |    |     |     |     |     |    |                                 |       |     |     |     |      |     |    |     |    |     |    | Motor Pompası<br>Motor pump<br>Motorpumpe |      |      |      |
|------------------------|------------------------------------------------|-----|----|-----|-----|-----|-----|----|---------------------------------|-------|-----|-----|-----|------|-----|----|-----|----|-----|----|-------------------------------------------|------|------|------|
|                        | a                                              | b1  | c  | E   | e4  | e5  | e6  | f2 | Pompa<br>Pump<br>Pumpe<br>f3 2) | h     | h1  | h2  | h3  | m1   | m2  | n1 | n2  | p1 | p2  | Øs | A #)                                      | B #) | C #) | D #) |
|                        | Talep edildiğinde<br>On request<br>Auf Anfrage |     |    |     |     |     |     |    |                                 |       |     |     |     |      |     |    |     |    |     |    |                                           |      |      |      |
| 53                     | 694                                            | 241 | 31 | 405 | 230 | 252 | 390 | 28 | 195                             | 127.5 | 205 | 190 | 240 | 630  | 360 | 32 | 175 | 36 | 272 | 24 |                                           |      |      |      |
| 63                     | 774                                            | 241 | 31 | 440 | 230 | 252 | 430 | 28 | 195                             | 127.5 | 205 | 190 | 240 | 710  | 360 | 32 | 220 | 36 | 272 | 24 |                                           |      |      |      |
| 73                     | 849                                            | 241 | 37 | 495 | 280 | 292 | 430 | 30 | 190                             | 150   | 205 | 165 | 250 | 775  | 430 | 37 | 215 | 36 | 332 | 28 |                                           |      |      |      |
| 83                     | 954                                            | 241 | 37 | 540 | 280 | 302 | 490 | 32 | 190                             | 150   | 205 | 165 | 250 | 880  | 430 | 37 | 275 | 36 | 332 | 28 |                                           |      |      |      |
| 93                     | 1004                                           | 331 | 47 | 580 | 320 | 342 | 565 | 32 | 175                             | 185   | 275 | 205 | 330 | 920  | 490 | 42 | 260 | 41 | 372 | 36 |                                           |      |      |      |
| 103                    | 1104                                           | 331 | 47 | 630 | 320 | 342 | 615 | 32 | 175                             | 185   | 275 | 205 | 330 | 1020 | 490 | 42 | 310 | 41 | 372 | 36 |                                           |      |      |      |
| 113                    | 1204                                           | 331 | 56 | 705 | 380 | 402 | 600 | 35 | 175                             | 215   | 275 | 240 | 340 | 1100 | 600 | 52 | 295 | 51 | 442 | 40 |                                           |      |      |      |
| 123                    | 1359                                           | 331 | 56 | 775 | 380 | 410 | 685 | 35 | 175                             | 215   | 275 | 240 | 340 | 1255 | 600 | 52 | 380 | 51 | 442 | 40 |                                           |      |      |      |

Ölçüler mm'dir.

1) Shafts:

k6=Ø24; Ø28≤m6≤Ø100; n6&gt;Ø100

Kama kanalı DIN 6885/1,

Kama kanalı genişliği ISO JS9 a göre

Kama DIN 6885/1 form B

Ayrıntılar için sayfa 127-136'ya bakılabilir.

2) Değişkenler:

G,H ve I dizaynları ile flanşlı pompa mümkün değildir.

3) Soğutma serpantini:

A,C ve E dizaynları için Flanşlı pompa ile basınçlı yağlama

mümkün değildir.

Motorlu pompa ile basınçlı yağlama istek üzerine yapılmaktadır.

4) Pompa borusu ve koruyucusunun gerçek ölçülerinin boşluğu

için Lütfen PGR'ye danışınız.

5) Şaft montajlı redüktörler için A, D ve G montajı istendiğinde

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen doku-

manlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

Dimensions in mm

1) Shafts:

k6=Ø24; Ø28≤m6≤Ø100; n6&gt;Ø100

Keyway acc.to DIN 6885/1,

Hub keyway width acc.to ISO JS9

Parallel key acc.to DIN 6885/1 form B

For details, see pages 127-136

2) Variants:

Flanged-on pump not possible with G,H and I design

3) Cooling coil:

For A,C and E designs, forced lubrication by flanged-on

pump not possible

Combination with forced lubrication by motor pump on

request

4) Space for pump pipes and cover; for exact dimensions,

please refer to us.

5) For shaft-mounted gear units, designs A,D and G on request.

\*) Approximate values; exact data acc. to order related

documentation.

\*\*) Without oil filling

Abmessungen in mm

1) Wellen:

k6=Ø24; Ø28≤m6≤Ø100; n6&gt;Ø100

Passfedernut nach DIN 6885/1

Nabennutbreite nach ISO JS9

Passfeder nach DIN 6885/1 Form B

Einzelheiten siehe Seiten 127-136

2) Varianten:

Flanschpumpe nicht in Verbindung mit Ausführung G,H und I

3) Kühlschlange:

Ausführungen A, C und E mit Druckschmierung durch

Flanschpumpe nicht möglich.

Kombination mit Druckschmierung durch Motorpumpe auf

Anfrage.

4) Freiraum für Pumpe, Rohre und Deckel genaue Maße ggf.

anfragen.

5) Ausführungen A, D und G bei Aufsteckausführungen auf

Anfrage.

\*) Richtwerte; genaue Angaben nach auftragsbezogener

Dokumentation.

\*\*) ohne Ölfüllung

TR

ÜÇ KADEMELİ - DİKEY

EN

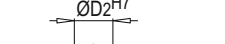
THREE STAGE - VERTICAL

DE

DREISTUFIG - VERTIKAL

|  |                                                                        |     |            |           |           |
|--|------------------------------------------------------------------------|-----|------------|-----------|-----------|
|  | <b>PH53-SV ... PH123-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |     | <b>Ød2</b> | <b>l2</b> | <b>G2</b> |
|  |                                                                        | 53  | 100        | 210       | 165       |
|  |                                                                        | 63  | 110        | 210       | 165       |
|  |                                                                        | 73  | 120        | 210       | 195       |
|  |                                                                        | 83  | 130        | 250       | 195       |
|  |                                                                        | 93  | 140        | 250       | 235       |
|  |                                                                        | 103 | 160        | 300       | 235       |
|  |                                                                        | 113 | 170        | 300       | 270       |
|  |                                                                        | 123 | 180        | 300       | 270       |

|  |                                                                         |     |            |           |
|--|-------------------------------------------------------------------------|-----|------------|-----------|
|  | <b>PH53-HV ... PH123-HV</b><br>Delik milli<br>Hollow shaft<br>Hohlwelle |     | <b>ØD2</b> | <b>G4</b> |
|  |                                                                         | 53  | 95         | 165       |
|  |                                                                         | 63  | 105        | 165       |
|  |                                                                         | 73  | 115        | 195       |
|  |                                                                         | 83  | 125        | 195       |
|  |                                                                         | 93  | 135        | 235       |
|  |                                                                         | 103 | 150        | 235       |
|  |                                                                         | 113 | 165        | 270       |
|  |                                                                         | 123 | 180        | 270       |

|                                                                                   |                                                                                                                   |     |     |     |     |     |    |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|----|
|  | <p>PH53-DV ... PH123-DV<br/>Konik Sıktırma<br/>Hollow shaft for shrink disk<br/>Hohlwelle für schrumpfscheibe</p> | 5)  |     | ØD2 | ØD3 | G4  | G5 |
|                                                                                   |                                                                                                                   | 53  | 100 | 100 | 165 | 240 |    |
|                                                                                   |                                                                                                                   | 63  | 110 | 110 | 165 | 240 |    |
|                                                                                   |                                                                                                                   | 73  | 120 | 120 | 195 | 280 |    |
|                                                                                   |                                                                                                                   | 83  | 130 | 130 | 195 | 285 |    |
|                                                                                   |                                                                                                                   | 93  | 140 | 145 | 235 | 330 |    |
|                                                                                   |                                                                                                                   | 103 | 150 | 155 | 235 | 350 |    |
|                                                                                   |                                                                                                                   | 113 | 165 | 170 | 270 | 400 |    |
|                                                                                   |                                                                                                                   | 123 | 180 | 185 | 270 | 405 |    |

|  |                                                                                                                                                     |     |                     |  |            |            |           |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------|--|------------|------------|-----------|
|  | <b>PH53-KV ... PH123-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute splines acc. to DIN 5480<br>Hohlwelle mit Zahnabenprofil nach DIN 5480 |     | <b>N / DIN 5480</b> |  | <b>ØD2</b> | <b>ØD2</b> | <b>G4</b> |
|  |                                                                                                                                                     | 53  | N 95x3x30x30x9H     |  | 89         | 100        | 165       |
|  |                                                                                                                                                     | 63  | N 95x3x30x30x9H     |  | 89         | 110        | 165       |
|  |                                                                                                                                                     | 73  | N 120x3x30x38x9H    |  | 114        | 120        | 195       |
|  |                                                                                                                                                     | 83  | N 120x3x30x38x9H    |  | 114        | 130        | 195       |
|  |                                                                                                                                                     | 93  | N 140x3x30x45x9H    |  | 134        | 145        | 235       |
|  |                                                                                                                                                     | 103 | N 140x3x30x45x9H    |  | 134        | 155        | 235       |
|  |                                                                                                                                                     | 113 | N 170x5x30x32x9H    |  | 160        | 170        | 270       |
|  |                                                                                                                                                     | 123 | N 170x5x30x32x9H    |  | 160        | 185        | 270       |

|  |                                                                                |     |          |            |            |            |             |          |           |
|--|--------------------------------------------------------------------------------|-----|----------|------------|------------|------------|-------------|----------|-----------|
|  | <b>PH53-FV ... PH123-FV</b><br>Flanşlı shaft<br>Flanged shaft<br>Flanschswelle |     | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>nxØs</b> | <b>t</b> | <b>G7</b> |
|  |                                                                                | 53  | 25       | 300        | 150        | 260        | 16 x 22     | 10       | 255       |
|  |                                                                                | 63  | 25       | 320        | 160        | 280        | 18 x 22     | 10       | 255       |
|  |                                                                                | 73  | 30       | 370        | 180        | 320        | 16 x 26     | 10       | 300       |
|  |                                                                                | 83  | 30       | 390        | 190        | 340        | 18 x 26     | 10       | 300       |
|  |                                                                                | 93  | 38       | 430        | 220        | 380        | 20 x 26     | 12       | 350       |
|  |                                                                                | 103 | 38       | 470        | 240        | 420        | 22 x 26     | 12       | 350       |
|  |                                                                                | 113 | 42       | 510        | 260        | 450        | 18 x 33     | 12       | 400       |
|  |                                                                                | 123 | 42       | 540        | 280        | 480        | 22 x 33     | 12       | 400       |

| Gövde<br>Size<br>Größe | Yağ miktarı / Oil quantity<br>Ölmenge (l) *)                      |                                                                      | Ağırlık / Weight<br>Gewicht (kg) **)*) |   | FV   | Soğutma serpantini / Cooling coil / Kühlschlange 3)                                                                                                                                          |  |  |  |  |
|------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------|---|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|                        | Daldırma<br>yağlama<br>Dip<br>lubrication<br>Tauch-<br>schmierung | Basınçlı<br>yağlama<br>Forced<br>lubrication<br>Druck-<br>schmierung | SV<br>HV<br>DV<br>KV                   |   |      | Soğutma serpantini su bağlantısı G1/2"<br>Water connection for cooling coil G1/2"<br>Wasseranschlus für Kühlschlange G1/2"                                                                   |  |  |  |  |
| 53                     | 37                                                                | 24.5                                                                 | 325                                    |   | 360  |                                                                                                                                                                                              |  |  |  |  |
| 63                     | 40                                                                | 27                                                                   | 370                                    |   | 410  |                                                                                                                                                                                              |  |  |  |  |
| 73                     | 64                                                                | 42                                                                   | 550                                    |   | 600  |                                                                                                                                                                                              |  |  |  |  |
| 83                     | 76                                                                | 50                                                                   | 635                                    |   | 690  |                                                                                                                                                                                              |  |  |  |  |
| 93                     | 106                                                               | 71                                                                   | 885                                    |   | 970  |                                                                                                                                                                                              |  |  |  |  |
| 103                    | 116                                                               | 77                                                                   | 1035                                   |   | 1125 |                                                                                                                                                                                              |  |  |  |  |
| 113                    | 185                                                               | 109                                                                  | 1415                                   |   | 1545 |                                                                                                                                                                                              |  |  |  |  |
| 123                    | 200                                                               | 118                                                                  | 1690                                   |   | 1830 |                                                                                                                                                                                              |  |  |  |  |
|                        |                                                                   |                                                                      |                                        |   |      | Soğutma sistemi deniz suyu ve acı su için uygundur<br>Cooling coil suitable for fresh, sea and brackish water<br>Kühlschlange geeignet für Süß-, See- und Brackwasser                        |  |  |  |  |
|                        |                                                                   |                                                                      |                                        |   |      | Gövde<br>Size<br>Größe<br>m6<br>n6<br>e8<br>l/min<br>x)                                                                                                                                      |  |  |  |  |
| 53                     | 100                                                               | 165                                                                  | 169                                    | 4 |      | x) Gerekli soğutma suyu miktarı;<br>basıncı 8 bar<br>Cooling water quantity required;<br>max. cooling water pressure: 8 bar<br>Erforderliche Kühlwassermenge;<br>max. Kühlwasserdruck: 8 bar |  |  |  |  |
| 63                     | 100                                                               | 165                                                                  | 214                                    | 4 |      |                                                                                                                                                                                              |  |  |  |  |
| 73                     | 100                                                               | 203                                                                  | 208                                    | 4 |      |                                                                                                                                                                                              |  |  |  |  |
| 83                     | 100                                                               | 203                                                                  | 266                                    | 4 |      |                                                                                                                                                                                              |  |  |  |  |
| 93                     | 130                                                               | 245                                                                  | 246                                    | 4 |      |                                                                                                                                                                                              |  |  |  |  |
| 103                    | 130                                                               | 245                                                                  | 294                                    | 4 |      |                                                                                                                                                                                              |  |  |  |  |
| 113                    | 140                                                               | 290                                                                  | 275                                    | 8 |      |                                                                                                                                                                                              |  |  |  |  |
| 123                    | 140                                                               | 290                                                                  | 360                                    | 8 |      |                                                                                                                                                                                              |  |  |  |  |

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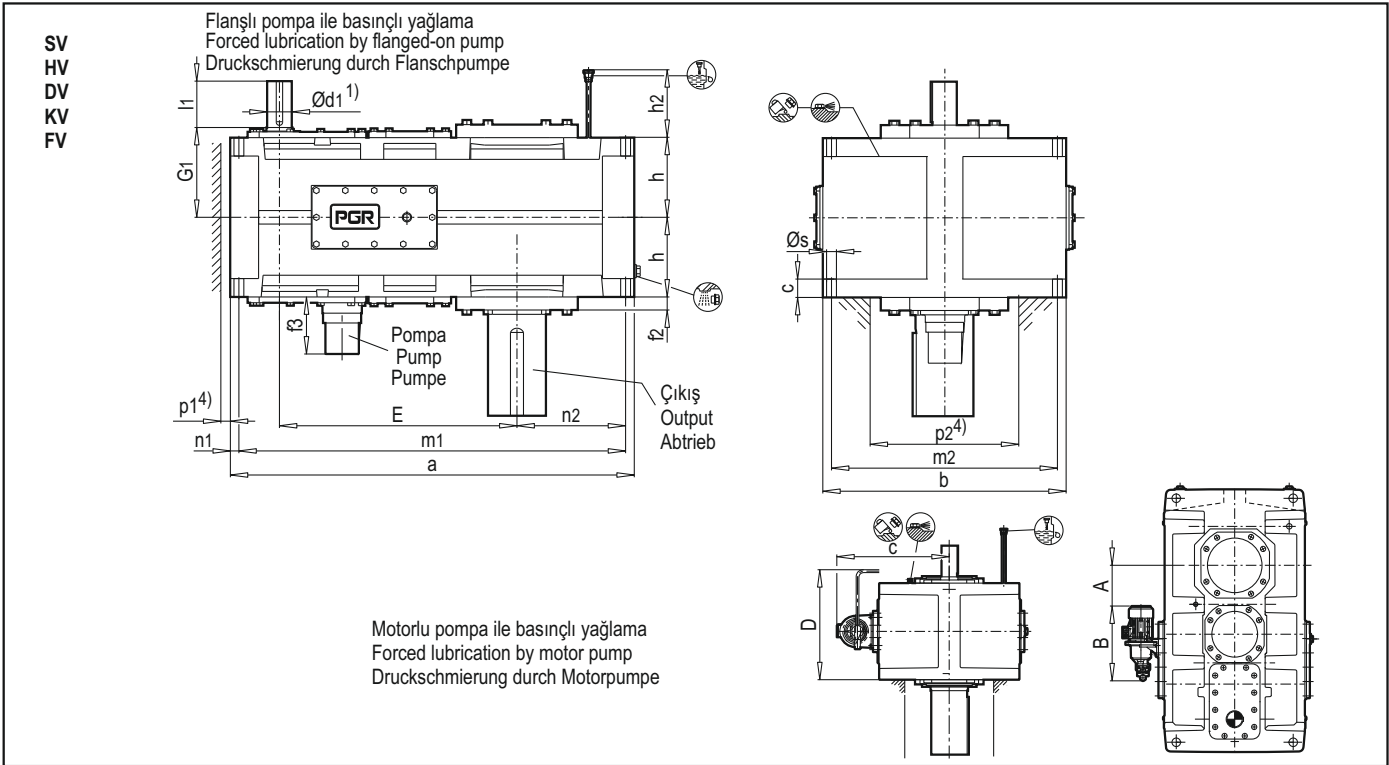
ÜÇ KADEMELİ - DİKEY

EN

THREE STAGE - VERTICAL

DE

DREISTUFIG - VERTIKAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb                      |     |              |     |              |     |              |     |              |     |               |     |              |     |              |     |               |     | G1  |
|------------------------|----------------------------------------------|-----|--------------|-----|--------------|-----|--------------|-----|--------------|-----|---------------|-----|--------------|-----|--------------|-----|---------------|-----|-----|
|                        | İN = 22.4 - 45                               |     | İN = 50 - 63 |     | İN = 71 - 90 |     | İN = 25 - 50 |     | İN = 56 - 71 |     | İN = 80 - 100 |     | İN = 28 - 56 |     | İN = 63 - 80 |     | İN = 90 - 112 |     |     |
|                        | Ød1                                          | l1  | Ød1          | l1  | Ød1          | l1  | Ød1          | l1  | Ød1          | l1  | Ød1           | l1  | Ød1          | l1  | Ød1          | l1  | Ød1           | l1  |     |
| 133                    | 85                                           | 160 | 60           | 135 | 50           | 110 | -            | -   | -            | -   | -             | -   | -            | -   | -            | -   | -             | -   | 310 |
| 143                    | -                                            | -   | -            | -   | -            | -   | -            | -   | -            | -   | -             | -   | 85           | 160 | 60           | 135 | 50            | 110 | 310 |
| 153                    | 100                                          | 200 | 75           | 140 | 60           | 140 | -            | -   | -            | -   | -             | -   | -            | -   | -            | -   | -             | -   | 350 |
| 163                    | -                                            | -   | -            | -   | -            | -   | 100          | 200 | 75           | 140 | 60            | 140 | -            | -   | -            | -   | -             | -   | 350 |
| 173                    | 100                                          | 200 | 75           | 140 | 60           | 140 | -            | -   | -            | -   | -             | -   | -            | -   | -            | -   | -             | -   | 380 |
| 183                    | -                                            | -   | -            | -   | -            | -   | 100          | 200 | 75           | 140 | 60            | 140 | -            | -   | -            | -   | -             | -   | 380 |
| 193..223               | Talep edildiğinde / On request / Auf Anfrage |     |              |     |              |     |              |     |              |     |               |     |              |     |              |     |               |     |     |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe   |      |    |      |    |                                 |       |     |      |     |    |     |    |     |    | Motor Pompası<br>Motor pump / Motorpumpe       |      |      |      |
|------------------------|----------------------------------------------|------|----|------|----|---------------------------------|-------|-----|------|-----|----|-----|----|-----|----|------------------------------------------------|------|------|------|
|                        | a                                            | b    | c  | E    | f2 | Pompa<br>Pump<br>Pumpe<br>f3 2) | h     | h2  | m1   | m2  | n1 | n2  | p1 | p2  | Øs | A #)                                           | B #) | C #) | D #) |
| 133                    | 1399                                         | 901  | 63 | 820  | 35 | 175                             | 272.5 | 300 | 1300 | 680 | 52 | 360 | 51 | 502 | 48 | Talep edildiğinde<br>On request<br>Auf Anfrage |      |      |      |
| 143                    | 1539                                         | 901  | 63 | 890  | 35 | 175                             | 272.5 | 300 | 1440 | 680 | 52 | 430 | 51 | 502 | 48 |                                                |      |      |      |
| 153                    | 1684                                         | 981  | 74 | 987  | 42 | 175                             | 310   | 340 | 1565 | 750 | 62 | 430 | 51 | 572 | 55 |                                                |      |      |      |
| 163                    | 1774                                         | 981  | 74 | 1033 | 42 | 175                             | 310   | 340 | 1655 | 750 | 62 | 475 | 51 | 572 | 55 |                                                |      |      |      |
| 173                    | 1774                                         | 1111 | 83 | 1035 | 42 | 215                             | 340   | 374 | 1640 | 850 | 72 | 465 | 71 | 632 | 55 |                                                |      |      |      |
| 183                    | 1894                                         | 1111 | 83 | 1095 | 42 | 215                             | 340   | 374 | 1760 | 850 | 72 | 525 | 71 | 632 | 55 |                                                |      |      |      |
| 193...223              | Talep edildiğinde / On request / Auf Anfrage |      |    |      |    |                                 |       |     |      |     |    |     |    |     |    |                                                |      |      |      |

#) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir. Ölçüler mm'dir.

1) **Şaftlar:**  
m6<=Ø100; n6>Ø100  
Kama kanalı DIN 6885/1,  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.

2) **Değişkenler:**  
G,H ve I dizaynları ile flanşlı pompa mümkün değildir.

3) **Soğutma serpantini:**  
A,C ve E dizaynları için Flanşlı pompa ile basınçlı yağlama mümkün değildir.  
Motorlu pompa ile basınçlı yağlama istek üzerine yapılmaktadır.

4) Pompa borusu ve koruyucusunun gerçek ölçülerinin boşluğu için Lütfen PGR'ye danışınız.

5) Şaft montajlı redüktörler için A,D ve G montajı istendiğinde  
\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

#) Max dimensions; details acc. to order-related documentation. Dimensions in mm

1) **Shafts:**  
m6<=Ø100; n6>Ø100  
Keyway acc.to DIN 6885/1,  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136

2) **Variants:**  
Flanged-on pump not possible with G,H and I designs

3) **Cooling coil:**  
For A,C and E designs, forced lubrication by flanged-on pump not possible  
Combination with forced lubrication by motor pump on request

4) Space for pump pipes and cover; for exact dimensions, please refer to us.

5) For shaft-mounted gear units, designs A,D and G on request.

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

#) Max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation. Abmessungen in mm

1) **Wellen:**  
m6<=Ø100; n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136

2) **Varianten:**  
Flanshpumpe nicht in Verbindung mit Ausführung G,H und I

3) **Kühlschlange:**  
Ausführungen A,C und E mit Druckschmierung durch Flanshpumpe nicht möglich.  
Kombination mit Druckschmierung durch Motorpumpe Auf Anfrage.

4) Freiraum für Pumpe, Rohre und Deckel genaue Maße ggf. anfragen.

5) Ausführungen A,D und G bei Aufsteckausführungen auf Anfrage.

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

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ÜÇ KADEMELİ - DİKEY

EN

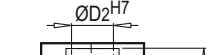
THREE STAGE - VERTICAL

DE

DREISTUFIG - VERTIKAL

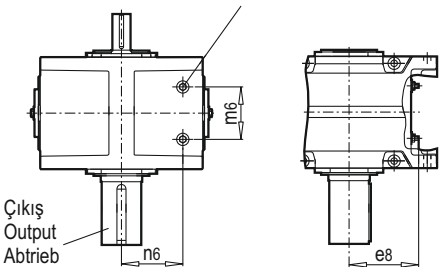
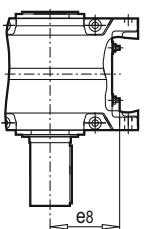
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|--|-------------------------------------------------------------------------|--------------------------|------------------------------------------------|-----|
|  | <b>PH133-SV ... PH223-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle | Ød2                      | l2                                             | G2  |
|  |                                                                         | 133                      | 200                                            | 350 |
|  |                                                                         | 143                      | 210                                            | 350 |
|  |                                                                         | 153                      | 230                                            | 410 |
|  |                                                                         | 163                      | 240                                            | 410 |
|  |                                                                         | 173                      | 250                                            | 410 |
|  |                                                                         | 183                      | 270                                            | 470 |
|  |                                                                         | 193<br>203<br>213<br>223 | Talep edildiğinde<br>On request<br>Auf Anfrage |     |

|  |                                                                          |                          |                                                |
|--|--------------------------------------------------------------------------|--------------------------|------------------------------------------------|
|  | <b>PH133-HV ... PH223-HV</b><br>Delik millî<br>Hollow shaft<br>Hohlwelle | ØD2                      | G4                                             |
|  |                                                                          | 133                      | 190                                            |
|  |                                                                          | 143                      | 210                                            |
|  |                                                                          | 153                      | 230                                            |
|  |                                                                          | 163                      | 240                                            |
|  |                                                                          | 173                      | 250                                            |
|  |                                                                          | 183                      | 275                                            |
|  |                                                                          | 193<br>203<br>213<br>223 | Talep edildiğinde<br>On request<br>Auf Anfrage |

|                                                                                   |                                                                                                                                       |                                                      |                                                |            |           |           |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------|------------|-----------|-----------|
|  | <p>5)</p> <p><b>PH133-DV ... PH223-DV</b><br/>Konik Sıktırmalı<br/>Hollow shaft for shrink disk<br/>Hohlwelle für schrumpfscheibe</p> |                                                      | <b>ØD2</b>                                     | <b>ØD3</b> | <b>G4</b> | <b>G5</b> |
|                                                                                   |                                                                                                                                       | <b>133</b>                                           | 190                                            | 195        | 335       | 480       |
|                                                                                   |                                                                                                                                       | <b>143</b>                                           | 210                                            | 215        | 335       | 480       |
|                                                                                   |                                                                                                                                       | <b>153</b>                                           | 230                                            | 235        | 380       | 550       |
|                                                                                   |                                                                                                                                       | <b>163</b>                                           | 240                                            | 245        | 380       | 550       |
|                                                                                   |                                                                                                                                       | <b>173</b>                                           | 250                                            | 260        | 415       | 600       |
|                                                                                   |                                                                                                                                       | <b>183</b>                                           | 280                                            | 285        | 415       | 600       |
|                                                                                   |                                                                                                                                       | <b>193</b><br><b>203</b><br><b>213</b><br><b>223</b> | Talep edildiginde<br>On request<br>Auf Anfrage |            |           |           |

|  |                                                                                                                                                           |                          |  |                                                |     |     |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--|------------------------------------------------|-----|-----|
|  | <b>PH133-KV ... PH223-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute<br>splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil<br>nach DIN 5480 | N / DIN 5480             |  | ØD2                                            | ØD3 | G4  |
|  |                                                                                                                                                           | 133                      |  | N 190x5x30x36x9H                               | 180 | 195 |
|  |                                                                                                                                                           | 143                      |  | N 190x5x30x36x9H                               | 180 | 215 |
|  |                                                                                                                                                           | 153                      |  | N 220x5x30x42x9H                               | 210 | 235 |
|  |                                                                                                                                                           | 163                      |  | N 220x5x30x42x9H                               | 210 | 245 |
|  |                                                                                                                                                           | 173                      |  | N 250x5x30x48x9H                               | 240 | 260 |
|  |                                                                                                                                                           | 183                      |  | N 250x5x30x48x9H                               | 240 | 285 |
|  |                                                                                                                                                           | 193<br>203<br>213<br>223 |  | Talep edildiğinde<br>On request<br>Auf Anfrage |     |     |

|  |                                                                               |                          |                                                |     |     |      |         |    |
|--|-------------------------------------------------------------------------------|--------------------------|------------------------------------------------|-----|-----|------|---------|----|
|  | <b>PH133-FV ... PH223-FV</b><br>Flanşlı shaft<br>Flanged shaft<br>Flanschelle | c                        | Ød2                                            | ØD3 | Øk2 | nxØs | t       | G7 |
|  |                                                                               | 133                      | 48                                             | 580 | 310 | 500  | 20 x 33 | 14 |
|  |                                                                               | 143                      | 48                                             | 620 | 310 | 540  | 24 x 33 | 14 |
|  |                                                                               | 153                      | 55                                             | 710 | 360 | 630  | 28 x 33 | 17 |
|  |                                                                               | 163                      | 55                                             | 740 | 360 | 660  | 30 x 33 | 17 |
|  |                                                                               | 173                      | 60                                             | 750 | 410 | 660  | 24 x 39 | 18 |
|  |                                                                               | 183                      | 60                                             | 800 | 410 | 710  | 26 x 39 | 18 |
|  |                                                                               | 193<br>203<br>213<br>223 | Talep edildiğinde<br>On request<br>Auf Anfrage |     |     |      |         |    |

| Gövde<br>Size<br>Größe                                                                                                                                                                       | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l) *) | Ağırlık / Weight<br>Gewicht (kg) *)**) |      | Soğutma serpantini / Cooling coil / Kühlschlange 3)                                                                                                                   | Gövde<br>Size<br>Größe                                                               | m6        | n6  | e8  | l/min<br>x) |   |                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------|-----|-----|-------------|---|------------------------------------------------|
|                                                                                                                                                                                              |                                                  | SV<br>HV<br>DV<br>KV                   | FV   |                                                                                                                                                                       |                                                                                      |           |     |     |             |   |                                                |
| 133                                                                                                                                                                                          | 160                                              | 2175                                   | 2335 | Soğutma serpantini su bağlantısı G1/2"<br>Water connection for cooling coil G1/2"<br>Wasseranschluß für Kühlschlange G1/2"                                            |  | 133       | 252 | 300 | 335         | 8 |                                                |
| 143                                                                                                                                                                                          | 180                                              | 2510                                   | 2680 |                                                                                                                                                                       |                                                                                      | 143       | 252 | 300 | 405         | 8 |                                                |
| 153                                                                                                                                                                                          | 255                                              | 3280                                   | 3520 |                                                                                                                                                                       |                                                                                      | 153       | 290 | 340 | 395         | 8 |                                                |
| 163                                                                                                                                                                                          | 260                                              | 3650                                   | 3905 |                                                                                                                                                                       |                                                                                      | 163       | 290 | 340 | 440         | 8 |                                                |
| 173                                                                                                                                                                                          | 325                                              | 4280                                   | 4580 |                                                                                                                                                                       |                                                                                      | 173       | 300 | 380 | 425         | 8 |                                                |
| 183                                                                                                                                                                                          | 335                                              | 4775                                   | 5125 |                                                                                                                                                                       |                                                                                      | 183       | 300 | 380 | 485         | 8 |                                                |
| 193<br>203<br>213<br>223                                                                                                                                                                     | Talep edildiğinde<br>On request<br>Auf Anfrage   |                                        |      | Soğutma sistemi deniz suyu ve acı su için uygundur<br>Cooling coil suitable for fresh, sea and brackish water<br>Kühlschlange geeignet für Süß-, See- und Brackwasser |  | 193...223 |     |     |             |   | Talep edildiğinde<br>On request<br>Auf Anfrage |
| x) Gerekli soğutma suyu miktarı;<br>basıncı 8 bar<br>Cooling water quantity required;<br>max. cooling water pressure: 8 bar<br>Erforderliche Kühlwassermenge;<br>max. Kühlwasserdruck: 8 bar |                                                  |                                        |      |                                                                                                                                                                       |                                                                                      |           |     |     |             |   |                                                |

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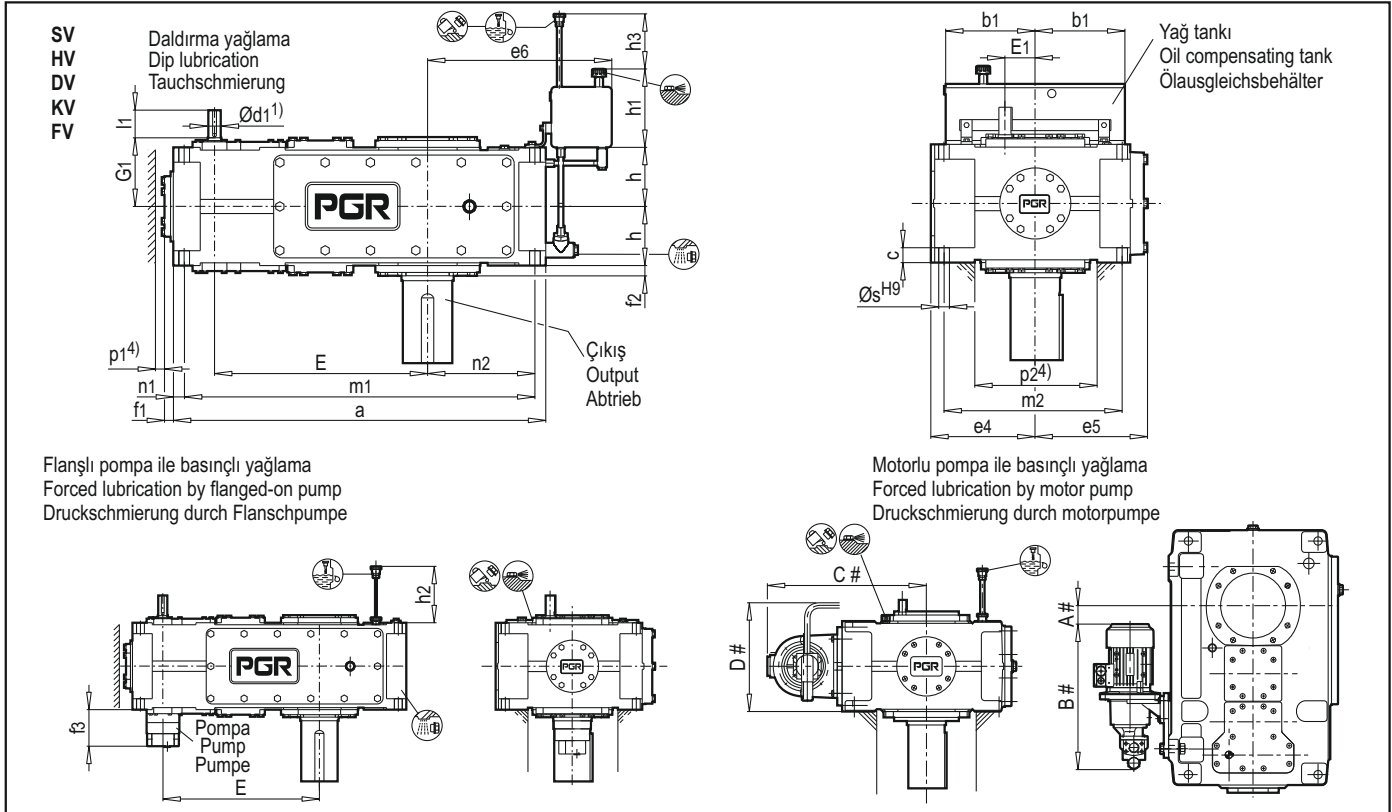
DÖRT KADEMELİ - DİKEY

EN

FOUR STAGE - VERTICAL

DE

VIERSTUFIG - VERTIKAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |                |    |                |     |                |    |     | 2)                                                                                        |
|------------------------|-------------------------|-----|----------------|----|----------------|-----|----------------|----|-----|-------------------------------------------------------------------------------------------|
|                        | İN =100 - 180           |     | İN = 200 - 355 |    | İN = 125 - 224 |     | İN = 250 - 450 |    | G1  | Sadece G,H,I dizaynı için; İN<br>Design G,H,I only for; İN<br>Ausführung G,H,I nur für İN |
|                        | Ød1                     | l1  | Ød1            | l1 | Ød1            | l1  | Ød1            | l1 |     |                                                                                           |
| 74                     | 30                      | 50  | 24             | 40 | -              | -   | -              | -  | 180 | 100 - 224                                                                                 |
| 84                     | -                       | -   | -              | -  | 30             | 50  | 24             | 40 | 180 | 125 - 280                                                                                 |
| 94                     | 35                      | 60  | 28             | 50 | -              | -   | -              | -  | 215 | 100 - 250                                                                                 |
| 104                    | -                       | -   | -              | -  | 35             | 60  | 28             | 50 | 215 | 125 - 315                                                                                 |
| 114                    | 45                      | 100 | 32             | 80 | -              | -   | -              | -  | 250 | 100 - 250                                                                                 |
| 124                    | -                       | -   | -              | -  | 45             | 100 | 32             | 80 | 250 | 125 - 315                                                                                 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe     |     |    |     |     |     |     |     |    |    |                                 |     |     |     |     |      |     |    |     |    |     |    | Motor Pompası<br>Motor pump<br>Motorpumpe |      |      |      |
|------------------------|------------------------------------------------|-----|----|-----|-----|-----|-----|-----|----|----|---------------------------------|-----|-----|-----|-----|------|-----|----|-----|----|-----|----|-------------------------------------------|------|------|------|
|                        | a                                              | b1  | c  | E   | E1  | e4  | e5  | e6  | f1 | f2 | Pompa<br>Pump<br>Pumpe<br>f3 2) | h   | h1  | h2  | h3  | m1   | m2  | n1 | n2  | p1 | p2  | Øs | A #)                                      | B #) | C #) | D #) |
|                        | Talep edildiğinde<br>On request<br>Auf Anfrage |     |    |     |     |     |     |     |    |    |                                 |     |     |     |     |      |     |    |     |    |     |    |                                           |      |      |      |
| 74                     | 849                                            | 241 | 37 | 495 | 80  | 280 | 292 | 430 | 37 | 30 | 165                             | 150 | 205 | 165 | 250 | 775  | 430 | 37 | 215 | 36 | 332 | 28 |                                           |      |      |      |
| 84                     | 954                                            | 241 | 37 | 540 | 80  | 280 | 302 | 490 | 37 | 32 | 165                             | 150 | 205 | 165 | 250 | 880  | 430 | 37 | 275 | 36 | 332 | 28 |                                           |      |      |      |
| 94                     | 1004                                           | 331 | 47 | 580 | 90  | 320 | 342 | 565 | 43 | 32 | 175                             | 185 | 275 | 205 | 330 | 920  | 490 | 42 | 260 | 41 | 372 | 36 |                                           |      |      |      |
| 104                    | 1104                                           | 331 | 47 | 630 | 90  | 320 | 342 | 615 | 43 | 32 | 175                             | 185 | 275 | 205 | 330 | 1020 | 490 | 42 | 310 | 41 | 372 | 36 |                                           |      |      |      |
| 114                    | 1204                                           | 331 | 56 | 705 | 110 | 380 | 402 | 600 | 47 | 35 | 175                             | 215 | 275 | 240 | 340 | 1100 | 600 | 52 | 295 | 51 | 442 | 40 |                                           |      |      |      |
| 124                    | 1359                                           | 331 | 56 | 775 | 110 | 380 | 410 | 685 | 47 | 35 | 175                             | 215 | 275 | 240 | 340 | 1255 | 600 | 52 | 380 | 51 | 442 | 40 |                                           |      |      |      |

#) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir.  
Ölçüler mm'dir.

- 1) **Şaftlar:**  
k6=Ø24; Ø28≤m6≤Ø100; n6>Ø100  
Kama kanalı DIN 6885/1,  
Kama kanalı genişliği ISO JS9'a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.

- 2) **Değişkenler:**  
G,H ve I dizaynları ile flanşlı pompa mümkün değildir.

- 4) Pompa borusu ve koruyucusunun gerçek ölçülerinin boşluğu için Lütfen PGR'ye danışınız

- 5) Şaft montajlı redüktörler için A, D ve G montajı istendiğinde

- \*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.

- \*\*) Redüktörler yağsızdır.

#) Max.dimensions; details acc. to order-related documentation.

Dimensions in mm

- 1) **Shafts:**  
k6=Ø24; Ø28≤m6≤Ø100; n6>Ø100  
Keyway acc.to DIN 6885/1,  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136

- 2) **Variants:**  
Flanged-on pump not possible with G,H and I designs

- 4) Space for pump pipes and cover; for exact dimensions, please refer to us.

- 5) For shaft-mounted gear units, designs A,D and G on request.

- \*) Approximate values; exact data acc. to order related documentation.

- \*\*) Without oil filling

#) Max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.  
Abmessungen in mm

- 1) **Wellen:**  
k6=Ø24; Ø28≤m6≤Ø100; n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136

- 2) **Variante:**  
Flanschpumpe nicht in Verbindung mit Ausführung G,H und I

- 4) Freiraum für Pumpe, Rohre und Deckel genaue Maße ggf. anfragen.

- 5) Ausführungen A, D und G bei Aufsteckausführungen auf Anfrage.

- \*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

- \*\*) ohne Ölfüllung

TR

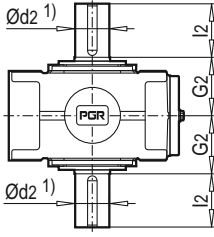
DÖRT KADEMELİ - DİKEY

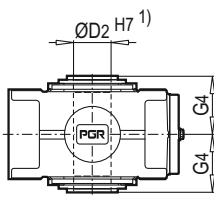
EN

FOUR STAGE - VERTICAL

DE

VIERSTUFIG - VERTIKAL

|                                                                                   |                                                                        |     |            |           |           |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------|-----|------------|-----------|-----------|
|  | <b>PH74-SV ... PH124-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |     | <b>Ød2</b> | <b>l2</b> | <b>G2</b> |
|                                                                                   |                                                                        | 74  | 120        | 210       | 195       |
|                                                                                   |                                                                        | 84  | 130        | 250       | 195       |
|                                                                                   |                                                                        | 94  | 140        | 250       | 235       |
|                                                                                   |                                                                        | 104 | 160        | 300       | 235       |
|                                                                                   |                                                                        | 114 | 170        | 300       | 270       |
|                                                                                   |                                                                        | 124 | 180        | 300       | 270       |

|                                                                                   |                                                                         |     |            |           |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----|------------|-----------|
|  | <b>PH74-HV ... PH124-HV</b><br>Delik millî<br>Hollow shaft<br>Hohlwelle |     | <b>ØD2</b> | <b>G4</b> |
|                                                                                   |                                                                         | 74  | 115        | 195       |
|                                                                                   |                                                                         | 84  | 125        | 195       |
|                                                                                   |                                                                         | 94  | 135        | 235       |
|                                                                                   |                                                                         | 104 | 150        | 235       |
|                                                                                   |                                                                         | 114 | 165        | 270       |
|                                                                                   |                                                                         | 124 | 180        | 270       |

### PH74-DV ... PH124-DV

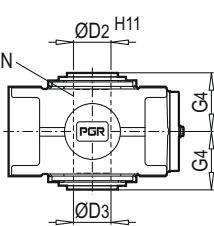
Konik Sıkırmalı

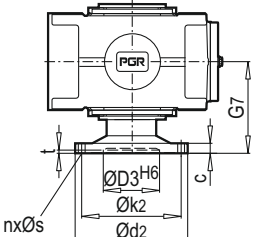
Hollow shaft for shrink disk

Hohlwelle für schrumpfscheibe

5)

|            | ØD2 | ØD3 | G4  | G5  |
|------------|-----|-----|-----|-----|
| <b>74</b>  | 120 | 120 | 195 | 280 |
| <b>84</b>  | 130 | 130 | 195 | 285 |
| <b>94</b>  | 140 | 145 | 235 | 330 |
| <b>104</b> | 150 | 155 | 235 | 350 |
| <b>114</b> | 165 | 170 | 270 | 400 |
| <b>124</b> | 180 | 185 | 270 | 405 |

|                                                                                     |                                                                                                                                                    |     |                     |  |            |            |           |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------|--|------------|------------|-----------|
|  | <b>PH74-KV ... PH124-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil nach DIN 5480 |     | <b>N / DIN 5480</b> |  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|                                                                                     |                                                                                                                                                    | 74  | N 120x3x30x38x9H    |  | 114        | 120        | 195       |
|                                                                                     |                                                                                                                                                    | 84  | N 120x3x30x38x9H    |  | 114        | 130        | 195       |
|                                                                                     |                                                                                                                                                    | 94  | N 140x3x30x45x9H    |  | 134        | 145        | 235       |
|                                                                                     |                                                                                                                                                    | 104 | N 140x3x30x45x9H    |  | 134        | 155        | 235       |
|                                                                                     |                                                                                                                                                    | 114 | N 170x5x30x32x9H    |  | 160        | 170        | 270       |
|                                                                                     |                                                                                                                                                    | 124 | N 170x5x30x32x9H    |  | 160        | 185        | 270       |

|                                                                                     |                                                                              |     |          |            |            |            |             |          |           |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----|----------|------------|------------|------------|-------------|----------|-----------|
|  | <b>PH74-FV ... PH124-FV</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschwelle |     | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>nxØs</b> | <b>t</b> | <b>G7</b> |
|                                                                                     |                                                                              | 74  | 30       | 370        | 180        | 320        | 16 x 26     | 10       | 300       |
|                                                                                     |                                                                              | 84  | 30       | 390        | 190        | 340        | 18 x 26     | 10       | 300       |
|                                                                                     |                                                                              | 94  | 38       | 430        | 220        | 380        | 20 x 26     | 12       | 350       |
|                                                                                     |                                                                              | 104 | 38       | 470        | 240        | 420        | 22 x 26     | 12       | 350       |
|                                                                                     |                                                                              | 114 | 42       | 510        | 260        | 450        | 18 x 33     | 12       | 400       |
|                                                                                     |                                                                              | 124 | 42       | 540        | 280        | 480        | 22 x 33     | 12       | 400       |

| Gövde<br>Size<br>Größe | Yağ miktarı / Oil quantity<br>Ölmenge (l) *)                        |                                                                      | Ağırlık / Weight<br>Gewicht (kg) **)*) |      |
|------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------|------|
|                        | Daldırmalı<br>yağlama<br>Dip<br>lubrication<br>Tauch-<br>schmierung | Basınçlı<br>yağlama<br>Forced<br>lubrication<br>Druck-<br>schmierung | SV<br>HV<br>DV<br>KV                   | FV   |
| 74                     | 62                                                                  | 46                                                                   | 555                                    | 605  |
| 84                     | 70                                                                  | 52                                                                   | 650                                    | 705  |
| 94                     | 108                                                                 | 80                                                                   | 885                                    | 970  |
| 104                    | 110                                                                 | 81                                                                   | 1020                                   | 1110 |
| 114                    | 180                                                                 | 120                                                                  | 1475                                   | 1605 |
| 124                    | 210                                                                 | 135                                                                  | 1740                                   | 1880 |



TR

DÖRT KADEMELİ - DİKEY

EN

FOUR STAGE - VERTICAL

DE

VIERTSTUFIG - VERTIKAL

|  |                                                                          |                          |                                                |           |           |
|--|--------------------------------------------------------------------------|--------------------------|------------------------------------------------|-----------|-----------|
|  | <b>PH134- SV ... PH224-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |                          | <b>Ød2</b>                                     | <b>l2</b> | <b>G2</b> |
|  |                                                                          | 134                      | 200                                            | 350       | 335       |
|  |                                                                          | 144                      | 210                                            | 350       | 335       |
|  |                                                                          | 154                      | 230                                            | 410       | 380       |
|  |                                                                          | 164                      | 240                                            | 410       | 380       |
|  |                                                                          | 174                      | 250                                            | 410       | 415       |
|  |                                                                          | 184                      | 270                                            | 470       | 415       |
|  |                                                                          | 194<br>204<br>214<br>224 | Talep edildiğinde<br>On request<br>Auf Anfrage |           |           |

|  |                                                                          |                          |                                                |           |
|--|--------------------------------------------------------------------------|--------------------------|------------------------------------------------|-----------|
|  | <b>PH134-HV ... PH224-HV</b><br>Delik millî<br>Hollow shaft<br>Hohlwelle |                          | <b>ØD2</b>                                     | <b>G4</b> |
|  |                                                                          | 134                      | 190                                            | 335       |
|  |                                                                          | 144                      | 210                                            | 335       |
|  |                                                                          | 154                      | 230                                            | 380       |
|  |                                                                          | 164                      | 240                                            | 380       |
|  |                                                                          | 174                      | 250                                            | 415       |
|  |                                                                          | 184                      | 275                                            | 415       |
|  |                                                                          | 194<br>204<br>214<br>224 | Talep edildiğinde<br>On request<br>Auf Anfrage |           |

|                                                                                   |                                                                                                                      |                          |                                                |     |     |     |    |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------|-----|-----|-----|----|
|  | <p>PH134-DV ... PH224-DV<br/>Konik Sıktırmalı<br/>Hollow shaft for shrink disk<br/>Hohlwelle für schrumpfscheibe</p> | 5)                       |                                                | ØD2 | D3  | G4  | G5 |
|                                                                                   |                                                                                                                      | 134                      | 190                                            | 195 | 335 | 480 |    |
|                                                                                   |                                                                                                                      | 144                      | 210                                            | 215 | 335 | 480 |    |
|                                                                                   |                                                                                                                      | 154                      | 230                                            | 235 | 380 | 550 |    |
|                                                                                   |                                                                                                                      | 164                      | 240                                            | 245 | 380 | 550 |    |
|                                                                                   |                                                                                                                      | 174                      | 250                                            | 260 | 415 | 600 |    |
|                                                                                   |                                                                                                                      | 184                      | 280                                            | 285 | 415 | 600 |    |
|                                                                                   |                                                                                                                      | 194<br>204<br>214<br>224 | Talep edildiginde<br>On request<br>Auf Anfrage |     |     |     |    |

|  |                                                                                                                                                             |                          |                                                |  |            |            |           |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------|--|------------|------------|-----------|
|  | <b>PH134-KV ... PH224-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute<br>splines acc. to DIN 5480<br>Hohlwelle mit Zahnnabenprofil<br>nach DIN 5480 |                          | <b>N / DIN 5480</b>                            |  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|  |                                                                                                                                                             | 134                      | N 190x5x30x36x9H                               |  | 180        | 195        | 335       |
|  |                                                                                                                                                             | 144                      | N 190x5x30x36x9H                               |  | 180        | 215        | 335       |
|  |                                                                                                                                                             | 154                      | N 220x5x30x42x9H                               |  | 210        | 235        | 380       |
|  |                                                                                                                                                             | 164                      | N 220x5x30x42x9H                               |  | 210        | 245        | 380       |
|  |                                                                                                                                                             | 174                      | N 250x5x30x48x9H                               |  | 240        | 260        | 415       |
|  |                                                                                                                                                             | 184                      | N 250x5x30x48x9H                               |  | 240        | 285        | 415       |
|  |                                                                                                                                                             | 194<br>204<br>214<br>224 | Talep edildiğinde<br>On request<br>Auf Anfrage |  |            |            |           |

|  |                                                                              |                          |                                                |            |            |            |             |          |           |
|--|------------------------------------------------------------------------------|--------------------------|------------------------------------------------|------------|------------|------------|-------------|----------|-----------|
|  | <b>PH134-FV ... PH224-FV</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschelle |                          | <b>c</b>                                       | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>nxØs</b> | <b>t</b> | <b>G7</b> |
|  |                                                                              | 134                      | 48                                             | 580        | 310        | 500        | 20 x 33     | 14       | 480       |
|  |                                                                              | 144                      | 48                                             | 620        | 310        | 540        | 24 x 33     | 14       | 480       |
|  |                                                                              | 154                      | 55                                             | 710        | 360        | 630        | 28 x 33     | 17       | 550       |
|  |                                                                              | 164                      | 55                                             | 740        | 360        | 660        | 30 x 33     | 17       | 550       |
|  |                                                                              | 174                      | 60                                             | 750        | 410        | 660        | 24 x 39     | 18       | 600       |
|  |                                                                              | 184                      | 60                                             | 800        | 410        | 710        | 26 x 39     | 18       | 600       |
|  |                                                                              | 194<br>204<br>214<br>224 | Talep edildiğinde<br>On request<br>Auf Anfrage |            |            |            |             |          |           |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l) *) | Ağırlık / Weight<br>Gewicht (kg) *)**) |      |
|------------------------|--------------------------------------------------|----------------------------------------|------|
|                        |                                                  | SV<br>HV<br>DV<br>KV                   | FV   |
| 134                    | 140                                              | 2280                                   | 2440 |
| 144                    | 160                                              | 2615                                   | 2785 |
| 154                    | 220                                              | 3460                                   | 3700 |
| 164                    | 230                                              | 3760                                   | 4015 |
| 174                    | 280                                              | 4475                                   | 4775 |
| 184                    | 300                                              | 4950                                   | 5300 |
| 194...224              | Talep edildiğinde<br>On request / Auf Anfrage    |                                        |      |

## HELİSEL DİŞLİLİ REDÜKTÖRLER / HELICAL GEAR UNITS / STIRNRADGETRIEBE

| İki kademe, Dikey / Double stage, Vertical / Zweistufig, Vertikal - PH42-V ... 122-V  |  |  |  |  |  |  |  |  | (1),(2) |
|---------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|---------|
|                                                                                       |  |  |  |  |  |  |  |  |         |
| İki kademe, Dikey / Double stage, Vertical / Zweistufig, Vertikal - PH132-V ... 222-V |  |  |  |  |  |  |  |  | (1),(2) |
|                                                                                       |  |  |  |  |  |  |  |  |         |
| Üç kademe, Dikey / Three stage, Vertical / Dreistufig, Vertikal - PH53-V ... 123-V    |  |  |  |  |  |  |  |  | (1),(2) |
|                                                                                       |  |  |  |  |  |  |  |  |         |
| Üç kademe, Dikey / Three stage, Vertical / Dreistufig, Vertikal - PH133-V ... 223-V   |  |  |  |  |  |  |  |  | (1),(2) |
|                                                                                       |  |  |  |  |  |  |  |  |         |
| Dört kademe, Dikey / Four stage, Vertical / Vierstufig, Vertikal - PH74-H ... 124-H   |  |  |  |  |  |  |  |  | (1)     |
|                                                                                       |  |  |  |  |  |  |  |  |         |
| Dört kademe, Dikey / Four stage, Vertical / Vierstufig, Vertikal - PH134-H ... 224-H  |  |  |  |  |  |  |  |  | (1)     |
|                                                                                       |  |  |  |  |  |  |  |  |         |

## 1) Değişkenler:

G,H ve I dizaynları için flanşlı pompa uygulaması yapılamaz.

## 2) Soğutma serpantini

A,C ve E dizaynları için basınçlı yağlama ile flanşlı pompa birlikte uygulanamaz.

Motor pompası ile basınçlı yağlama istek üzerine yapılmaktadır.

## 1) Varianten:

Flanged-on pump not possible with G,H and I designs.

## 2) Cooling coil:

For A,C and E designs, forced lubrication by flanged-on pump not possible

Combination with forced lubrication by motor pump on request.

## 1) Varianten:

Flanschpumpe nicht in Verbindung mit Ausführung G,H und I

## 2) Kühlschlange:

Ausführungen A,C und E mit Druckschmierung durch Flanschpumpe nicht möglich.

Kombination mit Druckschmierung durch Motorpumpe auf Anfrage



Motorlu pompa  
Motor pump  
Motorpumpe

PH53-V ... 223-V  
PH74-V ... 224-V



Yağ tankı  
Oil compensating tank  
Ölausegleichsbehälter

PH42-V ... 122-V  
PH53-V ... 123-V  
PH74-V ... 124-V



Flanşlı pompa  
Flanged-on pump  
Flanschpumpe

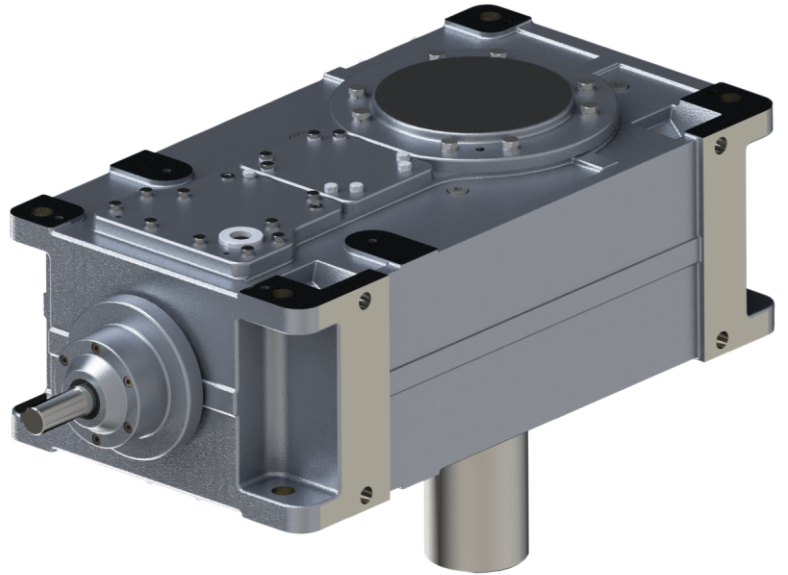
PH42-V ... 222-V  
PH53-V ... 223-V  
PH74-V ... 124-V

Ölçü Tabloları

Dimension Tables

Größe Tabellen

PB...



**İKİ KADEME** / DOUBLE STAGE / ZWEISTUFIG

**ÜÇ KADEME** / THREE STAGE / DREISTUFIG

**DÖRT KADEME** / FOUR STAGE / VIERSTUFIG

**PB SERİSİ / DİKEY**  
PB SERIES / VERTICAL  
PB SERIE / VERTIKAL

TR

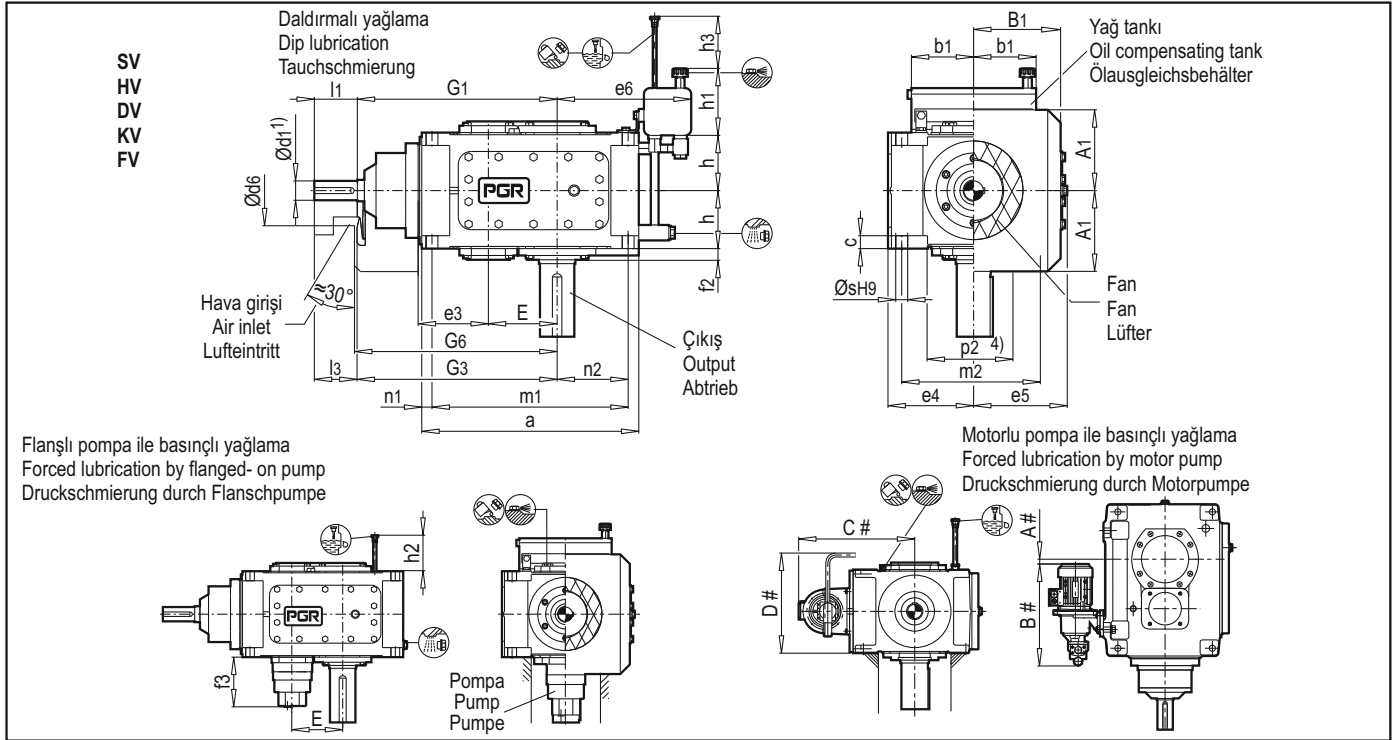
İKİ KADEMELİ - DİKEY

EN

TWO STAGE - VERTICAL

DE

ZWEISTUFIG - VERTIKAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |                     |     |     |                     |     | Fan / Fan / Lüfter |      |     |     |     |
|------------------------|-------------------------|---------------------|-----|-----|---------------------|-----|--------------------|------|-----|-----|-----|
|                        | Ød1                     | İN = 5 - 11.2<br>l1 | l3  | Ød1 | İN = 6.3 - 14<br>l1 | l3  | G1                 | G3   | A1  | B1  | Ød6 |
| 42                     | 45                      | 100                 | 80  | -   | -                   | -   | 465                | 485  | 190 | 202 | 150 |
| 52                     | 55                      | 110                 | 80  | -   | -                   | -   | 535                | 565  | 217 | 237 | 160 |
| 62                     | -                       | -                   | -   | 55  | 110                 | 80  | 570                | 600  | 217 | 237 | 160 |
| 72                     | 70                      | 135                 | 105 | -   | -                   | -   | 640                | 670  | 252 | 287 | 210 |
| 82                     | -                       | -                   | -   | 70  | 135                 | 105 | 685                | 715  | 252 | 287 | 210 |
| 92                     | 80                      | 165                 | 130 | -   | -                   | -   | 755                | 790  | 272 | 327 | 195 |
| 102                    | -                       | -                   | -   | 80  | 165                 | 130 | 805                | 840  | 272 | 327 | 195 |
| 112                    | 90                      | 165                 | 130 | -   | -                   | -   | 925                | 960  | 330 | 387 | 210 |
| 122                    | -                       | -                   | -   | 90  | 165                 | 130 | 995                | 1030 | 330 | 387 | 210 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |    |     |     |     |     |     |    |                              |      |     |     |     |     |      |     |    |     |     | Motor pompası<br>Motor pump<br>Motorpumpe |                                                |      |      |      |
|------------------------|--------------------------------------------|-----|----|-----|-----|-----|-----|-----|----|------------------------------|------|-----|-----|-----|-----|------|-----|----|-----|-----|-------------------------------------------|------------------------------------------------|------|------|------|
|                        | a                                          | b1  | c  | E   | e3  | e4  | e5  | e6  | f2 | Pompa<br>Pump<br>Pumpe<br>f3 | G6   | h   | h1  | h2  | h3  | m1   | m2  | n1 | n2  | p2  | Øs                                        | A #)                                           | B #) | C #) | D #) |
| 42                     | 509                                        | 151 | 31 | 160 | 100 | 200 | 215 | 325 | 26 | -                            | 495  | 135 | 165 | -   | 180 | 445  | 300 | 32 | 160 | 222 | 24                                        | Talep edildiğinde<br>On request<br>Auf Anfrage |      |      |      |
| 52                     | 569                                        | 241 | 31 | 185 | 185 | 230 | 252 | 390 | 30 | 195                          | 575  | 160 | 205 | 245 | 240 | 505  | 360 | 32 | 175 | 272 | 24                                        |                                                |      |      |      |
| 62                     | 649                                        | 241 | 31 | 220 | 185 | 230 | 252 | 430 | 30 | 195                          | 610  | 160 | 205 | 245 | 240 | 585  | 360 | 32 | 220 | 272 | 24                                        |                                                |      |      |      |
| 72                     | 694                                        | 241 | 37 | 225 | 225 | 280 | 302 | 430 | 32 | 205                          | 685  | 190 | 205 | 220 | 250 | 620  | 430 | 37 | 215 | 332 | 28                                        |                                                |      |      |      |
| 82                     | 799                                        | 241 | 37 | 270 | 225 | 280 | 302 | 490 | 32 | 205                          | 730  | 190 | 205 | 220 | 250 | 725  | 430 | 37 | 275 | 332 | 28                                        |                                                |      |      |      |
| 92                     | 824                                        | 331 | 47 | 265 | 265 | 320 | 342 | 565 | 45 | 205                          | 805  | 220 | 275 | 250 | 330 | 740  | 490 | 42 | 260 | 372 | 36                                        |                                                |      |      |      |
| 102                    | 924                                        | 331 | 47 | 315 | 265 | 320 | 342 | 615 | 45 | 205                          | 855  | 220 | 275 | 250 | 330 | 840  | 490 | 42 | 310 | 372 | 36                                        |                                                |      |      |      |
| 112                    | 979                                        | 331 | 56 | 320 | 320 | 380 | 410 | 600 | 47 | 205                          | 980  | 265 | 275 | 300 | 340 | 875  | 600 | 52 | 295 | 442 | 40                                        |                                                |      |      |      |
| 122                    | 1134                                       | 331 | 56 | 390 | 320 | 380 | 410 | 685 | 47 | 205                          | 1050 | 265 | 275 | 300 | 340 | 1030 | 600 | 52 | 380 | 442 | 40                                        |                                                |      |      |      |

#) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir.  
Ölçüler mm'dir.

- 1) **Şaftlar:**  
m6≤Ø100; n6>Ø100  
Kama kanalı DIN 6885/1,  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.

- 3) **Soğutma serpantini:**  
A,C ve E dizaynları için Flanşlı pompa ile basınçlı yağlama mümkün değildir.  
Motor pompası ile basınçlı yağlama istek üzerine yapılmaktadır.

- 4) Pompa borusu ve koruyucusunun gerçek ölçülerinin boşluğu için lütfen PGR'ye danışınız.

- 5) Şaft montajlı redüktörler için A, D ve G montajı istek üzerine yapılmaktadır.

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

#) Max.dimensions; details acc. to order-related documentation.  
Dimensions in mm

- 1) **Shafts:**  
m6≤Ø100; n6>Ø100  
Keyway acc.to DIN 6885/1,  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136

- 3) **Cooling coil:**  
For A,C and E designs, forced lubrication by flanged-on pump not possible  
Combination with forced lubrication by motor pump on request

- 4) Space for pump pipes and cover; for exact dimensions, please refer to us.

- 5) For shaft-mounted gear units, designs A,D and G on request.

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

#) Max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.  
Abmessungen in mm

- 1) **Wellen:**  
m6≤Ø100; n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136

- 3) **Kühlschlange:**  
Ausführungen A, C und E mit Druckschmierung durch Flanshpumpe nicht möglich.  
Kombination mit Druckschmierung durch Motorpumpe auf Anfrage.

- 4) Freiraum für Pumpe, Rohre und Deckel genaue Maße ggf. anfragen.

- 5) Ausführungen A, D und G bei Aufsteckausführungen auf Anfrage.

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

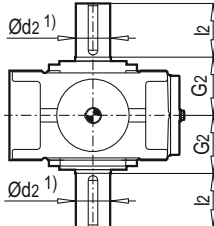
İKİ KADEMELİ - DİKEY

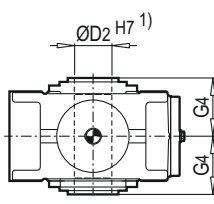
EN

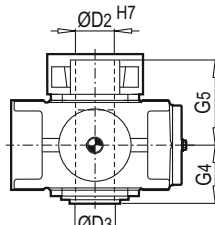
TWO STAGE - VERTICAL

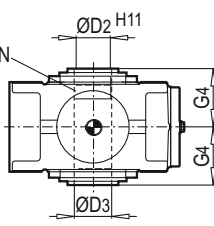
DE

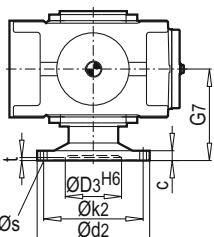
ZWEISTUFIG - VERTIKAL

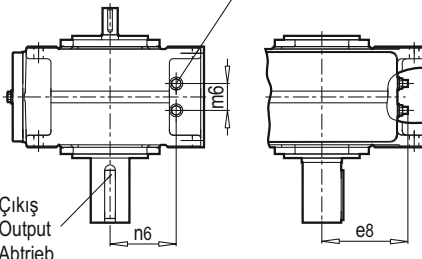
|                                                                                   |                                                                        |     |            |           |           |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------|-----|------------|-----------|-----------|
|  | <b>PB42-SV ... PB122-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |     | <b>Ød2</b> | <b>l2</b> | <b>G2</b> |
|                                                                                   |                                                                        | 42  | 80         | 170       | 170       |
|                                                                                   |                                                                        | 52  | 100        | 210       | 200       |
|                                                                                   |                                                                        | 62  | 110        | 210       | 200       |
|                                                                                   |                                                                        | 72  | 120        | 210       | 235       |
|                                                                                   |                                                                        | 82  | 130        | 250       | 235       |
|                                                                                   |                                                                        | 92  | 140        | 250       | 270       |
|                                                                                   |                                                                        | 102 | 160        | 300       | 270       |
|                                                                                   |                                                                        | 112 | 170        | 300       | 320       |
|                                                                                   |                                                                        | 122 | 180        | 300       | 320       |

|                                                                                   |                                                                         |     |            |           |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----|------------|-----------|
|  | <b>PB42-HV ... PB122-HV</b><br>Delik milli<br>Hollow shaft<br>Hohlwelle |     | <b>ØD2</b> | <b>G2</b> |
|                                                                                   |                                                                         | 42  | 80         | 170       |
|                                                                                   |                                                                         | 52  | 95         | 200       |
|                                                                                   |                                                                         | 62  | 105        | 200       |
|                                                                                   |                                                                         | 72  | 115        | 235       |
|                                                                                   |                                                                         | 82  | 125        | 235       |
|                                                                                   |                                                                         | 92  | 135        | 270       |
|                                                                                   |                                                                         | 102 | 150        | 270       |
|                                                                                   |                                                                         | 112 | 165        | 320       |
|                                                                                   |                                                                         | 122 | 180        | 320       |

|                                                                                    |                                                                                                                                        |            |            |            |           |           |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|-----------|-----------|
|  | <p>5)</p> <p><b>PB42-DV ... PB122-DV</b><br/>Konik Sıktırılmalı<br/>Hollow shaft for shrink disk<br/>Hohlwelle für schrumpfscheibe</p> |            | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> | <b>G5</b> |
|                                                                                    |                                                                                                                                        | <b>42</b>  | 85         | 85         | 170       | 235       |
|                                                                                    |                                                                                                                                        | <b>52</b>  | 100        | 100        | 200       | 275       |
|                                                                                    |                                                                                                                                        | <b>62</b>  | 110        | 110        | 200       | 275       |
|                                                                                    |                                                                                                                                        | <b>72</b>  | 120        | 120        | 235       | 320       |
|                                                                                    |                                                                                                                                        | <b>82</b>  | 130        | 130        | 235       | 325       |
|                                                                                    |                                                                                                                                        | <b>92</b>  | 140        | 145        | 270       | 365       |
|                                                                                    |                                                                                                                                        | <b>102</b> | 150        | 155        | 270       | 385       |
|                                                                                    |                                                                                                                                        | <b>112</b> | 165        | 170        | 320       | 450       |
|                                                                                    |                                                                                                                                        | <b>122</b> | 180        | 185        | 320       | 455       |

|                                                                                     |                                                                                                                                                          |     |                     |  |            |            |           |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------|--|------------|------------|-----------|
|  | <b>PB42-KV ... PB122-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute<br>splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil<br>nach DIN 5480 |     | <b>N / DIN 5480</b> |  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|                                                                                     |                                                                                                                                                          | 42  | -                   |  | -          | -          | -         |
|                                                                                     |                                                                                                                                                          | 52  | N 95x3x30x30x9H     |  | 89         | 100        | 200       |
|                                                                                     |                                                                                                                                                          | 62  | N 95x3x30x30x9H     |  | 89         | 110        | 200       |
|                                                                                     |                                                                                                                                                          | 72  | N 120x3x30x38x9H    |  | 114        | 120        | 235       |
|                                                                                     |                                                                                                                                                          | 82  | N 120x3x30x38x9H    |  | 114        | 130        | 235       |
|                                                                                     |                                                                                                                                                          | 92  | N 140x3x30x45x9H    |  | 134        | 145        | 270       |
|                                                                                     |                                                                                                                                                          | 102 | N 140x3x30x45x9H    |  | 134        | 155        | 270       |
|                                                                                     |                                                                                                                                                          | 112 | N 170x5x30x32x9H    |  | 160        | 170        | 320       |
|                                                                                     |                                                                                                                                                          | 122 | N 170x5x30x32x9H    |  | 160        | 185        | 320       |

|                                                                                     |                                                                               |     |          |            |            |            |             |          |           |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----|----------|------------|------------|------------|-------------|----------|-----------|
|  | <b>PB42-FV ... PB122-FV</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschswelle |     | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>nxØs</b> | <b>t</b> | <b>G7</b> |
|                                                                                     |                                                                               | 42  | -        | -          | -          | -          | -           | -        | -         |
|                                                                                     |                                                                               | 52  | 25       | 300        | 150        | 260        | 16 x 22     | 10       | 290       |
|                                                                                     |                                                                               | 62  | 25       | 320        | 160        | 280        | 18 x 22     | 10       | 290       |
|                                                                                     |                                                                               | 72  | 30       | 370        | 180        | 320        | 16 x 26     | 10       | 340       |
|                                                                                     |                                                                               | 82  | 30       | 390        | 190        | 340        | 18 x 26     | 10       | 340       |
|                                                                                     |                                                                               | 92  | 38       | 430        | 220        | 380        | 20 x 26     | 12       | 385       |
|                                                                                     |                                                                               | 102 | 38       | 470        | 240        | 420        | 22 x 26     | 12       | 385       |
|                                                                                     |                                                                               | 112 | 42       | 510        | 260        | 450        | 18 x 33     | 12       | 450       |
|                                                                                     |                                                                               | 122 | 42       | 540        | 280        | 480        | 22 x 33     | 12       | 450       |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity / Ölmenge<br>(l) *)                       |                                                                      | Ağırlık / Weight<br>Gewicht (kg) **)*) |      | Soğutma serpantini / Cooling coil / Kühlschlange 3)                                                                                                                                                                                                                                                     |                                                                                                         | Gövde<br>Size<br>Größe | m6  | n6  | e8  | l/min<br>x) |
|------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----|-----|-----|-------------|
|                        | Daldırılmalı<br>yağlama<br>Dip<br>lubrication<br>Tauch-<br>schmierung | Basınçlı<br>yağlama<br>Forced<br>lubrication<br>Druck-<br>schmierung | SV<br>HV<br>DV<br>KV                   | FV   |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                             |                        |     |     |     |             |
| 42                     | 23.5                                                                  | -                                                                    | 240                                    | -    | Soğutma serpantini su bağlantısı G1/2"<br>Water connection for cooling coil G1/2"<br>Wasseranschluß für Kühlschlange G1/2"<br><br>Soğutma sistemi deniz suyu ve acı su için uygundur<br>Cooling coil suitable for fresh, sea and brackish water<br>Kühlschlange geeignet für Süß-, See- und Brackwasser | x) Gereki soğutma suyu miktarı;<br>basıncı 8 bar<br>Cooling water quantity required;<br>max. cooling water pressure: 8 bar<br>Erforderliche Kühlwassermenge;<br>max. Kühlwasserdruck: 8 bar | 42                     | 90  | 141 | 157 | 4           |
| 52                     | 38                                                                    | 19                                                                   | 365                                    | 405  |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                             | 52                     | 100 | 165 | 169 | 8           |
| 62                     | 46                                                                    | 23                                                                   | 415                                    | 460  |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                             | 62                     | 100 | 165 | 214 | 4           |
| 72                     | 74                                                                    | 37                                                                   | 620                                    | 675  |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                             | 72                     | 100 | 203 | 208 | 8           |
| 82                     | 81                                                                    | 40                                                                   | 710                                    | 770  |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                             | 82                     | 100 | 203 | 266 | 4           |
| 92                     | 115                                                                   | 57                                                                   | 1015                                   | 1105 |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                             | 92                     | 130 | 245 | 246 | 8           |
| 102                    | 120                                                                   | 60                                                                   | 1170                                   | 1265 |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                             | 102                    | 130 | 245 | 294 | 8           |
| 112                    | 190                                                                   | 95                                                                   | 1660                                   | 1795 |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                             | 112                    | 140 | 290 | 275 | 8           |
| 122                    | 225                                                                   | 114                                                                  | 1930                                   | 2080 |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                             | 122                    | 140 | 290 | 360 | 8           |

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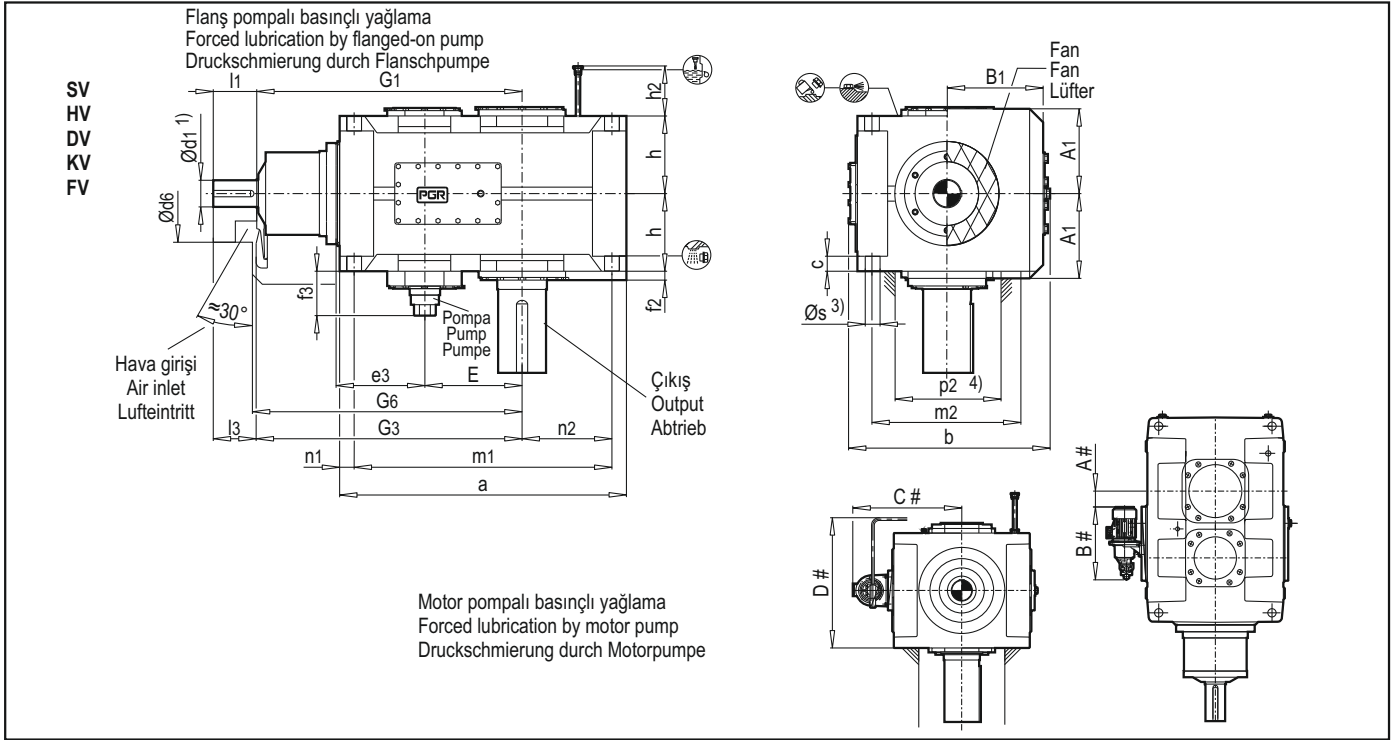
İKİ KADEMELİ - DİKEY

EN

TWO STAGE - VERTICAL

DE

ZWEISTUFIG - VERTIKAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |     |                 |     |     |               |     |     |                 |     |     |                 |     |     |      | Fan / Fan / Lüfter |     |     |     |
|------------------------|-------------------------|-----|-----|-----------------|-----|-----|---------------|-----|-----|-----------------|-----|-----|-----------------|-----|-----|------|--------------------|-----|-----|-----|
|                        | İN = 5 - 11.2           |     |     | İN = 5.6 - 11.2 |     |     | İN = 6.3 - 14 |     |     | İN = 5.6 - 12.5 |     |     | İN = 7.1 - 12.5 |     |     | G1   | G3                 | A1  | B1  | Ød6 |
|                        | Ød1                     | l1  | l3  | Ød1             | l1  | l3  | Ød1           | l1  | l3  | Ød1             | l1  | l3  | Ød1             | l1  | l3  |      |                    |     |     |     |
| 132                    | 110                     | 205 | 165 | -               | -   | -   | -             | -   | -   | -               | -   | -   | -               | -   | -   | 1070 | 1110               | 377 | 452 | 245 |
| 142                    | -                       | -   | -   | -               | -   | -   | 110           | 205 | 165 | -               | -   | -   | -               | -   | -   | 1140 | 1180               | 377 | 452 | 245 |
| 152                    | 130                     | 245 | 200 | -               | -   | -   | -             | -   | -   | -               | -   | -   | -               | -   | -   | 1277 | 1322               | 437 | 497 | 280 |
| 162                    | -                       | -   | -   | -               | -   | -   | -             | -   | -   | 130             | 245 | 200 | -               | -   | -   | 1323 | 1368               | 437 | 497 | 280 |
| 172                    | -                       | -   | -   | 150             | 245 | 200 | -             | -   | -   | -               | -   | -   | -               | -   | -   | 1435 | 1480               | 507 | 557 | 380 |
| 182                    | -                       | -   | -   | -               | -   | -   | -             | -   | -   | -               | -   | -   | 150             | 245 | 200 | 1495 | 1540               | 507 | 557 | 380 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |      |    |     |     |    |                              |      |       |     |      |     |    |     |     |    | Motor Pompası<br>Motor pump / Motorpumpe       |     |     |     |
|------------------------|--------------------------------------------|------|----|-----|-----|----|------------------------------|------|-------|-----|------|-----|----|-----|-----|----|------------------------------------------------|-----|-----|-----|
|                        | a                                          | b    | c  | E   | e3  | f2 | Pompa<br>Pump<br>Pumpe<br>f3 | G6   | h     | h2  | m1   | m2  | n1 | n2  | p2  | Øs | A #                                            | B # | C # | D # |
| 132                    | 1134                                       | 901  | 63 | 370 | 370 | 38 | 205                          | 1130 | 325   | 350 | 1035 | 680 | 52 | 360 | 502 | 48 | Talep edildiğinde<br>On request<br>Auf Anfrage |     |     |     |
| 142                    | 1274                                       | 901  | 63 | 440 | 370 | 45 | 205                          | 1200 | 325   | 350 | 1175 | 680 | 52 | 430 | 502 | 48 |                                                |     |     |     |
| 152                    | 1354                                       | 981  | 74 | 442 | 442 | 75 | 205                          | 1340 | 380   | 430 | 1235 | 750 | 62 | 430 | 572 | 55 |                                                |     |     |     |
| 162                    | 1444                                       | 981  | 74 | 488 | 442 | 75 | 205                          | 1385 | 380   | 430 | 1325 | 750 | 62 | 475 | 572 | 55 |                                                |     |     |     |
| 172                    | 1494                                       | 1111 | 83 | 490 | 490 | 98 | 205                          | 1500 | 437.5 | 480 | 1360 | 840 | 72 | 465 | 632 | 65 |                                                |     |     |     |
| 182                    | 1614                                       | 1111 | 83 | 550 | 490 | 98 | 205                          | 1560 | 437.5 | 480 | 1480 | 840 | 72 | 525 | 632 | 65 |                                                |     |     |     |

- #) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir.  
Ölçüler mm'dir.
- 1) **Şaftlar:**  
n6>Ø100  
Kama kanalı DIN 6885/1,  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.
- 3) **Soğutma serpantini:**  
C, D ve F dizaynları için Flanşlı pompa ile basınçlı yağlama mümkün değildir.  
Motor pompası ile basınçlı yağlama istek üzerine yapılmaktadır.
- 4) Pompa borusu ve koruyucusunun gerçek ölçülerinin boşluğu için lütfen PGR'ye danışınız.
- 5) Şaft montajlı redüktörler için A ve D montajı istek üzerine yapılmaktadır.
- \*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.
- \*\*) Redüktörler yağsızdır.

- #) Max.dimensions; details acc. to order-related documentation.  
Dimensions in mm
- 1) **Shafts:**  
n6>Ø100  
Keyway acc.to DIN 6885/1,  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136
- 3) **Cooling coil:**  
For C, D and F designs, forced lubrication by flanged-on pump not possible  
Combination with forced lubrication by motor pump on request
- 4) Space for pump pipes and cover; for exact dimensions, please refer to us.
- 5) For shaft-mounted gear units, designs A, and D on request.
- \*) Approximate values; exact data acc. to order related documentation.
- \*\*) Without oil filling

- #) Max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.  
Abmessungen in mm
- 1) **Wellen:**  
n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136
- 3) **Kühlschlange:**  
Ausführungen C, D und F mit Druckschmierung durch Flanscpumpe nicht möglich.  
Kombination mit Druckschmierung durch Motorpumpe auf Anfrage.
- 4) Freiraum für Pumpe, Rohre und Deckel genaue Maße ggf. anfragen.
- 5) Ausführungen A und D bei Aufsteckausführungen auf Anfrage.
- \*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.
- \*\*) ohne Ölfüllung

TR

İKİ KADEMELİ - DİKEY

EN

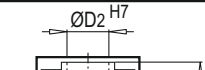
TWO STAGE - VERTICAL

DE

ZWEISTUFIG - VERTIKAL

|  |                                                                         |     |            |           |           |
|--|-------------------------------------------------------------------------|-----|------------|-----------|-----------|
|  | <b>PB132-SV ... PB182-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |     | <b>Ød2</b> | <b>l2</b> | <b>G2</b> |
|  |                                                                         | 132 | 200        | 350       | 390       |
|  |                                                                         | 142 | 210        | 350       | 390       |
|  |                                                                         | 152 | 230        | 410       | 460       |
|  |                                                                         | 162 | 240        | 410       | 460       |
|  |                                                                         | 172 | 250        | 410       | 540       |
|  |                                                                         | 182 | 270        | 470       | 540       |

|  |                                                                          |     |            |           |
|--|--------------------------------------------------------------------------|-----|------------|-----------|
|  | <b>PB132-HV ... PB182-HV</b><br>Delik millî<br>Hollow shaft<br>Hohlwelle |     | <b>ØD2</b> | <b>G4</b> |
|  |                                                                          | 132 | -          | -         |
|  |                                                                          | 142 | 210        | 390       |
|  |                                                                          | 152 | -          | -         |
|  |                                                                          | 162 | 240        | 450       |
|  |                                                                          | 172 | -          | -         |
|  |                                                                          | 182 | 275        | 510       |

|                                                                                   |                                                                                                                                               |            |            |            |           |           |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|-----------|-----------|
|  | <div>5)</div> <div><b>PB132-DV ... PB182-DV</b><br/>Konik Sıktırmalı<br/>Hollow shaft for shrink disk<br/>Hohlwelle für schrumpfscheibe</div> |            | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> | <b>G5</b> |
|                                                                                   |                                                                                                                                               | <b>132</b> | -          | -          | -         | -         |
|                                                                                   |                                                                                                                                               | <b>142</b> | 210        | 215        | 390       | 535       |
|                                                                                   |                                                                                                                                               | <b>152</b> | -          | -          | -         | -         |
|                                                                                   |                                                                                                                                               | <b>162</b> | 240        | 245        | 450       | 620       |
|                                                                                   |                                                                                                                                               | <b>172</b> | -          | -          | -         | -         |
|                                                                                   |                                                                                                                                               | <b>182</b> | 280        | 285        | 510       | 700       |

|  |                                                                                                                                                           |     |                     |  |            |            |           |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------|--|------------|------------|-----------|
|  | <b>PB132-KV ... PB182-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute<br>splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil<br>nach DIN 5480 |     | <b>N / DIN 5480</b> |  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|  |                                                                                                                                                           | 132 | -                   |  | -          | -          | -         |
|  |                                                                                                                                                           | 142 | N 190x5x30x36x9H    |  | 180        | 215        | 390       |
|  |                                                                                                                                                           | 152 | -                   |  | -          | -          | -         |
|  |                                                                                                                                                           | 162 | N 220x5x30x42x9H    |  | 210        | 245        | 450       |
|  |                                                                                                                                                           | 172 | -                   |  | -          | -          | -         |
|  |                                                                                                                                                           | 182 | N 250x5x30 x48x9H   |  | 240        | 285        | 510       |

|  |                                                                              |     |          |            |            |            |             |          |           |
|--|------------------------------------------------------------------------------|-----|----------|------------|------------|------------|-------------|----------|-----------|
|  | <b>PB132-FV ... PB182-FV</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschelle |     | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>nxØs</b> | <b>t</b> | <b>G7</b> |
|  |                                                                              | 132 | 48       | 580        | 310        | 500        | 20 x 33     | 14       | 525       |
|  |                                                                              | 142 | 48       | 620        | 310        | 540        | 24 x 33     | 14       | 525       |
|  |                                                                              | 152 | 55       | 710        | 360        | 630        | 28 x 33     | 17       | 625       |
|  |                                                                              | 162 | 55       | 740        | 360        | 660        | 30 x 33     | 17       | 625       |
|  |                                                                              | 172 | 60       | 750        | 410        | 660        | 24 x 39     | 18       | 695       |
|  |                                                                              | 182 | 60       | 800        | 410        | 710        | 26 x 39     | 18       | 695       |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l)* | Ağırlık / Weight<br>Gewicht (kg)***) |      | Sogutma serpantini / Cooling coil / Kühlschlange 3)                                                                                                                                                                                                                                                                                       |  | Gövde<br>Size<br>Größe | m6  | n6  | e8  | l/min<br>x) |
|------------------------|------------------------------------------------|--------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|-----|-----|-----|-------------|
|                        |                                                | SV<br>HV<br>DV<br>KV                 | FV   |                                                                                                                                                                                                                                                                                                                                           |  |                        |     |     |     |             |
| 132                    | 125                                            | 2360                                 | 2530 | Soğutma serpantini su bağlantısı G1/2"<br>Water connection for cooling coil G1/2"<br>Wasseranschluß für Kühlschlange G1/2"<br><br>Çıkış<br>Output<br>Abtrieb<br><br>Soğutma sistemi deniz suyu ve acı su için uygundur<br>Cooling coil suitable for fresh, sea and brackish water<br>Kühlschlange geeignet für Süß-, See- und Brackwasser |  | 132                    | 324 | 300 | 335 | 8           |
| 142                    | 140                                            | 2740                                 | 2920 |                                                                                                                                                                                                                                                                                                                                           |  | 142                    | 324 | 300 | 405 | 8           |
| 152                    | 190                                            | 3820                                 | 4075 |                                                                                                                                                                                                                                                                                                                                           |  | 152                    | 396 | 345 | 390 | 8           |
| 162                    | 200                                            | 4185                                 | 4455 |                                                                                                                                                                                                                                                                                                                                           |  | 162                    | 396 | 345 | 435 | 8           |
| 172                    | 270                                            | 5360                                 | 5680 |                                                                                                                                                                                                                                                                                                                                           |  | 172                    | 324 | 395 | 425 | 8           |
| 182                    | 295                                            | 5900                                 | 6270 |                                                                                                                                                                                                                                                                                                                                           |  | 182                    | 324 | 395 | 485 | 8           |

x) Gerekli soğutma suyu miktarı;  
basıncı 8 bar  
Cooling water quantity required;  
max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge;  
max. Kühlwasserdruck: 8 bar

TR

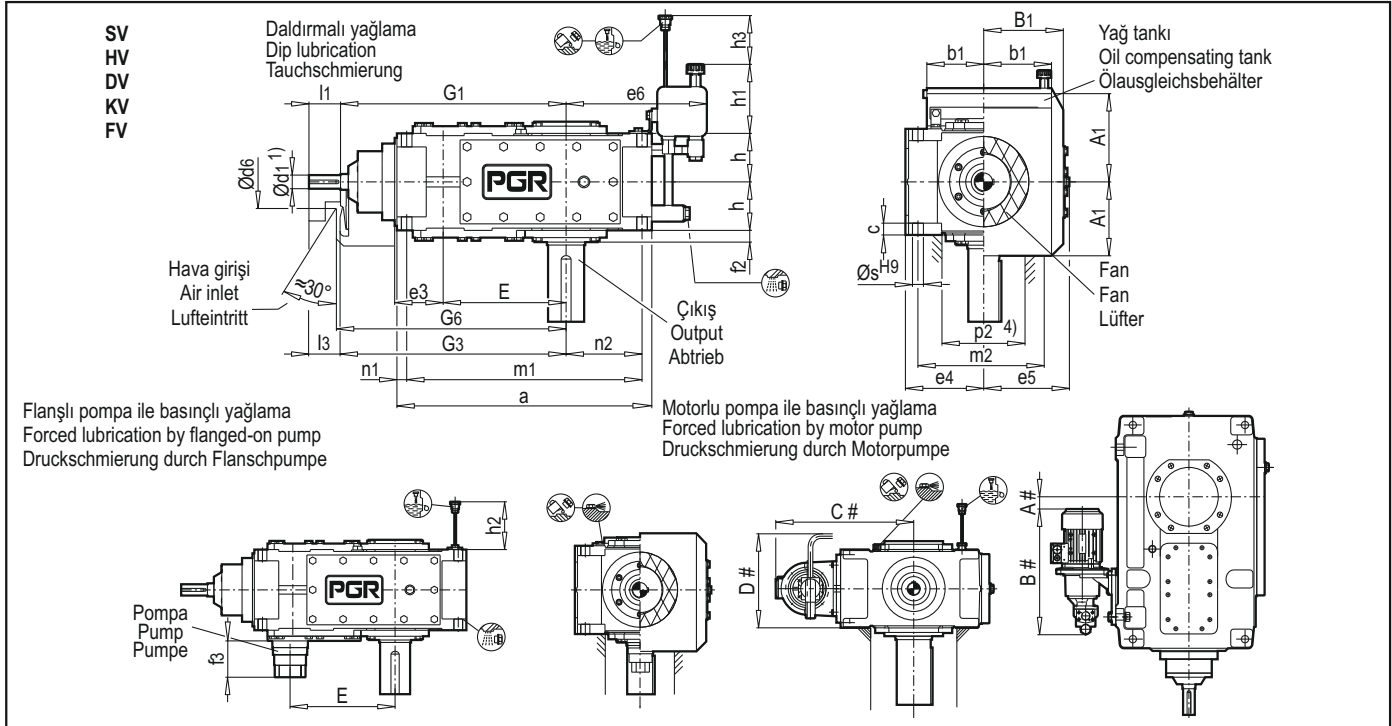
ÜÇ KADEMELİ - DİKEY

EN

THREE STAGE - VERTICAL

DE

DREISTUFIG - VERTIKAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |     |              |     |    |              |     |     |              |     |    | Fan / Fan / Lüfter |      |     |
|------------------------|-------------------------|-----|-----|--------------|-----|----|--------------|-----|-----|--------------|-----|----|--------------------|------|-----|
|                        | İN = 12.5 - 45          |     |     | İN = 50 - 71 |     |    | İN = 16 - 56 |     |     | İN = 63 - 90 |     |    | G1                 | G3   |     |
|                        | Ød1                     | l1  | l3  | Ød1          | l1  | l3 | Ød1          | l1  | l3  | Ød1          | l1  | l3 |                    |      |     |
| 43                     | 30                      | 70  | 50  | 25           | 60  | 40 | -            | -   | -   | -            | -   | -  | 500                | 520  | 145 |
| 53                     | 35                      | 80  | 60  | 28           | 60  | 40 | -            | -   | -   | -            | -   | -  | 575                | 595  | 170 |
| 63                     | -                       | -   | -   | -            | -   | -  | 35           | 80  | 60  | 28           | 60  | 40 | 610                | 630  | 170 |
| 73                     | 45                      | 100 | 80  | 35           | 80  | 60 | -            | -   | -   | -            | -   | -  | 690                | 710  | 195 |
| 83                     | -                       | -   | -   | -            | -   | -  | 45           | 100 | 80  | 35           | 80  | 60 | 735                | 755  | 195 |
| 93                     | 55                      | 110 | 80  | 40           | 100 | 70 | -            | -   | -   | -            | -   | -  | 800                | 830  | 233 |
| 103                    | -                       | -   | -   | -            | -   | -  | 55           | 110 | 80  | 40           | 100 | 70 | 850                | 880  | 233 |
| 113                    | 70                      | 135 | 105 | 50           | 110 | 80 | -            | -   | -   | -            | -   | -  | 960                | 990  | 265 |
| 123                    | -                       | -   | -   | -            | -   | -  | 70           | 135 | 105 | 50           | 110 | 80 | 1030               | 1060 | 265 |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe |     |    |     |     |     |     |     |    |                     |      |       |     |     |     |      |     |    |     |     |    | Motor pompa / Motor Pump / Motor pumpe         |      |      |      |
|------------------------|--------------------------------------------|-----|----|-----|-----|-----|-----|-----|----|---------------------|------|-------|-----|-----|-----|------|-----|----|-----|-----|----|------------------------------------------------|------|------|------|
|                        | a                                          | b1  | c  | E   | e3  | e4  | e5  | e6  | f2 | Pompa Pump Pumpe f3 | G6   | h     | h1  | h2  | h3  | m1   | m2  | n1 | n2  | p2  | Øs | A #)                                           | B #) | C #) | D #) |
|                        |                                            |     |    |     |     |     |     |     |    |                     |      |       |     |     |     |      |     |    |     |     |    |                                                |      |      |      |
| 43                     | 569                                        | 151 | 31 | 270 | 110 | 200 | 215 | 325 | 22 | -                   | 530  | 107.5 | 165 | -   | 180 | 505  | 300 | 32 | 160 | 222 | 24 | Talep edildiğinde<br>On request<br>Auf Anfrage |      |      |      |
| 53                     | 644                                        | 241 | 31 | 315 | 130 | 230 | 252 | 390 | 28 | 195                 | 605  | 127.5 | 205 | 180 | 240 | 580  | 360 | 32 | 175 | 272 | 24 |                                                |      |      |      |
| 63                     | 724                                        | 241 | 31 | 350 | 130 | 230 | 252 | 430 | 28 | 195                 | 640  | 127.5 | 205 | 180 | 240 | 660  | 360 | 32 | 220 | 272 | 24 |                                                |      |      |      |
| 73                     | 789                                        | 241 | 37 | 385 | 160 | 280 | 292 | 430 | 30 | 195                 | 720  | 150   | 205 | 165 | 250 | 715  | 430 | 37 | 215 | 332 | 28 |                                                |      |      |      |
| 83                     | 894                                        | 241 | 37 | 430 | 160 | 280 | 302 | 490 | 32 | 195                 | 765  | 150   | 205 | 165 | 250 | 820  | 430 | 37 | 275 | 332 | 28 |                                                |      |      |      |
| 93                     | 929                                        | 331 | 47 | 450 | 185 | 320 | 342 | 565 | 32 | 185                 | 845  | 185   | 275 | 205 | 330 | 845  | 490 | 42 | 260 | 372 | 36 |                                                |      |      |      |
| 103                    | 1029                                       | 331 | 47 | 500 | 185 | 320 | 342 | 615 | 32 | 185                 | 895  | 185   | 275 | 205 | 330 | 945  | 490 | 42 | 310 | 372 | 36 |                                                |      |      |      |
| 113                    | 1109                                       | 331 | 56 | 545 | 225 | 380 | 402 | 600 | 35 | 185                 | 1010 | 215   | 275 | 240 | 340 | 1005 | 600 | 52 | 295 | 442 | 40 |                                                |      |      |      |
| 123                    | 1264                                       | 331 | 56 | 615 | 225 | 380 | 410 | 685 | 35 | 185                 | 1080 | 215   | 275 | 240 | 340 | 1160 | 600 | 52 | 380 | 442 | 40 |                                                |      |      |      |

#) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir.  
Ölçüler mm'dir.

1) **Şaftlar:**  
k6=Ø25; Ø28≤m6≤Ø100; n6>Ø100  
Kama kanalı DIN 6885/1.  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.

3) **Soğutma serpantini:**  
A, B ve E dizaynları için Flanşlı pompa ile basınçlı yağlama mümkün değildir.  
Motor pompası ile basınçlı yağlama istek üzerine yapılmaktadır.

4) Pompa borusu ve koruyucusunun gerçek ölçülerinin boşluğu için lütfen PGR'ye danışınız.

5) Şaft montajlı redüktörler için A ve D montajı istek üzerine yapılmaktadır.

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

#) Max. dimensions; details acc. to order-related documentation.  
Dimensions in mm

1) **Shafts:**  
k6=Ø25; Ø28≤m6≤Ø100; n6>Ø100  
Keyway acc.to DIN 6885/1,  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136.

3) **Cooling coil:**  
For A,B and E designs, forced lubrication by flanged-on pump not possible  
Combination with forced lubrication by motor pump on request

4) Space for pump pipes and cover; for exact dimensions, please refer to us.

5) For shaft-mounted gear units, designs A and D on request.

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

#) Max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.  
Abmessungen in mm

1) **Wellen:**  
k6=Ø25; Ø28≤m6≤Ø100; n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136

3) **Kühlschlange:**  
Ausführungen A,B und E mit Druckschmierung durch Flanschpumpe nicht möglich.  
Kombination mit Druckschmierung durch Motorpumpe auf Anfrage.

4) Freiraum für Pumpe, Rohre und Deckel genaue Maße ggf. anfragen.

5) Ausführungen A und D bei Aufsteckausführungen auf Anfrage.

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

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ÜÇ KADEMELİ - DİKEY

EN

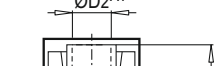
THREE STAGE - VERTICAL

DE

DREISTUFIG - VERTIKAL

|  |                                                                        |     |            |           |           |
|--|------------------------------------------------------------------------|-----|------------|-----------|-----------|
|  | <b>PB43-SV ... PB123-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |     | <b>Ød2</b> | <b>l2</b> | <b>G2</b> |
|  |                                                                        | 43  | 80         | 170       | 140       |
|  |                                                                        | 53  | 100        | 210       | 165       |
|  |                                                                        | 63  | 110        | 210       | 165       |
|  |                                                                        | 73  | 120        | 210       | 195       |
|  |                                                                        | 83  | 130        | 250       | 195       |
|  |                                                                        | 93  | 140        | 250       | 235       |
|  |                                                                        | 103 | 160        | 300       | 235       |
|  |                                                                        | 113 | 170        | 300       | 270       |
|  |                                                                        | 123 | 180        | 300       | 270       |

|  |                                                                         |     |            |           |
|--|-------------------------------------------------------------------------|-----|------------|-----------|
|  | <b>PB43-HV ... PB123-HV</b><br>Delik millî<br>Hollow shaft<br>Hohlwelle |     | <b>ØD2</b> | <b>G4</b> |
|  |                                                                         | 43  | 80         | 140       |
|  |                                                                         | 53  | 95         | 165       |
|  |                                                                         | 63  | 105        | 165       |
|  |                                                                         | 73  | 115        | 195       |
|  |                                                                         | 83  | 125        | 195       |
|  |                                                                         | 93  | 135        | 235       |
|  |                                                                         | 103 | 150        | 235       |
|  |                                                                         | 113 | 165        | 270       |
|  |                                                                         | 123 | 180        | 270       |

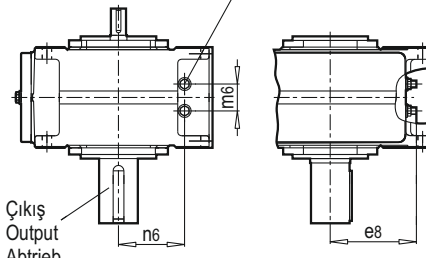
|                                                                                   |                                                                                                                          |            |     |            |            |           |           |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------|-----|------------|------------|-----------|-----------|
|  | <p><b>PB43-DV ... PB123-DV</b><br/>Konik Sıktırma<br/>Hollow shaft for shrink disk<br/>Hohlwelle für schrumpfscheibe</p> | 5)         |     | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> | <b>G5</b> |
|                                                                                   |                                                                                                                          | <b>43</b>  | 85  | 85         | 140        | 205       |           |
|                                                                                   |                                                                                                                          | <b>53</b>  | 100 | 100        | 165        | 240       |           |
|                                                                                   |                                                                                                                          | <b>63</b>  | 110 | 110        | 165        | 240       |           |
|                                                                                   |                                                                                                                          | <b>73</b>  | 120 | 120        | 195        | 280       |           |
|                                                                                   |                                                                                                                          | <b>83</b>  | 130 | 130        | 195        | 285       |           |
|                                                                                   |                                                                                                                          | <b>93</b>  | 140 | 145        | 235        | 330       |           |
|                                                                                   |                                                                                                                          | <b>103</b> | 150 | 155        | 235        | 350       |           |
|                                                                                   |                                                                                                                          | <b>113</b> | 165 | 170        | 270        | 400       |           |
|                                                                                   |                                                                                                                          | <b>123</b> | 180 | 185        | 270        | 405       |           |

|  |                                                                                                                                                    |     |                     |  |            |            |           |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------|--|------------|------------|-----------|
|  | <b>PB43-KV ... PB123-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil nach DIN 5480 |     | <b>N / DIN 5480</b> |  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|  |                                                                                                                                                    | 43  | -                   |  | -          | -          | -         |
|  |                                                                                                                                                    | 53  | N 95x3x30x30x9H     |  | 89         | 100        | 165       |
|  |                                                                                                                                                    | 63  | N 95x3x30x30x9H     |  | 89         | 110        | 165       |
|  |                                                                                                                                                    | 73  | N 120x3x30x38x9H    |  | 114        | 120        | 195       |
|  |                                                                                                                                                    | 83  | N 120x3x30x38x9H    |  | 114        | 130        | 195       |
|  |                                                                                                                                                    | 93  | N 140x3x30x45x9H    |  | 134        | 145        | 235       |
|  |                                                                                                                                                    | 103 | N 140x3x30x45x9H    |  | 134        | 155        | 235       |
|  |                                                                                                                                                    | 113 | N 170x5x30x32x9H    |  | 160        | 170        | 270       |
|  |                                                                                                                                                    | 123 | N 170x5x30x32x9H    |  | 160        | 185        | 270       |

|  |                                                                               |     |          |            |            |            |             |          |           |
|--|-------------------------------------------------------------------------------|-----|----------|------------|------------|------------|-------------|----------|-----------|
|  | <b>PB43-FV ... PB123-FV</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschswelle |     | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>nxØs</b> | <b>t</b> | <b>G7</b> |
|  |                                                                               | 43  | -        | -          | -          | -          | -           | -        | -         |
|  |                                                                               | 53  | 25       | 300        | 150        | 260        | 16 x 22     | 10       | 255       |
|  |                                                                               | 63  | 25       | 320        | 160        | 280        | 18 x 22     | 10       | 255       |
|  |                                                                               | 73  | 30       | 370        | 180        | 320        | 16 x 26     | 10       | 300       |
|  |                                                                               | 83  | 30       | 390        | 190        | 340        | 18 x 26     | 10       | 300       |
|  |                                                                               | 93  | 38       | 430        | 220        | 380        | 20 x 26     | 12       | 350       |
|  |                                                                               | 103 | 38       | 470        | 240        | 420        | 22 x 26     | 12       | 350       |
|  |                                                                               | 113 | 42       | 510        | 260        | 450        | 18 x 33     | 12       | 400       |
|  |                                                                               | 123 | 42       | 540        | 280        | 480        | 22 x 33     | 12       | 400       |

| Gövde<br>Size<br>Größe | Yağ miktarı / Oil quantity<br>Ölmenge (l)*                        |                                                                      | Ağırlık / Weight<br>Gewicht (kg)***) |      | Soğutma serpantini / Cooling coil / Kühlschlange | Gövde<br>Size<br>Größe | m6  | n6  | e8  | l/min<br>x) |
|------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------|------|--------------------------------------------------|------------------------|-----|-----|-----|-------------|
|                        | Daldırma<br>yağlama<br>Dip<br>Lubrication<br>Tauch-<br>schmierung | Basınçlı<br>yağlama<br>Forced<br>Lubrication<br>Druck-<br>schmierung | SV<br>HV<br>DV<br>KV                 | FV   |                                                  |                        |     |     |     |             |
| 43                     | 20                                                                | 10                                                                   | 215                                  | -    | <p>Çıkış<br/>Output<br/>Abtrieb</p>              | 43                     | 90  | 141 | 157 | 4           |
| 53                     | 34                                                                | 17                                                                   | 330                                  | 365  |                                                  | 53                     | 100 | 165 | 169 | 4           |
| 63                     | 36                                                                | 18                                                                   | 385                                  | 425  |                                                  | 63                     | 100 | 165 | 214 | 4           |
| 73                     | 58                                                                | 29                                                                   | 560                                  | 610  |                                                  | 73                     | 100 | 203 | 208 | 4           |
| 83                     | 68                                                                | 34                                                                   | 645                                  | 700  |                                                  | 83                     | 100 | 203 | 266 | 4           |
| 93                     | 100                                                               | 50                                                                   | 910                                  | 995  |                                                  | 93                     | 130 | 245 | 246 | 8           |
| 103                    | 105                                                               | 52                                                                   | 1040                                 | 1130 |                                                  | 103                    | 130 | 245 | 294 | 8           |
| 113                    | 160                                                               | 80                                                                   | 1480                                 | 1610 |                                                  | 113                    | 140 | 290 | 275 | 8           |
| 123                    | 184                                                               | 92                                                                   | 1760                                 | 1900 |                                                  | 123                    | 140 | 290 | 360 | 8           |

Soğutma serpantini su bağlantısı G1/2"  
Water connection for cooling coil G1/2"  
Wasseranschluß für Kühlschlange G1/2"



Soğutma sistemi deniz suyu ve acı su için uygundur  
Cooling coil suitable for fresh, sea and brackish water  
Kühlschlange geeignet für Süß-, See- und Brackwasser

x) Gereki soğutma suyu miktarı;  
basıncı 8 bar  
Cooling water quantity required;  
max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge,  
max. Kühlwasserdruck: 8 bar

TR

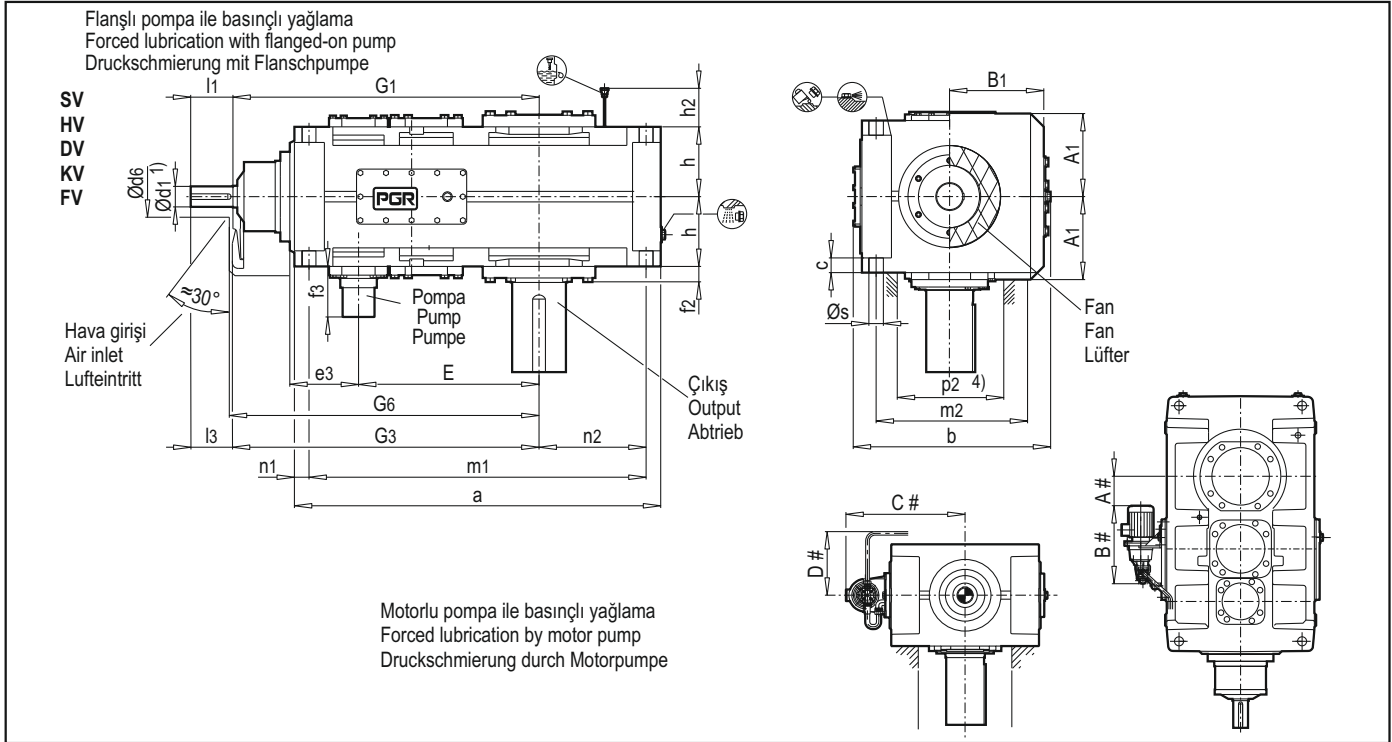
ÜÇ KADEMELİ - DİKEY

EN

THREE STAGE - VERTICAL

DE

DREISTUFIG - VERTIKAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb                  |     |     |             |     |     |            |     |     |            |     |     |            |     |     |            |     |     | Fan / Fan / Lüfter |      |     |     |     |
|------------------------|------------------------------------------|-----|-----|-------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|--------------------|------|-----|-----|-----|
|                        | İN=12.5- 45                              |     |     | İN= 50 - 71 |     |     | İN=14 - 50 |     |     | İN=56 - 80 |     |     | İN=16 - 56 |     |     | İN=63 - 90 |     |     | G1                 | G3   | A1  | B1  | Ød6 |
|                        | Ød1                                      | l1  | l3  | Ød1         | l1  | l3  | Ød1        | l1  | l3  | Ød1        | l1  | l3  | Ød1        | l1  | l3  | Ød1        | l1  | l3  |                    |      |     |     |     |
| 133                    | 80                                       | 165 | 130 | 60          | 140 | 105 | -          | -   | -   | -          | -   | -   | -          | -   | -   | -          | -   | -   | 1125               | 1160 | 327 | 477 | 210 |
| 143                    | -                                        | -   | -   | -           | -   | -   | -          | -   | -   | -          | -   | -   | 80         | 165 | 130 | 60         | 140 | 105 | 1195               | 1230 | 327 | 477 | 210 |
| 153                    | 90                                       | 165 | 130 | 70          | 140 | 105 | -          | -   | -   | -          | -   | -   | -          | -   | -   | -          | -   | -   | 1367               | 1402 | 367 | 522 | 210 |
| 163                    | -                                        | -   | -   | -           | -   | -   | 90         | 165 | 130 | 70         | 140 | 105 | -          | -   | -   | -          | -   | -   | 1413               | 1448 | 367 | 522 | 210 |
| 173                    | 110                                      | 205 | 165 | 80          | 170 | 130 | -          | -   | -   | -          | -   | -   | -          | -   | -   | -          | -   | -   | 1560               | 1600 | 397 | 572 | 230 |
| 183                    | -                                        | -   | -   | -           | -   | -   | 110        | 205 | 165 | 80         | 170 | 130 | -          | -   | -   | -          | -   | -   | 1620               | 1660 | 397 | 572 | 230 |
| 193...223              | İstek üzerine / On request / Auf Anfrage |     |     |             |     |     |            |     |     |            |     |     |            |     |     |            |     |     |                    |      |     |     |     |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe   |      |    |     |     |    |                              |      |       |     |      |     |    |     |     |    | Motor Pompası<br>Motor pump / Motorpumpe       |      |      |      |
|------------------------|----------------------------------------------|------|----|-----|-----|----|------------------------------|------|-------|-----|------|-----|----|-----|-----|----|------------------------------------------------|------|------|------|
|                        | a                                            | b    | c  | E   | e3  | f2 | Pompa<br>Pump<br>Pumpe<br>f3 | G6   | h     | h2  | m1   | m2  | n1 | n2  | p2  | Øs | A #)                                           | B #) | C #) | D #) |
|                        |                                              |      |    |     |     |    |                              |      |       |     |      |     |    |     |     |    | Talep edildiğinde<br>On request<br>Auf Anfrage |      |      |      |
| 133                    | 1294                                         | 901  | 63 | 635 | 265 | 35 | 175                          | 1180 | 272.5 | 300 | 1195 | 680 | 52 | 360 | 502 | 48 |                                                |      |      |      |
| 143                    | 1434                                         | 901  | 63 | 705 | 265 | 35 | 175                          | 1250 | 272.5 | 300 | 1335 | 680 | 52 | 430 | 502 | 48 |                                                |      |      |      |
| 153                    | 1554                                         | 981  | 74 | 762 | 320 | 42 | 175                          | 1420 | 310   | 340 | 1435 | 750 | 62 | 430 | 572 | 55 |                                                |      |      |      |
| 163                    | 1644                                         | 981  | 74 | 808 | 320 | 42 | 175                          | 1470 | 310   | 340 | 1525 | 750 | 62 | 475 | 572 | 55 |                                                |      |      |      |
| 173                    | 1744                                         | 1111 | 83 | 860 | 370 | 42 | 175                          | 1620 | 340   | 380 | 1610 | 850 | 72 | 465 | 632 | 55 |                                                |      |      |      |
| 183                    | 1864                                         | 1111 | 83 | 920 | 370 | 42 | 175                          | 1680 | 340   | 380 | 1730 | 850 | 72 | 525 | 632 | 55 |                                                |      |      |      |
| 193...223              | Talep edildiğinde / On request / Auf Anfrage |      |    |     |     |    |                              |      |       |     |      |     |    |     |     |    |                                                |      |      |      |

#) Max ölçülerdir. Ayrıntılara siparişte gönderilen dokümanlardan ulaşılabilir.  
Ölçüler mm'dir.

1) **Şaftlar:**  
m6<=Ø100; n6>Ø100  
Kama kanalı DIN 6885/1,  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.

3) **Soğutma serpantini:**  
A, B ve E dizaynları için Flanşlı pompa ile basınçlı yağlama mümkün değildir.  
Motor pompası ile basınçlı yağlama istek üzerine yapılmaktadır.

4) Pompa borusu ve koruyucusunun gerçek ölçülerinin boşluğu için lütfen PGR'ye danışınız.

5) Şaft montajlı redüktörler için A ve D montajı istek üzerine yapılmaktadır.

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dokümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

#) Max.dimensions; details acc. to order-related documentation.

Dimensions in mm

1) **Shafts:**  
m6<=Ø100; n6>Ø100  
Keyway acc.to DIN 6885/1,  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136

3) **Cooling coil:**  
For A, B and E designs, forced lubrication by flanged-on pump not possible  
Combination with forced lubrication by motor pump on request

4) Space for pump pipes and cover; for exact dimensions, please refer to us.

5) For shaft-mounted gear units, designs A, and D on request.

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

#) Max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.

Abmessungen in mm

1) **Wellen:**  
m6<=Ø100; n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136

3) **Kühlschlange:**  
Ausführungen A, B und E mit Druckschmierung durch Flanshpumpe nicht möglich.  
Kombination mit Druckschmierung durch Motorpumpe auf Anfrage.

4) Freiraum für Pumpe, Rohre und Deckel genaue Maße ggf. anfragen.

5) Ausführungen A und D bei Aufsteckuasführungen auf Anfrage.

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

ÜÇ KADEMELİ - DİKEY

EN

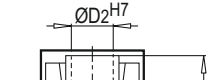
THREE STAGE - VERTICAL

DE

DREISTUFIG - VERTIKAL

|  |                                                                         |     |                                                |           |           |
|--|-------------------------------------------------------------------------|-----|------------------------------------------------|-----------|-----------|
|  | <b>PB133-SV ... PB223-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |     | <b>Ød2</b>                                     | <b>l2</b> | <b>G2</b> |
|  |                                                                         | 133 | 200                                            | 350       | 335       |
|  |                                                                         | 143 | 210                                            | 350       | 335       |
|  |                                                                         | 153 | 230                                            | 410       | 380       |
|  |                                                                         | 163 | 240                                            | 410       | 380       |
|  |                                                                         | 173 | 250                                            | 410       | 415       |
|  |                                                                         | 183 | 270                                            | 470       | 415       |
|  |                                                                         | 193 | Talep edildiğinde<br>On request<br>Auf Anfrage |           |           |
|  |                                                                         | 203 |                                                |           |           |
|  |                                                                         | 213 |                                                |           |           |
|  |                                                                         | 223 |                                                |           |           |

|  |                                                                          |     |                                                |           |
|--|--------------------------------------------------------------------------|-----|------------------------------------------------|-----------|
|  | <b>PB133-HV ... PB223-HV</b><br>Delik milli<br>Hollow shaft<br>Hohlwelle |     | <b>ØD2</b>                                     | <b>G4</b> |
|  |                                                                          | 133 | 190                                            | 335       |
|  |                                                                          | 143 | 210                                            | 335       |
|  |                                                                          | 153 | 230                                            | 380       |
|  |                                                                          | 163 | 240                                            | 380       |
|  |                                                                          | 173 | 250                                            | 415       |
|  |                                                                          | 183 | 275                                            | 415       |
|  |                                                                          | 193 | Talep edildiğinde<br>On request<br>Auf Anfrage |           |
|  |                                                                          | 203 |                                                |           |
|  |                                                                          | 213 |                                                |           |
|  |                                                                          | 223 |                                                |           |

|                                                                                   |     |                                                |     |     |     |    |
|-----------------------------------------------------------------------------------|-----|------------------------------------------------|-----|-----|-----|----|
|  | 5)  |                                                | ØD2 | ØD3 | G4  | G5 |
|                                                                                   | 133 | 190                                            | 195 | 335 | 480 |    |
|                                                                                   | 143 | 210                                            | 215 | 335 | 480 |    |
|                                                                                   | 153 | 230                                            | 235 | 380 | 550 |    |
|                                                                                   | 163 | 240                                            | 245 | 380 | 550 |    |
|                                                                                   | 173 | 250                                            | 260 | 415 | 600 |    |
|                                                                                   | 183 | 280                                            | 285 | 415 | 600 |    |
|                                                                                   | 193 | Talep edildiginde<br>On request<br>Auf Anfrage |     |     |     |    |
|                                                                                   | 203 |                                                |     |     |     |    |
|                                                                                   | 213 |                                                |     |     |     |    |
|                                                                                   | 223 |                                                |     |     |     |    |

|  |                                                                                                                                                           |     |                                                |  |            |            |           |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------|--|------------|------------|-----------|
|  | <b>PB133-KV ... PB223-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute<br>splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil<br>nach DIN 5480 |     | <b>N / DIN 5480</b>                            |  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|  |                                                                                                                                                           | 133 | N 190x5x30x36x9H                               |  | 180        | 195        | 335       |
|  |                                                                                                                                                           | 143 | N 190x5x30x36x9H                               |  | 180        | 215        | 335       |
|  |                                                                                                                                                           | 153 | N 220x5x30x42x9H                               |  | 210        | 235        | 380       |
|  |                                                                                                                                                           | 163 | N 220x5x30x42x9H                               |  | 210        | 245        | 380       |
|  |                                                                                                                                                           | 173 | N 250x5x30x48x9H                               |  | 240        | 260        | 415       |
|  |                                                                                                                                                           | 183 | N 250x5x30x48x9H                               |  | 240        | 285        | 415       |
|  |                                                                                                                                                           | 193 | Talep edildiğinde<br>On request<br>Auf Anfrage |  |            |            |           |
|  |                                                                                                                                                           | 203 |                                                |  |            |            |           |
|  |                                                                                                                                                           | 213 |                                                |  |            |            |           |
|  |                                                                                                                                                           | 223 |                                                |  |            |            |           |

|  |                                                                                 |     |                                                |            |            |            |             |          |           |
|--|---------------------------------------------------------------------------------|-----|------------------------------------------------|------------|------------|------------|-------------|----------|-----------|
|  | <b>PB133-FV ... PB223-FV</b><br>Flanşlı shaft<br>Flanged shaft<br>Flanschswelle |     | <b>c</b>                                       | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>nxØs</b> | <b>t</b> | <b>G7</b> |
|  |                                                                                 | 133 | 48                                             | 580        | 310        | 500        | 20 x 33     | 14       | 480       |
|  |                                                                                 | 143 | 48                                             | 620        | 310        | 540        | 24 x 33     | 14       | 480       |
|  |                                                                                 | 153 | 55                                             | 710        | 360        | 630        | 28 x 33     | 17       | 550       |
|  |                                                                                 | 163 | 55                                             | 740        | 360        | 660        | 30 x 33     | 17       | 550       |
|  |                                                                                 | 173 | 60                                             | 750        | 410        | 660        | 24 x 39     | 18       | 600       |
|  |                                                                                 | 183 | 60                                             | 800        | 410        | 710        | 26 x 39     | 18       | 600       |
|  |                                                                                 | 193 | Talep edildiğinde<br>On request<br>Auf Anfrage |            |            |            |             |          |           |
|  |                                                                                 | 203 |                                                |            |            |            |             |          |           |
|  |                                                                                 | 213 |                                                |            |            |            |             |          |           |
|  |                                                                                 | 223 |                                                |            |            |            |             |          |           |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l)* | Ağırlık<br>Weight / Gewicht<br>(kg)**) |      | Soğutma Serpantini / Cooling coil / Kühlschlange 3)                                                                                                                     | Gövde<br>Size<br>Größe | m6                                             | n6  | e8  | l/min<br>x) |  |
|------------------------|------------------------------------------------|----------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------|-----|-----|-------------|--|
|                        |                                                | SV<br>HV<br>DV<br>KV                   | FV   |                                                                                                                                                                         |                        |                                                |     |     |             |  |
| 133                    | 115                                            | 2275                                   | 2435 | <p>Soğutma serpantini su bağlantısı G1/2"<br/>Water connection for cooling coil G1/2"<br/>Wasseranschluß für Kühlschlange G1/2"</p> <p>Çıkış<br/>Output<br/>Abtrieb</p> | 133                    | 252                                            | 300 | 335 | 8           |  |
| 143                    | 130                                            | 2630                                   | 2800 |                                                                                                                                                                         | 143                    | 252                                            | 300 | 405 | 8           |  |
| 153                    | 180                                            | 3560                                   | 3800 |                                                                                                                                                                         | 153                    | 290                                            | 335 | 395 | 8           |  |
| 163                    | 190                                            | 3785                                   | 4040 |                                                                                                                                                                         | 163                    | 290                                            | 335 | 440 | 8           |  |
| 173                    | 260                                            | 4790                                   | 5090 |                                                                                                                                                                         | 173                    | 340                                            | 380 | 425 | 8           |  |
| 183                    | 275                                            | 5275                                   | 5625 |                                                                                                                                                                         | 183                    | 340                                            | 380 | 485 | 8           |  |
| 193                    | Talep edildiğinde<br>On request / Auf Anfrage  |                                        |      |                                                                                                                                                                         | 193                    | Talep edildiğinde<br>On request<br>Auf Anfrage |     |     |             |  |
| 203                    |                                                |                                        |      |                                                                                                                                                                         | 203                    |                                                |     |     |             |  |
| 213                    |                                                |                                        |      |                                                                                                                                                                         | 213                    |                                                |     |     |             |  |
| 223                    |                                                |                                        |      |                                                                                                                                                                         | 223                    |                                                |     |     |             |  |
|                        |                                                |                                        |      |                                                                                                                                                                         |                        |                                                |     |     |             |  |

Soğutma sistemi deniz suyu ve acı su için uygundur  
Cooling coil suitable for fresh, sea and brackish water  
Kühlschlange geeignet für Süß-, See- und Brackwasser

x) Gerekli soğutma suyu miktarı;  
basıncı 8 bar  
Cooling water quantity required;  
max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge,  
max. Kühlwasserdruck: 8 bar

x) Gerekli soğutma suyu miktarı;  
basıncı 8 bar  
Cooling water quantity required;  
max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge;  
max. Kühlwasserdruck: 8 bar

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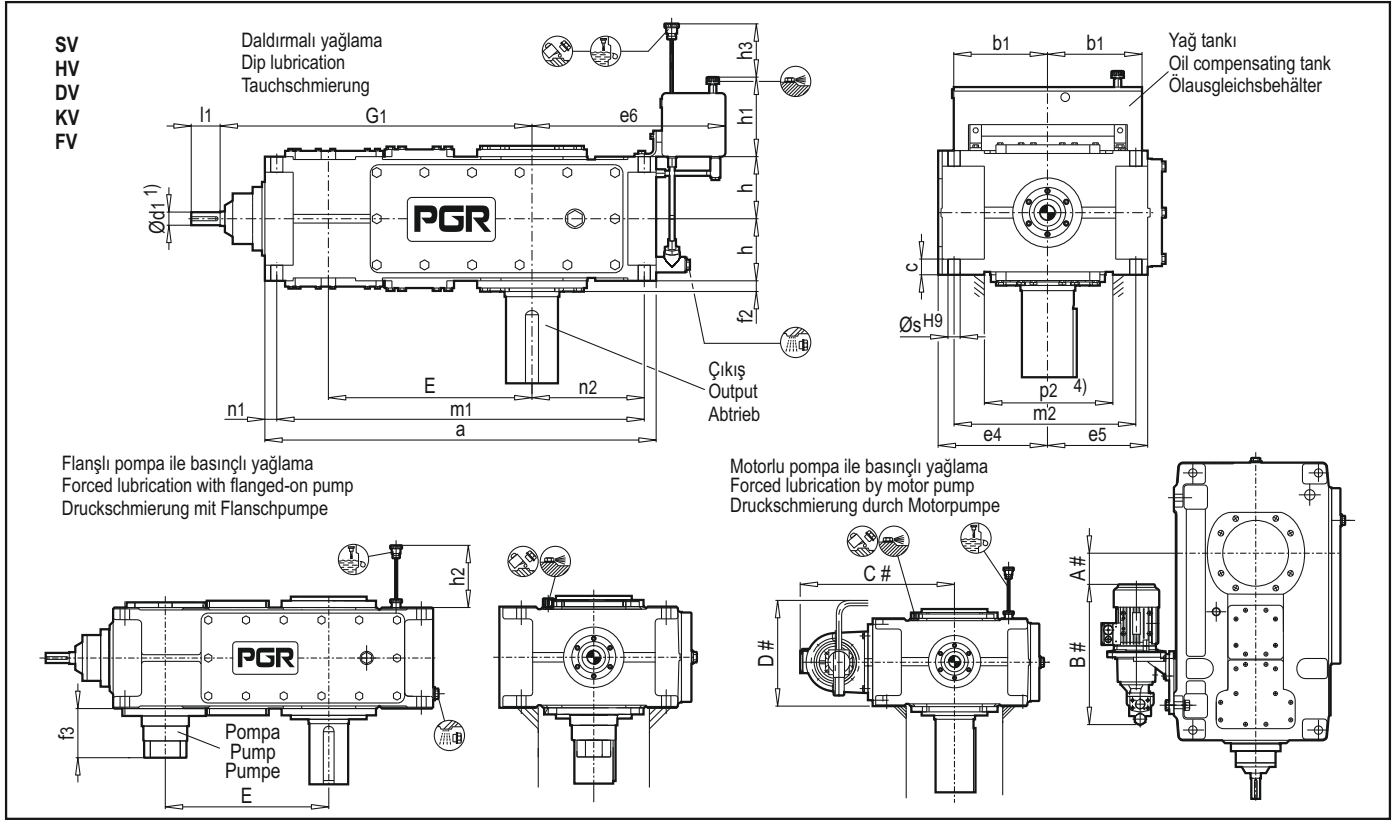
DÖRT KADEMELİ - DİKEY

EN

FOUR STAGE - VERTICAL

DE

VIERSTUFIG - VERTIKAL



| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb |     |                |    |                |     |                |    |      |
|------------------------|-------------------------|-----|----------------|----|----------------|-----|----------------|----|------|
|                        | İn = 80 - 180           |     | İn = 200 - 315 |    | İn = 100 - 224 |     | İn = 250 - 400 |    | G1   |
|                        | Ød1                     | l1  | Ød1            | l1 | Ød1            | l1  | Ød1            | l1 |      |
| 54                     | 28                      | 55  | 20             | 50 | -              | -   | -              | -  | 615  |
| 64                     | -                       | -   | -              | -  | 28             | 55  | 20             | 50 | 650  |
| 74                     | 30                      | 70  | 25             | 60 | -              | -   | -              | -  | 725  |
| 84                     | -                       | -   | -              | -  | 30             | 70  | 25             | 60 | 770  |
| 94                     | 35                      | 80  | 28             | 60 | -              | -   | -              | -  | 840  |
| 104                    | -                       | -   | -              | -  | 35             | 80  | 28             | 60 | 890  |
| 114                    | 45                      | 100 | 35             | 80 | -              | -   | -              | -  | 1010 |
| 124                    | -                       | -   | -              | -  | 45             | 100 | 35             | 80 | 1080 |

| Gövde<br>Size<br>Größe | a    | b1  | c  | E   | e4  | e5  | e6  | f2 | Pompa<br>Pump<br>Pumpe<br>f3 | h     | h1  | h2  | h3  | m1   | m2  | n1 | n2  | p2  | Øs | Motor Pompası<br>Motor pump / Motorpumpe       |     |     |     |
|------------------------|------|-----|----|-----|-----|-----|-----|----|------------------------------|-------|-----|-----|-----|------|-----|----|-----|-----|----|------------------------------------------------|-----|-----|-----|
|                        |      |     |    |     |     |     |     |    |                              |       |     |     |     |      |     |    |     |     |    | A #                                            | B # | C # | D # |
| 54                     | 694  | 241 | 31 | 405 | 230 | 252 | 390 | 28 | 205                          | 127.5 | 205 | 190 | 240 | 630  | 360 | 32 | 175 | 272 | 24 | Talep edildiğinde<br>On request<br>Auf Anfrage |     |     |     |
| 64                     | 774  | 241 | 31 | 440 | 230 | 252 | 430 | 28 | 205                          | 127.5 | 205 | 190 | 240 | 710  | 360 | 32 | 220 | 272 | 24 |                                                |     |     |     |
| 74                     | 849  | 241 | 37 | 495 | 280 | 292 | 430 | 30 | 125                          | 150   | 205 | 165 | 250 | 775  | 430 | 37 | 215 | 332 | 28 |                                                |     |     |     |
| 84                     | 954  | 241 | 37 | 540 | 280 | 302 | 490 | 32 | 125                          | 150   | 205 | 165 | 250 | 880  | 430 | 37 | 275 | 332 | 28 |                                                |     |     |     |
| 94                     | 1004 | 331 | 47 | 580 | 320 | 342 | 565 | 32 | 125                          | 185   | 275 | 205 | 330 | 920  | 490 | 42 | 260 | 372 | 36 |                                                |     |     |     |
| 104                    | 1104 | 331 | 47 | 630 | 320 | 342 | 615 | 32 | 125                          | 185   | 275 | 205 | 330 | 1020 | 490 | 42 | 310 | 372 | 36 |                                                |     |     |     |
| 114                    | 1204 | 331 | 56 | 705 | 380 | 402 | 600 | 35 | 135                          | 215   | 275 | 240 | 340 | 1100 | 600 | 52 | 295 | 442 | 40 |                                                |     |     |     |
| 124                    | 1359 | 331 | 56 | 775 | 380 | 410 | 685 | 35 | 135                          | 215   | 275 | 240 | 340 | 1255 | 600 | 52 | 380 | 442 | 40 |                                                |     |     |     |

#) Max ölçülerdir. Ayrıntılara siparişte gönderilen dökümanlardan ulaşılabilir.  
Ölçüler mm'dir.

## 1) Şaftlar:

k6=Ø25; Ø28≤m6≤Ø100; n6>Ø100

Kama kanalı DIN 6885/1,

Kama kanalı genişliği ISO JS9'a göre

Kama DIN 6885/1 form B

Ayrıntılar için sayfa 127-136'ya bakılabilir.

4) Pompa borusu ve koruyucusunun gerçek ölçülerinin boşluğu için lütfen PGR'ye danışınız.

5) Şaft montajlı redüktörler için A ve D montajı istek üzerine yapılmaktadır

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dökümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

#) Max.dimensions; details acc. to order-related documentation.

Dimensions in mm

## 1) Shafts:

k6=Ø25; Ø28≤m6≤Ø100; n6>Ø100

Keyway acc.to DIN 6885/1,

Hub keyway width acc.to ISO JS9

Parallel key acc.to DIN 6885/1 form B

For details, see pages 127-136

4) Space for pump pipes and cover; for exact dimensions, please refer to us.

5) For shaft-mounted gear units, designs A, and D on request.

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

#) Max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.

Abmessungen in mm

## 1) Wellen:

k6=Ø25; Ø28≤m6≤Ø100; n6>Ø100

Passfedernut nach DIN 6885/1

Nabennutbreite nach ISO JS9

Passfeder nach DIN 6885/1 Form B

Einzelheiten siehe Seiten 127-136

4) Freiraum für Pumpe, Rohre und Deckel genaue Maße ggf. anfragen.

5) Ausführungen A und D bei Aufsteckausführungen auf anfrage.

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

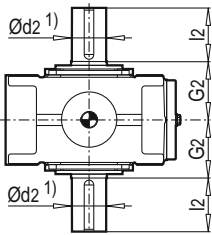
DÖRT KADEMELİ - DİKEY

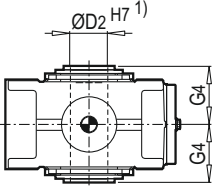
EN

FOUR STAGE - VERTICAL

DE

VIERTSTUFIG - VERTIKAL

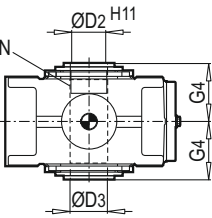
|                                                                                   |                                                                        |     |            |           |           |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------|-----|------------|-----------|-----------|
|  | <b>PB54-SV ... PB124-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |     | <b>Ød2</b> | <b>l2</b> | <b>G2</b> |
|                                                                                   |                                                                        | 54  | 100        | 210       | 165       |
|                                                                                   |                                                                        | 64  | 110        | 210       | 165       |
|                                                                                   |                                                                        | 74  | 120        | 210       | 195       |
|                                                                                   |                                                                        | 84  | 130        | 250       | 195       |
|                                                                                   |                                                                        | 94  | 140        | 250       | 235       |
|                                                                                   |                                                                        | 104 | 160        | 300       | 235       |
|                                                                                   |                                                                        | 114 | 170        | 300       | 270       |
|                                                                                   |                                                                        | 124 | 180        | 300       | 270       |

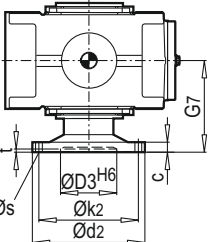
|                                                                                   |                                                                         |     |            |           |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----|------------|-----------|
|  | <b>PB54-HV ... PB124-HV</b><br>Delik millî<br>Hollow shaft<br>Hohlwelle |     | <b>ØD2</b> | <b>G4</b> |
|                                                                                   |                                                                         | 54  | 95         | 165       |
|                                                                                   |                                                                         | 64  | 105        | 165       |
|                                                                                   |                                                                         | 74  | 115        | 195       |
|                                                                                   |                                                                         | 84  | 125        | 195       |
|                                                                                   |                                                                         | 94  | 135        | 235       |
|                                                                                   |                                                                         | 104 | 150        | 235       |
|                                                                                   |                                                                         | 114 | 165        | 270       |
|                                                                                   |                                                                         | 124 | 180        | 270       |

**PB54-DV ... PB124-DV**  
 Konik Sıktırmalı  
 Hollow shaft for shrink disk  
 Hohlwelle für schrumpfscheibe

5)

|            | ØD2 | ØD3 | G4  | G5  |
|------------|-----|-----|-----|-----|
| <b>54</b>  | 100 | 100 | 165 | 240 |
| <b>64</b>  | 110 | 110 | 165 | 240 |
| <b>74</b>  | 120 | 120 | 195 | 280 |
| <b>84</b>  | 130 | 130 | 195 | 285 |
| <b>94</b>  | 140 | 145 | 235 | 330 |
| <b>104</b> | 150 | 155 | 235 | 350 |
| <b>114</b> | 165 | 170 | 270 | 400 |
| <b>124</b> | 180 | 185 | 270 | 405 |

|                                                                                     |                                                                                                                                                          |     |                     |  |            |            |           |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------|--|------------|------------|-----------|
|  | <b>PB54-KV ... PB124-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute<br>splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil<br>nach DIN 5480 |     | <b>N / DIN 5480</b> |  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|                                                                                     |                                                                                                                                                          | 54  | N 95x3x30x30x9H     |  | 89         | 100        | 165       |
|                                                                                     |                                                                                                                                                          | 64  | N 95x3x30x30x9H     |  | 89         | 110        | 165       |
|                                                                                     |                                                                                                                                                          | 74  | N 120x3x30x38x9H    |  | 114        | 120        | 195       |
|                                                                                     |                                                                                                                                                          | 84  | N 120x3x30x38x9H    |  | 114        | 130        | 195       |
|                                                                                     |                                                                                                                                                          | 94  | N 140x3x30x45x9H    |  | 134        | 145        | 235       |
|                                                                                     |                                                                                                                                                          | 104 | N 140x3x30x45x9H    |  | 134        | 155        | 235       |
|                                                                                     |                                                                                                                                                          | 114 | N 170x5x30x32x9H    |  | 160        | 170        | 270       |
|                                                                                     |                                                                                                                                                          | 124 | N 170x5x30x32x9H    |  | 160        | 185        | 270       |

|                                                                                     |                                                                               |     |          |            |            |            |             |          |           |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----|----------|------------|------------|------------|-------------|----------|-----------|
|  | <b>PB54-FV ... PB124-FV</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschswelle |     | <b>c</b> | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>nxØs</b> | <b>t</b> | <b>G7</b> |
|                                                                                     |                                                                               | 54  | 25       | 300        | 150        | 260        | 16 x 22     | 10       | 255       |
|                                                                                     |                                                                               | 64  | 25       | 320        | 160        | 280        | 18 x 22     | 10       | 255       |
|                                                                                     |                                                                               | 74  | 30       | 370        | 180        | 320        | 16 x 26     | 10       | 300       |
|                                                                                     |                                                                               | 84  | 30       | 390        | 190        | 340        | 18 x 26     | 10       | 300       |
|                                                                                     |                                                                               | 94  | 38       | 430        | 220        | 380        | 20 x 26     | 12       | 350       |
|                                                                                     |                                                                               | 104 | 38       | 470        | 240        | 420        | 22 x 26     | 12       | 350       |
|                                                                                     |                                                                               | 114 | 42       | 510        | 260        | 450        | 18 x 33     | 12       | 400       |
|                                                                                     |                                                                               | 124 | 42       | 540        | 280        | 480        | 22 x 33     | 12       | 400       |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity / Ölmenge<br>(l*)                         |                                                                      | Ağırlık<br>Weight / Gewicht<br>(kg)*)**) |      |
|------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------|------|
|                        | Daldırılmalı<br>yağlama<br>Dip<br>Lubrication<br>Tauch-<br>schmierung | Basınçlı<br>yağlama<br>Forced<br>Lubrication<br>Druck-<br>schmierung | SV<br>HV<br>DV<br>KV                     | FV   |
| 54                     | 36                                                                    | 18                                                                   | 340                                      | 375  |
| 64                     | 40                                                                    | 20                                                                   | 390                                      | 430  |
| 74                     | 65                                                                    | 32                                                                   | 565                                      | 615  |
| 84                     | 73                                                                    | 36                                                                   | 665                                      | 720  |
| 94                     | 105                                                                   | 52                                                                   | 910                                      | 995  |
| 104                    | 110                                                                   | 55                                                                   | 1045                                     | 1135 |
| 114                    | 175                                                                   | 87                                                                   | 1510                                     | 1640 |
| 124                    | 200                                                                   | 100                                                                  | 1775                                     | 1915 |

TR

DÖRT KADEMELİ - DİKEY

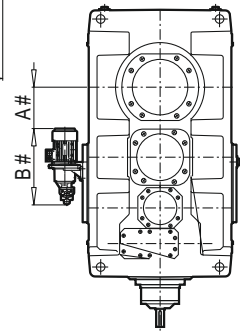
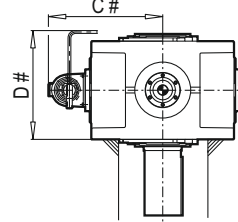
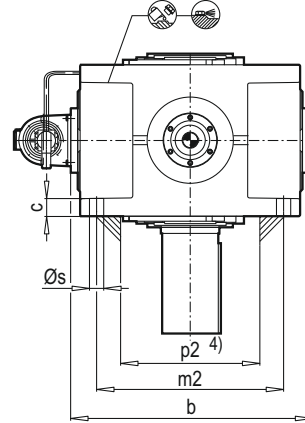
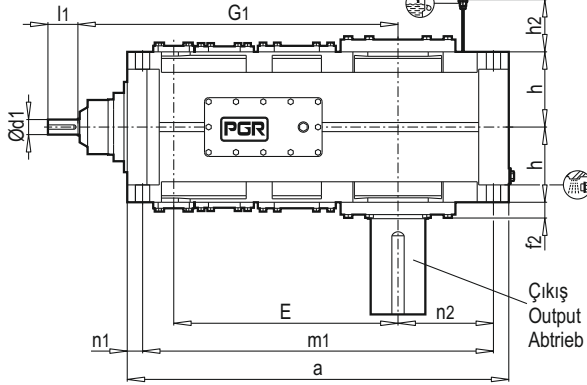
EN

FOUR STAGE - VERTICAL

DE

VIERSTUFIG - VERTIKAL

 SV  
 HV  
 DV  
 KV  
 FV

 Motorlu pompa ile basınçlı yağlama  
 Forced lubrication by motor pump  
 Druckschmierung durch Motorpumpe


| Gövde<br>Size<br>Größe | Giriş / Input / Antrieb                      |     |                |     |              |     |               |     |               |     |               |     | G1   |
|------------------------|----------------------------------------------|-----|----------------|-----|--------------|-----|---------------|-----|---------------|-----|---------------|-----|------|
|                        | İN =80 - 180                                 |     | İN = 200 - 315 |     | İN =90 - 200 |     | İN =224 - 355 |     | İN =100 - 224 |     | İN =250 - 400 |     |      |
|                        | Ød1                                          | l1  | Ød1            | l1  | Ød1          | l1  | Ød1           | l1  | Ød1           | l1  | Ød1           | l1  |      |
| 134                    | 55                                           | 110 | 40             | 100 | -            | -   | -             | -   | -             | -   | -             | -   | 1170 |
| 144                    | -                                            | -   | -              | -   | -            | -   | -             | -   | 55            | 110 | 40            | 100 | 1240 |
| 154                    | 70                                           | 135 | 50             | 110 | -            | -   | -             | -   | -             | -   | -             | -   | 1402 |
| 164                    | -                                            | -   | -              | -   | 70           | 135 | 50            | 110 | -             | -   | -             | -   | 1448 |
| 174                    | 70                                           | 135 | 50             | 110 | -            | -   | -             | -   | -             | -   | -             | -   | 1450 |
| 184                    | -                                            | -   | -              | -   | 70           | 135 | 50            | 110 | -             | -   | -             | -   | 1510 |
| 194...224              | Talep edildiğinde / On request / Auf Anfrage |     |                |     |              |     |               |     |               |     |               |     |      |

| Gövde<br>Size<br>Größe | Redüktörler / Gear Units / Zahnradgetriebe   |      |    |      |    |       |     |      |     |    |     |     |    | Motor Pompası<br>Motor pump / Motorpumpe       |     |     |     |
|------------------------|----------------------------------------------|------|----|------|----|-------|-----|------|-----|----|-----|-----|----|------------------------------------------------|-----|-----|-----|
|                        | a                                            | b    | c  | E    | f2 | h     | h2  | m1   | m2  | n1 | n2  | p2  | Øs | A#)                                            | B#) | C#) | D#) |
| 134                    | 1399                                         | 901  | 63 | 820  | 35 | 272.5 | 300 | 1300 | 680 | 52 | 360 | 502 | 48 | Talep edildiğinde<br>On request<br>Auf Anfrage |     |     |     |
| 144                    | 1539                                         | 901  | 63 | 890  | 35 | 272.5 | 300 | 1440 | 680 | 52 | 430 | 502 | 48 |                                                |     |     |     |
| 154                    | 1684                                         | 981  | 74 | 987  | 42 | 310   | 340 | 1565 | 750 | 62 | 430 | 572 | 55 |                                                |     |     |     |
| 164                    | 1774                                         | 981  | 74 | 1033 | 42 | 310   | 340 | 1655 | 750 | 62 | 475 | 572 | 55 |                                                |     |     |     |
| 174                    | 1774                                         | 1111 | 83 | 1035 | 42 | 340   | 374 | 1640 | 850 | 72 | 465 | 632 | 55 |                                                |     |     |     |
| 184                    | 1894                                         | 1111 | 83 | 1095 | 42 | 340   | 374 | 1760 | 850 | 72 | 525 | 632 | 55 |                                                |     |     |     |
| 194 ... 224            | Talep edildiğinde / On request / Auf Anfrage |      |    |      |    |       |     |      |     |    |     |     |    |                                                |     |     |     |

#) Max ölçülerdir. Ayrıntılara siparişte gönderilen dökümanlardan ulaşılabilir.  
Ölçüler mm'dir.

## 1) Şaftlar:

m6≤Ø100; n6>Ø100  
Kama kanalı DIN 6885/1,  
Kama kanalı genişliği ISO JS9 a göre  
Kama DIN 6885/1 form B  
Ayrıntılar için sayfa 127-136'ya bakılabilir.

4) Pompa borusu ve koruyucusunun gerçek ölçülerinin boşluğu için lütfen PGR'ye danışınız.

5) Şaft montajlı redüktörler için A, D ve G montajı istek üzerine yapılmaktadır.

\*) Yaklaşık değerlerdir. Kesin verilere siparişte gönderilen dökümanlardan ulaşılabilir.

\*\*) Redüktörler yağsızdır.

#) Max.dimensions; details acc. to order-related documentation.  
Dimensions in mm

## 1) Shafts:

m6≤Ø100; n6>Ø100  
Keyway acc.to DIN 6885/1,  
Hub keyway width acc.to ISO JS9  
Parallel key acc.to DIN 6885/1 form B  
For details, see pages 127-136

4) Space for pump pipes and cover; for exact dimensions, please refer to us.

5) For shaft-mounted gear units, designs A, and D on request.

\*) Approximate values; exact data acc. to order related documentation.

\*\*) Without oil filling

#) Max. Abmessungen; Einzelheiten nach auftragsbezogener Dokumentation.  
Abmessungen in mm

## 1) Wellen:

m6≤Ø100; n6>Ø100  
Passfedernut nach DIN 6885/1  
Nabennutbreite nach ISO JS9  
Passfeder nach DIN 6885/1 Form B  
Einzelheiten siehe Seiten 127-136

4) Freiraum für Pumpe, Rohre und Deckel genaue Maße ggf. anfragen.

5) Ausführungen A und D bei Aufsteckausführungen auf Anfrage.

\*) Richtwerte; genaue Angaben nach auftragsbezogener Dokumentation.

\*\*) ohne Ölfüllung

TR

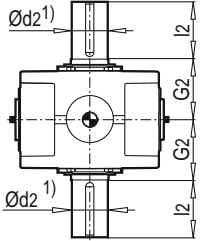
DÖRT KADEMELİ - DİKEY

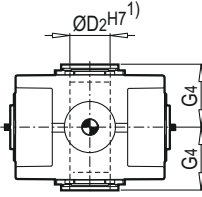
EN

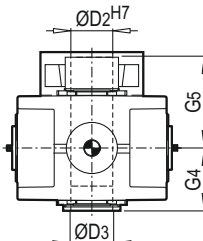
FOUR STAGE - VERTICAL

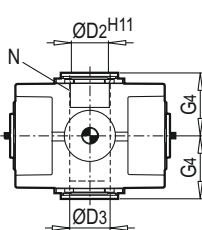
DE

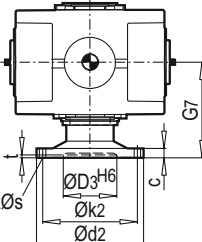
VIERTSTUFIG - VERTIKAL

|                                                                                   |                                                                         |                          |                                                |           |           |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------|------------------------------------------------|-----------|-----------|
|  | <b>PB134-SV ... PB224-SV</b><br>Mil Çıkışlı<br>Solid shaft<br>Vollwelle |                          | <b>Ød2</b>                                     | <b>l2</b> | <b>G2</b> |
|                                                                                   |                                                                         | 134                      | 200                                            | 350       | 335       |
|                                                                                   |                                                                         | 144                      | 210                                            | 350       | 335       |
|                                                                                   |                                                                         | 154                      | 230                                            | 410       | 380       |
|                                                                                   |                                                                         | 164                      | 240                                            | 410       | 380       |
|                                                                                   |                                                                         | 174                      | 250                                            | 410       | 415       |
|                                                                                   |                                                                         | 184                      | 270                                            | 470       | 415       |
|                                                                                   |                                                                         | 194<br>204<br>214<br>224 | Talep edildiğinde<br>On request<br>Auf Anfrage |           |           |

|                                                                                   |                                                                          |                          |                                                |           |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------|------------------------------------------------|-----------|
|  | <b>PB134-HV ... PB224-HV</b><br>Delik millî<br>Hollow shaft<br>Hohlwelle |                          | <b>ØD2</b>                                     | <b>G4</b> |
|                                                                                   |                                                                          | 134                      | 190                                            | 335       |
|                                                                                   |                                                                          | 144                      | 210                                            | 335       |
|                                                                                   |                                                                          | 154                      | 230                                            | 380       |
|                                                                                   |                                                                          | 164                      | 240                                            | 380       |
|                                                                                   |                                                                          | 174                      | 250                                            | 415       |
|                                                                                   |                                                                          | 184                      | 275                                            | 415       |
|                                                                                   |                                                                          | 194<br>204<br>214<br>224 | Talep edildiğinde<br>On request<br>Auf Anfrage |           |

|                                                                                    |                                                                                                                                     |                                                      |                                                |            |           |           |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------|------------|-----------|-----------|
|  | <p>5)</p> <p><b>PB134-DV ... PB224-DV</b><br/>Konik Sıktırma<br/>Hollow shaft for shrink disk<br/>Hohlwelle für schrumpfscheibe</p> |                                                      | <b>ØD2</b>                                     | <b>ØD3</b> | <b>G4</b> | <b>G5</b> |
|                                                                                    |                                                                                                                                     | <b>134</b>                                           | 190                                            | 195        | 335       | 480       |
|                                                                                    |                                                                                                                                     | <b>144</b>                                           | 210                                            | 215        | 335       | 480       |
|                                                                                    |                                                                                                                                     | <b>154</b>                                           | 230                                            | 235        | 380       | 550       |
|                                                                                    |                                                                                                                                     | <b>164</b>                                           | 240                                            | 245        | 380       | 550       |
|                                                                                    |                                                                                                                                     | <b>174</b>                                           | 250                                            | 260        | 415       | 600       |
|                                                                                    |                                                                                                                                     | <b>184</b>                                           | 280                                            | 285        | 415       | 600       |
|                                                                                    |                                                                                                                                     | <b>194</b><br><b>204</b><br><b>214</b><br><b>224</b> | Talep edildiğinde<br>On request<br>Auf Anfrage |            |           |           |

|                                                                                     |                                                                                                                                                           |                          |                                                |  |            |            |           |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------|--|------------|------------|-----------|
|  | <b>PB134-KV ... PB224-KV</b><br>Spline DIN 5480<br>Hollow shaft with involute<br>splines acc. to DIN 5480<br>Hohlwelle mit Zahnradprofil<br>nach DIN 5480 |                          | <b>N / DIN 5480</b>                            |  | <b>ØD2</b> | <b>ØD3</b> | <b>G4</b> |
|                                                                                     |                                                                                                                                                           | 134                      | N 190x5x30x36x9H                               |  | 180        | 195        | 335       |
|                                                                                     |                                                                                                                                                           | 144                      | N 190x5x30x36x9H                               |  | 180        | 215        | 335       |
|                                                                                     |                                                                                                                                                           | 154                      | N 220x5x30x42x9H                               |  | 210        | 235        | 380       |
|                                                                                     |                                                                                                                                                           | 164                      | N 220x5x30x42x9H                               |  | 210        | 245        | 380       |
|                                                                                     |                                                                                                                                                           | 174                      | N 250x5x30x48x9H                               |  | 240        | 260        | 415       |
|                                                                                     |                                                                                                                                                           | 184                      | N 250x5x30x48x9H                               |  | 240        | 285        | 415       |
|                                                                                     |                                                                                                                                                           | 194<br>204<br>214<br>224 | Talep edildiğinde<br>On request<br>Auf Anfrage |  |            |            |           |

|                                                                                     |                                                                                |                          |                                                |            |            |            |             |          |           |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------|------------------------------------------------|------------|------------|------------|-------------|----------|-----------|
|  | <b>PB134-FV ... PB224-FV</b><br>Flanşlı şaft<br>Flanged shaft<br>Flanschswelle |                          | <b>c</b>                                       | <b>Ød2</b> | <b>ØD3</b> | <b>Øk2</b> | <b>nxØs</b> | <b>t</b> | <b>G7</b> |
|                                                                                     |                                                                                | 134                      | 48                                             | 580        | 310        | 500        | 20 x 33     | 14       | 480       |
|                                                                                     |                                                                                | 144                      | 48                                             | 620        | 310        | 540        | 24 x 33     | 14       | 480       |
|                                                                                     |                                                                                | 154                      | 55                                             | 710        | 360        | 630        | 28 x 33     | 17       | 550       |
|                                                                                     |                                                                                | 164                      | 55                                             | 740        | 360        | 660        | 30 x 33     | 17       | 550       |
|                                                                                     |                                                                                | 174                      | 60                                             | 750        | 410        | 660        | 24 x 39     | 18       | 600       |
|                                                                                     |                                                                                | 184                      | 60                                             | 800        | 410        | 710        | 26 x 39     | 18       | 600       |
|                                                                                     |                                                                                | 194<br>204<br>214<br>224 | Talep edildiğinde<br>On request<br>Auf Anfrage |            |            |            |             |          |           |

| Gövde<br>Size<br>Größe | Yağ miktarı<br>Oil quantity<br>Ölmenge<br>(l)* | Ağırlık<br>Weight / Gewicht<br>(kg) *)** |      |
|------------------------|------------------------------------------------|------------------------------------------|------|
|                        |                                                | SV<br>HV<br>DV<br>KV                     | FV   |
| 134                    | 135                                            | 2300                                     | 2460 |
| 144                    | 150                                            | 2625                                     | 2795 |
| 154                    | 210                                            | 3465                                     | 3705 |
| 164                    | 220                                            | 3795                                     | 4050 |
| 174                    | 270                                            | 4500                                     | 4800 |
| 184                    | 285                                            | 4970                                     | 5320 |
| 194 - 224              | Talep edildiğinde<br>On request / Auf Anfrage  |                                          |      |

**KONİK - HELİSEL DİŞLİLİ REDÜKTÖRLER / BEVEL - HELICAL GEAR UNITS / KEGELSTIRNRADGETRIEBE**

| İki kademe, Dikey / Double stage, Vertical / Zweistufig, Vertikal - PB42-V ... 122-V  |  |  |  |  |  | (1-A) |
|---------------------------------------------------------------------------------------|--|--|--|--|--|-------|
|                                                                                       |  |  |  |  |  |       |
| İki kademe, Dikey / Double stage, Vertical / Zweistufig, Vertikal - PB132-V ... 182-V |  |  |  |  |  | (1-A) |
|                                                                                       |  |  |  |  |  |       |
| Üç kademe, Dikey / Three stage, Vertical / Dreistufig, Vertikal - PB43-V ... 123-V    |  |  |  |  |  | (1-B) |
|                                                                                       |  |  |  |  |  |       |
| Üç kademe, Dikey / Three stage, Vertical / Dreistufig, Vertikal - PB133-V ... 223-V   |  |  |  |  |  | (1-B) |
|                                                                                       |  |  |  |  |  |       |
| Dört kademe, Yatay / Four stage, Vertical / Vierstufig, Vertikal - PB54-V ... 124-V   |  |  |  |  |  |       |
|                                                                                       |  |  |  |  |  |       |
| Dört kademe, Yatay / Four stage, Vertical / Vierstufig, Vertikal - PB134-V ... 224-V  |  |  |  |  |  |       |
|                                                                                       |  |  |  |  |  |       |

**1) Soğutma serpantini**

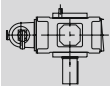
- A) C, D ve F dizaynları için basınçlı yağlama ile flanşlı pompa birlikte uygulanamaz.
- B) A, B ve E dizaynları için basınçlı yağlama ile flanşlı pompa birlikte uygulanamaz.
- Motor pompası ile basınçlı yağlama istek üzerine yapılmaktadır.

**1) Cooling coil:**

- A) For C, D and F designs, forced lubrication by flanged-on pump not possible.
- B) For A, B and E designs, forced lubrication by flanged-on pump not possible.
- Combination with forced lubrication by motor pump on request

**1) Kühlschlange:**

- A) Ausführungen C, D und F mit Druckschmierung durch Flanscpumpe nicht möglich.
- B) Ausführungen A, B und E mit Druckschmierung durch Flanscpumpe nicht möglich.
- Kombination mit Druckschmierung durch motorpumpe auf anfrage



Motorlu pompa  
Motor pump  
Motorpumpe

PB42-V ... PB182-V  
PB43-V ... PB223-V  
PB54-V ... PB224-V



Yağ tankı  
Oil compensating tank  
Ölausgleichsbehälter

PB42-V ... PB122-V  
PB43-V ... PB123-V  
PB54-V ... PB124-V



Flanşlı pompa  
Flanged-on pump  
Flanscpumpe

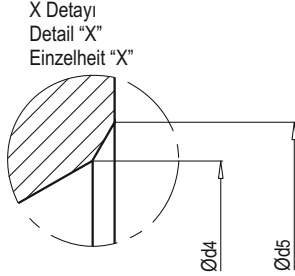
PB42-V ... PB182-V  
PB43-V ... PB223-V  
PB54-V ... PB124-V

**TR** MİL UCU MERKEZİ DELİKLERİ FORMU  
DS DIN332/2

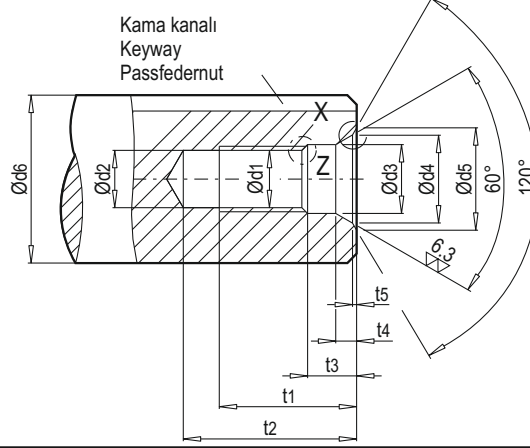
**EN** CENTER HOLES, FORM DS IN SHAFT  
ENDS DIN 332/2

**DE** ZENTRIERBOHRUNGEN FORM DS IN  
WELLENENDEN DIN 332/2

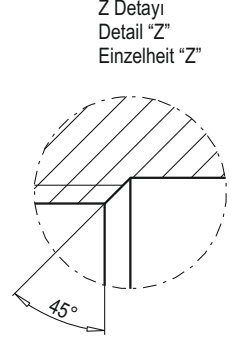
**DS Formu**  
Klavuz deliği ile  
düz yüzeydeki düzeltme



**Forms DS**  
Tapped hole, with straight running  
face and counterbore



**Forms DS**  
mit Gewinde, gerader Lauffläche  
und Schutzsenkung



| Önerilen çaplar<br>Recommended diameters<br>Empfohlene<br>Durchmesserbereiche<br>Ød6 1) |                    | DS Formu / Form DS / Form DS              |      |           |      |      |      |          |            |            |          |         |         |
|-----------------------------------------------------------------------------------------|--------------------|-------------------------------------------|------|-----------|------|------|------|----------|------------|------------|----------|---------|---------|
| Üstünde<br>above<br>über                                                                | kadar<br>to<br>bis | DS-<br>Merkez<br>Centering<br>Zentrierung | Ød1  | Ød2<br>2) | Ød3  | Ød4  | Ød5  | t1<br>+2 | t2<br>min. | t2<br>max. | t3<br>+1 | t4<br>≈ | t5<br>≈ |
| mm                                                                                      | mm                 |                                           |      |           |      |      |      | mm       |            |            |          |         |         |
| 16                                                                                      | 21                 | DS 6                                      | M 6  | 5.0       | 6.4  | 9.6  | 10.5 | 16.0     | 21         | 23         | 5.0      | 2.8     | 0.4     |
| 21                                                                                      | 24                 | DS 8                                      | M 8  | 6.8       | 8.4  | 12.2 | 13.2 | 19.0     | 25         | 28         | 6.0      | 3.3     | 0.4     |
| 24                                                                                      | 30                 | DS 10                                     | M 10 | 8.5       | 10.5 | 14.9 | 16.3 | 22.0     | 30         | 34         | 7.5      | 3.8     | 0.6     |
| 30                                                                                      | 38                 | DS 12                                     | M 12 | 10.2      | 13.0 | 18.1 | 19.8 | 28.0     | 37         | 42         | 9.5      | 4.4     | 0.7     |
| 38                                                                                      | 50                 | DS 16                                     | M 16 | 14.0      | 17.0 | 23.0 | 25.3 | 36.0     | 45         | 50         | 12.0     | 5.2     | 1.0     |
| 50                                                                                      | 85                 | DS 20                                     | M 20 | 17.5      | 21.0 | 28.4 | 31.3 | 42.0     | 53         | 59         | 15.0     | 6.4     | 1.3     |
| 85                                                                                      | 130                | DS 24                                     | M 24 | 21.0      | 25.0 | 34.2 | 38.0 | 50.0     | 63         | 68         | 18.0     | 8.0     | 1.6     |
| 130                                                                                     | 225                | DS 30 *                                   | M 30 | 26.5      | 31.0 | 40.2 | 44.6 | 60.0     | 77         | 83         | 17.0     | 8.0     | 1.9     |
| 225                                                                                     | 320                | DS 36 *                                   | M 36 | 32.0      | 37.0 | 49.7 | 55.0 | 74.0     | 93         | 99         | 22.0     | 11.0    | 2.3     |
| 320                                                                                     | 500                | DS 42 *                                   | M 42 | 37.5      | 43.0 | 60.3 | 66.6 | 84.0     | 105        | 111        | 26.0     | 15.0    | 2.7     |

- 1) Bitmiş iş parçası çapı  
2) DIN 336-1 e göre klavuzların matkap çapları  
\* Ölçü, DIN 332'e göre değildir.

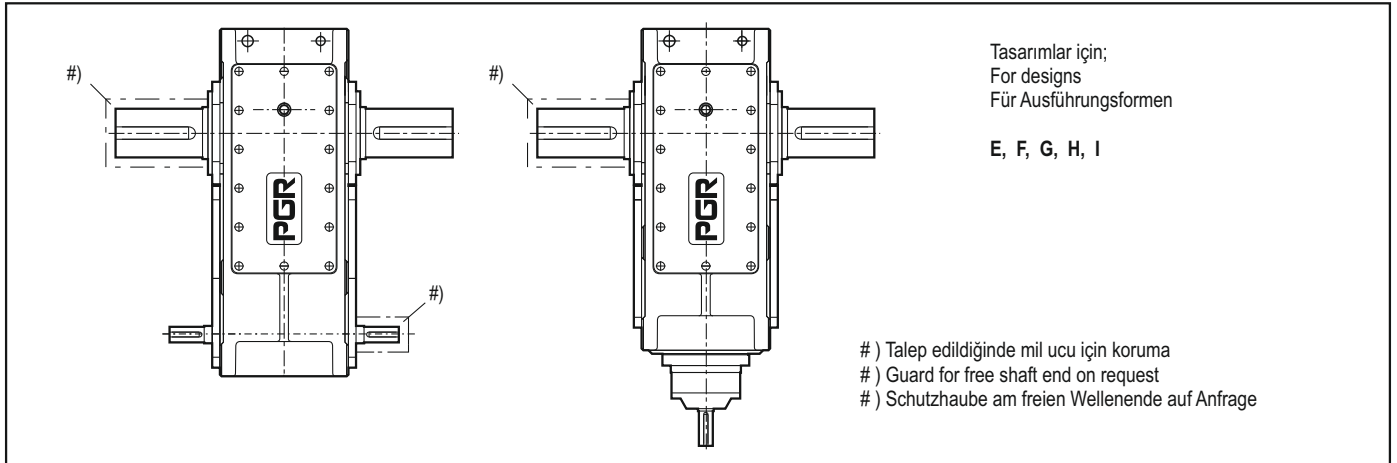
- 1) Diameter of the finished work piece  
2) Drill diameters for tapping- size holes acc.to DIN 336 Pt.1  
\* Dimensions not acc. to DIN 332

- 1) Durchmesser gilt für das fertige Werkstück  
2) Kernloch-bohrerdurchmesser nach DIN 336 Teil1  
\* Abmessungen nicht nach DIN 332

**Koruma / Muhafaza**

**Guards**

**Schutzhauben**



TR

ISO'YA GÖRE UYGUN KAMA  
KANALININ SEÇİLMESİ

EN

SELECTION OF ISO FITS PARALLEL  
KEY AND KEYWAYS

DE

PASSUNGS-AUSWAHL PASSEDERN  
UND NUTEN

## Uygunluk Belirlemede Dikkate Alınması Gereken Özellikleri / Selection of ISO fits / Passungsauswahl

| Uygun ISO seçimi<br>Selection of ISO fits<br>Passungsauswahl                                                  | Şaft / Shaft / Welle<br>Ød     |                          | Mil toleransı<br>Shaft tolerance<br>Wellentoleranz | Çap toleransı<br>Bore tolerance<br>Bohrungstoleranz |
|---------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------|----------------------------------------------------|-----------------------------------------------------|
|                                                                                                               | üstünde<br>above<br>über<br>mm | kadar<br>to<br>bis<br>mm |                                                    |                                                     |
| PGR standartlarına göre mil toleransı<br>Shaft tolerance acc. to PGR Standard<br>Wellentoleranz nach PGR Norm |                                | 25                       | k6                                                 | H7                                                  |
|                                                                                                               | 25                             | 100                      | m6                                                 |                                                     |
|                                                                                                               | 100                            |                          | n6                                                 |                                                     |

Ağır çalışma koşulları, örneğin; Yük altında geri çevrilmesi, burada sıkı bir uyum tavsiye edilir ve göbek kama genişliği için ISO P9 tolerans seçilir

For heavy-duty operating conditions, e.g. reversing under load, it is recommended that a tighter fit and for the hub keyway width the ISO P9 tolerance is selected.

Für außergewöhnliche Betriebsverhältnisse, z.B. Reversierbetrieb unter Last, ist ein festerer Sitz und für die Nabennutbreite das ISO- Toleranzfeld P9 vorzusehen.

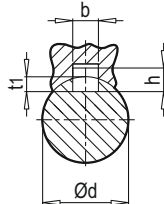
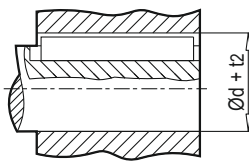
Bu durumda, müşteri ilgili bilgileri vermelidir.

In this case, the customer should give the relevant information.

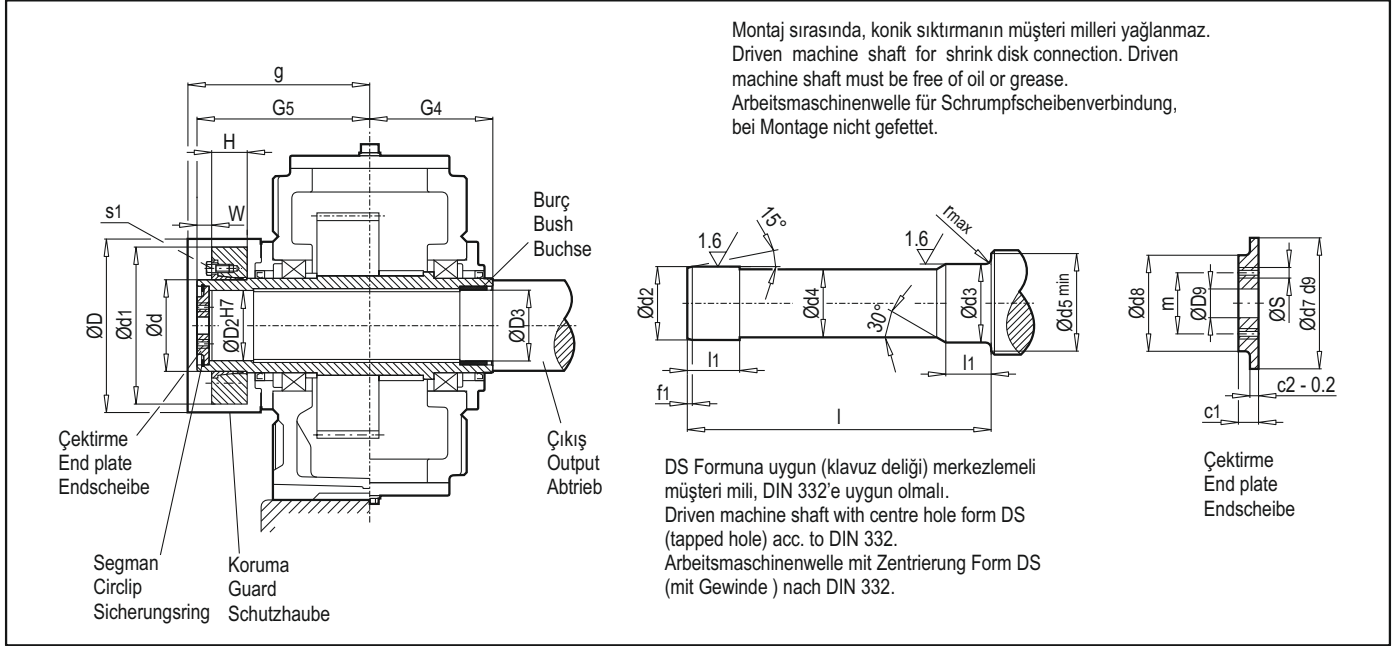
Seitens des Kunden sind hierzu entsprechende Vorgaben notwendig.

## Paralel kamalar / Parallel keys / Passfedern

| Bağlantı, incelmeyen tipte tahrik cıvatalarıyla yapılır.<br>Drive type fastening without taper action<br>Mitnehmerverbindung ohne Anzug | Çap<br>Diameter<br>Durchmesser<br>Ød |                          | Genişlik<br>Width<br>Breite<br>b<br>1) | Yükseklik<br>Height<br>Höhe<br>h | Şafttaki kama<br>kanalı derinliği<br>Depth of key-<br>way in shaft<br>Wellennuttiefe<br>t <sub>1</sub> | Delikten kama<br>kanalı derinliği<br>Depth of key-<br>way in hub<br>Nabennuttiefe<br>Ød + t <sub>2</sub><br>DIN 6885/1 |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------|----------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                         | Üstünde<br>above<br>über<br>mm       | kadar<br>to<br>bis<br>mm |                                        |                                  |                                                                                                        |                                                                                                                        |
| Kama ve kama kanalı<br>DIN 6885/1 'e göre                                                                                               | mm                                   | mm                       | mm                                     | mm                               | mm                                                                                                     | mm                                                                                                                     |
|                                                                                                                                         | 17                                   | 22                       | 6                                      | 6                                | 3.5                                                                                                    | d + 2.8                                                                                                                |
| Parallel key and<br>keyway acc.<br>to DIN 6885/1                                                                                        | 22                                   | 30                       | 8                                      | 7                                | 4                                                                                                      | d + 3.3                                                                                                                |
|                                                                                                                                         | 30                                   | 38                       | 10                                     | 8                                | 5                                                                                                      | d + 3.3                                                                                                                |
| Passfeder<br>und Nut nach<br>DIN 6885/1                                                                                                 | 38                                   | 44                       | 12                                     | 8                                | 5                                                                                                      | d + 3.3                                                                                                                |
|                                                                                                                                         | 44                                   | 50                       | 14                                     | 9                                | 5.5                                                                                                    | d + 3.8                                                                                                                |
|                                                                                                                                         | 50                                   | 58                       | 16                                     | 10                               | 6                                                                                                      | d + 4.3                                                                                                                |
|                                                                                                                                         | 58                                   | 65                       | 18                                     | 11                               | 7                                                                                                      | d + 4.4                                                                                                                |
|                                                                                                                                         | 65                                   | 75                       | 20                                     | 12                               | 7.5                                                                                                    | d + 4.9                                                                                                                |
|                                                                                                                                         | 75                                   | 85                       | 22                                     | 14                               | 9                                                                                                      | d + 5.4                                                                                                                |
|                                                                                                                                         | 85                                   | 95                       | 25                                     | 14                               | 9                                                                                                      | d + 5.4                                                                                                                |
|                                                                                                                                         | 95                                   | 110                      | 28                                     | 16                               | 10                                                                                                     | d + 6.4                                                                                                                |
|                                                                                                                                         | 110                                  | 130                      | 32                                     | 18                               | 11                                                                                                     | d + 7.4                                                                                                                |
|                                                                                                                                         | 130                                  | 150                      | 36                                     | 20                               | 12                                                                                                     | d + 8.4                                                                                                                |
|                                                                                                                                         | 150                                  | 170                      | 40                                     | 22                               | 13                                                                                                     | d + 9.4                                                                                                                |
|                                                                                                                                         | 170                                  | 200                      | 45                                     | 25                               | 15                                                                                                     | d + 10.4                                                                                                               |
|                                                                                                                                         | 200                                  | 230                      | 50                                     | 28                               | 17                                                                                                     | d + 11.4                                                                                                               |
|                                                                                                                                         | 230                                  | 260                      | 56                                     | 32                               | 20                                                                                                     | d + 12.4                                                                                                               |
|                                                                                                                                         | 260                                  | 290                      | 63                                     | 32                               | 20                                                                                                     | d + 12.4                                                                                                               |
|                                                                                                                                         | 290                                  | 330                      | 70                                     | 36                               | 22                                                                                                     | d + 14.4                                                                                                               |
|                                                                                                                                         | 330                                  | 380                      | 80                                     | 40                               | 25                                                                                                     | d + 15.4                                                                                                               |
|                                                                                                                                         | 380                                  | 440                      | 90                                     | 45                               | 28                                                                                                     | d + 17.4                                                                                                               |



- 1) Kamalar için, göbek kaması yuva genişliği (b) tolerans aralığı ISO JS9'dur ve çalışma şartlarının ağır olması durumunda ise, ISO P9'dur.
- 1) The tolerance zone for the hub keyway width b for parallel keys is ISO JS9, or ISO P9 for heavy-duty operating conditions.
- 1) Das Toleranzfeld der Nabennutbreite b für Passfedern ist ISO JS9, bzw. ISO P9 bei erschwerten Betriebsbedingungen.



Tipler / Types / Bauarten PH...2-D, PH...3-D, PH...4-D, PB...3-D, PB...4-D

| Redüktör gövdeleri<br><br>Gear unit size<br><br>Getriebe-<br>größe | Sürücü makinesi mili<br>Driven machine shaft<br>Arbeitsmaschinenwelle 2) |        |       |     |    |      |     |   |    |    | Çektirme<br>End plate<br>Endscheibe |     |     |     |     |     |         | Segman<br>Circlip<br>Sicher-<br>ungsring<br><br>DIN<br>472 | Delik Mili shaft<br>Hollow shaft<br>Hohlwelle |     |     |     | Konik sıkırma<br>Shrink disk<br>Schrumpfscheibe<br><br>1) |     |    |      | Civata<br>Screw<br>Schra-<br>ube<br><br>s1 | Koruma<br>Guard<br>Schutz-<br>haube<br><br>ØD 9 |  |
|--------------------------------------------------------------------|--------------------------------------------------------------------------|--------|-------|-----|----|------|-----|---|----|----|-------------------------------------|-----|-----|-----|-----|-----|---------|------------------------------------------------------------|-----------------------------------------------|-----|-----|-----|-----------------------------------------------------------|-----|----|------|--------------------------------------------|-------------------------------------------------|--|
|                                                                    | Ød2                                                                      | Ød3    | Ød4   | Ød5 | f1 | l    | l1  | r | c1 | c2 | Ød7                                 | Ød8 | ØD9 | m   | Øs  | ØD2 | ØD3     |                                                            | G4                                            | G5  | Ød  | Ød1 | H                                                         | W   |    |      |                                            |                                                 |  |
|                                                                    | mm                                                                       |        |       |     |    |      |     |   |    |    |                                     |     |     |     |     | mm  |         |                                                            |                                               |     |     |     |                                                           |     |    |      |                                            |                                                 |  |
|                                                                    |                                                                          |        |       |     |    |      |     |   |    |    |                                     |     |     |     |     |     |         |                                                            |                                               |     |     |     |                                                           |     |    |      |                                            |                                                 |  |
| PH/PB4...                                                          | 85 g6                                                                    | 85 h6  | 84.5  | 95  | 4  | 326  | 48  | 2 | 17 | 7  | 90                                  | 70  | 22  | 50  | M8  | 2   | 90 x 3  | 85                                                         | 85                                            | 140 | 205 | 110 | 185                                                       | 51  | 20 | M 12 | 237                                        | 226                                             |  |
| PH/PB5...                                                          | 100 g6                                                                   | 100 h6 | 99.5  | 114 | 5  | 383  | 53  | 2 | 20 | 8  | 105                                 | 80  | 26  | 55  | M10 | 2   | 105 x 4 | 100                                                        | 100                                           | 165 | 240 | 125 | 215                                                       | 55  | 20 | M 12 | 277                                        | 261                                             |  |
| PH/PB6...                                                          | 110 g6                                                                   | 110 h6 | 109.5 | 124 | 5  | 383  | 58  | 3 | 20 | 8  | 115                                 | 85  | 26  | 60  | M10 | 2   | 115 x 4 | 110                                                        | 110                                           | 165 | 240 | 140 | 230                                                       | 61  | 20 | M 14 | 287                                        | 256                                             |  |
| PH/PB7...                                                          | 120 g6                                                                   | 120 h6 | 119.5 | 134 | 5  | 453  | 68  | 3 | 20 | 8  | 125                                 | 90  | 26  | 65  | M12 | 2   | 125 x 4 | 120                                                        | 120                                           | 195 | 280 | 155 | 265                                                       | 64  | 23 | M 14 | 332                                        | 306                                             |  |
| PH/PB8...                                                          | 130 g6                                                                   | 130 h6 | 129.5 | 145 | 6  | 458  | 73  | 3 | 20 | 8  | 135                                 | 100 | 26  | 70  | M12 | 2   | 135 x 4 | 130                                                        | 130                                           | 195 | 285 | 165 | 290                                                       | 70  | 23 | M 16 | 342                                        | 306                                             |  |
| PH/PB9...                                                          | 140 g6                                                                   | 145 m6 | 139.5 | 160 | 6  | 539  | 82  | 4 | 23 | 10 | 150                                 | 110 | 33  | 80  | M12 | 2   | 150 x 4 | 140                                                        | 145                                           | 235 | 330 | 175 | 300                                                       | 71  | 28 | M 16 | 362                                        | 356                                             |  |
| PH/PB10...                                                         | 150 g6                                                                   | 155 m6 | 149.5 | 170 | 6  | 559  | 92  | 4 | 23 | 10 | 160                                 | 120 | 33  | 90  | M12 | 2   | 160 x 4 | 150                                                        | 155                                           | 235 | 350 | 185 | 330                                                       | 87  | 28 | M 16 | 397                                        | 366                                             |  |
| PH/PB11...                                                         | 165 f6                                                                   | 170 m6 | 164.5 | 185 | 7  | 644  | 112 | 4 | 23 | 10 | 175                                 | 130 | 33  | 90  | M12 | 2   | 175 x 4 | 165                                                        | 170                                           | 270 | 400 | 220 | 370                                                       | 103 | 30 | M 20 | 437                                        | 421                                             |  |
| PH/PB12...                                                         | 180 f6                                                                   | 185 m6 | 179.5 | 200 | 7  | 649  | 122 | 4 | 23 | 10 | 190                                 | 140 | 33  | 100 | M16 | 2   | 190 x 4 | 180                                                        | 185                                           | 270 | 405 | 240 | 405                                                       | 107 | 30 | M 20 | 452                                        | 421                                             |  |
| PH/PB13...                                                         | 190 f6                                                                   | 195 m6 | 189.5 | 213 | 7  | 789  | 137 | 5 | 23 | 10 | 200                                 | 150 | 33  | 110 | M16 | 2   | 200 x 4 | 190                                                        | 195                                           | 335 | 480 | 260 | 430                                                       | 119 | 30 | M 20 | 502                                        | 506                                             |  |
| PH/PB14...                                                         | 210 f6                                                                   | 215 m6 | 209.5 | 233 | 8  | 784  | 147 | 5 | 28 | 14 | 220                                 | 170 | 33  | 130 | M16 | 2   | 220 x 5 | 210                                                        | 215                                           | 335 | 480 | 280 | 460                                                       | 132 | 30 | M 20 | 527                                        | 506                                             |  |
| PH/PB15...                                                         | 230 f6                                                                   | 235 m6 | 229.5 | 253 | 8  | 899  | 157 | 5 | 28 | 14 | 240                                 | 180 | 39  | 140 | M16 | 2   | 240 x 5 | 230                                                        | 235                                           | 380 | 550 | 300 | 485                                                       | 140 | 35 | M 24 | 577                                        | 576                                             |  |
| PH/PB16...                                                         | 240 f6                                                                   | 245 m6 | 239.5 | 263 | 8  | 899  | 157 | 5 | 28 | 14 | 250                                 | 190 | 39  | 150 | M20 | 2   | 250 x 5 | 240                                                        | 245                                           | 380 | 550 | 320 | 520                                                       | 140 | 35 | M 24 | 597                                        | 576                                             |  |
| PH/PB17...                                                         | 250 f6                                                                   | 260 m6 | 249.5 | 278 | 8  | 982  | 177 | 5 | 30 | 14 | 265                                 | 200 | 39  | 150 | M20 | 2   | 265 x 5 | 250                                                        | 260                                           | 415 | 600 | 340 | 570                                                       | 155 | 35 | M 24 | 617                                        | 631                                             |  |
| PH/PB18...                                                         | 280 f6                                                                   | 285 m6 | 279.5 | 306 | 9  | 982  | 177 | 5 | 30 | 14 | 290                                 | 210 | 39  | 160 | M20 | 2   | 290 x 5 | 280                                                        | 285                                           | 415 | 600 | 360 | 590                                                       | 162 | 35 | M 24 | 637                                        | 626                                             |  |
| PH/PB19...                                                         | 285 f6                                                                   | 295 m6 | 284.5 | 316 | 9  | 1100 | 187 | 5 | 32 | 15 | 300                                 | 220 | 39  | 170 | M24 | 2   | 300 x 5 | 285                                                        | 295                                           | 465 | 670 | 380 | 640                                                       | 166 | 40 | M 27 | -                                          | -                                               |  |
| PH/PB20...                                                         | 310 f6                                                                   | 315 m6 | 309.5 | 336 | 9  | 1100 | 187 | 5 | 32 | 15 | 320                                 | 230 | 39  | 180 | M24 | 2   | 320 x 6 | 310                                                        | 315                                           | 465 | 670 | 390 | 650                                                       | 166 | 40 | M 27 | -                                          | -                                               |  |
| PH/PB21...                                                         | 330 f6                                                                   | 335 m6 | 329   | 358 | 9  | 1160 | 205 | 5 | 40 | 20 | 340                                 | 250 | 45  | 190 | M24 | 2   | 340 x 6 | 330                                                        | 335                                           | 490 | 715 | 420 | 670                                                       | 186 | 45 | M 27 | -                                          | -                                               |  |
| PH/PB22...                                                         | 340 f6                                                                   | 345 m6 | 339   | 368 | 9  | 1170 | 215 | 5 | 40 | 20 | 350                                 | 260 | 45  | 200 | M24 | 2   | 350 x 6 | 340                                                        | 345                                           | 490 | 725 | 440 | 720                                                       | 194 | 45 | M 27 | -                                          | -                                               |  |

- 1) Konik sıkırtma, teslimat kapsamına dahil değildir. İhtiyaç olması durumunda, ayrıca sipariş edilmelidir. Konik sıkırtmanın sipariş edilmesi durumunda, siparişle birlikte ayrı olarak teslim edilir.
- 2) Müşteri milinin malzeme mukavemet değeri, C60N veya üstü olmalıdır. Konik sıkırtma talep edildiğinde, makineyle birlikte teslim edilir.

- 1) Shrink disk does not belong to our scope of supply. Please order separately, if required. In case of order, shrink disk will be supplied as loose item.
- 2) Material of driven machine shaft: C60N or higher strength. Shrink disk on machine side on request.

- 1) Schrumpfscheibe gehört nicht zum Lieferumfang. Bei Bedarf gesondert bestellen. Schrumpfscheibe wird bei Bestellung lose mitgeliefert.
- 2) Werkstoff Arbeitsmaschinenwelle C60N oder höhere Festigkeit. Schrumpfscheibe an Maschinenseite auf Anfrage.

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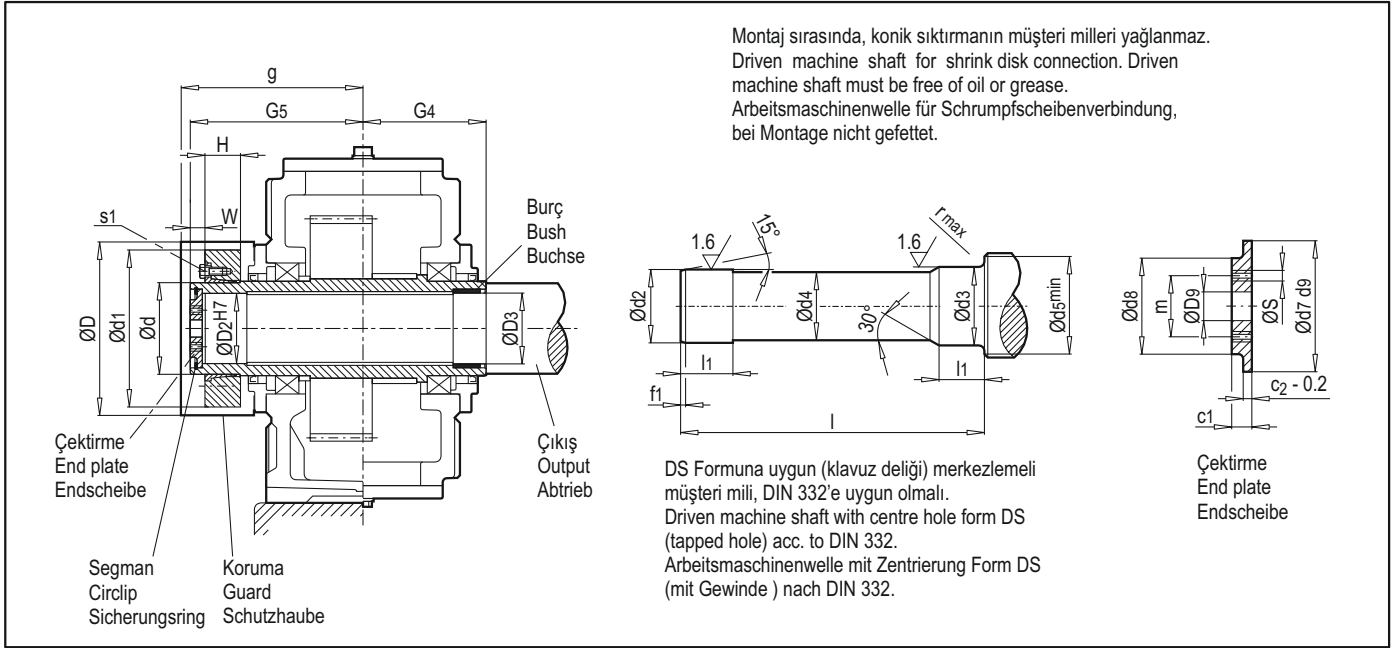
KONİK SIKTIRMALI ŞAFTLAR

EN

HOLLOW SHAFTS FOR SHRINK DISKS

DE

HOHLWELLEN FÜR SCHRUMPFSCHEIBEN



| Tip / Type / Bauart B...2-D                                      |                                                                           |        |       |     |    |      |     |   |    |    |                                     |     |     |     |     |                       |            |                                     |                                        |     |     |     |                                                  |     |    |     |                             |                                     |    |
|------------------------------------------------------------------|---------------------------------------------------------------------------|--------|-------|-----|----|------|-----|---|----|----|-------------------------------------|-----|-----|-----|-----|-----------------------|------------|-------------------------------------|----------------------------------------|-----|-----|-----|--------------------------------------------------|-----|----|-----|-----------------------------|-------------------------------------|----|
| Redüktör gövdesi<br><br>Gear unit size<br><br>Getriebe-<br>größe | Müşteri makinesi mili 2)<br>Driven machine shaft<br>Arbeitsmaschinenwelle |        |       |     |    |      |     |   |    |    | Çektirme<br>End plate<br>Endscheibe |     |     |     |     |                       |            | Segman<br>Circlip<br>Sicherungsring | Delik Mil<br>Hollow shaft<br>Hohlwelle |     |     |     | Konik sıkırtma<br>Shrink disk<br>Schrumpfscheibe |     |    |     | Cıvata<br>Screw<br>Schraube | Koruma<br>Guard<br>Schutz-<br>haube |    |
|                                                                  |                                                                           |        |       |     |    |      |     |   |    |    |                                     |     |     |     |     |                       | 1)         |                                     |                                        |     |     |     |                                                  |     |    |     |                             |                                     |    |
|                                                                  | Ød2                                                                       | Ød3    | Ød4   | Ød5 | f1 | l    | l1  | r | c1 | c2 | Ød7                                 | Ød8 | ØD9 | m   | Øs  | Adt.<br>Qty<br>Anzahl | DIN<br>472 |                                     | ØD2                                    | ØD3 | G4  | G5  | Ød                                               | Ød1 | H  | W   |                             | Øs1                                 | ØD |
| mm                                                               |                                                                           |        |       |     |    |      |     |   |    |    |                                     |     |     |     |     |                       |            |                                     |                                        |     |     |     |                                                  |     |    |     |                             |                                     |    |
| 42                                                               | 85 g6                                                                     | 85 h6  | 84.5  | 95  | 4  | 386  | 48  | 2 | 17 | 7  | 90                                  | 70  | 22  | 50  | M8  | 2                     | 90 x 3     | 85                                  | 85                                     | 170 | 235 | 110 | 185                                              | 51  | 20 | M12 | 237                         | 256                                 |    |
| 52                                                               | 100 g6                                                                    | 100 h6 | 99.5  | 114 | 5  | 453  | 53  | 2 | 20 | 8  | 105                                 | 80  | 26  | 55  | M10 | 2                     | 105 x 4    | 100                                 | 100                                    | 200 | 275 | 125 | 215                                              | 55  | 20 | M12 | 277                         | 291                                 |    |
| 62                                                               | 110 g6                                                                    | 110 h6 | 109.5 | 124 | 5  | 453  | 58  | 3 | 20 | 8  | 115                                 | 85  | 26  | 60  | M10 | 2                     | 115 x 4    | 110                                 | 110                                    | 200 | 275 | 140 | 230                                              | 61  | 20 | M14 | 287                         | 286                                 |    |
| 72                                                               | 120 g6                                                                    | 120 h6 | 119.5 | 134 | 5  | 533  | 68  | 3 | 20 | 8  | 125                                 | 90  | 26  | 65  | M12 | 2                     | 125 x 4    | 120                                 | 120                                    | 235 | 320 | 155 | 265                                              | 64  | 23 | M14 | 332                         | 346                                 |    |
| 82                                                               | 130 g6                                                                    | 130 h6 | 129.5 | 145 | 6  | 538  | 73  | 3 | 20 | 8  | 135                                 | 100 | 26  | 70  | M12 | 2                     | 135 x 4    | 130                                 | 130                                    | 235 | 325 | 165 | 290                                              | 70  | 23 | M16 | 342                         | 346                                 |    |
| 92                                                               | 140 g6                                                                    | 145 m6 | 139.5 | 160 | 6  | 609  | 82  | 4 | 23 | 10 | 150                                 | 110 | 33  | 80  | M12 | 2                     | 150 x 4    | 140                                 | 145                                    | 270 | 365 | 175 | 300                                              | 71  | 28 | M16 | 362                         | 391                                 |    |
| 102                                                              | 150 g6                                                                    | 155 m6 | 149.5 | 170 | 6  | 629  | 92  | 4 | 23 | 10 | 160                                 | 120 | 33  | 90  | M12 | 2                     | 160 x 4    | 150                                 | 155                                    | 270 | 385 | 185 | 330                                              | 87  | 28 | M16 | 397                         | 401                                 |    |
| 112                                                              | 165 f6                                                                    | 170 m6 | 164.5 | 185 | 7  | 744  | 112 | 4 | 23 | 10 | 175                                 | 130 | 33  | 90  | M12 | 2                     | 175 x 4    | 165                                 | 170                                    | 320 | 450 | 220 | 370                                              | 103 | 30 | M20 | 437                         | 471                                 |    |
| 122                                                              | 180 f6                                                                    | 185 m6 | 179.5 | 200 | 7  | 749  | 122 | 4 | 23 | 10 | 190                                 | 140 | 33  | 100 | M16 | 2                     | 190 x 4    | 180                                 | 185                                    | 320 | 455 | 240 | 405                                              | 107 | 30 | M20 | 452                         | 471                                 |    |
| 142                                                              | 210 f6                                                                    | 215 m6 | 209.5 | 233 | 8  | 894  | 147 | 5 | 28 | 14 | 220                                 | 170 | 33  | 130 | M16 | 2                     | 220 x 5    | 210                                 | 215                                    | 390 | 535 | 280 | 460                                              | 132 | 30 | M20 | 527                         | 556                                 |    |
| 162                                                              | 240 f6                                                                    | 245 m6 | 239.5 | 263 | 8  | 1039 | 157 | 5 | 28 | 14 | 250                                 | 190 | 39  | 150 | M20 | 2                     | 250 x 5    | 240                                 | 245                                    | 450 | 620 | 320 | 520                                              | 140 | 35 | M24 | 597                         | 646                                 |    |
| 182                                                              | 280 f6                                                                    | 285 m6 | 279.5 | 306 | 9  | 1177 | 177 | 5 | 30 | 14 | 290                                 | 210 | 39  | 160 | M20 | 2                     | 290 x 5    | 280                                 | 285                                    | 510 | 700 | 360 | 590                                              | 162 | 35 | M24 | 637                         | 726                                 |    |

- 1) Konik sıkırtma, teslimat kapsamına dahil değildir. İhtiyaç olması durumunda, ayrıca sipariş edilmelidir. Konik sıkırtmanın sipariş edilmesi durumunda, siparişle birlikte ayrı olarak teslim edilir.
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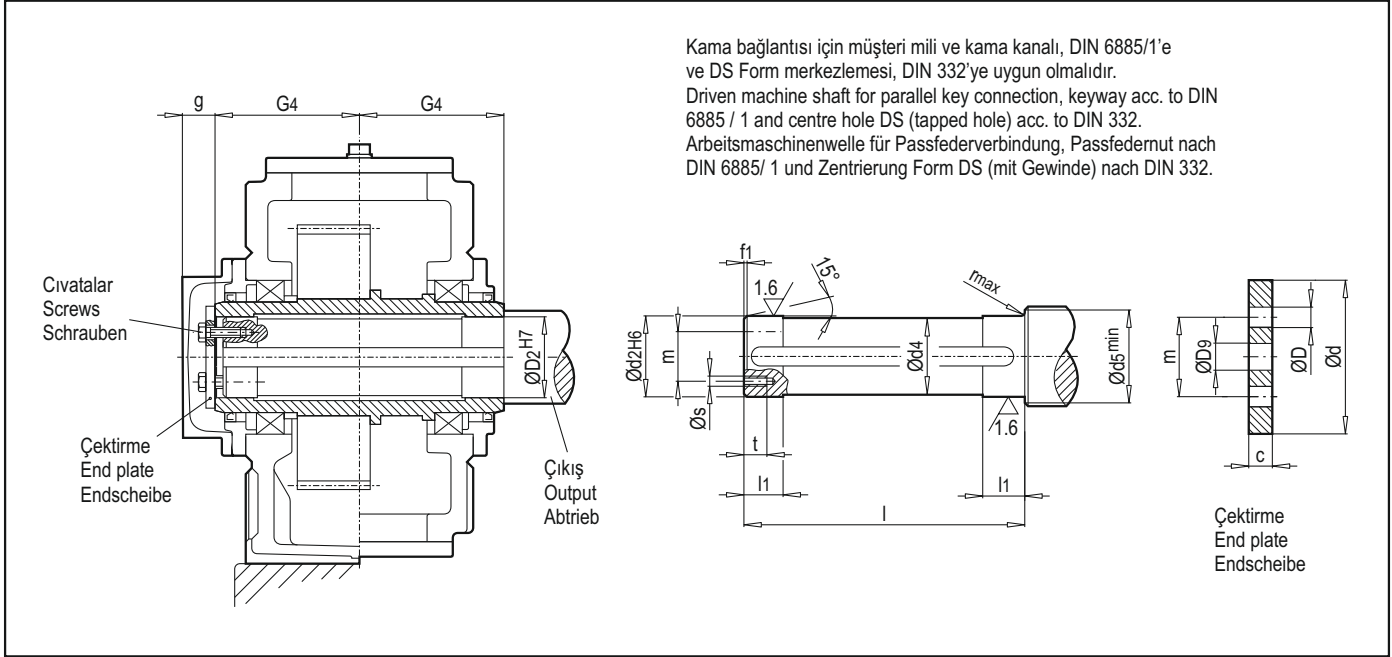
KAMA KANALLI ŞAFTLAR

EN

HOLLOW SHAFTS FOR PARALLEL  
KEY CONNECTIONS

DE

HOHLWELLEN FÜR  
PASSFEDERVERBINDUNGEN



Tipler / Types / Bauarten PH...2-H, PH...3-H, PH...4-H, PB...3-H, PB...4-H.

| Redüktör gövdeleri<br><br>Gear unit size<br><br>Getriebe-<br>größe | Müşteri makinesi mili <sup>1)</sup><br>Driven machine shaft<br>Arbeitsmaschinenwelle |       |     |    |     |     |     |     |    | Çektirme<br>End plate<br>Endscheibe |      |     |     |     | Cıvata<br>Screw<br>Schraube |                             | Delik milli shaft<br>Hollow shaft<br>Hohlwelle |     |    |
|--------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------|-----|----|-----|-----|-----|-----|----|-------------------------------------|------|-----|-----|-----|-----------------------------|-----------------------------|------------------------------------------------|-----|----|
|                                                                    | Ød2                                                                                  | Ød4   | Ød5 | f1 | l   | l1  | r   | Øs  | t  | c                                   | ØD   | ØD9 | Ød  | m   | Boyut<br>Size<br>Größe      | Adet<br>Qty.<br>An-<br>zahl | ØD2                                            | G4  | g  |
|                                                                    | mm                                                                                   |       |     |    |     |     |     |     |    |                                     |      |     |     |     |                             |                             | mm                                             |     |    |
|                                                                    |                                                                                      |       |     |    |     |     |     |     |    |                                     |      |     |     |     |                             |                             |                                                |     |    |
| PH/PB4...                                                          | 80                                                                                   | 79.5  | 88  | 4  | 278 | 35  | 1.2 | M10 | 18 | 10                                  | 11   | 22  | 100 | 60  | M10 x 25                    | 2                           | 80                                             | 140 | 36 |
| PH/PB5...                                                          | 95                                                                                   | 94.5  | 105 | 5  | 328 | 40  | 1.6 | M10 | 18 | 10                                  | 11   | 26  | 120 | 70  | M10 x 25                    | 2                           | 95                                             | 165 | 41 |
| PH/PB6...                                                          | 105                                                                                  | 104.5 | 116 | 5  | 328 | 45  | 1.6 | M10 | 18 | 10                                  | 11   | 26  | 120 | 70  | M10 x 25                    | 2                           | 105                                            | 165 | 41 |
| PH/PB7...                                                          | 115                                                                                  | 114.5 | 126 | 5  | 388 | 50  | 1.6 | M12 | 20 | 12                                  | 13.5 | 26  | 140 | 80  | M12 x 30                    | 2                           | 115                                            | 195 | 41 |
| PH/PB8...                                                          | 125                                                                                  | 124.5 | 136 | 6  | 388 | 55  | 2.5 | M12 | 20 | 12                                  | 13.5 | 26  | 150 | 85  | M12 x 30                    | 2                           | 125                                            | 195 | 41 |
| PH/PB9...                                                          | 135                                                                                  | 134.5 | 147 | 6  | 467 | 60  | 2.5 | M12 | 20 | 12                                  | 13.5 | 33  | 160 | 90  | M12 x 30                    | 2                           | 135                                            | 235 | 46 |
| PH/PB10...                                                         | 150                                                                                  | 149.5 | 162 | 6  | 467 | 65  | 2.5 | M12 | 20 | 12                                  | 13.5 | 33  | 185 | 110 | M12 x 30                    | 2                           | 150                                            | 235 | 46 |
| PH/PB11...                                                         | 165                                                                                  | 164.5 | 177 | 7  | 537 | 70  | 2.5 | M16 | 28 | 15                                  | 17.5 | 33  | 195 | 120 | M16 x 40                    | 2                           | 165                                            | 270 | 46 |
| PH/PB12...                                                         | 180                                                                                  | 179.5 | 192 | 7  | 537 | 75  | 2.5 | M16 | 28 | 15                                  | 17.5 | 33  | 220 | 130 | M16 x 40                    | 2                           | 180                                            | 270 | 46 |
| PH/PB13...                                                         | 190                                                                                  | 189.5 | 206 | 7  | 667 | 80  | 3   | M16 | 28 | 18                                  | 17.5 | 33  | 230 | 140 | M16 x 40                    | 2                           | 190                                            | 335 | 46 |
| PH/PB14...                                                         | 210                                                                                  | 209.5 | 226 | 8  | 667 | 85  | 3   | M16 | 28 | 18                                  | 17.5 | 33  | 250 | 160 | M16 x 40                    | 2                           | 210                                            | 335 | 46 |
| PH/PB15...                                                         | 230                                                                                  | 229.5 | 248 | 8  | 756 | 100 | 3   | M20 | 38 | 25                                  | 22   | 39  | 270 | 180 | M20 x 55                    | 4                           | 230                                            | 380 | 61 |
| PH/PB16...                                                         | 240                                                                                  | 239.5 | 258 | 8  | 756 | 100 | 3   | M20 | 38 | 25                                  | 22   | 39  | 280 | 180 | M20 x 55                    | 4                           | 240                                            | 380 | 61 |
| PH/PB17...                                                         | 250                                                                                  | 249.5 | 270 | 8  | 826 | 110 | 4   | M20 | 38 | 25                                  | 22   | 39  | 300 | 190 | M20 x 55                    | 4                           | 250                                            | 415 | 61 |
| PH/PB18...                                                         | 275                                                                                  | 274.5 | 295 | 9  | 826 | 120 | 4   | M20 | 38 | 25                                  | 22   | 39  | 330 | 210 | M20 x 55                    | 4                           | 275                                            | 415 | 61 |

1) Müşteri milinin malzeme mukavemet değeri, C60N veya üstü olmalıdır.

1) Material of driven machine shaft: C60N or higher strength.

1) Werkstoff Arbeitsmaschinenwelle C60N oder höhere Festigkeit.

Kama, teslimat kapsamına dahil değildir. İhtiyaç olması durumunda, ayrıca sipariş edilmelidir.

Parallel key does not belong to our scope of supply. Please order separately, if required.

Passfeder gehört nicht zum Lieferumfang. Bei Bedarf gesondert bestellen.

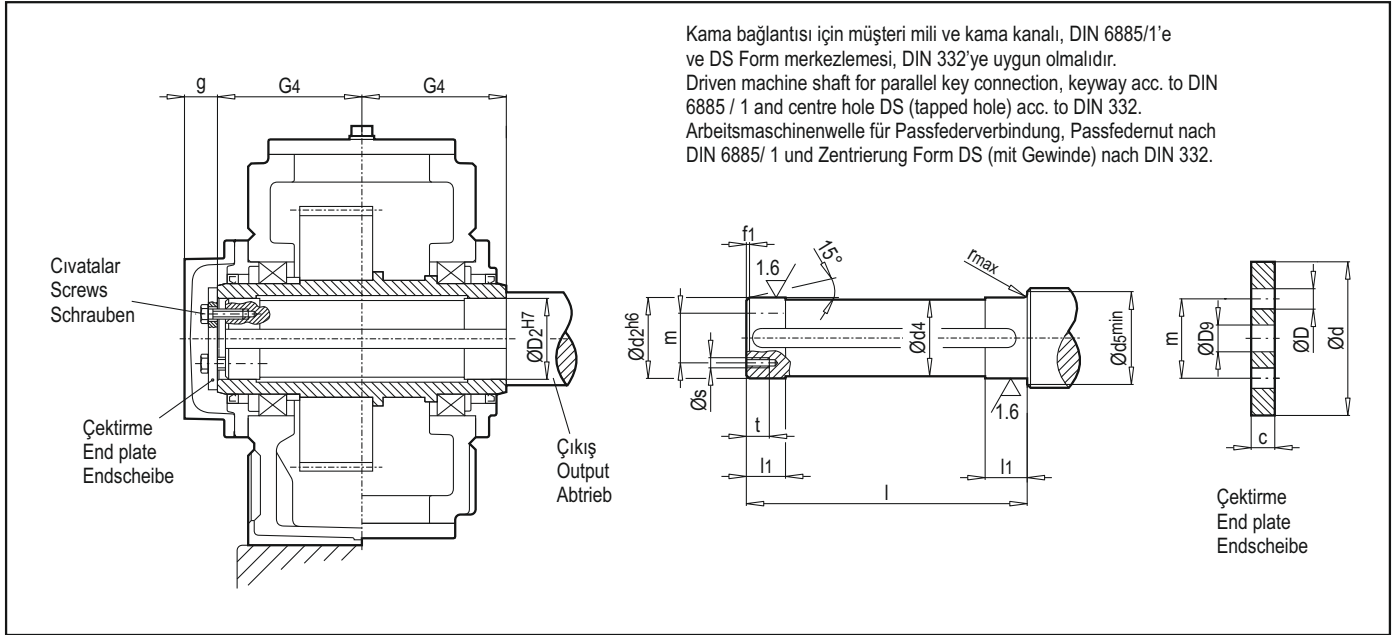
TR

KAMA KANALLI ŞAFTLAR

EN

HOLLOW SHAFTS FOR PARALLEL  
KEY CONNECTIONS

DE

HOHLWELLEN FÜR  
PASSFEDERVERBINDUNGEN

Tip / Type / Bauart PB...2-H

| Redüktör<br>Gövdeleri<br><br>Gear unit<br>size<br><br>Getriebe-<br>größe | Müşteri makine mili 1)<br>Driven machine shaft<br>Arbeitsmaschinenwelle |       |     |    |      |     |     |     |    | Çektirme<br>End plate<br>Endscheibe |      |     |     |     | Cıvata<br>Screw<br>Schraube |                       | Delik milli şaft<br>Hollow shaft<br>Hohlwelle |     |    |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------|-------|-----|----|------|-----|-----|-----|----|-------------------------------------|------|-----|-----|-----|-----------------------------|-----------------------|-----------------------------------------------|-----|----|
|                                                                          | Ød2                                                                     | Ød4   | Ød5 | f1 | l    | l1  | r   | Øs  | t  | c                                   | ØD   | ØD9 | Ød  | m   | Boyut<br>Size<br>Größe      | Adet<br>Qty<br>Anzahl | ØD2                                           | G4  | g  |
|                                                                          | mm                                                                      |       |     |    |      |     |     |     |    |                                     |      |     |     |     |                             |                       | mm                                            |     |    |
|                                                                          |                                                                         |       |     |    |      |     |     |     |    |                                     |      |     |     |     |                             |                       |                                               |     |    |
| 42                                                                       | 80                                                                      | 79.5  | 88  | 4  | 338  | 35  | 1.2 | M10 | 18 | 10                                  | 11   | 22  | 100 | 60  | M10 x 25                    | 2                     | 80                                            | 170 | 36 |
| 52                                                                       | 95                                                                      | 94.5  | 105 | 5  | 398  | 40  | 1.6 | M10 | 18 | 10                                  | 11   | 26  | 120 | 70  | M10 x 25                    | 2                     | 95                                            | 200 | 41 |
| 62                                                                       | 105                                                                     | 104.5 | 116 | 5  | 398  | 45  | 1.6 | M10 | 18 | 10                                  | 11   | 26  | 120 | 70  | M10 x 25                    | 2                     | 105                                           | 200 | 41 |
| 72                                                                       | 115                                                                     | 114.5 | 126 | 5  | 468  | 50  | 1.6 | M12 | 20 | 12                                  | 13.5 | 26  | 140 | 80  | M12 x 30                    | 2                     | 115                                           | 235 | 41 |
| 82                                                                       | 125                                                                     | 124.5 | 136 | 6  | 468  | 55  | 2.5 | M12 | 20 | 12                                  | 13.5 | 26  | 150 | 85  | M12 x 30                    | 2                     | 125                                           | 235 | 41 |
| 92                                                                       | 135                                                                     | 134.5 | 147 | 6  | 537  | 60  | 2.5 | M12 | 20 | 12                                  | 13.5 | 33  | 160 | 90  | M12 x 30                    | 2                     | 135                                           | 270 | 46 |
| 102                                                                      | 150                                                                     | 149.5 | 162 | 6  | 537  | 65  | 2.5 | M12 | 20 | 12                                  | 13.5 | 33  | 185 | 110 | M12 x 30                    | 2                     | 150                                           | 270 | 46 |
| 112                                                                      | 165                                                                     | 164.5 | 177 | 7  | 637  | 70  | 2.5 | M16 | 28 | 15                                  | 17.5 | 33  | 195 | 120 | M16 x 40                    | 2                     | 165                                           | 320 | 46 |
| 122                                                                      | 180                                                                     | 179.5 | 192 | 7  | 637  | 75  | 2.5 | M16 | 28 | 15                                  | 17.5 | 33  | 220 | 130 | M16 x 40                    | 2                     | 180                                           | 320 | 46 |
| 142                                                                      | 210                                                                     | 209.5 | 226 | 8  | 777  | 85  | 3   | M16 | 28 | 18                                  | 17.5 | 33  | 250 | 160 | M16 x 40                    | 2                     | 210                                           | 390 | 46 |
| 162                                                                      | 240                                                                     | 239.5 | 258 | 8  | 896  | 100 | 3   | M20 | 38 | 25                                  | 22   | 39  | 280 | 180 | M20 x 55                    | 4                     | 240                                           | 450 | 61 |
| 182                                                                      | 275                                                                     | 274.5 | 295 | 9  | 1016 | 120 | 4   | M20 | 38 | 25                                  | 22   | 39  | 330 | 210 | M20 x 55                    | 4                     | 275                                           | 510 | 61 |

1) Müşteri milinin malzeme mukavemet değeri, C60N veya üstü olmalıdır.

1) Material of driven machine shaft: C60N or higher strength.

1) Werkstoff Arbeitsmaschinenwelle C60N oder höhere Festigkeit.

Kama, teslimat kapsamına dahil değildir. İhtiyaç olması durumunda, ayrıca sipariş edilmelidir.

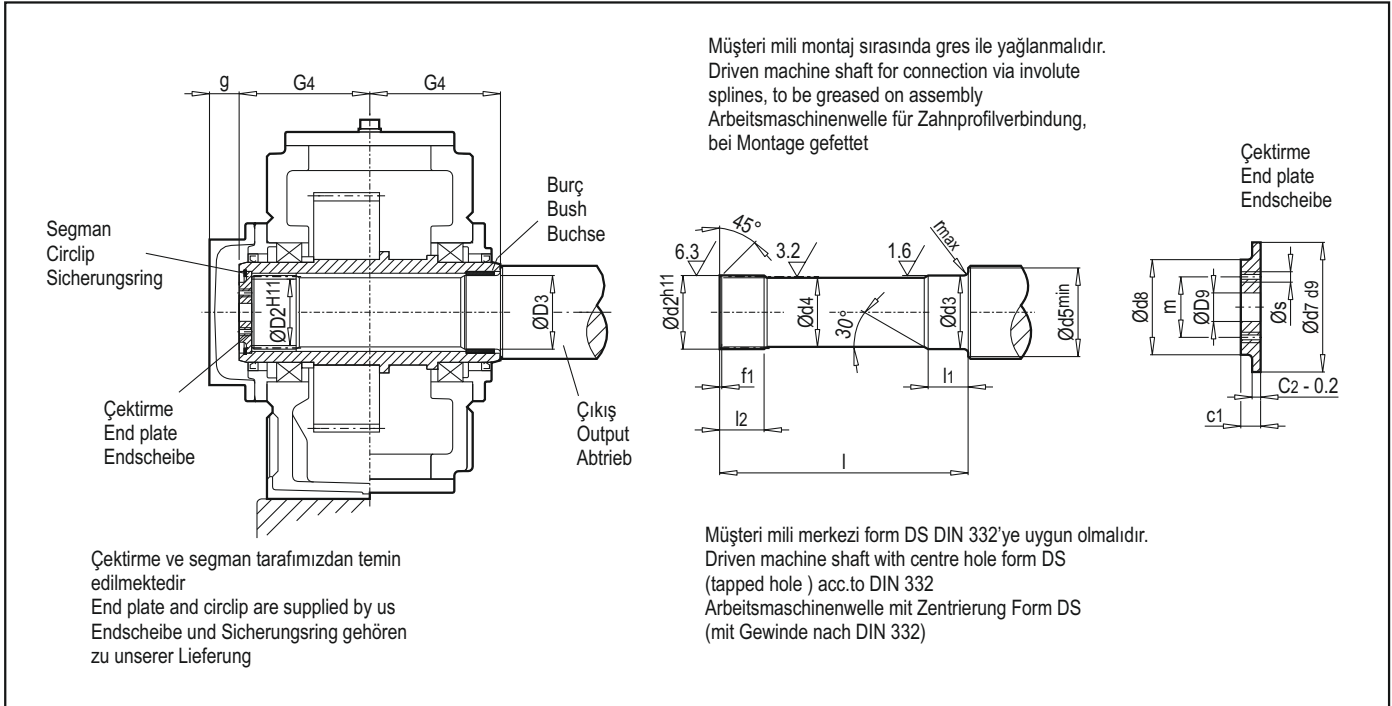
Parallel key does not belong to our scope of supply. Please order separately, if required.

Passfeder gehört nicht zum Lieferumfang. Bei Bedarf gesondert bestellen

TR DELİK MİLLİ SPLİNE ŞAFTLAR DIN 5480

EN HOLLOW SHAFT WITH INVOLUTE SPLINES ACC. TO DIN 5480

DE HOHLWELLEN MIT ZAHNNABENPROFIL NACH DIN 5480



Tipler / Types / Bauarten PH...2-K, PH...3-K, PH...4-K, PB...3-K, PB...4-K

| Redüktör<br>Gövdeleri                                | Müşteri makine mili 1)<br>Driven machine shaft<br>Arbeitsmaschinenwelle |       |        |     |     |    |     |     |     |    | Çektirme<br>End plate<br>Endscheibe |    |     |     |     |     |     |                       | Segman<br>Circlip<br>Sicherungsring<br><br>DIN 472 | Delik milli şaft<br>Hollow shaft<br>Hohlwelle |     |     |    | Cıvata<br>Screw<br>Schraube |  |  |  |
|------------------------------------------------------|-------------------------------------------------------------------------|-------|--------|-----|-----|----|-----|-----|-----|----|-------------------------------------|----|-----|-----|-----|-----|-----|-----------------------|----------------------------------------------------|-----------------------------------------------|-----|-----|----|-----------------------------|--|--|--|
|                                                      | Evolvent spline<br>Involute splines<br>Zahnwellenprofil<br><br>DIN 5480 | Ød2   | Ød3    | Ød4 | Ød5 | f1 | l   | l1  | l2  | r  | c1                                  | c2 | Ød7 | Ød8 | ØD9 | m   | Øs  | Adet<br>Qty<br>Anzahl |                                                    | ØD2                                           | ØD3 | G4  | g  |                             |  |  |  |
|                                                      |                                                                         |       |        |     |     |    |     |     |     |    |                                     |    |     |     |     |     |     |                       |                                                    |                                               |     |     |    |                             |  |  |  |
|                                                      |                                                                         |       |        |     |     |    |     |     |     |    |                                     |    |     |     |     |     |     |                       |                                                    |                                               |     |     |    |                             |  |  |  |
| mm                                                   |                                                                         |       |        |     |     |    |     |     |     | mm |                                     |    |     |     |     |     |     |                       |                                                    |                                               |     |     |    |                             |  |  |  |
| PH/PB5...                                            | W 95x30x30x30x8f                                                        | 94.4  | 100 h6 | 93  | 114 | 3  | 308 | 53  | 90  | 2  | 20                                  | 8  | 105 | 80  | 26  | 55  | M10 | 2                     | 105 x 4                                            | 89                                            | 100 | 165 | 41 | M24                         |  |  |  |
| PH/PB6...                                            | W 95x30x30x30x8f                                                        | 94.4  | 110 h6 | 93  | 124 | 3  | 308 | 58  | 90  | 3  | 20                                  | 8  | 105 | 80  | 26  | 55  | M10 | 2                     | 105 x 4                                            | 89                                            | 110 | 165 | 41 | M24                         |  |  |  |
| PH/PB7...                                            | W120x30x30x38x8f                                                        | 119.4 | 120 h6 | 118 | 134 | 3  | 368 | 68  | 105 | 3  | 20                                  | 8  | 125 | 90  | 26  | 65  | M12 | 2                     | 125 x 4                                            | 114                                           | 120 | 195 | 41 | M24                         |  |  |  |
| PH/PB8...                                            | W120x30x30x38x8f                                                        | 119.4 | 130 h6 | 118 | 145 | 3  | 368 | 73  | 105 | 3  | 20                                  | 8  | 125 | 90  | 26  | 65  | M12 | 2                     | 125 x 4                                            | 114                                           | 130 | 195 | 41 | M24                         |  |  |  |
| PH/PB9...                                            | W140x30x30x45x8f                                                        | 139.4 | 145 m6 | 138 | 160 | 3  | 444 | 82  | 125 | 4  | 23                                  | 10 | 150 | 110 | 33  | 80  | M12 | 2                     | 150 x 4                                            | 134                                           | 145 | 235 | 46 | M30                         |  |  |  |
| PH/PB10...                                           | W140x30x30x45x8f                                                        | 139.4 | 155 m6 | 138 | 170 | 3  | 444 | 92  | 125 | 4  | 23                                  | 10 | 150 | 110 | 33  | 80  | M12 | 2                     | 150 x 4                                            | 134                                           | 155 | 235 | 46 | M30                         |  |  |  |
| PH/PB11...                                           | W170x5x30x32x8f                                                         | 169   | 170 m6 | 168 | 185 | 5  | 514 | 112 | 150 | 4  | 23                                  | 10 | 175 | 130 | 33  | 90  | M12 | 2                     | 175 x 4                                            | 160                                           | 170 | 270 | 46 | M30                         |  |  |  |
| PH/PB12...                                           | W170x5x30x32x8f                                                         | 169   | 185 m6 | 168 | 200 | 5  | 514 | 122 | 150 | 4  | 23                                  | 10 | 175 | 130 | 33  | 90  | M12 | 2                     | 175 x 4                                            | 160                                           | 185 | 270 | 46 | M30                         |  |  |  |
| PH/PB13...                                           | W190x5x30x36x8f                                                         | 189   | 195 m6 | 188 | 213 | 5  | 644 | 137 | 180 | 5  | 23                                  | 10 | 200 | 150 | 33  | 110 | M16 | 2                     | 200 x 4                                            | 180                                           | 195 | 335 | 46 | M30                         |  |  |  |
| PH/PB14...                                           | W190x5x30x36x8f                                                         | 189   | 215 m6 | 188 | 233 | 5  | 644 | 147 | 180 | 5  | 23                                  | 10 | 200 | 150 | 33  | 110 | M16 | 2                     | 200 x 4                                            | 180                                           | 215 | 335 | 46 | M30                         |  |  |  |
| PH/PB15...                                           | W220x5x30x42x8f                                                         | 219   | 235 m6 | 218 | 253 | 5  | 728 | 157 | 200 | 5  | 28                                  | 14 | 240 | 180 | 39  | 140 | M16 | 2                     | 240 x 5                                            | 210                                           | 235 | 380 | 61 | M36                         |  |  |  |
| PH/PB16...                                           | W220x5x30x42x8f                                                         | 219   | 245 m6 | 218 | 263 | 5  | 728 | 157 | 200 | 5  | 28                                  | 14 | 240 | 180 | 39  | 140 | M16 | 2                     | 240 x 5                                            | 210                                           | 245 | 380 | 61 | M36                         |  |  |  |
| PH/PB17...                                           | W250x5x30x48x8f                                                         | 249   | 260 m6 | 248 | 278 | 5  | 796 | 177 | 215 | 5  | 30                                  | 14 | 265 | 200 | 39  | 150 | M20 | 2                     | 265 x 5                                            | 240                                           | 260 | 415 | 61 | M36                         |  |  |  |
| PH/PB18...                                           | W250x5x30x48x8f                                                         | 249   | 285 m6 | 248 | 306 | 5  | 796 | 177 | 215 | 5  | 30                                  | 14 | 265 | 200 | 39  | 150 | M20 | 2                     | 265 x 5                                            | 240                                           | 285 | 415 | 61 | M36                         |  |  |  |
| PH/PB19...<br>PH/PB20...<br>PH/PB21...<br>PH/PB22... | Talep edildiğinde / On request / Auf Anfrage                            |       |        |     |     |    |     |     |     |    |                                     |    |     |     |     |     |     |                       |                                                    |                                               |     |     |    |                             |  |  |  |

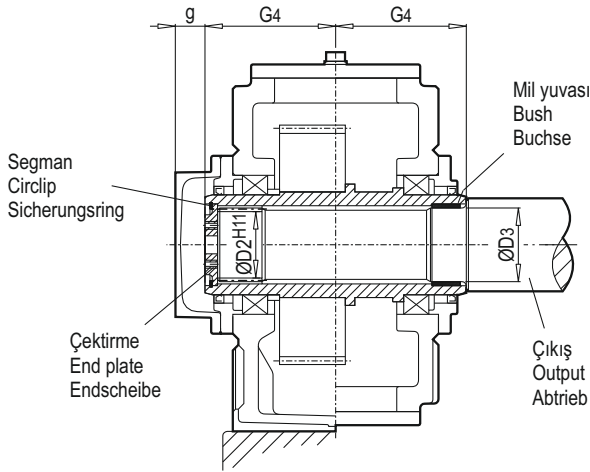
1) Müşteri milinin malzemesi: C60N veya daha yüksek dayanım.

1) Material of driven machine shaft: C60N or higher strength.

1) Werkstoff Arbeitsmaschinenwelle C60N oder höhere Festigkeit.

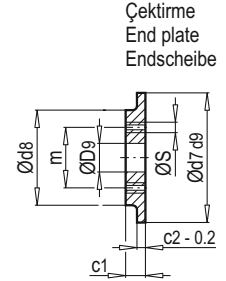
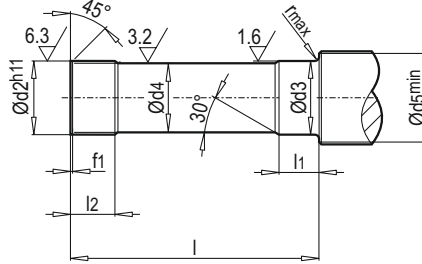
**TR** DELİK MİLLİ SPLİNE ŞAFTLAR DIN 5480

**EN** HOLLOW SHAFT WITH INVOLUTE SPLINES ACC. TO DIN 5480

**DE** HOHLWELLEN MIT ZAHNNABENPROFIL NACH DIN 5480


Çektirme ve segman tarafımızdan temin edilmektedir.  
End plate and circlip are supplied by us  
Endscheibe und Sicherungsring gehören zu unserer Lieferung

Müşteri mili montaj sırasında gres ile yağlanmalıdır.  
Driven machine shaft for connection via involute splines, to be greased on assembly  
Arbeitsmaschinenwelle für Zahnprofilverbindung, bei Montage gefettet



Müşteri mili merkezi form DS DIN 332'ye uygun olmalıdır.  
Driven machine shaft with centre hole form DS  
(tapped hole ) acc.to DIN 332  
Arbeitsmaschinenwelle mit Zentrierung Form DS  
(mit Gewinde nach DIN 332)

Tip / Type / Bauart PB...2-K

| Redüktör<br>Gövdesi | Müşteri makinesi mili<br>Driven machine shaft<br>Arbeitsmaschinenwelle |                                                                          |                  |            |            |        |            |            |            |        | Çektirme<br>End plate<br>Endscheibe |          |            |            |          |          |            |        |                             |            | Segman<br>Circlip<br>Sicherungsring<br><br>DIN 472 | Delik milli shaft<br>Hollow shaft<br>Hohlwelle |          |            |  | Cıvata<br>Screw<br>Schraube |
|---------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------|------------|------------|--------|------------|------------|------------|--------|-------------------------------------|----------|------------|------------|----------|----------|------------|--------|-----------------------------|------------|----------------------------------------------------|------------------------------------------------|----------|------------|--|-----------------------------|
|                     | Gear unit<br>size<br><br>Getriebe-<br>größen                           | Evolutent spline<br>Involute splines<br>Zahnwellenprofil<br><br>DIN 5480 | Ød2              | ØD3        | Ød4        | Ød5    | f1         | l          | l1         | l2     | r                                   | c1       | c2         | Ød7        | Ød8      | ØD9      | m          | Øs     | Adet<br>Qty.<br>An-<br>zahl | ØD2        |                                                    | ØD3                                            | G4       | g          |  |                             |
|                     |                                                                        |                                                                          |                  |            |            |        |            |            |            |        |                                     |          |            |            |          |          |            |        |                             |            |                                                    |                                                |          |            |  |                             |
|                     |                                                                        |                                                                          |                  |            |            |        |            |            |            |        |                                     |          |            |            |          |          |            |        |                             |            |                                                    |                                                |          |            |  |                             |
| mm                  |                                                                        |                                                                          |                  |            |            |        |            |            |            | mm     |                                     |          |            |            |          |          |            |        |                             |            |                                                    |                                                |          |            |  |                             |
| 52<br>62            | W95x3x30x30x8f<br>W95x3x30x30x8f                                       | 94.4<br>94.4                                                             | 100 h6<br>110 h6 | 93<br>93   | 114<br>124 | 3<br>3 | 378<br>378 | 53<br>58   | 90<br>90   | 2<br>3 | 20<br>20                            | 8<br>8   | 105<br>105 | 80<br>80   | 26<br>26 | 55<br>55 | M10<br>M10 | 2<br>2 | 105 x 4<br>105 x 4          | 89<br>89   | 100<br>110                                         | 200<br>200                                     | 41<br>41 | M24<br>M24 |  |                             |
| 72<br>82            | W120x3x30x38x8f<br>W120x3x30x38x8f                                     | 119.4<br>119.4                                                           | 120 h6<br>130 h6 | 118<br>118 | 134<br>145 | 3<br>3 | 448<br>448 | 68<br>73   | 105<br>105 | 3<br>3 | 20<br>20                            | 8<br>8   | 125<br>125 | 90<br>90   | 26<br>26 | 65<br>65 | M12<br>M12 | 2<br>2 | 125 x 4<br>125 x 4          | 114<br>114 | 120<br>130                                         | 235<br>235                                     | 41<br>41 | M24<br>M24 |  |                             |
| 92<br>102           | W140x3x30x45x8f<br>W140x3x30x45x8f                                     | 139.4<br>139.4                                                           | 145 m6<br>155 m6 | 138<br>138 | 160<br>170 | 3<br>3 | 514<br>514 | 82<br>92   | 125<br>125 | 4<br>4 | 23<br>23                            | 10<br>10 | 150<br>150 | 110<br>110 | 33<br>33 | 80<br>80 | M12<br>M12 | 2<br>2 | 150 x 4<br>150 x 4          | 134<br>134 | 145<br>155                                         | 270<br>270                                     | 46<br>46 | M30<br>M30 |  |                             |
| 112<br>122          | W170x5x30x32x8f<br>W170x5x30x32x8f                                     | 169<br>169                                                               | 170 m6<br>185 m6 | 168<br>168 | 185<br>200 | 5<br>5 | 614<br>614 | 112<br>122 | 150<br>150 | 4<br>4 | 23<br>23                            | 10<br>10 | 175<br>175 | 130<br>130 | 33<br>33 | 90<br>90 | M12<br>M12 | 2<br>2 | 175 x 4<br>175 x 4          | 160<br>160 | 170<br>185                                         | 320<br>320                                     | 46<br>46 | M30<br>M30 |  |                             |
| 142                 | W190x5x30x36x8f                                                        | 189                                                                      | 215 m6           | 188        | 233        | 5      | 754        | 147        | 180        | 5      | 23                                  | 10       | 200        | 150        | 33       | 110      | M16        | 2      | 200 x 4                     | 180        | 215                                                | 390                                            | 46       | M30        |  |                             |
| 162                 | W220x5x30x42x8f                                                        | 219                                                                      | 245 m6           | 218        | 263        | 5      | 868        | 157        | 200        | 5      | 28                                  | 14       | 240        | 180        | 39       | 140      | M16        | 2      | 240 x 5                     | 210        | 245                                                | 450                                            | 61       | M36        |  |                             |
| 182                 | W250x5x30x48x8f                                                        | 249                                                                      | 285 m6           | 248        | 306        | 5      | 986        | 177        | 215        | 5      | 30                                  | 14       | 265        | 200        | 39       | 150      | M20        | 2      | 265 x 5                     | 240        | 285                                                | 510                                            | 61       | M36        |  |                             |

1) Müşteri milinin malzemesi : C60N veya daha yüksek dayanım.

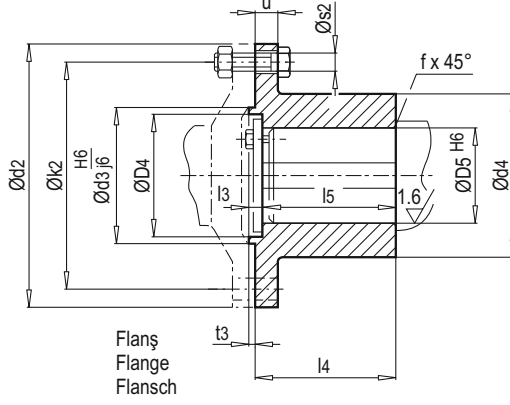
1) Material of driven machine shaft: C60N or higher strength.

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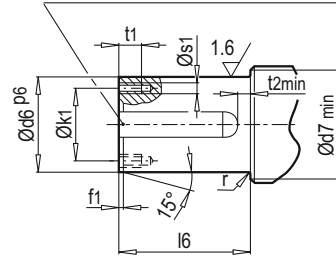
TR FLANŞLI ŞAFTLAR İÇİN KONTRA FLANŞ

EN COUNTERFLANGES FOR FLANGED SHAFTS

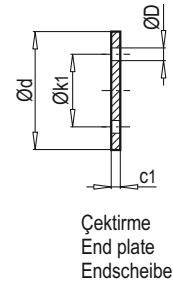
DE GEGENFLANSCH FÜR FLANSCHWELLE



11 ve 12 gövde büyüklüklerinde kama kanalı DIN 6885/1'e uygun olmalı ve kama kanalı, 180° derece döndürülmelidir.  
Keyway acc. to DIN 6885 / 1, for sizes 11 and 12  
two keyways offset at 180°  
Passfedernut DIN 6885 / 1, bei Größen 11 und 12  
2 Nuten um 180° versetzt



Müşteri makinesi mili  
Driven machine shaft  
Arbeitsmaschinenwelle



Çektirme  
End plate  
Endscheibe

Tipler / Types / Bauarten PH...2-F, PH...3-F, PH...4-F, PB...2-F, PB...3-F, PB...4-F

| Redüktör<br>Gövdesi<br>Gear unit<br>size<br>Getriebe-<br>größe | Flanş / Flange / Flansch |     |     |     |     |     |     |    |     |     |     |    |    | Cıvata 1)<br>Bolt<br>Schraube |                       |                |
|----------------------------------------------------------------|--------------------------|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|----|----|-------------------------------|-----------------------|----------------|
|                                                                | Ød2                      | Ød3 | Ød4 | ØD4 | ØD5 | f   | k2  | l3 | l4  | l5  | Øs2 | t3 | u  | Boyut<br>Size<br>Größe        | Adet<br>Qty<br>Anzahl | TA<br>2)<br>Nm |
| PH/PB5...                                                      | 300                      | 150 | 191 | 135 | 110 | 2.5 | 260 | 16 | 175 | 167 | M20 | 8  | 26 | M20x70                        | 16                    | 610            |
| PH/PB6...                                                      | 320                      | 160 | 211 | 145 | 120 | 2.5 | 280 | 22 | 185 | 171 | M20 | 8  | 26 | M20x70                        | 18                    | 610            |
| PH/PB7...                                                      | 370                      | 180 | 231 | 160 | 135 | 2.5 | 320 | 21 | 220 | 207 | M24 | 8  | 31 | M24x90                        | 16                    | 1050           |
| PH/PB8...                                                      | 390                      | 190 | 271 | 175 | 150 | 2.5 | 340 | 22 | 220 | 206 | M24 | 8  | 31 | M24x90                        | 18                    | 1050           |
| PH/PB9...                                                      | 430                      | 220 | 291 | 195 | 160 | 4.0 | 380 | 22 | 250 | 238 | M24 | 10 | 39 | M24x100                       | 20                    | 1050           |
| PH/PB10...                                                     | 470                      | 240 | 311 | 220 | 180 | 4.0 | 420 | 22 | 250 | 238 | M24 | 10 | 39 | M24x100                       | 22                    | 1050           |
| PH/PB11...                                                     | 510                      | 260 | 341 | 235 | 200 | 4.0 | 450 | 22 | 290 | 278 | M30 | 10 | 43 | M30x120                       | 18                    | 2100           |
| PH/PB12...                                                     | 540                      | 280 | 361 | 255 | 210 | 4.0 | 480 | 22 | 290 | 278 | M30 | 10 | 43 | M30x120                       | 22                    | 2100           |

| Redüktör<br>Gövdesi<br>Gear unit<br>size<br>Getriebe-<br>größe | Müşteri makinesi mili<br>Driven machine shaft<br>Arbeitsmaschinenwelle |     |     |     |     |   |     |    |     | Çektirme<br>End plate<br>Endscheibe |     |      |     | Cıvata<br>Bolt<br>Schraube |                       | Ağırlık<br>Weight<br>Gewicht<br>kg |
|----------------------------------------------------------------|------------------------------------------------------------------------|-----|-----|-----|-----|---|-----|----|-----|-------------------------------------|-----|------|-----|----------------------------|-----------------------|------------------------------------|
|                                                                | Ød6                                                                    | Ød7 | f1  | k1  | l6  | r | Øs1 | t1 | t2  | c1                                  | Ød  | ØD   | k1  | Boyut<br>Size<br>Größe     | Adet<br>Qty<br>Anzahl |                                    |
| PH/PB5...                                                      | 110                                                                    | 122 | 2.5 | 80  | 165 | 2 | M12 | 28 | 7.5 | 10                                  | 130 | 13.5 | 80  | M12x35                     | 4                     | 35                                 |
| PH/PB6...                                                      | 120                                                                    | 132 | 2.5 | 95  | 169 | 2 | M16 | 32 | 7.5 | 14                                  | 140 | 17.5 | 95  | M16x45                     | 4                     | 45                                 |
| PH/PB7...                                                      | 135                                                                    | 147 | 2.5 | 95  | 205 | 2 | M16 | 32 | 16  | 14                                  | 155 | 17.5 | 95  | M16x45                     | 4                     | 65                                 |
| PH/PB8...                                                      | 150                                                                    | 162 | 2.5 | 110 | 204 | 2 | M16 | 32 | 16  | 16                                  | 170 | 17.5 | 110 | M16x45                     | 4                     | 85                                 |
| PH/PB9...                                                      | 160                                                                    | 176 | 4.0 | 110 | 235 | 3 | M16 | 32 | 16  | 16                                  | 190 | 17.5 | 110 | M16x45                     | 4                     | 115                                |
| PH/PB10...                                                     | 180                                                                    | 196 | 4.0 | 145 | 235 | 3 | M20 | 38 | 16  | 18                                  | 215 | 22   | 145 | M20x55                     | 4                     | 130                                |
| PH/PB11...                                                     | 200                                                                    | 216 | 4.0 | 145 | 275 | 3 | M20 | 38 | 16  | 18                                  | 230 | 22   | 145 | M20x55                     | 4                     | 175                                |
| PH/PB12...                                                     | 210                                                                    | 230 | 4.0 | 160 | 275 | 3 | M20 | 38 | 16  | 18                                  | 250 | 22   | 160 | M20x55                     | 4                     | 200                                |

Kama, teslimat kapsamına dahil değildir. İhtiyaç olması durumunda, ayrıca sipariş edilmelidir

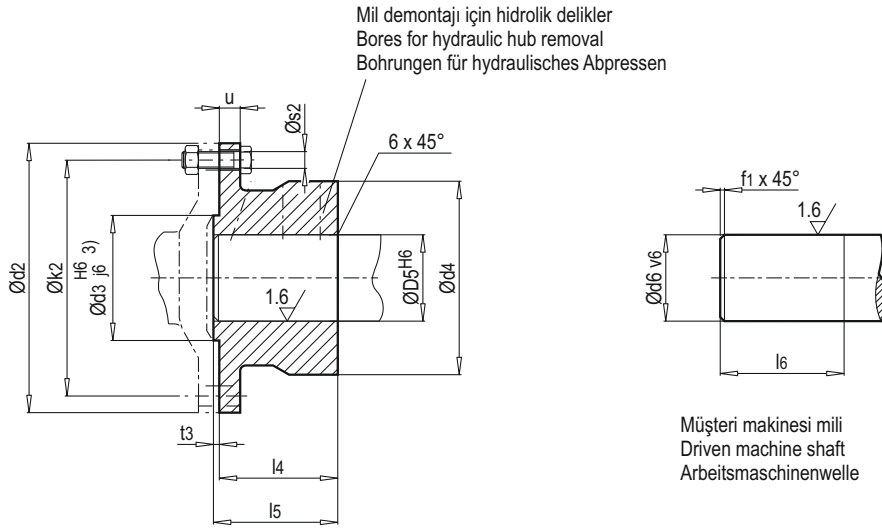
- 1) Cıvatalar, DIN 931'e uygun ve malzemesi 10.9 olmalıdır; somunlar, DIN 934'e uygun ve malzemesi 10.9 olmalıdır.
- 2) Flanş bağlantı civatasının sıkma torku Flanş ve müşteri millerinin malzeme mukavemet değeri, C60N veya üstü olmalıdır.

Parallel key does not belong to our scope of supply. Please order separately, if required.

- 1) Bolts acc. to DIN 931, material 10.9; Nuts acc. to DIN 934, material 10.9
- 2) Tightening torque of flange connection bolts Material of flanges and driven machine shafts: C60N or higher strength

Passfeder gehört nicht zum Lieferumfang. Bei Bedarf gesondert bestellen.

- 1) Schrauben nach DIN 931, Werkstoff 10.9; Muttern nach DIN 934, Werkstoff 10.9
- 2) Anzugsmoment der Flanschverbindungsschraube Werkstoffe der Flansche und Arbeitsmaschinenwellen C60N oder höhere Festigkeit.



Tipler / Types / Bauarten PH...2F, PH...3F, PH...4F, PB...2F, PB...3F, PB...4F

| Redüktör<br>Gövdesi<br><br>Gear unit<br>size<br><br>Getriebe-<br>größen | Flanş / Flange / Flansch<br><br>2)           |     |     |     |     |     |     |     |    |    | Cıvata 1)<br>Bolt<br>Schraube |                       |              | Müşteri makinesi mili<br>Driven machine shaft<br>Arbeitsmaschinenwelle |    |     | Ağırlık<br>Weight<br>Gewicht |
|-------------------------------------------------------------------------|----------------------------------------------|-----|-----|-----|-----|-----|-----|-----|----|----|-------------------------------|-----------------------|--------------|------------------------------------------------------------------------|----|-----|------------------------------|
|                                                                         | Ød2                                          | Ød3 | Ød4 | ØD5 | Øk2 | l4  | l5  | Øs2 | t3 | u  | Boyut<br>Size<br>Größe        | Adet<br>Qty<br>Anzahl | Ta<br><br>Nm | Ød6                                                                    | f1 | l6  | kg                           |
|                                                                         | mm                                           |     |     |     |     |     |     |     |    |    |                               |                       |              | mm                                                                     |    |     |                              |
|                                                                         |                                              |     |     |     |     |     |     |     |    |    |                               |                       |              |                                                                        |    |     |                              |
| PH/PB13...                                                              | 580                                          | 310 | 391 | 240 | 500 | 310 | 322 | M30 | 12 | 48 | M30x130                       | 20                    | 2100         | 240                                                                    | 3  | 322 | 235                          |
| PH/PB14...                                                              | 620                                          | 310 | 426 | 260 | 540 | 345 | 357 | M30 | 12 | 48 | M30x130                       | 24                    | 2100         | 260                                                                    | 3  | 357 | 300                          |
| PH/PB15...                                                              | 710                                          | 360 | 461 | 280 | 630 | 365 | 380 | M30 | 15 | 55 | M30x140                       | 28                    | 2100         | 280                                                                    | 3  | 380 | 400                          |
| PH/PB16...                                                              | 740                                          | 360 | 481 | 300 | 660 | 395 | 410 | M30 | 15 | 55 | M30x140                       | 30                    | 2100         | 300                                                                    | 4  | 410 | 450                          |
| PH/PB17...                                                              | 750                                          | 410 | 521 | 320 | 660 | 420 | 436 | M36 | 16 | 60 | M36x160                       | 24                    | 3560         | 320                                                                    | 4  | 436 | 540                          |
| PH/PB18...                                                              | 800                                          | 410 | 551 | 340 | 710 | 450 | 466 | M36 | 16 | 60 | M36x160                       | 26                    | 3560         | 340                                                                    | 4  | 466 | 650                          |
| PH/PB19...<br>PH/PB20...<br>PH/PB21...<br>PH/PB22...                    | Talep edildiğinde / On request / Auf Anfrage |     |     |     |     |     |     |     |    |    |                               |                       |              |                                                                        |    |     |                              |

- 1) Civatalar, DIN 931'e uygun ve malzemesi 10.9 olmalıdır; somunlar, DIN 934'e uygun ve malzemesi 10.9 olmalıdır.  
2) Diğer çaplar, talep üzerine temin edilir. (Taban/ayak için, daha küçük D5 deliklerin uygulanması da mümkündür).  
3) Sıkıştırımdan sonraki ölçü d3 j6'dır.  
Kama kanallı flanş bağlantısı, talep edildiğinde temin edilir. Flanş ve müşteri millerinin malzeme mukavemet değeri, C60N veya üstü olmalıdır. Kontra flanş 190°C'ye ve müşteri mili 20°C'ye ısıtılarak yerleştirilir.

- 1) Bolts acc.to DIN 931, material 10.9; Nuts acc. to DIN 934, material 10.9  
2) Other diameters on request. (for footmounted design, smaller bores D5 are possible)  
3) Dimension d3 j6 after shrink fitting.  
Counterflange with keyway on request. Material of flanges and driven machine shafts: C60N or higher strengths. For assembly, heat counterflange to 190°C, and driven machine shaft to 20°C.

- 1) Schrauben nach DIN 931, Werkstoff 10.9; Muttern nach DIN 934, Werkstoff 10.9  
2) Andere Durchmesser auf Anfrage. (Bei Fußausführung sind kleinere Bohrungen D5 möglich).  
3) Maß d3 j6 nach dem Aufschrupfen.  
Flanschverbindung mit passfedernut auf Anfrage. Werkstoffe der Flansche und Arbeitsmaschinenwellen C60N oder höhere Festigkeiten. Gegenflansch beim Aufsetzen auf 190°C erwärmen, Arbeitsmaschinenwelle auf 20°C.

PGR dişli redüktörleri, PGR tarafından önerilen yağ firmalarının önerilen yağları kullanılarak doldurulur, işbu kapsamda ilgili yağ tipi ve yağ viskozitesine ilişkin yağ firmaları ve benzer şekilde yağ tedarikçisi firmalar, Tablo 1'de belirtilen uygulama sınırlamalarına dikkat etmelidir.

Tablo 2'de, ilgili redüktör tipi ve boyutuna göre uygulanması mümkün olan yağlama şekillerine ilişkin genel bilgiler yer almaktadır.

25 cSt'lik asgari çalışma viskozitesi, mutlaka sağlanmalıdır.

PGR gear units may be filled with oils from producer authorized by PGR, the oil producer or supplier being responsible for the quality of his product. For the selection of oil grade and viscosity, the limits of application given in table 1 are to be taken into consideration.

In table 2 a survey of the possible oil supply variants is given for the respective types and sizes.

A minimum operating viscosity of 25 cSt must be ensured.

PGR Zahnratgetriebe können mit Ölen von PGR zugelassener Hersteller befüllt werden, wobei der Ölhersteller bzw. Öllieferant für die Qualität seines Produktes verantwortlich ist. Bei der Auswahl von Ölart und Ölviskosität sind die in der Tabelle 1 genannten Einsatzgrenzen zu beachten.

Die Tabelle 2 gibt einen Überblick über die möglichen Ölversorgungsvarianten für die entsprechenden Bauarten und Größen.

Eine Mindest - Betriebsviskosität von 25 cSt muss gewährleistet sein.

| Tablo 1 / Table 1 / Tabelle 1                                                                                                                                                          |                                                                                                          |                                                      |                                                           |                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------|
| 40°C'deki viskozitesi<br>mm <sup>2</sup> /s (cSt)<br><br>Viscosity ISO - VG at 40<br>°C in mm <sup>2</sup> /s (cSt)<br><br>Viskosität ISO- VG bei 40<br>°C in mm <sup>2</sup> /s (cSt) | Minimum sıcaklık sınırı °C<br>Minimum temperature limit in °C for<br>Miniale Grenztemperaturen in °C für |                                                      |                                                           |                                                      |
|                                                                                                                                                                                        | Daldırma yağlama<br>Dip lubrication<br>Tauchschmierung                                                   |                                                      | Basınçlı yağlama<br>Forced lubrication<br>Druckschmierung |                                                      |
|                                                                                                                                                                                        | Mineral yağ<br>Mineral oil<br>Mineralöl                                                                  | Sentetik yağ *)<br>Synthetic oil<br>Synthetisches Öl | Mineral yağ<br>Mineral oil<br>Mineralöl                   | Sentetik yağ *)<br>Synthetic oil<br>Synthetisches Öl |
| <b>VG 220</b>                                                                                                                                                                          | - 15                                                                                                     | - 25                                                 | 10                                                        | 0                                                    |
| <b>VG 320</b>                                                                                                                                                                          | - 12                                                                                                     | - 25                                                 | 15                                                        | 5                                                    |
| <b>VG 460</b>                                                                                                                                                                          | - 10                                                                                                     | - 25                                                 | -                                                         | -                                                    |

\*) PG bazlı sentetik yağ kullanmadan önce, mutlaka PGR ile görüşün!

\*) If synthetic oil on PG basis is used, please consult PGR !

\*) Bei Einsatz von synthetischem Öl auf PG Basis bitte Rücksprache mit PGR!

#### Daldırma yağlama:

Daldırma yöntemiyle yağlamada, yağlanacak tüm parçalar yağ içerisine konur.

Yağ genişemesi için, bir yağ tankı vidalanarak bağlanır.

Seçim kriterleri için, sayfa 139'a bakın.

Mutlaka tabloda belirtilen sıcaklıklara göre, ısıtılmalıdır.

Daldırma yöntemiyle yağlamada, yağ sıcaklığı seçilen yağ tipinin akma noktasının altında olmamalıdır.

#### Basınçlı yağlama:

Basınçlı yağlamada, yağ içerisinde olmayan tüm parçalar, bağlanacak bir flanş pompası veya ayrı bir motor pompası vasıtasıyla, püskürtme yağlama yöntemiyle yağlanır. Seçim kriterleri için, 140-143 arasındaki sayfalara bakın.

Basınçlı yağlama uygulandığında, hareket sırasında 1800cSt'lik çalışma viskozitesi değeri aşılmamalıdır.

Daldırma yöntemiyle yağlamada, Tablo 1'de listelenen sıcaklık sınırlarına, mutlaka uyulmalıdır veya ısıtılmalıdır.

#### Dip lubrication:

In case of dip lubrication, all parts to be lubricated are lying in the oil.

An oil compensatin tank has been fitted for oil expansion.

For criteria for selection, see pages 139.

If the temperatures are below the values as listed in the table, the oil must be heated.

In case of dip lubrication, the oil temperature must not drop below the pour point of the selected oil.

#### Forced Lubrication:

In case of forced lubrication, all parts not lying in oil are splash lubricated by means of a flanged-on-pump or by a separate motor pump.

For criteria for selection, see pages 140-143.

In case of forced lubrication, the operating viscosity 1800 cSt must not be exceeded during start-up.

If the temperatures are below the values as listed in table 1, dip lubrication has to be provided or the oil must be heated.

#### Tauchschmierung:

Bei Tauchschmierung liegen alle zu schmierenden Elemente in Öl.

Ein Ölausgleichsbehälter ist für die Ölausdehnung angeschraubt.

Auswahlkriterien siehe seite 139

Unterhalb der in der Tabelle angegebenen temperaturen muss beheizt werden.

Bei Tauchschmierung darf die Öltemperatur nicht unterhalb des Pourpoints des gewählten Öles liegen.

#### Druckschmierung:

Bei Druckschmierung werden alle nicht in Öl liegenden Elemente durch eine angebaute Flanscpumpe oder durch eine separate motorpumpe mit Spritzöl versorgt.

Auswahlkriterien siehe seiten 140-143.

Bei Druckschmierung darf die Betriebsviskosität 1800 cSt beim Anfahren nicht überschritten werden.

Unterhalb der in Tabelle 1 aufgeführten Grenztemperaturen ist tauchschmierung vorzusehen oder es muss beheizt werden.

#### Muhafaza:

PGR redüktörlerinin iç kısımlarının korozyona karşı muhafaza, kullanılan yağ tipine bağlıdır.

Korozyona karşı korunmuş redüktörlerin, aşağıda belirtilen sürelerde depolanması mümkündür:

| Standart Muhafaza | Uzun süreli Muhafaza <sup>1)</sup>                       |
|-------------------|----------------------------------------------------------|
| 6 aya kadar       | 24 aya kadar <sup>2)</sup><br>36 aya kadar <sup>3)</sup> |

1) Yukarıda belirtilen süreler, labirent veya diyafram keçeli redüktörler için geçerli değildir.

2) Sadece mineral yağ veya PAO bazlı sentetik yağ kullanıldığında geçerlidir.

3) Sadece PG bazlı sentetik yağ kullanıldığında geçerlidir.

Yukarıda belirtilen depolama süreleri aşıldığında, redüktörler yeniden korozyona karşı muhafaza uygulanır.

#### Preservation:

The internal preservation of PGR gear units is dependent on the oil used.

For gear units with corrosion prevention, the following storage times are possible:

| Standard preservation | Long-term preservation <sup>1)</sup>                           |
|-----------------------|----------------------------------------------------------------|
| up to 6 months        | up to 24 months <sup>2)</sup><br>up to 36 months <sup>3)</sup> |

1) Not for gear units with labyrinth seals or diaphragm glands.

2) Only if mineral oil or Synthetic oil on PAO basis is used.

3) Only if synthetic oil on PG basis is used.

If the storage periods mentioned are exceeded, the anticorrosive agent in the gear unit is to be renewed.

#### Konservierung:

Die Innenkonservierung von PGR -Zahnradgetrieben ist abhängig von dem zum Einsatz kommenden Öl.

Für konverzierte Getriebe sind folgende Lagerzeiten möglich:

| Standard-Konservierung | Langzeit-Konservierung <sup>1)</sup>                       |
|------------------------|------------------------------------------------------------|
| bis 6 Monate           | bis 24 Monate <sup>2)</sup><br>bis 36 Monate <sup>3)</sup> |

1) nicht für Getriebe mit Labyrinth- oder Spaltdichtung.

2) nur bei Einsatz von Mineralöl oder synthetischem Öl auf PAO- Basis.

3) nur bei Einsatz von synthetischem Öl auf PG-Basis.

Bei Überschreitung der genannten Lagerzeiten ist das Getriebe erneut zu konservieren.

| Tablo 2 / Table 2 / Tabelle 2 |                        |                                                        |                                                                                                           |                                                                                                    |
|-------------------------------|------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Tip<br>Type<br>Bauart         | Gövde<br>Size<br>Größe | Daldırma yağlama<br>Dip lubrication<br>Tauchschrnerung | Flanşlı pompa ile basınçlı yağlama<br>Forced lubrication, flanged- on pump<br>Druckschrnerung Flanshpumpe | Motorlu pompa ile basınçlı yağlama<br>Forced lubrication, motor pump<br>Druckschrnerung Motorpumpe |
| PH...1-SH                     | 31 - 171               | H                                                      | H                                                                                                         | -                                                                                                  |
| PH...2                        | 42                     | H V                                                    | V                                                                                                         | -                                                                                                  |
|                               | 52 - 122               | H V                                                    | H V SR 1) 3)                                                                                              | -                                                                                                  |
|                               | 132 - 182              | H M                                                    | H M V SR 1) 3)                                                                                            | -                                                                                                  |
|                               | 192 - 222              | H M                                                    | V                                                                                                         | -                                                                                                  |
| PH...3                        | 53 - 123               | H V                                                    | V SR 1)                                                                                                   | V SR 1)                                                                                            |
|                               | 133 - 183              | H M                                                    | V SR 1)                                                                                                   | V SR 1)                                                                                            |
|                               | 193 - 223              | H M                                                    | V                                                                                                         | -                                                                                                  |
| PH...4                        | 74 - 124               | H V                                                    | V                                                                                                         | V                                                                                                  |
|                               | 134 - 184              | H M                                                    | V                                                                                                         | V                                                                                                  |
|                               | 194 - 224              | H M                                                    | V                                                                                                         | -                                                                                                  |
| PB...2                        | 42                     | H V                                                    | V                                                                                                         | -                                                                                                  |
|                               | 52 - 122               | H V                                                    | H V SR 2)                                                                                                 | V SR 2)                                                                                            |
|                               | 132 - 182              | H M                                                    | H M V SR 2)                                                                                               | V SR 2)                                                                                            |
|                               | 192 - 222              | H M                                                    | V                                                                                                         | -                                                                                                  |
| PB...3                        | 43                     | H V                                                    | V                                                                                                         | -                                                                                                  |
|                               | 53 - 123               | H V                                                    | V SR 2)                                                                                                   | V SR 2)                                                                                            |
|                               | 133 - 183              | H M                                                    | V SR 2)                                                                                                   | V SR 2)                                                                                            |
|                               | 193 - 223              | H M                                                    | V                                                                                                         | -                                                                                                  |
| PB...4                        | 54 - 124               | H V                                                    | V SR 2)                                                                                                   | V SR 2)                                                                                            |
|                               | 134 - 184              | H M                                                    | V SR 2)                                                                                                   | V SR 2)                                                                                            |
|                               | 194 - 224              | H M                                                    | V                                                                                                         | -                                                                                                  |

H = Yatay redüktör  
M = Şaft montajlı yatay redüktörler  
V = Dikey redüktör  
SR = Çıkış mili ve yağ tüplü dikey redüktör

H = Horizontal gear unit  
M = Shaft- mounted horizontal gear unit  
V = Vertical gear unit  
SR= Vertical gear unit with solid output shaft and oil retaining tube

H = Horizontalgetriebe  
M = Horizontalgetriebe in Aufsteckausführung  
V = Vertikalgetriebe  
SR= Vertikalgetriebe mit Abtriebsvollwelle und Ölstaurohr

1) Sadece B tasarımı için mümkün  
2) Sadece C tasarımı için mümkün  
3) Gövde 5 için mümkün olan  $i \leq 16$   
Gövde 7 için mümkün olan  $i \leq 16$   
Gövde 11 için mümkün olan  $i \leq 18$   
Gövde 13 için mümkün olan  $i \leq 18$   
Gövde 17 için mümkün olan  $i \leq 18$

1) Design B possible only  
2) Design C possible only  
3) For size 5 only possible up to  $i \leq 16$   
For size 7 only possible up to  $i \leq 16$   
For size 11 only possible up to  $i \leq 18$   
For size 13 only possible up to  $i \leq 18$   
For size 17 only possible up to  $i \leq 16$

1) Nur Ausführung B möglich  
2) Nur Ausführung C möglich  
3) Größe 5 nur bis  $i \leq 16$  möglich  
Größe 7 nur bis  $i \leq 16$  möglich  
Größe 11 nur bis  $i \leq 18$  möglich  
Größe 13 nur bis  $i \leq 18$  möglich  
Größe 17 nur bis  $i \leq 16$  möglich

**TR DALDIRMA YÖNTEMİYLE YAĞLAMA - DİKEY**

Daldırma yöntemiyle yağlama uygulandığında, aşağıda belirtilen kriterlere dikkat edilmelidir:

- a) Maksimum giriş devir sayıları için, tablo 3'e bakın.  
b) İzin verilen yağ sıcaklıkları için, tablo 1'e bakın.

Tablo 3'te belirtilmemiş  $n_1$  ve  $\dot{I}N$  değerlerine sahip redüktörlerin termal değerleri, bu katalogta belirtilen parametre ve değerlerden farklı olabilir.  
Gerekirse, bu tip redüktörlere basınçlı yağlama uygulanmalıdır.  
Lütfen PGR ile görüşünüz!

**EN DIP LUBRICATION - VERTICAL**

For the design with dip lubrication the following criteria are to be taken into account:

- a) For maximum input speed  $n_1$ , see table 3.  
b) For permissible oil temperatures, see table 1.

For gear units with  $n_1$  and  $\dot{I}N$  not listed in table 3, the parameters for the calculation of the thermal capacity can deviate from those given in this brochure.  
If necessary, such gear units are to be designed with forced lubrication.  
Please consult PGR!

**DE TAUCHSCHMIERUNG - VERTIKAL**

Bei der Auslegung der Tauchschmierung sind folgende Kriterien zu berücksichtigen:

- a) maximale Eingangsrehzahl  $n_1$  siehe Tabelle 3.  
b) zulässige Ötemperaturen siehe Tabelle 1.

Bei Getrieben mit  $n_1$  und  $\dot{I}N$ , die nicht in der Tabelle 3 aufgeführt sind, kann die thermische Auslegung von den in diesem Katalog genannten Parametern abweichen.  
Gegebenenfalls sind diese Getriebe mit einer Druckschmierung auszuführen.  
Hier ist Rücksprache mit PGR notwendig!

**Tablo 3 / Table 3 / Tabelle 3**

| Gövde<br>Size<br>Größe | Tipler / Types / Bauarten                                 |                                    |            |                                 |            |                                 |                                            |                                 |                        |                                 |            |                                 |
|------------------------|-----------------------------------------------------------|------------------------------------|------------|---------------------------------|------------|---------------------------------|--------------------------------------------|---------------------------------|------------------------|---------------------------------|------------|---------------------------------|
|                        | PH..2-V                                                   |                                    | PH..3-V    |                                 | PH..4-V    |                                 | PB..2-V                                    |                                 | PB..3-V                |                                 | PB..4-V    |                                 |
|                        | $\dot{I}N$                                                | $n_{1max}$<br>min <sup>-1</sup>    | $\dot{I}N$ | $n_{1max}$<br>min <sup>-1</sup> | $\dot{I}N$ | $n_{1max}$<br>min <sup>-1</sup> | $\dot{I}N$                                 | $n_{1max}$<br>min <sup>-1</sup> | $\dot{I}N$             | $n_{1max}$<br>min <sup>-1</sup> | $\dot{I}N$ | $n_{1max}$<br>min <sup>-1</sup> |
| PH/PB4...              | 6.3 - 10<br>11.2 - 12.5<br>14 - 22.4                      | 1200<br>1500<br>1800               | —          | —                               | —          | —                               | 5 - 5.6<br>6.3 - 7.1<br>8 - 9<br>10 - 11.2 | 750<br>900<br>1000<br>1200      | 12.5 - 71              | 1800                            | —          | —                               |
| PH/PB5...              | 6.3 - 9<br>10 - 12.5<br>14 - 16<br>18 - 22.4              | 1000<br>1200<br>1500<br>1800       | 25 - 90    | 1800                            | —          | —                               | 6.3 - 7.1<br>8 - 9<br>10 - 11.2            | 750<br>900<br>1000              | 12.5 - 71              | 1800                            | 80 - 315   | 1800                            |
| PH/PB6...              | 8 - 11.2<br>12.5 - 16<br>18 - 20<br>22.4 - 28             | 1000<br>1200<br>1500<br>1800       | 31.5 - 112 | 1800                            | —          | —                               | 9<br>10 - 11.2<br>12.5 - 14                | 750<br>900<br>1000              | 16 - 90                | 1800                            | 100 - 400  | 1800                            |
| PH/PB7...              | 6.3 - 7.1<br>8 - 9<br>10 - 11.2<br>12.5 - 16<br>18 - 22.4 | 750<br>900<br>1000<br>1200<br>1500 | 25 - 90    | 1800                            | 100 - 355  | 1800                            | 9 - 10<br>11.2                             | 750<br>900                      | 12.5 - 25<br>28 - 71   | 1500<br>1800                    | 80 - 315   | 1800                            |
| PH/PB8...              | 8 - 9<br>10 - 11.2<br>12.5 - 14<br>16 - 20<br>22.4 - 28   | 750<br>900<br>1000<br>1200<br>1500 | 31.5 - 112 | 1800                            | 125 - 450  | 1800                            | 11.2 - 12.5<br>14                          | 750<br>900                      | 16 - 31.5<br>35.5 - 90 | 1500<br>1800                    | 100 - 400  | 1800                            |
| PH/PB9...              | 6.3 - 7.1<br>8 - 10<br>11.2 - 22.4                        | 1200<br>1500<br>1800               | 25 - 90    | 1800                            | 100 - 355  | 1800                            | 5 - 5.6<br>6.3 - 7.1<br>8 - 10<br>11.2     | 900<br>1000<br>1200<br>1500     | 12.5 - 71              | 1800                            | 80 - 315   | 1800                            |
| PH/PB10...             | 8 - 9<br>10 - 12.5<br>14 - 28                             | 1200<br>1500<br>1800               | 31.5 - 112 | 1800                            | 125 - 450  | 1800                            | 6.3 - 7.1<br>8 - 9<br>10 - 12.5<br>14      | 900<br>1000<br>1200<br>1500     | 16 - 90                | 1800                            | 100 - 400  | 1800                            |
| PH/PB11...             | 6.3 - 7.1<br>8 - 10<br>11.2 - 12.5<br>14 - 22.4           | 1000<br>1200<br>1500<br>1800       | 25 - 90    | 1800                            | 100 - 355  | 1800                            | 5.6 - 6.3<br>7.1 - 8<br>9 - 10<br>11.2     | 750<br>900<br>1000<br>1200      | 12.5 - 22.4<br>25 - 71 | 1500<br>1800                    | 80 - 315   | 1800                            |
| PH/PB12...             | 8 - 9<br>10 - 12.5<br>14 - 16<br>18 - 28                  | 1000<br>1200<br>1500<br>1800       | 31.5 - 112 | 1800                            | 125 - 450  | 1800                            | 7.1 - 8<br>9 - 10<br>11.2 - 12.5<br>14     | 750<br>900<br>1000<br>1200      | 16 - 28<br>31.5 - 90   | 1500<br>1800                    | 100 - 400  | 1800                            |

Tablo 4 / Table 4 / Tabelle 4

Helisel dişli dikey redüktörde flanş pompası uygulaması  
Assignment of flanged-on pumps to vertical helical gear units / Flanshpumpenzuordnung für Stirnrad - Vertikalgetriebe

| Tip<br>Type<br>Bauart<br><br>Dizayn<br>Desing<br>Ausführung | n1<br><br>min <sup>-1</sup> | Redüktör boyutları<br>Gear unit size<br>Getriebegröße |           | Flanşlı<br>pompa boyutu<br>Flanged-on<br>pump size<br>Flansch-<br>Pumpengröße | Redüktör boyutları<br>Gear unit size<br>Getriebegröße |           |           | Flanşlı<br>pompa boyutu<br>Flanged-on<br>pump size<br>Flansch-<br>Pumpengröße |
|-------------------------------------------------------------|-----------------------------|-------------------------------------------------------|-----------|-------------------------------------------------------------------------------|-------------------------------------------------------|-----------|-----------|-------------------------------------------------------------------------------|
|                                                             |                             | 5,7,9,11                                              | 6,8,10,12 |                                                                               | 13,15,17                                              | 14        | 16,18     |                                                                               |
|                                                             |                             | Tahvil / Ratio / Übersetzung<br>İN                    |           |                                                                               | Tahvil / Ratio / Übersetzung<br>İN                    |           |           |                                                                               |
| PH...2-V<br>A,C                                             | 750 - 1800                  | 6.3 - 22.4                                            | 8 - 28    | KSW 1                                                                         | 6.3 - 22.4                                            | 8 - 28    | 7.1 - 25  | KSW 2                                                                         |
| PH...3-V<br>A,C                                             | 1201 - 1800                 | 25 - 40                                               | 31.5 - 50 | KSW 2                                                                         | 22.4 - 50                                             | 28 - 63   | 25 - 56   | KSW 3                                                                         |
|                                                             |                             | 45 - 90                                               | 56 - 112  | KSW 3                                                                         | 56 - 90                                               | 71 - 112  | 63 - 90   | KSW 4                                                                         |
|                                                             |                             |                                                       |           |                                                                               |                                                       |           | 100       | *                                                                             |
|                                                             | 901 - 1200                  | 25 - 56                                               | 31.5 - 71 | KSW 3                                                                         | 22.4 - 31.5                                           | 28 - 40   | 25 - 35.5 | KSW 3                                                                         |
|                                                             |                             | 63 - 90                                               | 80 - 112  | *                                                                             | 35.5 - 56                                             | 45 - 71   | 40 - 63   | KSW 4                                                                         |
|                                                             |                             |                                                       |           |                                                                               | 63 - 90                                               | 80 - 112  | 71 - 100  | *                                                                             |
|                                                             | 750 - 900                   | 25 - 45                                               | 31.5 - 56 | KSW 3                                                                         | 22.4 - 25                                             | 28 - 31.5 | 25 - 28   | KSW 3                                                                         |
|                                                             |                             | 50 - 90                                               | 63 - 112  | *                                                                             | 28 - 45                                               | 35.5 - 56 | 31.5 - 50 | KSW 4                                                                         |
|                                                             |                             |                                                       |           |                                                                               | 50 - 90                                               | 63 - 112  | 56 - 100  | *                                                                             |
| PH...4-V<br>A,C                                             | 1201 - 1800                 | 100 - 224                                             | 125 - 280 | KSW 3                                                                         | 100 - 355                                             | 125 - 450 | 112 - 400 | *                                                                             |
|                                                             |                             | 250 - 355                                             | 315 - 450 | *                                                                             |                                                       |           |           |                                                                               |
|                                                             | 901 - 1200                  | 100 - 140                                             | 125 - 180 | KSW 3                                                                         |                                                       |           |           |                                                                               |
|                                                             |                             | 160 - 355                                             | 200 - 450 | *                                                                             |                                                       |           |           |                                                                               |
|                                                             | 750 - 900                   | 100 - 112                                             | 125 - 140 | KSW 3                                                                         |                                                       |           |           |                                                                               |
|                                                             |                             | 125 - 355                                             | 160 - 450 | *                                                                             |                                                       |           |           |                                                                               |
| PH...2-V<br>B,D                                             | 750 - 1800                  | 6.3 - 22.4                                            | 8 - 28    | KSW 1                                                                         | 6.3 - 22.4                                            | 8 - 28    | 7.1 - 25  | KSW 2                                                                         |
| PH...3-V<br>B,D                                             | 1201 - 1800                 | 25 - 35.5                                             | 31.5 - 45 | KSW 2                                                                         | 22.4 - 35.5                                           | 28 - 45   | 25 - 40   | KSW 3                                                                         |
|                                                             |                             | 40 - 71                                               | 50 - 90   | KSW 3                                                                         | 40 - 71                                               | 50 - 90   | 45 - 80   | KSW 4                                                                         |
|                                                             |                             | 80 - 90                                               | 100 - 112 | *                                                                             | 80 - 90                                               | 100 - 112 | 90 - 100  | *                                                                             |
|                                                             | 901 - 1200                  | 25 - 50                                               | 31.5 - 63 | KSW 3                                                                         | 22.4 - 25                                             | 28 - 31,5 | 25 - 28   | KSW 3                                                                         |
|                                                             |                             | 56 - 90                                               | 71 - 112  | *                                                                             | 28 - 45                                               | 35.5 - 56 | 31.5 - 50 | KSW 4                                                                         |
|                                                             |                             |                                                       |           |                                                                               | 50 - 90                                               | 63 - 112  | 56 - 100  | *                                                                             |
|                                                             | 750 - 900                   | 25 - 35.5                                             | 31.5 - 45 | KSW 3                                                                         | 22.4 - 35.5                                           | 28 - 45   | 25 - 40   | KSW 4                                                                         |
|                                                             |                             | 40 - 90                                               | 50 - 112  | *                                                                             | 40 - 90                                               | 50 - 112  | 45 - 100  | *                                                                             |
| PH...4-V<br>B,D                                             | 1201 - 1800                 | 100 - 180                                             | 125 - 224 | KSW 3                                                                         | 100 - 355                                             | 125 - 450 | 112 - 400 | *                                                                             |
|                                                             |                             | 200 - 355                                             | 250 - 450 | *                                                                             |                                                       |           |           |                                                                               |
|                                                             | 901 - 1200                  | 100 - 125                                             | 125 - 160 | KSW 3                                                                         |                                                       |           |           |                                                                               |
|                                                             |                             | 140 - 355                                             | 180 - 450 | *                                                                             |                                                       |           |           |                                                                               |
|                                                             | 750 - 900                   | 100 - 355                                             | 125 - 450 | *                                                                             |                                                       |           |           |                                                                               |

\* Motor pompası büyüklüğü için, Tablo 6'ya bakın. / Motor pump required, see table 6 / Motorpumpe erforderlich siehe Tabelle 6

TR BASINÇLI YAĞLAMA FLANŞLI POMPA

EN FORCED LUBRICATION - FLANGED ON PUMP

DE DRUCKSCHMIERUNG - FLANSCHPUMPE

Tablo 5 / Table 5 / Tabelle 5

Helisel-konik dişli dikey redüktörde flanşlı pompa uygulaması  
Assignment of flanged-on pumps to vertical bevel - helical gear units / Flanshpumpenzuordnung für Kegelstirnrad - Vertikalgetriebe

| Tip<br>Type<br>Bauart<br><br>Dizayn<br>Design<br>Ausführung | n1<br><br>min <sup>-1</sup> | Redüktör boyutları<br>Gear unit size<br>Getriebegröße |           | Flanşlı<br>pompa boyutu<br>Flanged-on<br>pump size<br>Flansch-<br>pumpengröße | Redüktör boyutları<br>Gear unit size<br>Getriebegröße |            |            | Flanşlı<br>pompa boyutu<br>Flanged-on<br>pump size<br>Flansch-<br>pumpengröße |
|-------------------------------------------------------------|-----------------------------|-------------------------------------------------------|-----------|-------------------------------------------------------------------------------|-------------------------------------------------------|------------|------------|-------------------------------------------------------------------------------|
|                                                             |                             | 5,7,9,11                                              | 6,8,10,12 |                                                                               | 13,15,17                                              | 14         | 16,18      |                                                                               |
|                                                             |                             | Tahvil / Ratio / Übersetzung<br>iN                    |           |                                                                               | Tahvil / Ratio / Übersetzung<br>iN                    |            |            |                                                                               |
| PB...2-V<br>A,B                                             | 1201 - 1800                 | 5 - 6.3                                               | 6.3 - 8   | KSW 1                                                                         | 5 - 8                                                 | 6.3 - 10   | 5.6 - 9    | KSW 2                                                                         |
|                                                             |                             | 7.1 - 11.2                                            | 9 - 14    | KSW 2                                                                         | 9 - 11.2                                              | 11.2 - 14  | 10 - 12.5  | KSW 3                                                                         |
|                                                             | 901 - 1200                  | 5 - 8                                                 | 6.3 - 10  | KSW 2                                                                         | 5                                                     | 6.3        | 5.6        | KSW 2                                                                         |
|                                                             |                             | 9 - 11.2                                              | 11.2 - 14 | KSW 3                                                                         | 5.6 - 11.2                                            | 7.1 - 14   | 6.3 - 12.5 | KSW 3                                                                         |
|                                                             | 750 - 900                   | 5 - 6.3                                               | 6.3 - 8   | KSW 2                                                                         | 5 - 10                                                | 6.3 - 12.5 | 5.6 - 11.2 | KSW 3                                                                         |
|                                                             |                             | 7.1 - 10                                              | 9 - 12.5  | KSW 3                                                                         | 11.2                                                  | 14         | 12.5       | *                                                                             |
|                                                             |                             | 11.2                                                  | 14        | *                                                                             |                                                       |            |            |                                                                               |
| PB...2-V<br>C,D                                             | 1201 - 1800                 | 5 - 6.3                                               | 6.3 - 8   | KSW 1                                                                         | 5 - 6.3                                               | 6.3 - 8    | 5.6 - 7.1  | KSW 2                                                                         |
|                                                             |                             | 7.1 - 11.2                                            | 9 - 14    | KSW 2                                                                         | 7.1 - 11.2                                            | 9 - 14     | 8 - 12.5   | KSW 3                                                                         |
|                                                             | 901 - 1200                  | 5 - 8                                                 | 6.3 - 10  | KSW 2                                                                         | 5 - 10.                                               | 6.3 - 12.5 | 5.6 - 11.2 | KSW 3                                                                         |
|                                                             |                             | 9 - 11.2                                              | 11.2 - 14 | KSW 3                                                                         | 11.2                                                  | 14         | 12.5       | *                                                                             |
|                                                             | 750 - 900                   | 5 - 6.3                                               | 6.3 - 8   | KSW 2                                                                         | 5 - 7.1                                               | 6.3 - 9    | 5.6 - 8    | KSW 3                                                                         |
|                                                             |                             | 7.1 - 10                                              | 9 - 12.5  | KSW 3                                                                         | 8 - 11.2                                              | 10 - 14    | 9 - 12.5   | *                                                                             |
|                                                             |                             | 11.2                                                  | 14        | *                                                                             |                                                       |            |            |                                                                               |
| PB...3-V<br>A,B                                             | 1201 - 1800                 | 12.5 - 35.5                                           | 16 - 45   | KSW 2                                                                         | 12.5 - 22.4                                           | 16 - 28    | 14 - 25    | KSW 2                                                                         |
|                                                             |                             | 40 - 71                                               | 50 - 90   | KSW 3                                                                         | 25 - 50                                               | 31.5 - 63  | 28 - 56    | KSW 3                                                                         |
|                                                             |                             |                                                       |           |                                                                               | 56 - 71                                               | 71 - 90    | 63 - 80    | KSW 4                                                                         |
|                                                             | 901 - 1200                  | 12.5 - 25                                             | 16 - 31.5 | KSW 2                                                                         | 12.5 - 35.5                                           | 16 - 45    | 14 - 40    | KSW 3                                                                         |
|                                                             |                             | 28 - 50                                               | 35.5 - 63 | KSW 3                                                                         | 40 - 56                                               | 50 - 71    | 45 - 63    | KSW 4                                                                         |
|                                                             |                             | 56 - 71                                               | 71 - 90   | *                                                                             | 63 - 71                                               | 80 - 90    | 71 - 80    | *                                                                             |
| 750 - 900                                                   | 12.5 - 35.5                 | 16 - 45                                               | KSW 3     | 12.5 - 25                                                                     | 16 - 31.5                                             | 14 - 28    | KSW 3      |                                                                               |
|                                                             | 40 - 71                     | 50 - 90                                               | *         | 28 - 40                                                                       | 35.5 - 50                                             | 31.5 - 45  | KSW 4      |                                                                               |
|                                                             |                             |                                                       |           | 45 - 71                                                                       | 56 - 90                                               | 50 - 80    | *          |                                                                               |
| PB...3-V<br>C,D                                             | 1201 - 1800                 | 12.5 - 35.5                                           | 16 - 45   | KSW 2                                                                         | 12.5 - 35.5                                           | 16 - 45    | 14 - 40    | KSW 3                                                                         |
|                                                             |                             | 40 - 71                                               | 50 - 90   | KSW 3                                                                         | 40 - 71                                               | 50 - 90    | 45 - 80    | KSW 4                                                                         |
|                                                             | 901 - 1200                  | 12.5 - 25                                             | 16 - 31.5 | KSW 2                                                                         | 12.5 - 25                                             | 16 - 31.5  | 14 - 28    | KSW 3                                                                         |
|                                                             |                             | 28 - 50                                               | 35.5 - 63 | KSW 3                                                                         | 28 - 50                                               | 35.5 - 63  | 31.5 - 56  | KSW 4                                                                         |
|                                                             |                             | 56 - 71                                               | 71 - 90   | *                                                                             | 56 - 71                                               | 71 - 90    | 63 - 80    | *                                                                             |
|                                                             | 750 - 900                   | 12.5 - 35.5                                           | 16 - 45   | KSW 3                                                                         | 12.5 - 35.5                                           | 16 - 45    | 14 - 40    | KSW 4                                                                         |
| 40 - 71                                                     |                             | 50 - 90                                               | *         | 40 - 71                                                                       | 50 - 90                                               | 45 - 80    | *          |                                                                               |
| PB...4-V<br>A,B                                             | 1201 - 1800                 | 80 - 125                                              | 100 - 160 | KSW 2                                                                         | 80 - 315                                              | 100 - 400  | 90 - 355   | *                                                                             |
|                                                             |                             | 140 - 250                                             | 180 - 315 | KSW 3                                                                         |                                                       |            |            |                                                                               |
|                                                             |                             | 280 - 315                                             | 355 - 400 | *                                                                             |                                                       |            |            |                                                                               |
|                                                             | 901 - 1200                  | 80 - 180                                              | 100 - 224 | KSW 3                                                                         |                                                       |            |            |                                                                               |
|                                                             |                             | 200 - 315                                             | 250 - 400 | *                                                                             |                                                       |            |            |                                                                               |
|                                                             |                             | 750 - 900                                             | 80 - 125  | 100 - 160                                                                     |                                                       |            |            |                                                                               |
| 140 - 315                                                   | 180 - 400                   |                                                       | *         |                                                                               |                                                       |            |            |                                                                               |
| PB...4-V<br>C, D                                            | 1201 - 1800                 | 80 - 180                                              | 100 - 224 | KSW 3                                                                         | 80 - 315                                              | 100 - 400  | 90 - 355   | *                                                                             |
|                                                             |                             | 200 - 315                                             | 250 - 400 | *                                                                             |                                                       |            |            |                                                                               |
|                                                             | 901 - 1200                  | 80 - 125                                              | 100 - 160 | KSW 3                                                                         |                                                       |            |            |                                                                               |
|                                                             |                             | 140 - 315                                             | 180 - 400 | *                                                                             |                                                       |            |            |                                                                               |
|                                                             | 750 - 900                   | 80 - 90                                               | 100 - 112 | KSW 3                                                                         |                                                       |            |            |                                                                               |
|                                                             |                             | 100 - 315                                             | 125 - 400 | *                                                                             |                                                       |            |            |                                                                               |

\* Motorlu pompa gerekli, tablo 7'ye bakınız / Motor pump required, see table 7 / Motorpumpe erforderlich siehe Tabelle 7

TR BASINÇLI YAĞLAMA MOTORLU POMPA

EN FORCED LUBRICATION - MOTOR PUMP

DE DRUCKSCHMIERUNG - MOTORPUMPE

Tablo 6 / Table 6 / Tabelle 6

| Helisel dişli dikey redüktörde motor pompası uygulaması<br>Assignment of motor pumps to vertical helical gear units / Motorpumpenzuordnung für Stirnrad - Vertikalgetriebe |                      |                              |                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------|----------------------|
| Tip / Type / Bauart                                                                                                                                                        | Gövde / Size / Größe | Dizayn / Design / Ausführung | Pompa / Pump / Pumpe |
| PH...2-V                                                                                                                                                                   | 52 - 182             | A / B / C / D                | 1)                   |
| PH...3-V                                                                                                                                                                   | 53 - 183             | A / C                        | SF 2/8               |
|                                                                                                                                                                            | 53 - 123             | B / D                        | SF 2/8               |
|                                                                                                                                                                            | 133 - 183            |                              | SF 2/13              |
| PH...4-V                                                                                                                                                                   | 74 - 124             | A / C                        | SF 2/8               |
|                                                                                                                                                                            | 134 - 184            |                              | SF 2/13              |
|                                                                                                                                                                            | 74 - 184             | B / D                        | SF 2/13              |

1) Sadece flanşlı pompa

1) Flanged-on pump only

1) nur Flanscpumpe

Tablo 7 / Table 7 / Tabelle 7

| Helisel - konik dişli dikey redüktörde motor pompası uygulaması<br>Assignment of motor pumps to vertical bevel- helical gear units / Motorpumpenzuordnung für Kegelstirnrad - Vertikalgetriebe |                      |                              |                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------|----------------------|
| Tip / Type / Bauart                                                                                                                                                                            | Gövde / Size / Größe | Dizayn / Design / Ausführung | Pompa / Pump / Pumpe |
| PB...2-V                                                                                                                                                                                       | 52 - 122             | A / B                        | SF 2/5               |
|                                                                                                                                                                                                | 132 - 182            |                              | SF 2/8               |
|                                                                                                                                                                                                | 52 - 182             | C / D                        | SF 2/8               |
| PB...3-V                                                                                                                                                                                       | 53 - 123             | A / B                        | SF 2/8               |
|                                                                                                                                                                                                | 133 - 183            |                              | SF 2/13              |
|                                                                                                                                                                                                | 53 - 123             | C / D                        | SF 2/8               |
|                                                                                                                                                                                                | 133 - 183            |                              | SF 2/13              |
| PB...4-V                                                                                                                                                                                       | 54 - 124             | A / B                        | SF 2/8               |
|                                                                                                                                                                                                | 134 - 184            |                              | SF 2/13              |
|                                                                                                                                                                                                | 54 - 124             | C / D                        | SF 2/8               |
|                                                                                                                                                                                                | 134 - 184            |                              | SF 2/13              |

TR

**BASINÇLI YAĞLAMA -  
KONTROL CİHAZLARI**

Motor veya flanş pompasıyla basınçlı yağlama uygulandığında kullanılan kontrol cihazları.

EN

**FORCED LUBRICATION -  
MONITORING INSTRUMENTS**

Monitoring instruments for forced lubrication by means of flanged-on or motor pump.

DE

**DRUCKSCHMIERUNG -  
ÜBERWACHUNGSGERÄTE**

Überwachungsgeräte bei Druckschmierung durch Flansch oder Motorpumpe

| Redüktör Gövdeleri<br>Gear Unit Size<br>Getriebegröße<br>5 - 12 | Redüktör Gövdeleri<br>Gear Unit Size<br>Getriebegröße<br>5 - 12                                             |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| a) Kaba filtre<br>Coarse filter<br>Grobfilter                   | a) Çifte filtre<br>Double change- over filter<br>Doppelschaltfilter                                         |
| b) Basınç göstergesi<br>Pressure monitor<br>Druckwächter        | a) Basınç göstergesi<br>Pressure monitor<br>Druckwächter                                                    |
|                                                                 | c) Basınç göstergesi için bağlantı G 1/2<br>Connection for pressure gauge G 1/2<br>Anschluß Manometer G 1/2 |

**a)**  
**Kaba filtre:** Akışla birlikte gelen kir ve pisliklerin tutulmasını sağlar.

Çift geçiş filtresi yerleştirilmiş uygulamanın, elektrikli optik kirlilik göstergesi vardır.  
Basınç farkı "Δp" = 2 bar, 1 çevirme anahtarlı.

Maximum elektrik değerleri:  
Çalışma Gerilimi: U ≤ 250 V DC + AC  
Çalışma Akım Şiddeti I ≤ 1A  
Kumanda kapasitesi: P ≤ 30W veya ≤ 60 VA  
Koruma Sınıfı: IP 65

**b)**  
Yağ basıncı, < 0,5 barın altına düşmesi halinde optik veya sesli bir alarm verecek veya makineyi kapatacak bir sisteme bağlanabilir

**Teknik Bilgiler:**  
Maks. çalışma kapasitesi  
2 A/250 V, AC/250 VA (alternatif akım)  
4 A/200 V, DC/20 W (doğru akım)  
Koruma sınıfı tipi IP 65 tipi

**a)**  
**Coarse filters** serve to protect downstream units by catching and collecting dirt particles.

**Double change - over filters** with opposed cylinders have an opto-electrical contamination indicator.  
Differential pressure Δp = 2 bar, 1 changeover contact.

Electrical maximum ratings:  
Switching voltage U ≤ 250 V DC + AC  
Switching current I ≤ 1A  
Switching capability P ≤ 30W or ≤ 60 VA  
Type of protection IP 65

**b)**  
when the oil pressure drops below 0.5 bar, the **pressure monitor** in combination with a warning system can give an optical or acoustical warning, or switch off the system.

**Technical Data:**  
Max. switching capacity  
2 A/250 V, AC/250 VA (alternating current)  
4 A/200 V, DC/20 W (direct current)  
Type of protection IP 65

**a)**  
**Grobfilter** dienen dem Schutz von nachgeschalteten Aggregaten durch Auffangen und Sammeln von Schmutzpartikeln.

**Doppelschaltfilter** in Boxer - Ausführung haben eine optisch / elektrische Verschmutzungsanzeige.  
Differenzdruck Δp = 2 bar, 1 Umschaltkontakt.

Elektrische Grenzwerte:  
Schaltspannung U ≤ 250 V DC + AC  
Schaltstrom I ≤ 1A  
Schaltvermögen P ≤ 30W bzw. ≤ 60 VA  
Schutzart IP 65

**b)**  
Der **Druckwächter** kann in Verbindung mit einer Warnanlage das Absinken des Öldruckes ≤ 0,5 bar optisch oder akustisch anzeigen oder die Anlage ausschalten.

**Technische Daten:**  
Max. Schaltleistungen  
2 A/250 V, AC/250 VA (Wechselspannung)  
4 A/200 V, DC/20 W Gleichspannung)  
Schutzart IP 65

TR

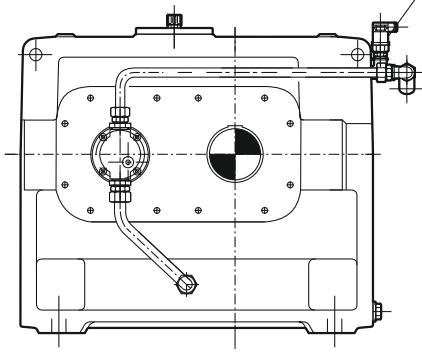
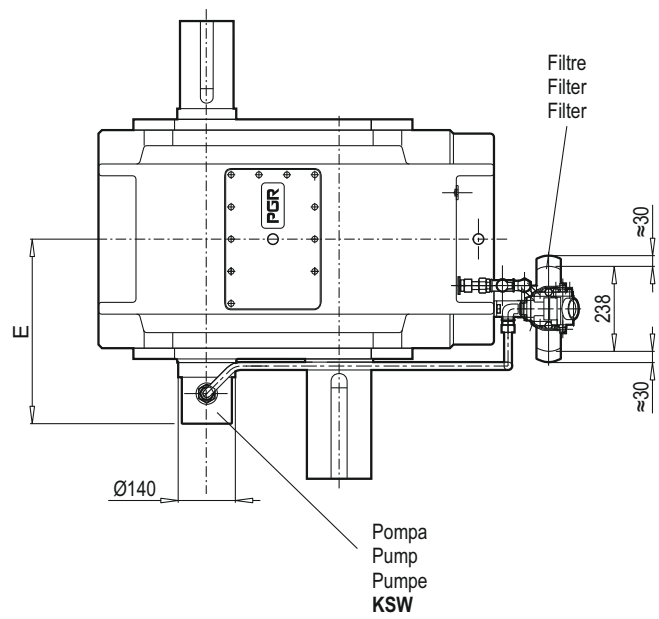
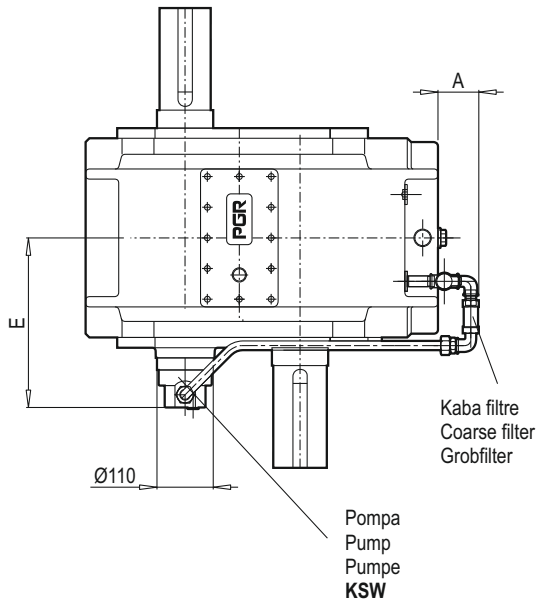
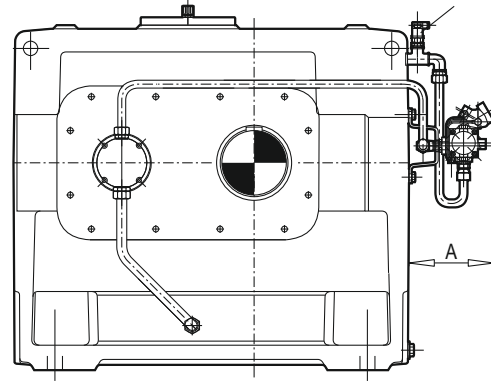
BASINÇLI YAĞLAMA - YATAY

EN

FORCED LUBRICATION - HORIZONTAL

DE

DRUCKSCHMIERUNG - HORIZONTAL

Gövdeler / Sizes / Größen  
51 - 121
 Basıncın 0.5 barın altında  
 Pressure monitor, below 0.5 bar  
 Druckwächter 0.5 bar fallend
Gövdeler / Sizes / Größen  
131 - 171
 Basıncın 0.5 barın altında  
 Pressure monitor, below 0.5 bar  
 Druckwächter 0.5 bar fallend

 Zemin düz ve yatay olmalıdır.  
 Talep edildiğinde eğik pozisyon.

 The foundation must be flat and horizontal.  
 Inclined position on request.

 Fundament muss waagrecht und eben sein,  
 Schräglage auf Anfrage.

Tablo 9 / Table 9 / Tabelle 9

| Redüktör boyutu<br>Gear unit size<br>Getriebe Größen | 51    | 71    | 91    | 111   | 131   | 151   | 171                  |                       |                     |
|------------------------------------------------------|-------|-------|-------|-------|-------|-------|----------------------|-----------------------|---------------------|
| Pompa*<br>Pump / Pumpe<br>KSW                        | 1     | 2     | 2     | 2     | 3     | 3     | 3                    | 3                     | 3                   |
| A<br>mm                                              | ≈ 115 | ≈ 105 | ≈ 105 | ≈ 125 | ≈ 240 | ≈ 240 | ≈ 240                | ≈ 240                 | ≈ 240               |
| E<br>mm                                              | 285   | 340   | 405   | 435   | 480   | 485   | İN = 3.15 - 4<br>525 | İN = 4.5 - 5.6<br>525 | İN = 2 - 2.8<br>525 |

 \*) Geçerli olan devir sayıları:  
 n1 > 1500 ile 1800 d/d arası

 \*) Applies to speeds:  
 n1 ≥ 900 up to 1800 min<sup>-1</sup>

 \*) Gültig für Drehzahlen:  
 n1 ≥ 900 bis 1800 min<sup>-1</sup>

TR

BASINÇLI YAĞLAMA - YATAY

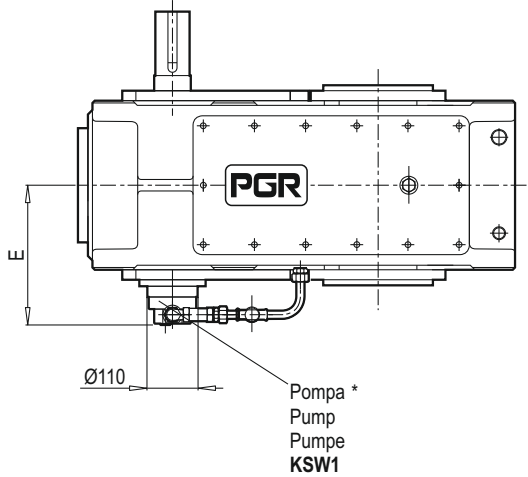
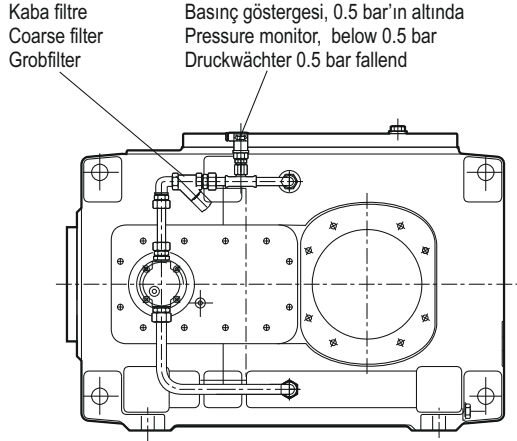
EN

FORCED LUBRICATION - HORIZONTAL

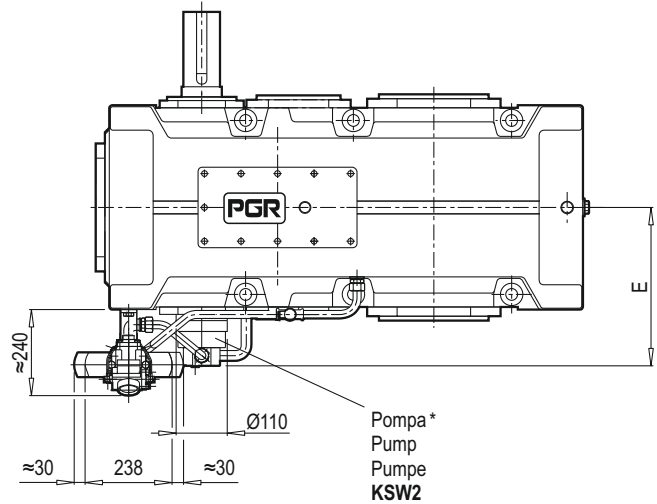
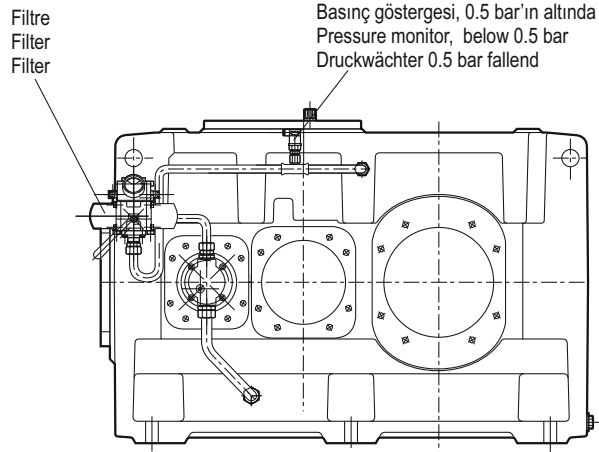
DE

DRUCKSCHMIERUNG - HORIZONTAL

Gövdeler / Sizes / Größen  
52 - 122



Gövdeler / Sizes / Größen  
132 - 182



Zemin düz ve yatay olmalıdır.  
Talep edildiğinde eğik pozisyon.

The foundation must be flat and horizontal.  
Inclined position on request.

Fundament muss waagerecht und eben  
sein, Schräglage auf Anfrage.

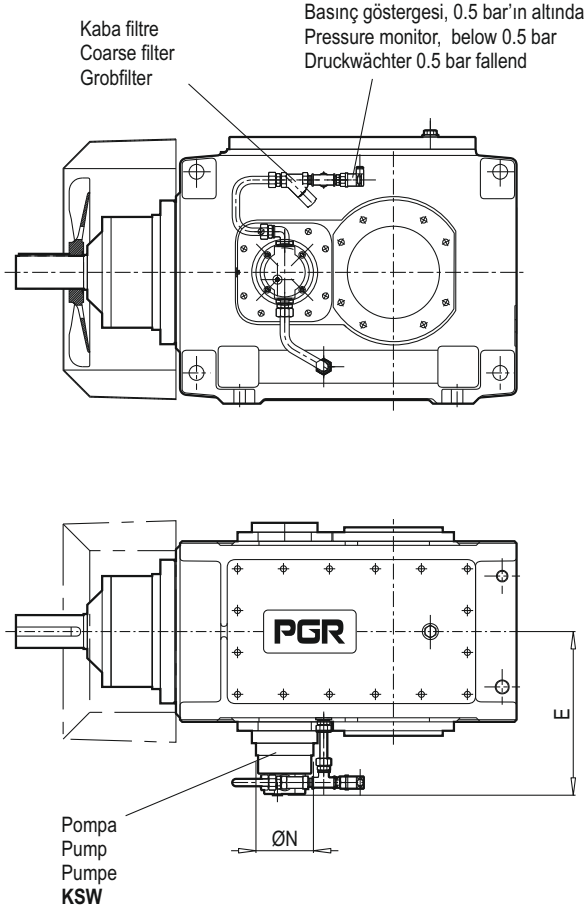
Tablo 10 / Table 10 / Tabelle 10

| Redüktör boyutu<br>Gear unit size<br>Getriebegröße | 52  | 62  | 72  | 82  | 92  | 102 | 112 | 122 | 132 | 142 | 152 | 162 | 172 | 182 |
|----------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| E<br>mm                                            | 270 | 290 | 290 | 315 | 315 | 315 | 350 | 350 | 445 | 445 | 480 | 480 | 505 | 505 |

\*) Aşağıdaki hızlar için geçerlidir:  
n<sub>1</sub> ≥ 900' den 1800 d/d'ya kadar

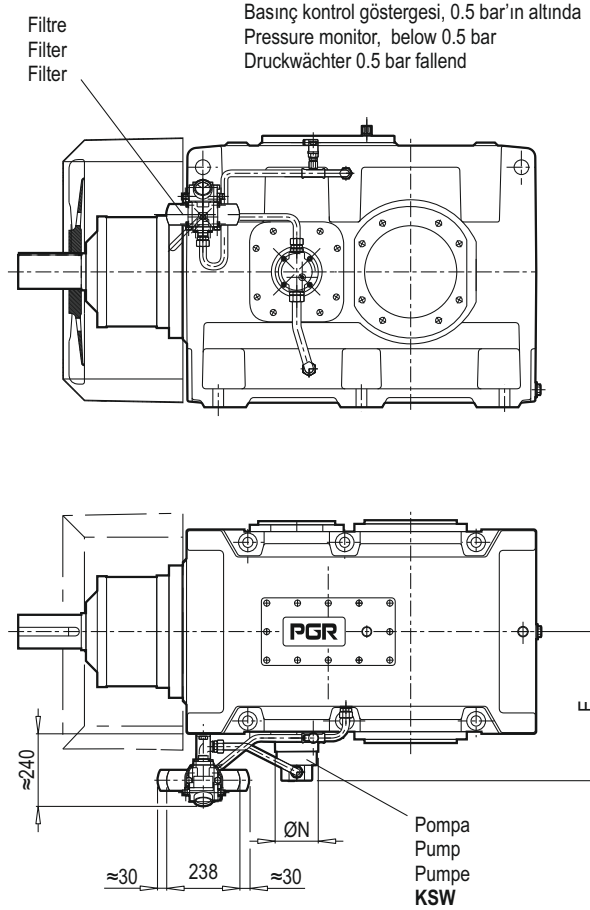
\*) Applies to speeds:  
n<sub>1</sub> ≥ 1500 up to 1800 min<sup>-1</sup>

\*) Gültig für Drehzahlen:  
n<sub>1</sub> ≥ 1500 bis 1800 min<sup>-1</sup>

Gövdeler / Sizes / Größen  
52 - 122

Zemin düz ve yatay olmalıdır.  
Talep edildiğinde eğik pozisyon

The foundation must be flat and horizontal.  
Inclined position on request.

Gövdeler / Sizes / Größen  
132 - 182

Fundament muss waagrecht und eben sein,  
Schräglage auf Anfrage.

Tablo 11 / Table 11 / Tabelle 11

| Redüktör boyutu<br>Gear unit size<br>Getriebegröße | 52 / 62 |     |     | 72 / 82 |     |     | 92 / 102 |     |     | 112 / 122 |     |     | 132 / 142 |     | 152 / 162 |     | 172 / 182 |     |
|----------------------------------------------------|---------|-----|-----|---------|-----|-----|----------|-----|-----|-----------|-----|-----|-----------|-----|-----------|-----|-----------|-----|
| Pompa*<br>Pump / Pumpe<br>KSW                      | 1       | 2   | 3   | 1       | 2   | 3   | 1        | 2   | 3   | 1         | 2   | 3   | 2         | 3   | 2         | 3   | 2         | 3   |
| ØN                                                 | 110     | 110 | 140 | 110     | 110 | 140 | 110      | 110 | 140 | 110       | 110 | 140 | 110       | 140 | 110       | 140 | 110       | 140 |
| E                                                  | 345     | 345 | 345 | 375     | 375 | 375 | 405      | 405 | 405 | 445       | 445 | 445 | 495       | 495 | 550       | 550 | 610       | 610 |

\*) Aşağıdaki hızlar için geçerlidir:  
1 ve 2 Boyutu  $n_1 \geq 1500$ 'den 1800 d/d'ya  
3 Boyutlu  $n_1 \geq 1200$ ' den 1800 d/d ya kadar

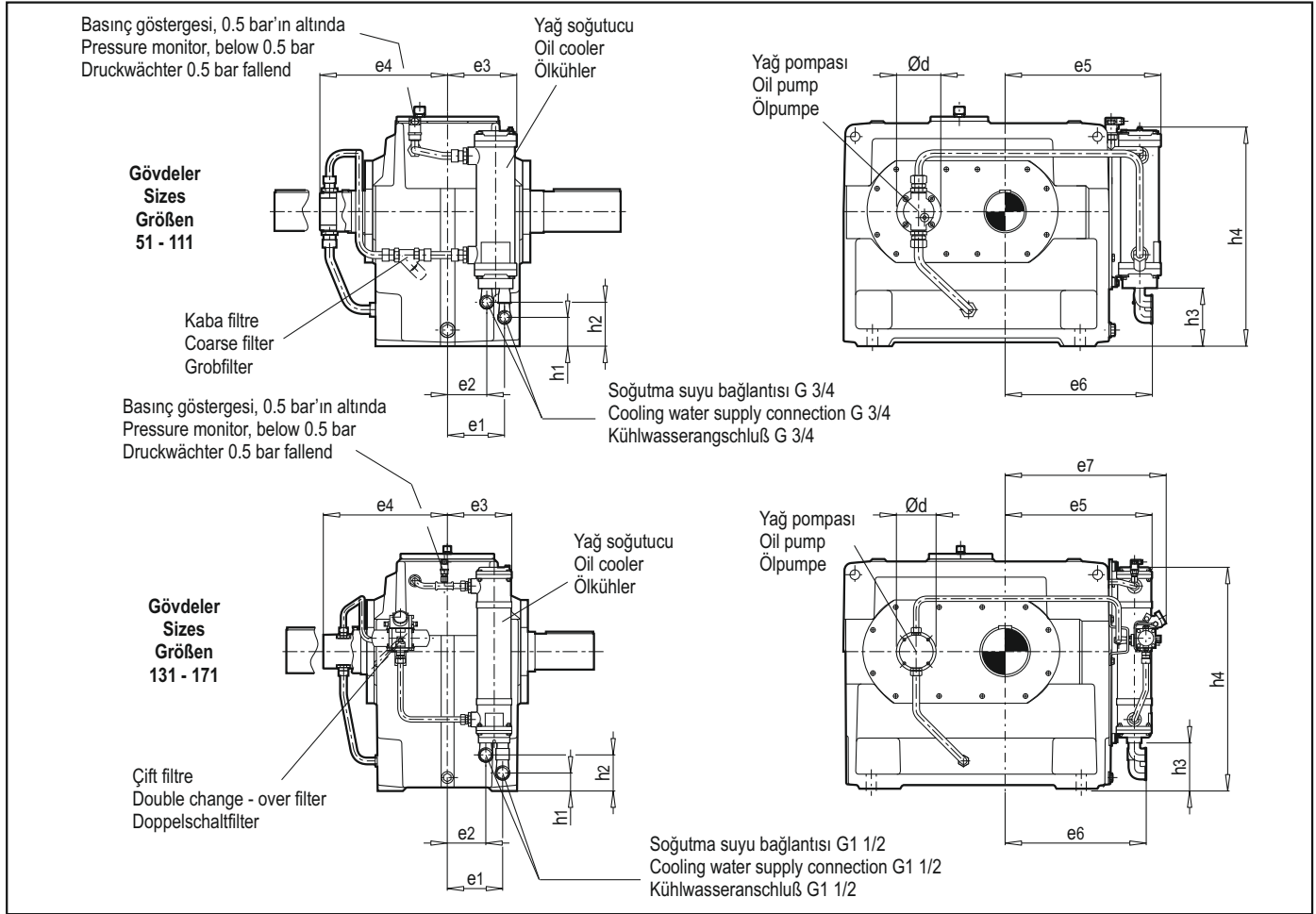
\*) Applies to the following speeds:  
Sizes 1 and 2  $n_1 \geq 1500$  up to 1800 min<sup>-1</sup>  
Size 3  $n_1 \geq 1200$  up to 1800 min<sup>-1</sup>

\*) Gültig für Folgende Drehzahlen:  
Größen 1 und 2  $n_1 \geq 1500$  bis 1800 min<sup>-1</sup>  
Größe 3  $n_1 \geq 1200$  bis 1800 min<sup>-1</sup>

TR SULU YAĞ SOĞUTUCUSU - YATAY

EN WATER - OIL COOLER - HORIZONTAL

DE WASSER - ÖLKÜHLER - HORIZONTAL



Tablo 12 / Table 12 / Tabelle 12

| Redüktör boyutu<br>Gear unit size<br>Getriebe-größe | Yağ soğutucu / Oil cooler / Ölkühler |     |     |     |                   |     |     |     |     |     |     |      | Yağ Pompası *<br>Oil pump / Ölpumpe |                   |                                           |
|-----------------------------------------------------|--------------------------------------|-----|-----|-----|-------------------|-----|-----|-----|-----|-----|-----|------|-------------------------------------|-------------------|-------------------------------------------|
|                                                     | Boyut<br>Size<br>Größe               | e1  | e2  | e3  | e4                | e5  | e6  | e7  | h1  | h2  | h3  | h4   | KSW<br>Boyut / Size<br>Größe        | Ød<br>mm          | Tahvil / Ratio<br>Übersetzung<br>İges     |
| 51                                                  | 01                                   | 138 | 92  | 170 | 283               | 370 | 347 | —   | 55  | 95  | 130 | 550  | 1                                   | 110               | 1.25 ... 5.6                              |
| 71                                                  | 01                                   | 148 | 102 | 180 | 336<br>321        | 410 | 388 | —   | 90  | 130 | 165 | 570  | 2<br>1                              | 110<br>110        | 1.25 ... 4<br>4.5 ... 5.6                 |
| 91                                                  | 01                                   | 160 | 114 | 195 | 374<br>374<br>359 | 455 | 433 | —   | 140 | 180 | 215 | 620  | 2<br>2<br>1                         | 110<br>110<br>110 | 1.25 ... 2.8<br>3.15 ... 4<br>4.5 ... 5.6 |
| 111                                                 | 01                                   | 193 | 147 | 225 | 434<br>434<br>407 | 515 | 493 | —   | 185 | 225 | 260 | 665  | 3<br>3<br>2                         | 140<br>140<br>110 | 1.6 ... 2.8<br>3.15 ... 4<br>4.5 ... 5.6  |
| 131                                                 | 03                                   | 230 | 160 | 270 | 470<br>470<br>443 | 615 | 593 | 675 | 75  | 150 | 200 | 938  | 3<br>3<br>2                         | 140<br>140<br>110 | 1.6 ... 2.8<br>3.15 ... 4<br>4.5 ... 5.6  |
| 151                                                 | 03                                   | 210 | 140 | 250 | 473<br>475<br>448 | 690 | 669 | 750 | 95  | 170 | 220 | 958  | 3<br>3<br>2                         | 140<br>140<br>110 | 2 ... 2.8<br>3.15 ... 4<br>4.5 ... 5.6    |
| 171                                                 | 03                                   | 235 | 165 | 275 | 492<br>492<br>456 | 730 | 709 | 790 | 155 | 230 | 280 | 1018 | 3<br>3<br>2                         | 140<br>140<br>110 | 2 ... 2.8<br>3.15 ... 4<br>4.5 ... 5.6    |

Termal kapasitenin, Pt4 sınırlarının aşması durumunda, yağ soğutucu veya yağ pompası kullanılmalıdır. (Tercihen fan ile birlikte kullanın)

Dikey redüktörler, talep edildiğinde temin edilir.

Termal kapasite sınır değerleri, talep edildiğinde temin edilir.

Soğutucu tatlı su ve deniz suyu için uygundur.

\*) n1 =900 - 1800 d/d arasında

If the thermal capacities Pt4 are exceeded, oil cooler and oil pump have to be provided, possibly together with a fan.

Vertical gear units on request.

Thermal capacities on request.

Cooler suitable for fresh and sea water

\*) Applies to speeds n1 =900 - 1800 min<sup>-1</sup>

Beim Überschreiten der Wärmegrenzleistungen Pt4 sind Ölkühler und Ölpumpe vorzusehen, (evtl. zusammen mit Lüfterbetrieb).

Vertikalgetriebe auf Anfrage

Wärmegrenzleistungen auf Anfrage

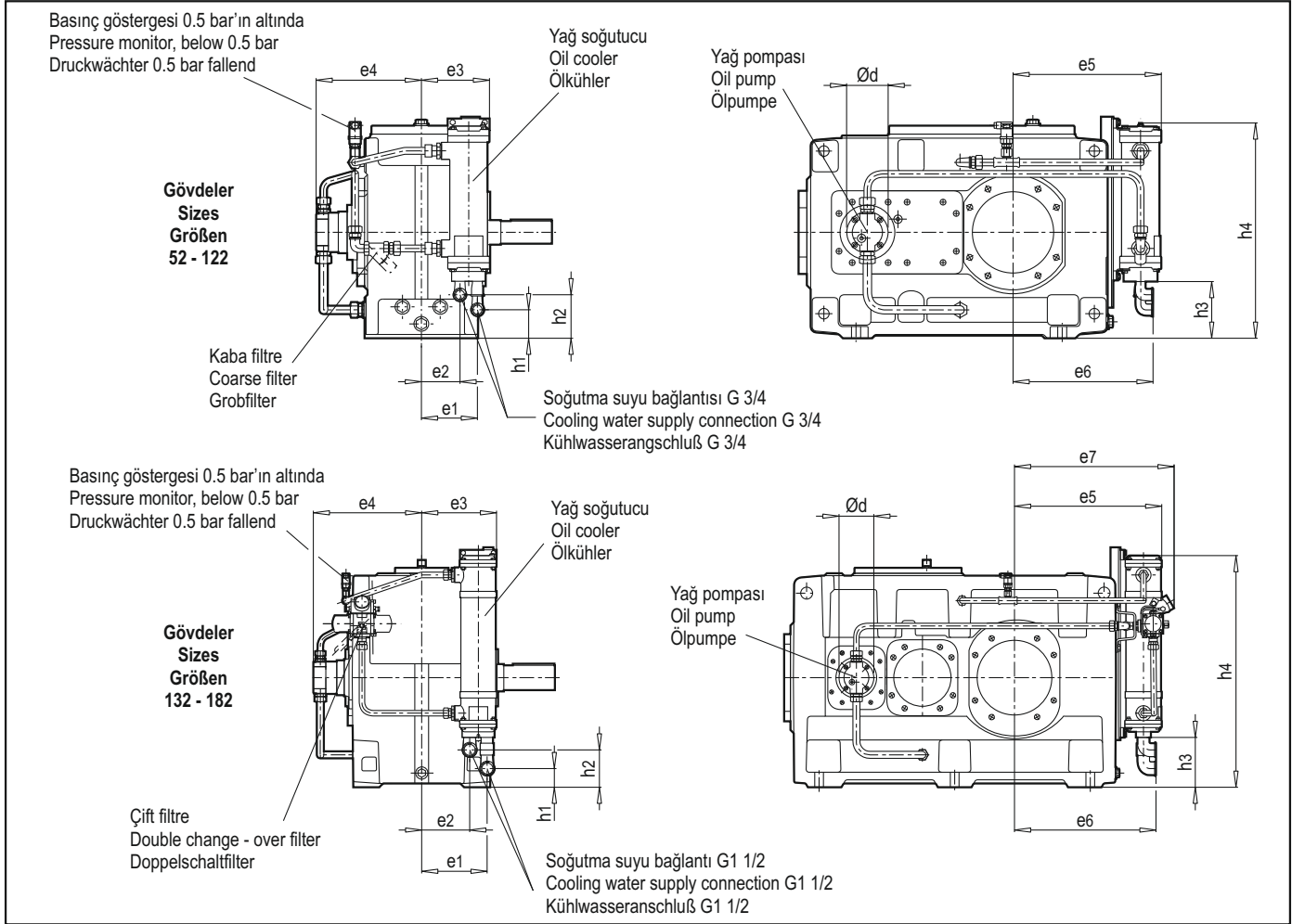
Kühler geeignet für Süß- und Seewasser

\*) Gültig für Drehzahlen n1=900-1800 min<sup>-1</sup>

TR SULU - YAĞ SOĞUTUCUSU - YATAY

EN WATER - OIL COOLER - HORIZONTAL

DE WASSER - ÖLKÜHLER - HORIZONTAL



Tablo 13 / Table 13 / Tabelle 13

| Redüktör gövdesi<br>Gear unit size<br>Getriebe-<br>größe | Yağ soğutucu / Oil cooler / Ölkühler |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   | Yağ Pompası *<br>Oil pump / Ölpumpe |          |
|----------------------------------------------------------|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------------------------|----------|
|                                                          | Gövde<br>Size<br>Größe               | e1                | e2                | e3                | e4                | e5                | e6                | e7                | h1               | h2                | h3                | h4                | KSW<br>Gövde<br>Size/Größe          | Ød<br>mm |
| 52<br>62<br>72                                           | 01                                   | 123               | 77                | 155               | 264               | 355               | 323               | —                 | 55               | 95                | 130               | 550               | 1                                   | 110      |
| 82<br>92<br>102                                          | 01                                   | 148               | 102               | 180               | 284               | 460               | 428               | —                 | 75               | 115               | 150               | 570               | 1                                   | 110      |
| 112<br>122<br>132                                        | 01<br>01<br>03                       | 203<br>203<br>260 | 157<br>157<br>190 | 235<br>235<br>300 | 343<br>343<br>411 | 500<br>585<br>595 | 463<br>548<br>568 | —<br>—<br>650     | 225<br>225<br>75 | 265<br>265<br>150 | 300<br>300<br>200 | 720<br>720<br>938 | 1<br>2<br>2                         | 110      |
| 142<br>152<br>162                                        | 03                                   | 260<br>300<br>300 | 190<br>230<br>230 | 300<br>340<br>340 | 411<br>446<br>446 | 675<br>675<br>720 | 638<br>648<br>693 | 730<br>730<br>775 | 75<br>105<br>105 | 150<br>180<br>180 | 200<br>230<br>230 | 938<br>968<br>968 | 2                                   | 110      |
| 172<br>182                                               | 03                                   | 330               | 260               | 370               | 476               | 720<br>775        | 688<br>748        | 775<br>830        | 145              | 220               | 270               | 1008              | 2                                   | 110      |

\*) Tüm tahvil oranları için  
(n1 = 750 - 1800 d/d)

Termal kapasitenin Pt4 sınırlarının aşması durumunda, yağ soğutucu veya yağ pompası kullanılmalıdır. (Tercih fan ile birlikte kullanın).  
Dikey redüktörler için, talep edildiğinde temin edilir.  
Termal kapasite sınır değerleri, talep edildiğinde temin edilir.  
Soğutucu, tatlı su ve deniz suyu için uygundur.

\*) For all transmission ratios  
(n1 = 750 - 1800 min<sup>-1</sup>)

If the thermal capacities Pt4 are exceeded, oil cooler and oil pump have to be provided, possibly together with a fan.  
Vertical gear units on request  
Thermal capacities on request  
Cooler suitable for fresh and sea water

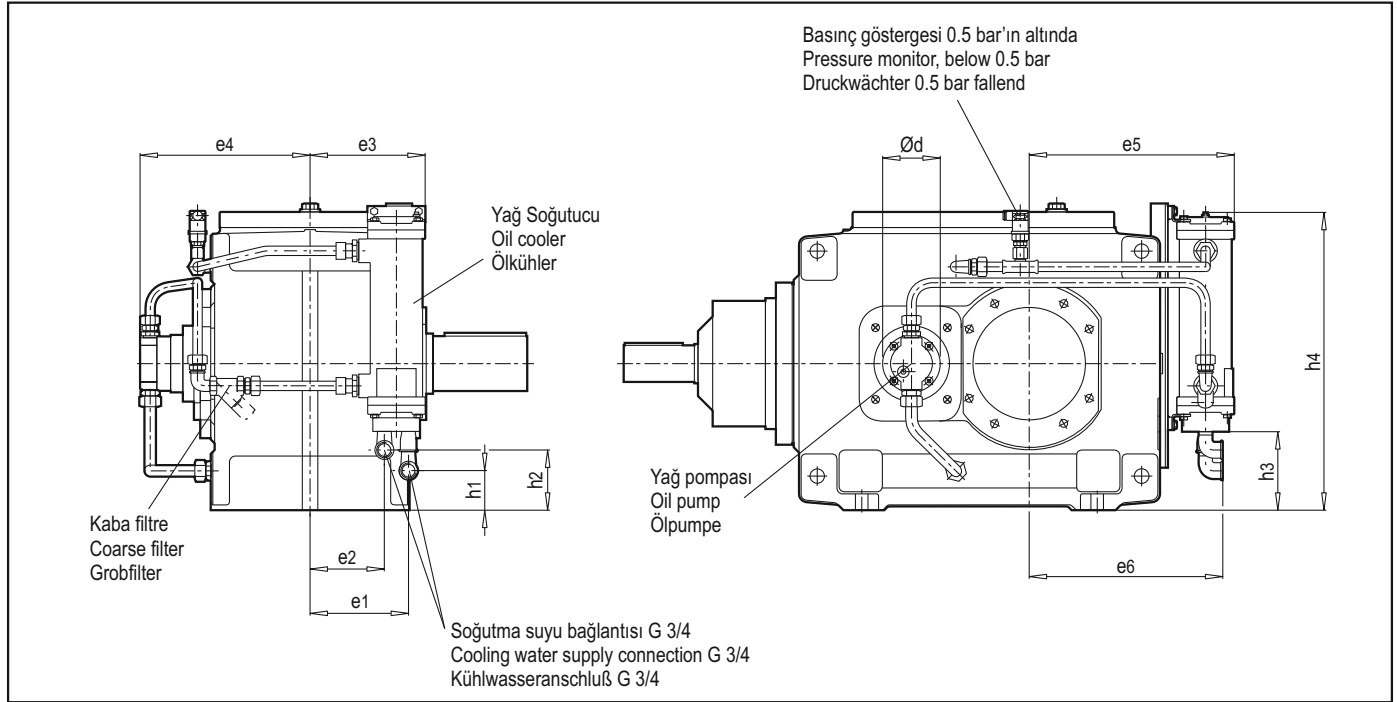
\*) Für alle Übersetzungen  
(n1 = 750 - 1800 min<sup>-1</sup>)

Beim Überschreiten der Wärmegrenzleistungen Pt4 sind Ölkühler und Ölpumpe vorzusehen, (evtl. zusammen mit Lüfterbetrieb).  
Vertikalgetriebe auf Anfrage  
Wärmegrenzleistungen auf Anfrage  
Kühler geeignet für Süß- und Seewasser

TR SULU - YAĞ SOĞUTUCUSU - YATAY

EN WATER - OIL COOLER - HORIZONTAL

DE WASSER - ÖLKÜHLER - HORIZONTAL



Tablo 14 / Table 14 / Tabelle 14

| Redüktör<br>Gövdesi<br>Gear unit<br>size<br>Getriebegröße | Yağ soğutucu / Oil cooler / Ölkühler |     |     |     |                   |     |     |     |     |     |     | Yağ Pompası<br>Oil pump / Ölpumpe * |                   |
|-----------------------------------------------------------|--------------------------------------|-----|-----|-----|-------------------|-----|-----|-----|-----|-----|-----|-------------------------------------|-------------------|
|                                                           | Boyut<br>Size<br>Größe               | e1  | e2  | e3  | e4                | e5  | e6  | h1  | h2  | h2  | h4  | KSW<br>Boyut / Size<br>Größe        | Ød<br>mm          |
|                                                           |                                      |     |     |     |                   |     |     |     |     |     |     |                                     |                   |
| 52                                                        | 01                                   | 158 | 112 | 190 | 341<br>314<br>299 | 360 | 328 | 55  | 95  | 130 | 550 | 3<br>2<br>1                         | 140<br>110<br>110 |
| 62                                                        | 01                                   | 158 | 112 | 190 | 341<br>314<br>299 | 405 | 373 | 55  | 95  | 130 | 550 | 3<br>2<br>1                         | 140<br>110<br>110 |
| 72                                                        | 01                                   | 188 | 142 | 220 | 371<br>344<br>329 | 405 | 373 | 75  | 115 | 150 | 570 | 3<br>2<br>1                         | 140<br>110<br>110 |
| 82                                                        | 01                                   | 188 | 142 | 220 | 371<br>344<br>329 | 465 | 433 | 75  | 115 | 150 | 570 | 3<br>2<br>1                         | 140<br>110<br>110 |
| 92                                                        | 01                                   | 218 | 172 | 250 | 400<br>373<br>358 | 465 | 423 | 150 | 190 | 225 | 645 | 3<br>2<br>1                         | 140<br>110<br>110 |
| 102                                                       | 01                                   | 218 | 172 | 250 | 400<br>373<br>358 | 505 | 473 | 150 | 190 | 225 | 645 | 3<br>2<br>1                         | 140<br>110<br>110 |
| 112                                                       | 01                                   | 263 | 217 | 295 | 441<br>414<br>399 | 505 | 468 | 225 | 265 | 300 | 720 | 3<br>2<br>1                         | 140<br>110<br>110 |
| 122                                                       | 01                                   | 263 | 217 | 295 | 441<br>414<br>399 | 585 | 553 | 225 | 265 | 300 | 720 | 3<br>2<br>1                         | 140<br>110<br>110 |

Thermal kapasitenin Pt4 sınırlarının aşması durumunda, yağ soğutucu veya yağ pompası kullanılmalıdır (Tercih fan ile birlikte kullanın).  
Dikey redüktörler, talep edildiğinde temin edilir.  
Thermal kapasite sınır değerleri, talep edildiğinde temin edilir.

If the thermal capacities Pt4 are exceeded, oil cooler and oil pump have to be provided, possibly together with a fan.  
Vertical gear units on request  
Thermal capacities on request  
Cooler suitable for fresh and sea water

Beim Überschreiten der Wärmegrenzleistungen Pt4 sind Ölkühler und Ölpumpe vorzusehen, (evtl. zusammen mit Lüfterbetrieb).  
Vertikalgetriebe auf Anfrage  
Wärmegrenzleistungen auf Anfrage  
Geeignet für Süß- und Seewasser

\*) Soğutucu, tatlı su ve deniz suyu için uygundur. Farklı pompa büyüklükleri için, dikey redüktörler belirtilen çevrim oranları ve n<sub>1</sub> devir sayıları için geçerlidir. Sayfa 141'e bakınız.

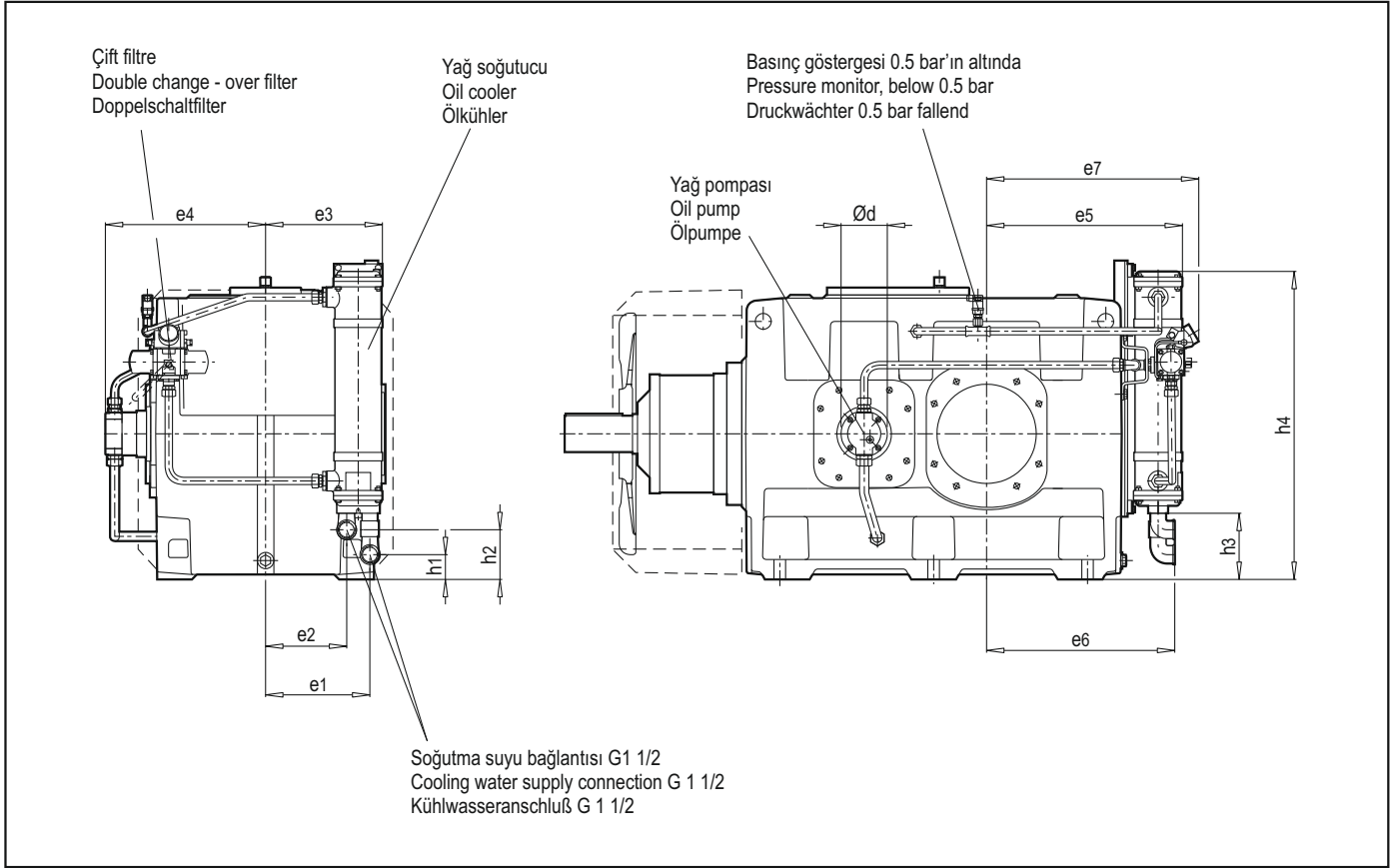
\*) For different pump sizes the transmission ratio assignments will apply as determined for vertical gear units and speeds n<sub>1</sub>, see page 141.

\*) Bei unterschiedlichen Pumpengrößen gelten die für Vertikalgetriebe festgelegten Übersetzungszuordnungen und Drehzahlen n<sub>1</sub>, siehe Seite 141.

TR SULU - YAĞ SOĞUTUCUSU - YATAY

EN WATER - OIL COOLER - HORIZONTAL

DE WASSER - ÖLKÜHLER - HORIZONTAL



Tablo 15 / Table 15 / Tabelle 15

| Redüktör<br>boyutu<br>Gear unit<br>size<br>Getriebegröße | Yağ soğutucu / Oil cooler / Ölkühler |     |     |     |            |     |     |     |     |     |     |      | Yağ Pompası *<br>Oil pump / Ölpumpe |            |
|----------------------------------------------------------|--------------------------------------|-----|-----|-----|------------|-----|-----|-----|-----|-----|-----|------|-------------------------------------|------------|
|                                                          | Boyut<br>Size<br>Größe               | e1  | e2  | e3  | e4         | e5  | e6  | e7  | h1  | h2  | h3  | h4   | KSW<br>Boyut /Size<br>Größe         | Ød<br>mm   |
|                                                          |                                      |     |     |     |            |     |     |     |     |     |     |      |                                     |            |
| 132                                                      | 03                                   | 320 | 250 | 355 | 488<br>461 | 600 | 578 | 650 | 75  | 150 | 200 | 938  | 3<br>2                              | 140<br>110 |
| 142                                                      | 03                                   | 320 | 250 | 355 | 488<br>461 | 670 | 648 | 720 | 75  | 150 | 200 | 938  | 3<br>2                              | 140<br>110 |
| 152                                                      | 03                                   | 375 | 305 | 410 | 544<br>517 | 680 | 658 | 730 | 105 | 180 | 230 | 968  | 3<br>2                              | 140<br>110 |
| 162                                                      | 03                                   | 375 | 305 | 410 | 544<br>517 | 725 | 703 | 775 | 105 | 180 | 230 | 968  | 3<br>2                              | 140<br>110 |
| 172                                                      | 03                                   | 435 | 365 | 470 | 606<br>579 | 725 | 698 | 775 | 145 | 220 | 270 | 1008 | 3<br>2                              | 140<br>110 |
| 182                                                      | 03                                   | 435 | 365 | 470 | 606<br>579 | 780 | 758 | 830 | 145 | 220 | 270 | 1008 | 3<br>2                              | 140<br>110 |

Termal kapasitenin Pt4 sınırlarının aşması durumunda, yağ soğutucu veya yağ pompası kullanılmalıdır (Tercih fan ile birlikte kullanın).

Dikey redüktörler için, talep edildiğinde temin edilir.  
Termal kapasite sınır değerleri, talep edildiğinde temin edilir.

\*) Soğutucu, tatlı su ve deniz suyu için uygundur. Farklı pompa büyüklükleri için, dikey redüktörler belirtilen çevrim oranları ve n<sub>1</sub> devir sayıları için geçerlidir. Sayfa 141'e bakınız.

If the thermal capacities Pt4 are exceeded, oil cooler and oil pump have to be provided, possibly together with a fan.

Vertical gear units on request  
Thermal capacities on request  
Cooler suitable for fresh and sea water

\*) For different pump sizes the transmission ratio assignments will apply as determined for vertical gear units and speeds n<sub>1</sub>, see page 141.

Beim Überschreiten der Wärmegrenzleistungen Pt4 sind Ölkühler und Ölpumpe vorzusehen (evtl. zusammen mit Lüfterbetrieb).

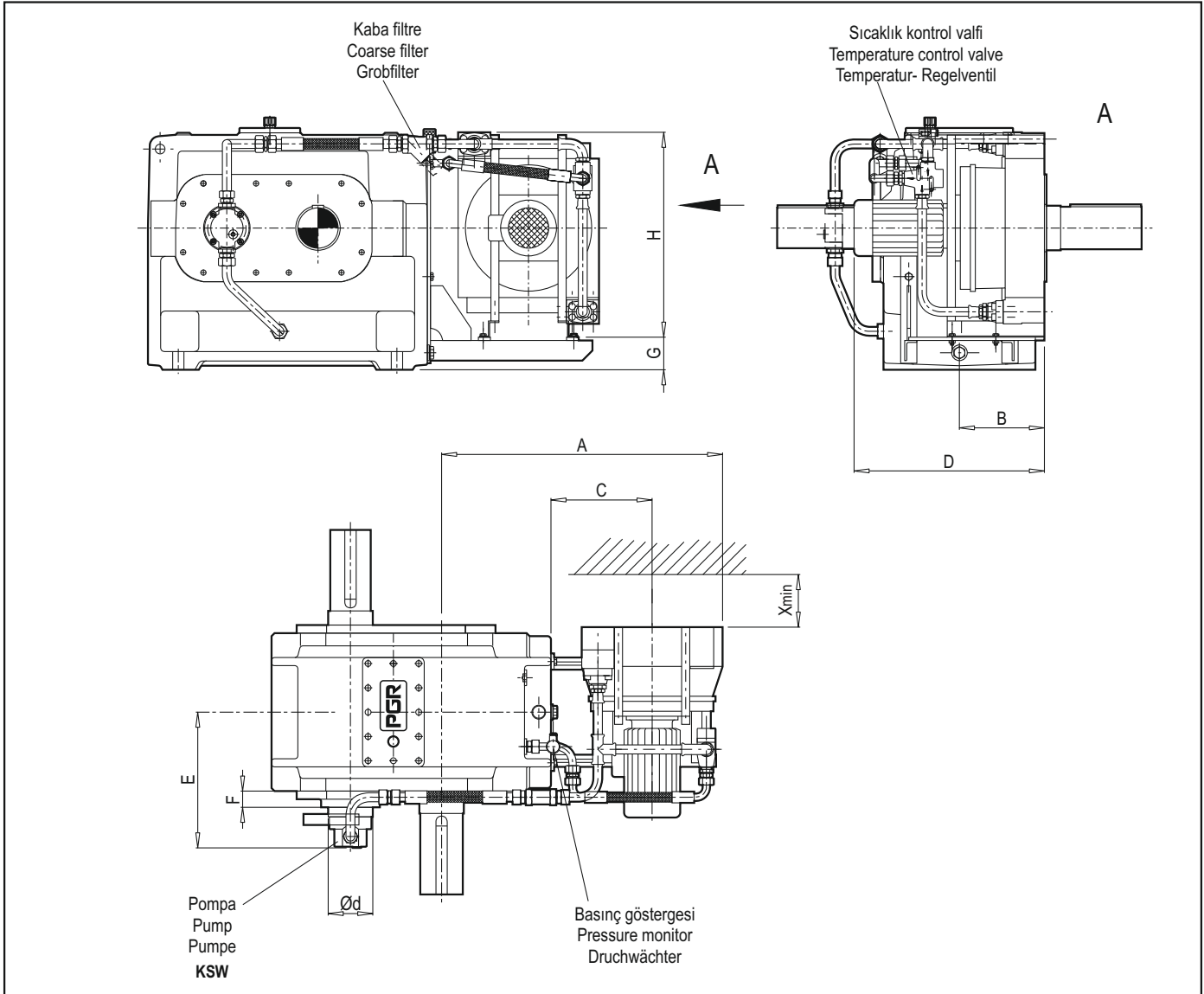
Vertikalgetriebe auf Anfrage  
Wärmegrenzleistungen auf Anfrage  
Geeignet für Süß- und Seewasser

\*) Bei unterschiedlichen Pumpengrößen gelten die für Vertikalgetriebe festgelegten Übersetzungszuordnungen und Drehzahlen n<sub>1</sub>, siehe Seite 141.

TR HAVALI - YAĞ SOĞUTUCUSU - YATAY

EN AIR - OIL COOLER - HORIZONTAL

DE LUFT - ÖLKÜHLER - HORIZONTAL



Tablo 16 / Table 16 / Tabelle 16

| Redüktör<br>boyutu<br>Gear unit<br>size<br>Getriebegröße | A   | B   | C   | D   | E                 | F    | G   | H   | Xmin | Boyut / Size /Größe    |             |                                       |  |
|----------------------------------------------------------|-----|-----|-----|-----|-------------------|------|-----|-----|------|------------------------|-------------|---------------------------------------|--|
|                                                          |     |     |     |     |                   |      |     |     |      | Pompa / Pump / Pumpe * |             |                                       |  |
|                                                          |     |     |     |     |                   |      |     |     |      | KSW                    | Ød          | Tahvil / Ratio<br>Übersetzung<br>İges |  |
| mm                                                       |     |     |     |     |                   |      |     |     |      | 130                    |             |                                       |  |
| 51                                                       | 655 | 240 | 250 | 470 | 282               | 46.5 | 75  | 440 | 1    |                        | 110         | 1.25 ... 5.6                          |  |
| 71                                                       | 695 | 210 | 250 | 470 | 335<br>320        | 40   | 80  | 510 | 2    |                        | 110         | 1.25 ... 4                            |  |
|                                                          |     |     |     |     |                   |      |     |     | 1    |                        | 110         | 4.5 ... 5.6                           |  |
| 91                                                       | 865 | 240 | 320 | 540 | 373<br>373<br>358 | 50   | 100 | 615 | 2    |                        | 110         | 1.25 ... 2.8                          |  |
|                                                          |     |     |     |     |                   |      |     |     | 2    |                        | 110         | 3.15 ... 4                            |  |
|                                                          |     |     |     |     |                   |      |     |     | 1    |                        | 110         | 4.5 ... 5.6                           |  |
| 111                                                      | 925 | 240 | 320 | 540 | 433<br>433<br>406 | 38   | 130 | 715 | 3    |                        | 140         | 1.6 ... 2.8                           |  |
|                                                          |     |     |     |     |                   |      |     |     | 3    |                        | 140         | 3.15 ... 4                            |  |
|                                                          |     |     |     |     |                   |      |     |     | 2    | 110                    | 4.5 ... 5.6 |                                       |  |

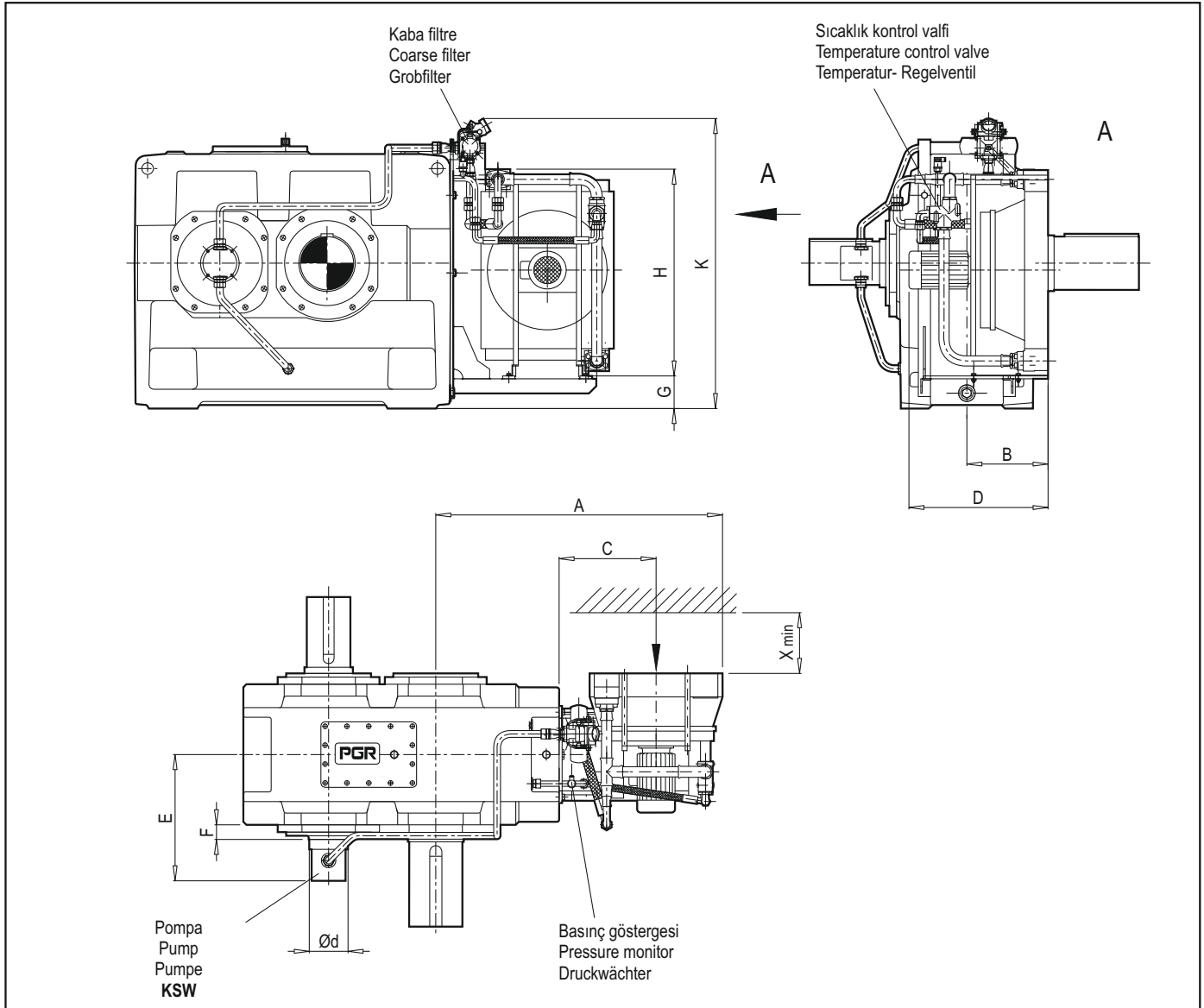
\*) Tüm tahvil oranları için;  
n1 = 900 - 1800 d/d  
Dikey redüktörler için, talep edildiğinde temin edilir.  
Termal kapasite sınır değerleri, talep edildiğinde temin edilir.

\*) Applies to speeds n1 = 900 - 1800 min<sup>-1</sup>  
Vertical gear units on request  
Thermal capacities on request

\*) Gültig für drehzahlen n1 = 900 - 1800 min<sup>-1</sup>  
Vertikalgetriebe auf Anfrage  
Wärmegrenzleistungen auf Anfrage

**TR** HAVALI - YAĞ SOĞUTUCUSU - YATAY

**EN** AIR- OIL COOLER - HORIZONTAL

**DE** LUFT - ÖLKÜHLER - HORIZONTAL


Tablo 17 / Table 17 / Tabelle 17

| Redüktör<br>boyutu<br>Gear unit<br>size<br>Getriebegröße | A    | B   | C   | D   | E   | F  | G   | H   | K    | Xmin | Gövde / Size / Größe   |     |                                       |
|----------------------------------------------------------|------|-----|-----|-----|-----|----|-----|-----|------|------|------------------------|-----|---------------------------------------|
|                                                          |      |     |     |     |     |    |     |     |      |      | Pompa / Pump / Pumpe * |     |                                       |
|                                                          |      |     |     |     |     |    |     |     |      |      | KSW                    | Ød  | Tahvil / Ratio<br>Übersetzung<br>İges |
| 131                                                      | 1115 | 350 | 400 | 580 | 469 | 40 | 115 | 725 | 1100 | 130  | 3                      | 140 | 1.6 ... 2.8                           |
|                                                          |      |     |     |     | 469 |    |     |     |      |      | 3                      | 140 | 3.15 ... 4                            |
|                                                          |      |     |     |     | 442 |    |     |     |      |      | 2                      | 110 | 4.5 ... 5.6                           |
| 151                                                      | 1200 | 355 | 400 | 580 | 474 | 60 | 135 | 855 | 1190 | 250  | 3                      | 140 | 2 ... 2.8                             |
|                                                          |      |     |     |     | 474 |    |     |     |      |      | 3                      | 140 | 3.15 ... 4                            |
|                                                          |      |     |     |     | 447 |    |     |     |      |      | 2                      | 110 | 4.15 ... 5.6                          |
| 171                                                      | 1380 | 357 | 480 | 640 | 491 | 42 | 235 | 855 | 1310 | 350  | 3                      | 140 | 2 ... 2.8                             |
|                                                          |      |     |     |     | 491 |    |     |     |      |      | 3                      | 140 | 3.15 ... 4                            |
|                                                          |      |     |     |     | 455 |    |     |     |      |      | 2                      | 110 | 4.5 ... 5.6                           |

\*) Tüm tahvil oranları için  
 $n_1 = 900 - 1800 \text{ d/d}$   
 Dikey redüktörler, talep edildiğinde temin edilir.  
 Thermal capacity limit values, requested when required.  
 edilir.

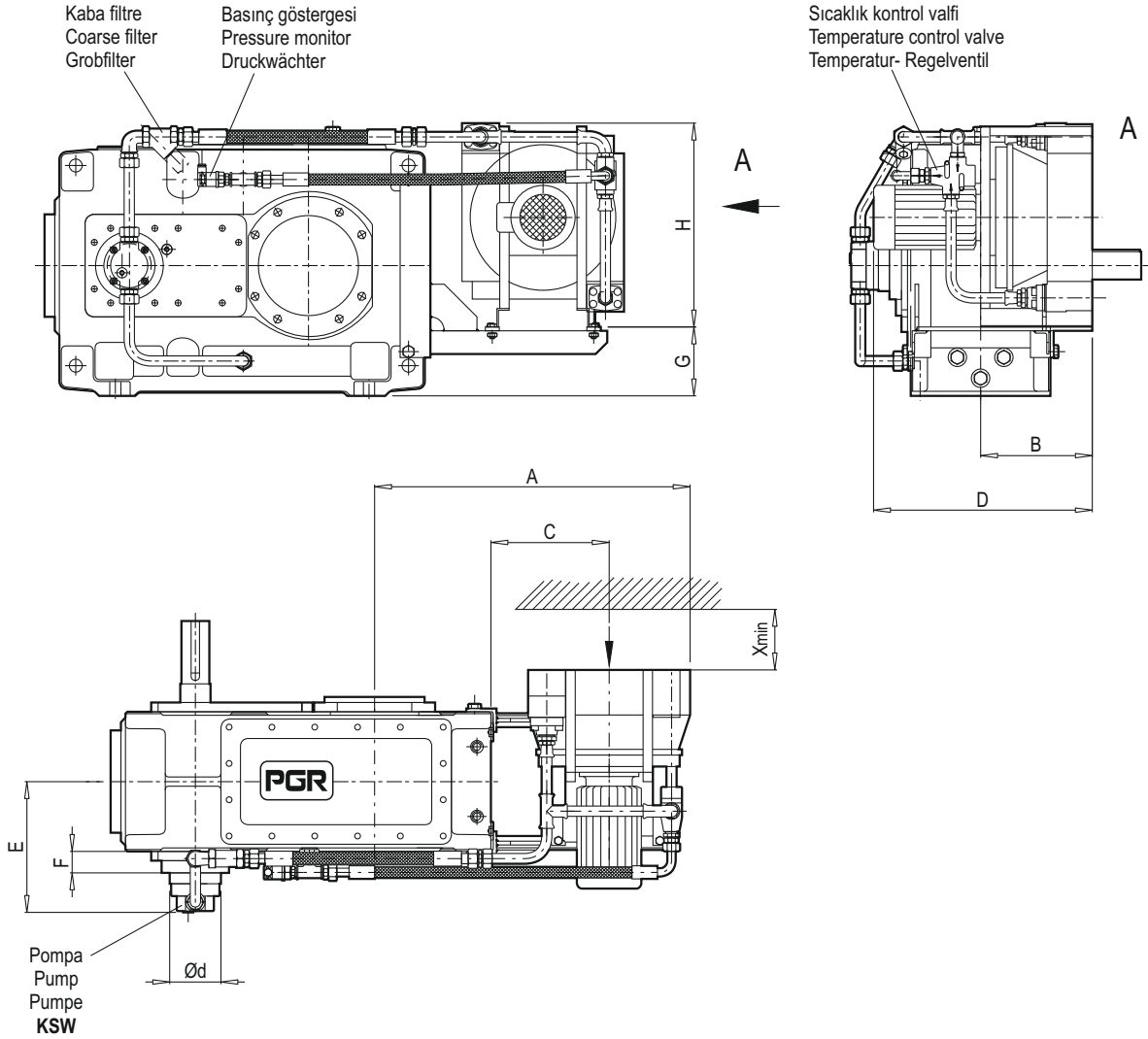
\*) Applies to speeds  
 $n_1 = 900 - 1800 \text{ min}^{-1}$   
 Vertical gear units on request  
 Thermal capacities on request

\*) Gültig für Drehzahlen  
 $n_1 = 900 - 1800 \text{ min}^{-1}$   
 Vertikalgetriebe auf Anfrage  
 Wärmegrenzleistungen auf Anfrage

TR HAVALI - YAĞ SOĞUTUCUSU - YATAY

EN AIR - OIL COOLER - HORIZONTAL

DE LUFT - ÖLKÜHLER - HORIZONTAL



Tablo 18 / Table 18 / Tabelle 18

| Redüktör<br>boyutu<br>Gear unit<br>size<br>Getriebegröße | A   | B   | C   | D   | E   | F  | G   | H   | Xmin | Gövde / Size / Größe    |     |
|----------------------------------------------------------|-----|-----|-----|-----|-----|----|-----|-----|------|-------------------------|-----|
|                                                          |     |     |     |     |     |    |     |     |      | Pompa / Pump<br>Pumpe * |     |
|                                                          |     |     |     |     |     |    |     |     |      | KSW                     | Ød  |
| mm                                                       |     |     |     |     |     |    |     |     |      |                         |     |
| 52                                                       | 580 | 250 | 225 | 425 | 263 | 50 | 125 | 380 | 130  | 1                       | 110 |
| 62                                                       | 625 | 250 | 225 | 525 | 263 | 50 | 125 | 380 |      | 1                       |     |
| 72                                                       | 680 | 240 | 255 | 470 | 283 | 48 | 150 | 440 |      | 1                       |     |
| 82                                                       | 740 | 240 | 255 | 470 | 283 | 48 | 150 | 440 |      | 1                       |     |
| 92                                                       | 730 | 230 | 255 | 470 | 306 | 36 | 150 | 510 |      | 1                       |     |
| 102                                                      | 780 | 230 | 255 | 470 | 306 | 36 | 150 | 510 |      | 1                       |     |
| 112                                                      | 880 | 260 | 310 | 540 | 342 | 42 | 190 | 615 |      | 1                       |     |
| 122                                                      | 965 | 260 | 310 | 540 | 342 | 42 | 190 | 615 |      | 1                       |     |

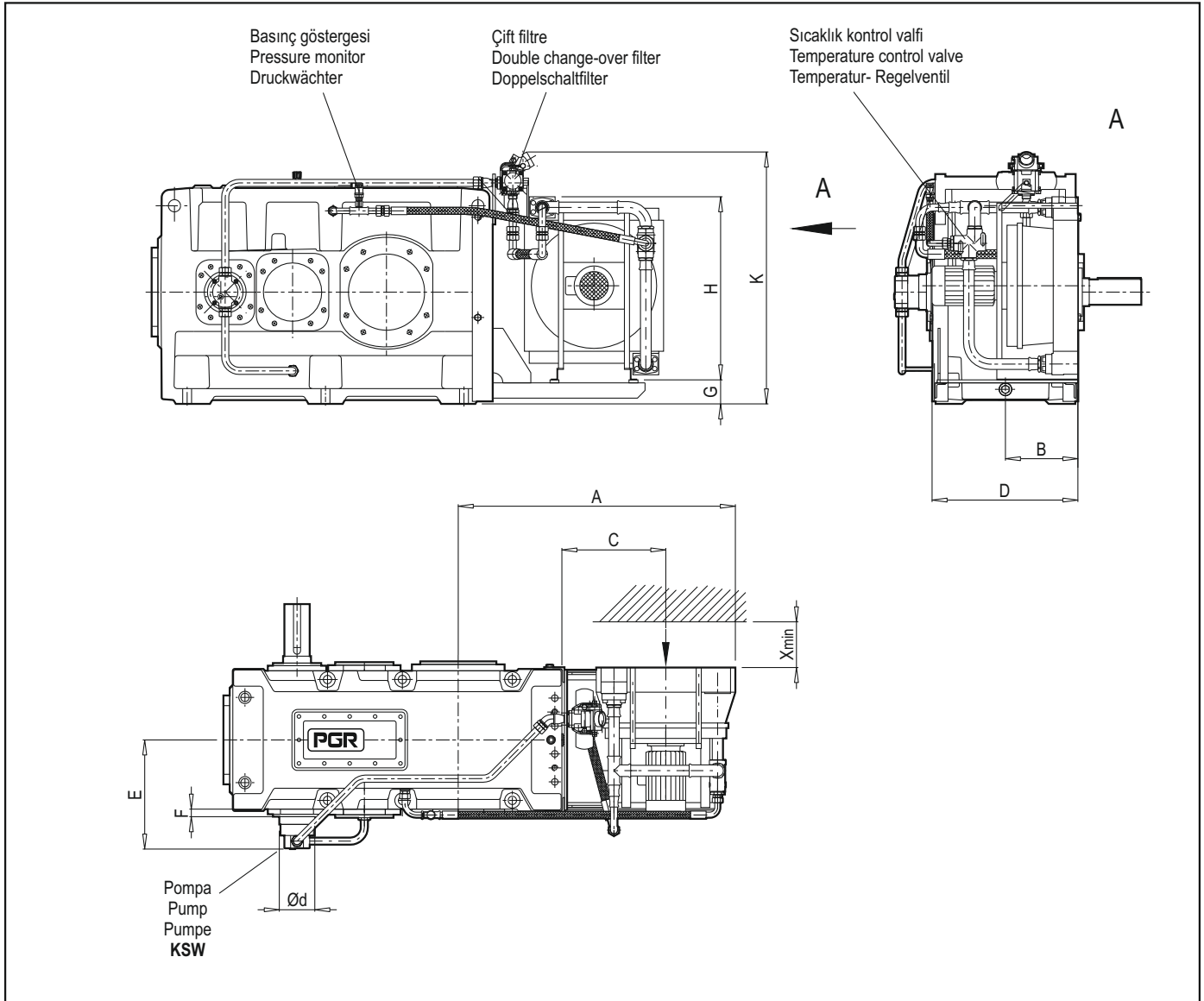
\*) Tüm tahvil oranları için;  
(n1 = 750 - 1800 d/d)  
Dikey redüktörler, talep edildiğinde temin edilir.  
Termal kapasite sınır değerleri, talep edildiğinde temin edilir.

\*) For all transmission ratios  
(n1 = 750 - 1800 min<sup>-1</sup>)  
Vertical gear units on request  
Thermal capacities on request

\*) Für alle Übersetzungen  
(n1 = 750 - 1800 min<sup>-1</sup>)  
Vertikalgetriebe auf Anfrage  
Wärmegrenzleistungen auf Anfrage

**TR** HAVALI - YAĞ SOĞUTUCUSU - YATAY

**EN** AIR- OIL COOLER - HORIZONTAL

**DE** LUFT - ÖLKÜHLER - HORIZONTAL


Tablo 19 / Table 19 / Tabelle 19

| Redüktör<br>boyutu<br>Gear unit<br>size<br>Getriebegröße | A    | B   | C   | D   | E   | F  | G   | H   | K    | Xmin | Boyut / Size / Größe    |     |
|----------------------------------------------------------|------|-----|-----|-----|-----|----|-----|-----|------|------|-------------------------|-----|
|                                                          |      |     |     |     |     |    |     |     |      |      | Pompa / Pump<br>Pumpe * |     |
|                                                          |      |     |     |     |     |    |     |     |      |      | KSW                     | Ød  |
| mm                                                       |      |     |     |     |     |    |     |     |      |      |                         |     |
| 132                                                      | 1000 | 270 | 365 | 540 | 410 | 37 | 95  | 715 | 990  | 130  | 2                       | 110 |
| 142                                                      | 1070 | 270 | 365 | 540 | 410 | 37 | 95  | 715 | 990  | 130  |                         |     |
| 152                                                      | 1175 | 290 | 410 | 574 | 445 | 35 | 150 | 725 | 1090 | 130  |                         |     |
| 162                                                      | 1220 | 290 | 410 | 574 | 445 | 35 | 150 | 725 | 1090 | 130  |                         |     |
| 172                                                      | 1215 | 290 | 410 | 574 | 475 | 35 | 170 | 860 | 1195 | 250  |                         |     |
| 182                                                      | 1275 | 290 | 410 | 574 | 475 | 35 | 170 | 860 | 1195 | 250  |                         |     |

\*) Tüm tahvil oranları için;  
 (n1 = 750 - 1800 d/d)  
 Dikey redüktörler, talep edildiğinde temin edilir.  
 Thermal kapasite sınır değerleri, talep edildiğinde temin edilir.

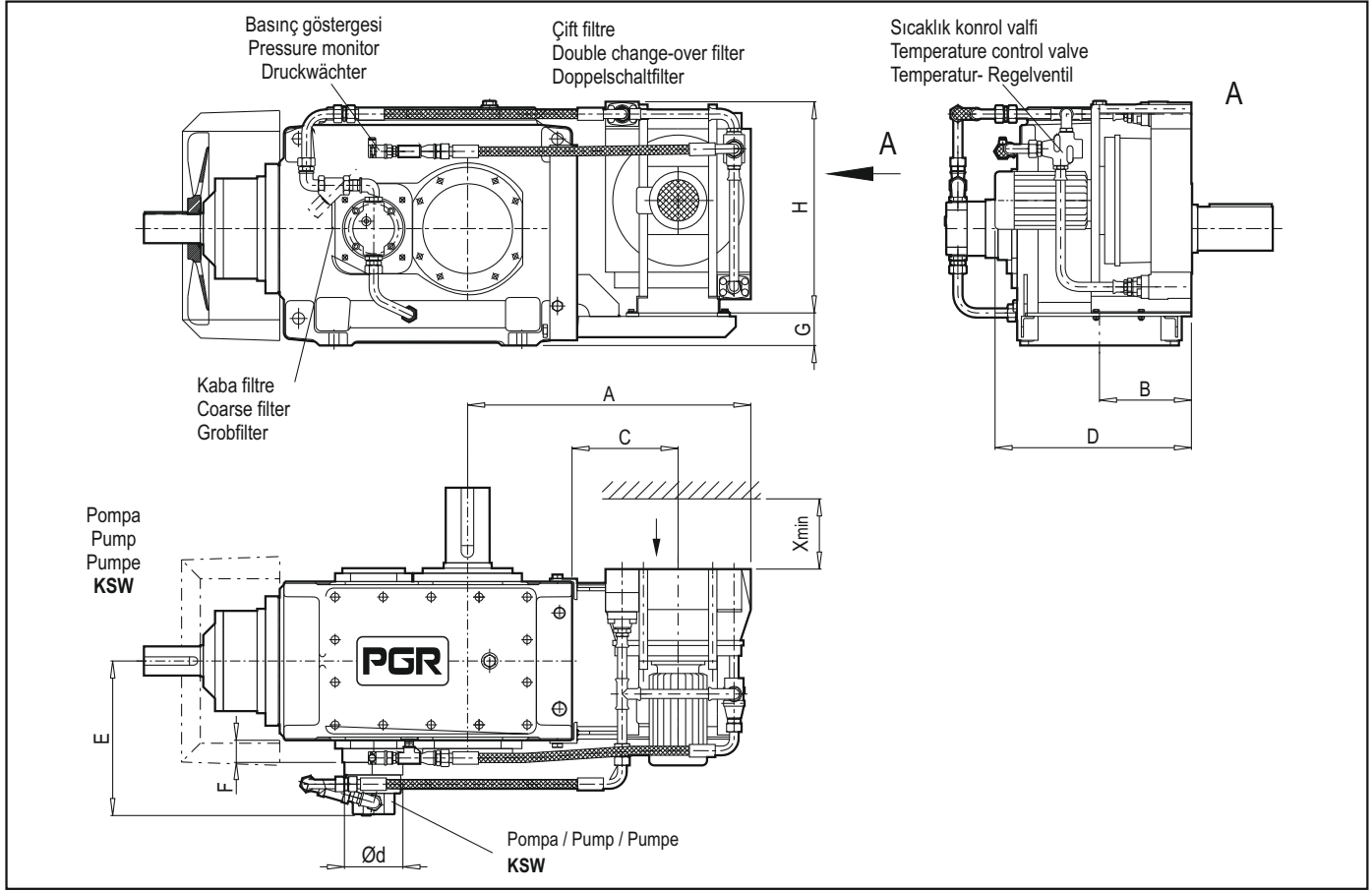
\*) For all transmission ratios  
 (n1 = 750 - 1800 min<sup>-1</sup>)  
 Vertical gear units on request  
 Thermal capacities on request

\*) Für alle Übersetzungen  
 (n1 = 750 - 1800 min<sup>-1</sup>)  
 Vertikalgetriebe auf Anfrage  
 Wärmegrenzleistungen auf Anfrage

TR HAVALI - YAĞ SOĞUTUCUSU - YATAY

EN AIR - OIL COOLER - HORIZONTAL

DE LUFT - ÖLKÜHLER - HORIZONTAL



Tablo 20 / Table 20 / Tabelle 20

| Redüktör<br>boyutu<br>Gear unit<br>size<br>Getriebegröße | A   | B   | C   | D   | E                 | F  | G  | H   | Xmin | Gövde / Size / Größe    |                   |
|----------------------------------------------------------|-----|-----|-----|-----|-------------------|----|----|-----|------|-------------------------|-------------------|
|                                                          |     |     |     |     |                   |    |    |     |      | Pompa / Pump<br>Pumpe * |                   |
|                                                          |     |     |     |     |                   |    |    |     |      | KSW                     | Ød                |
| mm                                                       |     |     |     |     |                   |    |    |     |      |                         |                   |
| 52                                                       | 634 | 190 | 255 | 470 | 340<br>313<br>298 | 53 | 80 | 440 | 130  | 3<br>2<br>1             | 140<br>110<br>110 |
| 62                                                       | 679 | 190 | 255 | 470 | 340<br>313<br>298 | 53 |    | 440 |      | 3<br>2<br>1             | 140<br>110<br>110 |
| 72                                                       | 679 | 220 | 255 | 470 | 370<br>343<br>328 | 53 |    | 510 |      | 3<br>2<br>1             | 140<br>110<br>110 |
| 82                                                       | 739 | 220 | 255 | 470 | 370<br>343<br>328 | 53 |    | 510 |      | 3<br>2<br>1             | 140<br>110<br>110 |
| 92                                                       | 887 | 220 | 310 | 540 | 399<br>372<br>357 | 52 |    | 615 |      | 3<br>2<br>1             | 140<br>110<br>110 |
| 102                                                      | 937 | 220 | 310 | 540 | 399<br>372<br>357 | 52 |    | 615 |      | 3<br>2<br>1             | 140<br>110<br>110 |
| 112                                                      | 882 | 220 | 310 | 540 | 440<br>413<br>398 | 48 |    | 715 |      | 3<br>2<br>1             | 140<br>110<br>110 |
| 122                                                      | 967 | 220 | 310 | 540 | 440<br>413<br>398 | 48 |    | 715 |      | 3<br>2<br>1             | 140<br>110<br>110 |

Dikey redüktörler, talep edildiğinde temin edilir.  
Thermal kapasite sınır değerleri, talep edildiğinde temin edilir.  
\*) Farklı pompa büyüklükleri için belirtilen çevrim oranları ve n1 devir sayıları geçerlidir. Sayfa 141'e bakınız.

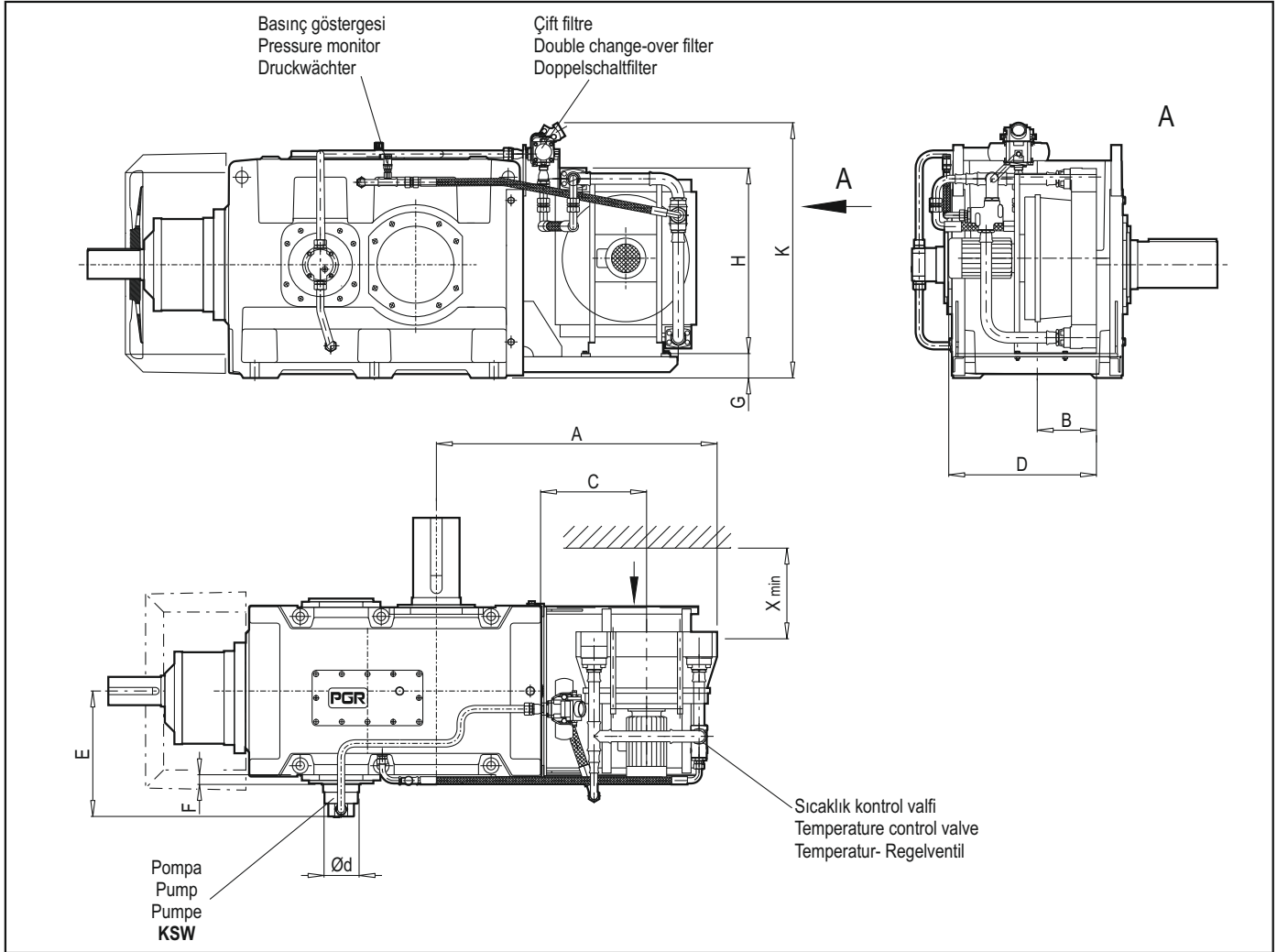
Vertical gear units on request  
Thermal capacities on request  
\*) For different pump sizes the transmission ratio assignments will apply as determined  
For vertical gear units and speeds n1, see page 141.

Vertikalgetriebe auf Anfrage  
Wärmegrenzleistungen auf Anfrage  
\*) Bei unterschiedlichen Pumpengrößen gelten die für Vertikalgetriebe festgelegten Übersetzungsanordnungen und Drehzahlen n1, siehe Seite 141.

TR HAVALI - YAĞ SOĞUTUCUSU - YATAY

EN AIR- OIL COOLER - HORIZONTAL

DE LUFT - ÖLKÜHLER - HORIZONTAL



Tablo 21 / Table 21 / Tabelle 21

| Redüktör<br>Boyutu<br>Gear unit<br>size<br>Getriebegröße | A    | B   | C   | D   | E          | F  | G     | H   | K    | X <sub>min</sub> | Gövde / Size / Größe    |            |  |
|----------------------------------------------------------|------|-----|-----|-----|------------|----|-------|-----|------|------------------|-------------------------|------------|--|
|                                                          |      |     |     |     |            |    |       |     |      |                  | Pompa / Pump<br>Pumpe * |            |  |
|                                                          |      |     |     |     |            |    |       |     |      |                  | KSW                     | Ød         |  |
| mm                                                       |      |     |     |     |            |    |       |     |      |                  |                         |            |  |
| 132                                                      | 1092 | 230 | 410 | 574 | 487<br>460 | 35 | 95    | 725 | 995  | 130              | 3<br>2                  | 140<br>110 |  |
| 142                                                      | 1162 | 230 | 410 | 574 | 487<br>460 | 35 | 95    | 725 | 995  | 130              | 3<br>2                  | 140<br>110 |  |
| 152                                                      | 1172 | 175 | 410 | 574 | 543<br>516 | 36 | 95    | 860 | 1095 | 250              | 3<br>2                  | 140<br>110 |  |
| 162                                                      | 1217 | 175 | 410 | 574 | 543<br>516 | 36 | 95    | 860 | 1095 | 250              | 3<br>2                  | 140<br>110 |  |
| 172                                                      | 1337 | 150 | 480 | 635 | 605<br>578 | 40 | 113.5 | 860 | 1200 | 350              | 3<br>2                  | 140<br>110 |  |
| 182                                                      | 1397 | 150 | 480 | 635 | 605<br>578 | 40 | 113.5 | 860 | 1200 | 350              | 3<br>2                  | 140<br>110 |  |

Dikey redüktörler, talep edildiğinde temin edilir.

Thermal capacity limit values, requested when required.

\*) Farklı pompa büyüklükleri için belirtilen çevrim oranları ve n1 devir sayıları geçerlidir. Sayfa 141'e bakınız.

Vertical gear units on request

Thermal capacities on request

\*) For different pump sizes the transmission ratio assignments will apply as determined  
For vertical gear units and speeds n1 see page 141.

Vertikalgetriebe auf Anfrage

Wärmegrenzleistungen auf Anfrage

\*) Bei unterschiedlichen Pumpengrößen gelten die für Vertikalgetriebe festgelegten Übersetzungsanordnungen und Drehzahlen n1, siehe Seite 141.

TR

ISITICI

EN

WITH HEATING ELEMENTS

DE

MIT HEIZSTÄBEN

| Redüktör boyutu<br>Gear unit size<br>Getriebegröße                               | PH/PB4... - PH/PB12... | PH/PB13... - PH/PB18... |
|----------------------------------------------------------------------------------|------------------------|-------------------------|
| Yatay montaj pozisyonu<br>Horizontal mounting position<br>Horizontale Einbaulage |                        |                         |
| Şaft montajlı Dizayn<br>Shaft - mounted design<br>Aufsteck-ausführung            |                        |                         |
| Dikey montaj pozisyonu<br>Vertical mounting position<br>Vertikale Einbaulage     |                        |                         |

Şaft keçesi, labirent keçe uygulanması mümkün değildir.

1) Vidalanarak uygulanan ısıtıcı aksamının

Teknik verileri ve bilgileri:

Koruma sınıfı: IP 65,

230 V, 50 Hz, Güç değeri ilgili tasarıma bağlıdır. (Mutlaka PGR ile görüşülmelidir)

2) Sıcaklık kontrol göstergeleri ATH-SW22

Teknik verileri ve bilgileri:

Koruma sınıfı: IP 65,

Açma kapama anahtarları (ayarlanabilir),

Maks. Çalışma Kapasitesi: 2A/230 V

AC/460 VA cos φ = 0.6 (Alternatif Akım)

0,25 A/230 V DC/58 W (Doğru Akım)

3) Aşağıda belirtilen modellerde yoktur

4, 6, 8, 10, 12, 14, 16, 18

Yağlama için gereken sınır değerinin altına düşüldüğünde, mutlaka ısıtma çubukları kullanılmalıdır.

Redüktörün tasarımına bağlı olarak, vidalanarak uygulanan ısıtıcılar ve sıcaklık izleme göstergeleri, ayna görüntüsü dikkate alınarak, monte edilebilir.

Ölçüler, talep edildiğinde temin edilir.

Labyrinth seal not possible as shaft seal

1) Screwed heating element;

Technical data and notes:

type of protection IP 65,

230V, 50 Hz, power rating depending on design (please refer to us)

2) Temperature monitor ATH-SW22;

Technical data and notes:

type of protection IP 65,

2 change - over contacts (adjustable),

max. Switching capacity:

2 A/230 V AC/460 VA cos φ = 0.6 (alternating current),

0,25 A/230 V DC/58 W (direct current)

3) Not for sizes

4, 6, 8, 10, 12, 14, 16, 18

The use of heating elements will be necessary if the temperature limit for lubrication is undershot.

Depending on the design, screwed heating elements and temperature monitors may be arranged mirror-inverted.

Dimensions on request

Labyrinthdichtung als Wellenabdichtung nicht möglich

1) Einschraubheizkörper,

Technische Daten und Hinweise:

Schutzart IP 65, 230 V,

50 Hz, Leistung je nach Auslegung (Rückfrage erforderlich)

2) Temperaturwächter ATH- SW22

Technische Daten und Hinweise:

Schutzart IP 65,2

Umschaltkontakte (einstellbar),

max Schaltleistung:

2 A/230 V AC/460 VA cos φ = 0.6 (Wechselspannung),

0,25 A/230 V DC/58 W (Gleichspannung)

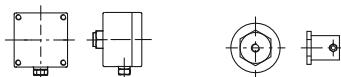
3) Entfällt bei Größen

4, 6, 8, 10, 12, 14, 16, 18

Der Einsatz von Heizstäben ist erforderlich, wenn die Grenztemperatur zur Schmierung unterschritten wird.

Je nach Ausführung können Einschraubheizkörper und Temperaturwächter spiegelbildlich angeordnet sein.

Abmessungen auf Anfrage



TR

YAĞ SICAKLIĞININ ÖLÇÜMÜ İÇİN  
TERMOMETRELİ MODELLER

EN

WITH THERMOMETER FOR  
OIL TEMPERATURE

DE

MIT OLTEMPERATURMESSUNG

| Redüktör boyutu<br>Gear unit size<br>Getriebegröße                                                   | PH/PB4... - PH/PB12... | PH/PB13... - PH/PB18... |
|------------------------------------------------------------------------------------------------------|------------------------|-------------------------|
| Yatay montaj<br>pozisyonu<br><br>Horizontal<br>mounting<br>position<br><br>Horizontale<br>Einbaulage |                        |                         |
| Şaft Montajlı<br>Dizayn<br><br>Shaft- mounted<br>design<br><br>Aufsteck -<br>ausführung              |                        |                         |
| Dikey montaj<br>pozisyonu<br><br>Vertical mounting<br>position<br><br>Vertikale<br>Einbaulage        |                        |                         |

**PT 100 Rezistanlı Termometre Teknik Verileri ve Bilgileri:**

Bağlantı başlığı koruma sınıfı:

IP 54, iki kablo bağlantılı.

Üç veya dört bağlantı kablolu uygulamalar, müşteri tarafından düzenlenebilir.

Mutlaka, bir değerlendirme cihazına bağlanmalıdır!

Tasarım modeline bağlı olarak, rezistanlı termometre, ayna görüntüsüne monte edilebilir.

Ölçüler, talep edildiğinde temin edilir.

**Resistance thermometer PT 100 Technical data and notes:**

Type of protection for terminal head:

IP 54, two-wire connection.

Three - and four - wire connection at the customer's is also possible.

Connection to an evaluation instrument is necessary!

Depending on the design, the resistance thermometer may be arranged mirror-inverted.

Labyrinth seal not possible as shaft seal.

Dimensions on request

**Widerstandsthermometer PT 100 Technische Daten und Hinweise:**

Schutzart Anschlußkopf: IP 54,

Zweileiterschaltung

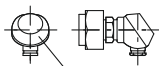
Anschluß in Drei - bzw. Vierleiterschaltung kundenseitig ebenfalls möglich.

Anschluß an ein Auswertegerät erforderlich!

Je nach Ausführung kann das Widerstandsthermometer spiegelbildlich angeordnet sein.

Labyrinthdichtung als Wellenabdichtung nicht möglich.

Abmessungen auf Anfrage



PG 9

| Tablo 1 / Table 1 / Tabelle 1 Şaft Keçesi Çeşitleri / Wellenabdichtungsvarianten / Variants of shaft seals |                        |                                                                |       |                                                      |    |                                                                   |       |
|------------------------------------------------------------------------------------------------------------|------------------------|----------------------------------------------------------------|-------|------------------------------------------------------|----|-------------------------------------------------------------------|-------|
| Tip<br>Type<br>Bauart                                                                                      | Gövde<br>Size<br>Größe | Döner mil keçesi<br>Radial shaft seal<br>Radialwellendichtring |       | Labirent keçe<br>Labyrinth seal<br>Labyrinthdichtung |    | Taconite keçe <sup>1)</sup><br>Taconite seal<br>Taconite-Dichtung |       |
|                                                                                                            |                        | d1                                                             | d2    | d1 <sup>3)</sup>                                     | d2 | d1 <sup>3)</sup>                                                  | d2    |
| PH...1SH                                                                                                   | 31 - 171               | H                                                              | H     | H                                                    | H  | H                                                                 | H     |
| PH...2                                                                                                     | 42 - 182               | H / V                                                          | H / V | H                                                    | -  | H / V                                                             | H / V |
| PH...3                                                                                                     | 53 - 183               | H / V                                                          | H / V | -                                                    | -  | H <sup>2)</sup> / V                                               | H / V |
| PH...4                                                                                                     | 74 - 184               | H / V                                                          | H / V | -                                                    | -  | H / V                                                             | H / V |
| PB...2                                                                                                     | 42 - 182               | H / V                                                          | H / V | -                                                    | -  | H / V                                                             | H / V |
| PB...3                                                                                                     | 43 - 183               | H / V                                                          | H / V | -                                                    | -  | H / V                                                             | H / V |
| PB...4                                                                                                     | 54 - 184               | H / V                                                          | H / V | -                                                    | -  | H / V                                                             | H / V |
|                                                                                                            | 19... - 22...          | İstek üzerine / On request / Auf Anfrage                       |       |                                                      |    |                                                                   |       |

- H = Yatay  
V = Dikey  
1) Muhtemel uygulama şekilleri için, lütfen sonraki sayfalara bakınız.  
2) Fanlı kombinasyon, talep üzerine temin edilir.  
3) IEC Motorlu kombinasyon, mevcut değildir.
- H = Horizontal  
V = Vertikal  
1) For possible design and restrictions, see the following pages.  
2) Combination with fan on request  
3) Not in combination with motor bell housing
- H = Horizontal  
V = Vertikal  
1) Mögliche Ausführungen und Einschränkungen siehe nachfolgende Seiten  
2) Kombination mit Lüfter auf Anfrage  
3) nicht in Kombination mit Motolaterne

| Labirent keçeler için hız limitleri<br>Speed limits for labyrinth seals / Grenzdrehzahlen für Labyrinthdichtungen |                                                                                              |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |                                                |       |       |      |  |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------------------------------|-------|-------|------|--|
| i <sub>N</sub>                                                                                                    | Redüktör gövdeleri / Gear unit sizes / Getriebegrößen                                        |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |                                                |       |       |      |  |
|                                                                                                                   | 3...                                                                                         | 4... | 5... | 6... | 7... | 8... | 9... | 10... | 11... | 12... | 13... | 14... | 15... | 16... | 17... | 18... | 19...                                          | 20... | 21... | 22.. |  |
|                                                                                                                   | Giriş hızları / Input speeds / Eingangsdrehzahlen / n <sub>1</sub> in / en min <sup>-1</sup> |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |                                                |       |       |      |  |
| 1.25                                                                                                              | x                                                                                            | -    | x    | -    | x    | -    | x    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -                                              | -     | -     | -    |  |
| 1.4                                                                                                               | x                                                                                            | -    | x    | -    | x    | -    | x    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -                                              | -     | -     | -    |  |
| 1.6                                                                                                               | 740                                                                                          | -    | 515  | -    | 425  | -    | 370  | -     | 305   | -     | 260   | -     | -     | -     | -     | -     | -                                              | -     | -     | -    |  |
| 1.8                                                                                                               | 810                                                                                          | -    | 570  | -    | 460  | -    | 395  | -     | 325   | -     | 285   | -     | -     | -     | -     | -     | -                                              | -     | -     | -    |  |
| 2.0                                                                                                               | 860                                                                                          | -    | 610  | -    | 490  | -    | 420  | -     | 350   | -     | 305   | -     | 255   | -     | -     | -     | -                                              | -     | -     | -    |  |
| 2.24                                                                                                              | 920                                                                                          | -    | 660  | -    | 550  | -    | 455  | -     | 375   | -     | 330   | -     | 275   | -     | -     | -     | Talep edildiğinde<br>On request<br>Auf Anfrage |       |       |      |  |
| 2.5                                                                                                               | 1020                                                                                         | -    | 710  | -    | 595  | -    | 495  | -     | 405   | -     | 355   | -     | 295   | -     | -     | -     |                                                |       |       |      |  |
| 2.8                                                                                                               | 1100                                                                                         | -    | 775  | -    | 635  | -    | 530  | -     | 445   | -     | 390   | -     | 320   | -     | 290   | -     |                                                |       |       |      |  |
| 3.15                                                                                                              | 1190                                                                                         | -    | 850  | -    | 690  | -    | 600  | -     | 480   | -     | 430   | -     | 350   | -     | 315   | -     | -                                              | -     | -     | -    |  |
| 3.55                                                                                                              | 1300                                                                                         | -    | 935  | -    | 755  | -    | 650  | -     | 530   | -     | 470   | -     | 380   | -     | 345   | -     | -                                              | -     | -     | -    |  |
| 4.0                                                                                                               | 1430                                                                                         | -    | 1025 | -    | 835  | -    | 720  | -     | 580   | -     | 515   | -     | 420   | -     | 380   | -     | -                                              | -     | -     | -    |  |
| 4.5                                                                                                               | 1575                                                                                         | -    | 1145 | -    | 905  | -    | 770  | -     | 640   | -     | 575   | -     | 475   | -     | 425   | -     | -                                              | -     | -     | -    |  |
| 5.0                                                                                                               | 1730                                                                                         | -    | 1205 | -    | 990  | -    | 850  | -     | 730   | -     | 605   | -     | 525   | -     | 455   | -     | -                                              | -     | -     | -    |  |
| 5.6                                                                                                               | 1910                                                                                         | -    | 1340 | -    | 1095 | -    | 955  | -     | 765   | -     | 670   | -     | 580   | -     | 505   | -     | -                                              | -     | -     | -    |  |
| 6.3                                                                                                               | -                                                                                            | x    | x    | -    | x    | -    | 515  | -     | x     | -     | 370   | -     | 305   | -     | 260   | -     | -                                              | -     | -     | -    |  |
| 7.1                                                                                                               | -                                                                                            | x    | 810  | -    | 660  | -    | 570  | -     | 460   | -     | 395   | -     | 325   | 305   | 385   | 260   | -                                              | -     | -     | -    |  |
| 8.0                                                                                                               | -                                                                                            | 1020 | 860  | x    | 705  | x    | 610  | x     | 490   | x     | 420   | 370   | 350   | 325   | 305   | 385   | -                                              | -     | -     | -    |  |
| 9.0                                                                                                               | -                                                                                            | 1080 | 920  | x    | 760  | 660  | 660  | x     | 550   | x     | 455   | 395   | 375   | 350   | 330   | 305   | -                                              | -     | -     | -    |  |
| 10                                                                                                                | -                                                                                            | 1190 | 1020 | 860  | 820  | 705  | 710  | 610   | 595   | x     | 495   | 420   | 405   | 375   | 355   | 330   | -                                              | -     | -     | -    |  |
| 11.2                                                                                                              | -                                                                                            | 1280 | 1100 | 920  | 885  | 760  | 775  | 660   | 635   | 550   | 530   | 455   | 445   | 405   | 390   | 355   | Talep edildiğinde<br>On request<br>Auf Anfrage |       |       |      |  |
| 12.5                                                                                                              | -                                                                                            | 1435 | 1190 | 1020 | 955  | 820  | 850  | 710   | 690   | 595   | 600   | 495   | 480   | 445   | 430   | 390   |                                                |       |       |      |  |
| 14.0                                                                                                              | -                                                                                            | 1560 | 1300 | 1100 | 1090 | 885  | 935  | 775   | 755   | 635   | 650   | 530   | 530   | 480   | 470   | 430   |                                                |       |       |      |  |
| 16.0                                                                                                              | -                                                                                            | 1715 | 1430 | 1190 | 1200 | 955  | 1025 | 850   | 835   | 690   | 720   | 600   | 580   | 530   | 515   | 470   | -                                              | -     | -     | -    |  |
| 18.0                                                                                                              | -                                                                                            | 1890 | 1575 | 1300 | 1320 | 1090 | 1145 | 935   | 905   | 755   | 770   | 650   | 640   | 580   | 575   | 515   | -                                              | -     | -     | -    |  |
| 20.0                                                                                                              | -                                                                                            | -    | 1730 | 1430 | 1450 | 1200 | 1205 | 1025  | 990   | 835   | 850   | 720   | 730   | 640   | 605   | 575   | -                                              | -     | -     | -    |  |
| 22.4                                                                                                              | -                                                                                            | -    | 1910 | 1575 | 1530 | 1320 | 1340 | 1145  | 1095  | 905   | x     | 770   | x     | 730   | x     | 605   | -                                              | -     | -     | -    |  |
| 25.0                                                                                                              | -                                                                                            | -    | 1075 | 1730 | 885  | 1450 | 740  | 1205  | x     | 990   | x     | 850   | x     | x     | x     | x     | -                                              | -     | -     | -    |  |
| 28.0                                                                                                              | -                                                                                            | -    | 1170 | 1910 | 940  | 1530 | 810  | 1340  | x     | 1095  | x     | x     | x     | x     | x     | x     | -                                              | -     | -     | -    |  |

X = Labirent keçe uygulanması mümkün değildir.  
En düşük giriş devir sayısı olan n<sub>1</sub>'in altına düşülmesi durumunda, radyal keçeler kullanılmalıdır.

X = Labyrinth seals are not possible If the minimum input speed n<sub>1</sub> undershot, radial shaft seals are to be provided

X = Labyrinth nicht möglich Bei Unterschreitung der Mindest - Eingangs - drehzahl n<sub>1</sub> sind Radialwellendichtringe vorzusehen.

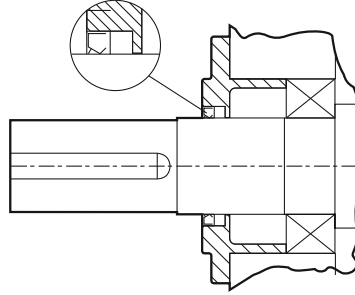
TR

**ŞAFT KEÇELERİ - DÖNER MİL KEÇESİ -  
LABİRENT KEÇELER**

EN

**SHAFT SEALS - RADIAL SHAFT SEAL -  
LABYRINTH SEALS**

DE

**WELLENABDICHTUNGEN -  
RADIALWELLENDICHTRINGE -  
LABYRINTHDICHTUNGEN****Döner mil keçesi  
Radial shaft seals  
Radialwellendichtringe**

Radyal keçe uygulaması, düşük ile orta çalışma devir sayılarına uygundur.

**Diğer bilgiler:**

Aşınan keçe bakımı kolaydır, ancak: Oluşan ısı nedeniyle, sızdırmazlık unsurlarının kenarlarında kısmi yıpranma meydana gelir, bu nedenle gereken şekilde yağlanmalıdır (soğutma). Ticari bir üründür ve piyasadan kolayca temin edilebilir. Tamirat gerekmesi durumunda, flanş mili modellerde parçalı mil sızdırmazlık keçeleri kullanılmalıdır (Lütfen PGR ile görüşün). Düşük yağ seviyeli modeller, talep üzerine temin edilir. Radyal mil keçeleri, tüm redüktör modellerin de ve tüm boyutlarında kullanılabilir.

Radial shaft seal are suitable for low average operating speeds.

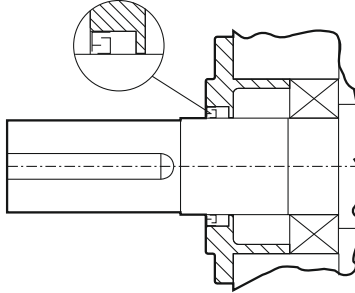
**Other features are:**

Wearing seal, however, easy to maintain; Local heat development on sealing lip; therefore, adequate lubrication (cooling) required; Commercial product; For the design with flanged shaft split shaft seals are to be used in case of repair (please refer to us); Design with low oil level on request. Radial shaft seals can be used for all types and sizes

Abdichtungen durch Radialwellendichtringe sind für niedrige bis mittlere Betriebsdrehzahlen geeignet.

**Weitere Merkmale sind:**

Verschleißende Dichtung, jedoch wartungsfreundlich, Lokale Wärmeentwicklung an Dichtlippe, deshalb ausreichend Schmierung (Kühlung) erforderlich, Handelsübliches Produkt, Bei Flanschwellenausführung sind im Reparaturfall geteilte Wellendichtringe einzusetzen (Rücksprache erforderlich), Ausführung mit niedrigem Ölstand auf Anfrage. Radialwellendichtringe können bei allen Bauarten und Größen eingesetzt werden.

**Labirent keçeler  
Labyrinth seals  
Labyrinthdichtungen**

Özellikle yüksek devir sayılarında, labirent keçeler uygundur.

**Diğer avantajları:**

- Temassızdır ve bu sayede, aşınmaya dayanıklıdır.
- Noktasal ısı oluşumları yoktur, bu nedenle bakım gerektirmez.
- Büyük montaj alanları gerektirmez.

Labyrinth seals are specially suitable for higher operating speeds.

**Further advantages are:**

- Non- contacting and thus , wear- resistant;
- No local heat development and thus, main tenance- free;
- Small space required for fitting.

Die Labyrinthdichtungen sind für höhere Betriebsdrehzahlen besonders geeignet.

**Weitere Vorzüge sind:**

- Berührungslos und somit verschleißfrei,
- Keine lokale Wärmeentwicklung, somit wartungsfrei,
- Geringer Eibauraum.

Labirent keçe seçiminde, aşağıda belirtilen kriterlere dikkat edilmelidir:

- Sadece sabit hareket mekanizmalarında kullanılır (Örneğin hareketli araçların motorlarında kullanılmamalıdır).
- Sadece daldırma yöntemi uygulanarak yağlanmalıdır (Basıncı yağlama, talep üzerine temin edilir).
- Kurulumu, aşırı kirli veya pis suya maruz kalabileceği yerlerden, kaçınılmalıdır.
- Millerin mutlaka yatay (su terazisi) seviyesi sağlanmalıdır.
- Helisel dişli redüktörler için gereken en düşük giriş devir sayısı n1 için, lütfen tablo 2'ye bakınız.
- Düşük devir sayılarındaki çalışma sürelerinin uzun olması durumunda (örneğin kağıt makinalarındaki ağır hareketler gibi), mutlaka özel tedbirler (pislik ve kir tutucu plakalar) alınmalıdır.

For the selection of labyrinth seals the following criteria are to be considered:

- Applicable in stationary drives only (e.g. not in travelling gears);
- Only in case of dip lubrication (forced lubrication on request);
- Avoid extremely dusty environments or sites endangered by muddy water;
- Shaft levels must be horizontal;
- For min. required input speed n1 for helical gear units, see table 2;
- In case of longer operating periods at minimum speeds (e.g. creep speed in case of paper machines ) special measures (oil retaining plates) are required.

Bei der Auswahl der Labyrinthdichtungen sind folgende Kriterien zu berücksichtigen:

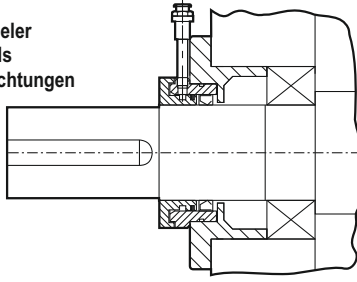
- Nur bei stationären Antrieben einsetzen (z.B. keine Fahrwerke),
- Nur bei Tauchschmierung, Druckschmierung auf Anfrage,
- Extrem staubige oder druck Schmutzwasser gefährdete Aufstellungsorte meiden,
- Wellenenbenen müssen Waagrecht sein,
- Erforderliche Mindest - Eingangsrehzahl n1 für Stirnradgetriebe siehe Tabelle 2,
- Bei längerer Betriebsdauer mit minimalen Drehzahlen (z.B. Kriechbetrieb bei Papier maschinen) sind besondere Maßnahmen (Öltaublenche) erforderlich.

TR ŞAFT KEÇELERİ - TAKONİTE KEÇE

EN SHAFT SEALS - TACONITE SEALS

DE WELLENABDICHTUNGEN - TACTONITE-DICHTUNGEN

**Takonite Keçeler**  
**Taconite seals**  
**Taconite - Dichtungen**



Yağ dolumu ve yeniden yağ dolumu yapılabilir tipte labirent keçe aksamları kombine edilmelidir. Bu sızdırmazlık yöntemi, özellikle kirli ortamlarda yüksek düzeyde iş güvenliği sağlar. Redüktöre kir ve pislik parçacıklarının girmesini kesin bir şekilde önlemek için, bu üç farklı sızdırmazlık unsuru kombine edilerek uygulanmalıdır.

Grease-filled, refillable labyrinth seal combinations. With this seal a high degree of operational reliability is achieved for the gear unit in dusty environments. This seal is a combination of three sealing elements which protect the gear unit from ingress of dust-like particles.

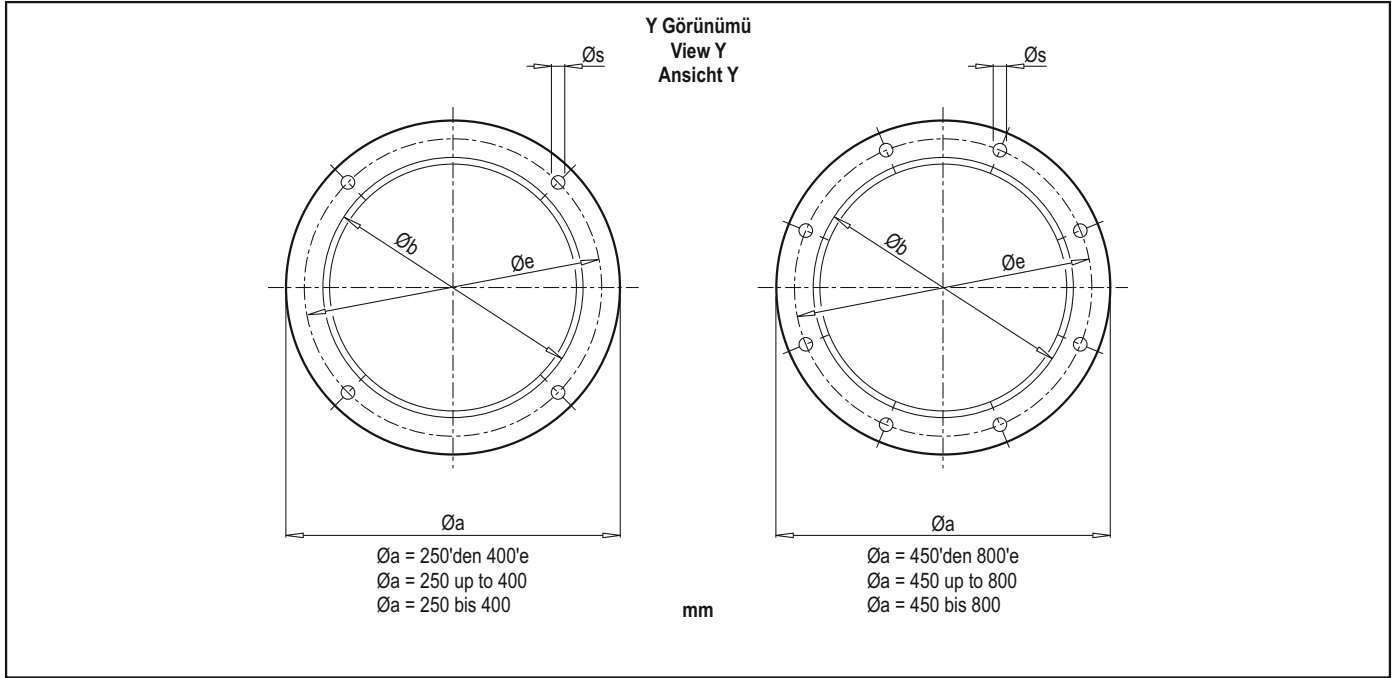
Fettgefüllte, nachschmierbare Labyrinth-Dichtungskombinationen. Mit dieser Dichtung erlangt das Getriebe in staubiger Umgebung ein hohes Maß an Betriebssicherheit. Die Dichtung ist eine Kombination von drei Dichtungselementen, die das Getriebe vor dem Eindringen staubartiger Partikel schützen.

| Keçe Dichtung Seal Taconite | Mil Shaft Welle                                                                                                                      | Not Note Hinweis                                                                                                                                                                                                                                                                                        |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>E</b>                    | Giriş mili<br>Input shaft<br>Antriebswelle                                                                                           | 3 ve 4 kademelilerin ölçülerine dikkat edin / Take into account dimensions for 3 and 4 / Abmessungen für 3 und 4 beachten                                                                                                                                                                               |
| <b>F</b>                    | Çıkış millisi<br>Solid shaft<br>Vollwelle                                                                                            |                                                                                                                                                                                                                                                                                                         |
|                             | Güçlendirilmiş çıkış şaftı d2<br>Reinforced output shaft d2<br>Abtriebswelle d2 verstärkt                                            |                                                                                                                                                                                                                                                                                                         |
|                             | Flanşlı şaft d2<br>With flanged shaft d2<br>Flanschwellengetriebe d2                                                                 |                                                                                                                                                                                                                                                                                                         |
| <b>F-F</b>                  | Kamalı, delik millisi<br>Hollow shaft with keyway<br>Hohlwelle mit Passfedernut                                                      | Kazayla temas etmeye karşı, koruyucu kapağın her iki tarafına Takonite keçe uygulanmalıdır.<br><br>Taconite seals on both sides<br>Guard as protection against accidental contact                                                                                                                       |
|                             | Delik millisi, konik sıkırtmalı<br>Hollow shaft for shrink disk<br>Hohlwelle für Schrumpfscheibe                                     |                                                                                                                                                                                                                                                                                                         |
|                             | Spline, Delik millisi DIN 5480<br>Hollow shaft with involute splines acc. to DIN 5480<br>Hohlwelle mit Zahnablenprofil nach DIN 5480 |                                                                                                                                                                                                                                                                                                         |
| <b>F-H</b>                  | Kamalı, Delik millisi<br>Hollow shaft with keyway<br>Hohlwelle mit Passfedernut                                                      | Müşteri milinin karşısında bulunan ve toz geçirmemesi için koruyucu kapaklı tarafa, Takonite keçe uygulanmalıdır.<br>Taconite seal on driven machine shaft<br>Dustproof guard on opposite side<br>Taconite-Dichtung an der Arbeitsmaschinenwelle gegenüberliegende Seite mit staubdichter Schutzhaube   |
|                             | Spline, Delik millisi DIN 5480<br>Hollow shaft with involute splines acc. to DIN 5480<br>Hohlwelle mit Zahnablenprofil nach DIN 5480 |                                                                                                                                                                                                                                                                                                         |
| <b>F-K</b>                  | Delik millisi / Konik sıkırtmalı<br>Hollow shaft for shrink disk<br>Hohlwelle für Schrumpfscheibe                                    | Müşteri milinin karşısında bulunan ve toz geçirmemesi için koruyucu kapaklı tarafa, Takonite keçe uygulanmalıdır.<br>Taconite seal on driven machine shaft<br>Dustproof guard on opposite side<br>Taconite - Dichtung an der Arbeitsmaschinenwelle gegenüberliegende Seite mit staubdichter Schutzhaube |

Tablo 3 / Table 3 / Tabelle 3

G1 Ölçüsüne ve mil ölçülerine, Takonite keçe uygulanmalıdır "E"  
G1 Dimension and shaft dimensions for Taconite "E"  
G1 Maß und Wellenabmessungen bei Taconite "E"

| Tip Type Bauart | Gövde Size GröÙe | Tahvil / Ratio Übersetzung (i) | G1  | Ød1 mm | l1  |
|-----------------|------------------|--------------------------------|-----|--------|-----|
| PH...3          | 93               | 25 - 45                        | 250 | 60 m6  | 105 |
|                 |                  | 50 - 63                        |     | 45 m6  | 80  |
|                 |                  | 71 - 90                        |     | 32 m6  | 60  |
|                 | 103              | 31.5 - 56                      | 250 | 60 m6  | 105 |
|                 |                  | 63 - 80                        |     | 45 m6  | 80  |
|                 |                  | 90 - 112                       |     | 32 m6  | 60  |
|                 | 113              | 25 - 45                        | 275 | 70 m6  | 100 |
|                 |                  | 31.5 - 56                      |     | 70 m6  | 100 |
|                 | 133              | 22.4 - 45                      | 340 | 85 m6  | 130 |
|                 |                  | 50 - 63                        |     | 60 m6  | 105 |
|                 |                  | 71 - 90                        |     | 50 m6  | 80  |
|                 | 143              | 28 - 56                        | 340 | 85 m6  | 130 |
|                 |                  | 63 - 80                        |     | 60 m6  | 105 |
|                 |                  | 90 - 112                       |     | 50 m6  | 80  |
| PH...4          | 153              | 22.4 - 45                      | 385 | 100 m6 | 165 |
|                 |                  | 50 - 63                        |     | 75 m6  | 105 |
|                 |                  | 71 - 90                        |     | 60 m6  | 105 |
|                 | 163              | 25 - 50                        | 385 | 100 m6 | 165 |
|                 |                  | 56 - 71                        |     | 75 m6  | 105 |
|                 |                  | 80 - 100                       |     | 60 m6  | 105 |
|                 | 173              | 22.4 - 45                      | 415 | 100 m6 | 165 |
|                 |                  | 50 - 63                        |     | 75 m6  | 105 |
|                 |                  | 71 - 90                        |     | 60 m6  | 105 |
|                 | 183              | 25 - 50                        | 415 | 100 m6 | 165 |
|                 |                  | 56 - 71                        |     | 75 m6  | 105 |
|                 |                  | 80 - 100                       |     | 60 m6  | 105 |
|                 | 114              | 100 - 180                      | 270 | 45 m6  | 80  |
|                 |                  | 200 - 355                      |     | 32 m6  | 60  |
|                 |                  | 125 - 224                      |     | 45 m6  | 80  |
|                 |                  | 250 - 450                      |     | 32 m6  | 60  |
|                 |                  | 100 - 180                      |     | 50 m6  | 80  |
|                 |                  | 200 - 355                      |     | 38 m6  | 60  |
|                 | 134              | 100 - 180                      | 325 | 50 m6  | 80  |
|                 |                  | 200 - 355                      |     | 38 m6  | 60  |
|                 | 144              | 125 - 224                      | 325 | 50 m6  | 80  |
|                 |                  | 250 - 450                      |     | 38 m6  | 60  |
|                 | 154              | 100 - 180                      | 375 | 60 m6  | 105 |
|                 |                  | 200 - 355                      |     | 50 m6  | 80  |
|                 | 164              | 112 - 200                      | 375 | 60 m6  | 105 |
|                 |                  | 224 - 400                      |     | 50 m6  | 80  |



Tablo 1 / Table 1 / Tabelle 1

Flanş ölçüleri / Flange dimensions / Flanschabmessungen

Üç fazlı, sincap kafesli rotor DIN 42677 Part 1'e göre  
 Three-phase motors with squirrel-cage rotor acc.to DIN 42677 Part 1  
 Drehstrommotoren mit Käfigläufer nach DIN 42677 Teil 1

|                 | Motor büyüklüğü / Motor sizes / Motorbaugrößen |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|-----------------|------------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                 | 100 L                                          | 112 M      | 132 S      | 132 M      | 160 M      | 160 L      | 180 M      | 180 L      | 200 L      | 225 S      | 225 M      | 250 M      | 280 S      | 280 M      | 315 S      | 315 M      |
| $\varnothing a$ | 250                                            | 250        | 300        | 300        | 350        | 350        | 350        | 350        | 400        | 450        | 450        | 550        | 550        | 550        | 660        | 660        |
| $\varnothing b$ | 180                                            | 180        | 230        | 230        | 250        | 250        | 250        | 250        | 300        | 350        | 350        | 450        | 450        | 450        | 550        | 550        |
| $\varnothing e$ | 215                                            | 215        | 265        | 265        | 300        | 300        | 300        | 300        | 350        | 400        | 400        | 500        | 500        | 500        | 600        | 600        |
| $\varnothing s$ | 4 x<br>M12                                     | 4 x<br>M12 | 4 x<br>M12 | 4 x<br>M12 | 4 x<br>M16 | 4 x<br>M16 | 4 x<br>M16 | 4 x<br>M16 | 4 x<br>M16 | 8 x<br>M16 | 8 x<br>M16 | 8 x<br>M16 | 8 x<br>M16 | 8 x<br>M16 | 8 x<br>M20 | 8 x<br>M20 |

TR

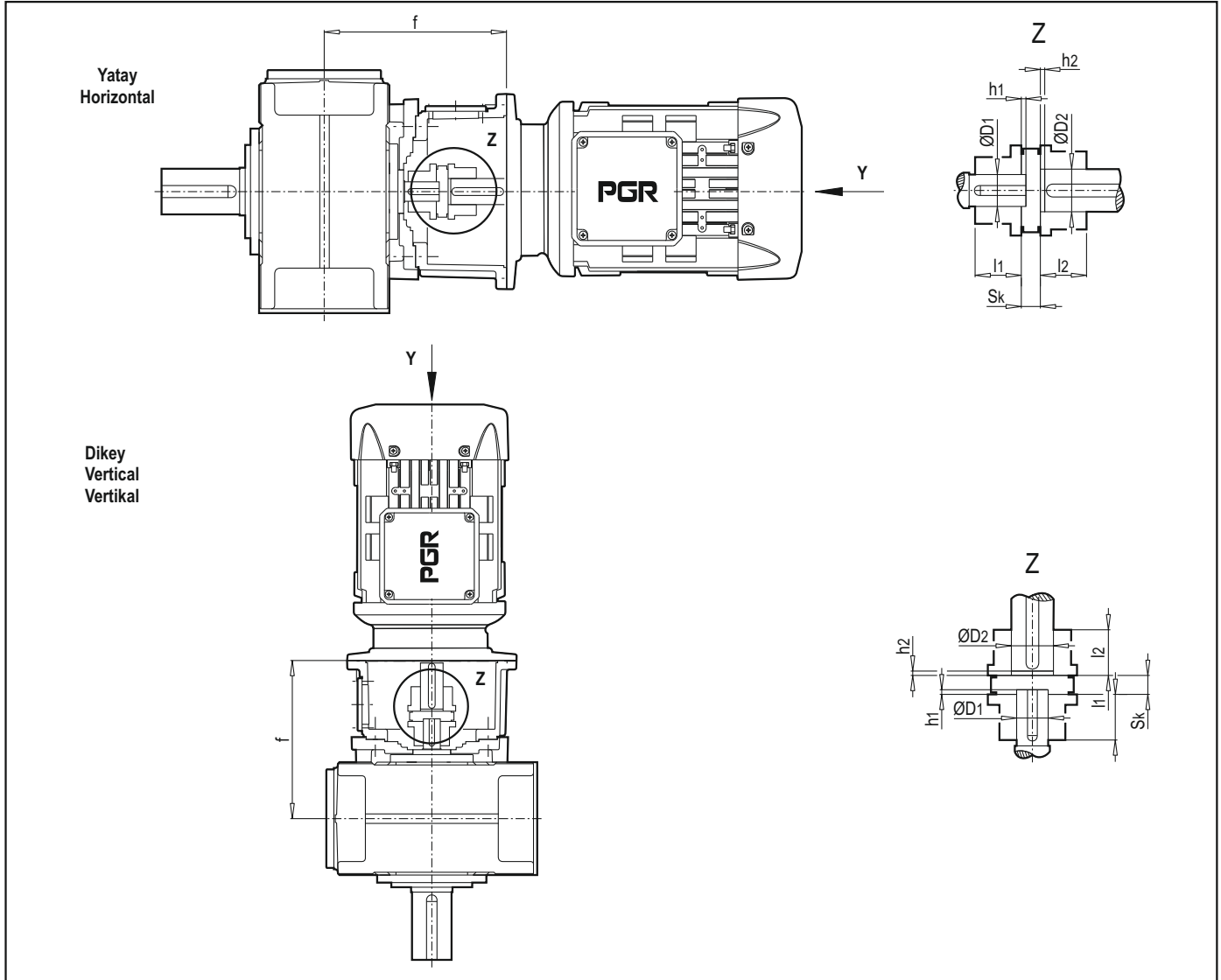
KAPLİN B  
IEC BAĞLANTILI MOTORLAR

EN

MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
B COUPLING

DE

MOTORLATERNE FÜR IEC -  
MOTOREN MIT B - KUPPLUNG



Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük yönleri, örneğin kaldırma makinaları, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin kataloğundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schalthäufigkeit, wechselnde Lastichtung; z.B. Hubwerke, Fahrwerke, usw.) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig!

DIN 42677 IEC - Standart motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın. C,D,G,H,I modeli helisel dişli redüktörlerde, giriş milinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162. Helical gear unit in C, D, G, H, I, design on request only. Not in connection with Taconite E or labyrinth seal on input shaft.

Anbaumaße für IEC- Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162. Stinradgetriebe in Ausführung C, D, G, H, I nur auf Anfrage. Nicht in Verbindung mit Taconite E oder Labyrinth- Abdichtung an der Antriebswelle

- 1) Diğer motor büyüklükleri, talep üzerine temin edilir.
- 2) Sadece 315S ve 315M tipi imalat büyüklükleri.
- 3) Sadece dikey redüktörler için.
- 4) PH...2-D imalat modellerinin A+B uygulama tiplerine montajı mümkün değildir.
- 5) PH...2-D imalat modellerinin 5 gövde büyüklüğünün A+B uygulama tiplerine montajı mümkün değildir.
- 6) PH...2-D imalat modellerinin 7 gövde büyüklüğünün A+B uygulama tiplerine montajı mümkün değildir.
- 7) PH...2-DV imalat modellerinin 9 gövde büyüklüğünün A+B uygulama tiplerine montajı mümkün değildir.

- 1) Other motor sizes on request
- 2) Sizes 315S and 315M only
- 3) For vertical gear units only
- 4) For type PH...2-D design A+B; fitting not possible.
- 5) For type PH...2-D size 5 design A+B; fitting not possible.
- 6) For type PH...2-D size 7 design A+B; fitting not possible.
- 7) For type PH...2-D size 9 design A+B; fitting not possible.

- 1) Andere Motorgrößen auf Anfrage
- 2) Nur Baugröße 315S und 315M
- 3) Nur für Vertikalgetriebe
- 4) Bei Bauart PH...2-D Ausführung A+B; Anbau nicht möglich.
- 5) Bei Bauart PH...2-D Größe 5 Ausführung A+B; Anbau nicht möglich.
- 6) Bei Bauart PH...2-D Größe 7 Ausführung A+B; Anbau nicht möglich.
- 7) Bei Bauart PH...2-DV Größe 9 Ausführung A+B; Anbau nicht möglich.

TR

 KAPLİN B  
 IEC BAĞLANTILI MOTORLAR

EN

 MOTOR BELL HOUSING FOR  
 IEC STANDARD MOTORS WITH  
 B COUPLING

DE

 MOTORLATERNE FÜR IEC -  
 MOTOREN MIT B - KUPPLUNG

Tablo 2 / Table 2 / Tabelle 2

| Gövde<br>Size<br>Größe | Motor<br>IEC 1) | Tahvil İN / Ratios İN / Übersetzungen İN<br>6.3 - 11.2 (Gövdeler / Sizes / Größen 42,52,72,92,112)<br>8 - 14 (Gövdeler / Sizes / Größen 62,82,102,122) |     |    |     |    |     |    |      |   |                                             | Tahvil İN / Ratios İN / Übersetzungen İN<br>12.5 - 22.4 (Gövdeler / Sizes / Größen 42,52,72,92,112)<br>16 - 28 (Gövdeler / Sizes / Größen 62,82,102,122) |     |     |    |     |    |      |       |       |       |
|------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|----|-----|----|------|---|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|----|-----|----|------|-------|-------|-------|
|                        |                 | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                            | sk  | l1 | ØD1 | l2 | ØD2 | h1 | h2   | f | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN | sk                                                                                                                                                       | l1  | ØD1 | l2 | ØD2 | h1 | h2   | f     |       |       |
| 42                     | 160 5)          |                                                                                                                                                        | -   | -  | -   | -  | -   | -  | -    | - |                                             | 84                                                                                                                                                       | 21  | 40  | 32 | 40  | 42 | 11   | 0     | 370   |       |
|                        | 180 5)          |                                                                                                                                                        | -   | -  | -   | -  | -   | -  | -    | - |                                             | 97                                                                                                                                                       | 24  | 50  | 32 | 50  | 48 | 14   | 0     | 370   |       |
|                        | 200 5)          |                                                                                                                                                        | -   | -  | -   | -  | -   | -  | -    | - |                                             | 112                                                                                                                                                      | 27  | 60  | 32 | 60  | 55 | 11   | 0     | 376   |       |
|                        | 225 5)          | 4)                                                                                                                                                     | 127 | 27 | 65  | 45 | 65  | 60 | 20   | 0 | 417                                         | 4)                                                                                                                                                       | 127 | 27  | 65 | 32  | 65 | 60   | 0     | 0     | 417   |
| 52 / 62                | 200             |                                                                                                                                                        | -   | -  | -   | -  | -   | -  | -    | - |                                             | 112                                                                                                                                                      | 27  | 60  | 38 | 60  | 55 | 10   | 0     | 402   |       |
|                        | 225 6)          |                                                                                                                                                        | -   | -  | -   | -  | -   | -  | -    | - |                                             | 127                                                                                                                                                      | 27  | 65  | 38 | 65  | 60 | - 1  | 0     | 443   |       |
|                        | 250 5)          | 4)                                                                                                                                                     | 127 | 27 | 65  | 50 | 65  | 65 | 17.5 | 0 | 444.5                                       | 4)                                                                                                                                                       | 127 | 27  | 65 | 38  | 65 | 65   | - 2.5 | 0     | 444.5 |
| 72 / 82                | 225             |                                                                                                                                                        | -   | -  | -   | -  | -   | -  | -    | - |                                             | 127                                                                                                                                                      | 27  | 65  | 50 | 65  | 60 | 13.5 | 0     | 473.5 |       |
|                        | 250 7)          |                                                                                                                                                        | -   | -  | -   | -  | -   | -  | -    | - |                                             | 127                                                                                                                                                      | 27  | 65  | 50 | 65  | 65 | 12   | 0     | 475   |       |
|                        | 280 7)          |                                                                                                                                                        | -   | -  | -   | -  | -   | -  | -    | - |                                             | 142                                                                                                                                                      | 31  | 75  | 50 | 75  | 75 | - 3  | 0     | 494   |       |
|                        | 315 2) 5)       | 4)                                                                                                                                                     | 162 | 36 | 80  | 60 | 80  | 80 | 20   | 0 | 531                                         | 4)                                                                                                                                                       | 162 | 36  | 80 | 50  | 80 | 80   | - 2.5 | 2.5   | 531   |
| 92 / 102               | 280             |                                                                                                                                                        | -   | -  | -   | -  | -   | -  | -    | - |                                             | 142                                                                                                                                                      | 31  | 75  | 60 | 75  | 75 | 22   | 0     | 530   |       |
|                        | 315 2) 8)       | 4)                                                                                                                                                     | 162 | 36 | 80  | 75 | 80  | 80 | 20   | 0 | 566                                         | 4)                                                                                                                                                       | 162 | 36  | 80 | 60  | 80 | 80   | 20    | 0     | 566   |
| 112 / 122              | 315 2)          |                                                                                                                                                        | -   | -  | -   | -  | -   | -  | -    | - |                                             | 162                                                                                                                                                      | 36  | 80  | 70 | 80  | 80 | 15   | 0     | 606   |       |

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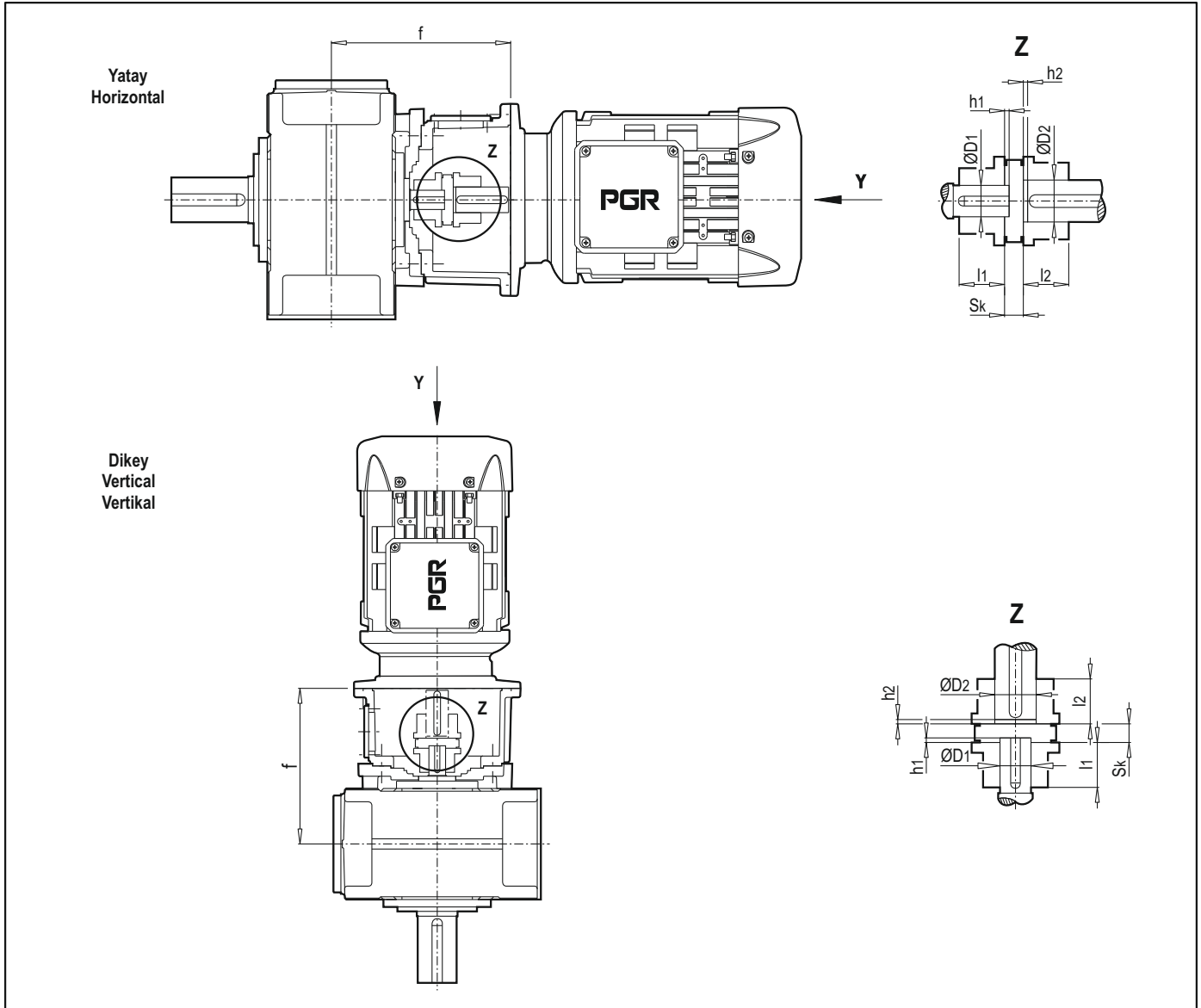
KAPLIN B  
IEC BAĞLANTILI MOTORLAR

EN

MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
B COUPLING

DE

MOTORKUPPLUNG FÜR IEC -  
MOTOREN MIT B - KUPPLUNG



Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük yönleri, örneğin kaldırma makineleri, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin kataloğundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!

DIN 42677 IEC - Standart motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın. C, D, G, H, I modeli helisel dişli redüktörlerde, giriş milinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!

For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162. Helical gear unit in C, D, G, H, I, design on request only.

Not in connection with Taconite E or labyrinth seal on input shaft.

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schalthäufigkeit, wechselnde Laststrichtung; z.B. Hubwerke, Fahrwerke, usw) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig!

Anbaumaße für IEC - Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162.

Stirradgetriebe in Ausführung C, D, G, H, I nur auf Anfrage. Nicht in Verbindung mit Taconite E oder Labyrinth-Abdichtung an der Antriebswelle

1) Diğer motor büyüklükleri, talep üzerine temin edilir.

2) Sadece 315S ve 315M motor büyüklükleri.

3) Redüktör miline oturan kaplin göbeğinin l1 uzunluğu kısaltılmıştır.

4) Sadece dikey redüktörler için.

1) Other motor sizes on request

2) Sizes 315S and 315M only

3) Length l1 of Coupling hub shortened for fitting onto gear unit shaft.

4) For vertical gear unit only

1) Andere Motorgrößen auf Anfrage

2) Nur Baugröße 315S und 315M

3) Länge l1 der Kupplungsnabe zum Aufsetzen auf Getriebewelle gekürzt

4) Nur für Vertikalgetriebe

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**KAPLIN B**  
**IEC BAĞLANTILI MOTORLAR**

EN

**MOTOR BELL HOUSING FOR IEC**  
**STANDARD MOTORS WITH**  
**B COUPLING**

DE

**MOTORKATERNE FÜR IEC -**  
**MOTOREN MIT B - KUPPLUNG**

Tablo 3 / Table 3 / Tabelle 3

|                        |                            | Tahvil İN / Ratios İN / Übersetzungen İN<br>25 - 45 (Gövdeler/Sizes/Größen 53,73,93,113 )<br>31,5 - 56(Gövdeler/Sizes/Größen 63,83,103,123)<br>22,4 - 45(Gövdeler/Sizes/Größen 133,153,173)<br>28 - 56 (Gövde/Size/Größe 143)<br>25 - 50 (Gövdeler/Sizes/Größen 163,183) |    |     |    |     |    |      |     |       |                      | Tahvil İN / Ratios İN / Übersetzungen İN<br>50 - 63 (Gövdeler/Sizes/Größen 53,73,93,113 )<br>63 - 80 (Gövdeler/Sizes/Größen 63,83,103,123)<br>50 - 63 (Gövdeler/Sizes/Größen 133,153,173)<br>63 - 80 (Gövde/Size/Größe 143)<br>56 - 71 (Gövdeler/Sizes/Größen 163,183) |    |     |    |    |      |     |       |                      |    | Tahvil İN / Ratios İN / Übersetzungen İN<br>71 - 90 (Gövdeler/Sizes/Größen 53,73,93,113 )<br>90 - 112 (Gövdeler/Sizes/Größen 63,83,103,123)<br>71 - 90 (Gövdeler/Sizes/Größen 133,153,173)<br>90 - 112 (Gövde/Size/Größe 143)<br>80 - 100 (Gövdeler/Sizes/Größen 163,183) |    |      |    |       |       |       |  |  |  |
|------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|----|-----|----|------|-----|-------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|----|----|------|-----|-------|----------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------|----|-------|-------|-------|--|--|--|
| Gövde<br>Size<br>Größe | Motor <sup>1)</sup><br>IEC | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                                                                                                                                              | mm |     |    |     |    |      |     |       |                      | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                                                                                                                                            | mm |     |    |    |      |     |       |                      |    | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                                                                                                                                               | mm |      |    |       |       |       |  |  |  |
|                        |                            | sk                                                                                                                                                                                                                                                                       | l1 | ØD1 | l2 | ØD2 | h1 | h2   | f   | sk    | l1                   | ØD1                                                                                                                                                                                                                                                                    | l2 | ØD2 | h1 | h2 | f    | sk  | l1    | ØD1                  | l2 | ØD2                                                                                                                                                                                                                                                                       | h1 | h2   | f  |       |       |       |  |  |  |
| 53/63                  | 132                        | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | 72  | 18    | 35                   | 24 | 35                                                                                                                                                                                                                                                                        | 38 | -2   | -2 | 302   |       |       |  |  |  |
|                        | 160                        | 84                                                                                                                                                                                                                                                                       | 21 | 40  | 40 | 40  | 42 | -1.5 | 1.5 | 364   | 84                   | 21                                                                                                                                                                                                                                                                     | 40 | 30  | 40 | 42 | 3    | 0   | 338   | 84                   | 21 | 40                                                                                                                                                                                                                                                                        | 24 | 40   | 42 | -7    | 0     | 338   |  |  |  |
|                        | 180                        | 97                                                                                                                                                                                                                                                                       | 24 | 50  | 40 | 50  | 48 | 0    | 0   | 364   | 3) <sup>3)</sup> 97  | 24                                                                                                                                                                                                                                                                     | 44 | 30  | 50 | 48 | 6    | 0   | 338   | 3) <sup>3)</sup> 97  | 24 | 44                                                                                                                                                                                                                                                                        | 24 | 50   | 48 | -4    | 0     | 338   |  |  |  |
|                        | 200                        | 3) <sup>3)</sup> 112                                                                                                                                                                                                                                                     | 27 | 53  | 40 | 60  | 55 | 17   | 0   | 350   | 3) <sup>3)</sup> 112 | 27                                                                                                                                                                                                                                                                     | 53 | 30  | 60 | 55 | -3   | 0   | 350   | -                    | -  | -                                                                                                                                                                                                                                                                         | -  | -    | -  | -     | -     | -     |  |  |  |
|                        | 225                        | 3) <sup>3)</sup> 127                                                                                                                                                                                                                                                     | 27 | 60  | 40 | 65  | 60 | 6    | 0   | 391   | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | -   | -     | -                    | -  | -                                                                                                                                                                                                                                                                         | -  | -    | -  | -     | -     |       |  |  |  |
|                        | 250                        | 3) <sup>4)</sup> 127                                                                                                                                                                                                                                                     | 27 | 60  | 40 | 65  | 65 | 6    | 0   | 391   | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | -   | -     | -                    | -  | -                                                                                                                                                                                                                                                                         | -  | -    | -  | -     | -     |       |  |  |  |
| 73 / 83                | 160                        | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | 84  | 21    | 40                   | 28 | 40                                                                                                                                                                                                                                                                        | 42 | -1   | 0  | 367   |       |       |  |  |  |
|                        | 180                        | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | 3) <sup>3)</sup> 97  | 24                                                                                                                                                                                                                                                                     | 45 | 35  | 50 | 48 | 12   | 0   | 367   | 3) <sup>3)</sup> 97  | 24 | 45                                                                                                                                                                                                                                                                        | 28 | 50   | 48 | 2     | 0     | 367   |  |  |  |
|                        | 200                        | 112                                                                                                                                                                                                                                                                      | 27 | 60  | 45 | 60  | 55 | -1.5 | 1.5 | 405   | 3) <sup>3)</sup> 112 | 27                                                                                                                                                                                                                                                                     | 55 | 35  | 60 | 55 | 3    | 0   | 379   | 3) <sup>3)</sup> 112 | 27 | 55                                                                                                                                                                                                                                                                        | 28 | 60   | 55 | -7    | 0     | 379   |  |  |  |
|                        | 225                        | 127                                                                                                                                                                                                                                                                      | 27 | 65  | 45 | 65  | 60 | 12   | 0   | 420   | 127                  | 27                                                                                                                                                                                                                                                                     | 65 | 35  | 65 | 60 | -8   | 0   | 420   | 127                  | 27 | 65                                                                                                                                                                                                                                                                        | 28 | 65   | 60 | -18   | 0     | 420   |  |  |  |
|                        | 250                        | 127                                                                                                                                                                                                                                                                      | 27 | 65  | 45 | 65  | 65 | 12   | 0   | 420   | 127                  | 27                                                                                                                                                                                                                                                                     | 65 | 35  | 65 | 65 | -8   | 0   | 420   | -                    | -  | -                                                                                                                                                                                                                                                                         | -  | -    | -  | -     | -     | -     |  |  |  |
|                        | 280                        | 142                                                                                                                                                                                                                                                                      | 31 | 75  | 45 | 75  | 75 | -4.5 | 0   | 440.5 | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | -   | -     | -                    | -  | -                                                                                                                                                                                                                                                                         | -  | -    | -  | -     | -     |       |  |  |  |
|                        | 315 2) <sup>4)</sup>       | 162                                                                                                                                                                                                                                                                      | 36 | 80  | 45 | 80  | 80 | -6.5 | 0   | 477.5 | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | -   | -     | -                    | -  | -                                                                                                                                                                                                                                                                         | -  | -    | -  | -     | -     |       |  |  |  |
| 93 / 103               | 180                        | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | 97  | 24    | 50                   | 32 | 50                                                                                                                                                                                                                                                                        | 48 | 12.5 | 0  | 431.5 |       |       |  |  |  |
|                        | 200                        | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | 112 | 27    | 60                   | 32 | 60                                                                                                                                                                                                                                                                        | 55 | 3.5  | 0  | 443.5 |       |       |  |  |  |
|                        | 225                        | 127                                                                                                                                                                                                                                                                      | 27 | 65  | 60 | 65  | 60 | 2.5  | 0   | 519.5 | 127                  | 27                                                                                                                                                                                                                                                                     | 65 | 45  | 65 | 60 | 12.5 | 0   | 484.5 | 127                  | 27 | 65                                                                                                                                                                                                                                                                        | 32 | 65   | 60 | -3.75 | -3.75 | 484.5 |  |  |  |
|                        | 250                        | 127                                                                                                                                                                                                                                                                      | 27 | 65  | 60 | 65  | 65 | 2.5  | 0   | 519.5 | 127                  | 27                                                                                                                                                                                                                                                                     | 65 | 45  | 65 | 65 | 12.5 | 0   | 484.5 | 127                  | 27 | 65                                                                                                                                                                                                                                                                        | 32 | 65   | 65 | -3.75 | -3.75 | 484.5 |  |  |  |
|                        | 280                        | 142                                                                                                                                                                                                                                                                      | 31 | 75  | 60 | 75  | 75 | 21   | 0   | 505   | 142                  | 31                                                                                                                                                                                                                                                                     | 75 | 45  | 75 | 75 | -2   | 2   | 505   | -                    | -  | -                                                                                                                                                                                                                                                                         | -  | -    | -  | -     | -     | -     |  |  |  |
|                        | 315 2) <sup>4)</sup>       | 162                                                                                                                                                                                                                                                                      | 36 | 80  | 60 | 80  | 80 | 19   | 0   | 542   | 4) <sup>4)</sup> 162 | 36                                                                                                                                                                                                                                                                     | 80 | 45  | 80 | 80 | -3   | 3   | 542   | -                    | -  | -                                                                                                                                                                                                                                                                         | -  | -    | -  | -     | -     | -     |  |  |  |
| 113 / 123              | 225                        | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | 127 | 27    | 65                   | 42 | 65                                                                                                                                                                                                                                                                        | 60 | 2.5  | 0  | 489.5 |       |       |  |  |  |
|                        | 250                        | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | 127                  | 27                                                                                                                                                                                                                                                                     | 65 | 50  | 65 | 65 | 12.5 | 0   | 489.5 | 127                  | 27 | 65                                                                                                                                                                                                                                                                        | 42 | 65   | 65 | 2.5   | 0     | 489.5 |  |  |  |
|                        | 280                        | 142                                                                                                                                                                                                                                                                      | 31 | 75  | 70 | 75  | 75 | 6    | 0   | 540   | 142                  | 31                                                                                                                                                                                                                                                                     | 75 | 50  | 75 | 75 | -4   | 0   | 510   | 142                  | 31 | 75                                                                                                                                                                                                                                                                        | 42 | 75   | 75 | -7    | -7    | 510   |  |  |  |
|                        | 315 2) <sup>2)</sup>       | 162                                                                                                                                                                                                                                                                      | 36 | 80  | 70 | 80  | 80 | 4    | 0   | 577   | 162                  | 36                                                                                                                                                                                                                                                                     | 80 | 50  | 80 | 80 | -6   | 0   | 547   | 162                  | 36 | 80                                                                                                                                                                                                                                                                        | 42 | 80   | 80 | -16   | 0     | 547   |  |  |  |
| 133 / 143              | 250                        | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | 127 | 27    | 65                   | 50 | 65                                                                                                                                                                                                                                                                        | 65 | 8.5  | 0  | 578.5 |       |       |  |  |  |
|                        | 280                        | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | 142                  | 31                                                                                                                                                                                                                                                                     | 75 | 60  | 75 | 75 | 17   | 0   | 599   | 142                  | 31 | 75                                                                                                                                                                                                                                                                        | 50 | 75   | 75 | -4    | 4     | 599   |  |  |  |
|                        | 315 2) <sup>2)</sup>       | 182                                                                                                                                                                                                                                                                      | 42 | 90  | 85 | 90  | 80 | 13   | -3  | 666   | 162                  | 36                                                                                                                                                                                                                                                                     | 80 | 60  | 80 | 80 | 15   | 0   | 636   | 162                  | 36 | 80                                                                                                                                                                                                                                                                        | 50 | 80   | 80 | -5    | 5     | 636   |  |  |  |
| 153 / 163              | 280                        | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | 142 | 31    | 75                   | 60 | 75                                                                                                                                                                                                                                                                        | 75 | 14   | 0  | 647   |       |       |  |  |  |
|                        | 315 2) <sup>2)</sup>       | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | 162                  | 36                                                                                                                                                                                                                                                                     | 80 | 75  | 80 | 80 | 12   | 0   | 684   | 162                  | 36 | 80                                                                                                                                                                                                                                                                        | 60 | 80   | 80 | 12    | 0     | 684   |  |  |  |
| 173 / 183              | 315 2) <sup>2)</sup>       | -                                                                                                                                                                                                                                                                        | -  | -   | -  | -   | -  | -    | -   | -     | -                    | -                                                                                                                                                                                                                                                                      | -  | -   | -  | -  | -    | 162 | 36    | 80                   | 60 | 80                                                                                                                                                                                                                                                                        | 80 | 12   | 0  | 714   |       |       |  |  |  |

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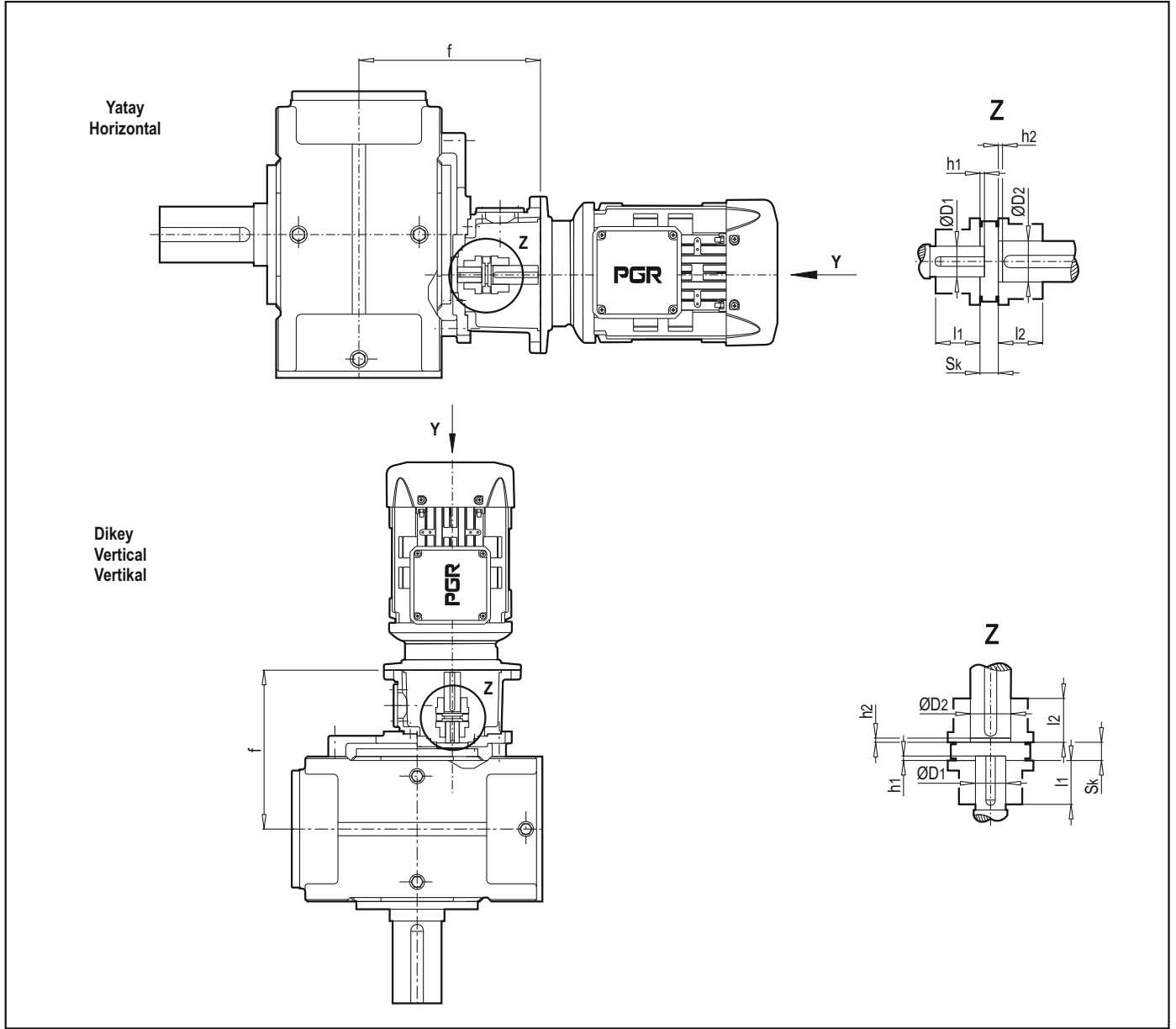
KAPLİN B  
IEC BAĞLANTILI MOTORLAR

EN

MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
B COUPLING

DE

MOTORKUPPLUNG FÜR IEC -  
MOTOREN MIT B - KUPPLUNG



Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük yönleri, örneğin kaldırma makinaları, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin kataloğundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!

DIN 42677 IEC - Standart motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın.

C, D, G, H, I modeli helisel dişli redüktörlerde, giriş miliinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!

For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162.

Helical gear unit in C, D, G, H, I, design on request only. Not in connection with Taconite E or labyrinth seal on input shaft.

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schaltfrequenz, wechselnde Lasttrichtung; z.B. Hubwerke, Fahrwerke, usw) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig!

Anbaumaße für IEC - Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162.

Stinradgetriebe in Ausführung C, D, G, H, I nur auf Anfrage. Nicht in Verbindung mit Taconite E oder Labyrinth-Abdichtung an der Antriebswelle

1) Diğer motor büyüklükleri, talep üzerine temin edilir.

2) Sadece 315S ve 315M motor büyüklükleri.

3) Redüktör miline oturan kaplin göbeğinin l1 uzunluğu kısaltılmıştır.

1) Other motor sizes on request

2) Sizes 315S and 315M only

3) Length l1 of Coupling hub shortened for fitting onto gear unit shaft.

1) andere Motorgößen auf Anfrage

2) nur Baugröße 315S und 315M

3) Länge l1 der Kupplungsnahe zum Aufsetzen Auf Getriebewelle gekürzt.

TR

**KAPLİN B**  
**IEC BAĞLANTILI MOTORLAR**

EN

**MOTOR BELL HOUSING FOR**  
**IEC STANDARD MOTORS WITH**  
**B COUPLING**

DE

**MOTORKATERNE FÜR IEC -**  
**MOTOREN MIT B - KUPPLUNG**

Tablo 4 / Table 4 / Tabelle 4

|                        |                            | Tahvil İN / Ratios İN / Übersetzungen İN<br>100 - 180 ( Gövdeler / Sizes / Größen 74,94,114 )<br>125 - 224 ( Gövdeler / Sizes / Größen 84,104,124)<br>100 - 180 ( Gövdeler / Sizes / Größen 134,154,174)<br>125 - 224 ( Gövde / Size / Größe 144)<br>112 - 200 ( Gövdeler / Sizes / Größen 164,184) |     |    |     |    |     |    |       |     |       | Tahvil İN / Ratios İN / Übersetzungen İN<br>200 - 355 ( Gövdeler / Sizes / Größen 74,94,114)<br>250 - 450 ( Gövdeler / Sizes / Größen 84,104,124)<br>200 - 355 ( Gövdeler / Sizes / Größen 134,154,174)<br>250 - 450 ( Gövde / Size / Größe 144)<br>224 - 400 ( Gövdeler / Sizes / Größen 164,184) |     |     |    |     |    |       |       |       |       |
|------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|----|-----|----|-------|-----|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|----|-----|----|-------|-------|-------|-------|
| Gövde<br>Size<br>Größe | Motor <sup>1)</sup><br>IEC | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                                                                                                                                                                         | mm  |    |     |    |     |    |       |     |       | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                                                                                                                                                                        | mm  |     |    |     |    |       |       |       |       |
|                        |                            |                                                                                                                                                                                                                                                                                                     | sk  | l1 | ØD1 | l2 | ØD2 | h1 | h2    | f   | sk    |                                                                                                                                                                                                                                                                                                    | l1  | ØD1 | l2 | ØD2 | h1 | h2    | f     |       |       |
| 74 / 84                | 100                        |                                                                                                                                                                                                                                                                                                     | -   | -  | -   | -  | -   | -  | -     | -   |       | 62                                                                                                                                                                                                                                                                                                 | 16  | 30  | 24 | 30  | 28 | 0     | 0     | 296   |       |
|                        | 112                        |                                                                                                                                                                                                                                                                                                     | -   | -  | -   | -  | -   | -  | -     | -   |       | 62                                                                                                                                                                                                                                                                                                 | 16  | 30  | 24 | 30  | 28 | 0     | 0     | 296   |       |
|                        | 132                        |                                                                                                                                                                                                                                                                                                     | 72  | 18 | 35  | 30 | 35  | 38 | - 0.5 | 0   | 328.5 |                                                                                                                                                                                                                                                                                                    | 72  | 18  | 35 | 24  | 35 | 38    | - 5.5 | 5     | 328.5 |
|                        | 160                        |                                                                                                                                                                                                                                                                                                     | 84  | 21 | 40  | 30 | 40  | 42 | - 3.5 | 0   | 364.5 |                                                                                                                                                                                                                                                                                                    | 84  | 21  | 40 | 24  | 40 | 42    | - 6.5 | 7     | 364.5 |
|                        | 180                        | 3)                                                                                                                                                                                                                                                                                                  | 97  | 24 | 42  | 30 | 50  | 48 | - 0.5 | 0   | 364.5 |                                                                                                                                                                                                                                                                                                    | -   | -   | -  | -   | -  | -     | -     | -     | -     |
| 94/104                 | 132                        |                                                                                                                                                                                                                                                                                                     | -   | -  | -   | -  | -   | -  | -     | -   |       | 72                                                                                                                                                                                                                                                                                                 | 18  | 35  | 28 | 35  | 38 | - 3.5 | 3     | 369.5 |       |
|                        | 160                        |                                                                                                                                                                                                                                                                                                     | 84  | 21 | 40  | 35 | 40  | 42 | 0.5   | 0   | 405.5 |                                                                                                                                                                                                                                                                                                    | 84  | 21  | 40 | 28  | 40 | 42    | - 4.5 | 5     | 405.5 |
|                        | 180                        | 3)                                                                                                                                                                                                                                                                                                  | 97  | 24 | 47  | 35 | 50  | 48 | 3.5   | 0   | 405.5 | 3)                                                                                                                                                                                                                                                                                                 | 97  | 24  | 47 | 28  | 50 | 48    | - 6.5 | 0     | 405.5 |
|                        | 200                        | 3)                                                                                                                                                                                                                                                                                                  | 112 | 27 | 54  | 35 | 60  | 55 | - 5.5 | 0   | 417.5 |                                                                                                                                                                                                                                                                                                    | -   | -   | -  | -   | -  | -     | -     | -     | -     |
|                        | 225                        | 3)                                                                                                                                                                                                                                                                                                  | 127 | 27 | 59  | 35 | 65  | 60 | - 10  | 6.5 | 458.5 |                                                                                                                                                                                                                                                                                                    | -   | -   | -  | -   | -  | -     | -     | -     | -     |
| 114 / 124              | 160                        |                                                                                                                                                                                                                                                                                                     | -   | -  | -   | -  | -   | -  | -     | -   |       | 84                                                                                                                                                                                                                                                                                                 | 21  | 40  | 32 | 40  | 42 | 13.5  | 0     | 447.5 |       |
|                        | 180                        |                                                                                                                                                                                                                                                                                                     | 97  | 24 | 50  | 45 | 50  | 48 | 10.5  | 0   | 473.5 |                                                                                                                                                                                                                                                                                                    | 97  | 24  | 50 | 32  | 50 | 48    | 16.5  | 0     | 447.5 |
|                        | 200                        |                                                                                                                                                                                                                                                                                                     | 112 | 27 | 60  | 45 | 60  | 55 | 1.5   | 0   | 485.5 |                                                                                                                                                                                                                                                                                                    | 112 | 27  | 60 | 32  | 60 | 55    | 7.5   | 0     | 459.5 |
|                        | 225                        |                                                                                                                                                                                                                                                                                                     | 127 | 27 | 65  | 45 | 65  | 60 | 16.5  | 0   | 500.5 |                                                                                                                                                                                                                                                                                                    | 127 | 27  | 65 | 32  | 65 | 60    | 0     | 3.5   | 500.5 |
|                        | 250                        |                                                                                                                                                                                                                                                                                                     | 127 | 27 | 65  | 45 | 65  | 65 | 16.5  | 0   | 500.5 |                                                                                                                                                                                                                                                                                                    | -   | -   | -  | -   | -  | -     | -     | -     | -     |
| 134 / 144              | 160                        |                                                                                                                                                                                                                                                                                                     | -   | -  | -   | -  | -   | -  | -     | -   |       | 84                                                                                                                                                                                                                                                                                                 | 21  | 40  | 38 | 40  | 42 | 0     | 1.5   | 517.5 |       |
|                        | 180                        |                                                                                                                                                                                                                                                                                                     | -   | -  | -   | -  | -   | -  | -     | -   |       | 97                                                                                                                                                                                                                                                                                                 | 24  | 50  | 38 | 50  | 48 | 1.5   | 0     | 517.5 |       |
|                        | 200                        |                                                                                                                                                                                                                                                                                                     | 127 | 27 | 65  | 50 | 65  | 55 | 12.5  | 0   | 529.5 |                                                                                                                                                                                                                                                                                                    | 112 | 27  | 50 | 38  | 60 | 55    | 18.5  | 0     | 503.5 |
|                        | 225                        |                                                                                                                                                                                                                                                                                                     | 127 | 27 | 65  | 50 | 65  | 60 | - 3.5 | 4   | 579.5 |                                                                                                                                                                                                                                                                                                    | 127 | 27  | 61 | 38  | 65 | 60    | 7.5   | 0     | 544.5 |
|                        | 250                        |                                                                                                                                                                                                                                                                                                     | 127 | 27 | 65  | 50 | 65  | 65 | - 3.5 | 4   | 579.5 |                                                                                                                                                                                                                                                                                                    | 127 | 27  | 61 | 38  | 65 | 65    | 7.5   | 0     | 544.5 |
|                        | 280                        |                                                                                                                                                                                                                                                                                                     | 142 | 31 | 75  | 50 | 75  | 75 | 11    | 0   | 565   |                                                                                                                                                                                                                                                                                                    | -   | -   | -  | -   | -  | -     | -     | -     | -     |
|                        | 315 2)                     |                                                                                                                                                                                                                                                                                                     | 162 | 36 | 75  | 50 | 80  | 80 | 9     | 0   | 602   |                                                                                                                                                                                                                                                                                                    | -   | -   | -  | -   | -  | -     | -     | -     | -     |
| 154 / 164              | 200                        |                                                                                                                                                                                                                                                                                                     | -   | -  | -   | -  | -   | -  | -     | -   |       | 112                                                                                                                                                                                                                                                                                                | 27  | 60  | 50 | 60  | 55 | - 3   | 3.5   | 598.5 |       |
|                        | 225                        |                                                                                                                                                                                                                                                                                                     | 127 | 27 | 65  | 60 | 65  | 60 | - 1.5 | 0   | 648.5 |                                                                                                                                                                                                                                                                                                    | 127 | 27  | 65 | 50  | 65 | 60    | 8.5   | 0     | 613.5 |
|                        | 250                        |                                                                                                                                                                                                                                                                                                     | 127 | 27 | 65  | 60 | 65  | 65 | - 1.5 | 0   | 648.5 |                                                                                                                                                                                                                                                                                                    | 127 | 27  | 65 | 50  | 65 | 65    | 8.5   | 0     | 613.5 |
|                        | 280                        |                                                                                                                                                                                                                                                                                                     | 142 | 31 | 75  | 60 | 75  | 75 | 17    | 0   | 634   |                                                                                                                                                                                                                                                                                                    | 142 | 31  | 75 | 50  | 75 | 75    | - 4   | 4     | 634   |
|                        | 315 2)                     |                                                                                                                                                                                                                                                                                                     | 162 | 36 | 80  | 60 | 80  | 80 | 15    | 0   | 671   |                                                                                                                                                                                                                                                                                                    | 162 | 36  | 80 | 50  | 80 | 80    | - 5   | 5     | 671   |
| 174 / 184              | 225                        |                                                                                                                                                                                                                                                                                                     | -   | -  | -   | -  | -   | -  | -     | -   |       | 127                                                                                                                                                                                                                                                                                                | 27  | 65  | 50 | 65  | 60 | 3.5   | 0     | 623.5 |       |
|                        | 250                        |                                                                                                                                                                                                                                                                                                     | -   | -  | -   | -  | -   | -  | -     | -   |       | 127                                                                                                                                                                                                                                                                                                | 27  | 65  | 50 | 65  | 65 | 3.5   | 0     | 623.5 |       |
|                        | 280                        |                                                                                                                                                                                                                                                                                                     | 142 | 31 | 75  | 60 | 75  | 75 | 12    | 0   | 644   |                                                                                                                                                                                                                                                                                                    | 142 | 31  | 75 | 50  | 75 | 75    | - 6.5 | 6.5   | 644   |
|                        | 315 2)                     |                                                                                                                                                                                                                                                                                                     | 162 | 36 | 80  | 60 | 80  | 80 | 10    | 0   | 681   |                                                                                                                                                                                                                                                                                                    | 162 | 36  | 80 | 50  | 80 | 80    | - 5   | 10    | 681   |

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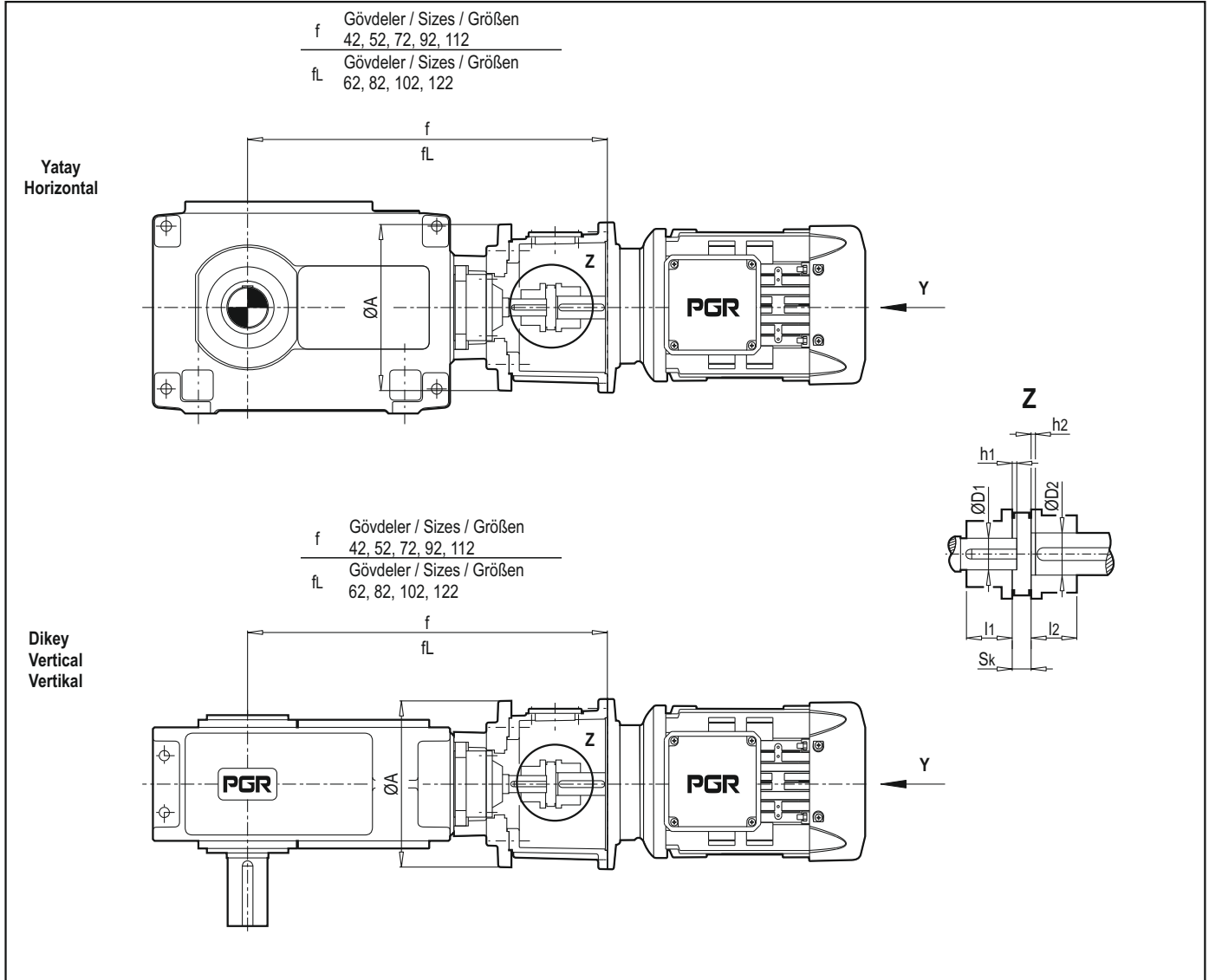
KAPLİN B  
IEC BAĞLANTILI MOTORLAR

EN

MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
B COUPLING

DE

MOTORKUPPLUNG FÜR IEC -  
MOTOREN MIT B - KUPPLUNG



Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük yönleri, örneğin kaldırma makinaları, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin katalogundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!

DIN 42677 IEC-Standard motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın. C,D,G,H,I modeli helisel dişli redüktörlerde, giriş milinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!

For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162.  
Helical gear unit in C, D, G, H, I, design on request only.  
Not in connection with Taconite E or labyrinth seal on input shaft.

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schalthäufigkeit, wechselnde Lastichtung; z.B. Hubwerke, Fahrwerke, usw) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig!

Anbaumaße für IEC- Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162.  
Stirnradgetriebe in Ausführung C, D, G, H, I nur auf Anfrage.  
Nicht in Verbindung mit Taconite E oder Labyrinth- Abdichtung an der Antriebswelle

- 1) Diğer motor büyüklükleri, talep üzerine temin edilir.  
2) Sadece 315S ve 315M motor büyüklükleri.

- 1) Other motor sizes on request  
2) Sizes 315S and 315M only

- 1) andere Motorgrößen auf Anfrage  
2) nur Baugröße 315S und 315M

TR

 KAPLIN B  
 IEC BAĞLANTILI MOTORLAR

EN

 MOTOR BELL HOUSING FOR  
 IEC STANDARD MOTORS WITH  
 B COUPLING

DE

 MOTORLATERNE FÜR IEC -  
 MOTOREN MIT B - KUPPLUNG

Tablo 5 / Table 5 / Tabelle 5

|                        |                        | Tahvil İN / Ratios İN / Übersetzungen İN<br>5 - 11.2 ( Gövdeler / Sizes / Größen 42, 52,72,92,112 )<br>6.3 - 14 ( Gövdeler / Sizes / Größen 62, 82,102,122) |    |     |    |     |    |      |   |       |     |     | Tahvil İN / Ratios İN / Übersetzungen İN<br>12.5 - 18 ( Gövdeler / Sizes / Größen 42, 52,72,92,112 )<br>16 - 22.4 ( Gövdeler / Sizes / Größen 62, 82,102,122) |     |     |     |     |    |       |     |       |       |     |
|------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|----|-----|----|------|---|-------|-----|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|----|-------|-----|-------|-------|-----|
| Gövde<br>Size<br>Größe | Motor<br>IEC<br><br>1) | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                                 | mm |     |    |     |    |      |   |       |     |     | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                                   | mm  |     |     |     |    |       |     |       |       |     |
|                        |                        | sk                                                                                                                                                          | l1 | ØD1 | l2 | ØD2 | h1 | h2   | f | fL    | ØA  | sk  | l1                                                                                                                                                            | ØD1 | l2  | ØD2 | h1  | h2 | f     | fL  | ØA    |       |     |
| 42                     | 180                    | -                                                                                                                                                           | -  | -   | -  | -   | -  | -    | - | -     | -   | -   | 97                                                                                                                                                            | 24  | 50  | 35  | 50  | 48 | 0.5   | 0   | 678.5 | -     | 350 |
|                        | 200                    | 112                                                                                                                                                         | 27 | 60  | 45 | 60  | 55 | 17.5 | 0 | 684.5 | -   | 350 | 112                                                                                                                                                           | 27  | 60  | 35  | 60  | 55 | - 2.5 | 0   | 684.5 | -     | 350 |
| 52 / 62                | 200                    | -                                                                                                                                                           | -  | -   | -  | -   | -  | -    | - | -     | -   | -   | 112                                                                                                                                                           | 27  | 60  | 40  | 60  | 55 | - 8.5 | 0   | 763.5 | 798.5 | 350 |
|                        | 225                    | -                                                                                                                                                           | -  | -   | -  | -   | -  | -    | - | -     | -   | -   | 127                                                                                                                                                           | 27  | 65  | 40  | 65  | 60 | - 2.5 | 0   | 804.5 | 839.5 | 350 |
| 72 / 82                | 250                    | -                                                                                                                                                           | -  | -   | -  | -   | -  | -    | - | -     | -   | -   | 127                                                                                                                                                           | 27  | 65  | 50  | 65  | 65 | 2     | 0   | 915   | 960   | 440 |
|                        | 280                    | 162                                                                                                                                                         | 36 | 80  | 70 | 80  | 75 | 17   | 0 | 934   | 979 | 440 | 142                                                                                                                                                           | 31  | 75  | 50  | 75  | 75 | - 6.5 | 6.5 | 934   | 979   | 440 |
| 92 / 102               | 280                    | -                                                                                                                                                           | -  | -   | -  | -   | -  | -    | - | -     | -   | -   | 142                                                                                                                                                           | 31  | 75  | 60  | 75  | 75 | - 4   | 4   | 1074  | 1124  | 445 |
| 112 / 122              | 315 2)                 | -                                                                                                                                                           | -  | -   | -  | -   | -  | -    | - | -     | -   | -   | 162                                                                                                                                                           | 36  | 80  | 70  | 80  | 80 | 15    | 0   | 1256  | 1326  | 520 |
| 132 / 142              | 355 MB 9)              |                                                                                                                                                             |    |     |    |     |    |      |   |       |     |     | 202                                                                                                                                                           | 48  | 100 | 80  | 100 | 90 | 1     | 0   | 1457  | 1527  | 650 |
|                        | 355 LB 9)              |                                                                                                                                                             |    |     |    |     |    |      |   |       |     |     | 227                                                                                                                                                           | 54  | 110 | 80  | 110 | 90 | 7     | 0   | 1457  | 1527  | 650 |

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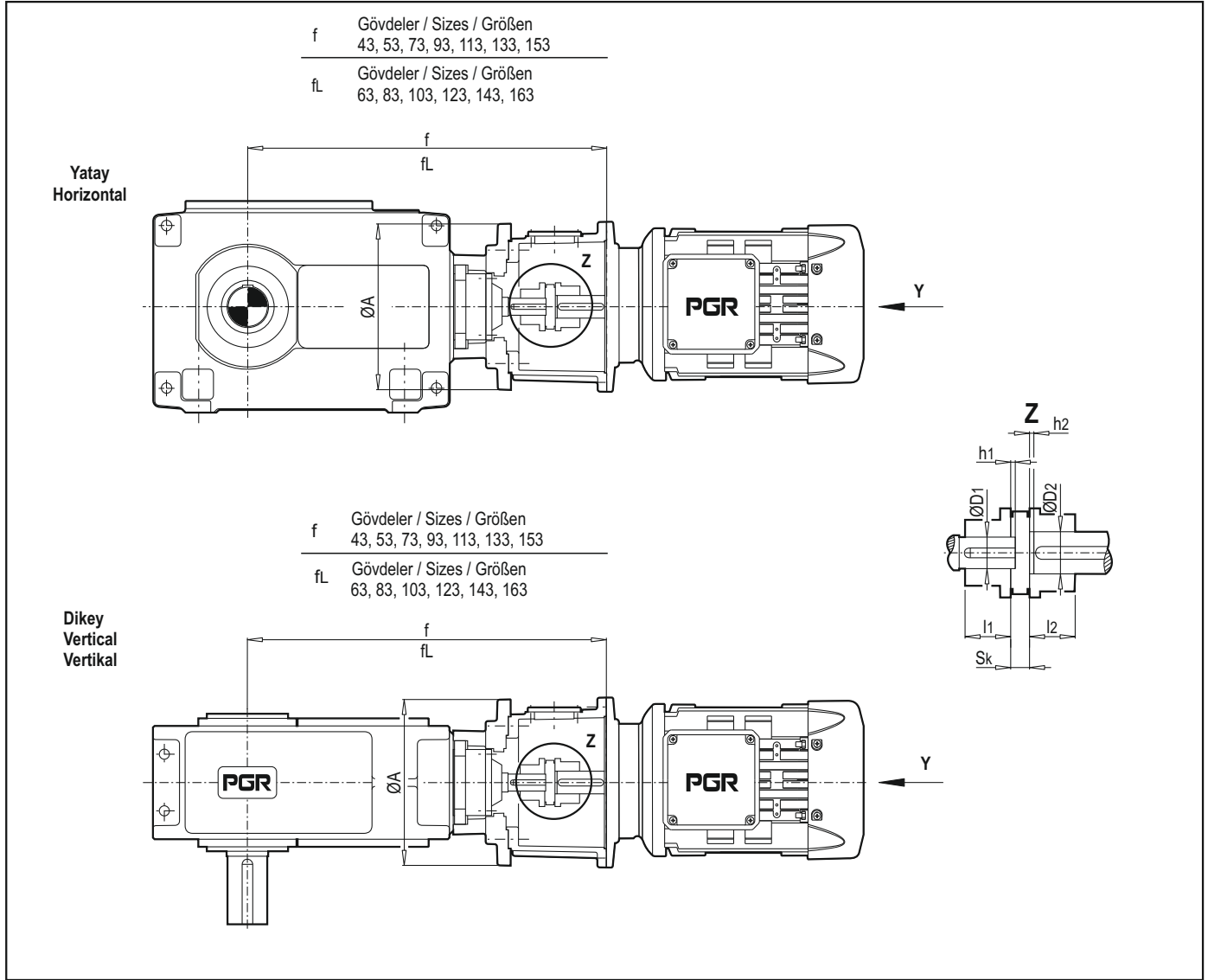
KAPLİN B  
IEC BAĞLANTILI MOTORLAR

EN

MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
B COUPLING

DE

MOTORKATERNE FÜR IEC -  
MOTOREN MIT B - KUPPLUNG



Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük yönleri örneğin kaldırma makinaları, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin kataloğundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!  
DIN 42677 IEC - Standart motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın. C, D, G, H, I modeli helisel dişli redüktörlerde, giriş milinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!  
For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162. Helical gear unit in C, D, G, H, I, design on request only. Not in connection with Taconite E or labyrinth seal on input shaft.

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schalthäufigkeit, wechselnde Lastichtung; z.B. Hubwerke, Fahrwerke, usw) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig! Anbaumaße für IEC- Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162. Stinradgetriebe in Ausführung C, D, G, H, I nur auf Anfrage. Nicht in Verbindung mit Taconite E oder Labyrinth - Abdichtung an der Antriebswelle

- 1) Diğer motor büyüklükleri, talep üzerine temin edilir.
- 2) Sadece 315S ve 315M motor büyüklükleri.
- 3) Redüktör miline oturan kaplin göbeğinin l1 uzunluğu kısaltılmıştır.

- 1) Other motor sizes on request
- 2) Sizes 315S and 315M only
- 3) Length l1 of coupling hub Shortened for fitting onto gear unit shaft.

- 1) andere Motorgrößen auf Anfrage
- 2) nur Baugröße 315S und 315M
- 3) Länge l1 der Kupplungsnabe zum Aufsetzen Auf Getriebewelle gekürzt.

TR

**KAPLIN B**  
**IEC BAĞLANTILI MOTORLAR**

EN

**MOTOR BELL HOUSING FOR**  
**IEC STANDARD MOTORS WITH**  
**B COUPLING**

DE

**MOTORKUPPLUNG FÜR IEC -**  
**MOTOREN MIT B - KUPPLUNG**

Tablo 6 / Table 6 / Tabelle 6

| Gövde<br>Size<br>Größe | Motor<br>IEC | Tahviller İN / Ratios İN / Übersetzungen İN<br>12,5 - 45 ( Gövdeler / Sizes / Größen 43, 53, 73,93,113)<br>16 - 56 ( Gövdeler / Sizes / Größen 63, 83,103,123)<br>12,5 - 45 ( Gövdeler / Sizes / Größen 133,153)<br>16 - 56 ( Gövde / Size / Größe 143)<br>14 - 50 ( Gövde / Size / Größe 163) |     |    |     |    |     |    |      |     |        |        |     | Tahviller İN / Ratios İN / Übersetzungen İN<br>50 - 71 ( Gövdeler / Sizes / Größen 43, 53, 73,93,113)<br>63 - 90 ( Gövdeler / Sizes / Größen 63, 83,103,123)<br>50 - 71 ( Gövdeler / Sizes / Größen 133,153)<br>63 - 90 ( Gövde / Size / Größe 143)<br>56 - 80 ( Gövde / Size / Größe 163) |     |     |    |     |    |      |      |        |        |        |     |
|------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|----|-----|----|------|-----|--------|--------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|----|-----|----|------|------|--------|--------|--------|-----|
|                        |              | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                                                                                                                                                                    | mm  |    |     |    |     |    |      |     |        |        |     | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                                                                                                                                                                | mm  |     |    |     |    |      |      |        |        |        |     |
|                        |              |                                                                                                                                                                                                                                                                                                | Sk  | l1 | ØD1 | l2 | ØD2 | h1 | h2   | f   | fL     | ØA     | Sk  |                                                                                                                                                                                                                                                                                            | l1  | ØD1 | l2 | ØD2 | h1 | h2   | f    | fL     | ØA     |        |     |
| 43                     | 132          |                                                                                                                                                                                                                                                                                                | -   | -  | -   | -  | -   | -  | -    | -   | -      | -      |     | 72                                                                                                                                                                                                                                                                                         | 18  | 35  | 25 | 35  | 38 | 10.5 | 0    | 646.5  | -      | 250    |     |
|                        | 160          |                                                                                                                                                                                                                                                                                                | 84  | 21 | 40  | 30 | 40  | 42 | -3.5 | 4   | 708.5  | -      | 250 |                                                                                                                                                                                                                                                                                            | 84  | 21  | 40 | 25  | 40 | 42   | 8.5  | 0      | 682.5  | -      | 250 |
|                        | 180          |                                                                                                                                                                                                                                                                                                | 97  | 24 | 50  | 30 | 50  | 48 | -2.5 | 2   | 708.5  | -      | 250 | 3)                                                                                                                                                                                                                                                                                         | 97  | 24  | 40 | 25  | 50 | 48   | 11.5 | 0      | 682.5  | -      | 250 |
|                        | 200          | 3)                                                                                                                                                                                                                                                                                             | 112 | 27 | 55  | 30 | 60  | 55 | 12.5 | 0   | 694.5  | -      | 250 |                                                                                                                                                                                                                                                                                            | -   | -   | -  | -   | -  | -    | -    | -      | -      | -      | -   |
| 53 / 63                | 160          |                                                                                                                                                                                                                                                                                                | 84  | 21 | 40  | 35 | 40  | 42 | 14.5 | 0   | 771.5  | 806.5  | 350 |                                                                                                                                                                                                                                                                                            | 84  | 21  | 40 | 28  | 40 | 42   | -2.5 | 3      | 771.5  | 806.5  | 350 |
|                        | 180          |                                                                                                                                                                                                                                                                                                | 97  | 24 | 50  | 35 | 50  | 48 | 17.5 | 0   | 771.5  | 806.5  | 350 |                                                                                                                                                                                                                                                                                            | 97  | 24  | 50 | 28  | 50 | 48   | 0    | 2.5    | 771.5  | 806.5  | 350 |
|                        | 200          |                                                                                                                                                                                                                                                                                                | 112 | 27 | 60  | 35 | 60  | 55 | 8.5  | 0   | 782.5  | 818.5  | 350 |                                                                                                                                                                                                                                                                                            | 112 | 27  | 60 | 28  | 60 | 55   | -5.5 | 6      | 782.5  | 818.5  | 350 |
|                        | 225          |                                                                                                                                                                                                                                                                                                | 127 | 27 | 65  | 35 | 65  | 60 | 0    | 2.5 | 824.5  | 859.5  | 350 |                                                                                                                                                                                                                                                                                            | -   | -   | -  | -   | -  | -    | -    | -      | -      | -      | -   |
| 73 / 83                | 160          |                                                                                                                                                                                                                                                                                                | -   | -  | -   | -  | -   | -  | -    | -   | -      | -      |     | 84                                                                                                                                                                                                                                                                                         | 21  | 40  | 35 | 40  | 42 | 0    | 2.5  | 903.5  | 948.5  | 440    |     |
|                        | 180          |                                                                                                                                                                                                                                                                                                | -   | -  | -   | -  | -   | -  | -    | -   | -      | -      |     | 97                                                                                                                                                                                                                                                                                         | 24  | 50  | 35 | 50  | 48 | 0.5  | 0    | 903.5  | 948.5  | 440    |     |
|                        | 200          |                                                                                                                                                                                                                                                                                                | 112 | 27 | 60  | 45 | 60  | 55 | 17.5 | 0   | 909.5  | 954.5  | 440 |                                                                                                                                                                                                                                                                                            | 112 | 27  | 60 | 35  | 60 | 55   | 0    | 2.5    | 909.5  | 945.5  | 440 |
|                        | 225          |                                                                                                                                                                                                                                                                                                | 127 | 27 | 65  | 45 | 65  | 60 | 6.5  | 0   | 950.5  | 995.5  | 440 |                                                                                                                                                                                                                                                                                            | 127 | 27  | 65 | 35  | 65 | 60   | 1.5  | 0      | 935.5  | 980.5  | 440 |
|                        | 250          |                                                                                                                                                                                                                                                                                                | 127 | 27 | 65  | 45 | 65  | 65 | 5    | 0   | 952    | 997    | 440 |                                                                                                                                                                                                                                                                                            | 127 | 27  | 65 | 35  | 65 | 65   | 1.5  | 0      | 935.5  | 980.5  | 440 |
|                        | 280          |                                                                                                                                                                                                                                                                                                | 142 | 31 | 75  | 45 | 75  | 75 | -5   | 5   | 971    | 1016   | 440 |                                                                                                                                                                                                                                                                                            | -   | -   | -  | -   | -  | -    | -    | -      | -      | -      | -   |
| 93 / 103               | 200          |                                                                                                                                                                                                                                                                                                | -   | -  | -   | -  | -   | -  | -    | -   | -      | -      |     | 112                                                                                                                                                                                                                                                                                        | 27  | 60  | 40 | 60  | 55 | 2.5  | 0    | 1034.5 | 1084.5 | 440    |     |
|                        | 225          |                                                                                                                                                                                                                                                                                                | 127 | 27 | 65  | 55 | 65  | 60 | 1.5  | 0   | 1075.5 | 1125.5 | 440 |                                                                                                                                                                                                                                                                                            | 127 | 27  | 65 | 40  | 65 | 60   | -4   | 4.5    | 1075.5 | 1125.5 | 440 |
|                        | 250          |                                                                                                                                                                                                                                                                                                | 127 | 27 | 65  | 55 | 65  | 65 | 0    | 0   | 1077   | 1127   | 440 |                                                                                                                                                                                                                                                                                            | 127 | 27  | 65 | 40  | 65 | 65   | -5   | 5      | 1077   | 1127   | 440 |
|                        | 280          |                                                                                                                                                                                                                                                                                                | 142 | 31 | 75  | 55 | 75  | 75 | -7.5 | 7.5 | 1096   | 1146   | 440 |                                                                                                                                                                                                                                                                                            | 142 | 31  | 75 | 40  | 75 | 75   | 2.5  | 2.5    | 1076   | 1126   | 440 |
| 113 / 123              | 225          |                                                                                                                                                                                                                                                                                                | -   | -  | -   | -  | -   | -  | -    | -   | -      | -      |     | 127                                                                                                                                                                                                                                                                                        | 27  | 65  | 50 | 65  | 60 | -3   | 3.5  | 1243.5 | 1313.5 | 440    |     |
|                        | 250          |                                                                                                                                                                                                                                                                                                | 142 | 31 | 75  | 70 | 75  | 65 | 6    | 0   | 1260   | 1330   | 440 |                                                                                                                                                                                                                                                                                            | 127 | 27  | 65 | 50  | 65 | 65   | -3   | 3.5    | 1243.5 | 1313.5 | 440 |
|                        | 280          |                                                                                                                                                                                                                                                                                                | 142 | 31 | 75  | 70 | 75  | 75 | -6.5 | 6.5 | 1279   | 1349   | 440 |                                                                                                                                                                                                                                                                                            | 142 | 31  | 75 | 50  | 75 | 75   | 12   | 0      | 1229   | 1299   | 440 |
|                        | 315 2)       |                                                                                                                                                                                                                                                                                                | 162 | 36 | 80  | 70 | 80  | 80 | -7.5 | 7.5 | 1316   | 1386   | 440 |                                                                                                                                                                                                                                                                                            | 162 | 36  | 80 | 50  | 80 | 80   | 10   | 0      | 1266   | 1336   | 440 |
| 133 / 143              | 280          |                                                                                                                                                                                                                                                                                                | -   | -  | -   | -  | -   | -  | -    | -   | -      | -      |     | 142                                                                                                                                                                                                                                                                                        | 31  | 75  | 60 | 75  | 75 | 12   | 0    | 1424   | 1494   | 650    |     |
|                        | 315 2)       |                                                                                                                                                                                                                                                                                                | 182 | 42 | 90  | 80 | 90  | 80 | -5   | 4   | 1511   | 1581   | 445 |                                                                                                                                                                                                                                                                                            | 162 | 36  | 80 | 60  | 80 | 80   | 10   | 0      | 1461   | 1531   | 650 |
| 153 / 163              | 315 2)       |                                                                                                                                                                                                                                                                                                | -   | -  | -   | -  | -   | -  | -    | -   | -      | -      |     | 162                                                                                                                                                                                                                                                                                        | 36  | 80  | 70 | 80  | 80 | 13   | 0    | 1700   | 1746   | 650    |     |

TR

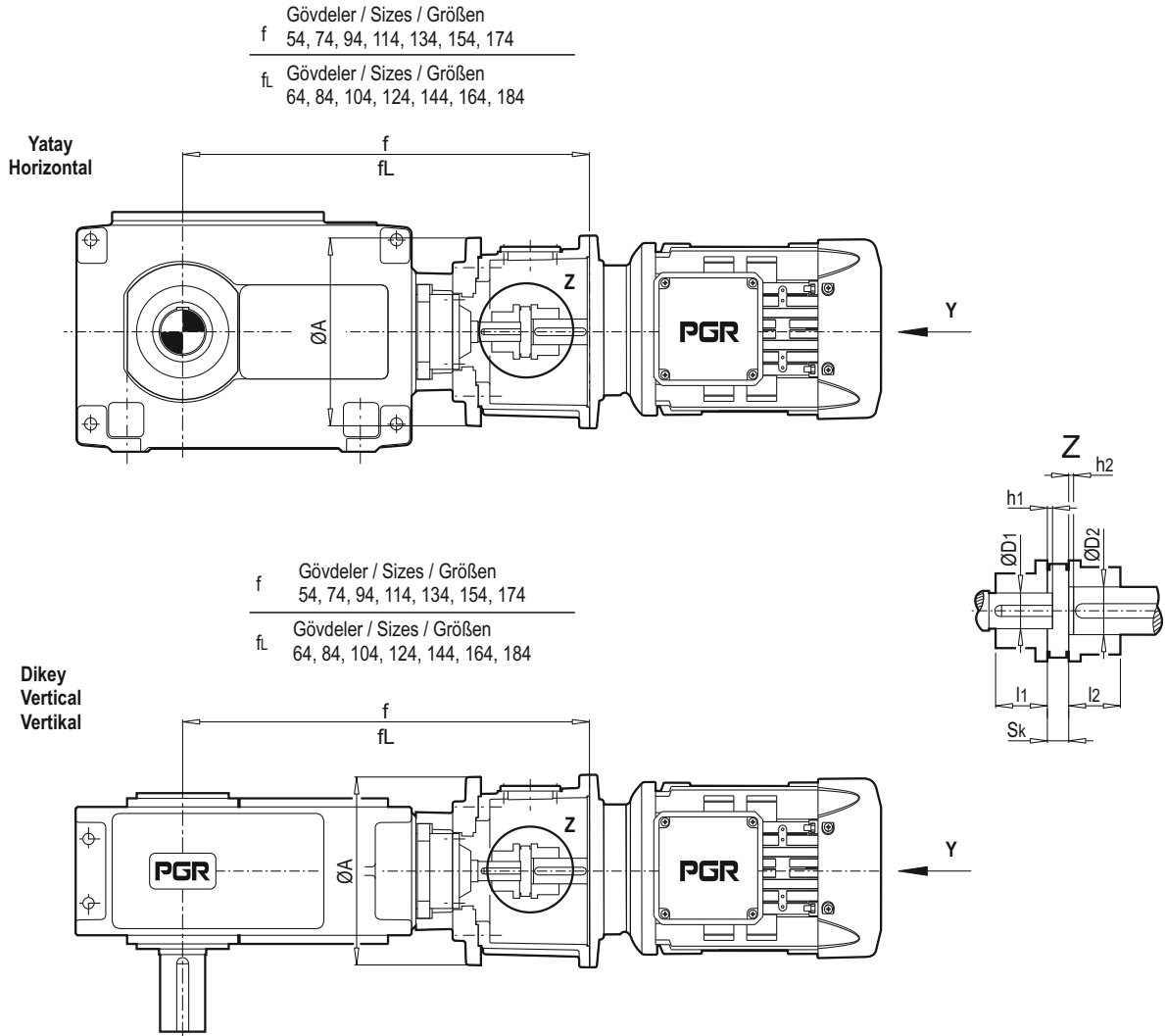
KAPLIN B  
IEC BAĞLANTILI MOTORLAR

EN

MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
B COUPLING

DE

MOTORKUPPLUNG FÜR IEC -  
MOTOREN MIT B - KUPPLUNG



Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük yönleri örneğin kaldırma makineleri, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin kataloğundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!

DIN 42677 IEC-Standard motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın. C,D,G,H,I modeli helisel dişli redüktörlerde, giriş milinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!

For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162. Helical gear unit in C, D, G, H, I, design on request only. Not in connection with Taconite E or labyrinth seal on input shaft.

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schaltfrequenz, wechselnde Lastrichtung; z.B. Hubwerke, Fahrwerke, usw) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig!

Anbaumaße für IEC-Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162. Stinradgetriebe in Ausführung C, D, G, H, I nur auf Anfrage. Nicht in Verbindung mit Taconite E oder Labyrinth - Abdichtung an der Antriebswelle

- 1) Diğer motor büyüklükleri, talep üzerine temin edilir.
- 2) Sadece 315S ve 315M motor büyüklükleri.
- 3) Redüktör miline oturan kaplin göbeğinin I1 uzunluğu kısaltılmıştır.

- 1) Other motor sizes on request
- 2) Sizes 315S and 315M only
- 3) Length l1 of coupling hub Shortened for fitting onto gear unit shaft.

- 1) andere Motorgößen auf Anfrage
- 2) nur Baugröße 315S und 315M
- 3) Länge l1 der Kupplungsnahe zum Aufsetzen Auf Getriebewelle gekürzt.

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**KAPLIN B**  
**IEC BAĞLANTILI MOTORLAR**

EN

**MOTOR BELL HOUSING FOR**  
**IEC STANDARD MOTORS WITH**  
**B COUPLING**

DE

**MOTORKUPPLUNG FÜR IEC -**  
**MOTOREN MIT B - KUPPLUNG**

Tablo 7 / Table 7 / Tabelle 7

| Gövde<br>Size<br>Größe | Motor<br>IEC | Tahviller İN / Ratios İN / Übersetzungen İN<br>80 - 180 ( Gövdeler / Sizes / Größen 54, 74, 94, 114 )<br>100 - 224 ( Gövdeler / Sizes / Größen 64, 84, 104, 124 )<br>80 - 180 ( Gövdeler / Sizes / Größen 134, 154, 174 )<br>100 - 224 ( Gövde / Size / Größe 144 )<br>90 - 200 ( Gövdeler / Sizes / Größen 164, 184 ) |     |    |     |    |     |      |      |        |        |       | Tahviller İN / Ratios İN / Übersetzungen İN<br>200 - 315 ( Gövdeler / Sizes / Größen 54, 74, 94, 114 )<br>250 - 400 ( Gövdeler / Sizes / Größen 64, 84, 104, 124 )<br>200 - 315 ( Gövdeler / Sizes / Größen 134, 154, 174 )<br>250 - 400 ( Gövde / Size / Größe 144 )<br>224 - 355 ( Gövdeler / Sizes / Größen 164, 184 ) |    |    |     |    |     |      |      |        |        |     |
|------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|----|-----|------|------|--------|--------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|----|-----|------|------|--------|--------|-----|
|                        |              | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                                                                                                                                                                                            | mm  |    |     |    |     |      |      |        |        |       | Kaplin B<br>B Coupling<br>B Kupplung<br>BWN                                                                                                                                                                                                                                                                               | mm |    |     |    |     |      |      |        |        |     |
|                        |              |                                                                                                                                                                                                                                                                                                                        | sk  | l1 | ØD1 | l2 | ØD2 | h1   | h2   | f      | fL     | ØA    |                                                                                                                                                                                                                                                                                                                           | sk | l1 | ØD1 | l2 | ØD2 | h1   | h2   | f      | fL     | ØA  |
| 54 / 64                | 100          | -                                                                                                                                                                                                                                                                                                                      | -   | -  | -   | -  | -   | -    | -    | -      | -      | -     | 62                                                                                                                                                                                                                                                                                                                        | 16 | 30 | 20  | 30 | 28  | 6    | 0    | 735    | 770    | 250 |
|                        | 112          | 62                                                                                                                                                                                                                                                                                                                     | 16  | 30 | 28  | 30 | 28  | 2    | 2    | 750    | 785    | 250   | 62                                                                                                                                                                                                                                                                                                                        | 16 | 30 | 20  | 30 | 28  | 6    | 0    | 735    | 770    | 250 |
|                        | 132          | 72                                                                                                                                                                                                                                                                                                                     | 18  | 35 | 28  | 35 | 38  | 0.5  | 0    | 767.5  | 802.5  | 250   | 72                                                                                                                                                                                                                                                                                                                        | 18 | 35 | 20  | 35 | 38  | -2.5 | 2    | 767.5  | 802.5  | 250 |
|                        | 160          | 84                                                                                                                                                                                                                                                                                                                     | 21  | 40 | 28  | 40 | 42  | -1.5 | 0    | 802.5  | 837.5  | 250   | -                                                                                                                                                                                                                                                                                                                         | -  | -  | -   | -  | -   | -    | -    | -      | -      | -   |
| 74 / 84                | 112          | -                                                                                                                                                                                                                                                                                                                      | -   | -  | -   | -  | -   | -    | -    | -      | -      | -     | 62                                                                                                                                                                                                                                                                                                                        | 16 | 30 | 25  | 30 | 28  | 6    | 0    | 855    | 900    | 250 |
|                        | 132          | 72                                                                                                                                                                                                                                                                                                                     | 18  | 35 | 30  | 35 | 38  | 5.5  | 0    | 887.5  | 932.5  | 250   | 72                                                                                                                                                                                                                                                                                                                        | 18 | 35 | 25  | 35 | 38  | 10.5 | 0    | 872.5  | 917.5  | 250 |
|                        | 160          | 84                                                                                                                                                                                                                                                                                                                     | 21  | 40 | 30  | 40 | 42  | -3.5 | 4    | 933.5  | 978.5  | 250   | 84                                                                                                                                                                                                                                                                                                                        | 21 | 40 | 25  | 40 | 42  | 8.5  | 0    | 907.5  | 952.5  | 250 |
|                        | 180          | 97                                                                                                                                                                                                                                                                                                                     | 24  | 50 | 30  | 50 | 48  | -2   | 2.5  | 933.5  | 978.5  | 250   | -                                                                                                                                                                                                                                                                                                                         | -  | -  | -   | -  | -   | -    | -    | -      | -      | -   |
|                        | 200          | 3)                                                                                                                                                                                                                                                                                                                     | 112 | 27 | 55  | 30 | 60  | 55   | 12.5 | 0      | 919.5  | 964.5 | 250                                                                                                                                                                                                                                                                                                                       | -  | -  | -   | -  | -   | -    | -    | -      | -      | -   |
| 94 / 104               | 132          | -                                                                                                                                                                                                                                                                                                                      | -   | -  | -   | -  | -   | -    | -    | -      | -      | -     | 72                                                                                                                                                                                                                                                                                                                        | 18 | 35 | 28  | 35 | 38  | -1.5 | 2    | 1001.5 | 1051.5 | 350 |
|                        | 160          | 84                                                                                                                                                                                                                                                                                                                     | 21  | 40 | 35  | 40 | 42  | 14.5 | 0    | 1036.5 | 1086.5 | 350   | 84                                                                                                                                                                                                                                                                                                                        | 21 | 40 | 28  | 40 | 42  | -2.5 | 3    | 1036.5 | 1086.5 | 350 |
|                        | 180          | 97                                                                                                                                                                                                                                                                                                                     | 24  | 50 | 35  | 50 | 48  | 17.5 | 0    | 1036.5 | 1086.5 | 350   | 97                                                                                                                                                                                                                                                                                                                        | 24 | 50 | 28  | 50 | 48  | 0    | 2.5  | 1036.5 | 1086.5 | 350 |
|                        | 200          | 112                                                                                                                                                                                                                                                                                                                    | 27  | 60 | 35  | 60 | 55  | 8.5  | 0    | 1048.5 | 1098.5 | 350   | -                                                                                                                                                                                                                                                                                                                         | -  | -  | -   | -  | -   | -    | -    | -      | -      | -   |
|                        | 225          | 127                                                                                                                                                                                                                                                                                                                    | 27  | 65 | 35  | 65 | 60  | 0    | 2.5  | 1089.5 | 1139.5 | 350   | -                                                                                                                                                                                                                                                                                                                         | -  | -  | -   | -  | -   | -    | -    | -      | -      | -   |
| 114 / 124              | 160          | -                                                                                                                                                                                                                                                                                                                      | -   | -  | -   | -  | -   | -    | -    | -      | -      | -     | 84                                                                                                                                                                                                                                                                                                                        | 21 | 40 | 35  | 40 | 42  | 0    | 2.5  | 1223.5 | 1293.5 | 440 |
|                        | 180          | 97                                                                                                                                                                                                                                                                                                                     | 24  | 50 | 45  | 50 | 48  | -2.5 | 3    | 1249.5 | 1319.5 | 440   | 97                                                                                                                                                                                                                                                                                                                        | 24 | 50 | 35  | 50 | 48  | 0.5  | 0    | 1223.5 | 1293.5 | 440 |
|                        | 200          | 112                                                                                                                                                                                                                                                                                                                    | 27  | 60 | 45  | 60 | 55  | 17.5 | 0    | 1229.5 | 1299.5 | 440   | 112                                                                                                                                                                                                                                                                                                                       | 27 | 60 | 35  | 60 | 55  | -2.5 | 0    | 1229.5 | 1299.5 | 440 |
|                        | 225          | 127                                                                                                                                                                                                                                                                                                                    | 27  | 65 | 45  | 65 | 60  | 6.5  | 0    | 1270.5 | 1340.5 | 440   | 127                                                                                                                                                                                                                                                                                                                       | 27 | 65 | 35  | 65 | 60  | -6.5 | 7    | 1270.5 | 1340.5 | 440 |
|                        | 250          | 127                                                                                                                                                                                                                                                                                                                    | 27  | 65 | 45  | 65 | 65  | 5    | 0    | 1272   | 1342   | 440   | -                                                                                                                                                                                                                                                                                                                         | -  | -  | -   | -  | -   | -    | -    | -      | -      | -   |
|                        | 280          | 142                                                                                                                                                                                                                                                                                                                    | 31  | 75 | 45  | 75 | 75  | -5   | 5    | 1291   | 1361   | 440   | -                                                                                                                                                                                                                                                                                                                         | -  | -  | -   | -  | -   | -    | -    | -      | -      | -   |
| 134 / 144              | 180          | -                                                                                                                                                                                                                                                                                                                      | -   | -  | -   | -  | -   | -    | -    | -      | -      | -     | 97                                                                                                                                                                                                                                                                                                                        | 24 | 50 | 40  | 50 | 48  | 5.5  | 0    | 1398.5 | 1468.5 | 440 |
|                        | 200          | 112                                                                                                                                                                                                                                                                                                                    | 27  | 60 | 55  | 60 | 55  | 12.5 | 0    | 1404.5 | 1474.5 | 440   | 112                                                                                                                                                                                                                                                                                                                       | 27 | 60 | 40  | 60 | 55  | 2.5  | 0    | 1404.5 | 1474.5 | 440 |
|                        | 225          | 127                                                                                                                                                                                                                                                                                                                    | 27  | 65 | 55  | 65 | 60  | 1.5  | 0    | 1445.5 | 1515.5 | 440   | 127                                                                                                                                                                                                                                                                                                                       | 27 | 65 | 40  | 65 | 60  | -4   | 4.5  | 1445.5 | 1515.5 | 440 |
|                        | 250          | 127                                                                                                                                                                                                                                                                                                                    | 27  | 65 | 55  | 65 | 65  | 0    | 0    | 1447   | 1517   | 440   | 127                                                                                                                                                                                                                                                                                                                       | 27 | 65 | 40  | 65 | 65  | -5   | 5    | 1447   | 1517   | 440 |
|                        | 280          | 142                                                                                                                                                                                                                                                                                                                    | 31  | 75 | 55  | 75 | 75  | 5    | 0    | 1446   | 1516   | 440   | 142                                                                                                                                                                                                                                                                                                                       | 31 | 75 | 40  | 75 | 75  | -2.5 | 2.5  | 1446   | 1516   | 440 |
|                        | 315 2)       | 162                                                                                                                                                                                                                                                                                                                    | 36  | 80 | 55  | 80 | 80  | 3    | 0    | 1483   | 1553   | 440   | -                                                                                                                                                                                                                                                                                                                         | -  | -  | -   | -  | -   | -    | -    | -      | -      | -   |
| 154 / 164              | 200          | -                                                                                                                                                                                                                                                                                                                      | -   | -  | -   | -  | -   | -    | -    | -      | -      | -     | 112                                                                                                                                                                                                                                                                                                                       | 27 | 60 | 50  | 60 | 55  | -5   | 5.5  | 1659.5 | 1705.5 | 440 |
|                        | 225          | 142                                                                                                                                                                                                                                                                                                                    | 31  | 75 | 70  | 75 | 60  | 4.5  | -3   | 1700.5 | 1746.5 | 440   | 127                                                                                                                                                                                                                                                                                                                       | 27 | 65 | 50  | 65 | 60  | -3   | 3.5  | 1685.5 | 1731.5 | 440 |
|                        | 250          | 142                                                                                                                                                                                                                                                                                                                    | 31  | 75 | 70  | 75 | 65  | 6    | 0    | 1702   | 1748   | 440   | 127                                                                                                                                                                                                                                                                                                                       | 27 | 65 | 50  | 65 | 65  | -3   | 3.5  | 1685.5 | 1731.5 | 440 |
|                        | 280          | 142                                                                                                                                                                                                                                                                                                                    | 31  | 75 | 70  | 75 | 75  | -6.5 | 6.5  | 1721   | 1767   | 440   | 142                                                                                                                                                                                                                                                                                                                       | 31 | 75 | 50  | 75 | 75  | 12   | 0    | 1671   | 1717   | 440 |
|                        | 315 2)       | 162                                                                                                                                                                                                                                                                                                                    | 36  | 80 | 70  | 80 | 80  | 5    | 0    | 1738   | 1784   | 440   | 162                                                                                                                                                                                                                                                                                                                       | 36 | 80 | 50  | 80 | 80  | 10   | 0    | 1708   | 1754   | 440 |
| 174 / 184              | 225          | -                                                                                                                                                                                                                                                                                                                      | -   | -  | -   | -  | -   | -    | -    | -      | -      | -     | 127                                                                                                                                                                                                                                                                                                                       | 27 | 65 | 50  | 65 | 60  | -3   | -3.5 | 1733.5 | 1793.5 | 440 |
|                        | 250          | -                                                                                                                                                                                                                                                                                                                      | -   | -  | -   | -  | -   | -    | -    | -      | -      | -     | 127                                                                                                                                                                                                                                                                                                                       | 27 | 65 | 50  | 65 | 65  | -3   | -3.5 | 1733.5 | 1793.5 | 440 |
|                        | 280          | 142                                                                                                                                                                                                                                                                                                                    | 31  | 75 | 70  | 75 | 75  | -6.5 | 6.5  | 1769   | 1829   | 440   | 142                                                                                                                                                                                                                                                                                                                       | 31 | 75 | 50  | 75 | 75  | 12   | 0    | 1718.5 | 1778.5 | 440 |
|                        | 315 2)       | 182                                                                                                                                                                                                                                                                                                                    | 42  | 90 | 70  | 90 | 80  | -4.5 | 4.5  | 1806   | 1866   | 440   | 162                                                                                                                                                                                                                                                                                                                       | 36 | 80 | 50  | 80 | 80  | 10   | 0    | 1756   | 1816   | 440 |

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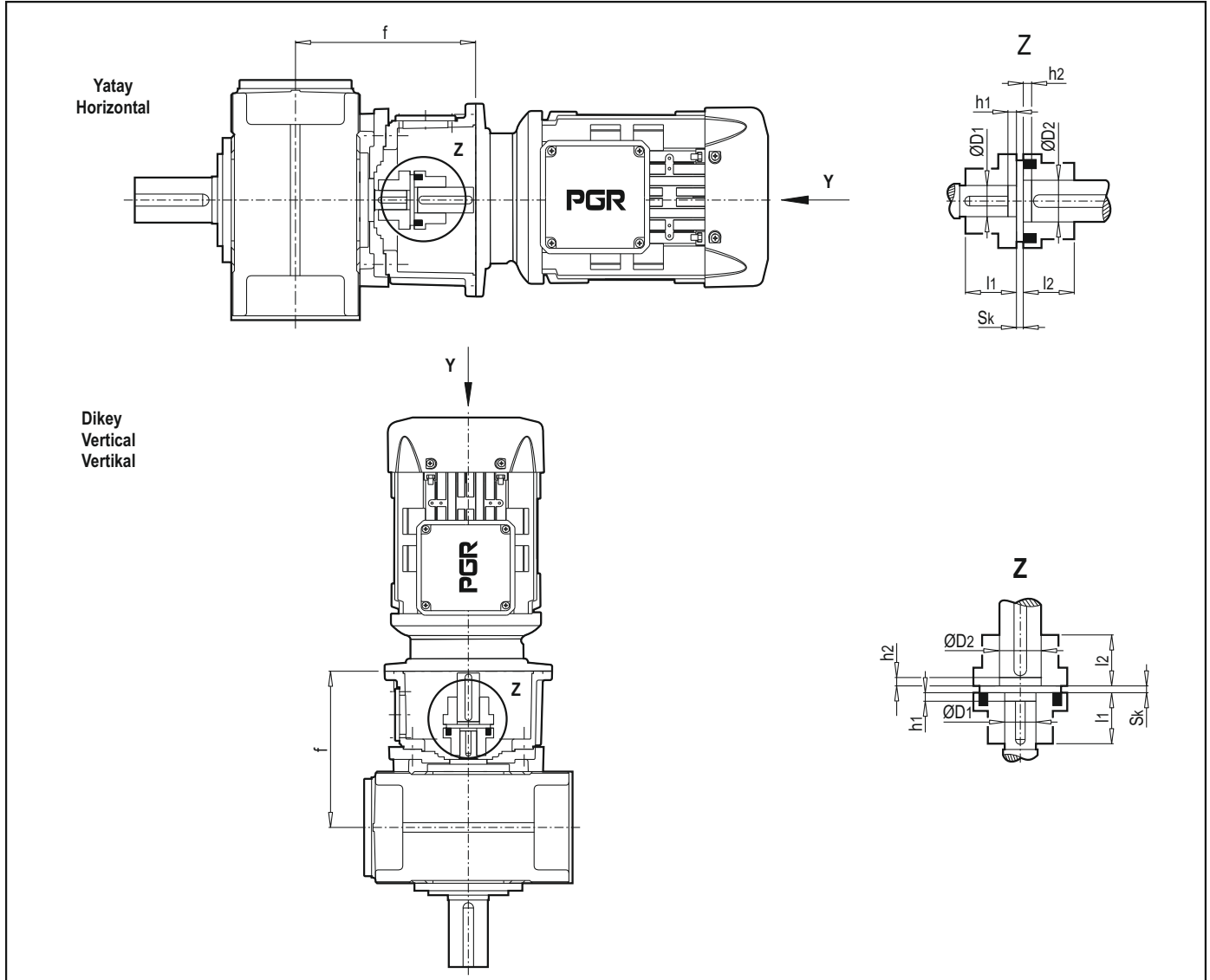
KAPLİN N  
IEC BAĞLANTILI MOTORLAR

EN

MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
N COUPLING

DE

MOTORLATERNE FÜR IEC - MOTOREN  
MIT N - KUPPLUNG



Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük yönleri, örneğin kaldırma makinaları, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin kataloğundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!  
DIN 42677 IEC- Standart motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın. C,D,G,H,I modeli helisel dişli redüktörlerde, giriş milinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!  
For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162. Helical gear unit in C, D, G, H, I, design on request only. Not in connection with Taconite E or labyrinth seal on input shaft.

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schalthäufigkeit, wechselnde Lastichtung; z.B. Hubwerke, Fahrwerke, usw) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig!  
Anbaumaße für IEC- Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162. Stinradgetriebe in Ausführung C, D, G, H, I nur auf Anfrage. Nicht in Verbindung mit Taconite E oder Labyrinth -Abdichtung an der Antriebswelle

- 1) Diğer motor büyüklükleri, talep üzerine temin edilir.
- 2) Sadece 315S ve 315M tipi imalat büyüklükleri.
- 4) Sadece dikey redüktörler için.
- 5) PH...2-D imalat modellerinin A+B uygulama tiplerine montajı mümkün değildir.
- 6) PH...2-D imalat modellerinin 5 gövde büyüklüğünün A+B uygulama tiplerine montajı mümkün değildir.
- 7) PH...2-D imalat modellerinin 7 gövde büyüklüğünün A+B uygulama tiplerine montajı mümkün değildir.
- 8) PH...2-DV imalat modellerinin 9 gövde büyüklüğünün A+B uygulama tiplerine montajı mümkün değildir.

- 1) Other motor sizes on request
- 2) Sizes 315S and 315M only
- 4) For vertical gear units only
- 5) For type PH...2-D design A+B; fitting not possible.
- 6) For type PH...2-D size 5 design A+B; fitting not possible.
- 7) For type PH...2-D size 7 design A+B; fitting not possible.
- 8) For type PH...2-DV size 9 design A+B; fitting not possible.

- 1) andere Motorgößen auf Anfrage
- 2) nur Baugröße 315S und 315M
- 4) nur für Vertikalgetriebe
- 5) Bei Bauart PH...2-D Ausführung A+B; Anbau nicht möglich.
- 6) Bei Bauart PH...2-D Größe 5 Ausführung A+B; Anbau nicht möglich.
- 7) Bei Bauart PH...2-D Größe 7 Ausführung A+B; Anbau nicht möglich.
- 8) Bei Bauart PH...2-DV Größe 9 Ausführung A+B; Anbau nicht möglich.

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 IEC STANDARD MOTORS WITH  
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 MOTORLATERNE FÜR IEC - MOTOREN  
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Tablo 8 / Table 8 / Tabelle 8

|                        |                    | Tahviller İN / Ratios İN / Übersetzungen İN<br>6.3 - 11..2 ( Gövdeler / Sizes / Größen 42,52,72,92,112)<br>8 - 14 ( Gövdeler / Sizes / Größen 62, 82,102,122) |      |    |     |    |     |    |    |     |       | Tahviller İN / Ratios İN / Übersetzungen İN<br>12.5 - 22.4 ( Gövdeler / Sizes / Größen 42, 52, 72,92,112)<br>16 - 28 ( Gövdeler / Sizes / Größen 62, 82,102,122) |      |     |     |    |     |    |     |       |     |
|------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-----|----|-----|----|----|-----|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-----|----|-----|----|-----|-------|-----|
| Gövde<br>Size<br>Größe | Motor<br>IEC<br>1) | Kaplin N<br>N Coupling<br>N Kupplung                                                                                                                          | sk   | l1 | ØD1 | l2 | ØD2 | h1 | h2 | f   |       | Kaplin N<br>N Coupling<br>N Kupplung                                                                                                                             | sk   | l1  | ØD1 | l2 | ØD2 | h1 | h2  | f     |     |
| 42                     | 160 5)             | -                                                                                                                                                             | -    | -  | -   | -  | -   | -  | -  | -   |       | A125                                                                                                                                                             | 3    | 50  | 32  | 50 | 42  | 0  | 7   | 370   |     |
|                        | 180 5)             | -                                                                                                                                                             | -    | -  | -   | -  | -   | -  | -  | -   |       | A140                                                                                                                                                             | 3    | 55  | 32  | 55 | 48  | 0  | 7   | 370   |     |
|                        | 200 5)             | -                                                                                                                                                             | -    | -  | -   | -  | -   | -  | -  | -   |       | A160                                                                                                                                                             | 4    | 60  | 32  | 60 | 55  | 0  | 12  | 376   |     |
|                        | 225 5)             | 4)                                                                                                                                                            | A180 | 4  | 70  | 45 | 70  | 60 | 0  | 3   | 417   | 4)                                                                                                                                                               | A180 | 4   | 70  | 32 | 70  | 60 | 0   | 8     | 402 |
| 52 / 62                | 200                | -                                                                                                                                                             | -    | -  | -   | -  | -   | -  | -  | -   |       | A160                                                                                                                                                             | 4    | 60  | 38  | 60 | 55  | 0  | 13  | 402   |     |
|                        | 225 6)             | -                                                                                                                                                             | -    | -  | -   | -  | -   | -  | -  | -   |       | -                                                                                                                                                                | -    | -   | -   | -  | -   | -  | -   | -     |     |
|                        | 250 5)             | 4)                                                                                                                                                            | A180 | 4  | 70  | 50 | 70  | 65 | 0  | 5.5 | 444.5 | 4)                                                                                                                                                               | A180 | 4   | 70  | 38 | 70  | 65 | 0   | 9     | 428 |
| 72 / 82                | 225                | -                                                                                                                                                             | -    | -  | -   | -  | -   | -  | -  | -   |       | A180                                                                                                                                                             | 4    | 70  | 50  | 70 | 60  | 0  | 9.5 | 473.5 |     |
|                        | 250 7)             | -                                                                                                                                                             | -    | -  | -   | -  | -   | -  | -  | -   |       | A180                                                                                                                                                             | 4    | 70  | 50  | 70 | 65  | 0  | 11  | 475   |     |
|                        | 280 7)             | -                                                                                                                                                             | -    | -  | -   | -  | -   | -  | -  | -   |       | A200                                                                                                                                                             | 4    | 80  | 50  | 80 | 75  | 0  | 10  | 474   |     |
|                        | 315 2) 5)          | 4)                                                                                                                                                            | A225 | 4  | 90  | 60 | 90  | 80 | 0  | 12  | 531   | 4)                                                                                                                                                               | A250 | 5.5 | 100 | 50 | 100 | 80 | 0   | 15.5  | 511 |
| 92 / 102               | 280                | -                                                                                                                                                             | -    | -  | -   | -  | -   | -  | -  | -   |       | A200                                                                                                                                                             | 4    | 80  | 60  | 80 | 75  | 0  | 5   | 530   |     |
|                        | 315 2) 8)          | 4)                                                                                                                                                            | A225 | 4  | 90  | 75 | 90  | 80 | 3  | 9   | 566   | 4)                                                                                                                                                               | A225 | 4   | 90  | 60 | 90  | 80 | 0   | 12    | 566 |
| 112 / 122              | 315 2)             | -                                                                                                                                                             | -    | -  | -   | -  | -   | -  | -  | -   |       | A225                                                                                                                                                             | 4    | 90  | 70  | 90 | 80  | 0  | 17  | 606   |     |

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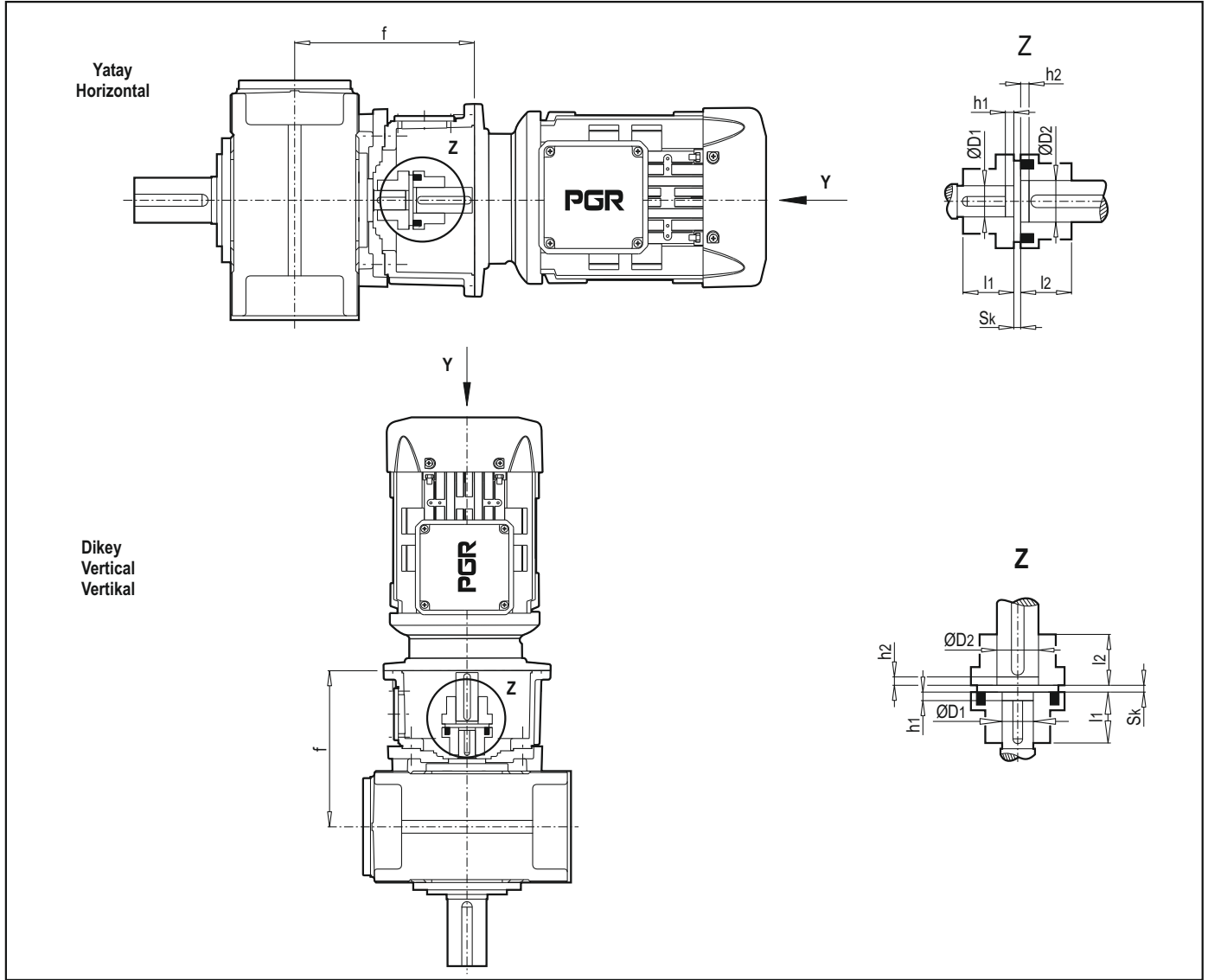
KAPLİN N  
IEC BAĞLANTILI MOTORLAR

EN

MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
N COUPLING

DE

MOTORLATERNE FÜR IEC - MOTOREN  
MIT N - KUPPLUNG



Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük istikametleri, örneğin kaldırma makineleri, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin katalogundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!

DIN 42677 IEC-Standard motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın. G, H ve I modeli helisel dişli redüktörlerde, giriş milinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!

For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162. Helical gear unit in G, H, I, design on request only. Not in connection with Taconite E or labyrinth seal on input shaft.

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schalthäufigkeit, wechselnde Lastichtung; z.B. Hubwerke, Fahrwerke, usw.) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig!

Anbaumaße für IEC- Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162. Stinradgetriebe in Ausführung G, H, I nur auf Anfrage. Nicht in Verbindung mit Taconite E oder Labyrinth- Abdichtung an der Antriebswelle

- 1) Diğer motor büyüklükleri, talep üzerine temin edilir.
- 2) Sadece 315S ve 315M motor büyüklükleri.
- 4) Sadece dikey redüktörler için.

- 1) Other motor sizes on request
- 2) Sizes 315S and 315M only
- 4) For vertical gear units only

- 1) andere Motorgößen auf Anfrage
- 2) nur Baugröße 315S und 315M
- 4) nur für Vertikalgetriebe

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IEC BAĞLANTILI MOTORLAR**

EN

**MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
N COUPLING**

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**MOTORLATERNE FÜR IEC - MOTOREN  
MIT N - KUPPLUNG**

Tablo 9 / Table 9 / Tabelle 9

| Gövde<br>Size<br>Größe |        | Motor<br>Moteur<br>IEC | Tahviller İN / Ratios İN / Übersetzungen İN<br>25 - 45 (Gövdeler/Sizes/Größen 53,73,93,113)<br>31.5 - 56 (Gövdeler/Sizes/Größen 63,83,103,123)<br>22.4 - 45 (Gövdeler/Sizes/Größen 133,153,173)<br>28 - 56 (Gövde/Size/Größe 143)<br>25 - 50 (Gövdeler/Sizes/Größen 163,183) |    |    |     |    |     |      |      |       |                                      | Tahviller İN / Ratios İN / Übersetzungen İN<br>50 - 63 (Gövdeler/Sizes/Größen 53,73,93,113)<br>63 - 80 (Gövdeler/Sizes/Größen 63,83,103,123)<br>50 - 63 (Gövdeler/Sizes/Größen 133,153,17)<br>63 - 80 (Gövde/Size/Größe 143)<br>56 - 71 (Gövdeler/Sizes/Größen 163,183) |    |     |    |     |      |       |       |                                      |    | Tahviller İN / Ratios İN / Übersetzungen İN<br>71 - 90 (Gövdeler/Sizes/Größen 53,73,93,113 )<br>90 - 112 (Gövdeler/Sizes/Größen 63,83,103,123)<br>71 - 90 (Gövdeler/Sizes/Größen 133,153,173)<br>90 - 112 (Gövde/Size/Größe 143)<br>80 - 100 (Gövdeler/Sizes/Größen 163,183) |     |    |     |      |       |       |  |  |  |
|------------------------|--------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|----|-----|------|------|-------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|----|-----|------|-------|-------|--------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|------|-------|-------|--|--|--|
|                        |        |                        | Kaplin N<br>N Coupling<br>N Kupplung                                                                                                                                                                                                                                         | sk | l1 | ØD1 | l2 | ØD2 | h1   | h2   | f     | Kaplin N<br>N Coupling<br>N Kupplung | sk                                                                                                                                                                                                                                                                      | l1 | ØD1 | l2 | ØD2 | h1   | h2    | f     | Kaplin N<br>N Coupling<br>N Kupplung | sk | l1                                                                                                                                                                                                                                                                           | ØD1 | l2 | ØD2 | h1   | h2    | f     |  |  |  |
| 53 / 63                | 132    |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | -     | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | B95   | 3                                    | 35 | 24                                                                                                                                                                                                                                                                           | 35  | 38 | 7   | 12   | 302   |       |  |  |  |
|                        | 160    |                        | A125                                                                                                                                                                                                                                                                         | 3  | 50 | 40  | 50 | 42  | 12   | 9    | 364   | A125                                 | 3                                                                                                                                                                                                                                                                       | 50 | 30  | 50 | 42  | 7    | 8     | 338   | A125                                 | 3  | 50                                                                                                                                                                                                                                                                           | 24  | 50 | 42  | 17   | 8     | 338   |  |  |  |
|                        | 180    |                        | A140                                                                                                                                                                                                                                                                         | 3  | 55 | 40  | 55 | 48  | 6.5  | 14.5 | 364   | A140                                 | 3                                                                                                                                                                                                                                                                       | 55 | 30  | 55 | 48  | 5    | 10    | 338   | A140                                 | 3  | 55                                                                                                                                                                                                                                                                           | 24  | 55 | 48  | 15   | 10    | 338   |  |  |  |
|                        | 200    |                        | A160                                                                                                                                                                                                                                                                         | 4  | 60 | 40  | 60 | 55  | 0    | 6    | 350   | A160                                 | 4                                                                                                                                                                                                                                                                       | 60 | 30  | 60 | 55  | 17   | 9     | 350   | -                                    | -  | -                                                                                                                                                                                                                                                                            | -   | -  | -   | -    | -     |       |  |  |  |
|                        | 225    |                        | A180                                                                                                                                                                                                                                                                         | 4  | 70 | 40  | 70 | 60  | 10   | 7    | 391   | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | -     | -                                    | -  | -                                                                                                                                                                                                                                                                            | -   | -  | -   | -    |       |       |  |  |  |
|                        | 250    | 4)                     | A180                                                                                                                                                                                                                                                                         | 4  | 70 | 40  | 70 | 65  | 11.5 | 5    | 391   | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | -     | -                                    | -  | -                                                                                                                                                                                                                                                                            | -   | -  | -   | -    |       |       |  |  |  |
| 73 / 83                | 160    |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | -     | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | A125  | 3                                    | 50 | 28                                                                                                                                                                                                                                                                           | 50  | 42 | 7   | 12   | 367   |       |  |  |  |
|                        | 180    |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | A140  | 3                                    | 55                                                                                                                                                                                                                                                                      | 35 | 55  | 48 | 0   | 9    | 367   | A140  | 3                                    | 55 | 28                                                                                                                                                                                                                                                                           | 55  | 48 | 10  | 9    | 367   |       |  |  |  |
|                        | 200    |                        | A160                                                                                                                                                                                                                                                                         | 4  | 60 | 45  | 60 | 55  | 0    | 0    | 379   | A160                                 | 4                                                                                                                                                                                                                                                                       | 60 | 35  | 60 | 55  | 9    | 12    | 379   | A160                                 | 4  | 60                                                                                                                                                                                                                                                                           | 28  | 60 | 55  | 17   | 13    | 379   |  |  |  |
|                        | 225    |                        | A180                                                                                                                                                                                                                                                                         | 4  | 70 | 45  | 70 | 60  | 0    | 11   | 420   | A180                                 | 4                                                                                                                                                                                                                                                                       | 70 | 35  | 70 | 60  | 18   | 12.5  | 420   | -                                    | -  | -                                                                                                                                                                                                                                                                            | -   | -  | -   | -    | -     |       |  |  |  |
|                        | 250    |                        | A180                                                                                                                                                                                                                                                                         | 4  | 70 | 45  | 70 | 65  | 0    | 11   | 420   | A180                                 | 4                                                                                                                                                                                                                                                                       | 70 | 35  | 70 | 65  | 15   | 16    | 420   | -                                    | -  | -                                                                                                                                                                                                                                                                            | -   | -  | -   | -    | -     |       |  |  |  |
|                        | 280    |                        | A200                                                                                                                                                                                                                                                                         | 4  | 80 | 45  | 80 | 75  | 14.5 | 17   | 440.5 | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | -     | -                                    | -  | -                                                                                                                                                                                                                                                                            | -   | -  | -   | -    |       |       |  |  |  |
| 93 / 103               | 180    |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | -     | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | A140  | 3                                    | 55 | 32                                                                                                                                                                                                                                                                           | 55  | 48 | 0   | 8.5  | 431.5 |       |  |  |  |
|                        | 200    |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | -     | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | A160  | 4                                    | 60 | 32                                                                                                                                                                                                                                                                           | 60  | 55 | 0   | 19.5 | 443.5 |       |  |  |  |
|                        | 225    |                        | A180                                                                                                                                                                                                                                                                         | 4  | 70 | 60  | 70 | 60  | 13.5 | 7    | 519.5 | A180                                 | 4                                                                                                                                                                                                                                                                       | 70 | 45  | 70 | 60  | 0    | 10.5  | 484.5 | A180                                 | 4  | 70                                                                                                                                                                                                                                                                           | 32  | 70 | 60  | 9    | 21.5  | 484.5 |  |  |  |
|                        | 250    |                        | A180                                                                                                                                                                                                                                                                         | 4  | 70 | 60  | 70 | 65  | 11.5 | 9    | 519.5 | A180                                 | 4                                                                                                                                                                                                                                                                       | 70 | 45  | 70 | 65  | 0    | 10.5  | 484.5 | A180                                 | 4  | 70                                                                                                                                                                                                                                                                           | 32  | 70 | 65  | 5.5  | 25    | 484.5 |  |  |  |
|                        | 280    |                        | A200                                                                                                                                                                                                                                                                         | 4  | 80 | 60  | 80 | 75  | 0    | 6    | 505   | A200                                 | 4                                                                                                                                                                                                                                                                       | 80 | 45  | 80 | 75  | 5    | 26    | 505   | -                                    | -  | -                                                                                                                                                                                                                                                                            | -   | -  | -   | -    | -     |       |  |  |  |
|                        | 315 2) | 4)                     | A225                                                                                                                                                                                                                                                                         | 4  | 90 | 60  | 90 | 80  | 0    | 13   | 542   | 4)                                   | A225                                                                                                                                                                                                                                                                    | 4  | 90  | 45 | 90  | 80   | 12    | 26    | 542                                  | -  | -                                                                                                                                                                                                                                                                            | -   | -  | -   | -    | -     | -     |  |  |  |
| 113 / 123              | 225    |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | -     | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | A180  | 4                                    | 70 | 42                                                                                                                                                                                                                                                                           | 70  | 60 | 9.5 | 11   | 489.5 |       |  |  |  |
|                        | 250    |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | A180  | 4                                    | 70                                                                                                                                                                                                                                                                      | 65 | 70  | 65 | 0   | 10.5 | 489.5 | A180  | 4                                    | 70 | 42                                                                                                                                                                                                                                                                           | 70  | 65 | 9.5 | 11   | 489.5 |       |  |  |  |
|                        | 280    |                        | A200                                                                                                                                                                                                                                                                         | 4  | 80 | 70  | 80 | 75  | 12   | 9    | 540   | A200                                 | 4                                                                                                                                                                                                                                                                       | 80 | 75  | 80 | 75  | 14   | 17    | 510   | -                                    | -  | -                                                                                                                                                                                                                                                                            | -   | -  | -   | -    | -     |       |  |  |  |
|                        | 315 2) |                        | A225                                                                                                                                                                                                                                                                         | 4  | 90 | 70  | 90 | 80  | 0    | -2   | 547   | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | -     | -                                    | -  | -                                                                                                                                                                                                                                                                            | -   | -  | -   | -    |       |       |  |  |  |
| 133 / 143              | 250    |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | -     | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | A180  | 4                                    | 70 | 50                                                                                                                                                                                                                                                                           | 70  | 65 | 5   | 9.5  | 578.5 |       |  |  |  |
|                        | 280    |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | A200  | 4                                    | 80                                                                                                                                                                                                                                                                      | 60 | 80  | 75 | 0   | 10   | 599   | A200  | 4                                    | 80 | 50                                                                                                                                                                                                                                                                           | 80  | 75 | 5   | 30   | 599   |       |  |  |  |
|                        | 315 2) |                        | A225                                                                                                                                                                                                                                                                         | 4  | 90 | 85  | 90 | 80  | 18   | 4    | 666   | A225                                 | 4                                                                                                                                                                                                                                                                       | 90 | 60  | 90 | 80  | 0    | 17    | 636   | A200                                 | 4  | 80                                                                                                                                                                                                                                                                           | 50  | 80 | 75  | 5    | 30    | 599   |  |  |  |
| 153 / 163              | 280    |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | -     | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | A200  | 4                                    | 80 | 60                                                                                                                                                                                                                                                                           | 80  | 75 | 0   | 13   | 647   |       |  |  |  |
|                        | 315 2) |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | A225  | 4                                    | 90                                                                                                                                                                                                                                                                      | 75 | 90  | 80 | 8   | 12   | 684   | A225  | 4                                    | 90 | 60                                                                                                                                                                                                                                                                           | 90  | 80 | 0   | 20   | 684   |       |  |  |  |
| 173 / 183              | 315 2) |                        | -                                                                                                                                                                                                                                                                            | -  | -  | -   | -  | -   | -    | -    | -     | -                                    | -                                                                                                                                                                                                                                                                       | -  | -   | -  | -   | -    | -     | A225  | 4                                    | 90 | 60                                                                                                                                                                                                                                                                           | 90  | 80 | 0   | 20   | 714   |       |  |  |  |

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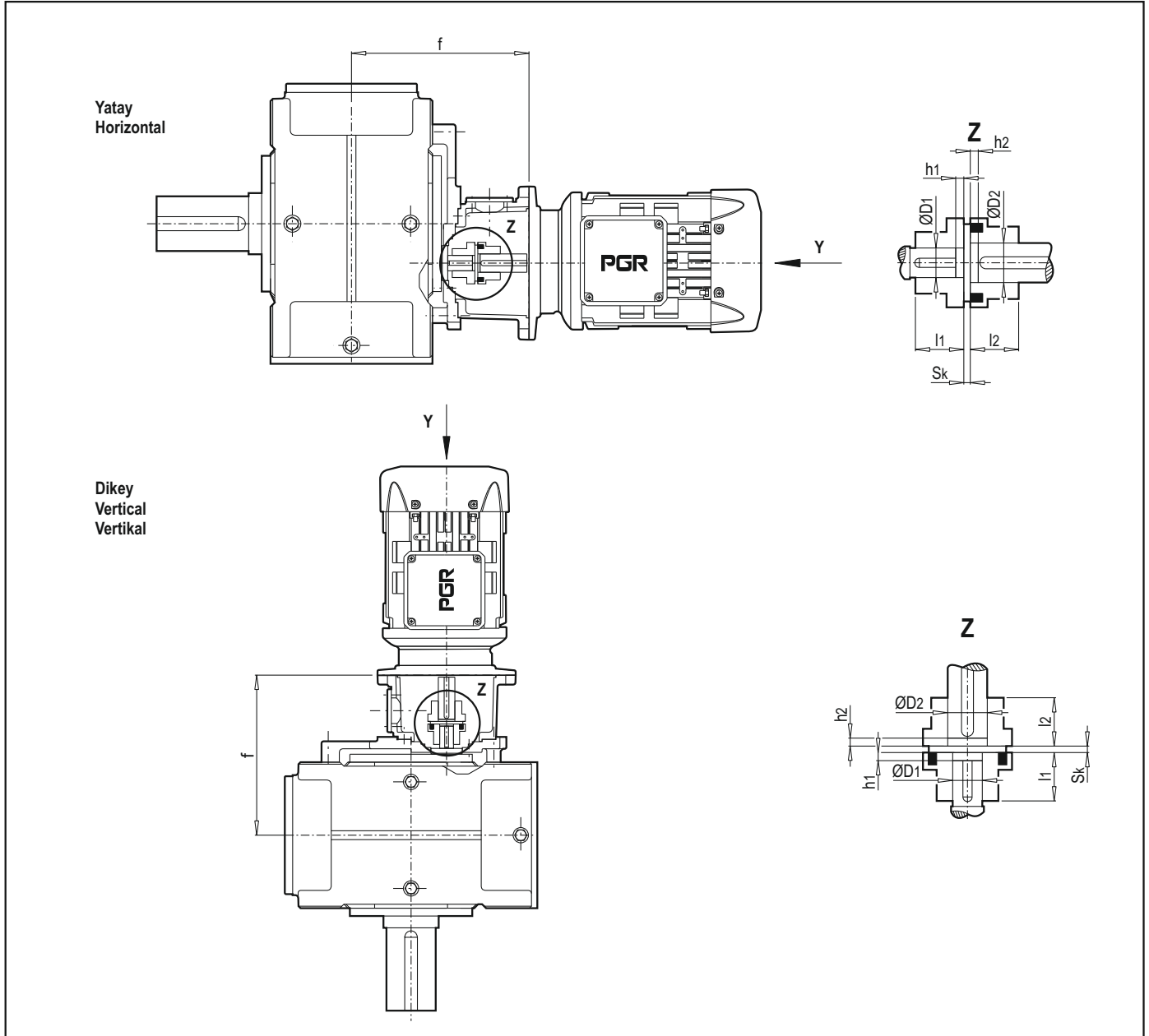
KAPLİN N  
IEC BAĞLANTILI MOTORLAR

EN

MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
N COUPLING

DE

MOTORLATERNE FÜR IEC - MOTOREN  
MIT N - KUPPLUNG



Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük istikametleri, örneğin kaldırma makineleri, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin katalogundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!

DIN 42677 IEC-Standard motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın. G, H ve I modeli helisel dişli redüktörlerde, giriş milinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!

For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162. Helical gear unit in G, H, I, design on request only. Not in connection with Taconite E or labyrinth seal on input shaft.

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schalthäufigkeit, wechselnde Lasttrichtung; z.B. Hubwerke, Fahrwerke, usw.) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig!

Anbaumaße für IEC-Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162. Stinradgetriebe in Ausführung G, H, I nur auf Anfrage. Nicht in Verbindung mit Taconite E oder Labyrinth-Abdichtung an der Antriebswelle

1) Diğer motor büyüklükleri, talep üzerine temin edilir.  
2) Sadece 315S ve 315M motor büyüklükleri.

1) Other motor sizes on request  
2) Sizes 315S and 315M only

1) andere Motorgrößen auf Anfrage  
2) nur Baugröße 315S und 315M

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IEC BAĞLANTILI MOTORLAR

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MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
N COUPLING

DE

MOTORLATERNE FÜR IEC - MOTOREN  
MIT N - KUPPLUNG

Tablo 10 / Table 10 / Tabelle 10

|                        |                            | Tahviller İN / Ratios İN / Übersetzungen İN<br>100 - 180 (Gövdeler / Sizes / Größen 74,94,114 )<br>125 - 224 (Gövdeler / Sizes / Größen 84,104,124)<br>100 - 180 (Gövdeler / Sizes / Größen 134,154,174)<br>125 - 224 (Gövde / Size / Größe 144)<br>112 - 200 (Gövdeler / Sizes / Größen 164,184) |    |    |     |    |     |      |      |       |                                      | Tahviller İN / Ratios İN / Übersetzungen İN<br>200 - 355 (Gövdeler / Sizes / Größen 74,94,114 )<br>250 - 450 (Gövdeler / Sizes / Größen 84,104,124)<br>200 - 355 (Gövdeler / Sizes / Größen 134,154,174)<br>250 - 450 (Gövde / Size / Größe 144)<br>224 - 400 (Gövdeler / Sizes / Größen 164,184) |    |     |    |     |      |      |       |  |  |
|------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|----|-----|------|------|-------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|----|-----|------|------|-------|--|--|
| Gövde<br>Size<br>Größe | Motor <sup>1)</sup><br>IEC | Kaplin N<br>N Coupling<br>N Kupplung                                                                                                                                                                                                                                                              | sk | l1 | ØD1 | l2 | ØD2 | h1   | h2   | f     | Kaplin N<br>N Coupling<br>N Kupplung | sk                                                                                                                                                                                                                                                                                                | l1 | ØD1 | l2 | ØD2 | h1   | h2   | f     |  |  |
| 74 / 84                | 100                        | -                                                                                                                                                                                                                                                                                                 | -  | -  | -   | -  | -   | -    | -    | -     | B80                                  | 3                                                                                                                                                                                                                                                                                                 | 30 | 24  | 30 | 28  | 7    | 6    | 296   |  |  |
|                        | 112                        | -                                                                                                                                                                                                                                                                                                 | -  | -  | -   | -  | -   | -    | -    | -     | B80                                  | 3                                                                                                                                                                                                                                                                                                 | 30 | 24  | 30 | 28  | 7    | 6    | 296   |  |  |
|                        | 132                        | B95                                                                                                                                                                                                                                                                                               | 3  | 35 | 30  | 35 | 38  | 7    | 8    | 328.5 | -                                    | -                                                                                                                                                                                                                                                                                                 | -  | -   | -  | -   | -    | -    | -     |  |  |
|                        | 160                        | A125                                                                                                                                                                                                                                                                                              | 3  | 50 | 30  | 50 | 42  | 6.5  | 15   | 364.5 | A125                                 | 3                                                                                                                                                                                                                                                                                                 | 50 | 24  | 50 | 42  | 16.5 | 15   | 364.5 |  |  |
|                        | 180                        | A140                                                                                                                                                                                                                                                                                              | 3  | 55 | 30  | 55 | 48  | 17   | 4.5  | 364.5 | -                                    | -                                                                                                                                                                                                                                                                                                 | -  | -   | -  | -   | -    | -    | -     |  |  |
| 94 / 104               | 132                        | -                                                                                                                                                                                                                                                                                                 | -  | -  | -   | -  | -   | -    | -    | -     | B95                                  | 3                                                                                                                                                                                                                                                                                                 | 35 | 28  | 35 | 38  | 10   | 11.5 | 369.5 |  |  |
|                        | 160                        | A125                                                                                                                                                                                                                                                                                              | 3  | 50 | 35  | 50 | 42  | 6.5  | 11   | 405.5 | A125                                 | 3                                                                                                                                                                                                                                                                                                 | 50 | 28  | 50 | 42  | 13   | 14.5 | 405.5 |  |  |
|                        | 180                        | A140                                                                                                                                                                                                                                                                                              | 3  | 55 | 35  | 55 | 48  | 10   | 7.5  | 405.5 | A140                                 | 3                                                                                                                                                                                                                                                                                                 | 55 | 28  | 55 | 48  | 20   | 7.5  | 405.5 |  |  |
|                        | 200                        | A160                                                                                                                                                                                                                                                                                              | 4  | 60 | 35  | 60 | 55  | 10   | 14.5 | 417.5 | -                                    | -                                                                                                                                                                                                                                                                                                 | -  | -   | -  | -   | -    | -    | -     |  |  |
|                        | 225                        | A180                                                                                                                                                                                                                                                                                              | 4  | 70 | 35  | 70 | 60  | 18.5 | 21   | 458.5 | -                                    | -                                                                                                                                                                                                                                                                                                 | -  | -   | -  | -   | -    | -    | -     |  |  |
| 114 / 124              | 160                        | -                                                                                                                                                                                                                                                                                                 | -  | -  | -   | -  | -   | -    | -    | -     | A125                                 | 3                                                                                                                                                                                                                                                                                                 | 50 | 32  | 50 | 42  | 0    | 4.5  | 447.5 |  |  |
|                        | 180                        | A140                                                                                                                                                                                                                                                                                              | 3  | 55 | 45  | 55 | 48  | 7    | 3.5  | 437.5 | A140                                 | 3                                                                                                                                                                                                                                                                                                 | 55 | 32  | 55 | 48  | 0    | 4.5  | 447.5 |  |  |
|                        | 200                        | A160                                                                                                                                                                                                                                                                                              | 4  | 60 | 45  | 60 | 55  | 6.5  | 15   | 485.5 | A160                                 | 4                                                                                                                                                                                                                                                                                                 | 60 | 32  | 60 | 55  | 0    | 15.5 | 459.5 |  |  |
|                        | 225                        | A180                                                                                                                                                                                                                                                                                              | 4  | 70 | 45  | 70 | 60  | 0    | 6.5  | 500.5 | A180                                 | 4                                                                                                                                                                                                                                                                                                 | 70 | 32  | 70 | 60  | 3    | 23.5 | 500.5 |  |  |
|                        | 250                        | A180                                                                                                                                                                                                                                                                                              | 4  | 70 | 45  | 70 | 65  | 0    | 6.5  | 500.5 | -                                    | -                                                                                                                                                                                                                                                                                                 | -  | -   | -  | -   | -    | -    | -     |  |  |
| 134 / 144              | 160                        | -                                                                                                                                                                                                                                                                                                 | -  | -  | -   | -  | -   | -    | -    | -     | A125                                 | 3                                                                                                                                                                                                                                                                                                 | 50 | 38  | 50 | 42  | 9    | 10.5 | 517.5 |  |  |
|                        | 180                        | -                                                                                                                                                                                                                                                                                                 | -  | -  | -   | -  | -   | -    | -    | -     | A140                                 | 3                                                                                                                                                                                                                                                                                                 | 55 | 38  | 55 | 48  | 3.5  | 16   | 517.5 |  |  |
|                        | 200                        | A160                                                                                                                                                                                                                                                                                              | 4  | 60 | 50  | 60 | 55  | 2    | 8.5  | 529.5 | A160                                 | 4                                                                                                                                                                                                                                                                                                 | 60 | 38  | 60 | 55  | 0    | 4.5  | 503.5 |  |  |
|                        | 225                        | A180                                                                                                                                                                                                                                                                                              | 4  | 70 | 50  | 70 | 60  | 9.5  | 21   | 579.5 | A180                                 | 4                                                                                                                                                                                                                                                                                                 | 70 | 38  | 70 | 60  | 4    | 11.5 | 544.5 |  |  |
|                        | 250                        | A180                                                                                                                                                                                                                                                                                              | 4  | 70 | 50  | 70 | 65  | 7.5  | 23   | 579.5 | A180                                 | 4                                                                                                                                                                                                                                                                                                 | 70 | 38  | 70 | 65  | 4    | 11.5 | 544.5 |  |  |
|                        | 280                        | A200                                                                                                                                                                                                                                                                                              | 4  | 80 | 50  | 80 | 75  | 0    | 16   | 565   | -                                    | -                                                                                                                                                                                                                                                                                                 | -  | -   | -  | -   | -    | -    | -     |  |  |
|                        | 315   2)                   | -                                                                                                                                                                                                                                                                                                 | -  | -  | -   | -  | -   | -    | -    | -     | -                                    | -                                                                                                                                                                                                                                                                                                 | -  | -   | -  | -   | -    | -    | -     |  |  |
| 154 / 164              | 200                        | -                                                                                                                                                                                                                                                                                                 | -  | -  | -   | -  | -   | -    | -    | -     | A160                                 | 4                                                                                                                                                                                                                                                                                                 | 60 | 50  | 60 | 55  | 0    | 3.5  | 572.5 |  |  |
|                        | 225                        | A180                                                                                                                                                                                                                                                                                              | 4  | 70 | 60  | 70 | 60  | 15.5 | 9    | 648.5 | A180                                 | 4                                                                                                                                                                                                                                                                                                 | 70 | 50  | 70 | 60  | 0    | 14.5 | 613.5 |  |  |
|                        | 250                        | A180                                                                                                                                                                                                                                                                                              | 4  | 70 | 60  | 70 | 65  | 13.5 | 11   | 648.5 | A180                                 | 4                                                                                                                                                                                                                                                                                                 | 70 | 50  | 70 | 65  | 0    | 14.5 | 613.5 |  |  |
|                        | 280                        | A200                                                                                                                                                                                                                                                                                              | 4  | 80 | 60  | 80 | 75  | 0    | 10   | 634   | A200                                 | 4                                                                                                                                                                                                                                                                                                 | 80 | 50  | 80 | 75  | 3    | 32   | 634   |  |  |
|                        | 315   2)                   | A225                                                                                                                                                                                                                                                                                              | 4  | 90 | 60  | 90 | 80  | 0    | 17   | 671   | -                                    | -                                                                                                                                                                                                                                                                                                 | -  | -   | -  | -   | -    | -    | -     |  |  |
| 174 / 184              | 225                        | -                                                                                                                                                                                                                                                                                                 | -  | -  | -   | -  | -   | -    | -    | -     | A180                                 | 4                                                                                                                                                                                                                                                                                                 | 70 | 50  | 70 | 60  | 3    | 16.5 | 623.5 |  |  |
|                        | 250                        | -                                                                                                                                                                                                                                                                                                 | -  | -  | -   | -  | -   | -    | -    | -     | A180                                 | 4                                                                                                                                                                                                                                                                                                 | 70 | 50  | 70 | 65  | 4    | 15.5 | 623.5 |  |  |
|                        | 280                        | A200                                                                                                                                                                                                                                                                                              | 4  | 80 | 60  | 80 | 75  | 5    | 10   | 644   | A200                                 | 4                                                                                                                                                                                                                                                                                                 | 80 | 50  | 80 | 75  | 6    | 34   | 644   |  |  |
|                        | 315   2)                   | A225                                                                                                                                                                                                                                                                                              | 4  | 90 | 60  | 90 | 80  | 0    | 22   | 681   | -                                    | -                                                                                                                                                                                                                                                                                                 | -  | -   | -  | -   | -    | -    | -     |  |  |

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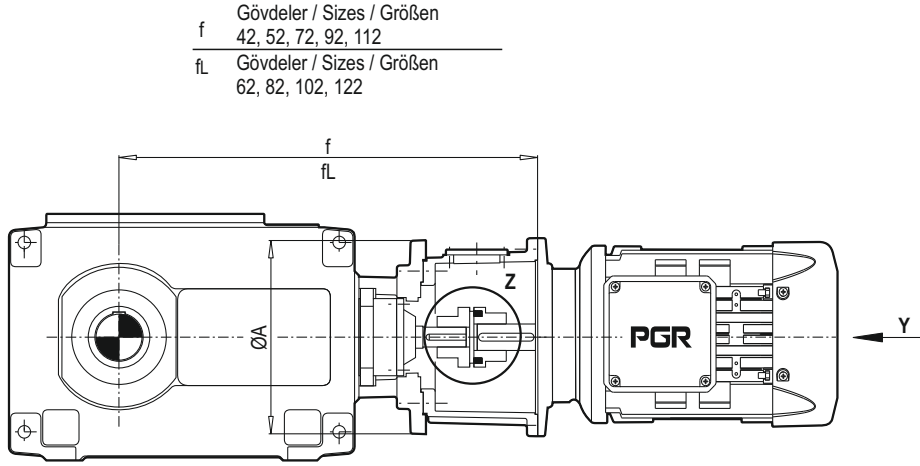
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MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
N COUPLING

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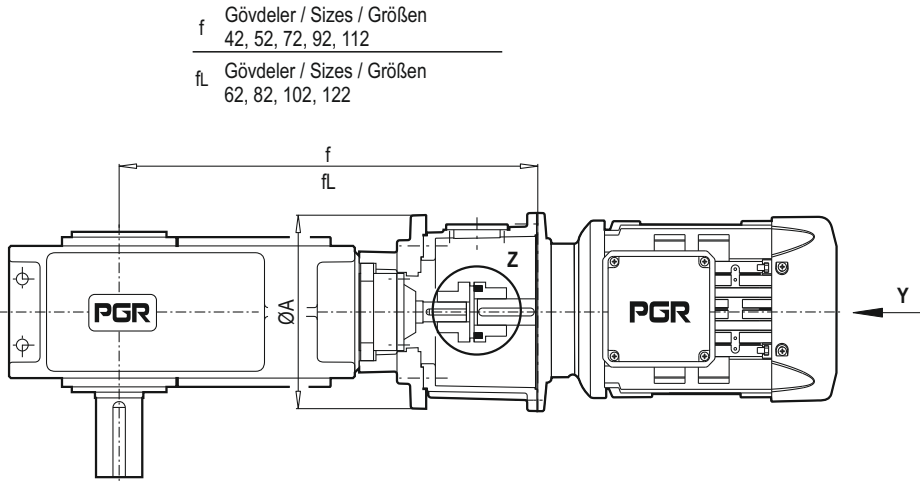
MOTORLATERNE FÜR IEC - MOTOREN  
MIT N - KUPPLUNG

Yatay  
Horizontal

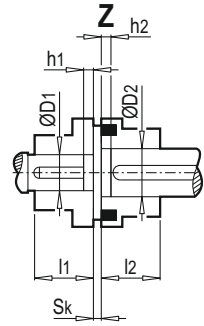


f Gövdeler / Sizes / Größen  
42, 52, 72, 92, 112  
fL Gövdeler / Sizes / Größen  
62, 82, 102, 122

Dikey  
Vertical



f Gövdeler / Sizes / Größen  
42, 52, 72, 92, 112  
fL Gövdeler / Sizes / Größen  
62, 82, 102, 122



Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük istikametleri, örneğin kaldırma makineleri, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin katalogundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schalthäufigkeit, wechselnde Lastrichtung; z.B. Hubwerke, Fahrwerke, usw.) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig!

DIN 42677 IEC-Standard motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın. G, H ve I modeli helisel dişli redüktörlerde, giriş milinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162.  
Not in connection with Taconite E or labyrinth seal on input shaft.

Anbaumaße für IEC-Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162. Stinradgetriebe in Ausführung G, H, I nur auf Anfrage. Nicht in Verbindung mit Taconite E oder Labyrinth - Abdichtung an der Antriebswelle

- 1) Diğer motor büyüklükleri, talep üzerine temin edilir.  
2) Sadece 315S ve 315M motor büyüklükleri.

- 1) Other motor sizes on request  
2) Sizes 315S and 315M only

- 1) andere Motorgößen auf Anfrage  
2) nur Baugröße 315S und 315M

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EN

 MOTOR BELL HOUSING FOR  
 IEC STANDARD MOTORS WITH  
 N COUPLING

DE

 MOTORLATERNE FÜR IEC - MOTOREN  
 MIT N - KUPPLUNG

Tablo 11 / Table 11 / Tabelle 11

|                        |                            | Tahviller in / Ratios in / Übersetzungen in<br>5 - 11.2 (Gövdeler / Sizes / Größen 42, 52, 72, 92, 112)<br>6.3 - 14 (Gövdeler / Sizes / Größen 62, 82, 102, 122) |                                      |    |    |     |    |     |    |     |       |     |     |
|------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----|----|-----|----|-----|----|-----|-------|-----|-----|
| Gövde<br>Size<br>Größe | Motor <sup>1)</sup><br>IEC |                                                                                                                                                                  | Kaplin N<br>N Coupling<br>N Kupplung | mm |    |     |    |     |    |     |       |     |     |
|                        |                            |                                                                                                                                                                  |                                      | sk | l1 | ØD1 | l2 | ØD2 | h1 | h2  | f     | fl  | ØA  |
| 42                     | 180                        |                                                                                                                                                                  | -                                    | -  | -  | -   | -  | -   | -  | -   | -     | -   | -   |
|                        | 200                        |                                                                                                                                                                  | A160                                 | 4  | 60 | 45  | 60 | 55  | 0  | 5.5 | 684.5 | -   | 400 |
| 52 / 62                | 200                        |                                                                                                                                                                  | -                                    | -  | -  | -   | -  | -   | -  | -   | -     | -   | -   |
|                        | 225                        |                                                                                                                                                                  | -                                    | -  | -  | -   | -  | -   | -  | -   | -     | -   | -   |
| 72 / 82                | 250                        |                                                                                                                                                                  | -                                    | -  | -  | -   | -  | -   | -  | -   | -     | -   | -   |
|                        | 280                        |                                                                                                                                                                  | A200                                 | 4  | 80 | 70  | 80 | 75  | 9  | 6   | 934   | 979 | 550 |
| 92 / 102               | 280                        |                                                                                                                                                                  | -                                    | -  | -  | -   | -  | -   | -  | -   | -     | -   | -   |
| 112 / 122              | 315 <sup>2)</sup>          |                                                                                                                                                                  | -                                    | -  | -  | -   | -  | -   | -  | -   | -     | -   | -   |

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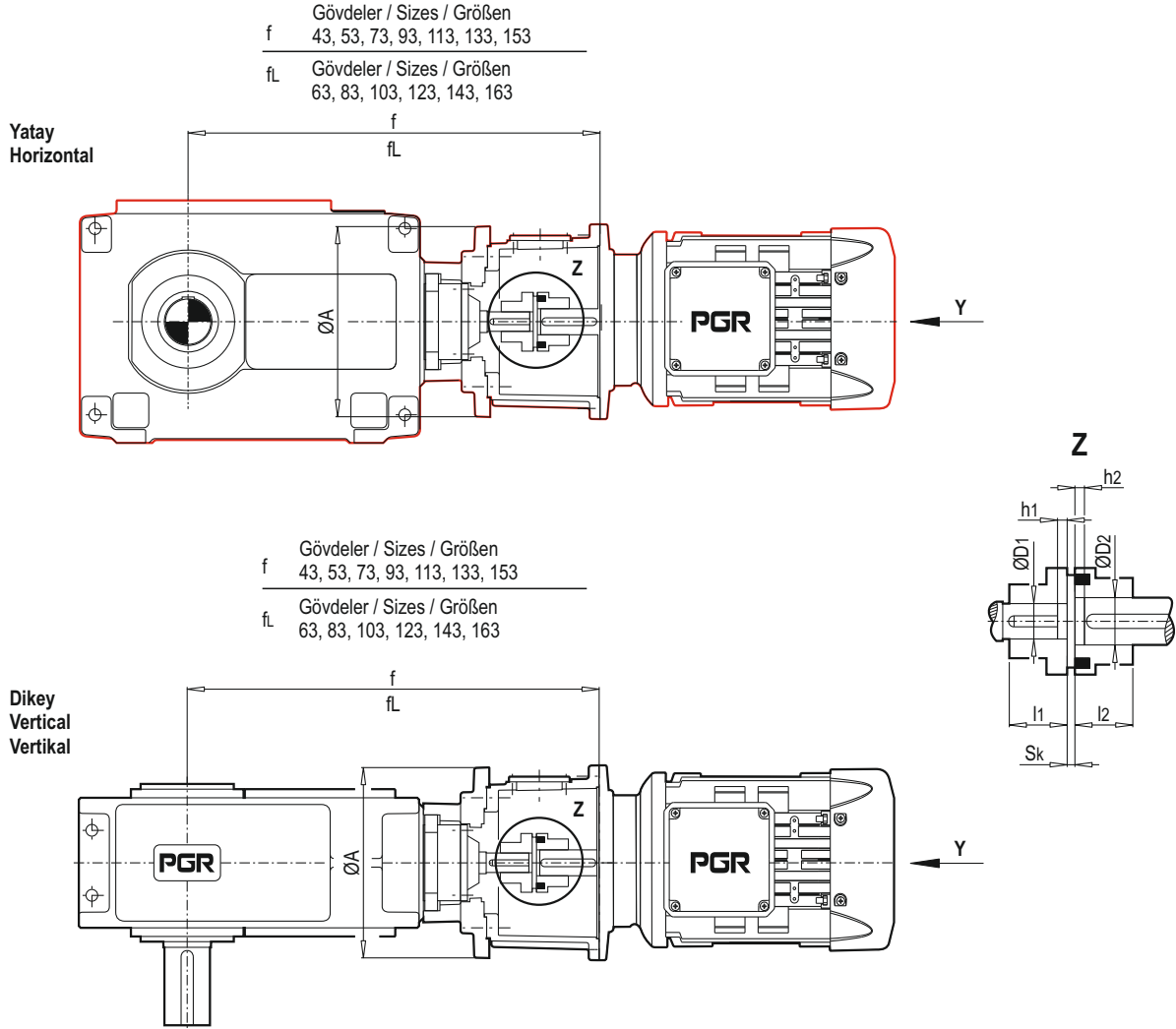
KAPLİN N  
IEC BAĞLANTILI MOTORLAR

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Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük istikametleri, örneğin kaldırma makineleri, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin kataloğundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!

DIN 42677 IEC-Standard motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın. G, H ve I modeli helisel dişli redüktörlerde, giriş milinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!

For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162.  
Not in connection with Taconite E or labyrinth seal on input shaft.

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schalzhäufigkeit, wechselnde Lastrichtung; z.B. Hubwerke, Fahrwerke, usw.) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig!

Anbaumaße für IEC-Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162. Stinradgetriebe in Ausführung G, H, I nur auf Anfrage. Nicht in Verbindung mit Taconite E oder Labyrinth - Abdichtung an der Antriebswelle

1) Diğer motor büyüklükleri, talep üzerine temin edilir.  
2) Sadece 315S ve 315M motor büyüklükleri.

1) Other motor sizes on request  
2) Sizes 315S and 315M only

1) andere Motorgößen auf Anfrage  
2) nur Baugröße 315S und 315M

TR

KAPLİN N  
IEC BAĞLANTILI MOTORLAR

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MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
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MOTORLATERNE FÜR IEC - MOTOREN  
MIT N - KUPPLUNG

Tablo 12 / Table 12 / Tabelle 12

|                        |                               | Tahviller İN / Ratios İN / Übersetzungen İN<br>12.5 - 45 (Gövdeler / Sizes / Größen 33,43,53,73,93,113 )<br>16 - 56 (Gövdeler / Sizes / Größen 63, 83,103,123)<br>12.5 - 45 (Gövdeler / Sizes / Größen 133,153)<br>16 - 56 (Gövde / Size / Größe 143)<br>14 - 50 (Gövdeler / Sizes / Größen 163) |    |     |    |     |    |     |      |        |        |     | Tahviller İN / Ratios İN / Übersetzungen İN<br>50 - 71 (Gövdeler / Sizes / Größen 33, 43, 53, 73,93,113 )<br>63 - 90 (Gövdeler / Sizes / Größen 63, 83,103,123)<br>50 - 71 (Gövdeler / Sizes / Größen 133,153)<br>63 - 90 (Gövde / Size / Größe 143)<br>56 - 80 (Gövdeler / Sizes / Größen 163) |     |    |     |    |    |     |      |        |        |     |
|------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|----|-----|----|-----|------|--------|--------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|----|----|-----|------|--------|--------|-----|
| Gövde<br>Size<br>Größe | Motor<br>IEC<br><sup>1)</sup> | Kaplin N<br>N Coupling<br>N Kupplung                                                                                                                                                                                                                                                             | mm |     |    |     |    |     |      |        |        |     | Kaplin N<br>N Coupling<br>N Kupplung                                                                                                                                                                                                                                                            | mm  |    |     |    |    |     |      |        |        |     |
|                        |                               | sk                                                                                                                                                                                                                                                                                               | l1 | ØD1 | l2 | ØD2 | h1 | h2  | f    | fl     | ØA     | sk  | l1                                                                                                                                                                                                                                                                                              | ØD1 | l2 | ØD2 | h1 | h2 | f   | fl   | ØA     |        |     |
| 43                     | 132                           | -                                                                                                                                                                                                                                                                                                | -  | -   | -  | -   | -  | -   | -    | -      | -      | -   | B95                                                                                                                                                                                                                                                                                             | 3   | 35 | 25  | 35 | 38 | 0   | 4.5  | 646.5  | -      | 250 |
|                        | 160                           | A125                                                                                                                                                                                                                                                                                             | 3  | 50  | 30 | 50  | 42 | 0   | -0.5 | 682.5  | -      | 250 | A125                                                                                                                                                                                                                                                                                            | 3   | 50 | 25  | 50 | 42 | 0   | 9.5  | 682.5  | -      | 250 |
|                        | 180                           | A140                                                                                                                                                                                                                                                                                             | 3  | 55  | 30 | 55  | 48 | 0   | -0.5 | 682.5  | -      | 250 | A140                                                                                                                                                                                                                                                                                            | 3   | 55 | 25  | 55 | 48 | 0   | 9.5  | 682.5  | -      | 250 |
|                        | 200                           | A160                                                                                                                                                                                                                                                                                             | 4  | 60  | 30 | 60  | 55 | 0   | 10.5 | 694.5  | -      | 250 | -                                                                                                                                                                                                                                                                                               | -   | -  | -   | -  | -  | -   | -    | -      | -      | -   |
| 53 / 63                | 160                           | A125                                                                                                                                                                                                                                                                                             | 3  | 50  | 35 | 50  | 42 | 0   | 3.5  | 771.5  | 806.5  | 340 | A125                                                                                                                                                                                                                                                                                            | 3   | 50 | 28  | 50 | 42 | 7   | 16.5 | 771.5  | 806.5  | 340 |
|                        | 180                           | A140                                                                                                                                                                                                                                                                                             | 3  | 55  | 35 | 55  | 48 | 0   | 3.5  | 771.5  | 806.5  | 340 | A140                                                                                                                                                                                                                                                                                            | 3   | 55 | 28  | 55 | 48 | 2   | 21.5 | 771.5  | 806.5  | 340 |
|                        | 200                           | A160                                                                                                                                                                                                                                                                                             | 4  | 60  | 35 | 60  | 55 | 0   | 14.5 | 783.5  | 818.5  | 340 | A160                                                                                                                                                                                                                                                                                            | 4   | 60 | 28  | 60 | 55 | 7.5 | 27   | 783.5  | 818.5  | 340 |
|                        | 225                           | A180                                                                                                                                                                                                                                                                                             | 4  | 70  | 35 | 70  | 60 | 7.5 | 18   | 824.5  | 859.5  | 340 | -                                                                                                                                                                                                                                                                                               | -   | -  | -   | -  | -  | -   | -    | -      | -      | -   |
| 73 / 83                | 160                           | -                                                                                                                                                                                                                                                                                                | -  | -   | -  | -   | -  | -   | -    | -      | -      | -   | A125                                                                                                                                                                                                                                                                                            | 3   | 50 | 35  | 50 | 42 | 8   | 12.5 | 903.5  | 948.5  | 440 |
|                        | 180                           | -                                                                                                                                                                                                                                                                                                | -  | -   | -  | -   | -  | -   | -    | -      | -      | -   | A140                                                                                                                                                                                                                                                                                            | 3   | 55 | 35  | 55 | 48 | 3   | 17.5 | 903.5  | 948.5  | 440 |
|                        | 200                           | A160                                                                                                                                                                                                                                                                                             | 4  | 60  | 45 | 60  | 55 | 0   | 5.5  | 909.5  | 954.5  | 440 | A160                                                                                                                                                                                                                                                                                            | 4   | 60 | 35  | 60 | 55 | 0   | 1.5  | 909.5  | 930.5  | 440 |
|                        | 225                           | A180                                                                                                                                                                                                                                                                                             | 4  | 70  | 45 | 70  | 60 | 0   | 1.5  | 935.5  | 980.5  | 440 | A180                                                                                                                                                                                                                                                                                            | 4   | 70 | 35  | 70 | 60 | 0   | 21.5 | 935.5  | 980.5  | 440 |
|                        | 250                           | A180                                                                                                                                                                                                                                                                                             | 4  | 70  | 45 | 70  | 65 | 0   | 1.5  | 935.5  | 980.5  | 440 | A180                                                                                                                                                                                                                                                                                            | 4   | 70 | 35  | 70 | 65 | 0   | 21.5 | 935.5  | 980.5  | 440 |
|                        | 280                           | A200                                                                                                                                                                                                                                                                                             | 4  | 80  | 45 | 80  | 75 | 0   | 17   | 950.5  | 945.5  | 440 | -                                                                                                                                                                                                                                                                                               | -   | -  | -   | -  | -  | -   | -    | -      | -      | -   |
| 93 / 103               | 200                           | -                                                                                                                                                                                                                                                                                                | -  | -   | -  | -   | -  | -   | -    | -      | -      | -   | A160                                                                                                                                                                                                                                                                                            | 4   | 60 | 40  | 60 | 55 | 0   | 20.5 | 1034.5 | 1084.5 | 440 |
|                        | 225                           | A180                                                                                                                                                                                                                                                                                             | 4  | 70  | 55 | 70  | 60 | 1.5 | 5    | 1060.5 | 1110.5 | 440 | A180                                                                                                                                                                                                                                                                                            | 4   | 70 | 40  | 70 | 60 | 0   | 16.5 | 1060.5 | 1110.5 | 440 |
|                        | 250                           | A180                                                                                                                                                                                                                                                                                             | 4  | 70  | 55 | 70  | 65 | 0   | 6.5  | 1060.5 | 1110.5 | 440 | A180                                                                                                                                                                                                                                                                                            | 4   | 70 | 40  | 70 | 65 | 0   | 16.5 | 1060.5 | 1110.5 | 440 |
|                        | 280                           | A200                                                                                                                                                                                                                                                                                             | 4  | 80  | 55 | 80  | 75 | 0   | 22   | 1046   | 1096.5 | 440 | A200                                                                                                                                                                                                                                                                                            | 4   | 80 | 40  | 80 | 75 | 0   | 2    | 1046   | 1096   | 440 |
| 113 / 123              | 225                           | -                                                                                                                                                                                                                                                                                                | -  | -   | -  | -   | -  | -   | -    | -      | -      | -   | A180                                                                                                                                                                                                                                                                                            | 4   | 70 | 50  | 70 | 60 | 9   | 20.5 | 1243.5 | 1313.5 | 440 |
|                        | 250                           | A180                                                                                                                                                                                                                                                                                             | 4  | 70  | 70 | 70  | 65 | 4.5 | 0    | 1243.5 | 1313.5 | 440 | A180                                                                                                                                                                                                                                                                                            | 4   | 70 | 50  | 70 | 65 | 9   | 20.5 | 1243.5 | 1313.5 | 440 |
|                        | 280                           | A200                                                                                                                                                                                                                                                                                             | 4  | 80  | 70 | 80  | 75 | 12  | 8    | 1258.5 | 1328.5 | 440 | A200                                                                                                                                                                                                                                                                                            | 4   | 80 | 50  | 80 | 75 | 0   | 15   | 1229   | 1299   | 440 |
|                        | 315 <sup>2)</sup>             | A225                                                                                                                                                                                                                                                                                             | 4  | 90  | 70 | 90  | 80 | 10  | 17   | 1296   | 1366   | 440 | A225                                                                                                                                                                                                                                                                                            | 4   | 90 | 50  | 90 | 80 | 0   | 22   | 1266   | 1336   | 440 |
| 133 / 143              | 280                           | -                                                                                                                                                                                                                                                                                                | -  | -   | -  | -   | -  | -   | -    | -      | -      | -   | A200                                                                                                                                                                                                                                                                                            | 4   | 80 | 60  | 80 | 75 | 0   | 15   | 1424   | 1494   | 445 |
|                        | 315 <sup>2)</sup>             | A225                                                                                                                                                                                                                                                                                             | 4  | 90  | 80 | 90  | 80 | 9   | 8    | 1481   | 1551   | 445 | A225                                                                                                                                                                                                                                                                                            | 4   | 90 | 60  | 90 | 80 | 0   | 22   | 1461   | 1531   | 445 |
| 153 / 163              | 315 <sup>2)</sup>             | -                                                                                                                                                                                                                                                                                                | -  | -   | -  | -   | -  | -   | -    | -      | -      | -   | A225                                                                                                                                                                                                                                                                                            | 4   | 90 | 70  | 90 | 80 | 3   | 14   | 1698   | 1744   | 520 |

TR

KAPLİN N  
IEC BAĞLANTILI MOTORLAR

EN

MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
N COUPLING

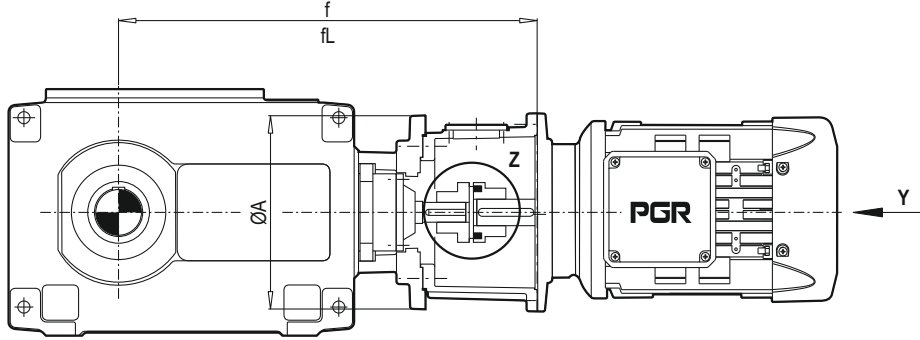
DE

MOTORLATERNE FÜR IEC - MOTOREN  
MIT N - KUPPLUNG

Yatay  
Horizontal

f Gövdeler / Sizes / Größen  
54, 74, 94, 114, 134, 154, 174

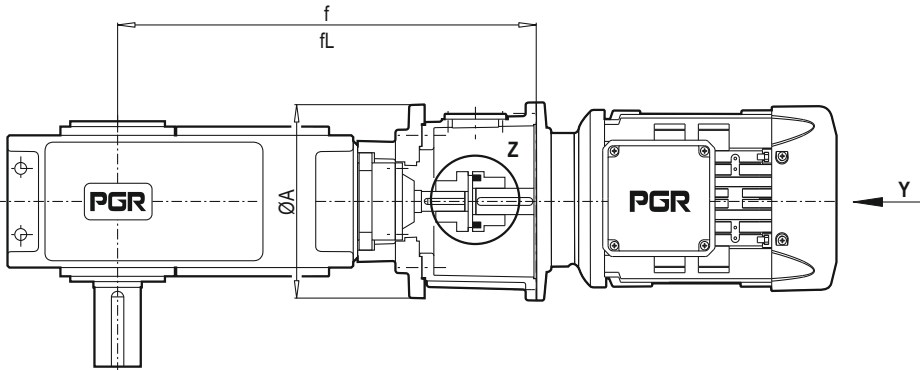
fL Gövdeler / Sizes / Größen  
64, 84, 104, 124, 144, 164, 184



Dikey  
Vertical

f Gövdeler / Sizes / Größen  
54, 74, 94, 114, 134, 154, 174

fL Gövdeler / Sizes / Größen  
64, 84, 104, 124, 144, 164, 184



Özel tasarım gerektiren tesisler için (yüksek açma kapama frekansı ve değişken yük istikametleri, örneğin kaldırma makineleri, hareketli taşıtlar ve benzeri), güncel ve geçerli kaplin kataloğundan kontrol edilerek, uygun kaplin seçimi yapılır. Bunlardan farklı kaplin gerektiren durumlarda, mutlaka PGR ile görüşülmelidir!

DIN 42677 IEC-Standard motorlarının montaj ölçüleri (Y bakış açısı) için, sayfa 162'ye bakın. G, H ve I modeli helisel dişli redüktörlerde, giriş milinde takonite E veya labirent keçe uygulaması yoktur, ancak talep üzerine uygulanır.

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult PGR!

For fitting dimensions for IEC standard motors DIN 42677 (View Y), see page 162.  
Not in connection with Taconite E or labyrinth seal on input shaft.

Bei Anlagen mit besonderen Auslegungsanforderungen (große Schalthäufigkeit, wechselnde Lastrichtung; z.B. Hubwerke, Fahrwerke, usw.) ist die Auslegung der Kupplung nach dem jeweils gültigen Kupplungskatalog zu prüfen. Bei abweichenden Kupplungen ist Rücksprache mit PGR notwendig!

Anbaumaße für IEC- Normmotoren DIN 42677 (Ansicht Y) siehe Seite 162.  
Nicht in Verbindung mit Taconite E oder Labyrinth - Abdichtung an der Antriebswelle

1) Diğer motor büyüklükleri, talep üzerine temin edilir.  
2) Sadece 315S ve 315M motor büyüklükleri.

1) Other motor sizes on request  
2) Sizes 315S and 315M only

1) andere Motorgößen auf Anfrage  
2) nur Baugröße 315S und 315M

TR

KAPLIN N  
IEC BAĞLANTILI MOTORLAR

EN

MOTOR BELL HOUSING FOR  
IEC STANDARD MOTORS WITH  
N COUPLING

DE

MOTORLATERNE FÜR IEC - MOTOREN  
MIT N - KUPPLUNG

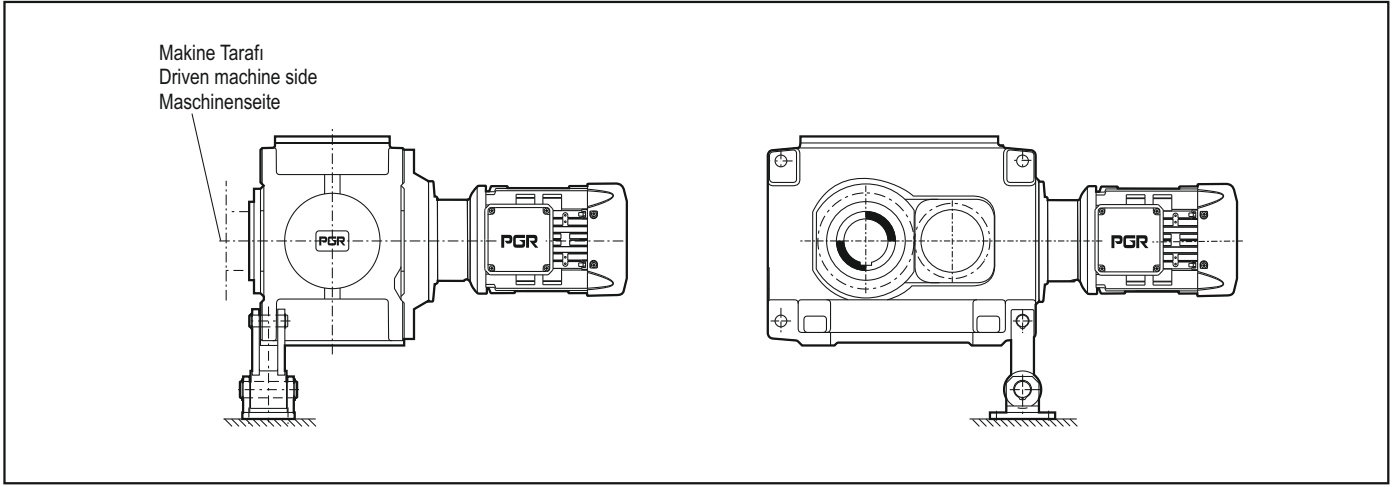
Tablo 13 / Table 13 / Tabelle 13

| Gövde<br>Size<br>Größe | Motor<br>IEC<br>1) | Tahviller İN / Ratios İN / Übersetzungen İN<br>80 - 180 (Gövdeler / Sizes / Größen 54, 74, 94, 114 )<br>100 - 224 (Gövdeler / Sizes / Größen 64, 84, 104, 124)<br>80 - 180 (Gövdeler / Sizes / Größen 134, 154, 174)<br>100 - 224 (Gövde / Size / Größe 144)<br>90 - 200 (Gövdeler / Sizes / Größen 164, 184) |    |    |    |    |    |      |      |        |        |     | Tahviller İN / Ratios İN / Übersetzungen İN<br>200 - 315 (Gövdeler / Sizes / Größen 54, 74, 94, 114 )<br>250 - 400 (Gövdeler / Sizes / Größen 64, 84, 104, 124)<br>200 - 315 (Gövdeler / Sizes / Größen 134, 154, 174)<br>250 - 400 (Gövde / Size / Größe 144)<br>224 - 355 (Gövdeler / Sizes / Größen 164, 184) |    |    |    |    |    |     |      |        |        |     |
|------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|----|----|------|------|--------|--------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|----|----|-----|------|--------|--------|-----|
|                        |                    | Kaplin N<br>N Coupling<br>N Kupplung                                                                                                                                                                                                                                                                          | mm |    |    |    |    |      |      |        |        |     | Kaplin N<br>N Coupling<br>N Kupplung                                                                                                                                                                                                                                                                             | mm |    |    |    |    |     |      |        |        |     |
|                        |                    |                                                                                                                                                                                                                                                                                                               | sk | l1 | D1 | l2 | D2 | h1   | h2   | f      | fl     | A   |                                                                                                                                                                                                                                                                                                                  | sk | l1 | D1 | l2 | D2 | h1  | h2   | f      | fl     | A   |
| 54 / 64                | 100                | -                                                                                                                                                                                                                                                                                                             | -  | -  | -  | -  | -  | -    | -    | -      | -      | -   | B80                                                                                                                                                                                                                                                                                                              | 3  | 30 | 20 | 30 | 28 | 0   | 6    | 734    | 769    | 245 |
|                        | 112                | B80                                                                                                                                                                                                                                                                                                           | 3  | 30 | 28 | 30 | 28 | 0    | 1    | 734    | 769    | 245 | B80                                                                                                                                                                                                                                                                                                              | 3  | 30 | 20 | 30 | 28 | 0   | 6    | 734    | 769    | 245 |
|                        | 132                | B95                                                                                                                                                                                                                                                                                                           | 3  | 35 | 28 | 35 | 38 | 5.5  | 8    | 766.5  | 801.5  | 245 | B95                                                                                                                                                                                                                                                                                                              | 3  | 35 | 20 | 35 | 38 | 6   | 12.5 | 766.5  | 801.5  | 245 |
|                        | 160                | A125                                                                                                                                                                                                                                                                                                          | 3  | 50 | 28 | 50 | 42 | 4.5  | 15   | 802.5  | 837.5  | 245 | -                                                                                                                                                                                                                                                                                                                | -  | -  | -  | -  | -  | -   | -    | -      | -      | -   |
| 74 / 84                | 112                | -                                                                                                                                                                                                                                                                                                             | -  | -  | -  | -  | -  | -    | -    | -      | -      | -   | B80                                                                                                                                                                                                                                                                                                              | 3  | 30 | 25 | 30 | 28 | 3.5 | 2.5  | 854    | 899    | 250 |
|                        | 132                | B95                                                                                                                                                                                                                                                                                                           | 3  | 35 | 30 | 35 | 38 | 3    | 5.5  | 886.5  | 931.5  | 250 | B95                                                                                                                                                                                                                                                                                                              | 3  | 35 | 25 | 35 | 38 | 0   | 3.5  | 871.5  | 916.5  | 250 |
|                        | 160                | A125                                                                                                                                                                                                                                                                                                          | 3  | 50 | 30 | 50 | 42 | 0    | -0.5 | 907.5  | 952.5  | 250 | A125                                                                                                                                                                                                                                                                                                             | 3  | 50 | 25 | 50 | 42 | 0   | 9.5  | 907.5  | 952.5  | 250 |
|                        | 180                | A140                                                                                                                                                                                                                                                                                                          | 3  | 55 | 30 | 55 | 48 | 0    | -0.5 | 907.5  | 952.5  | 250 | -                                                                                                                                                                                                                                                                                                                | -  | -  | -  | -  | -  | -   | -    | -      | -      | -   |
|                        | 200                | A160                                                                                                                                                                                                                                                                                                          | 4  | 60 | 30 | 60 | 55 | 0    | 10.5 | 919.5  | 964.5  | 250 | -                                                                                                                                                                                                                                                                                                                | -  | -  | -  | -  | -  | -   | -    | -      | -      | -   |
| 94 / 104               | 132                | -                                                                                                                                                                                                                                                                                                             | -  | -  | -  | -  | -  | -    | -    | -      | -      | -   | B95                                                                                                                                                                                                                                                                                                              | 3  | 35 | 28 | 35 | 38 | 7.5 | 10   | 1000.5 | 1050.5 | 340 |
|                        | 160                | A125                                                                                                                                                                                                                                                                                                          | 3  | 50 | 35 | 50 | 42 | 0    | 3.5  | 1036.5 | 1086.5 | 340 | A125                                                                                                                                                                                                                                                                                                             | 3  | 50 | 28 | 50 | 42 | 7   | 16.5 | 1036.5 | 1086.5 | 340 |
|                        | 180                | A140                                                                                                                                                                                                                                                                                                          | 3  | 55 | 35 | 55 | 48 | 0    | 3.5  | 1036.5 | 1086.5 | 340 | A140                                                                                                                                                                                                                                                                                                             | 3  | 55 | 28 | 55 | 48 | 2   | 21.5 | 1036.5 | 1086.5 | 340 |
|                        | 200                | A160                                                                                                                                                                                                                                                                                                          | 4  | 60 | 35 | 60 | 55 | 0    | 14.5 | 1048.5 | 1098.5 | 340 | -                                                                                                                                                                                                                                                                                                                | -  | -  | -  | -  | -  | -   | -    | -      | -      | -   |
|                        | 225                | A180                                                                                                                                                                                                                                                                                                          | 4  | 70 | 35 | 70 | 60 | 0    | 25.5 | 1089.5 | 1139.5 | 340 | -                                                                                                                                                                                                                                                                                                                | -  | -  | -  | -  | -  | -   | -    | -      | -      | -   |
| 114 / 124              | 160                | -                                                                                                                                                                                                                                                                                                             | -  | -  | -  | -  | -  | -    | -    | -      | -      | -   | A125                                                                                                                                                                                                                                                                                                             | 3  | 50 | 35 | 50 | 42 | 8   | 12.5 | 1223.5 | 1293.5 | 440 |
|                        | 180                | A140                                                                                                                                                                                                                                                                                                          | 3  | 55 | 45 | 55 | 48 | 0.5  | 0    | 1223.5 | 1293.5 | 440 | A140                                                                                                                                                                                                                                                                                                             | 3  | 55 | 35 | 55 | 48 | 3   | 17.5 | 1223.5 | 1293.5 | 440 |
|                        | 200                | A180                                                                                                                                                                                                                                                                                                          | 4  | 70 | 45 | 70 | 55 | 0    | 5.5  | 1229.5 | 1299.5 | 440 | A180                                                                                                                                                                                                                                                                                                             | 4  | 70 | 35 | 70 | 55 | 0   | 1.5  | 1205.5 | 1275.5 | 440 |
|                        | 225                | A180                                                                                                                                                                                                                                                                                                          | 4  | 70 | 45 | 70 | 60 | 0    | 1.5  | 1255.5 | 1325.5 | 440 | A180                                                                                                                                                                                                                                                                                                             | 4  | 70 | 35 | 70 | 60 | 0   | 21.5 | 1255.5 | 1325.5 | 440 |
|                        | 250                | A180                                                                                                                                                                                                                                                                                                          | 4  | 70 | 45 | 70 | 65 | 0    | 1.5  | 1255   | 1325   | 440 | -                                                                                                                                                                                                                                                                                                                | -  | -  | -  | -  | -  | -   | -    | -      | -      | -   |
|                        | 280                | A200                                                                                                                                                                                                                                                                                                          | 4  | 80 | 45 | 80 | 75 | 0    | 17   | 1270.5 | 1340.5 | 440 | -                                                                                                                                                                                                                                                                                                                | -  | -  | -  | -  | -  | -   | -    | -      | -      | -   |
| 134 / 144              | 180                | -                                                                                                                                                                                                                                                                                                             | -  | -  | -  | -  | -  | -    | -    | -      | -      | -   | A140                                                                                                                                                                                                                                                                                                             | 3  | 55 | 40 | 55 | 48 | 3   | 12.5 | 1398.5 | 1468.5 | 440 |
|                        | 200                | A160                                                                                                                                                                                                                                                                                                          | 4  | 60 | 55 | 60 | 55 | 7.5  | 3    | 1404.5 | 1474.5 | 440 | A160                                                                                                                                                                                                                                                                                                             | 4  | 60 | 40 | 60 | 55 | 0   | 20.5 | 1404.5 | 1474.5 | 440 |
|                        | 225                | A180                                                                                                                                                                                                                                                                                                          | 4  | 70 | 55 | 70 | 60 | 1.5  | 5    | 1430.5 | 1500.5 | 440 | A180                                                                                                                                                                                                                                                                                                             | 4  | 70 | 40 | 70 | 60 | 0   | 16.5 | 1430.5 | 1500.5 | 440 |
|                        | 250                | A180                                                                                                                                                                                                                                                                                                          | 4  | 70 | 55 | 70 | 65 | 0    | 6.5  | 1430   | 1500   | 440 | A180                                                                                                                                                                                                                                                                                                             | 4  | 70 | 40 | 70 | 65 | 0   | 16.5 | 1430   | 1500   | 440 |
|                        | 280                | A200                                                                                                                                                                                                                                                                                                          | 4  | 80 | 55 | 80 | 75 | 0    | 22   | 1446   | 1516   | 440 | A225                                                                                                                                                                                                                                                                                                             | 4  | 90 | 40 | 90 | 75 | 7   | 25   | 1446   | 1516   | 440 |
|                        | 315 2)             | A225                                                                                                                                                                                                                                                                                                          | 4  | 90 | 55 | 90 | 80 | 5    | 24   | 1483   | 1553   | 440 | -                                                                                                                                                                                                                                                                                                                | -  | -  | -  | -  | -  | -   | -    | -      | -      | -   |
| 154 / 164              | 200                | -                                                                                                                                                                                                                                                                                                             | -  | -  | -  | -  | -  | -    | -    | -      | -      | -   | A160                                                                                                                                                                                                                                                                                                             | 4  | 60 | 50 | 60 | 55 | 1   | 8.5  | 1635.5 | 1681.5 | 440 |
|                        | 225                | A200                                                                                                                                                                                                                                                                                                          | 4  | 80 | 70 | 80 | 60 | 4.5  | 0    | 1685.5 | 1731.5 | 440 | A180                                                                                                                                                                                                                                                                                                             | 4  | 70 | 50 | 70 | 60 | 9   | 20.5 | 1685.5 | 1731.5 | 440 |
|                        | 250                | A200                                                                                                                                                                                                                                                                                                          | 4  | 80 | 70 | 80 | 65 | 4.5  | 0    | 1685.5 | 1731.5 | 440 | A180                                                                                                                                                                                                                                                                                                             | 4  | 70 | 50 | 70 | 65 | 7   | 22.5 | 1685.5 | 1731.5 | 440 |
|                        | 280                | A200                                                                                                                                                                                                                                                                                                          | 4  | 80 | 70 | 80 | 75 | 11.5 | 8.5  | 1701   | 1747   | 440 | A200                                                                                                                                                                                                                                                                                                             | 4  | 80 | 50 | 80 | 75 | 0   | 15   | 1671   | 1717   | 440 |
|                        | 315 2)             | A225                                                                                                                                                                                                                                                                                                          | 4  | 90 | 70 | 90 | 80 | 10   | 17   | 1738   | 1784   | 440 | A225                                                                                                                                                                                                                                                                                                             | 4  | 90 | 50 | 90 | 80 | 0   | 22   | 1708   | 1754   | 440 |
| 174 / 184              | 225                | -                                                                                                                                                                                                                                                                                                             | -  | -  | -  | -  | -  | -    | -    | -      | -      | -   | A180                                                                                                                                                                                                                                                                                                             | 4  | 70 | 50 | 70 | 60 | 9   | 20.5 | 1733.5 | 1793.5 | 440 |
|                        | 250                | -                                                                                                                                                                                                                                                                                                             | -  | -  | -  | -  | -  | -    | -    | -      | -      | -   | A180                                                                                                                                                                                                                                                                                                             | 4  | 70 | 50 | 70 | 65 | 7   | 22.5 | 1733.5 | 1793.5 | 440 |
|                        | 280                | A200                                                                                                                                                                                                                                                                                                          | 4  | 80 | 70 | 80 | 75 | 11.5 | 8.5  | 1749   | 1809   | 440 | A200                                                                                                                                                                                                                                                                                                             | 4  | 80 | 50 | 80 | 75 | 0   | 15   | 1719   | 1779   | 440 |
|                        | 315 2)             | A225                                                                                                                                                                                                                                                                                                          | 4  | 90 | 70 | 90 | 80 | 9.5  | 17.5 | 1786   | 1846   | 440 | A225                                                                                                                                                                                                                                                                                                             | 4  | 90 | 50 | 90 | 80 | 0   | 22   | 1756   | 1816   | 440 |

**TR** REDÜKTÖR GÖVDELERİ İÇİN TİTREŞİM  
AZALTAN TORK KOLLARI

**EN** VIBRATION REDUCING - TORQUE  
REACTION ARMS FOR - GEAR HOUSINGS

**DE** SCHWINGUNGSDÄMPFENDE  
DREHMOMENTSTÜTZEN FÜR  
GETRIEBEGEHAUSE



Maksimum aktarılabılır dönme momenti, dönme momenti destekleri yardımıyla sınırlandırılır:  
 $T_{max} = f_{DMST} \times T_2 \text{ Anma}$

The Maximum transmissible torque is limited by the torque reaction arm:  
 $T_{max} = f_{DMST} \times T_{2Nenn}$

Das Maximal übertragbare Drehmoment ist durch die Drehmomentstütze begrenzt:  
Es gilt:  $T_{max} = f_{DMST} \times T_{2Nenn}$

Tablo 1 / Table 1 / Tabelle 1

Dönme momenti destekleri için  $f_{DMST}$  en yüksek dönme momenti faktörü 1)  
Peak torque factor  $f_{DMST}$  for torque reaction arm  
Spitzendrehmomentfaktor  $f_{DMST}$  für Drehmomentstütze

| Redüktör gövdeleri<br>Gear unit size<br>Getriebegröße | Tip / Type / Bauart                          |        |        |        |        |        |
|-------------------------------------------------------|----------------------------------------------|--------|--------|--------|--------|--------|
|                                                       | PH...2                                       | PH...3 | PH...4 | PB...2 | PB...3 | PB...4 |
| 4...                                                  | 1.3                                          | -      | -      | 1.2    | 1.2    | -      |
| 5...                                                  | 1.9                                          | 2.0    | -      | 1.2    | 1.6    | 2.0    |
| 6...                                                  | 1.6                                          | 1.7    | -      | 1.2    | 1.4    | 1.7    |
| 7...                                                  | 2.0                                          | 2.0    | 2.0    | 1.3    | 1.8    | 2.0    |
| 8...                                                  | 1.7                                          | 2.0    | 2.0    | 1.2    | 1.6    | 2.0    |
| 9...                                                  | 1.5                                          | 1.6    | 1.7    | 1.2    | 1.2    | 1.7    |
| 10...                                                 | 1.3                                          | 1.4    | 1.4    | 1.2    | 1.2    | 1.4    |
| 11...                                                 | 2.0                                          | 2.0    | 2.0    | 1.9    | 2.0    | 1.2    |
| 12...                                                 | 2.0                                          | 2.0    | 2.0    | 1.8    | 2.0    | 1.2    |
| 13...                                                 | -                                            | 2.0    | 2.0    | 1.4    | 1.8    | 2.0    |
| 14...                                                 | -                                            | 1.9    | 2.0    | 1.3    | 1.7    | 2.0    |
| 15...                                                 | -                                            | 1.5    | 1.7    | -      | 1.4    | 1.6    |
| 16...                                                 | -                                            | 1.4    | 1.5    | -      | 1.3    | 1.5    |
| 17...                                                 | -                                            | 1.2    | 1.3    | -      | 1.2    | 1.3    |
| 18...                                                 | -                                            | 1.2    | 1.2    | -      | 1.2    | 1.2    |
| 19... - 22...                                         | Talep edildiğinde / On request / Auf Anfrage |        |        |        |        |        |

1) Belirtilen Tablo değerleri, minimum değerlerdir.  
Dönme yönü motor tipine bağlı olarak, daha yüksek dönme momenti değerlerine muhtemelen izin verilebilir.  
Mutlaka PGR ile görüşülmelidir!

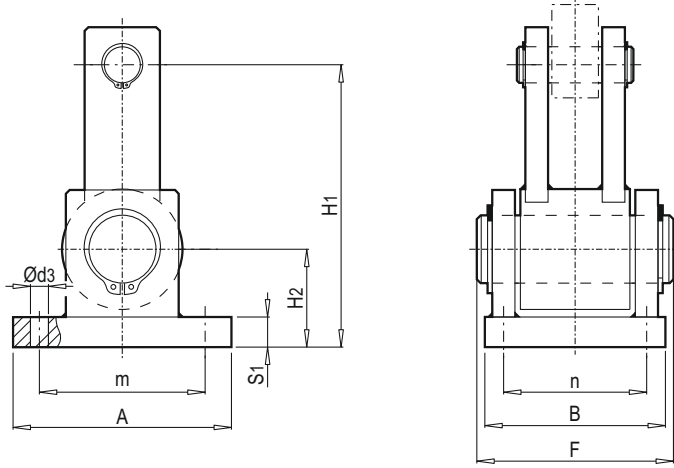
1) The values in the table are minimum values  
Depending on direction of rotation and motortype, higher peak torques may possibly be allowed.  
Please consult us!

1) Die genannten Tabellenwerte sind Minderstwerte.  
Unter Angabe von Drehrichtung und Motortyp können gegebenenfalls höhere Spitzendrehmomente zugelassen werden. Rücksprache ist erforderlich!

**TR** REDÜKTÖR GÖVDELERİ İÇİN TİTREŞİM  
AZALTAN TORK KOLLARI

**EN** VIBRATION REDUCING - TORQUE  
REACTION ARMS FOR - GEAR HOUSINGS

**DE** SCHWINGUNGSDÄMPFENDE  
DREHMOMENTSTÜTZEN FÜR  
GETRIEBEGEHAUSE



İş makinesi tarafındaki dönme momenti destekleri (C, D, G, H, I tipi helisel dişli redüktör modellerinde, sadece talep üzerine temin edilir). Motor bağlantı adaptörü bulunmayan redüktörlerde, sadece çapraz kuvvetlere maruz kalmayan kaplinler kullanılabilir.

Torque reaction arm on driven machine side. (helical gear unit in C, D, G, H, I design on request only.)

For gear units without motor bell housing only couplings not transmitting shear forces are allowed.

Torque reaction arm in combination with fan on request only.

Drehmomentstütze an der Arbeitsmaschinen-seite. (Stirradgetriebe in Ausführung C, D, G, H, I nur auf Anfrage.)

Bei Getrieben ohne Motorlaterne sind nur Kupplungen zulässig, die keine Querkräfte übertragen können

Drehmomentstütze in Kombination mit Lüfter nur auf Anfrage

Tablo 2 / Table 2 / Tabelle 2

| Redüktör Gövdesi<br>Gear unit size<br>Getriebegröße | A                                            | B   | Ød3 | F   | H1  | H2  | m   | n   | S1 | Burç<br>Bush<br>Metelastik-<br>Busche | Ağırlık<br>Weight<br>Gewicht |
|-----------------------------------------------------|----------------------------------------------|-----|-----|-----|-----|-----|-----|-----|----|---------------------------------------|------------------------------|
|                                                     | mm                                           |     |     |     |     |     |     |     |    |                                       | kg                           |
| PH / PB 4...                                        | 160                                          | 110 | 19  | 116 | 200 | 65  | 120 | 70  | 15 | 079                                   | 6.8                          |
| PH / PB 5 + 6...                                    | 200                                          | 160 | 19  | 170 | 250 | 90  | 160 | 120 | 20 | 095                                   | 16                           |
| PH / PB 7 + 8...                                    | 320                                          | 200 | 19  | 195 | 400 | 140 | 260 | 130 | 25 | 772                                   | 37                           |
| PH / PB 9 + 10...                                   |                                              |     |     |     |     |     |     |     |    |                                       | 42                           |
| PH / PB 11 + 12...                                  | 400                                          | 300 | 24  | 320 | 500 | 175 | 320 | 240 | 30 | 805                                   | 155                          |
| PH / PB 13 + 14...                                  |                                              |     |     |     |     |     |     |     |    |                                       | 159                          |
| PH / PB 15 + 16...                                  |                                              |     |     |     |     |     |     |     |    |                                       | 163                          |
| PH / PB 17 + 18...                                  |                                              |     |     |     |     |     |     |     |    |                                       | 167                          |
| PH / PB 19 + 22...                                  | Talep edildiğinde / On request / Auf Anfrage |     |     |     |     |     |     |     |    |                                       |                              |

**TR** KAPLİN N, IEC-MOTORLU, KAPLİN  
BAĞLANTILI VE FRENLİ REDÜKTÖRLER

**EN** GEAR UNIT SWING-BASES WITH N  
COUPLINGS, IEC MOTORS AND ASSIGNED  
COUPLINGS AND BRAKES

**DE** GETRIEBESCHWINGEN MIT N -  
KUPPLUNGEN, IEC-MOTOREN UND  
ZUGEORDNETEN KUPPLUNGEN  
UND BREMSSEN

Tablo / Table / Tabelle 1

| DIN 42673'e uygun IEC motoru<br>IEC motor acc. to DIN 42673<br>IEC motor nach DIN 42673 |                                                    | DIN 15435'e uygun tambur frenli Kaplin N<br>N - coupling with drum brake acc. to DIN 15435<br>N - Kupplung mit Trommelbremse nach DIN 15435 |                                                                       |                                                            |                                                                  |
|-----------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------------|
| Gövde<br>Size<br>Größe                                                                  | Mil ucu<br>Shaft end<br>Wellenende<br>ØD x E<br>mm | Kaplin N<br>Kaplin boyutları<br>coupling size<br>Kupplung Größe<br>2)                                                                       | Kaplin N<br>Kaplin boyutları<br>coupling size<br>Kupplung Größe<br>3) | Fren tamburu<br>Brake drum<br>Bremstrommel<br>Ød x l<br>mm | Fren tamburunun boyutu<br>Drum brake size<br>Trommelbremse Größe |
| <b>100</b>                                                                              | 28 x 60                                            | 80                                                                                                                                          | 125                                                                   | 200 x 75                                                   | TE 200                                                           |
| <b>112</b>                                                                              | 28 x 60                                            | 80                                                                                                                                          | 125                                                                   | 200 x 75                                                   | TE 200                                                           |
| <b>132</b>                                                                              | 38 x 80                                            | 95                                                                                                                                          | 125                                                                   | 200 x 75                                                   | TE 200                                                           |
| <b>160 M</b>                                                                            | 42 x 110                                           | 110                                                                                                                                         | 125                                                                   | 200 x 75                                                   | TE 200                                                           |
| <b>160 L</b>                                                                            | 42 x 110                                           | 125                                                                                                                                         | 125                                                                   | 200 x 75                                                   | TE 200                                                           |
| <b>180 M</b>                                                                            | 48 x 110                                           | 125                                                                                                                                         | 140                                                                   | 250 x 95                                                   | TE 250                                                           |
| <b>180 L</b>                                                                            | 48 x 110                                           | 140                                                                                                                                         | 140                                                                   | 250 x 95                                                   | TE 250                                                           |
| <b>200</b>                                                                              | 55 x 110                                           | 160                                                                                                                                         | 160                                                                   | 250 x 95                                                   | TE 250                                                           |
| <b>225</b>                                                                              | 60 x 140                                           | 160                                                                                                                                         | 180                                                                   | 315 x 118                                                  | TE 315                                                           |
| <b>250</b>                                                                              | 65 x 140                                           | 180                                                                                                                                         | 180                                                                   | 315 x 118                                                  | TE 315                                                           |
| <b>280 S</b>                                                                            | 75 x 140                                           | 200                                                                                                                                         | 225                                                                   | 400 x 150                                                  | TE 400                                                           |
| <b>280 M</b>                                                                            | 75 x 140                                           | 200                                                                                                                                         | 225                                                                   | 400 x 150                                                  | TE 400                                                           |
| <b>315 S</b>                                                                            | 80 x 170                                           | 200                                                                                                                                         | 225                                                                   | 400 x 150                                                  | TE 400                                                           |
| <b>315 M</b>                                                                            | 80 x 170                                           | 225                                                                                                                                         | 225                                                                   | 400 x 150                                                  | TE 400                                                           |
| <b>315 LB</b>                                                                           | 80 x 170                                           | 250                                                                                                                                         | 250                                                                   | 500 x 150                                                  | TE 500                                                           |
| <b>355 MB</b>                                                                           | 90 x 170                                           | 250                                                                                                                                         | 250                                                                   | 500 x 150                                                  | TE 500                                                           |
| <b>355 LB</b>                                                                           | 90 x 170                                           | 280                                                                                                                                         | 280                                                                   | 500 x 150                                                  | TE 500                                                           |
| <b>400 MB</b>                                                                           | 100 x 210                                          | 315                                                                                                                                         | 280                                                                   | 500 x 190                                                  | TE 500                                                           |
| <b>400 MD</b>                                                                           | 100 x 210                                          | 315                                                                                                                                         | 280                                                                   | 500 x 190                                                  | TE 500                                                           |

2) Tip A110 büyüklüğünden  
Tip B95 modelleri  
3) Tip P

Fren diskli Kaplin N, sadece talep üzerine temin edilir.

2) Type A from size 110 up;  
Type B up to size 95  
3) Type P

N couplings with brake disk on request.

2) Bauart A ab Größe 110;  
Bauart B bis Größe 95  
3) Bauart P

N Kupplungen mit Bremsscheibe auf Anfrage.

TR

KAPLIN N REDÜKTÖRLER

EN

GEAR UNIT SWING-BASES WITH  
N COUPLINGS

DE

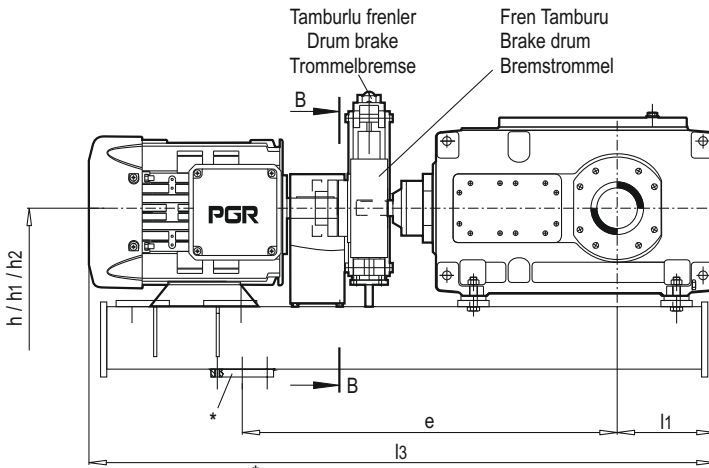
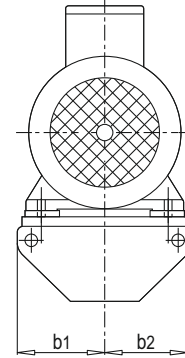
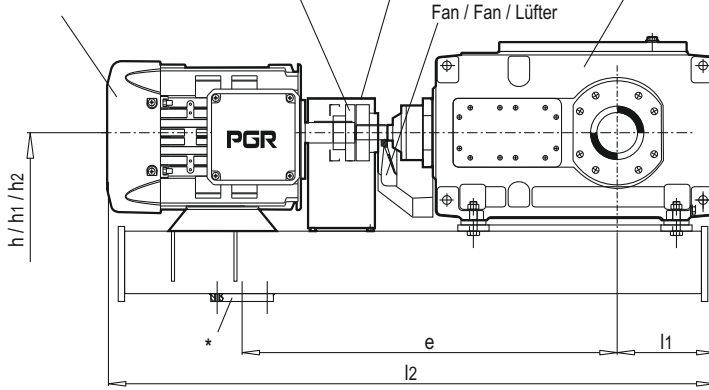
GETRIEBESCHWINGEN MIT  
N KUPPLUNGEN

DIN 42673'e uygun IEC motoru  
IEC motor acc. to DIN 42673  
IEC motor nach DIN 42673

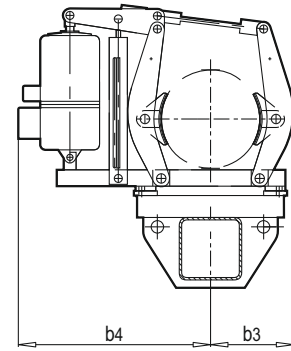
Kaplin N  
N coupling  
N Kupplung

Kaplin koruması  
Coupling guard  
Schutzhäube

Helisel - Konik dişli Ünitesi  
Bevel - helical gear unit  
Kegelstirnradgetriebe



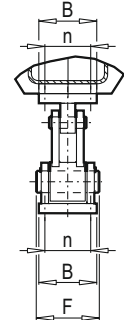
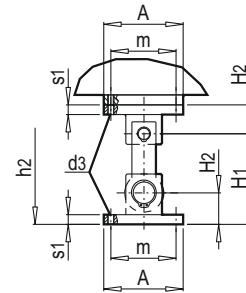
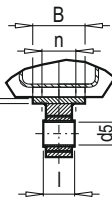
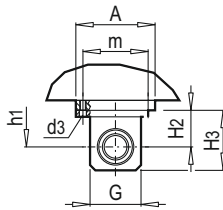
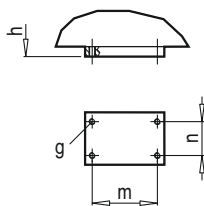
Kesit B - B  
Section B - B  
Schnitt B - B



Bağlantı Plakası  
Connection plate  
Anschlußplatte

Elastik Destek  
Flexible pedestal  
elastischer Stützbock

Torkolu  
Torque reaction arm  
Drehmomentstütze



Tablo 2 / Table 2 / Tabelle 2

| Gövde<br>Size<br>Größe | Burç<br>Bush<br>Buchse | m<br>mm | n<br>mm | mm   |     |     |     |     |     |     |     |     |     |     |    | Ağırlık / Weight / Gewicht            |                                                                              |
|------------------------|------------------------|---------|---------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---------------------------------------|------------------------------------------------------------------------------|
|                        |                        |         |         | g    | Ød3 | A   | B   | Ød5 | f   | G   | H1  | H2  | H3  | l   | s1 | Destek<br>Pedestal<br>Stützbock<br>kg | Dönme momenti<br>destekleri<br>Torque reaction arm<br>Drehmomentstütze<br>kg |
| 4...                   | 069                    | 95      | 65      | M 12 | 15  | 120 | 90  | 25  | 96  | 60  | 180 | 50  | 80  | 56  | 12 | 2.1                                   | 5.8                                                                          |
| 5... / 6...            | 079                    | 120     | 70      | M 16 | 19  | 160 | 110 | 32  | 116 | 75  | 200 | 65  | 105 | 72  | 15 | 5.3                                   | 11.8                                                                         |
| 7... / 10...           | 095                    | 160     | 120     | M 16 | 19  | 200 | 160 | 50  | 170 | 110 | 250 | 90  | 145 | 110 | 20 | 16                                    | 34                                                                           |
| 11... / 12...          | 772                    | 260     | 130     | M 16 | 19  | 320 | 200 | 100 | 195 | 180 | 400 | 140 | 230 | 120 | 25 | 50                                    | 82                                                                           |

TR

KAPLIN N REDÜKTÖRLER

EN

GEAR UNIT SWING-BASES WITH  
N COUPLINGS

DE

GETRIEBESCHWINGEN MIT  
N KUPPLUNGEN

Tablo 3 / Table 3 / Tabelle 3

| Tip<br>Gövde<br>Type<br>Size<br>Bauart<br>Größe | DIN 42673'e<br>göre IEC'li<br>motor<br>IEC motor<br>acc. to<br>DIN 42673<br>IEC motor<br>nach<br>DIN 42673 |      |      |      |      |      |     | Kaplin N<br>N Coupling<br>N Kupplung |                  |                   |                  | Kaplin N Fren Tambur kaplini<br>N coupling with drum brake<br>N Kupplung mit Trommelbremse |                  |                   |                  |                   |              |      |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------|------|------|------|------|------|-----|--------------------------------------|------------------|-------------------|------------------|--------------------------------------------------------------------------------------------|------------------|-------------------|------------------|-------------------|--------------|------|
|                                                 |                                                                                                            |      |      |      |      |      |     | b2                                   | İN = 12.5 - 45   |                   | İN = 50 - 71     |                                                                                            | b3   b4          |                   | İN = 12.5 - 45   |                   | İN = 50 - 71 |      |
|                                                 |                                                                                                            | e    | h    | h1   | h2   | l1   | b1  |                                      | İN = 16 - 56     |                   | İN = 63 - 90     |                                                                                            |                  |                   | İN = 16 - 56     |                   | İN = 63 - 90 |      |
|                                                 |                                                                                                            |      |      |      |      |      |     |                                      | l2 <sup>2)</sup> | l2 <sup>*2)</sup> | l2 <sup>2)</sup> | l2 <sup>*2)</sup>                                                                          | l3 <sup>2)</sup> | l3 <sup>*2)</sup> | l3 <sup>2)</sup> | l3 <sup>*2)</sup> |              |      |
| mm                                              |                                                                                                            |      |      |      |      |      |     |                                      |                  |                   |                  |                                                                                            |                  |                   |                  |                   |              |      |
| PB43                                            | 132 S                                                                                                      | 950  | 380  | 430  | 610  | 190  | 160 | 145                                  | -                | -                 | 1194             | 1194                                                                                       | 170              | 470               | -                | 1)                | 1237         | 1)   |
|                                                 | 132 M                                                                                                      |      |      |      |      |      | -   | -                                    | 1232             | 1232              | -                | 1275                                                                                       |                  |                   |                  |                   |              |      |
|                                                 | 160 M                                                                                                      |      |      |      |      |      | 200 | 170                                  | 1343             | 1343              | 1333             | 1333                                                                                       |                  |                   | 1376             |                   | 1376         |      |
|                                                 | 160 L                                                                                                      |      |      |      |      |      |     | 170                                  | 1387             | 1387              | 1377             | 1387                                                                                       | 210              | 590               | 1420             |                   | 1420         |      |
|                                                 | 180 M                                                                                                      |      |      |      |      |      |     | 185                                  | 1409             | 1409              | 1399             | 1409                                                                                       |                  |                   | 1465             |                   | 1465         |      |
|                                                 | 180 L                                                                                                      |      |      |      |      |      |     | 185                                  | 1447             | 1452              | -                | -                                                                                          |                  |                   | 1503             |                   | -            |      |
|                                                 | 200 L                                                                                                      |      |      |      |      |      |     | 215                                  | 1529             | 1534              | -                | -                                                                                          |                  |                   | 1585             |                   | -            |      |
| PB53                                            | 160 M                                                                                                      | 1000 | 450  | 515  | 715  | 205  | 185 | 170                                  | -                | -                 | 1423             | 1423                                                                                       | 170              | 470               | -                |                   | 1466         |      |
|                                                 | 160 L                                                                                                      |      |      |      |      |      |     | -                                    | -                | 1487              | 1487             | 1467                                                                                       | 1477             |                   | 1515             | 1510              |              |      |
|                                                 | 180 M                                                                                                      |      |      |      |      |      |     | 185                                  | 1509             | 1509              | 1489             | 1499                                                                                       | 210              | 590               | 1555             | 1555              |              |      |
|                                                 | 180 L                                                                                                      |      |      |      |      |      | 220 | -                                    | -                | 1547              | 1547             | 1527                                                                                       |                  |                   | 1542             | 1593              | 1593         |      |
|                                                 | 200 L                                                                                                      |      |      |      |      |      |     | 215                                  | 1629             | 1629              | -                | -                                                                                          |                  |                   | 1675             | -                 |              |      |
|                                                 | 225 S                                                                                                      |      |      |      |      |      |     | 240                                  | 1682             | 1682              | -                | -                                                                                          | 260              | 665               | 1759             | -                 |              |      |
|                                                 | 225 M                                                                                                      |      |      |      |      |      |     | 240                                  | 1707             | 1707              | -                | -                                                                                          |                  |                   | 1784             | -                 |              |      |
| PB63                                            | 160 M                                                                                                      | 1050 | 450  | 515  | 715  | 250  | 185 | 170                                  | -                | -                 | 1503             | 1503                                                                                       | 170              | 470               | -                | 1546              |              |      |
|                                                 | 160 L                                                                                                      |      |      |      |      |      |     | -                                    | -                | 1567              | 1567             | 1547                                                                                       | 1557             |                   | 1595             | 1590              |              |      |
|                                                 | 180 M                                                                                                      |      |      |      |      |      |     | 185                                  | 1589             | 1589              | 1569             | 1579                                                                                       | 210              | 590               | 1635             | 1635              |              |      |
|                                                 | 180 L                                                                                                      |      |      |      |      |      | 220 | -                                    | -                | 1627              | 1627             | 1607                                                                                       |                  |                   | 1622             | 1673              | 1673         |      |
|                                                 | 200 L                                                                                                      |      |      |      |      |      |     | 215                                  | 1709             | 1709              | -                | -                                                                                          |                  |                   | 1755             | -                 |              |      |
|                                                 | 225 S                                                                                                      |      |      |      |      |      |     | 240                                  | 1762             | 1762              | -                | -                                                                                          | 260              | 665               | 1839             | -                 |              |      |
|                                                 | 225 M                                                                                                      |      |      |      |      |      |     | 240                                  | 1787             | 1787              | -                | -                                                                                          |                  |                   | 1864             | -                 |              |      |
| PB73                                            | 180 M                                                                                                      | 1150 | 540  | 630  | 880  | 250  | 215 | 185                                  | -                | -                 | 1669             | 1669                                                                                       | 210              | 590               | -                | 1715              |              |      |
|                                                 | 180 L                                                                                                      |      |      |      |      |      |     | -                                    | -                | 1707              | 1707             | -                                                                                          |                  |                   | -                | 1753              |              |      |
|                                                 | 200 L                                                                                                      |      |      |      |      |      |     | 215                                  | 1809             | 1809              | 1789             | 1789                                                                                       | 260              | 665               | 1840             | 1835              |              |      |
|                                                 | 225 S                                                                                                      |      |      |      |      |      | 280 | 240                                  | 1862             | 1862              | 1842             | 1842                                                                                       |                  |                   | 1919             | 1919              |              |      |
|                                                 | 225 M                                                                                                      |      |      |      |      |      |     | 265                                  | 1887             | 1887              | 1867             | 1867                                                                                       |                  |                   | 1944             | 1944              |              |      |
|                                                 | 250 M                                                                                                      |      |      |      |      |      |     | -                                    | -                | 1974              | 1974             | -                                                                                          | -                | 2031              | -                |                   |              |      |
|                                                 | 280 S                                                                                                      |      |      |      |      |      |     | 300                                  | 2048             | 2048              | -                | -                                                                                          | 310              | 765               | 2147             | -                 |              |      |
| 280 M                                           | 300                                                                                                        | 2099 | 2099 | -    | -    | 2198 | -   |                                      |                  |                   |                  |                                                                                            |                  |                   |                  |                   |              |      |
| PB83                                            | 180 M                                                                                                      | 1200 | 540  | 630  | 880  | 310  | 215 | 185                                  | -                | -                 | 1774             | 1774                                                                                       | 210              | 590               | -                | 1820              |              |      |
|                                                 | 180 L                                                                                                      |      |      |      |      |      |     | -                                    | -                | 1812              | 1812             | -                                                                                          |                  |                   | -                | 1858              |              |      |
|                                                 | 200 L                                                                                                      |      |      |      |      |      |     | 215                                  | 1914             | 1914              | 1894             | 1894                                                                                       | 260              | 665               | 1945             | 1940              |              |      |
|                                                 | 225 S                                                                                                      |      |      |      |      |      | 280 | 240                                  | 1967             | 1967              | 1947             | 1947                                                                                       |                  |                   | 2024             | 2024              |              |      |
|                                                 | 225 M                                                                                                      |      |      |      |      |      |     | 265                                  | 1992             | 1992              | 1972             | 1972                                                                                       |                  |                   | 2049             | 2049              |              |      |
|                                                 | 250 M                                                                                                      |      |      |      |      |      |     | 300                                  | 2079             | 2079              | -                | -                                                                                          | 2136             | -                 |                  |                   |              |      |
|                                                 | 280 S                                                                                                      |      |      |      |      |      |     | 300                                  | 2153             | 2153              | -                | -                                                                                          | 310              | 765               | 2252             | -                 |              |      |
| 280 M                                           | 300                                                                                                        | 2204 | 2204 | -    | -    | 2303 | -   |                                      |                  |                   |                  |                                                                                            |                  |                   |                  |                   |              |      |
| PB93                                            | 200 L                                                                                                      | 1350 | 630  | 720  | 970  | 300  | 260 | 215                                  | -                | -                 | 1969             | 1969                                                                                       | 210              | 590               | -                | 2000              |              |      |
|                                                 | 225 S                                                                                                      |      |      |      |      |      |     | 240                                  | -                | -                 | 2022             | 2022                                                                                       | -                |                   | 2079             |                   |              |      |
|                                                 | 225 M                                                                                                      |      |      |      |      |      |     | -                                    | -                | 2057              | 2057             | 2047                                                                                       | 2047             | 260               | 665              | 2104              | 2104         |      |
|                                                 | 250 M                                                                                                      |      |      |      |      |      | 305 | 265                                  | 2144             | 2144              | 2134             | 2134                                                                                       | 2191             |                   |                  | 2191              |              |      |
|                                                 | 280 S                                                                                                      |      |      |      |      |      |     | 300                                  | 2218             | 2218              | 2208             | 2208                                                                                       | 2307             |                   |                  | 2307              |              |      |
|                                                 | 280 M                                                                                                      |      |      |      |      |      |     | 300                                  | 2269             | 2269              | -                | -                                                                                          | 310              | 765               | 2358             | -                 |              |      |
|                                                 | 280 M                                                                                                      |      |      |      |      |      |     | 300                                  | 2269             | 2269              | -                | -                                                                                          |                  |                   | 2358             | -                 |              |      |
| PB103                                           | 200 L                                                                                                      | 1400 | 630  | 720  | 970  | 350  | 260 | 215                                  | -                | -                 | 2069             | 2069                                                                                       | 210              | 590               | -                | 2100              |              |      |
|                                                 | 225 S                                                                                                      |      |      |      |      |      |     | 240                                  | -                | -                 | 2122             | 2122                                                                                       | -                |                   | 2179             |                   |              |      |
|                                                 | 225 M                                                                                                      |      |      |      |      |      |     | -                                    | -                | 2157              | 2157             | 2147                                                                                       | 2147             | 260               | 665              | 2204              | 2204         |      |
|                                                 | 250 M                                                                                                      |      |      |      |      |      | 305 | 265                                  | 2244             | 2244              | 2234             | 2234                                                                                       | 2291             |                   |                  | 2291              |              |      |
|                                                 | 280 S                                                                                                      |      |      |      |      |      |     | 300                                  | 2318             | 2318              | 2308             | 2308                                                                                       | 310              | 765               | 2407             | 2407              |              |      |
|                                                 | 280 M                                                                                                      |      |      |      |      |      |     | 300                                  | 2369             | 2369              | -                | -                                                                                          |                  |                   | 2458             | -                 |              |      |
|                                                 | PB113                                                                                                      |      |      |      |      |      |     | 250 M                                | 1550             | 740               | 880              | 1280                                                                                       | 345              | 355               | 265              | -                 | -            | 2349 |
| 280 S                                           |                                                                                                            | 300  | -    | -    | 2423 | 2423 | -   | 2512                                 |                  |                   |                  |                                                                                            |                  |                   |                  |                   |              |      |
| 280 M                                           |                                                                                                            | 300  | 2499 | 2499 | 2474 | 2474 | 310 | 765                                  |                  |                   |                  |                                                                                            |                  |                   | 2563             | 2563              |              |      |
| PB123                                           | 250 M                                                                                                      | 1600 | 740  | 880  | 1280 | 430  |     |                                      | 355              | 265               | -                | -                                                                                          | 2504             | 2504              | 260              | 665               | -            | 2551 |
|                                                 | 280 S                                                                                                      |      |      |      |      |      | 300 | -                                    |                  | -                 | 2578             | 2578                                                                                       | -                | 2667              |                  |                   |              |      |
|                                                 | 280 M                                                                                                      |      |      |      |      |      | 300 | 2654                                 |                  | 2654              | 2679             | 2629                                                                                       | 310              | 765               | 2718             | 2718              |              |      |

TR

KAPLİN N REDÜKTÖRLER

EN

GEAR UNIT SWING-BASES WITH  
N COUPLINGS

DE

GETRIEBESCHWINGEN MIT  
N KUPPLUNGEN

Tablo 4 / Table 4 / Tabelle 4

| Tip<br>Boyut<br>Type<br>Size<br>Bauart<br>Größe | DIN 42673'e<br>göre IEC'li<br>motor<br>IEC motor<br>acc. to<br>DIN 42673<br>IEC motor<br>nach<br>DIN 42673 |      |     |     |      |     |     | Kaplin N<br>N Coupling<br>N Kupplung                                                    |      |                                                                                          |     | Kaplin N Fren Tambur kaplini<br>N Coupling with drum brake<br>N Kupplung mit Trommelbremse |      |                                                                                         |      |                                                                                          |  |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------|------|-----|-----|------|-----|-----|-----------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------|--|
|                                                 |                                                                                                            |      |     |     |      |     |     | i <sub>N</sub> = 80 - 180<br>i <sub>N</sub> = 100 - 224<br>l <sub>2</sub> <sup>2)</sup> |      | i <sub>N</sub> = 200 - 315<br>i <sub>N</sub> = 250 - 400<br>l <sub>2</sub> <sup>2)</sup> |     |                                                                                            |      | i <sub>N</sub> = 80 - 180<br>i <sub>N</sub> = 100 - 224<br>l <sub>3</sub> <sup>2)</sup> |      | i <sub>N</sub> = 200 - 315<br>i <sub>N</sub> = 250 - 400<br>l <sub>3</sub> <sup>2)</sup> |  |
|                                                 |                                                                                                            | e    | h   | h1  | h2   | l1  | b1  | b2                                                                                      | mm   |                                                                                          | b3  |                                                                                            |      | b4                                                                                      |      |                                                                                          |  |
|                                                 |                                                                                                            |      |     |     |      |     |     |                                                                                         |      |                                                                                          |     |                                                                                            |      |                                                                                         |      |                                                                                          |  |
| PB54                                            | 100 L                                                                                                      | 1000 | 450 | 515 | 715  | 205 | 185 | 115                                                                                     | -    | 1256                                                                                     | 170 | 470                                                                                        | -    | 1309                                                                                    |      |                                                                                          |  |
|                                                 | 112 M                                                                                                      |      |     |     |      |     |     | 130                                                                                     | 1267 | 1262                                                                                     |     |                                                                                            | 1315 | 1315                                                                                    |      |                                                                                          |  |
|                                                 | 132 S                                                                                                      |      |     |     |      |     |     | 145                                                                                     | 1319 | 1314                                                                                     |     |                                                                                            | 1367 | 1367                                                                                    |      |                                                                                          |  |
|                                                 | 132 M                                                                                                      |      |     |     |      |     |     | 145                                                                                     | 1357 | 1352                                                                                     |     |                                                                                            | 1405 | 1405                                                                                    |      |                                                                                          |  |
|                                                 | 160 M                                                                                                      |      |     |     |      |     |     | 170                                                                                     | 1458 | -                                                                                        |     |                                                                                            | 1506 | -                                                                                       |      |                                                                                          |  |
|                                                 | 160 L                                                                                                      |      |     |     |      |     |     | 170                                                                                     | 1502 | -                                                                                        |     |                                                                                            | 1550 | -                                                                                       |      |                                                                                          |  |
|                                                 | 180 M                                                                                                      |      |     |     |      |     |     | 185                                                                                     | 1524 | -                                                                                        |     |                                                                                            | 210  | 590                                                                                     | 1595 | -                                                                                        |  |
| PB64                                            | 100 L                                                                                                      | 1050 | 450 | 515 | 715  | 250 | 185 | 115                                                                                     | -    | 1336                                                                                     | 170 | 470                                                                                        | -    | 1389                                                                                    |      |                                                                                          |  |
|                                                 | 112 M                                                                                                      |      |     |     |      |     |     | 130                                                                                     | 1347 | 1342                                                                                     |     |                                                                                            | 1395 | 1395                                                                                    |      |                                                                                          |  |
|                                                 | 132 S                                                                                                      |      |     |     |      |     |     | 145                                                                                     | 1399 | 1394                                                                                     |     |                                                                                            | 1447 | 1447                                                                                    |      |                                                                                          |  |
|                                                 | 132 M                                                                                                      |      |     |     |      |     |     | 145                                                                                     | 1437 | 1432                                                                                     |     |                                                                                            | 1485 | 1485                                                                                    |      |                                                                                          |  |
|                                                 | 160 M                                                                                                      |      |     |     |      |     |     | 170                                                                                     | 1538 | -                                                                                        |     |                                                                                            | 1586 | -                                                                                       |      |                                                                                          |  |
|                                                 | 160 L                                                                                                      |      |     |     |      |     |     | 170                                                                                     | 1882 | -                                                                                        |     |                                                                                            | 1630 | -                                                                                       |      |                                                                                          |  |
|                                                 | 180 M                                                                                                      |      |     |     |      |     |     | 185                                                                                     | 1604 | -                                                                                        |     |                                                                                            | 210  | 590                                                                                     | 1675 | -                                                                                        |  |
| PB74                                            | 132 S                                                                                                      | 1150 | 540 | 630 | 880  | 250 | 215 | 145                                                                                     | -    | 1479                                                                                     | 170 | 470                                                                                        | -    | 1552                                                                                    |      |                                                                                          |  |
|                                                 | 132 M                                                                                                      |      |     |     |      |     |     | 145                                                                                     | 1527 | 1517                                                                                     |     |                                                                                            | 1560 | 1560                                                                                    |      |                                                                                          |  |
|                                                 | 160 M                                                                                                      |      |     |     |      |     |     | 170                                                                                     | 1628 | 1618                                                                                     |     |                                                                                            | 1661 | 1661                                                                                    |      |                                                                                          |  |
|                                                 | 160 L                                                                                                      |      |     |     |      |     |     | 170                                                                                     | 1672 | 1662                                                                                     |     |                                                                                            | 1705 | 1705                                                                                    |      |                                                                                          |  |
|                                                 | 180 M                                                                                                      |      |     |     |      |     |     | 185                                                                                     | 1694 | -                                                                                        |     |                                                                                            | 1750 | -                                                                                       |      |                                                                                          |  |
|                                                 | 180 L                                                                                                      |      |     |     |      |     |     | 185                                                                                     | 1732 | -                                                                                        |     |                                                                                            | 1788 | -                                                                                       |      |                                                                                          |  |
|                                                 | 200 L                                                                                                      |      |     |     |      |     |     | 215                                                                                     | 1814 | -                                                                                        |     |                                                                                            | 210  | 590                                                                                     | 1788 | -                                                                                        |  |
| PB84                                            | 132 S                                                                                                      | 1200 | 540 | 630 | 880  | 310 | 215 | 145                                                                                     | -    | 1584                                                                                     | 170 | 470                                                                                        | -    | 1627                                                                                    |      |                                                                                          |  |
|                                                 | 132 M                                                                                                      |      |     |     |      |     |     | 145                                                                                     | 1632 | 1622                                                                                     |     |                                                                                            | 1665 | 1665                                                                                    |      |                                                                                          |  |
|                                                 | 160 M                                                                                                      |      |     |     |      |     |     | 170                                                                                     | 1733 | 1723                                                                                     |     |                                                                                            | 1766 | 1766                                                                                    |      |                                                                                          |  |
|                                                 | 160 L                                                                                                      |      |     |     |      |     |     | 170                                                                                     | 1777 | 1767                                                                                     |     |                                                                                            | 1810 | 1810                                                                                    |      |                                                                                          |  |
|                                                 | 180 M                                                                                                      |      |     |     |      |     |     | 185                                                                                     | 1799 | -                                                                                        |     |                                                                                            | 1855 | -                                                                                       |      |                                                                                          |  |
|                                                 | 180 L                                                                                                      |      |     |     |      |     |     | 185                                                                                     | 1837 | -                                                                                        |     |                                                                                            | 210  | 590                                                                                     | 1893 | -                                                                                        |  |
|                                                 | 200 L                                                                                                      |      |     |     |      |     |     | 215                                                                                     | 1919 | -                                                                                        |     |                                                                                            | 210  | 590                                                                                     | 1975 | -                                                                                        |  |
| PB94                                            | 132 M                                                                                                      | 1350 | 630 | 720 | 970  | 300 | 260 | 145                                                                                     | -    | 1682                                                                                     | 170 | 470                                                                                        | -    | 1725                                                                                    |      |                                                                                          |  |
|                                                 | 160 M                                                                                                      |      |     |     |      |     |     | 170                                                                                     | -    | 1783                                                                                     |     |                                                                                            | -    | 1826                                                                                    |      |                                                                                          |  |
|                                                 | 160 L                                                                                                      |      |     |     |      |     |     | 170                                                                                     | 1847 | 1827                                                                                     |     |                                                                                            | 1875 | 1870                                                                                    |      |                                                                                          |  |
|                                                 | 180 M                                                                                                      |      |     |     |      |     |     | 185                                                                                     | 1969 | 1849                                                                                     |     |                                                                                            | 1915 | 1915                                                                                    |      |                                                                                          |  |
|                                                 | 180 L                                                                                                      |      |     |     |      |     |     | 185                                                                                     | 1907 | 1887                                                                                     |     |                                                                                            | 1953 | 1953                                                                                    |      |                                                                                          |  |
|                                                 | 200 L                                                                                                      |      |     |     |      |     |     | 215                                                                                     | 1989 | -                                                                                        |     |                                                                                            | 2035 | -                                                                                       |      |                                                                                          |  |
|                                                 | 225 S                                                                                                      |      |     |     |      |     | 240 | 2042                                                                                    | -    | 2119                                                                                     | -   |                                                                                            |      |                                                                                         |      |                                                                                          |  |
|                                                 | 225 M                                                                                                      |      |     |     |      |     | 240 | 2067                                                                                    | -    | 260                                                                                      | 665 | 2144                                                                                       | -    |                                                                                         |      |                                                                                          |  |
|                                                 | 250 M                                                                                                      |      |     |     |      |     | 305 | 265                                                                                     | 2154 | -                                                                                        | 260 | 665                                                                                        | 2231 | -                                                                                       |      |                                                                                          |  |
| PB104                                           | 132 M                                                                                                      | 1400 | 630 | 720 | 970  | 350 | 260 | 145                                                                                     | -    | 1782                                                                                     | 170 | 470                                                                                        | -    | 1825                                                                                    |      |                                                                                          |  |
|                                                 | 160 M                                                                                                      |      |     |     |      |     |     | 170                                                                                     | -    | 1883                                                                                     |     |                                                                                            | -    | 1926                                                                                    |      |                                                                                          |  |
|                                                 | 160 L                                                                                                      |      |     |     |      |     |     | 170                                                                                     | 1947 | 1927                                                                                     |     |                                                                                            | 1975 | 1970                                                                                    |      |                                                                                          |  |
|                                                 | 180 M                                                                                                      |      |     |     |      |     |     | 185                                                                                     | 1969 | 1949                                                                                     |     |                                                                                            | 2015 | 2015                                                                                    |      |                                                                                          |  |
|                                                 | 180 L                                                                                                      |      |     |     |      |     |     | 185                                                                                     | 2007 | 1987                                                                                     |     |                                                                                            | 210  | 590                                                                                     | 2053 | 2053                                                                                     |  |
|                                                 | 200 L                                                                                                      |      |     |     |      |     |     | 215                                                                                     | 2089 | -                                                                                        |     |                                                                                            | 2135 | -                                                                                       |      |                                                                                          |  |
|                                                 | 225 S                                                                                                      |      |     |     |      |     | 240 | 2142                                                                                    | -    | 2219                                                                                     | -   |                                                                                            |      |                                                                                         |      |                                                                                          |  |
|                                                 | 225 M                                                                                                      |      |     |     |      |     | 240 | 2167                                                                                    | -    | 260                                                                                      | 665 | 2244                                                                                       | -    |                                                                                         |      |                                                                                          |  |
|                                                 | 250 M                                                                                                      |      |     |     |      |     | 305 | 265                                                                                     | 2254 | -                                                                                        | 260 | 665                                                                                        | 2331 | -                                                                                       |      |                                                                                          |  |
| PB114                                           | 160 L                                                                                                      | 1550 | 740 | 880 | 1280 | 345 | 270 | 170                                                                                     | -    | 2062                                                                                     | 210 | 590                                                                                        | -    | 2090                                                                                    |      |                                                                                          |  |
|                                                 | 180 M                                                                                                      |      |     |     |      |     |     | 185                                                                                     | -    | 2084                                                                                     |     |                                                                                            | -    | 2130                                                                                    |      |                                                                                          |  |
|                                                 | 180 L                                                                                                      |      |     |     |      |     |     | 215                                                                                     | 2142 | 2122                                                                                     |     |                                                                                            | 2173 | 2168                                                                                    |      |                                                                                          |  |
|                                                 | 200 L                                                                                                      |      |     |     |      |     |     | 215                                                                                     | 2224 | 2204                                                                                     |     |                                                                                            | 2255 | 2250                                                                                    |      |                                                                                          |  |
|                                                 | 225 S                                                                                                      |      |     |     |      |     |     | 240                                                                                     | 2277 | 2257                                                                                     |     |                                                                                            | 2334 | 2334                                                                                    |      |                                                                                          |  |
|                                                 | 225 M                                                                                                      |      |     |     |      |     |     | 240                                                                                     | 2302 | -                                                                                        |     |                                                                                            | 260  | 665                                                                                     | 2359 | -                                                                                        |  |
|                                                 | 250 M                                                                                                      |      |     |     |      |     | 265 | 2389                                                                                    | -    | 260                                                                                      | 665 | 2446                                                                                       | -    |                                                                                         |      |                                                                                          |  |
|                                                 | 280 S                                                                                                      |      |     |     |      |     | 355 | 2463                                                                                    | -    | 310                                                                                      | 765 | 2562                                                                                       | -    |                                                                                         |      |                                                                                          |  |
|                                                 | 280 M                                                                                                      |      |     |     |      |     | 355 | 300                                                                                     | 2514 | -                                                                                        | 310 | 765                                                                                        | 2613 | -                                                                                       |      |                                                                                          |  |
| PB124                                           | 160 L                                                                                                      | 1600 | 740 | 880 | 1280 | 430 | 270 | 170                                                                                     | -    | 2217                                                                                     | 210 | 590                                                                                        | -    | 2245                                                                                    |      |                                                                                          |  |
|                                                 | 180 M                                                                                                      |      |     |     |      |     |     | 185                                                                                     | -    | 2239                                                                                     |     |                                                                                            | -    | 2285                                                                                    |      |                                                                                          |  |
|                                                 | 180 L                                                                                                      |      |     |     |      |     |     | 215                                                                                     | 2297 | 2277                                                                                     |     |                                                                                            | 2328 | 2323                                                                                    |      |                                                                                          |  |
|                                                 | 200 L                                                                                                      |      |     |     |      |     |     | 215                                                                                     | 2379 | 2359                                                                                     |     |                                                                                            | 2410 | 2405                                                                                    |      |                                                                                          |  |
|                                                 | 225 S                                                                                                      |      |     |     |      |     |     | 240                                                                                     | 2432 | 2412                                                                                     |     |                                                                                            | 2489 | 2489                                                                                    |      |                                                                                          |  |
|                                                 | 225 M                                                                                                      |      |     |     |      |     |     | 240                                                                                     | 2457 | -                                                                                        |     |                                                                                            | 260  | 665                                                                                     | 2514 | -                                                                                        |  |
|                                                 | 250 M                                                                                                      |      |     |     |      |     | 265 | 2544                                                                                    | -    | 260                                                                                      | 665 | 2601                                                                                       | -    |                                                                                         |      |                                                                                          |  |
|                                                 | 280 S                                                                                                      |      |     |     |      |     | 355 | 300                                                                                     | 2618 | -                                                                                        | 310 | 765                                                                                        | 2717 | -                                                                                       |      |                                                                                          |  |
|                                                 | 280 M                                                                                                      |      |     |     |      |     | 355 | 300                                                                                     | 2669 | -                                                                                        | 310 | 765                                                                                        | 2768 | -                                                                                       |      |                                                                                          |  |

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N COUPLINGS

DE

GETRIEBESCHWINGEN MIT  
N KUPPLUNGEN

DIN 42673'e göre  
IEC'li motor  
IEC motor acc. to  
DIN 42673  
IEC motor  
nach DIN 42673

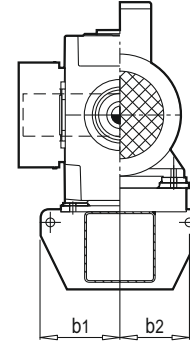
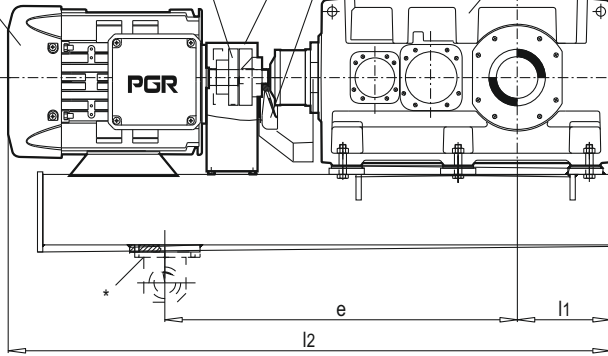
Kaplin N  
N Coupling  
N Kupplung

Kaplin koruması  
Coupling guard  
Schutzhaube

Helisel - konik dişli ünitesi  
Bevel - helical gear unit  
Kegelstirnradgetriebe

Fan / Fan / Lüfter

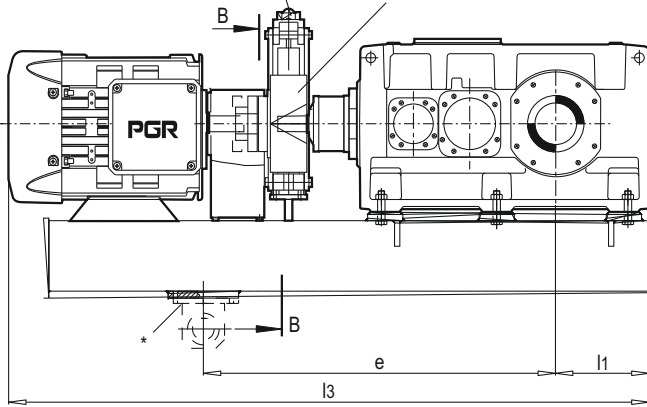
h / h1 / h2



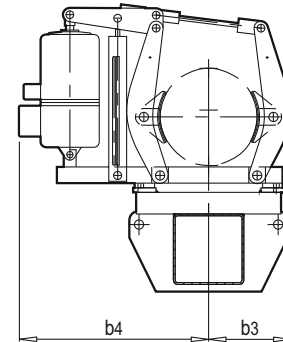
Tamburlu frenler  
Drum brake  
Trommelbremse

Fren Tamburu  
Brake drum  
Bremsstrommel

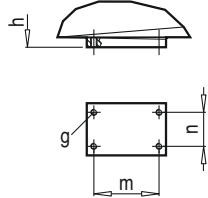
h / h1 / h2



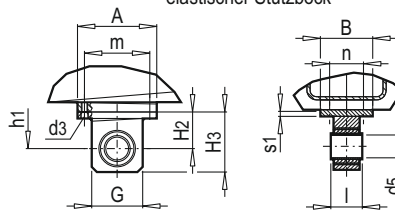
Kesit B - B  
Section B - B  
Schnitt B - B



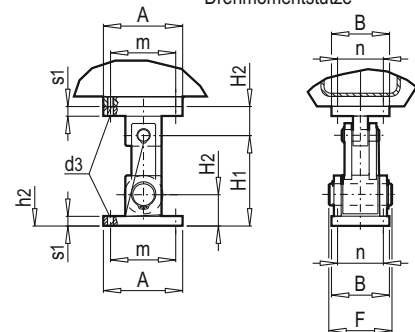
Bağlantı Plakası  
Connection plate  
Anschlußplatte



Elastik Destek  
Flexible pedestal  
elastischer Stützbock



Torkolu  
Torque reaction arm  
Drehmomentstütze



Tablo 5 / Table 5 / Tabelle 5

| Gövde<br>Size<br>Größe | Burç<br>Bush<br>Buchse | mm  |     |     |     |     |     |     |     |     |     |     |     |     |    | Ağırlık / Weight / Gewicht            |                                                             |
|------------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---------------------------------------|-------------------------------------------------------------|
|                        |                        | m   | n   | g   | Ød3 | A   | B   | Ød5 | f   | G   | H1  | H2  | H3  | l   | s1 | Destek<br>Pedestal<br>Stützbock<br>kg | Torkolları<br>Torque reaction arm<br>Drehmomentstütze<br>kg |
| 13... / 14...          | 772                    | 260 | 130 | Ø19 | 19  | 320 | 200 | 100 | 195 | 180 | 400 | 140 | 230 | 120 | 25 | 50                                    | 82                                                          |
| 15... / 18...          | 805                    | 320 | 240 | Ø24 | 24  | 400 | 300 | 124 | 320 | 240 | 500 | 175 | 285 | 230 | 30 | 95                                    | 220                                                         |

TR

KAPLIN N REDÜKTÖRLER

EN

GEAR UNIT SWING-BASES WITH  
N COUPLINGS

DE

GETRIEBESCHWINGEN MIT  
N KUPPLUNGEN

Tablo / Table / Tabelle 6

| Tip<br>Gövde<br>Type<br>Size<br>Bauart<br>Größe | DIN 42673'e<br>göre IEC'li<br>motor<br>IEC motor<br>acc. to<br>DIN 42673<br>IEC motor<br>nach<br>DIN 42673 |   |   |    |    |    |     | Kaplin N<br>N Coupling<br>N Kupplung |                  |                              |                  | Kaplin N Fren Tambur kaplini<br>N Coupling with drum brake<br>N Kupplung mit Trommelbremse |    |                                |                  |                              |                  |                  |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------|---|---|----|----|----|-----|--------------------------------------|------------------|------------------------------|------------------|--------------------------------------------------------------------------------------------|----|--------------------------------|------------------|------------------------------|------------------|------------------|
|                                                 |                                                                                                            |   |   |    |    |    |     | İN = 12.5 - 45<br>İN = 16 - 56       |                  | İN = 50 - 71<br>İN = 63 - 90 |                  |                                                                                            |    | İN = 12.5 - 45<br>İN = 16 - 56 |                  | İN = 50 - 71<br>İN = 63 - 90 |                  |                  |
|                                                 |                                                                                                            | e | h | h1 | h2 | l1 | b1  | b2                                   | l2 <sup>2)</sup> | l2 <sup>2)</sup>             | l2 <sup>2)</sup> | l2 <sup>2)</sup>                                                                           | b3 | b4                             | l3 <sup>2)</sup> | l3 <sup>2)</sup>             | l3 <sup>2)</sup> | l3 <sup>2)</sup> |
|                                                 |                                                                                                            |   |   |    |    |    |     | mm                                   |                  |                              |                  |                                                                                            |    |                                |                  |                              |                  |                  |
|                                                 |                                                                                                            |   |   |    |    |    |     |                                      |                  |                              |                  |                                                                                            |    |                                |                  |                              |                  |                  |
| PB133                                           | 280 M                                                                                                      |   |   |    |    |    | 300 | -                                    | -                | 2729                         | 2729             |                                                                                            |    | -                              |                  | 2788                         |                  |                  |
| PB143                                           | 280 M                                                                                                      |   |   |    |    |    | 300 | -                                    | -                | 2869                         | 2869             |                                                                                            |    | -                              |                  | 2928                         |                  |                  |

1) Talep edildiğinde.

2) Fanlı redüktörler için l2\*, l3\*

Redüktör taban şasesinin ağırlığı, talep üzerine temin edilir.

1) On request

2) l2\*, l3\* for gear units with fan

Weight of gear unit swing - base on request

1) Auf Anfrage

2) l2\*, l3\* für Getriebe mit Lüfter

Gewicht der Getriebebeschwingen auf Anfrage

Tablo 7 / Table 7 / Tabelle 7

| Tip Gövde<br>Type Size<br>Bauart Größe | DIN 42673'e<br>göre IEC'li<br>motor |      |      |      |      |     |     | Kaplin N<br>N Coupling<br>N Kupplung |                                      |      |                                        | Kaplin N Fren Tambur Kaplini<br>N Coupling with drum brake<br>N Kupplung mit Trommelbremse |      |      |                                      |  |                                        |  |  |
|----------------------------------------|-------------------------------------|------|------|------|------|-----|-----|--------------------------------------|--------------------------------------|------|----------------------------------------|--------------------------------------------------------------------------------------------|------|------|--------------------------------------|--|----------------------------------------|--|--|
|                                        | IEC motor<br>acc. to<br>DIN 42673   |      |      |      |      |     |     |                                      | iN=80-180<br>iN=100-224<br>iN=90-200 |      | iN=200-315<br>iN=250-400<br>iN=224-355 |                                                                                            |      |      | iN=80-180<br>iN=100-224<br>iN=90-200 |  | iN=200-315<br>iN=250-400<br>iN=224-355 |  |  |
|                                        | IEC motor<br>nach<br>DIN 42673      | e    | h    | h1   | h2   | l1  | b1  | b2                                   | mm                                   |      |                                        |                                                                                            | b3   | b4   | l3 <sup>2)</sup>                     |  | l3 <sup>2)</sup>                       |  |  |
|                                        |                                     |      |      |      |      |     |     |                                      |                                      |      |                                        |                                                                                            |      |      |                                      |  |                                        |  |  |
|                                        |                                     |      |      |      |      |     |     |                                      |                                      |      |                                        |                                                                                            |      |      |                                      |  |                                        |  |  |
| PB134                                  | 180 M                               | 1750 | 800  | 940  | 1340 | 405 | 345 | 185                                  | -                                    | 2324 | 210                                    | 590                                                                                        | -    | 2355 |                                      |  |                                        |  |  |
|                                        | 180 L                               |      |      |      |      |     |     | -                                    | 2362                                 | -    |                                        |                                                                                            | 2393 |      |                                      |  |                                        |  |  |
|                                        | 200 L                               |      |      |      |      |     |     | 215                                  | -                                    | 2444 |                                        |                                                                                            | -    | 2475 |                                      |  |                                        |  |  |
|                                        | 225 S                               |      |      |      |      |     |     |                                      | 2507                                 | 2497 | 260                                    | 665                                                                                        | 2554 | 2554 |                                      |  |                                        |  |  |
|                                        | 225 M                               |      |      |      |      |     |     | 240                                  | 2532                                 | 2522 |                                        |                                                                                            | 2579 | 2579 |                                      |  |                                        |  |  |
|                                        | 250 M                               |      |      |      |      |     |     | 265                                  | 2619                                 | 2609 |                                        |                                                                                            | 2666 | 2666 |                                      |  |                                        |  |  |
|                                        | 280 S                               |      |      |      |      |     |     | 300                                  | 2693                                 | -    |                                        |                                                                                            | 2782 | -    |                                      |  |                                        |  |  |
|                                        | 280 M                               |      |      |      |      |     |     |                                      | 2744                                 | -    |                                        |                                                                                            | 2833 | -    |                                      |  |                                        |  |  |
| PB144                                  | 180 M                               | 1750 | 800  | 940  | 1340 | 475 | 345 | 185                                  | -                                    | 2464 | 210                                    | 590                                                                                        | -    | 2495 |                                      |  |                                        |  |  |
|                                        | 180 L                               |      |      |      |      |     |     | -                                    | 2502                                 | -    |                                        |                                                                                            | 2533 |      |                                      |  |                                        |  |  |
|                                        | 200 L                               |      |      |      |      |     |     | 215                                  | -                                    | 2584 |                                        |                                                                                            | -    | 2615 |                                      |  |                                        |  |  |
|                                        | 225 S                               |      |      |      |      |     |     |                                      | 2647                                 | 2637 | 260                                    | 665                                                                                        | 2694 | 2694 |                                      |  |                                        |  |  |
|                                        | 225 M                               |      |      |      |      |     |     | 240                                  | 2672                                 | 2662 |                                        |                                                                                            | 2719 | 2719 |                                      |  |                                        |  |  |
|                                        | 250 M                               |      |      |      |      |     |     | 265                                  | 2759                                 | 2749 |                                        |                                                                                            | 2806 | 2806 |                                      |  |                                        |  |  |
|                                        | 280 S                               |      |      |      |      |     |     | 300                                  | 2833                                 | -    |                                        |                                                                                            | 2922 | -    |                                      |  |                                        |  |  |
|                                        | 280 M                               |      |      |      |      |     |     |                                      | 2884                                 | -    |                                        |                                                                                            | 2973 | -    |                                      |  |                                        |  |  |
| PB154                                  | 200 L                               | 2000 | 975  | 1150 | 1650 | 485 | 345 | 215                                  | -                                    | 2766 | 210                                    | 590                                                                                        | -    | 2797 |                                      |  |                                        |  |  |
|                                        | 225 S                               |      |      |      |      |     |     | 240                                  | -                                    | 2819 | -                                      | 2866                                                                                       |      |      |                                      |  |                                        |  |  |
|                                        | 225 M                               |      |      |      |      |     |     | 265                                  | -                                    | 2844 | 260                                    | 665                                                                                        | -    | 2891 |                                      |  |                                        |  |  |
|                                        | 250 M                               |      |      |      |      |     |     | 300                                  | 2956                                 | 2931 | 2995                                   | 2978                                                                                       |      |      |                                      |  |                                        |  |  |
|                                        | 280 S                               |      |      |      |      |     |     | 3111                                 | 3094                                 |      |                                        |                                                                                            |      |      |                                      |  |                                        |  |  |
|                                        | 280 M                               |      |      |      |      |     |     | 3081                                 | 3056                                 | 3145 | 3145                                   |                                                                                            |      |      |                                      |  |                                        |  |  |
| PB164                                  | 200 L                               | 2000 | 975  | 1150 | 1650 | 530 | 345 | 215                                  | -                                    | 2857 | 210                                    | 590                                                                                        | -    | 2888 |                                      |  |                                        |  |  |
|                                        | 225 S                               |      |      |      |      |     |     | 240                                  | -                                    | 2910 | -                                      | 2957                                                                                       |      |      |                                      |  |                                        |  |  |
|                                        | 225 M                               |      |      |      |      |     |     | -                                    | 2935                                 | 260  | 665                                    | -                                                                                          | 2982 |      |                                      |  |                                        |  |  |
|                                        | 250 M                               |      |      |      |      |     |     | 265                                  | 3047                                 | 3022 | 3086                                   | 3069                                                                                       |      |      |                                      |  |                                        |  |  |
|                                        | 280 S                               |      |      |      |      |     |     | 300                                  | 3121                                 | 3096 | 3202                                   | 3185                                                                                       |      |      |                                      |  |                                        |  |  |
|                                        | 280 M                               |      |      |      |      |     |     |                                      | 3172                                 | 3147 | 3236                                   | 3236                                                                                       |      |      |                                      |  |                                        |  |  |
| PB174                                  | 225 M                               | 2200 | 1025 | 1200 | 1700 | 525 | 500 | 240                                  | -                                    | 2932 | 260                                    | 665                                                                                        | -    | 2979 |                                      |  |                                        |  |  |
|                                        | 265                                 |      |      |      |      |     |     | -                                    | 3019                                 | -    |                                        |                                                                                            | 3066 |      |                                      |  |                                        |  |  |
|                                        | 280 S                               |      |      |      |      |     |     | 300                                  | 3118                                 | 3093 | 3199                                   | 3182                                                                                       |      |      |                                      |  |                                        |  |  |
|                                        | 280 M                               |      |      |      |      |     |     |                                      | 3169                                 | 3144 | 3233                                   | 3233                                                                                       |      |      |                                      |  |                                        |  |  |
| PB184                                  | 225 M                               | 2200 | 1025 | 1200 | 1700 | 525 | 500 | 240                                  | -                                    | 3052 | 260                                    | 665                                                                                        | -    | 3099 |                                      |  |                                        |  |  |
|                                        | 265                                 |      |      |      |      |     |     | -                                    | 3139                                 | -    |                                        |                                                                                            | 3186 |      |                                      |  |                                        |  |  |
|                                        | 280 S                               |      |      |      |      |     |     | 300                                  | 3238                                 | 3213 | 3319                                   | 3302                                                                                       |      |      |                                      |  |                                        |  |  |
|                                        | 280 M                               |      |      |      |      |     |     |                                      | 3289                                 | 3264 | 3353                                   | 3353                                                                                       |      |      |                                      |  |                                        |  |  |

1) Talep edildiğinde.

2) Fanlı redüktörler için I2\*, I3\*

Redüktör taban şasesinin ağırlığı, talep üzerine temin edilir.

1) On request

2) I2\*, I3\* for gear units with fan

Weight of gear unit swing - base on request

1) Auf Anfrage

2) I2\*, I3\* für Getriebe mit Lüfter

Gewicht der Getriebeschwinge auf Anfrage

TR KAPLİN F, IEC-MOTORLU, KAPLİN  
BAĞLANTILI VE FRENLİ REDÜKTÖRLEREN GEAR UNIT SWING-BASES WITH F  
COUPLINGS, IEC MOTORS AND ASSIGNED  
COUPLINGS AND BRAKESDE GETRIEBESCHWINGEN MIT F  
KUPPLUNGEN, IEC-MOTOREN UND  
ZUGEORDNETEN KUPPLUNGEN  
UND BREMSSEN

Tablo 8 / Table 8 / Tabelle 8

| DIN 42673'e göre IEC'li motor acc. to DIN 42673 IEC motor nach DIN 42673 | KAPLİN F / F COUPLINGS / F KUPPLUNGEN- 3)<br>Ön hücreli kaplin, Harekete geçme faktörü 2<br>Coupling without delay chamber, starting factor 2<br>Kupplung ohne Vorkammer, Anfahrfaktor 2 |                                                                                        |                                                                        | KAPLİN F / F COUPLINGS / F KUPPLUNGEN- 3)<br>Ön hücreli kaplin, Harekete geçme faktörü 1.5<br>Coupling with delay chamber, starting factor 1.5<br>Kupplung mit Vorkammer, Anfahrfaktor 1.5 |                                                                                        |                                                                        |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------|
|                                                                          | Tip / Gövde<br>Type / Size<br>Bauart / Größe                                                                                                                                             | Kaplin F<br>Tipi - boyutu<br>F Coupling<br>Type / Size<br>F Kupplung<br>Bauart / Größe | Tambur Freninin<br>Boyutu<br>Drum brake size<br>Trommelbremse<br>Größe | Tip / Gövde<br>Type / Size<br>Bauart / Größe                                                                                                                                               | Kaplin F<br>Tipi - boyutu<br>F Coupling<br>Type / Size<br>F Kupplung<br>Bauart / Größe | Tambur Freninin<br>Boyutu<br>Drum brake size<br>Trommelbremse<br>Größe |
| 1500-1min                                                                |                                                                                                                                                                                          |                                                                                        |                                                                        |                                                                                                                                                                                            |                                                                                        |                                                                        |
| 100                                                                      | FAD 222                                                                                                                                                                                  | FADB 222                                                                               | TE 200                                                                 |                                                                                                                                                                                            |                                                                                        |                                                                        |
| 112                                                                      | FAD 222                                                                                                                                                                                  | FADB 222                                                                               | TE 200                                                                 |                                                                                                                                                                                            |                                                                                        |                                                                        |
| 132 S                                                                    | FAD 222                                                                                                                                                                                  | FADB 222                                                                               | TE 200                                                                 |                                                                                                                                                                                            |                                                                                        |                                                                        |
| 132 M                                                                    | FAD 297                                                                                                                                                                                  | FADB 297                                                                               | TE 200                                                                 |                                                                                                                                                                                            |                                                                                        |                                                                        |
| 160                                                                      | FAD 297                                                                                                                                                                                  | FADB 297                                                                               | TE 200                                                                 | FND 370                                                                                                                                                                                    | FNDB 370                                                                               | TE 315                                                                 |
| 180 M                                                                    | FAD 297                                                                                                                                                                                  | FADB 297                                                                               | TE 250                                                                 | FND 370                                                                                                                                                                                    | FNDB 370                                                                               | TE 315                                                                 |
| 180 L                                                                    | FAD 342                                                                                                                                                                                  | FADB 342                                                                               | TE 250                                                                 | FND 370                                                                                                                                                                                    | FNDB 370                                                                               | TE 315                                                                 |
| 200                                                                      | FAD 342                                                                                                                                                                                  | FADB 342                                                                               | TE 250                                                                 | FND 370                                                                                                                                                                                    | FNDB 370                                                                               | TE 315                                                                 |
| 225                                                                      | FAD 395                                                                                                                                                                                  | FADB 395                                                                               | TE 315                                                                 | FND 370                                                                                                                                                                                    | FNDB 370                                                                               | TE 315                                                                 |
| 250                                                                      | FAD 395                                                                                                                                                                                  | FADB 395                                                                               | TE 315                                                                 | FND 425                                                                                                                                                                                    | FNDB 425                                                                               | TE 315                                                                 |
| 280                                                                      | FAD 450                                                                                                                                                                                  | FADB 450                                                                               | TE 315                                                                 | FND 425                                                                                                                                                                                    | FNDB 425                                                                               | TE 315                                                                 |
| 315 S                                                                    | FAD 516                                                                                                                                                                                  | FADB 516                                                                               | TE 400                                                                 | FND 490                                                                                                                                                                                    | FNDB 490                                                                               | TE 400                                                                 |
| 315 M                                                                    | FAD 516                                                                                                                                                                                  | FADB 516                                                                               | TE 400                                                                 | FND 490                                                                                                                                                                                    | FNDB 490                                                                               | TE 400                                                                 |

3) EOC-Devre kesicisi, talep üzerine temin edilir.  
Fren diskli Kaplin F, sadece talep üzerine temin edilir.

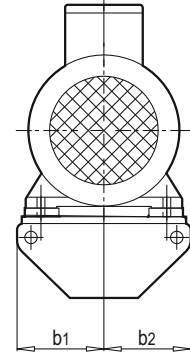
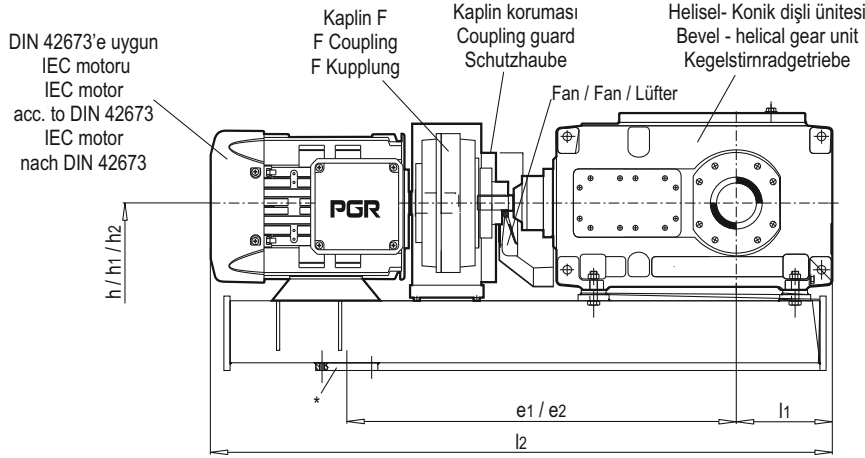
3) EOC circuit breaker on request  
F Couplings with brake disk on request

3) EOC- Abschaltung auf Anfrage  
F - Kupplungen mit Bremsscheibe auf Anfrage

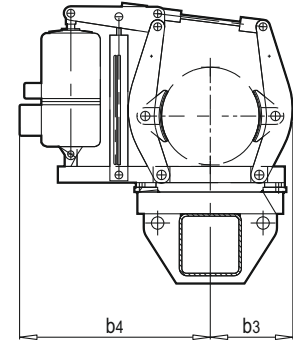
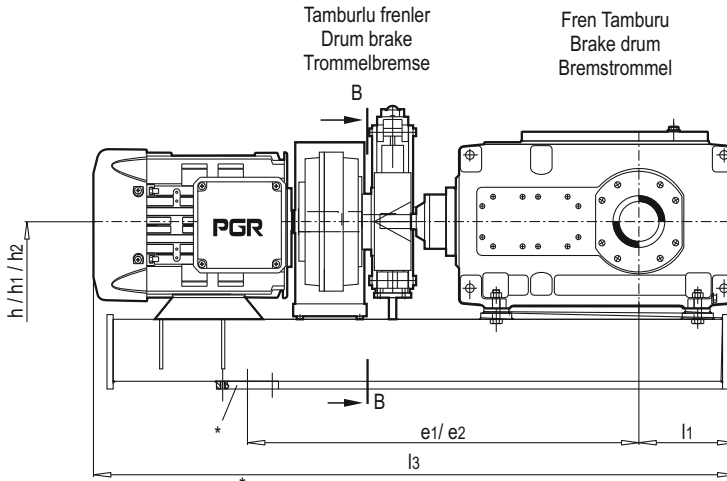
**TR** KAPLİN F, IEC-MOTORLU, KAPLİN  
BAĞLANTILI VE FRENLİ REDÜKTÖRLER

**EN** GEAR UNIT SWING-BASES WITH F  
COUPLINGS, IEC MOTORS AND ASSIGNED  
COUPLINGS AND BRAKES

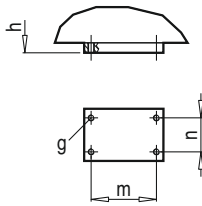
**DE** GETRIEBESCHWINGEN MIT F  
KUPPLUNGEN, IEC-MOTOREN UND  
ZUGEORDNETEN KUPPLUNGEN  
UND BREMSEN



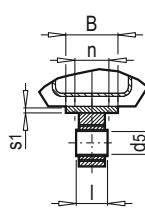
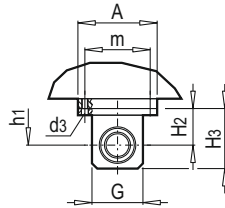
**Kesit B - B  
Section B - B  
Schnitt B - B**



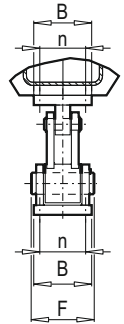
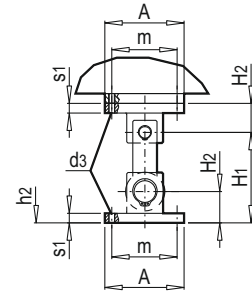
Bağlantı Plakası  
Connection plate  
Anschlußplatte



Elastik Destek  
Flexible pedestal  
elastischer Stützbock



Tork kolu  
Torque reaction arm  
Drehmomentstütze



**Tablo 9 / Table 9 / Tabelle 9**

| Gövde<br>Size<br>Größe | Burç<br>Bush<br>Buchse | mm  |     |      |     |     |     |     |     |     |     |     |     |     |    | Ağırlık / Weight / Gewicht            |                                                                              |
|------------------------|------------------------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---------------------------------------|------------------------------------------------------------------------------|
|                        |                        | m   | n   | g    | Ød3 | A   | B   | Ød5 | F   | G   | H1  | H2  | H3  | I   | s1 | Destek<br>Pedestal<br>Stützbock<br>kg | Dönme momenti<br>destekleri<br>Torque reaction arm<br>Drehmomentstütze<br>kg |
| 4...                   | 069                    | 95  | 65  | M 12 | 15  | 120 | 90  | 25  | 96  | 60  | 180 | 50  | 80  | 56  | 12 | 2.1                                   | 5.8                                                                          |
| 5... / 6...            | 079                    | 120 | 70  | M 16 | 19  | 160 | 110 | 32  | 116 | 75  | 200 | 65  | 105 | 72  | 15 | 5.3                                   | 11.8                                                                         |
| 7... / 10...           | 095                    | 160 | 120 | M 16 | 19  | 200 | 160 | 50  | 170 | 110 | 250 | 90  | 145 | 110 | 20 | 16                                    | 34                                                                           |
| 11... / 12...          | 772                    | 260 | 130 | M 16 | 19  | 320 | 200 | 100 | 195 | 180 | 400 | 140 | 230 | 120 | 25 | 50                                    | 82                                                                           |

TR KAPLIN F BAĞLANTILI REDÜKTÖRLER

EN GEAR UNIT SWING-BASES WITH F FLUID COUPLINGS

DE GETRIEBESCHWINGEN MIT F STROMUNGSKUPPLUNGEN

Tablo 10 / Table 10 / Tabelle 10

| Tip<br>Gövde<br>Type<br>Size<br>Bauart<br>Größe             | DIN 42673'e<br>göre IEC'li<br>motor<br>acc. to<br>DIN 42673<br>IEC motor<br>nach<br>DIN 42673 |      |      |      |     |      |     |      |      |      |       | Kaplin F<br>F Coupling<br>F Kupplung |                |              |                |              |       |              |                                     | Kaplin F - Fren Tambur kaplini<br>F - Coupling with drum brake<br>F - Kupplung mit trommelbremse |              |                |       |              |  |  |  |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------|------|------|-----|------|-----|------|------|------|-------|--------------------------------------|----------------|--------------|----------------|--------------|-------|--------------|-------------------------------------|--------------------------------------------------------------------------------------------------|--------------|----------------|-------|--------------|--|--|--|
|                                                             |                                                                                               |      |      |      |     |      |     |      |      |      |       | İN = 12.5 - 45                       |                |              |                | İN = 50 - 71 |       |              |                                     |                                                                                                  |              | İN = 12.5 - 45 |       | İN = 50 - 71 |  |  |  |
|                                                             |                                                                                               |      |      |      |     |      |     |      |      |      |       | İN = 16 - 56                         |                | İN = 63 - 90 |                |              |       | İN = 16 - 56 |                                     | İN = 63 - 90                                                                                     |              |                |       |              |  |  |  |
|                                                             |                                                                                               |      |      |      |     |      |     |      |      |      |       | fA = 2<br>4)                         | fA = 1.5<br>4) | fA = 2<br>4) | fA = 1.5<br>4) |              |       | fA=2<br>4)   | fA=1.5<br>4)                        | fA=2<br>4)                                                                                       | fA=1.5<br>4) |                |       |              |  |  |  |
| e1 <sup>6)</sup>   e2 <sup>6)</sup>   h   h1   h2   l1   b1 |                                                                                               |      |      |      |     |      |     |      |      | b2   | l2 2) | l2 *2)                               | l2 2)          | l2 *2)       | l2 2)          | l2 *2)       | l2 2) | l2 *2)       | b3 <sup>5)</sup>   b4 <sup>5)</sup> | l3 2)                                                                                            | l3 2)        | l3 2)          | l3 2) |              |  |  |  |
| PB43                                                        | 132 S                                                                                         | 950  | 1250 | 380  | 430 | 610  | 190 | 160  | 145  | -    | -     | -                                    | -              | 1251         | 1243           | -            | -     | 170          | 470                                 | -                                                                                                | -            | 1283           | -     |              |  |  |  |
|                                                             | 132 M                                                                                         |      |      |      |     |      |     | -    | -    | -    | -     | 1342                                 | 1328           | -            | -              | -            | -     |              |                                     | 1368                                                                                             | -            |                |       |              |  |  |  |
|                                                             | 160 M                                                                                         |      |      |      |     |      |     | 1413 | 1413 | -    | -     | 1403                                 | 1413           | -            | -              | 1439         | -     |              |                                     | 1439                                                                                             | -            |                |       |              |  |  |  |
|                                                             | 160 L                                                                                         |      |      |      |     |      |     | 1457 | 1457 | -    | -     | 1447                                 | 1457           | -            | -              | 1483         | -     |              |                                     | 1483                                                                                             | -            |                |       |              |  |  |  |
|                                                             | 180 M                                                                                         |      |      |      |     |      |     | 1444 | 1479 | -    | -     | 1464                                 | 1469           | -            | -              | 1505         | -     |              |                                     | 1505                                                                                             | -            |                |       |              |  |  |  |
|                                                             | 180 L                                                                                         |      |      |      |     |      |     | 1550 | 1555 | -    | -     | -                                    | -              | -            | -              | 1601         | -     |              |                                     | -                                                                                                | -            |                |       |              |  |  |  |
|                                                             | 200 L                                                                                         |      |      |      |     |      |     | 215  | 1632 | 1637 | -     | -                                    | -              | -            | -              | -            | 1683  |              |                                     | -                                                                                                | -            | -              |       |              |  |  |  |
| PB53                                                        | 160 M                                                                                         | 1050 | 1300 | 450  | 515 | 715  | 205 | 185  | 170  | -    | -     | -                                    | -              | 1493         | 1503           | 1704         | 1724  | 170          | 470                                 | -                                                                                                | -            | 1529           | 1791  |              |  |  |  |
|                                                             | 160 L                                                                                         |      |      |      |     |      |     |      | 1557 | 1557 | 1758  | 1768                                 | 1537           | 1587         | 1748           | 1768         | 1578  |              |                                     | 1835                                                                                             | 1573         | 1835           |       |              |  |  |  |
|                                                             | 180 M                                                                                         |      |      |      |     |      |     |      | 1576 | 1574 | 1780  | 1790                                 | 1554           | 1569         | 1770           | 1790         | 1595  |              |                                     | 1857                                                                                             | 1595         | 1857           |       |              |  |  |  |
|                                                             | 180 L                                                                                         |      |      |      |     |      |     |      | 1650 | 1650 | 1818  | 1828                                 | 1630           | 1645         | 1808           | 1828         | 1691  |              |                                     | 1895                                                                                             | 1691         | 1895           |       |              |  |  |  |
|                                                             | 200 L                                                                                         |      |      |      |     |      |     |      | 215  | 1732 | 1732  | 1900                                 | 1910           | -            | -              | -            | -     |              |                                     | 1773                                                                                             | 1977         | -              | -     |              |  |  |  |
|                                                             | 225 S                                                                                         |      |      |      |     |      |     |      | 240  | 1)   | 1)    | 1922                                 | 1932           | -            | -              | -            | -     |              |                                     | 1)                                                                                               | 1999         | -              | -     |              |  |  |  |
|                                                             | 225 M                                                                                         |      |      |      |     |      |     |      |      | 1)   | 1)    | 1947                                 | 1957           | -            | -              | -            | -     |              |                                     | 1)                                                                                               | 2024         | -              | -     |              |  |  |  |
| PB63                                                        | 160 M                                                                                         | 1100 | 1350 | 450  | 515 | 715  | 250 | 185  | 170  | -    | -     | -                                    | -              | 1573         | 1583           | 1784         | 1804  | 170          | 470                                 | -                                                                                                | -            | 1609           | 1871  |              |  |  |  |
|                                                             | 160 L                                                                                         |      |      |      |     |      |     |      | 1635 | 1637 | 1838  | 1848                                 | 1617           | 1627         | 1828           | 1848         | 1658  |              |                                     | 1915                                                                                             | 1653         | 1915           |       |              |  |  |  |
|                                                             | 180 M                                                                                         |      |      |      |     |      |     |      | 1654 | 1654 | 1860  | 1870                                 | 1634           | 1649         | 1850           | 1870         | 1675  |              |                                     | 1937                                                                                             | 1675         | 1937           |       |              |  |  |  |
|                                                             | 180 L                                                                                         |      |      |      |     |      |     |      | 1730 | 1730 | 1898  | 1908                                 | 1710           | 1725         | 1888           | 1908         | 1771  |              |                                     | 1975                                                                                             | 1771         | 1975           |       |              |  |  |  |
|                                                             | 200 L                                                                                         |      |      |      |     |      |     |      | 215  | 1812 | 1812  | 1980                                 | 1990           | -            | -              | -            | -     |              |                                     | 1853                                                                                             | 2057         | -              | -     |              |  |  |  |
|                                                             | 225 S                                                                                         |      |      |      |     |      |     |      | 240  | 1)   | 1)    | 2002                                 | 2012           | -            | -              | -            | -     |              |                                     | 1)                                                                                               | 2079         | -              | -     |              |  |  |  |
|                                                             | 225 M                                                                                         |      |      |      |     |      |     |      |      | 1)   | 1)    | 2027                                 | 2037           | -            | -              | -            | -     |              |                                     | 1)                                                                                               | 2104         | -              | -     |              |  |  |  |
| PB73                                                        | 180 M                                                                                         | 1250 | 1450 | 540  | 630 | 880  | 250 | 215  | 185  | -    | -     | -                                    | -              | 1734         | 1734           | 1940         | 1950  | 210          | 590                                 | -                                                                                                | -            | 1755           | 2017  |              |  |  |  |
|                                                             | 180 L                                                                                         |      |      |      |     |      |     |      | -    | -    | -     | -                                    | 1810           | 1810         | 1978           | 1988         | -     |              |                                     | -                                                                                                | 1851         | 2055           |       |              |  |  |  |
|                                                             | 200 L                                                                                         |      |      |      |     |      |     |      | 215  | 1912 | 1912  | 2080                                 | 2080           | 1892         | 1992           | 2060         | 2070  |              |                                     | 1938                                                                                             | 2137         | 1933           | 2137  |              |  |  |  |
|                                                             | 225 S                                                                                         |      |      |      |     |      |     |      | 280  | 240  | 1928  | 1938                                 | 2102           | 2102         | 1918           | 1938         | 2082  |              |                                     | 2092                                                                                             | 1981         | 2159           | 1981  | 2159         |  |  |  |
|                                                             | 225 M                                                                                         |      |      |      |     |      |     |      |      | 1953 | 1963  | 2127                                 | 2127           | 1943         | 1963           | 2107         | 2117  |              |                                     | 2006                                                                                             | 2184         | 2006           | 2184  |              |  |  |  |
|                                                             | 250 M                                                                                         |      |      |      |     |      |     |      |      | 265  | 2040  | 2050                                 | 2271           | 2271         | -              | -            | -     |              |                                     | -                                                                                                | 2093         | 2333           | -     | -            |  |  |  |
|                                                             | 280 S                                                                                         |      |      |      |     |      |     |      |      | 300  | 2142  | 2162                                 | 2345           | 2345         | -              | -            | -     |              |                                     | -                                                                                                | 2199         | 2407           | -     | -            |  |  |  |
| 280 M                                                       | 1)                                                                                            | 1)   | 2396 | 2396 | -   | -    | -   | -    | 1)   |      | 2458  | -                                    | -              |              |                |              |       |              |                                     |                                                                                                  |              |                |       |              |  |  |  |
| PB83                                                        | 180 M                                                                                         | 1300 | 1500 | 540  | 630 | 880  | 310 | 215  | 185  | -    | -     | -                                    | -              | 1839         | 1839           | 2045         | 2055  | 210          | 590                                 | -                                                                                                | -            | 1860           | 2122  |              |  |  |  |
|                                                             | 180 L                                                                                         |      |      |      |     |      |     |      | -    | -    | -     | -                                    | 1915           | 1815         | 2083           | 2093         | -     |              |                                     | -                                                                                                | 1956         | 2160           |       |              |  |  |  |
|                                                             | 200 L                                                                                         |      |      |      |     |      |     |      | 215  | 2017 | 2017  | 2185                                 | 2185           | 1997         | 1997           | 2165         | 2145  |              |                                     | 2043                                                                                             | 2242         | 2038           | 2242  |              |  |  |  |
|                                                             | 225 S                                                                                         |      |      |      |     |      |     |      | 280  | 240  | 2033  | 2043                                 | 2207           | 2207         | 2023           | 2043         | 2187  |              |                                     | 2197                                                                                             | 2086         | 2264           | 2086  | 2264         |  |  |  |
|                                                             | 225 M                                                                                         |      |      |      |     |      |     |      |      | 2058 | 2068  | 2232                                 | 2232           | 2048         | 2068           | 2212         | 2222  |              |                                     | 2111                                                                                             | 2289         | 2111           | 2289  |              |  |  |  |
|                                                             | 250 M                                                                                         |      |      |      |     |      |     |      |      | 265  | 2145  | 2155                                 | 2376           | 2376         | -              | -            | -     |              |                                     | -                                                                                                | 2198         | 2438           | -     | -            |  |  |  |
|                                                             | 280 S                                                                                         |      |      |      |     |      |     |      |      | 300  | 2247  | 2267                                 | 2450           | 2450         | -              | -            | -     |              |                                     | -                                                                                                | 2304         | 2512           | -     | -            |  |  |  |
| 280 M                                                       | 1)                                                                                            | 1)   | 2501 | 2501 | -   | -    | -   | -    | 1)   |      | 2563  | -                                    | -              |              |                |              |       |              |                                     |                                                                                                  |              |                |       |              |  |  |  |
| PB93                                                        | 200 L                                                                                         | 1450 | 1650 | 630  | 720 | 970  | 300 | 260  | 215  | -    | -     | -                                    | -              | 2072         | 2072           | 2240         | 2240  | 210          | 590                                 | -                                                                                                | -            | 2098           | 2297  |              |  |  |  |
|                                                             | 225 S                                                                                         |      |      |      |     |      |     |      | -    | -    | -     | -                                    | 2088           | 2108         | 2262           | 2262         | -     |              |                                     | -                                                                                                | 2141         | 2319           |       |              |  |  |  |
|                                                             | 225 M                                                                                         |      |      |      |     |      |     |      | 240  | 2123 | 2133  | 2297                                 | 2297           | 2113         | 2133           | 2287         | 2287  |              |                                     | 2166                                                                                             | 2344         | 2166           | 2344  |              |  |  |  |
|                                                             | 250 M                                                                                         |      |      |      |     |      |     |      | 265  | 2210 | 2220  | 2441                                 | 2441           | 2200         | 2220           | 2431         | 2441  |              |                                     | 2253                                                                                             | 2493         | 2253           | 2493  |              |  |  |  |
|                                                             | 280 S                                                                                         |      |      |      |     |      |     |      | 305  | 300  | 2312  | 2332                                 | 2515           | 2515         | 2302           | 2332         | 2505  |              |                                     | 2515                                                                                             | 2359         | 2567           | 2359  | 2567         |  |  |  |
|                                                             | 280 M                                                                                         |      |      |      |     |      |     |      |      | 2363 | 2383  | 2566                                 | 2566           | -            | -              | -            | -     |              |                                     | 2410                                                                                             | 2618         | -              | -     |              |  |  |  |
| PB103                                                       | 200 L                                                                                         | 1500 | 1700 | 630  | 720 | 970  | 350 | 260  | 215  | -    | -     | -                                    | -              | 2172         | 2172           | 2340         | 2340  | 210          | 590                                 | -                                                                                                | -            | 2198           | 2397  |              |  |  |  |
|                                                             | 225 S                                                                                         |      |      |      |     |      |     |      | -    | -    | -     | -                                    | 2188           | 2208         | 2362           | 2362         | -     |              |                                     | -                                                                                                | 2241         | 2419           |       |              |  |  |  |
|                                                             | 225 M                                                                                         |      |      |      |     |      |     |      | 240  | 2223 | 2233  | 2397                                 | 2397           | 2213         | 2233           | 2387         | 2387  |              |                                     | 2266                                                                                             | 2444         | 2266           | 2444  |              |  |  |  |
|                                                             | 250 M                                                                                         |      |      |      |     |      |     |      | 265  | 2310 | 2320  | 2541                                 | 2541           | 2300         | 2320           | 2531         | 2541  |              |                                     | 2353                                                                                             | 2593         | 2353           | 2593  |              |  |  |  |
|                                                             | 280 S                                                                                         |      |      |      |     |      |     |      | 305  | 300  | 2412  | 2432                                 | 2615           | 2615         | 2402           | 2432         | 2605  |              |                                     | 2615                                                                                             | 2459         | 2667           | 2459  | 2667         |  |  |  |
|                                                             | 280 M                                                                                         |      |      |      |     |      |     |      |      | 2463 | 2483  | 2666                                 | 2666           | -            | -              | -            | -     |              |                                     | 2510                                                                                             | 2718         | -              | -     |              |  |  |  |
| PB113                                                       | 250 M                                                                                         | 1650 | 1900 | 740  | 880 | 1280 | 345 | 355  | 265  | -    | -     | -                                    | -              | 2415         | 2425           | 2646         | 2646  | 260          | 665                                 | -                                                                                                | -            | 2458           | 2698  |              |  |  |  |
|                                                             | 280 S                                                                                         |      |      |      |     |      |     |      | -    | -    | -     | -                                    | 2517           | 2537         | 2720           | 2720         | -     |              |                                     | -                                                                                                | 2564         | 2772           |       |              |  |  |  |
|                                                             | 280 M                                                                                         |      |      |      |     |      |     |      | 2593 | 2593 | 2796  | 2796                                 | 2568           | 2588         | 2771           | 2771         | 2632  |              |                                     | 2840                                                                                             | 2615         | 2823           |       |              |  |  |  |
| PB123                                                       | 250 M                                                                                         | 1700 | 1950 | 740  | 880 | 1280 | 430 | 355  | 265  | -    | -     | -                                    | -              | 2570         | 2580           | 2801         | 2801  | 260          | 665                                 | -                                                                                                | -            | 2613           | 2853  |              |  |  |  |
|                                                             | 280 S                                                                                         |      |      |      |     |      |     |      | -    | -    | -     | -                                    | 2672           | 2692         | 2875           | 2875         | -     |              |                                     | -                                                                                                | 2719         | 2927           |       |              |  |  |  |
|                                                             | 280 M                                                                                         |      |      |      |     |      |     |      | 300  | 2748 | 2748  | 2951                                 | 2951           | 2723         | 2743           | 2926         | 2926  |              |                                     | 2787                                                                                             | 2995         | 2770           | 2978  |              |  |  |  |

TR KAPLIN F BAĞLANTILI REDÜKTÖRLER

EN GEAR UNIT SWING-BASES WITH F FLUID COUPLINGS

DE GETRIEBESCHWINGEN MIT F - STRÖMUNGSKUPPLUNGEN

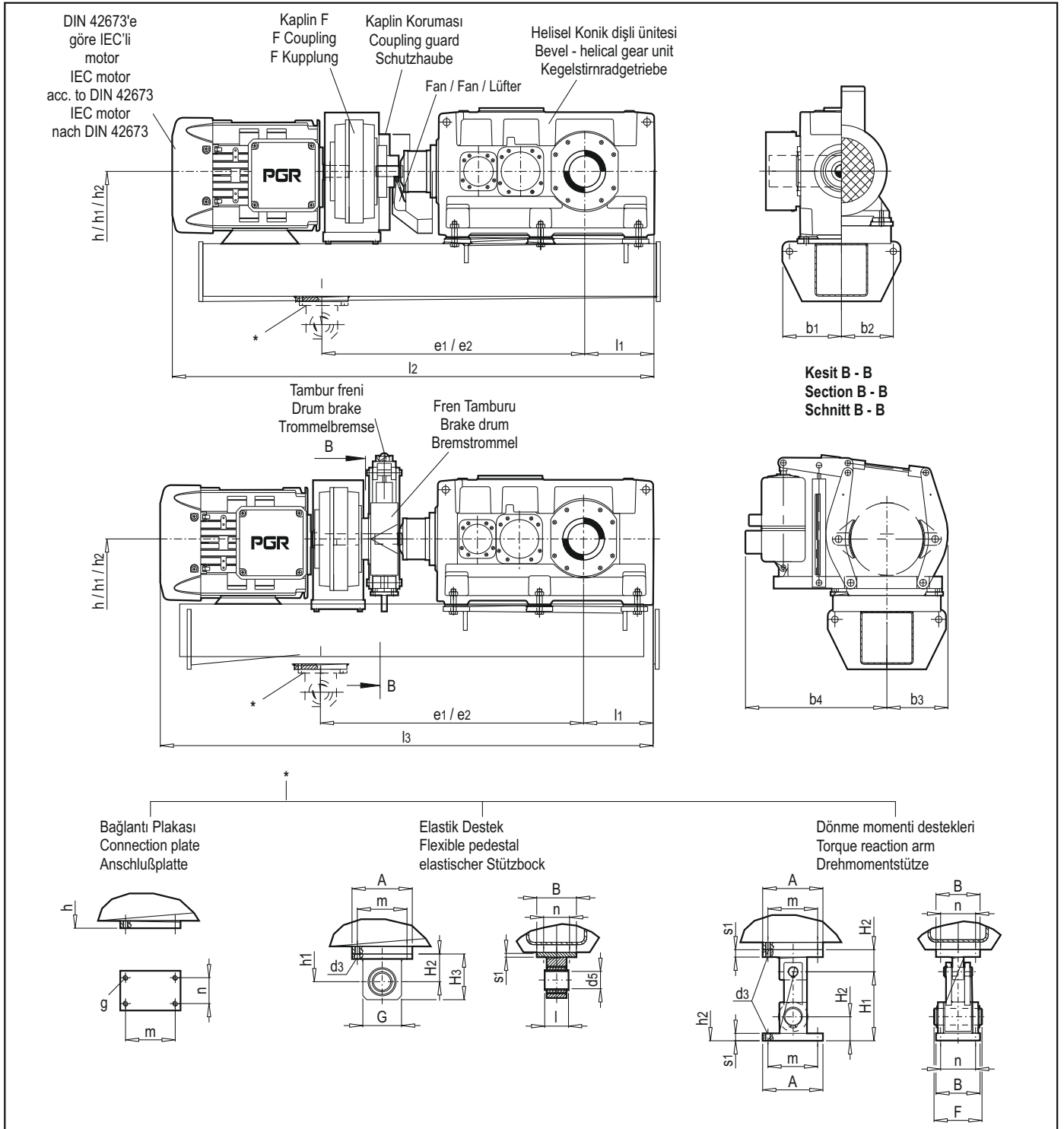
Tablo 11 / Table 11 / Tabelle 11

| Tip<br>Gövde<br>Type<br>Size<br>Bauart<br>Größe | DIN 42673'e<br>göre IEC'li<br>motor<br>IEC motor<br>acc. to<br>DIN 42673<br>IEC motor<br>nach<br>DIN 42673 |                  |                  |      |     |      |      |      | Kaplin F<br>F Coupling<br>F Kupplung |                  |                                  |                  | Kaplin F - Fren Tambur Kaplini<br>F - Coupling with drum brake<br>F - Kupplung mit trommelbremse |                  |                                  |                  |                  |      |      |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------|------------------|------|-----|------|------|------|--------------------------------------|------------------|----------------------------------|------------------|--------------------------------------------------------------------------------------------------|------------------|----------------------------------|------------------|------------------|------|------|
|                                                 |                                                                                                            |                  |                  |      |     |      |      |      | İN = 80 - 180<br>İN = 100 - 224      |                  | İN = 200 - 315<br>İN = 250 - 400 |                  | İN = 80 - 180<br>İN = 100 - 224                                                                  |                  | İN = 200 - 315<br>İN = 250 - 400 |                  |                  |      |      |
|                                                 |                                                                                                            |                  |                  |      |     |      |      |      | fA = 2<br>4)                         | fA = 1.5<br>4)   | fA = 2<br>4)                     | fA = 1.5<br>4)   | fA = 2<br>4)                                                                                     | fA = 1.5<br>4)   | fA = 2<br>4)                     | fA = 1.5<br>4)   |                  |      |      |
|                                                 |                                                                                                            | e1 <sup>6)</sup> | e2 <sup>6)</sup> | h    | h1  | h2   | l1   | b1   | b2                                   | l2 <sup>2)</sup> | l2 <sup>2)</sup><br>mm           | b3 <sup>5)</sup> | b4 <sup>5)</sup>                                                                                 | l3 <sup>2)</sup> | l3 <sup>2)</sup>                 | l3 <sup>2)</sup> | l3 <sup>2)</sup> |      |      |
| PB54                                            | 100 L                                                                                                      | 950              | 1250             | 450  | 515 | 715  | 205  | 185  | 115                                  | -                | -                                | 1338             | -                                                                                                | 170              | 470                              | -                | -                | 1375 | -    |
|                                                 | 112 M                                                                                                      |                  |                  |      |     |      |      |      | 130                                  | 1349             | -                                | 1344             | -                                                                                                |                  |                                  | 1386             | -                | 1381 | -    |
|                                                 | 132 S                                                                                                      |                  |                  |      |     |      |      |      | 145                                  | 1376             | -                                | 1371             | -                                                                                                |                  |                                  | 1413             | -                | 1413 | -    |
|                                                 | 132 M                                                                                                      |                  |                  |      |     |      |      |      | 1467                                 | -                | 1462                             | -                | 1498                                                                                             |                  |                                  | -                | 1498             | -    |      |
|                                                 | 160 M                                                                                                      |                  |                  |      |     |      |      |      | 170                                  | 1528             | 1744                             | -                | -                                                                                                |                  |                                  | 1569             | 1831             | -    | -    |
|                                                 | 160 L                                                                                                      |                  |                  |      |     |      |      |      | 1572                                 | 1788             | -                                | -                | 1613                                                                                             |                  |                                  | 1875             | -                | -    |      |
| 180 M                                           | 185                                                                                                        | 1589             | 1810             | -    | -   | 210  | 590  | 1635 | 1897                                 | -                | -                                |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| PB64                                            | 100 L                                                                                                      | 1000             | 1300             | 450  | 515 | 715  | 250  | 185  | 115                                  | -                | -                                | 1418             | -                                                                                                | 170              | 470                              | -                | -                | 1455 | -    |
|                                                 | 112 M                                                                                                      |                  |                  |      |     |      |      |      | 130                                  | 1429             | -                                | 1424             | -                                                                                                |                  |                                  | 1466             | -                | 1461 | -    |
|                                                 | 132 S                                                                                                      |                  |                  |      |     |      |      |      | 145                                  | 1456             | -                                | 1451             | -                                                                                                |                  |                                  | 1493             | -                | 1493 | -    |
|                                                 | 132 M                                                                                                      |                  |                  |      |     |      |      |      | 1547                                 | -                | 1542                             | -                | 1578                                                                                             |                  |                                  | -                | 1578             | -    |      |
|                                                 | 160 M                                                                                                      |                  |                  |      |     |      |      |      | 170                                  | 1626             | 1824                             | -                | -                                                                                                |                  |                                  | 1649             | 1911             | -    | -    |
|                                                 | 160 L                                                                                                      |                  |                  |      |     |      |      |      | 1652                                 | 1868             | -                                | -                | 1693                                                                                             |                  |                                  | 1955             | -                | -    |      |
| 180 M                                           | 185                                                                                                        | 1669             | 1890             | -    | -   | 210  | 590  | 1715 | 1977                                 | -                | -                                |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| PB74                                            | 132 S                                                                                                      | 1050             | 1350             | 540  | 630 | 880  | 250  | 215  | 145                                  | -                | -                                | 1536             | -                                                                                                | 170              | 470                              | -                | -                | 1568 | -    |
|                                                 | 132 M                                                                                                      |                  |                  |      |     |      |      |      | 1637                                 | -                | 1627                             | -                | 1670                                                                                             |                  |                                  | -                | 1653             | -    |      |
|                                                 | 160 M                                                                                                      |                  |                  |      |     |      |      |      | 170                                  | 1698             | 1899                             | 1688             | 1899                                                                                             |                  |                                  | 1724             | 1986             | 1724 | 1986 |
|                                                 | 160 L                                                                                                      |                  |                  |      |     |      |      |      | 1742                                 | 1943             | 1732                             | 1943             | 1768                                                                                             |                  |                                  | 2030             | 1768             | 2030 |      |
|                                                 | 180 M                                                                                                      |                  |                  |      |     |      |      |      | 185                                  | 1759             | 1965                             | -                | -                                                                                                |                  |                                  | 1790             | 2052             | -    | -    |
|                                                 | 180 L                                                                                                      |                  |                  |      |     |      |      |      | 1835                                 | 2003             | -                                | -                | 210                                                                                              |                  |                                  | 590              | 1886             | 2090 | -    |
| 200 L                                           | 215                                                                                                        | 1917             | 2085             | -    | -   | 1968 | 2172 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| PB84                                            | 132 S                                                                                                      | 1100             | 1400             | 540  | 630 | 880  | 310  | 215  | 145                                  | -                | -                                | 1641             | -                                                                                                | 170              | 470                              | -                | -                | 1673 | -    |
|                                                 | 132 M                                                                                                      |                  |                  |      |     |      |      |      | 1742                                 | -                | 1732                             | -                | 1775                                                                                             |                  |                                  | -                | 1758             | -    |      |
|                                                 | 160 M                                                                                                      |                  |                  |      |     |      |      |      | 170                                  | 1803             | 2004                             | 1793             | 2004                                                                                             |                  |                                  | 1829             | 2091             | 1829 | 2091 |
|                                                 | 160 L                                                                                                      |                  |                  |      |     |      |      |      | 1847                                 | 2048             | 1837                             | 2048             | 1873                                                                                             |                  |                                  | 2135             | 1873             | 2135 |      |
|                                                 | 180 M                                                                                                      |                  |                  |      |     |      |      |      | 185                                  | 1864             | 2070                             | -                | -                                                                                                |                  |                                  | 1895             | 2157             | -    | -    |
|                                                 | 180 L                                                                                                      |                  |                  |      |     |      |      |      | 1940                                 | 2108             | -                                | -                | 210                                                                                              |                  |                                  | 590              | 1991             | 2195 | -    |
| 200 L                                           | 215                                                                                                        | 2022             | 2190             | -    | -   | 2073 | 2277 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| PB94                                            | 132 M                                                                                                      | 1250             | 1500             | 630  | 720 | 970  | 300  | 260  | 145                                  | -                | -                                | 1792             | -                                                                                                | 170              | 470                              | -                | -                | 1818 | -    |
|                                                 | 160 M                                                                                                      |                  |                  |      |     |      |      |      | 170                                  | -                | -                                | 1853             | 2064                                                                                             |                  |                                  | -                | -                | 1889 | 2151 |
|                                                 | 160 L                                                                                                      |                  |                  |      |     |      |      |      | 170                                  | 1897             | 2118                             | 1897             | 2108                                                                                             |                  |                                  | 1938             | 2195             | 1933 | 2195 |
|                                                 | 180 M                                                                                                      |                  |                  |      |     |      |      |      | 185                                  | 1914             | 2140                             | 1914             | 2130                                                                                             |                  |                                  | 1955             | 2217             | 1955 | 2217 |
|                                                 | 180 L                                                                                                      |                  |                  |      |     |      |      |      | 215                                  | 1990             | 2178                             | 1990             | 2168                                                                                             |                  |                                  | 2051             | 2255             | 2051 | 2255 |
|                                                 | 200 L                                                                                                      |                  |                  |      |     |      |      |      | 215                                  | 2072             | 2260                             | -                | -                                                                                                |                  |                                  | 2133             | 2337             | -    | -    |
| 225 S                                           | 240                                                                                                        | 2118             | 2282             | -    | -   | 2181 | 2359 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| 225 M                                           | 240                                                                                                        | 2143             | 2307             | -    | -   | 2206 | 2384 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| 250 M                                           | 305                                                                                                        | 265              | 2229             | 2451 | -   | -    | 2292 | 2533 | -                                    | -                |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| PB104                                           | 132 M                                                                                                      | 1300             | 1550             | 630  | 720 | 970  | 350  | 260  | 145                                  | -                | -                                | 1892             | -                                                                                                | 170              | 470                              | -                | -                | 1918 | -    |
|                                                 | 160 M                                                                                                      |                  |                  |      |     |      |      |      | 170                                  | -                | -                                | 1953             | 2164                                                                                             |                  |                                  | -                | -                | 1989 | 2251 |
|                                                 | 160 L                                                                                                      |                  |                  |      |     |      |      |      | 170                                  | 1997             | 2218                             | 1997             | 2208                                                                                             |                  |                                  | 2038             | 2295             | 2033 | 2295 |
|                                                 | 180 M                                                                                                      |                  |                  |      |     |      |      |      | 185                                  | 2014             | 2240                             | 2014             | 2230                                                                                             |                  |                                  | 2055             | 2317             | 2055 | 2317 |
|                                                 | 180 L                                                                                                      |                  |                  |      |     |      |      |      | 215                                  | 2090             | 2278                             | 2090             | 2268                                                                                             |                  |                                  | 2151             | 2355             | 2151 | 2355 |
|                                                 | 200 L                                                                                                      |                  |                  |      |     |      |      |      | 215                                  | 2172             | 2360                             | -                | -                                                                                                |                  |                                  | 2233             | 2437             | -    | -    |
| 225 S                                           | 240                                                                                                        | 2218             | 2382             | -    | -   | 2281 | 2459 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| 225 M                                           | 240                                                                                                        | 2243             | 2407             | -    | -   | 2306 | 2484 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| 250 M                                           | 305                                                                                                        | 265              | 2329             | 2551 | -   | -    | 2392 | 2633 | -                                    | -                |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| PB114                                           | 160 L                                                                                                      | 1450             | 1650             | 740  | 880 | 1280 | 345  | 270  | 170                                  | -                | -                                | 2132             | 2333                                                                                             | 170              | 470                              | -                | -                | 2153 | 2410 |
|                                                 | 180 M                                                                                                      |                  |                  |      |     |      |      |      | 185                                  | -                | -                                | 2149             | 2355                                                                                             |                  |                                  | -                | -                | 2170 | 2432 |
|                                                 | 180 L                                                                                                      |                  |                  |      |     |      |      |      | 215                                  | 2245             | 2413                             | 2225             | 2393                                                                                             |                  |                                  | 2271             | 2470             | 2266 | 2470 |
|                                                 | 200 L                                                                                                      |                  |                  |      |     |      |      |      | 240                                  | 2227             | 2495                             | 2307             | 2475                                                                                             |                  |                                  | 2353             | 2552             | 2348 | 2552 |
|                                                 | 225 S                                                                                                      |                  |                  |      |     |      |      |      | 240                                  | 2343             | 2517                             | 2332             | 2497                                                                                             |                  |                                  | 2396             | 2574             | 2395 | 2574 |
|                                                 | 225 M                                                                                                      |                  |                  |      |     |      |      |      | 240                                  | 2368             | 2542                             | -                | -                                                                                                |                  |                                  | 2421             | 2599             | -    | -    |
| 250 M                                           | 265                                                                                                        | 2455             | 2686             | -    | -   | 2508 | 2748 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| 280 S                                           | 300                                                                                                        | 2557             | 2760             | -    | -   | 2614 | 2822 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| 280 M                                           | 310                                                                                                        | 2608             | 2811             | -    | -   | 2665 | 2873 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| PB124                                           | 160 L                                                                                                      | 1500             | 1700             | 740  | 880 | 1280 | 430  | 270  | 170                                  | -                | -                                | 2287             | 2488                                                                                             | 210              | 590                              | -                | -                | 2308 | 2565 |
|                                                 | 180 M                                                                                                      |                  |                  |      |     |      |      |      | 185                                  | -                | -                                | 2306             | 2510                                                                                             |                  |                                  | -                | -                | 2325 | 2587 |
|                                                 | 180 L                                                                                                      |                  |                  |      |     |      |      |      | 215                                  | 2400             | 2568                             | 2380             | 2548                                                                                             |                  |                                  | 2426             | 2625             | 2421 | 2625 |
|                                                 | 200 L                                                                                                      |                  |                  |      |     |      |      |      | 240                                  | 2482             | 2650                             | 2462             | 2630                                                                                             |                  |                                  | 2508             | 2707             | 2503 | 2707 |
|                                                 | 225 S                                                                                                      |                  |                  |      |     |      |      |      | 240                                  | 2498             | 2672                             | 2487             | 2652                                                                                             |                  |                                  | 2551             | 2729             | 2550 | 2729 |
|                                                 | 225 M                                                                                                      |                  |                  |      |     |      |      |      | 240                                  | 2523             | 2697                             | -                | -                                                                                                |                  |                                  | 2576             | 2754             | -    | -    |
| 250 M                                           | 265                                                                                                        | 2610             | 2841             | -    | -   | 2663 | 2903 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| 280 S                                           | 300                                                                                                        | 2712             | 2915             | -    | -   | 2769 | 2977 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |
| 280 M                                           | 310                                                                                                        | 2763             | 2966             | -    | -   | 2820 | 3028 | -    | -                                    |                  |                                  |                  |                                                                                                  |                  |                                  |                  |                  |      |      |

TR KAPLIN F BAĞLANTILI REDÜKTÖRLER

EN GEAR UNIT SWING-BASES WITH F FLUID COUPLINGS

DE GETRIEBESCHWINGEN MIT F - STRÖMUNGSKUPPLUNGEN



Tablo 12 / Table 12 / Tabelle 12

| Gövde<br>Size<br>Größe | Burç<br>Bush<br>Buchse | mm  |     |     |     |     |     |     |     |     |     |     |     |     |    | Ağırlık / Weight / Gewicht      |                                                      |
|------------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---------------------------------|------------------------------------------------------|
|                        |                        | m   | n   | g   | Ød3 | A   | B   | Ød5 | F   | G   | H1  | H2  | H3  | I   | s1 | Destek<br>Pedestal<br>Stützbock | Torkolları<br>Torque reactionarm<br>Drehmomentstütze |
| 13...-14...            | 772                    | 260 | 130 | Ø19 | 19  | 320 | 200 | 100 | 195 | 180 | 400 | 140 | 230 | 120 | 25 | 50                              | 82                                                   |
| 15...-18...            | 805                    | 320 | 240 | Ø24 | 24  | 400 | 300 | 124 | 320 | 240 | 500 | 175 | 285 | 230 | 30 | 95                              | 220                                                  |

**TR** KAPLİN F BAĞLANTILI REDÜKTÖRLER

**EN** GEAR UNIT SWING-BASES WITH F  
FLUID COUPLINGS

**DE** GETRIEBESCHWINGEN MIT  
F - STRÖMUNGSKUPPLUNGEN

**Tablo 13 / Table 13 / Tabelle 13**

| Tip<br>Gövde<br>Type<br>Size<br>Bauart<br>Größe | DIN 42673'e<br>göre IEC'li<br>motor<br>IEC motor<br>acc. to<br>DIN 42673<br>IEC motor<br>nach<br>DIN 42673 |                  |                  |     |     |      |     |     |     | Kaplin F<br>F Coupling<br>F Kupplung |                  |                  |                  |                  |                  |                  |                  | Kaplin F - Fren Tambur kaplini<br>F - Coupling with drum brake<br>F - Kupplung mit trommelbremse |                  |                  |                  |                  |                  |                  |  |              |  |  |  |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------|------------------|-----|-----|------|-----|-----|-----|--------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|--------------|--|--|--|
|                                                 |                                                                                                            |                  |                  |     |     |      |     |     |     | İN = 12.5 - 45                       |                  |                  |                  | İN = 50 - 71     |                  |                  |                  |                                                                                                  |                  |                  |                  | İN = 12.5 - 45   |                  |                  |  | İN = 50 - 71 |  |  |  |
|                                                 |                                                                                                            |                  |                  |     |     |      |     |     |     | İN = 16 - 56                         |                  |                  |                  | İN = 63 - 90     |                  |                  |                  |                                                                                                  |                  |                  |                  | İN = 16 - 56     |                  |                  |  | İN = 63 - 90 |  |  |  |
|                                                 |                                                                                                            |                  |                  |     |     |      |     |     |     | fA=2                                 |                  | fA=1.5           |                  | fA=2             |                  | fA=1.5           |                  |                                                                                                  |                  |                  |                  | fA=2             |                  | fA=1.5           |  |              |  |  |  |
|                                                 |                                                                                                            |                  |                  |     |     |      |     |     |     | 4)                                   |                  | 4)               |                  | 4)               |                  | 4)               |                  |                                                                                                  |                  |                  |                  | 4)               |                  | 4)               |  |              |  |  |  |
|                                                 |                                                                                                            |                  |                  |     |     |      |     |     |     | l2 <sup>2)</sup>                     |                  | l2 <sup>2)</sup> |                  | l2 <sup>2)</sup> |                  | l2 <sup>2)</sup> |                  |                                                                                                  |                  |                  |                  | l3 <sup>2)</sup> |                  | l3 <sup>2)</sup> |  |              |  |  |  |
|                                                 |                                                                                                            |                  |                  |     |     |      |     | mm  |     |                                      |                  |                  |                  |                  |                  |                  |                  |                                                                                                  |                  |                  |                  |                  |                  |                  |  |              |  |  |  |
|                                                 |                                                                                                            | e1 <sup>6)</sup> | e2 <sup>6)</sup> | h   | h1  | h2   | l1  | b1  | b2  | l2 <sup>2)</sup>                     | l2 <sup>2)</sup> | l2 <sup>2)</sup> | l2 <sup>2)</sup> | l2 <sup>2)</sup> | l2 <sup>2)</sup> | l2 <sup>2)</sup> | l2 <sup>2)</sup> | b3 <sup>5)</sup>                                                                                 | b4 <sup>5)</sup> | l3 <sup>2)</sup> | l3 <sup>2)</sup> | l3 <sup>2)</sup> | l3 <sup>2)</sup> |                  |  |              |  |  |  |
| PB133                                           | 280 M                                                                                                      | 1900             | 2150             | 800 | 940 | 1340 | 405 | 345 | 300 | -                                    | -                | -                | -                | 2823             | 2823             | 3026             | 3026             | 260                                                                                              | 665              | -                | -                | 2862             | 3070             |                  |  |              |  |  |  |
| PB143                                           | 280 M                                                                                                      | 1900             | 2150             | 800 | 940 | 1340 | 475 | 345 | 300 | -                                    | -                | -                | -                | 2963             | 2963             | 3166             | 3166             | 260                                                                                              | 665              | -                | -                | 3002             | 3210             |                  |  |              |  |  |  |

## TR KAPLIN F BAĞLANTILI REDÜKTÖRLER

## EN GEAR UNIT SWING-BASES WITH F FLUID COUPLINGS

## DE GETRIEBESCHWINGEN MIT F - STRÖMUNGSKUPPLUNGEN

Tablo 14 / Table 14 / Tabelle 14

| Tip<br>Gövde<br>Type<br>Size<br>Bauart<br>Größe | DIN 42673'e<br>göre IEC'li<br>motor<br>IEC motor<br>acc. to<br>DIN 42673<br>IEC motor<br>nach<br>DIN 42673 |      |      |      |      |      |      |     | Kaplin F<br>F Coupling<br>F Kupplung |               |                |               | Kaplin F - Fren Tambur Kaplini<br>F - Coupling with drum brake<br>F - Kupplung mit trommelbremse |             |      |               |                |               |                |      |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|-----|--------------------------------------|---------------|----------------|---------------|--------------------------------------------------------------------------------------------------|-------------|------|---------------|----------------|---------------|----------------|------|
|                                                 |                                                                                                            |      |      |      |      |      |      |     | b2                                   | İN= 80 - 180  |                | İN= 200 - 315 |                                                                                                  | b35)   b45) |      | İN= 80 - 180  |                | İN= 200 - 315 |                |      |
|                                                 |                                                                                                            |      |      |      |      |      |      |     |                                      | İN= 100 - 224 |                | İN= 250 - 400 |                                                                                                  |             |      | İN= 100 - 224 |                | İN= 250 - 400 |                |      |
|                                                 |                                                                                                            |      |      |      |      |      |      |     |                                      | İN= 90 - 200  |                | İN= 224 - 355 |                                                                                                  |             |      | İN= 90 - 200  |                | İN= 224 - 355 |                |      |
|                                                 |                                                                                                            |      |      |      |      |      |      |     |                                      | fA = 2<br>4)  | fA = 1.5<br>4) | fA = 2<br>4)  | fA = 1.5<br>4)                                                                                   |             |      | fA = 2<br>4)  | fA = 1.5<br>4) | fA = 2<br>4)  | fA = 1.5<br>4) |      |
|                                                 |                                                                                                            |      |      |      |      |      | l22) |     | l22)                                 |               | l22)           |               | l22)                                                                                             |             | l42) |               | l32)           |               | l32)           |      |
| mm                                              |                                                                                                            |      |      |      |      |      |      |     |                                      |               |                |               |                                                                                                  |             |      |               |                |               |                |      |
| PB134                                           | 180 M                                                                                                      | 1700 | 1900 | 800  | 940  | 1340 | 405  | 345 | 185                                  | -             | -              | 2389          | 2595                                                                                             | 210         | 590  | -             | -              | 2395          | 2652           |      |
|                                                 | 180 L                                                                                                      |      |      |      |      |      |      |     | -                                    | -             | 2465           | 2633          | -                                                                                                |             |      | -             | 2491           | 2690          |                |      |
|                                                 | 200 L                                                                                                      |      |      |      |      |      |      |     | 215                                  | -             | -              | 2547          | 2715                                                                                             |             |      | -             | -              | 2573          | 2772           |      |
|                                                 | 225 S                                                                                                      |      |      |      |      |      |      |     | 240                                  | 2572          | 2747           | 2562          | 2737                                                                                             |             |      | 2615          | 2794           | 2615          | 2794           |      |
|                                                 | 225 M                                                                                                      |      |      |      |      |      |      |     |                                      | 2597          | 2772           | 2587          | 2762                                                                                             |             |      | 2640          | 2819           | 2640          | 2819           |      |
|                                                 | 250 M                                                                                                      |      |      |      |      |      |      |     |                                      | 265           | 2684           | 2916          | 2674                                                                                             |             |      | 2906          | 2727           | 2968          | 2727           | 2968 |
|                                                 | 280 S                                                                                                      |      |      |      |      |      |      |     |                                      | 300           | 2787           | 2990          | -                                                                                                |             |      | -             | 2834           | 3042          | -              | -    |
|                                                 | 280 M                                                                                                      |      |      |      |      |      |      |     | 2838                                 |               | 3041           | -             | -                                                                                                |             |      | 2885          | 3093           | -             | -              |      |
| PB144                                           | 180 M                                                                                                      | 1700 | 1900 | 800  | 940  | 1340 | 475  | 345 | 185                                  | -             | -              | 2529          | 2735                                                                                             | 210         | 590  | -             | -              | 2535          | 2792           |      |
|                                                 | 180 L                                                                                                      |      |      |      |      |      |      |     | -                                    | -             | 2605           | 2773          | -                                                                                                |             |      | -             | 2631           | 2830          |                |      |
|                                                 | 200 L                                                                                                      |      |      |      |      |      |      |     | 215                                  | -             | -              | 2687          | 2855                                                                                             |             |      | -             | -              | 2713          | 2912           |      |
|                                                 | 225 S                                                                                                      |      |      |      |      |      |      |     | 240                                  | 2712          | 2887           | 2702          | 2877                                                                                             |             |      | 2755          | 2934           | 2755          | 2934           |      |
|                                                 | 225 M                                                                                                      |      |      |      |      |      |      |     |                                      | 2737          | 2912           | 2727          | 2902                                                                                             |             |      | 2780          | 2959           | 2780          | 2959           |      |
|                                                 | 250 M                                                                                                      |      |      |      |      |      |      |     |                                      | 365           | 2824           | 3056          | 2814                                                                                             |             |      | 3046          | 2867           | 3108          | 2867           | 3108 |
|                                                 | 280 S                                                                                                      |      |      |      |      |      |      |     |                                      | 300           | 2927           | 3130          | -                                                                                                |             |      | -             | 2974           | 3182          | -              | -    |
|                                                 | 280 M                                                                                                      |      |      |      |      |      |      |     | 2978                                 |               | 3181           | -             | -                                                                                                |             |      | 3025          | 3233           | -             | -              |      |
| PB154                                           | 200 L                                                                                                      | 2000 | 2200 | 975  | 1150 | 1650 | 485  | 345 | 215                                  | -             | -              | 2869          | 3037                                                                                             | 210         | 590  | -             | -              | 2895          | 3084           |      |
|                                                 | 225 S                                                                                                      |      |      |      |      |      |      |     | 240                                  | -             | -              | 2884          | 3059                                                                                             |             |      | -             | -              | 2927          | 3106           |      |
|                                                 | 225 M                                                                                                      |      |      |      |      |      |      |     |                                      | -             | -              | 2909          | 3084                                                                                             |             |      | -             | -              | 2952          | 3131           |      |
|                                                 | 250 M                                                                                                      |      |      |      |      |      |      |     |                                      | 265           | 3021           | 3253          | 2996                                                                                             |             |      | 3228          | 3056           | 3297          | 3039           | 3280 |
|                                                 | 280 S                                                                                                      |      |      |      |      |      |      |     | 300                                  | 3124          | 3327           | 3099          | 3302                                                                                             |             |      | 3163          | 3371           | 3146          | 3354           |      |
|                                                 | 280 M                                                                                                      |      |      |      |      |      |      |     |                                      | 3175          | 3378           | 3150          | 3353                                                                                             |             |      | 3214          | 3422           | 3197          | 3405           |      |
| PB164                                           | 200 L                                                                                                      | 2000 | 2200 | 975  | 1150 | 1650 | 530  | 345 | 215                                  | -             | -              | 2960          | 3128                                                                                             | 210         | 590  | -             | -              | 2986          | 3175           |      |
|                                                 | 225 S                                                                                                      |      |      |      |      |      |      |     | 240                                  | -             | -              | 2975          | 3150                                                                                             |             |      | -             | -              | 3018          | 3197           |      |
|                                                 | 225 M                                                                                                      |      |      |      |      |      |      |     |                                      | -             | -              | 3000          | 3175                                                                                             |             |      | -             | -              | 3043          | 3222           |      |
|                                                 | 250 M                                                                                                      |      |      |      |      |      |      |     |                                      | 265           | 3112           | 3344          | 3087                                                                                             |             |      | 3319          | 3147           | 3388          | 3130           | 3371 |
|                                                 | 280 S                                                                                                      |      |      |      |      |      |      |     | 300                                  | 3215          | 3418           | 3190          | 3393                                                                                             |             |      | 3254          | 3462           | 3237          | 3445           |      |
|                                                 | 280 M                                                                                                      |      |      |      |      |      |      |     |                                      | 3266          | 3469           | 3241          | 3444                                                                                             |             |      | 3305          | 3513           | 3288          | 3496           |      |
| PB174                                           | 225 M                                                                                                      | 2200 | 2400 | 1025 | 1200 | 1700 | 525  | 500 | 240                                  | -             | -              | 2997          | 3172                                                                                             | 260         | 665  | -             | -              | 3040          | 3219           |      |
|                                                 | 250 M                                                                                                      |      |      |      |      |      |      |     | 265                                  | -             | -              | 3084          | 3316                                                                                             |             |      | -             | -              | 3127          | 3368           |      |
|                                                 | 280 S                                                                                                      |      |      |      |      |      |      |     | 300                                  | 3212          | 3415           | 3187          | 3390                                                                                             |             |      | 3251          | 3459           | 3234          | 3442           |      |
|                                                 | 280 M                                                                                                      |      |      |      |      |      |      |     |                                      | 3263          | 3466           | 3238          | 3441                                                                                             |             |      | 3302          | 3510           | 3285          | 3493           |      |
| PB184                                           | 225 M                                                                                                      | 2200 | 2400 | 1025 | 1200 | 1700 | 585  | 500 | 240                                  | -             | -              | 3117          | 3292                                                                                             | 260         | 665  | -             | -              | 3160          | 3339           |      |
|                                                 | 250 M                                                                                                      |      |      |      |      |      |      |     | 265                                  | -             | -              | 3204          | 3436                                                                                             |             |      | -             | -              | 3247          | 3488           |      |
|                                                 | 280 S                                                                                                      |      |      |      |      |      |      |     | 300                                  | 3332          | 3535           | 3307          | 3510                                                                                             |             |      | 3371          | 3579           | 3354          | 3562           |      |
|                                                 | 280 M                                                                                                      |      |      |      |      |      |      |     |                                      | 3383          | 3586           | 3358          | 3561                                                                                             |             |      | 3422          | 3630           | 3405          | 3613           |      |

1) Talep üzerine temin edilir.

2) Fanlı redüktörler için l2, l3. Fanlı ve tambur frenli redüktörler, talep üzerine yapılmaktadır.

4) fA = Harekete geçme faktörü

5) fA = 2 için; fA=1.5 için 225 S ve üstü motor büyüklükleri; 200L motor büyüklüğüne kadar fA=1.5; b3 = 260 mm, b4 = 610 mm

6) Ön hücreli kaplin F için e1 ölçüsü (fA=2);

Ön hücreli, tambur frenli kaplin F için e1 ölçüsü (fA=1.5);

Ön hücreli kaplin F için e2 ölçüsü (fA=1.5);

Ön hücreli, tambur frenli kaplin F için e2 ölçüsü (fA=1.5);

Redüktör taban şasesinin ağırlığı, talep üzerine temin edilir.

1) On request

2) l2\* for gear units with fan. Gear units with fan and drum brake on request

4) fA = starting factor

5) For fA = 2; for fA = 1.5 from motor size 225 S up; fA=1.5 up to motor size 200 L: b3 = 260 mm, b4 = 610 mm

6) e1 dimension for F coupling without delay chamber (fA = 2);

F coupling without delay chamber with drum brake (fA=2);

e2 dimension for F coupling with delay chamber (fA=1.5)

F coupling with delay chamber and drum brake (fA=1.5);

Weight of gear unit swing- base on request

1) auf Anfrage

2) l2 für Getriebe mit Lüfter. Getriebe mit Lüfter und Trommelbremse auf Anfrage.

4) fA = Anfahrfaktor

5) Für fA = 2, für fA=1.5 ab Motorgröße 225 S; fA = 1.5 bis Motorgröße 200 L :

b3 = 260 mm, b4 = 610 mm

6) e1-Maß für F-Kupplung ohne Vorkammer (fA=2);

F-Kupplung ohne Vorkammer mit Trommelbremse (fA=2); e2- Maß für F-Kupplung mit Vorkammer (fA=1.5);

F-Kupplung mit Vorkammer und Trommelbremse (fA=1.5);

Gewicht der Getriebebeschwinde auf Anfrage

TR

ÖZEL MONTAJ POZİSYONLARI

EN

SPECIAL MOUNTING POSITIONS

DE

SONDEREINBAULAGEN

Çizimleri aşağıda gösterilen özel montaj pozisyonları için, PGR dişli redüktörlerinin PH...2, PH...3, PH...4, PB...2, PB...3 ve PB...4 tipi imalat modelleri de, mevcuttur.

Kurulum, örneğin mil montajlı redüktörlerde tork kolu veya ayak/tabana ayakları vasıtasıyla yapılır.

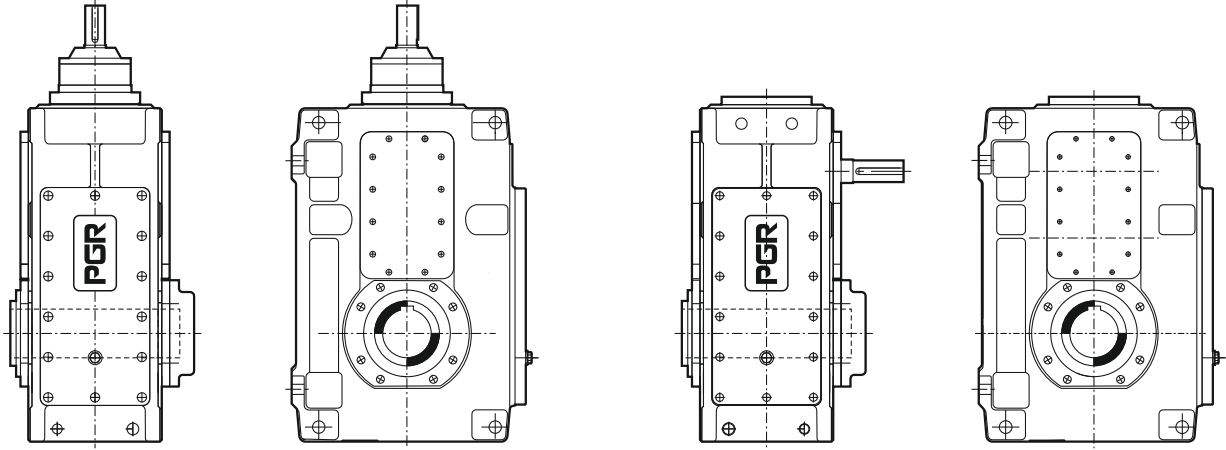
PGR- Gear units of types PH...2, PH...3, PH...4, PB...2, PB...3 and PB...4 ...are also available for the special mounting positions illustrated below.

They can be installed, for example, as shaft-mounted gear unit with torque reaction arm or by means of base rails.  
For oil supply, take into account table 2.

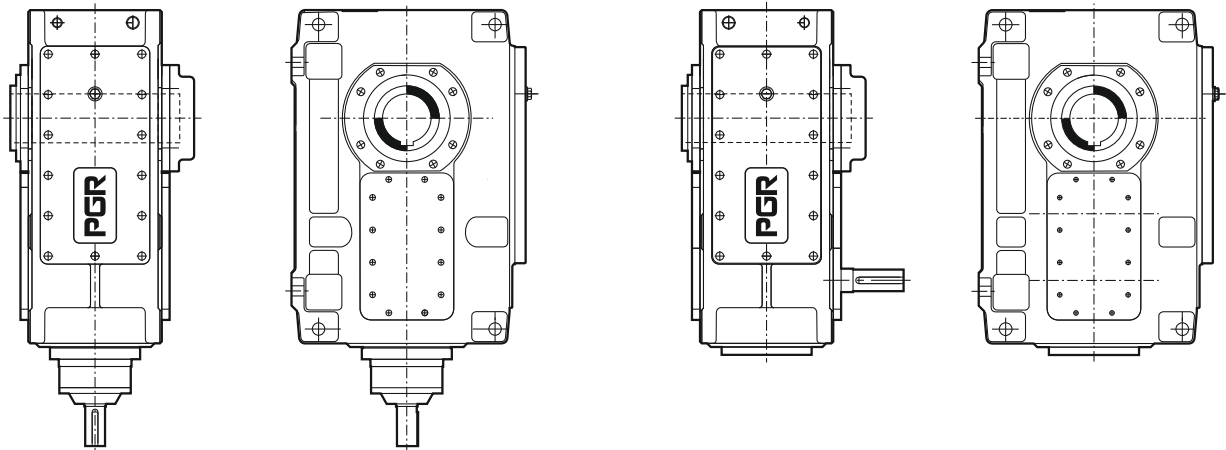
PGR - Zahnradgetriebe der Bauarten PH...2, PH...3, PH...4, PB...2, PB...3 und PB...4 sind auch für nachstehende Sondereinbautagen lieferbar

Die Aufstellung kann z.B. als Aufsteckgetriebe mit Drehmomentstütze oder mittels Fußleisten erfolgen.  
Zur Ölversorgung ist die Tabelle 2 zu beachten.

**Montaj Şekli:** d1 mili yukarı doğru  
**Mounting position:** Shaft d1 upward  
**Einbaulage:** Welle d1 nach oben



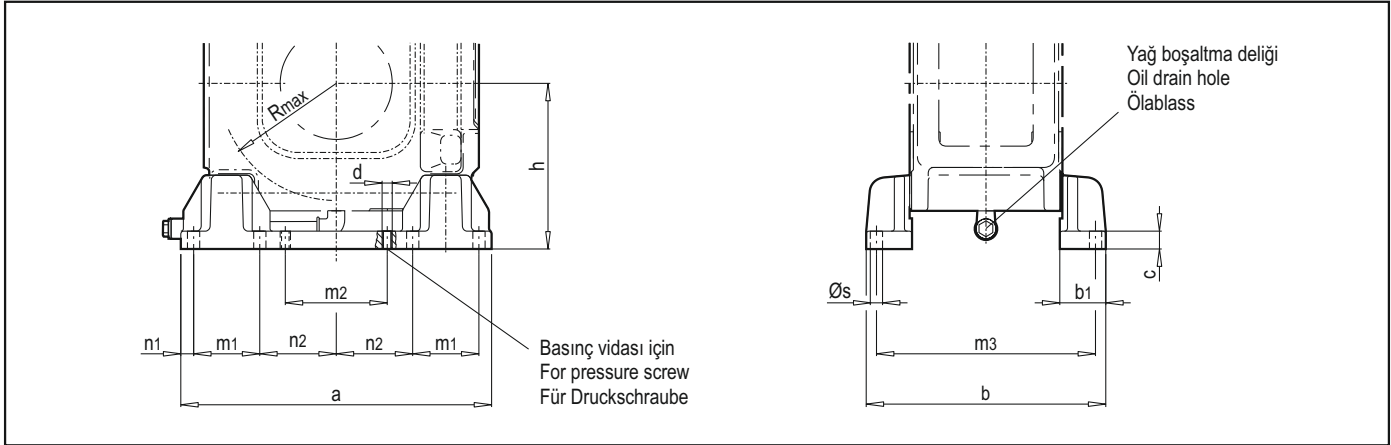
**Montaj Şekli:** d1 mili aşağı doğru  
**Mounting position:** Shaft d1 downward  
**Einbaulage:** Welle d1 nach unten



**TR** REDÜKTÖR TABAN AYAGININ ÖZEL  
MONTAJ DURUMLARI

**EN** SPECIAL MOUNTING POSITIONS  
HOUSING BASE RAILS

**DE** SONDEREINBAULAGEN  
GETRIEBEFÜßLEISTEN



Tablo 1 / Table 1 / Tabelle 1

| Gövde<br>Size<br>Größe | PH...2, PH...3, PH...4, PB...2, PB...3, PB...4 |     |    |       |     |     |     |      |     |      |      | PH...2, PH...3, PH...4,<br>PB...3, PB...4 |     | PB...2 |      |
|------------------------|------------------------------------------------|-----|----|-------|-----|-----|-----|------|-----|------|------|-------------------------------------------|-----|--------|------|
|                        | a                                              | b1  | c  | 4 x d | h   | m1  | m2  | n1   | n2  | 8xØs | Rmax | b                                         | m3  | b      | m3   |
| 4...                   | 450                                            | 75  | 28 | M 16  | 255 | 110 | 130 | 20   | 95  | 19   | 160  | 355                                       | 315 | —      | —    |
| 5...                   | 510                                            | 75  | 28 | M 16  | 270 | 110 | 170 | 20   | 125 | 19   | 190  | 395                                       | 355 | 460    | 420  |
| 6...                   |                                                |     |    |       | 315 |     |     |      |     |      | 220  |                                           |     |        |      |
| 7...                   | 610                                            | 90  | 35 | M 20  | 325 | 130 | 200 | 25   | 150 | 24   | 230  | 470                                       | 420 | 550    | 500  |
| 8...                   |                                                |     |    |       | 385 |     |     |      |     |      | 270  |                                           |     |        |      |
| 9...                   | 710                                            | 110 | 40 | M 24  | 380 | 160 | 230 | 30   | 165 | 28   | 260  | 580                                       | 520 | 650    | 590  |
| 10...                  |                                                |     |    |       | 430 |     |     |      |     |      | 300  |                                           |     |        |      |
| 11...                  | 860                                            | 120 | 50 | M 30  | 435 | 190 | 270 | 35   | 205 | 35   | 340  | 660                                       | 590 | 760    | 690  |
| 12...                  |                                                |     |    |       | 520 |     |     |      |     |      | 380  |                                           |     |        |      |
| 13...                  | 965                                            | 100 | 60 | M 30  | 430 | 260 | 230 | 37.5 | 185 | 35   | 300  | 745                                       | 665 | 850    | 770  |
| 14...                  |                                                |     |    |       | 500 |     |     |      |     |      | 360  |                                           |     |        |      |
| 15...                  | 1060                                           | 110 | 70 | M 36  | 505 | 300 | 190 | 45   | 185 | 42   | 350  | 840                                       | 750 | 980    | 890  |
| 16...                  |                                                |     |    |       | 550 |     |     |      |     |      | 400  |                                           |     |        |      |
| 17...                  | 1210                                           | 125 | 80 | M 42  | 550 | 340 | 250 | 55   | 210 | 48   | 390  | 930                                       | 820 | 1125   | 1015 |
| 18...                  |                                                |     |    |       | 610 |     |     |      |     |      | 440  |                                           |     |        |      |

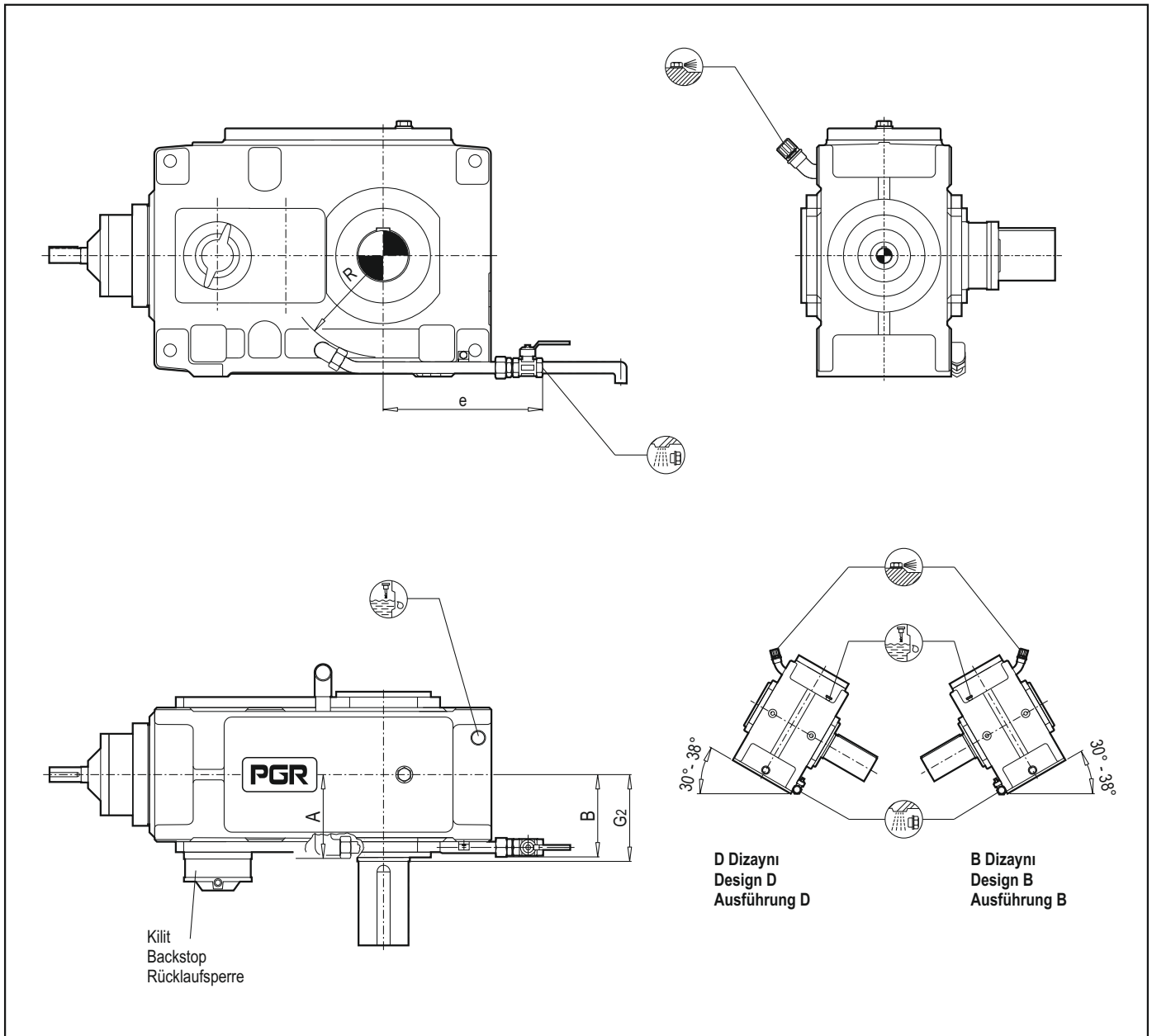
Tablo 2 / Table 2 / Tabelle 2

| Gövde<br>Size<br>Größe | PH...2                                                                                                                    | PH...3                                                                                                                              | PH...4                                                                                                                              | PB...2                                                                                                                    | PB...3                                                                                                                    | PB...4                                                                                                                    |
|------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 4.. - 12..             | Daldırmalı yağlama<br>Dip lubrication<br>Tauchschrnerung                                                                  | Yağ tankı ile<br>daldırmalı yağlama<br>Dip lubrication with<br>oil compensating tank<br>Tauchschrnerung mit<br>Ölausgleichsbehälter | Yağ tankı ile<br>Daldırmalı yağlama<br>Dip lubrication with<br>oil compensating tank<br>Tauchschrnerung mit<br>Ölausgleichsbehälter | Flanşlı Pompa ile<br>basınçlı yağlama<br>Forced lubrication<br>with flanged-on pump<br>Druckschrnerung<br>mit Flanscpumpe | Flanşlı Pompa ile<br>basınçlı yağlama<br>Forced lubrication<br>with flanged-on pump<br>Druckschrnerung<br>mit Flanscpumpe | Flanşlı Pompa ile<br>basınçlı yağlama<br>Forced lubrication<br>with flanged-on pump<br>Druckschrnerung<br>mit Flanscpumpe |
| 13.. - 18..            | Flanşlı Pompa ile<br>basınçlı yağlama<br>Forced lubrication<br>with flanged-on pump<br>Druckschrnerung<br>mit Flanscpumpe | Flanşlı Pompa ile<br>basınçlı yağlama<br>Forced lubrication<br>with flanged-on pump<br>Druckschrnerung<br>mit Flanscpumpe           | Motor pompa ile<br>basınçlı yağlama<br>Forced lubrication<br>with motor pump<br>Druckschrnerung<br>mit Motorpumpe                   | Flanşlı Pompa ile<br>basınçlı yağlama<br>Forced lubrication<br>with flanged-on pump<br>Druckschrnerung<br>mit Flanscpumpe | Flanşlı Pompa ile<br>basınçlı yağlama<br>Forced lubrication<br>with flanged-on pump<br>Druckschrnerung<br>mit Flanscpumpe | Motor pompa ile<br>basınçlı yağlama<br>Forced lubrication<br>with motor pump<br>Druckschrnerung<br>mit Motorpumpe         |

Yağlamada kullanılacak elemanlar için boşlukları göz önüne alınız. (örn, pompa boru) ölçüler talep edildiğinde.

Take into account space required for oil supplyelements (pump, pipes, etc.)! Dimensions on request

Freiraum für Elemente der Ölversorgung (Pumpe, Rohre usw.) beachten! Abmessungen auf Anfrage

**Tablo 1 / Table 1 / Tabelle 1**

| Tip<br>Type<br>Bauart | Gövde<br>Size<br>Größe | A<br>mm | B<br>mm | G <sub>2</sub><br>mm | e<br>mm | Yağ boşaltma valfi<br>Oil drain valve<br>Ölablasshahn | R<br>mm |
|-----------------------|------------------------|---------|---------|----------------------|---------|-------------------------------------------------------|---------|
| PB...3SH              | 43                     | 146     | 136     | 140                  | 290     | G 3/4                                                 | 125     |
|                       | 53                     | 161     | 158     | 165                  | 310     | G 3/4                                                 | -       |
|                       | 63                     |         |         |                      | 350     |                                                       | -       |
|                       | 73                     | 191     | 186     | 195                  | 365     | G 1                                                   | -       |
|                       | 83                     |         |         |                      | 425     |                                                       | -       |
|                       | 93                     | 221     | 221     | 235                  | 415     | G 1                                                   | -       |
|                       | 103                    |         |         |                      | 465     |                                                       | -       |
|                       | 113                    | 259     | 261     | 270                  | 470     | G 1 1/4                                               | -       |
|                       | 123                    |         |         |                      | 555     |                                                       | -       |

TR

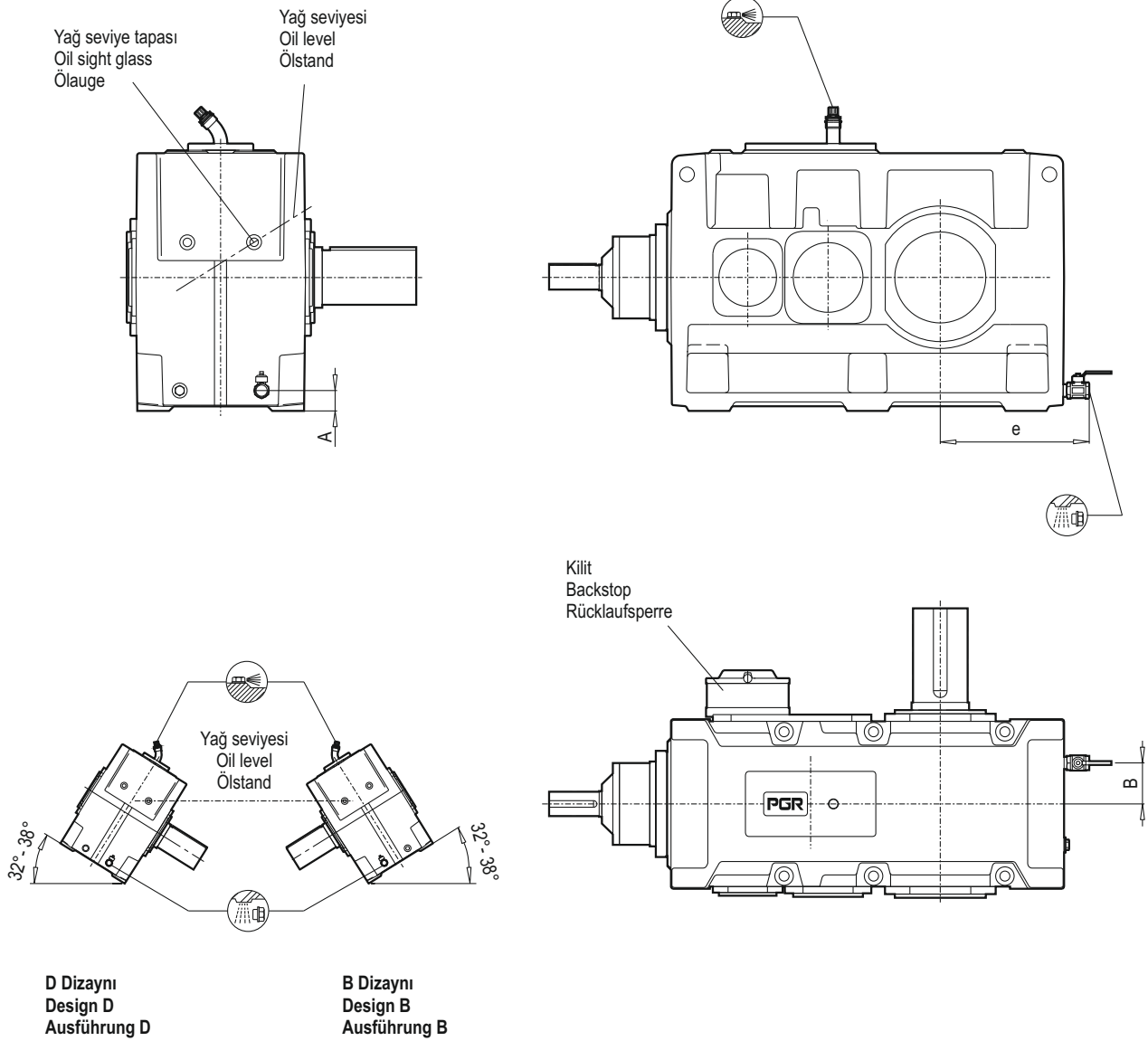
SU TESİSATI TASARIMI

EN

FOR WATER SCREWS

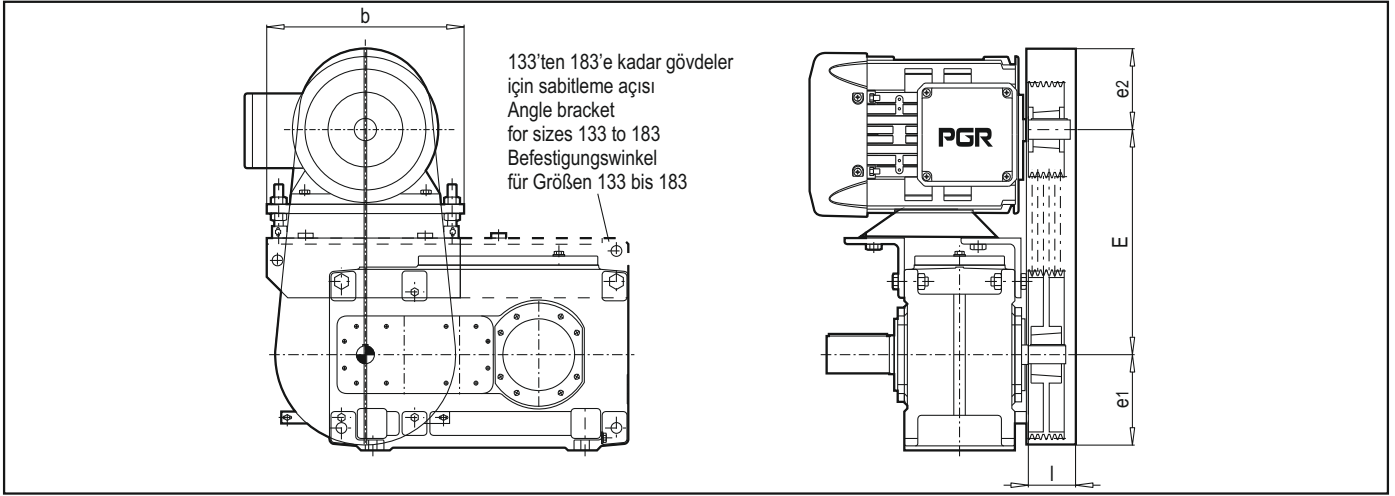
DE

WASSERSCHNECKENAUSFÜHRUNG



Tablo 2 / Table 2 / Tabelle 2

| Tip<br>Type<br>Bauart | Gövde<br>Size<br>Größe | A<br>mm | B<br>mm | e<br>mm | Yağ boşaltma valfi<br>Oil drain valve<br>Ölablasshahn |
|-----------------------|------------------------|---------|---------|---------|-------------------------------------------------------|
| PB...3SH              | 133                    | 68      | 136     | 505     | G 1 1/4                                               |
|                       | 143                    |         |         | 575     |                                                       |
|                       | 153                    | 81      | 151     | 615     | G 2                                                   |
|                       | 163                    |         |         | 660     |                                                       |
|                       | 173                    | 86      | 181     | 655     | G 2                                                   |
|                       | 183                    |         |         | 715     |                                                       |



Tablo 1 / Table 1 / Tabelle 1

| Tip-Gövde<br>Type-Size<br>Bauart-Größe | IEC-Motor | i Redüktör<br>i Gear unit<br>i Getriebe | i Kasnak Tahvili<br>i Belt drive<br>i Riemetrieb | i Toplam<br>i Total<br>i Gesamt | Motor mili kasnağı<br>Motor shaft pulley<br>Riemenscheibe<br>Motorwelle | Kayış Adeti<br>No. of belts<br>Riemen-<br>anzahl | b<br>mm | E<br>mm | e <sub>1</sub><br>mm | e <sub>2</sub><br>mm | l<br>mm |
|----------------------------------------|-----------|-----------------------------------------|--------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|--------------------------------------------------|---------|---------|----------------------|----------------------|---------|
| PH53-H                                 | 132 S     | 71 - 90                                 | 1.25                                             | 89 - 162                        | SPZ 140                                                                 | 2                                                | 395     | 493     | 185                  | 182                  | 125     |
|                                        | 132 M     | 50 - 90                                 | 1.4                                              | 63 - 162                        | SPZ 140                                                                 | 3                                                | 395     | 493     | 185                  | 182                  | 125     |
|                                        | 160 M     | 35.5 - 71                               | 1.6                                              | 44 - 128                        | SPZ 180                                                                 | 3                                                | 395     | 530     | 185                  | 145                  | 125     |
|                                        | 160 L     | 25 - 50                                 | 1.8                                              | 31 - 90                         | SPA 180                                                                 | 3                                                | 395     | 530     | 185                  | 145                  | 125     |
| PH63-H                                 | 132 S     | 90 - 112                                | 1.25                                             | 113 - 202                       | SPZ 140                                                                 | 2                                                | 395     | 493     | 185                  | 182                  | 125     |
|                                        | 132 M     | 63 - 112                                | 1.4                                              | 79 - 202                        | SPZ 140                                                                 | 3                                                | 395     | 493     | 185                  | 182                  | 125     |
|                                        | 160 M     | 45 - 90                                 | 1.6                                              | 56 - 162                        | SPZ 180                                                                 | 3                                                | 395     | 530     | 185                  | 145                  | 125     |
|                                        | 160 L     | 31.5 - 71                               | 1.8                                              | 39 - 128                        | SPA 180                                                                 | 3                                                | 395     | 530     | 185                  | 145                  | 125     |
| PH73-H                                 | 160 M     | 63 - 90                                 | 1.25                                             | 79 - 162                        | SPZ 180                                                                 | 3                                                | 465     | 586     | 255                  | 229                  | 125     |
|                                        | 160 L     | 50 - 90                                 |                                                  | 63 - 162                        | SPA 180                                                                 | 3                                                | 465     | 586     | 255                  | 229                  | 125     |
|                                        | 180 M     | 40 - 71                                 |                                                  | 50 - 128                        | SPA 250                                                                 | 3                                                | 465     | 626     | 255                  | 189                  | 125     |
|                                        | 180 L     | 31.5 - 63                               |                                                  | 39 - 113                        | SPA 250                                                                 | 3                                                | 465     | 626     | 255                  | 189                  | 125     |
|                                        | 200 L     | 25 - 45                                 |                                                  | 31 - 54                         | SPB 280                                                                 | 3                                                | 575     | 680     | 205                  | 205                  | 155     |
|                                        | 225 S     | 25 - 40                                 |                                                  | 31 - 50                         | SPB 280                                                                 | 3                                                | 575     | 680     | 205                  | 205                  | 155     |
| PH83-H                                 | 160 M     | 80 - 112                                | 1.25                                             | 100 - 202                       | SPZ 180                                                                 | 3                                                | 465     | 586     | 255                  | 229                  | 125     |
|                                        | 160 L     | 63 - 112                                |                                                  | 79 - 202                        | SPA 180                                                                 | 3                                                | 465     | 586     | 255                  | 229                  | 125     |
|                                        | 180 M     | 50 - 90                                 |                                                  | 63 - 162                        | SPA 250                                                                 | 3                                                | 465     | 626     | 255                  | 189                  | 125     |
|                                        | 180 L     | 40 - 80                                 |                                                  | 50 - 144                        | SPA 250                                                                 | 3                                                | 465     | 626     | 255                  | 189                  | 125     |
|                                        | 200 L     | 31.5 - 56                               |                                                  | 39 - 70                         | SPB 280                                                                 | 3                                                | 575     | 680     | 205                  | 205                  | 155     |
|                                        | 225 S     | 31.5 - 50                               |                                                  | 39 - 63                         | SPB 280                                                                 | 3                                                | 575     | 680     | 205                  | 205                  | 155     |
| PH93-H                                 | 160 L     | 80 - 90                                 | 1.25                                             | 100 - 162                       | SPA 180                                                                 | 3                                                | 465     | 615     | 255                  | 240                  | 140     |
|                                        | 180 M     | 71 - 90                                 |                                                  | 89 - 162                        | SPA 250                                                                 | 3                                                | 465     | 664     | 255                  | 191                  | 140     |
|                                        | 180 L     | 56 - 90                                 |                                                  | 70 - 162                        | SPA 250                                                                 | 3                                                | 465     | 664     | 255                  | 191                  | 140     |
|                                        | 200 L     | 40 - 80                                 |                                                  | 50 - 144                        | SPB 280                                                                 | 3                                                | 575     | 747     | 280                  | 208                  | 155     |
|                                        | 225 S     | 31.5 - 63                               |                                                  | 39 - 113                        | SPB 280                                                                 | 3                                                | 575     | 750     | 280                  | 205                  | 155     |
|                                        | 225 M     | 28 - 50                                 |                                                  | 35 - 90                         | SPB 280                                                                 | 4                                                | 575     | 750     | 280                  | 205                  | 155     |
|                                        | 250 M     | 25 - 45                                 |                                                  | 31 - 81                         | SPB 315                                                                 | 4                                                | 665     | 804     | 310                  | 231                  | 155     |
|                                        |           |                                         |                                                  |                                 |                                                                         |                                                  |         |         |                      |                      |         |
| PH103-H                                | 160 L     | 100 - 112                               | 1.25                                             | 125 - 202                       | SPA 180                                                                 | 3                                                | 465     | 615     | 255                  | 240                  | 140     |
|                                        | 180 M     | 80 - 112                                |                                                  | 100 - 202                       | SPA 250                                                                 | 3                                                | 465     | 664     | 255                  | 191                  | 140     |
|                                        | 180 L     | 71 - 112                                |                                                  | 89 - 202                        | SPA 250                                                                 | 3                                                | 465     | 664     | 255                  | 191                  | 140     |
|                                        | 200 L     | 50 - 100                                |                                                  | 63 - 180                        | SPB 280                                                                 | 3                                                | 575     | 747     | 280                  | 208                  | 155     |
|                                        | 225 S     | 40 - 80                                 |                                                  | 50 - 144                        | SPB 280                                                                 | 3                                                | 575     | 750     | 280                  | 205                  | 155     |
|                                        | 225 M     | 31.5 - 63                               |                                                  | 39 - 113                        | SPB 280                                                                 | 4                                                | 575     | 750     | 280                  | 205                  | 155     |
|                                        | 250 M     | 31.5 - 56                               |                                                  | 39 - 101                        | SPB 315                                                                 | 4                                                | 665     | 804     | 310                  | 231                  | 155     |
|                                        |           |                                         |                                                  |                                 |                                                                         |                                                  |         |         |                      |                      |         |

TR

MOTOR PLATFORMU - YATAY

EN

MOTOR BRACKETS - HORIZONTAL

DE

MOTORSTÜHLE - HORIZONTAL

| Tip-Gövde<br>Type-Size<br>Bauart-Größe | IEC-Motor | i Redüktör<br>i Gear unit<br>i Getriebe | i Kasnak Tahvili<br>i Belt drive<br>i Riementrieb | i Toplam<br>i Total<br>i Gesamt | Motor mili kasnağı<br>Motor shaft pulley<br>Riemenscheibe<br>Motorwelle | Kayış Adeti<br>No. of belts<br>Riemen-<br>anzahl | b<br>mm | E<br>mm | e <sub>1</sub><br>mm | e <sub>2</sub><br>mm | l<br>mm |
|----------------------------------------|-----------|-----------------------------------------|---------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|--------------------------------------------------|---------|---------|----------------------|----------------------|---------|
| PH113-H                                | 200 L     | 71 - 90                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 89 - 162                        | SPB 280                                                                 | 3                                                | 575     | 825     | 280                  | 205                  | 155     |
|                                        | 225 S     | 56 - 90                                 |                                                   | 70 - 162                        | SPB 280                                                                 | 3                                                | 575     | 825     | 280                  | 205                  | 155     |
|                                        | 225 M     | 50 - 90                                 |                                                   | 63 - 162                        | SPB 280                                                                 | 4                                                | 575     | 825     | 280                  | 205                  | 155     |
|                                        | 250 M     | 40 - 71                                 |                                                   | 50 - 128                        | SPB 315                                                                 | 4                                                | 725     | 897     | 310                  | 273                  | 155     |
|                                        | 280 S     | 31.5 - 56                               |                                                   | 39 - 101                        | SPB 315                                                                 | 5                                                | 725     | 938     | 310                  | 232                  | 155     |
|                                        | 280 M     | 25 - 45                                 |                                                   | 31 - 81                         | SPB 315                                                                 | 6                                                | 725     | 938     | 310                  | 232                  | 155     |
|                                        | 315 S     | 25 - 35.5                               |                                                   | 31 - 64                         | SPC 355                                                                 | 5                                                | 815     | 1001    | 345                  | 254                  | 185     |
| PH123-H                                | 200 L     | 90 - 112                                | 1.25<br>1.4<br>1.6<br>1.8                         | 113 - 202                       | SPB 280                                                                 | 3                                                | 575     | 825     | 280                  | 205                  | 155     |
|                                        | 225 S     | 71 - 112                                |                                                   | 89 - 202                        | SPB 280                                                                 | 3                                                | 575     | 825     | 280                  | 205                  | 155     |
|                                        | 225 M     | 63 - 112                                |                                                   | 79 - 202                        | SPB 280                                                                 | 4                                                | 575     | 825     | 280                  | 205                  | 155     |
|                                        | 250 M     | 50 - 90                                 |                                                   | 63 - 162                        | SPB 315                                                                 | 4                                                | 725     | 897     | 310                  | 273                  | 155     |
|                                        | 280 S     | 35.5 - 63                               |                                                   | 44 - 113                        | SPB 315                                                                 | 5                                                | 725     | 938     | 310                  | 232                  | 155     |
|                                        | 280 M     | 31.5 - 56                               |                                                   | 39 - 101                        | SPB 315                                                                 | 6                                                | 725     | 938     | 310                  | 232                  | 155     |
|                                        | 315 S     | 31.5 - 45                               |                                                   | 39 - 81                         | SPC 355                                                                 | 5                                                | 815     | 1001    | 345                  | 254                  | 185     |
| PH133-H                                | 225 M     | 80 - 90                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 100 - 162                       | SPB 280                                                                 | 4                                                | 575     | 881     | 280                  | 204                  | 180     |
|                                        | 250 M     | 63 - 90                                 |                                                   | 79 - 162                        | SPB 315                                                                 | 4                                                | 725     | 938     | 310                  | 232                  | 160     |
|                                        | 280 S     | 45 - 80                                 |                                                   | 56 - 144                        | SPB 315                                                                 | 5                                                | 725     | 938     | 310                  | 232                  | 160     |
|                                        | 280 M     | 40 - 71                                 |                                                   | 50 - 128                        | SPB 315                                                                 | 6                                                | 725     | 938     | 310                  | 232                  | 160     |
|                                        | 315 S     | 31.5 - 56                               |                                                   | 39 - 101                        | SPC 355                                                                 | 5                                                | 815     | 1042    | 385                  | 273                  | 230     |
|                                        | 315 M     | 22.4 - 50                               |                                                   | 28 - 90                         | SPC 355                                                                 | 6                                                | 815     | 1042    | 385                  | 273                  | 230     |
|                                        |           |                                         |                                                   |                                 |                                                                         |                                                  |         |         |                      |                      |         |
| PH143-H                                | 225 M     | 90 - 112                                | 1.25<br>1.4<br>1.6<br>1.8                         | 113 - 202                       | SPB 280                                                                 | 4                                                | 575     | 881     | 280                  | 204                  | 180     |
|                                        | 250 M     | 80 - 112                                |                                                   | 100 - 202                       | SPB 315                                                                 | 4                                                | 725     | 938     | 310                  | 232                  | 160     |
|                                        | 280 S     | 56 - 100                                |                                                   | 70 - 180                        | SPB 315                                                                 | 5                                                | 725     | 938     | 310                  | 232                  | 160     |
|                                        | 280 M     | 45 - 90                                 |                                                   | 56 - 162                        | SPB 315                                                                 | 6                                                | 725     | 938     | 310                  | 232                  | 160     |
|                                        | 315 S     | 40 - 71                                 |                                                   | 50 - 128                        | SPC 355                                                                 | 5                                                | 815     | 1042    | 385                  | 273                  | 230     |
|                                        | 315 M     | 28 - 63                                 |                                                   | 35 - 113                        | SPC 355                                                                 | 6                                                | 815     | 1042    | 385                  | 273                  | 230     |
|                                        |           |                                         |                                                   |                                 |                                                                         |                                                  |         |         |                      |                      |         |
| PH153-H                                | 280 S     | 80 - 90                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 100 - 162                       | SPB 315                                                                 | 5                                                | 725     | 980     | 310                  | 230                  | 220     |
|                                        | 280 M     | 63 - 90                                 |                                                   | 79 - 162                        | SPB 315                                                                 | 6                                                | 725     | 980     | 310                  | 230                  | 220     |
|                                        | 315 S     | 50 - 90                                 |                                                   | 63 - 162                        | SPC 355                                                                 | 5                                                | 815     | 1060    | 385                  | 275                  | 230     |
|                                        | 315 M     | 45 - 80                                 |                                                   | 56 - 144                        | SPC 355                                                                 | 6                                                | 815     | 1060    | 385                  | 270                  | 230     |
| PH163-H                                | 280 S     | 90 - 100                                | 1.25<br>1.4<br>1.6<br>1.8                         | 113 - 180                       | SPB 315                                                                 | 5                                                | 725     | 980     | 310                  | 230                  | 220     |
|                                        | 280 M     | 71 - 100                                |                                                   | 89 - 180                        | SPB 315                                                                 | 6                                                | 725     | 980     | 310                  | 230                  | 220     |
|                                        | 315 S     | 56 - 100                                |                                                   | 70 - 180                        | SPC 355                                                                 | 5                                                | 815     | 1060    | 385                  | 275                  | 230     |
|                                        | 315 M     | 50 - 90                                 |                                                   | 63 - 162                        | SPC 355                                                                 | 6                                                | 815     | 1060    | 385                  | 275                  | 230     |
| PH173-H                                | 280 M     | 80 - 90                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 100 - 162                       | SPB 315                                                                 | 6                                                | 725     | 1072    | 310                  | 228                  | 220     |
|                                        | 315 S     | 71 - 90                                 |                                                   | 89 - 162                        | SPC 355                                                                 | 5                                                | 815     | 1117    | 385                  | 273                  | 230     |
|                                        | 315 M     | 63 - 90                                 |                                                   | 79 - 162                        | SPC 355                                                                 | 6                                                | 815     | 1117    | 385                  | 273                  | 230     |
| PH183-H                                | 280 M     | 100                                     | 1.25<br>1.4<br>1.6<br>1.8                         | 125 - 180                       | SPB 315                                                                 | 6                                                | 725     | 1072    | 310                  | 228                  | 220     |
|                                        | 315 S     | 90 - 100                                |                                                   | 113 - 180                       | SPC 355                                                                 | 5                                                | 815     | 1117    | 385                  | 273                  | 230     |
|                                        | 315 M     | 71 - 100                                |                                                   | 89 - 180                        | SPC 355                                                                 | 6                                                | 815     | 1117    | 385                  | 273                  | 230     |

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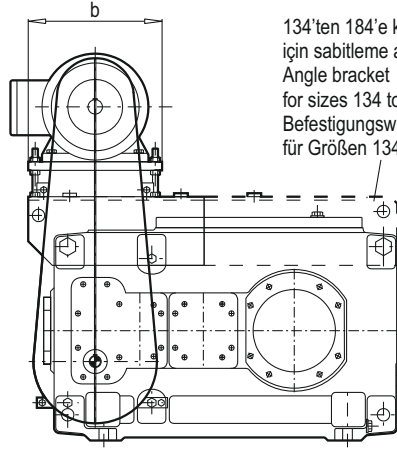
MOTOR PLATFORMU - YATAY

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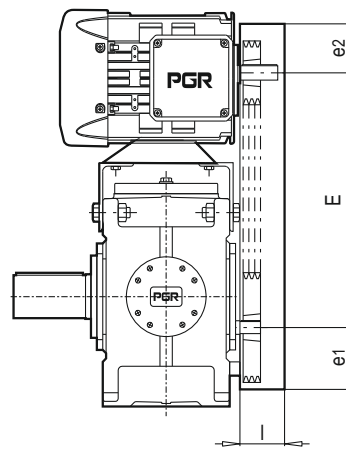
MOTOR BRACKETS - HORIZONTAL

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MOTORSTÜHLE HORIZONTAL



134'ten 184'e kadar gövdeler  
için sabitleme açısı  
Angle bracket  
for sizes 134 to 184  
Befestigungswinkel  
für Größen 134 bis 184



Tablo 2 / Table 2 / Tabelle 2

| Tip<br>Type<br>Bauart<br>Gövde<br>Size<br>Größe | IEC-Motor | i Redüktör<br>i Gear unit<br>i Getriebe | i Kasnak Tahvili<br>i Belt drive<br>i Riementrieb | i Toplam<br>i Total<br>i Gesamt | Motor mili kasnağı<br>Motor shaft pulley<br>Riemenscheibe<br>Motorwelle | Kayış<br>Adeti<br>No. of<br>belts<br>Riemen-<br>anzahl | b<br>mm | E<br>mm | e1<br>mm | e2<br>mm | l<br>mm |
|-------------------------------------------------|-----------|-----------------------------------------|---------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------|---------|---------|----------|----------|---------|
| PH74-H                                          | 100 L     | 250 - 355                               | 1.25<br>1.4<br>1.6<br>1.8                         | 313 - 639                       | SPZ 100                                                                 | 2                                                      | 315     | 597     | 130      | 128      | 75      |
|                                                 | 112 M     | 180 - 355                               |                                                   | 225 - 639                       | SPZ 112                                                                 | 2                                                      | 315     | 613     | 130      | 112      | 75      |
|                                                 | 132 S     | 140 - 250                               |                                                   | 175 - 450                       | SPZ 140                                                                 | 2                                                      | 355     | 632     | 155      | 128      | 95      |
|                                                 | 132 M     | 100 - 180                               |                                                   | 125 - 324                       | SPZ 140                                                                 | 3                                                      | 355     | 632     | 155      | 128      | 95      |
| PH84-H                                          | 100 L     | 315 - 450                               | 1.25<br>1.4<br>1.6<br>1.8                         | 394 - 810                       | SPZ 100                                                                 | 2                                                      | 315     | 597     | 130      | 128      | 75      |
|                                                 | 112 M     | 224 - 450                               |                                                   | 280 - 810                       | SPZ 112                                                                 | 2                                                      | 315     | 613     | 130      | 112      | 75      |
|                                                 | 132 S     | 180 - 355                               |                                                   | 225 - 639                       | SPZ 140                                                                 | 2                                                      | 355     | 632     | 155      | 128      | 95      |
|                                                 | 132 M     | 125 - 250                               |                                                   | 156 - 450                       | SPZ 140                                                                 | 3                                                      | 355     | 632     | 155      | 128      | 95      |
| PH94-H                                          | 112 M     | 315 - 355                               | 1.25<br>1.4<br>1.6<br>1.8                         | 394 - 639                       | SPZ 112                                                                 | 2                                                      | 395     | 672     | 130      | 113      | 75      |
|                                                 | 132 S     | 224 - 355                               |                                                   | 280 - 639                       | SPZ 140                                                                 | 2                                                      | 395     | 701     | 185      | 159      | 125     |
|                                                 | 132 M     | 160 - 315                               |                                                   | 200 - 567                       | SPZ 140                                                                 | 3                                                      | 395     | 701     | 185      | 159      | 125     |
|                                                 | 160 M     | 112 - 224                               |                                                   | 140 - 403                       | SPZ 180                                                                 | 3                                                      | 395     | 742     | 185      | 148      | 125     |
| PH104-H                                         | 112 M     | 400 - 450                               | 1.25<br>1.4<br>1.6<br>1.8                         | 500 - 810                       | SPZ 112                                                                 | 2                                                      | 395     | 672     | 130      | 113      | 75      |
|                                                 | 132 S     | 280 - 450                               |                                                   | 350 - 810                       | SPZ 140                                                                 | 2                                                      | 395     | 701     | 185      | 159      | 125     |
|                                                 | 132 M     | 200 - 400                               |                                                   | 250 - 720                       | SPZ 140                                                                 | 3                                                      | 395     | 701     | 185      | 159      | 125     |
|                                                 | 160 M     | 140 - 280                               |                                                   | 175 - 504                       | SPZ 180                                                                 | 3                                                      | 395     | 742     | 185      | 148      | 125     |
| PH114-H                                         | 132 M     | 280 - 355                               | 1.25<br>1.4<br>1.6<br>1.8                         | 350 - 639                       | SPZ 140                                                                 | 3                                                      | 465     | 785     | 155      | 125      | 115     |
|                                                 | 160 M     | 200 - 355                               |                                                   | 250 - 639                       | SPZ 180                                                                 | 3                                                      | 465     | 842     | 255      | 203      | 125     |
|                                                 | 160 L     | 140 - 280                               |                                                   | 175 - 504                       | SPA 180                                                                 | 3                                                      | 465     | 842     | 255      | 203      | 125     |
|                                                 | 180 M     | 125 - 224                               |                                                   | 156 - 403                       | SPA 250                                                                 | 3                                                      | 465     | 852     | 255      | 193      | 125     |
| PH124-H                                         | 180 L     | 100 - 180                               | 1.25<br>1.4<br>1.6<br>1.8                         | 125 - 324                       | SPA 250                                                                 | 3                                                      | 465     | 852     | 255      | 193      | 125     |
|                                                 | 200 L     | 100 - 140                               |                                                   | 125 - 252                       | SPB 280                                                                 | 3                                                      | 525     | 923     | 255      | 207      | 125     |
|                                                 | 132 M     | 355 - 450                               |                                                   | 444 - 810                       | SPZ 140                                                                 | 3                                                      | 465     | 785     | 155      | 125      | 115     |
|                                                 | 160 M     | 250 - 450                               |                                                   | 313 - 810                       | SPZ 180                                                                 | 3                                                      | 465     | 842     | 255      | 203      | 125     |
| PH124-H                                         | 160 L     | 180 - 355                               | 1.25<br>1.4<br>1.6<br>1.8                         | 225 - 639                       | SPA 180                                                                 | 3                                                      | 465     | 842     | 255      | 203      | 125     |
|                                                 | 180 M     | 140 - 280                               |                                                   | 175 - 504                       | SPA 250                                                                 | 3                                                      | 465     | 852     | 255      | 193      | 125     |
|                                                 | 180 L     | 125 - 224                               |                                                   | 156 - 403                       | SPA 250                                                                 | 3                                                      | 465     | 852     | 255      | 193      | 125     |
|                                                 | 200 L     | 125 - 180                               |                                                   | 156 - 324                       | SPB 280                                                                 | 3                                                      | 520     | 923     | 255      | 207      | 125     |

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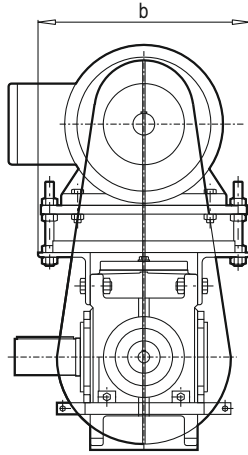
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MOTOR BRACKETS - HORIZONTAL

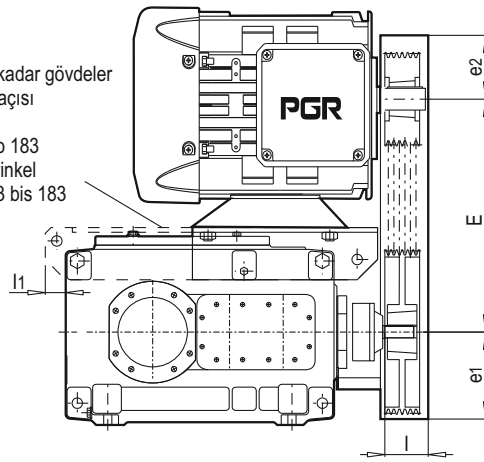
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MOTORSTÜHLE HORIZONTAL

| Tip<br>Type<br>Bauart<br>Gövde<br>Size<br>Größe | IEC-Motor | i Redüktör<br>i Gear unit<br>i Getriebe | i Kasnak Tahvil<br>i Belt drive<br>i Riementrieb | i Toplam<br>i Total<br>i Gesamt | Motor mili kasnağı<br>Motor shaft pulley<br>Riemenscheibe<br>Motorwelle | Kayış<br>Adeti<br>No .of<br>belts<br>Riemen-<br>anzahl | b<br>mm | E<br>mm | e1<br>mm | e2<br>mm | l<br>mm |
|-------------------------------------------------|-----------|-----------------------------------------|--------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------|---------|---------|----------|----------|---------|
| PH134-H                                         | 160 M     | 315 - 355                               | 1.25<br>1.4<br>1.6<br>1.8                        | 394 - 639                       | SPZ 180                                                                 | 3                                                      | 465     | 934     | 255      | 171      | 130     |
|                                                 | 160 L     | 224 - 355                               |                                                  | 280 - 639                       | SPA 180                                                                 | 3                                                      | 465     | 934     | 255      | 171      | 130     |
|                                                 | 180 M     | 180 - 355                               |                                                  | 225 - 639                       | SPA 250                                                                 | 3                                                      | 465     | 914     | 255      | 191      | 130     |
|                                                 | 180 L     | 160 - 280                               |                                                  | 200 - 504                       | SPA 250                                                                 | 3                                                      | 465     | 914     | 255      | 191      | 130     |
|                                                 | 200 L     | 112 - 224                               |                                                  | 140 - 403                       | SPB 280                                                                 | 3                                                      | 575     | 1001    | 280      | 219      | 160     |
|                                                 | 225 S     | 100 - 180                               |                                                  | 125 - 324                       | SPB 280                                                                 | 3                                                      | 575     | 1001    | 280      | 219      | 160     |
|                                                 | 225 M     | 100 - 140                               |                                                  | 125 - 252                       | SPB 280                                                                 | 4                                                      | 575     | 1001    | 280      | 219      | 160     |
| PH144-H                                         | 160 M     | 400 - 450                               | 1.25<br>1.4<br>1.6<br>1.8                        | 500 - 810                       | SPZ 180                                                                 | 3                                                      | 465     | 934     | 255      | 171      | 130     |
|                                                 | 160 L     | 280 - 450                               |                                                  | 350 - 810                       | SPA 180                                                                 | 3                                                      | 465     | 934     | 255      | 171      | 130     |
|                                                 | 180 M     | 224 - 450                               |                                                  | 280 - 810                       | SPA 250                                                                 | 3                                                      | 465     | 914     | 255      | 191      | 130     |
|                                                 | 180 L     | 200 - 355                               |                                                  | 250 - 639                       | SPA 250                                                                 | 3                                                      | 465     | 914     | 255      | 191      | 130     |
|                                                 | 200 L     | 140 - 280                               |                                                  | 175 - 504                       | SPB 280                                                                 | 3                                                      | 575     | 1001    | 280      | 219      | 160     |
|                                                 | 225 S     | 125 - 224                               |                                                  | 156 - 403                       | SPB 280                                                                 | 3                                                      | 575     | 1001    | 280      | 219      | 160     |
|                                                 | 225 M     | 125 - 180                               |                                                  | 156 - 324                       | SPB 280                                                                 | 4                                                      | 575     | 1001    | 280      | 219      | 160     |
| PH154-H                                         | 160 L     | 355                                     | 1.25<br>1.4<br>1.6<br>1.8                        | 444 - 639                       | SPA 180                                                                 | 3                                                      | 465     | 928     | 255      | 237      | 155     |
|                                                 | 180 M     | 315 - 355                               |                                                  | 394 - 639                       | SPA 250                                                                 | 3                                                      | 465     | 964     | 255      | 201      | 155     |
|                                                 | 180 L     | 250 - 355                               |                                                  | 313 - 639                       | SPA 250                                                                 | 3                                                      | 465     | 964     | 255      | 201      | 155     |
|                                                 | 200 L     | 180 - 355                               |                                                  | 225 - 639                       | SPB 280                                                                 | 3                                                      | 575     | 1057    | 280      | 213      | 160     |
|                                                 | 225 S     | 160 - 280                               |                                                  | 200 - 504                       | SPB 280                                                                 | 3                                                      | 575     | 1057    | 280      | 213      | 160     |
|                                                 | 225 M     | 125 - 250                               |                                                  | 156 - 450                       | SPB 280                                                                 | 4                                                      | 575     | 1057    | 280      | 213      | 160     |
|                                                 | 250 M     | 100 - 200                               |                                                  | 125 - 360                       | SPB 315                                                                 | 4                                                      | 665     | 1131    | 310      | 234      | 160     |
| PH164-H                                         | 180 M     | 280 - 400                               | 1.25<br>1.4<br>1.6<br>1.8                        | 350 - 720                       | SPA 250                                                                 | 3                                                      | 465     | 964     | 255      | 201      | 155     |
|                                                 | 180 L     | 224 - 400                               |                                                  | 280 - 720                       | SPA 250                                                                 | 3                                                      | 465     | 964     | 255      | 201      | 155     |
|                                                 | 200 L     | 180 - 355                               |                                                  | 225 - 639                       | SPB 280                                                                 | 3                                                      | 575     | 1057    | 280      | 213      | 160     |
|                                                 | 225 S     | 140 - 280                               |                                                  | 175 - 504                       | SPB 280                                                                 | 3                                                      | 575     | 1057    | 280      | 213      | 160     |
|                                                 | 225 M     | 112 - 224                               |                                                  | 140 - 403                       | SPB 280                                                                 | 4                                                      | 575     | 1057    | 280      | 213      | 160     |
|                                                 | 250 M     | 112 - 224                               |                                                  | 140 - 403                       | SPB 315                                                                 | 4                                                      | 665     | 1131    | 310      | 234      | 160     |
|                                                 |           |                                         |                                                  |                                 |                                                                         |                                                        |         |         |          |          |         |
| PH174-H                                         | 180 L     | 355                                     | 1.25<br>1.4<br>1.6<br>1.8                        | 444 - 639                       | SPA 250                                                                 | 3                                                      | 525     | 1047    | 280      | 195      | 130     |
|                                                 | 200 L     | 250 - 355                               |                                                  | 313 - 639                       | SPB 280                                                                 | 3                                                      | 525     | 1098    | 280      | 212      | 130     |
|                                                 | 225 S     | 200 - 355                               |                                                  | 250 - 639                       | SPB 280                                                                 | 3                                                      | 665     | 1157    | 310      | 258      | 160     |
|                                                 | 225 M     | 180 - 315                               |                                                  | 225 - 567                       | SPB 280                                                                 | 4                                                      | 665     | 1157    | 310      | 258      | 160     |
|                                                 | 250 M     | 140 - 280                               |                                                  | 175 - 504                       | SPB 315                                                                 | 4                                                      | 665     | 1181    | 310      | 234      | 160     |
|                                                 | 280 S     | 100 - 200                               |                                                  | 125 - 360                       | SPB 315                                                                 | 5                                                      | 725     | 1231    | 310      | 234      | 160     |
|                                                 | 280 M     | 100 - 160                               |                                                  | 125 - 288                       | SPB 315                                                                 | 6                                                      | 725     | 1231    | 310      | 234      | 160     |
| PH184-H                                         | 200 L     | 315 - 400                               | 1.25<br>1.4<br>1.6<br>1.8                        | 394 - 720                       | SPB 280                                                                 | 3                                                      | 525     | 1098    | 280      | 212      | 130     |
|                                                 | 225 S     | 250 - 400                               |                                                  | 313 - 720                       | SPB 280                                                                 | 3                                                      | 665     | 1157    | 310      | 258      | 160     |
|                                                 | 225 M     | 224 - 400                               |                                                  | 280 - 720                       | SPB 280                                                                 | 4                                                      | 665     | 1157    | 310      | 258      | 160     |
|                                                 | 250 M     | 180 - 355                               |                                                  | 225 - 639                       | SPB 315                                                                 | 4                                                      | 665     | 1181    | 310      | 234      | 160     |
|                                                 | 280 S     | 125 - 250                               |                                                  | 156 - 450                       | SPB 315                                                                 | 5                                                      | 725     | 1231    | 310      | 234      | 160     |
|                                                 | 280 M     | 112 - 200                               |                                                  | 140 - 360                       | SPB 315                                                                 | 6                                                      | 725     | 1231    | 310      | 234      | 160     |



133'ten 183'e kadar gövdeler için sabitleme açısı  
Angle bracket for sizes 133 to 183  
Befestigungswinkel für Größen 133 bis 183



Tablo 3 / Table 3 / Tabelle 3

| Tip-Gövde<br>Type-Size<br>Bauart-Größe | IEC-Motor | i Redüktör<br>i Gear unit<br>i Getriebe | i Kasnak Tahvili<br>i Belt drive<br>i Riementrieb | i Toplam<br>i Total<br>i Gesamt | Motor mil kasnağı<br>Motor shaft pulley<br>Riemenscheibe<br>Motorwelle | Kayış Adeti<br>No. of belts<br>Riemen-<br>anzahl | b<br>mm | E<br>mm | e1<br>mm | e2<br>mm | l<br>mm |
|----------------------------------------|-----------|-----------------------------------------|---------------------------------------------------|---------------------------------|------------------------------------------------------------------------|--------------------------------------------------|---------|---------|----------|----------|---------|
| PB43-H                                 | 112 M     | 56 - 71                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 70 - 127.8                      | SPZ 112                                                                | 2                                                | 380     | 421     | 125      | 109      | 90      |
|                                        | 132 S     | 45 - 71                                 |                                                   | 56.3 - 127.8                    | SPZ 140                                                                | 2                                                | 460     | 434     | 185      | 187      | 125     |
|                                        | 132 M     | 31.5 - 45                               |                                                   | 39.4 - 81                       | SPZ 140                                                                | 3                                                | 460     | 434     | 185      | 187      | 125     |
|                                        | 160 M     | 20 - 45                                 |                                                   | 25 - 81                         | SPZ 180                                                                | 3                                                | 460     | 476     | 185      | 145      | 125     |
|                                        | 160 L     | 31.5 - 35.5                             |                                                   | 39.4 - 63.9                     | SPA 180                                                                | 3                                                | 460     | 476     | 185      | 145      | 125     |
| PB53-H                                 | 132 M     | 45 - 71                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 56.3 - 127.8                    | SPZ 140                                                                | 3                                                | 420     | 476     | 185      | 172      | 125     |
|                                        | 160 M     | 35.5 - 71                               |                                                   | 44.4 - 127.8                    | SPZ 180                                                                | 3                                                | 420     | 502     | 185      | 146      | 125     |
|                                        | 160 L     | 28 - 50                                 |                                                   | 35 - 90                         | SPA 180                                                                | 3                                                | 420     | 502     | 185      | 146      | 125     |
|                                        | 180 M     | 22.4 - 40                               |                                                   | 28 - 64                         | SPA 250                                                                | 3                                                | 500     | 534     | 225      | 176      | 125     |
|                                        | 180 L     | 31.5 - 35.5                             |                                                   | 39.4 - 56.8                     | SPA 250                                                                | 3                                                | 500     | 534     | 225      | 176      | 125     |
| PB63-H                                 | 132 M     | 30 - 90                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 37.5 - 162                      | SPZ 140                                                                | 3                                                | 420     | 476     | 185      | 172      | 125     |
|                                        | 160 M     | 45 - 90                                 |                                                   | 56.3 - 162                      | SPZ 180                                                                | 3                                                | 420     | 502     | 185      | 146      | 125     |
|                                        | 160 L     | 31.5 - 63                               |                                                   | 39.4 - 113.4                    | SPA 180                                                                | 3                                                | 420     | 502     | 185      | 146      | 125     |
|                                        | 180 M     | 28 - 50                                 |                                                   | 35 - 80                         | SPA 250                                                                | 3                                                | 500     | 534     | 225      | 176      | 125     |
|                                        | 180 L     | 25 - 45                                 |                                                   | 31.3 - 72                       | SPA 250                                                                | 3                                                | 500     | 534     | 225      | 176      | 125     |
| PB73-H                                 | 160 M     | 63 - 71                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 78.8 - 127.8                    | SPZ 180                                                                | 3                                                | 455     | 553     | 185      | 142      | 125     |
|                                        | 160 L     | 50 - 71                                 |                                                   | 62.5 - 127.8                    | SPA 180                                                                | 3                                                | 455     | 553     | 185      | 142      | 125     |
|                                        | 180 M     | 40 - 71                                 |                                                   | 50 - 127.8                      | SPA 250                                                                | 3                                                | 665     | 588     | 278      | 325      | 155     |
|                                        | 180 L     | 31.5 - 63                               |                                                   | 39.4 - 113.4                    | SPA 250                                                                | 3                                                | 665     | 588     | 278      | 325      | 155     |
|                                        | 200 L     | 25 - 45                                 |                                                   | 31.3 - 81                       | SPB 280                                                                | 3                                                | 665     | 643     | 278      | 270      | 155     |
|                                        | 225 S     | 20 - 40                                 |                                                   | 25 - 72                         | SPB 280                                                                | 3                                                | 665     | 713     | 278      | 200      | 155     |
|                                        | 225 M     | 20 - 31.5                               |                                                   | 25 - 56.7                       | SPB 280                                                                | 4                                                | 665     | 713     | 278      | 200      | 155     |
| PB83-H                                 | 160 M     | 80 - 90                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 100 - 162                       | SPZ 180                                                                | 3                                                | 455     | 553     | 185      | 142      | 125     |
|                                        | 160 L     | 63 - 90                                 |                                                   | 78.8 - 162                      | SPA 180                                                                | 3                                                | 455     | 553     | 185      | 142      | 125     |
|                                        | 180 M     | 50 - 90                                 |                                                   | 62.5 - 162                      | SPA 250                                                                | 3                                                | 665     | 588     | 278      | 325      | 155     |
|                                        | 180 L     | 40 - 80                                 |                                                   | 50 - 144                        | SPA 250                                                                | 3                                                | 665     | 588     | 278      | 325      | 155     |
|                                        | 200 L     | 31.5 - 56                               |                                                   | 39.4 - 100.8                    | SPB 280                                                                | 3                                                | 665     | 643     | 278      | 270      | 155     |
|                                        | 225 S     | 25 - 45                                 |                                                   | 31.3 - 81                       | SPB 280                                                                | 3                                                | 665     | 713     | 278      | 200      | 155     |
|                                        | 225 M     | 25 - 40                                 |                                                   | 31.3 - 72                       | SPB 280                                                                | 4                                                | 665     | 713     | 278      | 200      | 155     |
| PB93-H                                 | 180 M     | 63 - 71                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 78.8 - 127.8                    | SPA 250                                                                | 3                                                | 555     | 635     | 275      | 278      | 155     |
|                                        | 180 L     | 56 - 71                                 |                                                   | 70 - 127.8                      | SPA 250                                                                | 3                                                | 555     | 635     | 275      | 278      | 155     |
|                                        | 200 L     | 40 - 71                                 |                                                   | 50 - 127.8                      | SPB 280                                                                | 3                                                | 555     | 713     | 275      | 200      | 155     |
|                                        | 225 S     | 40 - 53                                 |                                                   | 50 - 113.4                      | SPB 280                                                                | 3                                                | 555     | 713     | 275      | 200      | 155     |
|                                        | 225 M     | 28 - 50                                 |                                                   | 35 - 90                         | SPB 280                                                                | 4                                                | 555     | 713     | 275      | 200      | 155     |
|                                        | 250 M     | 22.4 - 45                               |                                                   | 28 - 81                         | SPB 315                                                                | 4                                                | 735     | 762     | 305      | 274      | 155     |
|                                        | 280 S     | 20 - 31.5                               |                                                   | 25 - 56.7                       | SPB 315                                                                | 5                                                | 735     | 803     | 305      | 233      | 155     |
|                                        | 280 M     | 20 - 25                                 |                                                   | 25 - 45                         | SPB 315                                                                | 6                                                | 735     | 803     | 305      | 233      | 155     |
| PB103-H                                | 180 M     | 80 - 90                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 100 - 162                       | SPA 250                                                                | 3                                                | 555     | 635     | 275      | 282      | 155     |
|                                        | 180 L     | 71 - 90                                 |                                                   | 88.8 - 162                      | SPA 250                                                                | 3                                                | 555     | 635     | 275      | 282      | 155     |
|                                        | 200 L     | 50 - 90                                 |                                                   | 62.5 - 162                      | SPB 280                                                                | 3                                                | 555     | 713     | 275      | 200      | 155     |
|                                        | 225 S     | 40 - 80                                 |                                                   | 50 - 144                        | SPB 280                                                                | 3                                                | 555     | 713     | 275      | 200      | 155     |
|                                        | 225 M     | 31.5 - 63                               |                                                   | 39.4 - 113.4                    | SPB 280                                                                | 4                                                | 555     | 713     | 275      | 200      | 155     |
|                                        | 250 M     | 28 - 56                                 |                                                   | 35 - 100.8                      | SPB 315                                                                | 4                                                | 735     | 762     | 305      | 274      | 155     |
|                                        | 280 S     | 25 - 40                                 |                                                   | 31.3 - 72                       | SPB 315                                                                | 5                                                | 735     | 803     | 305      | 233      | 155     |
|                                        | 280 M     | 25 - 31.5                               |                                                   | 31.3 - 56.7                     | SPB 315                                                                | 6                                                | 735     | 803     | 305      | 233      | 155     |

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MOTOR PLATFORMU - YATAY

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MOTOR BRACKETS - HORIZONTAL

DE

MOTORSTÜHLE HORIZONTAL

| Tip<br>Type<br>Bauart<br>Gövde<br>Size<br>Größe | IEC-Motor | i Redüktör<br>i Gear unit<br>i Getriebe | i Kasnak Tahvili<br>i Belt drive<br>i Riementrieb | i Toplam<br>i Total<br>i Gesamt | Motor mili kasnağı<br>Motor shaft pulley<br>Riemenscheibe<br>Motorwelle | Kayış sayısı<br>No. of belts<br>Riemen-<br>anzahl | b<br>mm | E<br>mm | e1<br>mm | e2<br>mm | l<br>mm | l1<br>mm |
|-------------------------------------------------|-----------|-----------------------------------------|---------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|---------------------------------------------------|---------|---------|----------|----------|---------|----------|
| PB113-H                                         | 225 S     | 56 - 71                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 70 - 127.8                      | SPB 280                                                                 | 3                                                 | 635     | 789     | 280      | 205      | 158     | -        |
|                                                 | 225 M     | 45 - 71                                 |                                                   | 56.3 - 127.8                    | SPB 280                                                                 | 4                                                 | 635     | 789     | 280      | 205      | 158     |          |
|                                                 | 250 M     | 40 - 71                                 |                                                   | 50 - 127.8                      | SPB 315                                                                 | 4                                                 | 795     | 854     | 310      | 273      | 163     |          |
|                                                 | 280 S     | 28 - 56                                 |                                                   | 35 - 100.8                      | SPB 315                                                                 | 5                                                 | 795     | 897     | 310      | 230      | 163     |          |
|                                                 | 280 M     | 22.4 - 45                               |                                                   | 28 - 81                         | SPB 315                                                                 | 6                                                 | 795     | 897     | 310      | 230      | 163     |          |
|                                                 | 315 S     | 20 - 35.5                               |                                                   | 25 - 63.9                       | SPC 355                                                                 | 5                                                 | 835     | 992     | 345      | 255      | 189     |          |
|                                                 | 315 M     | 20 - 31.5                               |                                                   | 25 - 56.7                       | SPC 355                                                                 | 6                                                 | 835     | 992     | 345      | 255      | 189     |          |
| PB123-H                                         | 225 S     | 71 - 90                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 88.8 - 162                      | SPB 280                                                                 | 3                                                 | 635     | 789     | 280      | 205      | 158     | -        |
|                                                 | 225 M     | 56 - 90                                 |                                                   | 70 - 162                        | SPB 280                                                                 | 4                                                 | 635     | 789     | 280      | 205      | 158     |          |
|                                                 | 250 M     | 50 - 90                                 |                                                   | 62.5 - 162                      | SPB 315                                                                 | 4                                                 | 795     | 854     | 310      | 273      | 163     |          |
|                                                 | 280 S     | 35.5 - 63                               |                                                   | 44.4 - 113.4                    | SPB 315                                                                 | 5                                                 | 795     | 897     | 310      | 230      | 163     |          |
|                                                 | 280 M     | 31.5 - 56                               |                                                   | 39.4 - 100.8                    | SPB 315                                                                 | 6                                                 | 795     | 897     | 310      | 230      | 163     |          |
|                                                 | 315 S     | 25 - 45                                 |                                                   | 31.3 - 81                       | SPC 355                                                                 | 5                                                 | 835     | 992     | 345      | 255      | 189     |          |
|                                                 | 315 M     | 25 - 40                                 |                                                   | 31.3 - 72                       | SPC 355                                                                 | 6                                                 | 835     | 992     | 345      | 255      | 189     |          |
| PB133-H                                         | 250 M     | 63 - 71                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 78.8 - 127.8                    | SPB 315                                                                 | 4                                                 | 750     | 938     | 325      | 235      | 188     | 100      |
|                                                 | 280 S     | 45 - 71                                 |                                                   | 56.3 - 127.8                    | SPB 315                                                                 | 5                                                 | 750     | 938     | 325      | 235      | 188     |          |
|                                                 | 280 M     | 35.5 - 71                               |                                                   | 44.4 - 127.8                    | SPB 315                                                                 | 6                                                 | 750     | 938     | 325      | 235      | 188     |          |
|                                                 | 315 S     | 31.5 - 56                               |                                                   | 39.4 - 100.8                    | SPC 355                                                                 | 5                                                 | 950     | 1017    | 395      | 288      | 232     |          |
|                                                 | 315 M     | 25 - 50                                 |                                                   | 31.3 - 90                       | SPC 355                                                                 | 6                                                 | 950     | 1017    | 395      | 288      | 232     |          |
| PB143-H                                         | 250 M     | 80 - 90                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 100 - 162                       | SPB 315                                                                 | 4                                                 | 750     | 938     | 325      | 235      | 188     | 100      |
|                                                 | 280 S     | 56 - 90                                 |                                                   | 70 - 162                        | SPB 315                                                                 | 5                                                 | 750     | 938     | 325      | 235      | 188     |          |
|                                                 | 280 M     | 45 - 90                                 |                                                   | 56.3 - 162                      | SPB 315                                                                 | 6                                                 | 750     | 938     | 325      | 235      | 188     |          |
|                                                 | 315 S     | 40 - 71                                 |                                                   | 50 - 127.8                      | SPC 355                                                                 | 5                                                 | 950     | 1017    | 395      | 288      | 232     |          |
|                                                 | 315 M     | 31.5 - 63                               |                                                   | 39.4 - 113.4                    | SPC 355                                                                 | 6                                                 | 950     | 1017    | 395      | 288      | 232     |          |
| PB153-H                                         | 280 M     | 63 - 71                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 78.8 - 127.8                    | SPB 315                                                                 | 6                                                 | 832     | 1031    | 310      | 230      | 185     | 120      |
|                                                 | 315 S     | 50 - 71                                 |                                                   | 62.5 - 127.8                    | SPC 355                                                                 | 5                                                 | 832     | 1042    | 385      | 270      | 231     |          |
|                                                 | 315 M     | 45 - 71                                 |                                                   | 56.3 - 127.8                    | SPC 355                                                                 | 6                                                 | 832     | 1042    | 385      | 270      | 231     |          |
| PB163-H                                         | 280 M     | 71 - 90                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 88.8 - 162                      | SPB 315                                                                 | 6                                                 | 832     | 1031    | 310      | 230      | 188     | 120      |
|                                                 | 315 S     | 56 - 80                                 |                                                   | 70 - 144                        | SPC 355                                                                 | 5                                                 | 832     | 1042    | 385      | 270      | 231     |          |
|                                                 | 315 M     | 50 - 80                                 |                                                   | 62.5 - 144                      | SPC 355                                                                 | 6                                                 | 832     | 1042    | 385      | 270      | 231     |          |
| PB173-H                                         | 315 M     | 63 - 71                                 |                                                   | 78.8 - 127.8                    | SPC 355                                                                 | 6                                                 | 905     | 1118    | 385      | 277      | 232     | 120      |
| PB183-H                                         | 315 M     | 71 - 80                                 |                                                   | 88.8 - 144                      | SPC 355                                                                 | 6                                                 | 905     | 1118    | 385      | 277      | 232     | 120      |

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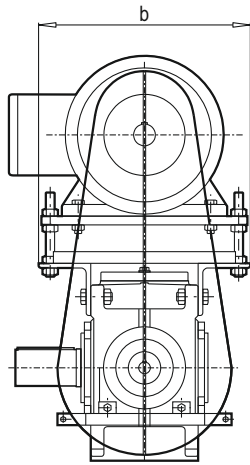
MOTOR PLATFORMU - YATAY

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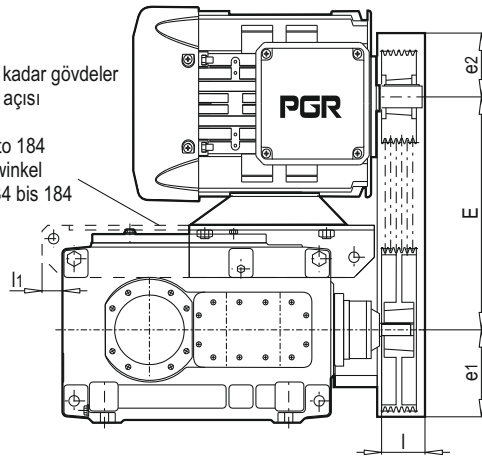
MOTOR BRACKETS - HORIZONTAL

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MOTORSTÜHLE HORIZONTAL



134'ten 184'e kadar gövdeler  
için sabitleme açısı  
Angle bracket  
for sizes 134 to 184  
Befestigungswinkel  
für Größen 134 bis 184



Tablo 4 / Table 4 / Tabelle 4

| Tip - Gövde<br>Type - Size<br>Bauart - Größe | IEC-Motor | i Redüktör<br>i Gear unit<br>i Getriebe | i Kasnak Tahvili<br>i Belt drive<br>i Riementrieb | i Toplam<br>i Total<br>i Gesamt | Motor mili kasnağı<br>Motor shaft pulley<br>Riemenscheibe<br>Motorwelle | Kayış Adeti<br>No. of belts<br>Riemen-<br>anzahl | b<br>mm | E<br>mm | e1<br>mm | e2<br>mm | l<br>mm |
|----------------------------------------------|-----------|-----------------------------------------|---------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|--------------------------------------------------|---------|---------|----------|----------|---------|
| PB54-H                                       | 90 L      | 280 - 315                               | 1.25<br>1.4<br>1.6<br>1.8                         | 350 - 567                       | SPZ 80                                                                  | 2                                                | 390     | 430     | 130      | 135      | 80      |
|                                              | 100 L     | 125 - 315                               |                                                   | 156 - 567                       | SPZ 100                                                                 | 2                                                | 390     | 442     | 130      | 123      | 80      |
|                                              | 112 M     | 100 - 180                               |                                                   | 125 - 324                       | SPZ 112                                                                 | 2                                                | 390     | 458     | 130      | 107      | 80      |
|                                              | 132 S     | 80 - 140                                |                                                   | 100 - 252                       | SPZ 140                                                                 | 2                                                | 390     | 482     | 155      | 128      | 97      |
|                                              | 132 M     | 80 - 112                                |                                                   | 100 - 202                       | SPZ 140                                                                 | 3                                                | 390     | 482     | 155      | 128      | 97      |
| PB64-H                                       | 90 L      | 355 - 400                               | 1.25<br>1.4<br>1.6<br>1.8                         | 444 - 720                       | SPZ 80                                                                  | 2                                                | 390     | 430     | 130      | 135      | 80      |
|                                              | 100 L     | 160 - 400                               |                                                   | 200 - 720                       | SPZ 100                                                                 | 2                                                | 390     | 442     | 130      | 123      | 80      |
|                                              | 112 M     | 125 - 250                               |                                                   | 156 - 450                       | SPZ 112                                                                 | 2                                                | 390     | 458     | 130      | 107      | 80      |
|                                              | 132 S     | 100 - 180                               |                                                   | 125 - 324                       | SPZ 140                                                                 | 2                                                | 390     | 482     | 155      | 123      | 97      |
|                                              | 132 M     | 100 - 140                               |                                                   | 125 - 252                       | SPZ 140                                                                 | 3                                                | 390     | 482     | 155      | 123      | 97      |
| PB74-H                                       | 100 L     | 250 - 315                               | 1.25<br>1.4<br>1.6<br>1.8                         | 350 - 567                       | SPZ 100                                                                 | 2                                                | 327     | 497     | 130      | 123      | 83      |
|                                              | 112 M     | 180 - 315                               |                                                   | 225 - 567                       | SPZ 112                                                                 | 2                                                | 455     | 513     | 130      | 107      | 83      |
|                                              | 132 S     | 125 - 250                               |                                                   | 156 - 450                       | SPZ 140                                                                 | 2                                                | 455     | 530     | 185      | 160      | 125     |
|                                              | 132 M     | 90 - 180                                |                                                   | 113 - 324                       | SPZ 140                                                                 | 3                                                | 455     | 530     | 185      | 160      | 125     |
|                                              | 160 M     | 80 - 125                                |                                                   | 100 - 225                       | SPZ 180                                                                 | 3                                                | 455     | 552     | 185      | 138      | 125     |
| PB84-H                                       | 100 L     | 355 - 400                               | 1.25<br>1.4<br>1.6<br>1.8                         | 444 - 720                       | SPZ 100                                                                 | 2                                                | 327     | 497     | 130      | 123      | 83      |
|                                              | 112 M     | 224 - 400                               |                                                   | 280 - 720                       | SPZ 112                                                                 | 2                                                | 455     | 513     | 130      | 107      | 83      |
|                                              | 132 S     | 160 - 315                               |                                                   | 200 - 567                       | SPZ 140                                                                 | 2                                                | 455     | 530     | 185      | 160      | 125     |
|                                              | 132 M     | 125 - 224                               |                                                   | 156 - 403                       | SPZ 140                                                                 | 2                                                | 455     | 530     | 185      | 160      | 125     |
|                                              | 160 M     | 100 - 160                               |                                                   | 125 - 288                       | SPZ 180                                                                 | 3                                                | 455     | 552     | 185      | 138      | 125     |
| PB94-H                                       | 100 L     | 100 - 125                               | 1.25<br>1.4<br>1.6<br>1.8                         | 125 - 225                       | SPA 180                                                                 | 3                                                | 455     | 552     | 185      | 138      | 125     |
|                                              | 132 S     | 224 - 315                               |                                                   | 280 - 567                       | SPZ 140                                                                 | 2                                                | 555     | 572     | 185      | 183      | 125     |
|                                              | 132 M     | 160 - 315                               |                                                   | 200 - 567                       | SPZ 140                                                                 | 3                                                | 555     | 572     | 185      | 183      | 125     |
|                                              | 160 M     | 112 - 224                               |                                                   | 140 - 403                       | SPZ 180                                                                 | 3                                                | 555     | 615     | 185      | 140      | 125     |
|                                              | 160 L     | 80 - 160                                |                                                   | 100 - 288                       | SPA 180                                                                 | 3                                                | 555     | 615     | 185      | 140      | 125     |
| PB104-H                                      | 180 M     | 80 - 140                                | 1.25<br>1.4<br>1.6<br>1.8                         | 100 - 252                       | SPA 250                                                                 | 3                                                | 555     | 626     | 255      | 189      | 125     |
|                                              | 180 L     | 80 - 112                                |                                                   | 100 - 202                       | SPA 250                                                                 | 3                                                | 555     | 626     | 255      | 189      | 125     |
|                                              | 132 S     | 280 - 400                               |                                                   | 350 - 720                       | SPZ 140                                                                 | 2                                                | 555     | 572     | 185      | 188      | 125     |
|                                              | 132 M     | 200 - 400                               |                                                   | 250 - 720                       | SPZ 140                                                                 | 3                                                | 555     | 572     | 185      | 188      | 125     |
|                                              | 160 M     | 140 - 280                               |                                                   | 175 - 504                       | SPZ 180                                                                 | 3                                                | 555     | 615     | 185      | 145      | 125     |
| PB114-H                                      | 160 L     | 100 - 200                               | 1.25<br>1.4<br>1.6<br>1.8                         | 125 - 360                       | SPA 180                                                                 | 3                                                | 555     | 615     | 185      | 145      | 125     |
|                                              | 180 M     | 100 - 160                               |                                                   | 125 - 288                       | SPA 250                                                                 | 3                                                | 555     | 626     | 255      | 189      | 125     |
|                                              | 180 L     | 100 - 140                               |                                                   | 125 - 252                       | SPA 250                                                                 | 3                                                | 555     | 626     | 255      | 189      | 125     |
|                                              | 132 M     | 280 - 315                               |                                                   | 350 - 567                       | SPZ 140                                                                 | 3                                                | 459     | 644     | 185      | 171      | 125     |
|                                              | 160 M     | 200 - 315                               |                                                   | 250 - 567                       | SPZ 180                                                                 | 3                                                | 459     | 668     | 185      | 147      | 125     |
|                                              | 160 L     | 140 - 280                               | 1.25<br>1.4<br>1.6<br>1.8                         | 175 - 504                       | SPA 180                                                                 | 3                                                | 459     | 668     | 185      | 147      | 125     |
|                                              | 180 M     | 112 - 224                               |                                                   | 140 - 403                       | SPA 250                                                                 | 3                                                | 635     | 709     | 280      | 321      | 155     |
|                                              | 180 L     | 90 - 200                                |                                                   | 113 - 360                       | SPA 250                                                                 | 3                                                | 635     | 709     | 280      | 321      | 155     |
|                                              | 200 L     | 80 - 140                                |                                                   | 100 - 252                       | SPB 280                                                                 | 3                                                | 635     | 750     | 280      | 280      | 155     |
|                                              | 225 S     | 80 - 112                                |                                                   | 100 - 202                       | SPB 280                                                                 | 3                                                | 635     | 825     | 280      | 205      | 155     |
|                                              | 225 M     | 80 - 90                                 | 1.25<br>1.4<br>1.6<br>1.8                         | 100 - 162                       | SPB 280                                                                 | 4                                                | 635     | 825     | 280      | 205      | 155     |

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MOTOR BRACKETS - HORIZONTAL

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MOTORSTÜHLE HORIZONTAL

| Tip<br>Type<br>Bauart<br>Gövde<br>Size<br>Größe | IEC-Motor | i Redüktör<br>i Gear unit<br>i Getriebe | i Kasnak Tahvil<br>i Belt drive<br>i Riementrieb | i Toplam<br>i Total<br>i Gesamt | Motor mili kasnağı<br>Motor shaft pulley<br>Riemenscheibe<br>Motorwelle | Kayış<br>Adeti<br>No .of<br>belts<br>Riemen-<br>anzahl | b<br>mm | E<br>mm | e1<br>mm | e2<br>mm | l<br>mm | l1<br>mm |
|-------------------------------------------------|-----------|-----------------------------------------|--------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------|---------|---------|----------|----------|---------|----------|
| PB124-H                                         | 132 M     | 355 - 400                               | 1.25<br>1.4<br>1.6<br>1.8                        | 444 - 720                       | SPZ 140                                                                 | 3                                                      | 459     | 644     | 185      | 171      | 125     | -        |
|                                                 | 160 M     | 250 - 400                               |                                                  | 313 - 720                       | SPZ 180                                                                 | 3                                                      | 459     | 668     | 185      | 147      | 125     |          |
|                                                 | 160 L     | 180 - 355                               |                                                  | 225 - 639                       | SPA 180                                                                 | 3                                                      | 459     | 668     | 185      | 147      | 125     |          |
|                                                 | 180 M     | 140 - 280                               |                                                  | 175 - 504                       | SPA 250                                                                 | 3                                                      | 635     | 709     | 280      | 321      | 155     |          |
|                                                 | 180 L     | 125 - 224                               |                                                  | 156 - 403                       | SPA 250                                                                 | 3                                                      | 635     | 709     | 280      | 321      | 155     |          |
|                                                 | 200 L     | 100 - 160                               |                                                  | 125 - 288                       | SPB 280                                                                 | 3                                                      | 635     | 750     | 280      | 280      | 155     |          |
|                                                 | 225 S     | 100 - 140                               |                                                  | 125 - 252                       | SPB 280                                                                 | 3                                                      | 635     | 825     | 280      | 205      | 155     |          |
|                                                 | 225 M     | 100 - 112                               |                                                  | 125 - 202                       | SPB 280                                                                 | 4                                                      | 635     | 825     | 280      | 205      | 155     |          |
| PB134-H                                         | 160 L     | 224 - 315                               | 1.25<br>1.4<br>1.6<br>1.8                        | 280 - 567                       | SPA 180                                                                 | 3                                                      | 580     | 764     | 255      | 191      | 130     | 100      |
|                                                 | 180 M     | 180 - 315                               |                                                  | 225 - 567                       | SPA 250                                                                 | 3                                                      | 580     | 764     | 255      | 191      | 130     |          |
|                                                 | 180 L     | 160 - 280                               |                                                  | 200 - 504                       | SPA 250                                                                 | 3                                                      | 580     | 764     | 255      | 191      | 130     |          |
|                                                 | 200 L     | 112 - 200                               |                                                  | 140 - 360                       | SPB 280                                                                 | 3                                                      | 580     | 825     | 280      | 260      | 160     |          |
|                                                 | 225 S     | 90 - 160                                |                                                  | 113 - 288                       | SPB 280                                                                 | 3                                                      | 756     | 881     | 280      | 204      | 160     |          |
|                                                 | 225 M     | 80 - 140                                |                                                  | 100 - 252                       | SPB 280                                                                 | 4                                                      | 756     | 881     | 280      | 204      | 160     |          |
|                                                 | 250 M     | 80 - 112                                |                                                  | 100 - 202                       | SPB 315                                                                 | 4                                                      | 758     | 938     | 310      | 277      | 160     |          |
|                                                 | 280 S     | 80 - 90                                 |                                                  | 100 - 162                       | SPB 315                                                                 | 5                                                      | 758     | 980     | 310      | 235      | 160     |          |
| PB144-H                                         | 160 L     | 280 - 400                               | 1.25<br>1.4<br>1.6<br>1.8                        | 350 - 720                       | SPA 180                                                                 | 3                                                      | 580     | 764     | 255      | 191      | 130     | 100      |
|                                                 | 180 M     | 224 - 400                               |                                                  | 280 - 720                       | SPA 250                                                                 | 3                                                      | 580     | 764     | 255      | 191      | 130     |          |
|                                                 | 180 L     | 180 - 355                               |                                                  | 225 - 639                       | SPA 250                                                                 | 3                                                      | 580     | 764     | 255      | 191      | 130     |          |
|                                                 | 200 L     | 140 - 250                               |                                                  | 175 - 450                       | SPB 280                                                                 | 3                                                      | 580     | 825     | 280      | 260      | 160     |          |
|                                                 | 225 S     | 112 - 200                               |                                                  | 140 - 360                       | SPB 280                                                                 | 3                                                      | 756     | 881     | 280      | 204      | 160     |          |
|                                                 | 225 M     | 100 - 180                               |                                                  | 125 - 324                       | SPB 280                                                                 | 4                                                      | 756     | 881     | 280      | 204      | 160     |          |
|                                                 | 250 M     | 100 - 140                               |                                                  | 125 - 252                       | SPB 315                                                                 | 4                                                      | 758     | 938     | 310      | 277      | 160     |          |
|                                                 | 280 S     | 100 - 112                               |                                                  | 125 - 202                       | SPB 315                                                                 | 5                                                      | 758     | 980     | 310      | 235      | 160     |          |
| PB154-H                                         | 180 L     | 250 - 315                               | 1.25<br>1.4<br>1.6<br>1.8                        | 313 - 567                       | SPA 250                                                                 | 3                                                      | 655     | 797     | 280      | 288      | 155     | 120      |
|                                                 | 200 L     | 180 - 315                               |                                                  | 225 - 567                       | SPB 280                                                                 | 3                                                      | 655     | 881     | 280      | 204      | 155     |          |
|                                                 | 225 S     | 140 - 315                               |                                                  | 175 - 567                       | SPB 280                                                                 | 3                                                      | 655     | 923     | 310      | 292      | 160     |          |
|                                                 | 225 M     | 125 - 250                               |                                                  | 156 - 450                       | SPB 280                                                                 | 4                                                      | 655     | 923     | 310      | 292      | 160     |          |
|                                                 | 250 M     | 100 - 200                               |                                                  | 125 - 360                       | SPB 315                                                                 | 4                                                      | 825     | 938     | 310      | 277      | 160     |          |
|                                                 | 280 S     | 80 - 140                                |                                                  | 100 - 252                       | SPB 315                                                                 | 5                                                      | 825     | 980     | 310      | 235      | 160     |          |
|                                                 | 280 M     | 80 - 125                                |                                                  | 100 - 225                       | SPB 315                                                                 | 6                                                      | 825     | 980     | 310      | 235      | 160     |          |
|                                                 | 315 S     | 80 - 100                                |                                                  | 100 - 180                       | SPC 355                                                                 | 5                                                      | 825     | 1051    | 345      | 259      | 190     |          |
| PB164-H                                         | 180 L     | 280 - 355                               | 1.25<br>1.4<br>1.6<br>1.8                        | 350 - 639                       | SPA 250                                                                 | 3                                                      | 655     | 797     | 280      | 288      | 155     | 120      |
|                                                 | 200 L     | 200 - 355                               |                                                  | 250 - 639                       | SPB 280                                                                 | 3                                                      | 655     | 881     | 280      | 204      | 155     |          |
|                                                 | 225 S     | 160 - 355                               |                                                  | 200 - 639                       | SPB 280                                                                 | 3                                                      | 655     | 923     | 310      | 292      | 160     |          |
|                                                 | 225 M     | 140 - 180                               |                                                  | 175 - 504                       | SPB 280                                                                 | 4                                                      | 655     | 923     | 310      | 292      | 160     |          |
|                                                 | 250 M     | 112 - 224                               |                                                  | 140 - 403                       | SPB 315                                                                 | 4                                                      | 825     | 938     | 310      | 277      | 160     |          |
|                                                 | 280 S     | 90 - 160                                |                                                  | 113 - 288                       | SPB 315                                                                 | 5                                                      | 825     | 980     | 310      | 235      | 160     |          |
|                                                 | 280 M     | 90 - 140                                |                                                  | 113 - 252                       | SPB 315                                                                 | 6                                                      | 825     | 980     | 310      | 235      | 160     |          |
|                                                 | 315 S     | 90 - 112                                |                                                  | 113 - 202                       | SPC 355                                                                 | 5                                                      | 825     | 1051    | 345      | 259      | 190     |          |
| PB174-H                                         | 200 L     | 250 - 315                               | 1.25<br>1.4<br>1.6<br>1.8                        | 313 - 567                       | SPB 280                                                                 | 3                                                      | 715     | 1001    | 280      | 219      | 160     | 120      |
|                                                 | 225 S     | 200 - 315                               |                                                  | 250 - 567                       | SPB 280                                                                 | 3                                                      | 715     | 1001    | 280      | 219      | 160     |          |
|                                                 | 225 M     | 160 - 315                               |                                                  | 200 - 567                       | SPB 280                                                                 | 4                                                      | 715     | 1001    | 280      | 219      | 160     |          |
|                                                 | 250 M     | 140 - 280                               |                                                  | 175 - 504                       | SPB 315                                                                 | 4                                                      | 885     | 1031    | 310      | 289      | 160     |          |
|                                                 | 280 S     | 100 - 200                               |                                                  | 125 - 360                       | SPB 315                                                                 | 5                                                      | 885     | 1081    | 310      | 239      | 160     |          |
|                                                 | 280 M     | 80 - 160                                |                                                  | 100 - 288                       | SPB 315                                                                 | 6                                                      | 885     | 1081    | 310      | 239      | 160     |          |
|                                                 | 315 S     | 80 - 140                                |                                                  | 100 - 252                       | SPC 355                                                                 | 5                                                      | 885     | 1101    | 385      | 299      | 235     |          |
|                                                 | 315 M     | 80 - 112                                |                                                  | 100 - 202                       | SPC 355                                                                 | 6                                                      | 885     | 1101    | 385      | 299      | 235     |          |
| PB184-H                                         | 200 L     | 315 - 355                               | 1.25<br>1.4<br>1.6<br>1.8                        | 394 - 639                       | SPB 280                                                                 | 3                                                      | 715     | 1001    | 280      | 219      | 160     | 120      |
|                                                 | 225 S     | 250 - 355                               |                                                  | 313 - 639                       | SPB 280                                                                 | 3                                                      | 715     | 1001    | 280      | 219      | 160     |          |
|                                                 | 225 M     | 224 - 355                               |                                                  | 280 - 639                       | SPB 280                                                                 | 4                                                      | 715     | 1001    | 280      | 219      | 160     |          |
|                                                 | 250 M     | 180 - 315                               |                                                  | 225 - 567                       | SPB 315                                                                 | 4                                                      | 885     | 1031    | 310      | 289      | 160     |          |
|                                                 | 280 S     | 125 - 250                               |                                                  | 156 - 450                       | SPB 315                                                                 | 5                                                      | 885     | 1081    | 310      | 239      | 160     |          |
|                                                 | 280 M     | 100 - 200                               |                                                  | 125 - 360                       | SPB 315                                                                 | 6                                                      | 885     | 1081    | 310      | 239      | 160     |          |
|                                                 | 315 S     | 90 - 160                                |                                                  | 113 - 288                       | SPC 355                                                                 | 5                                                      | 885     | 1101    | 385      | 299      | 235     |          |
|                                                 | 315 M     | 90 - 140                                |                                                  | 113 - 252                       | SPC 355                                                                 | 6                                                      | 885     | 1101    | 345      | 259      | 235     |          |

TR

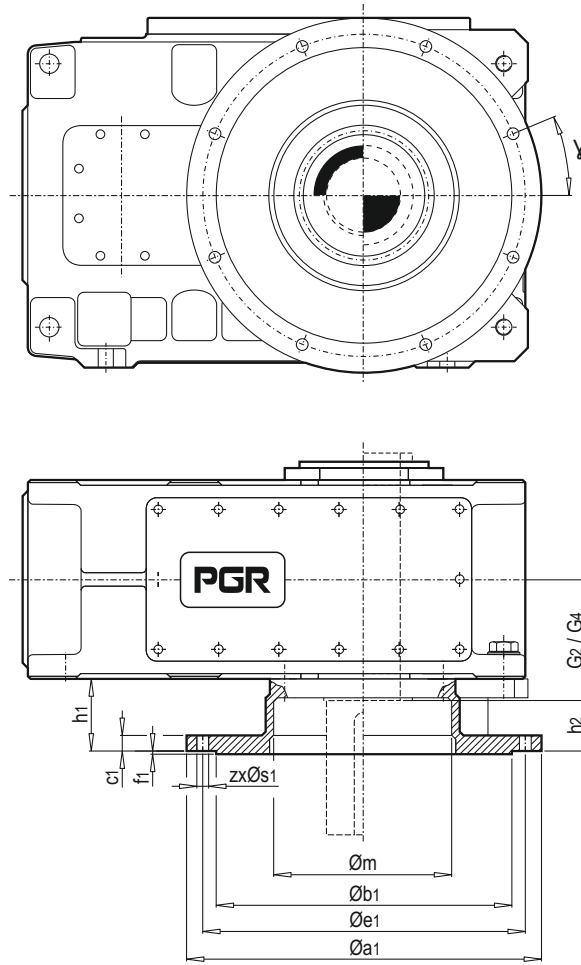
FLANŞ MONTAJI (UZUN)

EN

MOUNTING FLANGE - LONG SPACER

DE

KRAGENFLANSCH



**Not:**

Mevcut / muhtemel imalat şekilleri için, Tablo 3'e bakın.  
Kilit veya pompa kombinasyonu, talep üzerine temin edilir.  
C ve D tasarımı PH tipi redüktörlerde motor bağlantı adaptörü veya fanının kombinasyonu, talep üzerine temin edilir.

**Notes:**

For possible designs, see table 3.  
Combination with backstop or pump on request.  
Combination with motor bell housing or fan for PH-gear units of C and D design on request.

**Hinweise:**

Mögliche Ausführungsformen siehe Tabelle 3.  
Kombinationen mit Rücklaufsperr oder Pumpe auf Anfrage.  
Kombinationen mit Motorlaterne oder Lüfter bei PH-Getrieben der Ausführungsformen C und D auf Anfrage.

Tablo 1 / Table 1 / Tabelle 1

| Moment faktörü f / Torque factor f / Drehmomentfaktor f |                      |     |     |     |     |     |      |      |      |
|---------------------------------------------------------|----------------------|-----|-----|-----|-----|-----|------|------|------|
| PH..2, PH..3, PH..4, PB..3, PB..4                       |                      |     |     |     |     |     |      |      |      |
| Faktör<br>Factor<br>Faktor                              | Gövde / Size / Größe |     |     |     |     |     |      |      |      |
|                                                         | 4..                  | 5.. | 6.. | 7.. | 8.. | 9.. | 10.. | 11.. | 12.. |
| f                                                       | 1.1                  | 1.2 | 1.6 | 1.2 | 1.4 | 1.3 | 1.5  | 1.3  | 1.4  |

| PB..2                      |                      |     |     |     |     |     |     |     |     |
|----------------------------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Faktör<br>Factor<br>Faktor | Gövde / Size / Größe |     |     |     |     |     |     |     |     |
|                            | 42                   | 52  | 62  | 72  | 82  | 92  | 102 | 112 | 122 |
| f                          | 1.0                  | 1.0 | 1.3 | 1.0 | 1.2 | 1.1 | 1.3 | 1.1 | 1.2 |

TR

FLANŞ MONTAJI (UZUN)

EN

MOUNTING FLANGE - LONG SPACER

DE

KRAGENFLANSCH

Tablo 2 / Table 2 / Tabelle 2

|                              |     |       |      |     |    |      |      |                  |          |                                                     | PH.2-S, PH.2-D, PH.2-H<br>PH.3-S, PH.3-D, PH.3-H<br>PH.4-S, PH.4-D, PH.4-H<br>PB.3-S, PB.3-D, PB.3-H<br>PB.4-S, PB.4-D, PB.4-H | PB.2-S,<br>PB.2-D,<br>PB.2-H |
|------------------------------|-----|-------|------|-----|----|------|------|------------------|----------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Gövde<br>Size<br>Größe<br>1) | a1  | b1 f7 | c1   | e1  | f1 | h1   | h2   | m <sub>max</sub> | z x s1   | Ağırlık<br>Add. weight<br>Zusätz.<br>Gewicht.<br>kg | G2/G4<br>mm                                                                                                                    | G2/G4                        |
|                              |     |       |      |     |    |      |      |                  |          |                                                     |                                                                                                                                |                              |
| 4..                          | 450 | 350   | 24.5 | 400 | 5  | 82.5 | 50   | 205              | 8 x 17.5 | 40                                                  | 140                                                                                                                            | 170                          |
| 5..                          | 550 | 450   | 25   | 500 | 5  | 90   | 52.5 | 245              | 8 x 17.5 | 60                                                  | 165                                                                                                                            | 200                          |
| 6..                          | 550 | 450   | 25   | 500 | 5  | 90   | 52.5 | 245              | 8 x 17.5 | 65                                                  | 165                                                                                                                            | 200                          |
| 7..                          | 660 | 550   | 25   | 600 | 5  | 135  | 90   | 290              | 8 x 22   | 90                                                  | 195                                                                                                                            | 235                          |
| 8..                          | 660 | 550   | 30   | 600 | 5  | 135  | 90   | 315              | 8 x 22   | 100                                                 | 195                                                                                                                            | 235                          |
| 9..                          | 660 | 550   | 29   | 600 | 6  | 134  | 84   | 325              | 12 x 22  | 110                                                 | 235                                                                                                                            | 270                          |
| 10..                         | 660 | 550   | 34   | 600 | 6  | 134  | 84   | 355              | 12 x 26  | 120                                                 | 235                                                                                                                            | 270                          |
| 11..                         | 800 | 680   | 44   | 740 | 6  | 184  | 129  | 420              | 12 x 26  | 210                                                 | 270                                                                                                                            | 320                          |
| 12..                         | 800 | 680   | 44   | 740 | 6  | 184  | 129  | 435              | 12 x 26  | 220                                                 | 270                                                                                                                            | 320                          |

1) T<sub>2max</sub> ≤ T<sub>2N</sub> / f

1) T<sub>2max</sub> ≤ T<sub>2N</sub> / f

1) T<sub>2max</sub> ≤ T<sub>2N</sub> / f

Tablo 3 / Table 3 / Tabelle 3

| İmalat tipleri, büyüklükleri ve uygulama şekilleri.<br>Possible types, sizes designs<br>Mögliche Bauarten, Größen, Ausführungsformen |               |         |                                               |                                               |
|--------------------------------------------------------------------------------------------------------------------------------------|---------------|---------|-----------------------------------------------|-----------------------------------------------|
| Gövde<br>Size<br>Größe                                                                                                               | PH..2-H       | PH..2-V | PH..3-H, PH..4-H<br>PB..2-H, PB..3-H, PB..4-H | PH..3-V, PH..4-V<br>PB..2-V, PB..3-V, PB..4-V |
| 4..                                                                                                                                  | A + B         | B       | A + B + C + D                                 | B + C                                         |
| 5..                                                                                                                                  |               |         |                                               |                                               |
| 6..                                                                                                                                  |               |         |                                               |                                               |
| 7..                                                                                                                                  |               |         |                                               |                                               |
| 8..                                                                                                                                  |               |         |                                               |                                               |
| 9..                                                                                                                                  |               |         |                                               |                                               |
| 10..                                                                                                                                 | A + B + C + D | B + C   |                                               |                                               |
| 11..                                                                                                                                 | A + B         | B       |                                               |                                               |
| 12..                                                                                                                                 | A + B + C + D | B + C   |                                               |                                               |

TR

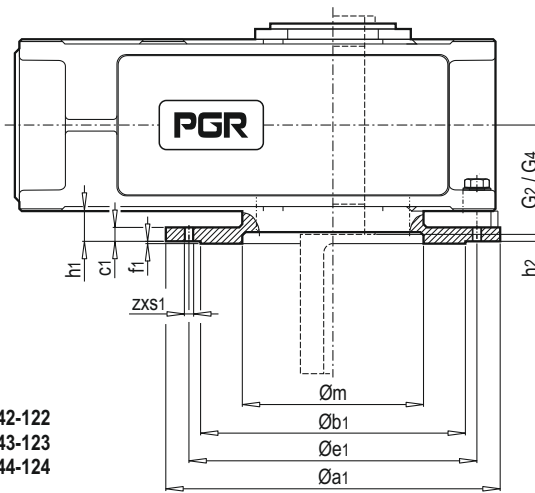
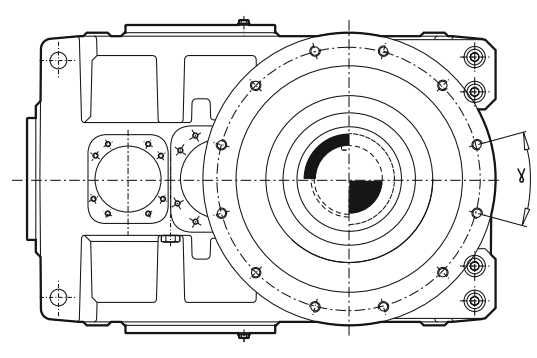
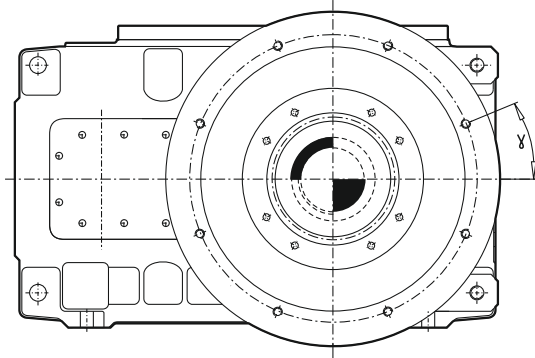
FLANŞ MONTAJI (KISA)

EN

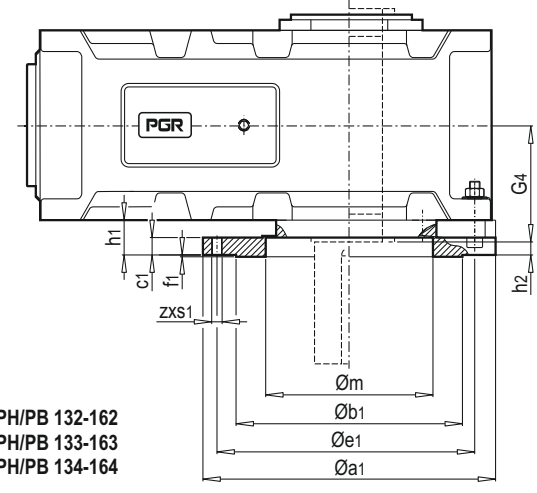
MOUNTING FLANGE - SHORT SPACER

DE

BLOCKFLANSCH



PH/PB 42-122  
PH/PB 43-123  
PH/PB 44-124



PH/PB 132-162  
PH/PB 133-163  
PH/PB 134-164

**Not:**

13...ve üstü gövde büyüklükleri sadece ayaksız şekilde imal edilmektedir.

Bu nedenle M montaj şekline göre uygulanır. Muhtemel uygulama şekilleri için, Tablo 3'e bakın. Kilit veya pompa kombinasyonu, talep üzerine temin edilir.

C ve D tipi tasarımı PH tipi redüktörlerde motor bağlantı adaptörü veya fanının kombinasyonu, talep üzerine temin edilir.

**Notes:**

From size 13... up, only housing without feet, i.e. Mounting position M, are used.

For possible designs, see table 3. Combination with backstop or pump on request.

Combination with motor bell housing or fan for PH gear units of C and D design on request.

**Hinweise:**

Ab Größe 13 werden nur Gehäuse ohne Fuß, d.h. in Einbaulage M eingesetzt.

Mögliche Ausführungsformen siehe Tabelle 3. Kombinationen mit Rücklaufsperre oder Pumpe auf Anfrage.

Kombinationen mit Motorlaterne oder Lüfter bei PH Getrieben der Ausführungsformen C und D auf Anfrage.

Tablo 1 / Table 1 / Tabelle 1

| Moment faktörü f / Torque factor f / Drehmomentfaktor f |                      |     |     |     |     |     |      |      |      |      |      |      |      |
|---------------------------------------------------------|----------------------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| PH..2, PH..3, PH..4, PB..3, PB..4                       |                      |     |     |     |     |     |      |      |      |      |      |      |      |
| Faktör<br>Factor<br>Faktor                              | Gövde / Size / Größe |     |     |     |     |     |      |      |      |      |      |      |      |
|                                                         | 4..                  | 5.. | 6.. | 7.. | 8.. | 9.. | 10.. | 11.. | 12.. | 13.. | 14.. | 15.. | 16.. |
| f                                                       | 1.1                  | 1.2 | 1.5 | 1.2 | 1.4 | 1.3 | 1.5  | 1.3  | 1.4  | 1.4  | 1.1  | 1.4  | 1.2  |

| PB..2                      |                      |     |     |     |     |     |     |     |     |     |     |     |     |
|----------------------------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Faktör<br>Factor<br>Faktor | Gövde / Size / Größe |     |     |     |     |     |     |     |     |     |     |     |     |
|                            | 42                   | 52  | 62  | 72  | 82  | 92  | 102 | 112 | 122 | 132 | 142 | 152 | 162 |
| f                          | 1.0                  | 1.0 | 1.2 | 1.0 | 1.2 | 1.1 | 1.3 | 1.1 | 1.2 | 1.2 | 1.0 | 1.2 | 1.0 |

TR

FLANŞ MONTAJI (KISA)

EN

MOUNTING FLANGE - SHORT SPACER

DE

BLOCKFLANSCH

Tablo 2 / Table 2 / Tabelle 2

|                         |                        |     |       |    |     |    |     |      |      |          |                                   | PH.2-S, PH.2-D, PH.2-H<br>PH.3-S, PH.3-D, PH.3-H<br>PH.4-S, PH.4-D, PH.4-H<br>PB.3-S, PB.3-D, PB.3-H<br>PB.4-S, PB.4-D, PB.4-H | PB.2-S,<br>PB.2-D,<br>PB.2-H |
|-------------------------|------------------------|-----|-------|----|-----|----|-----|------|------|----------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Tip<br>Type<br>Bauart   | Gövde<br>Size<br>Größe | a1  | b1 f7 | c1 | e1  | f1 | h1  | h2   | mmax | z x s1   | Add. weight<br>Zusätz.<br>Gewicht | G2/G4                                                                                                                          | G2/G4                        |
|                         | 1)                     | mm  |       |    |     |    |     |      |      |          | kg                                | mm                                                                                                                             |                              |
| <b>S</b><br><b>D, H</b> | 4..                    | 445 | 340   | 25 | 400 | 5  | 55  | 22.5 | 205  | 8 x M16  | 35                                | 140                                                                                                                            | 170                          |
|                         | 5..                    | 565 | 430   | 25 | 515 | 5  | 60  | 22.5 | 245  | 8 x M16  | 55                                | 165                                                                                                                            | 200                          |
|                         | 6..                    | 565 | 430   | 25 | 515 | 5  | 60  | 22.5 | 245  | 8 x M16  | 55                                | 165                                                                                                                            | 200                          |
|                         | 7..                    | 670 | 530   | 25 | 620 | 5  | 60  | 15   | 295  | 8 x M20  | 80                                | 195                                                                                                                            | 235                          |
|                         | 8..                    | 670 | 530   | 40 | 620 | 5  | 80  | 35   | 300  | 8 x M20  | 110                               | 195                                                                                                                            | 235                          |
|                         | 9..                    | 670 | 530   | 35 | 620 | 5  | 80  | 30   | 320  | 12 x M20 | 105                               | 235                                                                                                                            | 270                          |
|                         | 10..                   | 730 | 560   | 35 | 680 | 5  | 80  | 30   | 355  | 12 x M24 | 125                               | 235                                                                                                                            | 270                          |
|                         | 11..                   | 730 | 560   | 40 | 680 | 5  | 90  | 35   | 400  | 12 x M24 | 145                               | 270                                                                                                                            | 320                          |
| <b>S</b><br><b>D, H</b> | 12..                   | 730 | 560   | 40 | 680 | 5  | 90  | 35   | 420  | 12 x M24 | 155                               | 270                                                                                                                            | 320                          |
|                         | 13..                   | 840 | 650   | 50 | 760 | 5  | 100 | 37 5 | 450  | 12 x M30 | 245<br>240                        | 335                                                                                                                            | 390<br>-                     |
| <b>S</b><br><b>D, H</b> | 14..                   | 840 | 650   | 50 | 760 | 5  | 100 | 37 5 | 480  | 12 x M30 | 255<br>245                        | 335                                                                                                                            | 390<br>390                   |
|                         | 15..                   | 960 | 750   | 50 | 880 | 5  | 100 | 30   | 530  | 16 x M30 | 315<br>305                        | 380                                                                                                                            | 460<br>-                     |
| <b>S</b><br><b>D, H</b> | 16..                   | 960 | 750   | 50 | 880 | 5  | 100 | 30   | 540  | 16 x M30 | 320<br>315                        | 380                                                                                                                            | 460<br>450                   |

1) T2max ≤ T2N / f

1) T2max ≤ T2N / f

1) T2max ≤ T2N / f

Tablo 3 / Table 3 / Tabelle 3

| Muhtemel imalat tipleri, büyüklükleri ve uygulama şekilleri.<br>Possible types, sizes, designs / Mögliche Bauarten, Größen Ausführungsformen |                                |              |                                                                                                                                           |                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Gövde<br>Size<br>Größe                                                                                                                       | PH..2-SH, PH..2-HH<br>PH..2-DH | PH..2-V      | PH.3-SH, PH.4-SH, PB.2-SH, PB.3-SH, PB.4-SH<br>PH.3-HH, PH.4-HH, PB.2-HH, PB.3-HH, PB.4-HH<br>PH.3-DH, PH.4-DH, PB.2-DH, PB.3-DH, PB.4-DH | PH.3-V, PH.4-V<br>PB.2-V, PB.3-V, PB.4-V |
| 4..                                                                                                                                          | <b>A + B</b>                   | <b>B</b>     | <b>A + B + C + D</b>                                                                                                                      | <b>B + C</b>                             |
| 5..                                                                                                                                          |                                |              |                                                                                                                                           |                                          |
| 6..                                                                                                                                          |                                |              |                                                                                                                                           |                                          |
| 7..                                                                                                                                          |                                |              |                                                                                                                                           |                                          |
| 8..                                                                                                                                          |                                |              |                                                                                                                                           |                                          |
| 9..                                                                                                                                          |                                |              |                                                                                                                                           |                                          |
| 10..                                                                                                                                         | <b>A + B + C + D</b>           | <b>B + C</b> |                                                                                                                                           |                                          |
| 11..                                                                                                                                         | <b>A + B</b>                   | <b>B</b>     |                                                                                                                                           |                                          |
| 12..                                                                                                                                         | <b>A + B + C + D</b>           | <b>B + C</b> |                                                                                                                                           |                                          |
| 13..                                                                                                                                         | <b>A + B</b>                   | <b>B</b>     |                                                                                                                                           |                                          |
| 14..                                                                                                                                         | <b>A + B + C + D</b>           | <b>B + C</b> | <b>A + B + C + D</b>                                                                                                                      | <b>B + C</b>                             |
| 15.. 2)                                                                                                                                      |                                |              |                                                                                                                                           |                                          |
| 16.. 2)                                                                                                                                      |                                |              |                                                                                                                                           |                                          |

2) PB152 ve 162 büyüklüğündeki gövdelerde A veya C dizaynı yapılamamaktadır.

2) Design A or C not possible for type PB152- 162 sizes 15 + 16!

2) Bauart PB152-162..Größe 15 + 16 nicht in Ausführung A oder C möglich!

TR

## FAN SOĞUTMASI

Eğer redüktörde fan opsiyonu var ise, soğutma fanı giriş milinin sonuna mil faturasına dayanacak şekilde takılmıştır. Bu opsiyon ile elde edilen artırılmış soğutma etkisi termal kapasite değeri Pt1 ile gösterilmiştir. Bakınız sayfa 70...92

Fanın verimliliği  $n1=900$  d/d'den düşük olduğu hızlarda büyük oranda azalır. Bu durum şöyle olmalı ki, mekanik güç, termal kapasiteden büyük olduğunda sıcaklık dağıtımını artıran cihaz yerine serpantin tavsiye edilmelidir.

EN

## FAN COOLING

If the fan option is specified, a cooling fan is keyed to the end of the input shaft the drive side. The increased cooling effect obtained by this option is shown by the thermal capacity value Pt1. See the section, 70...92.

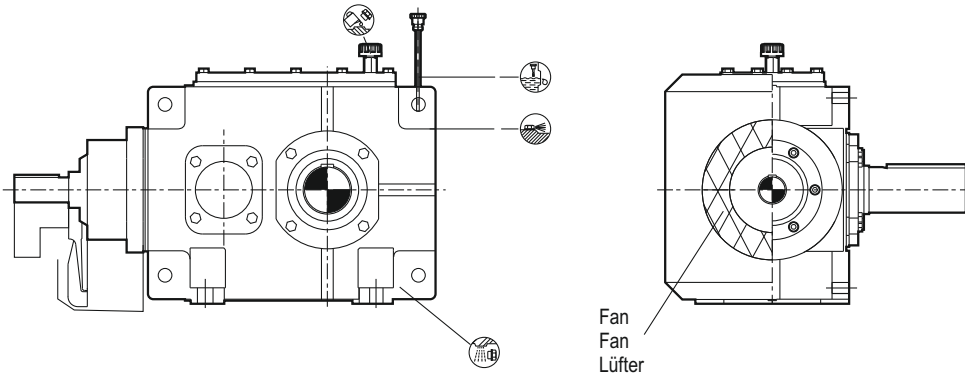
The efficiency of the fan is greatly reduced at drive speed lower than  $n1=900 \text{ min}^{-1}$ . Should this be the case the cooling coil is recommended instead the device the best increases the heat dissipation when the mechanical power is greater than thermal capacity.

DE

## LUFTERKUHLUNG

Eine Verstärkte Wärmeableitung erhält man bei Verwendung von Lüftern, die an der Antriebswelle des Getriebes aufgezogen werden. Die erhöhte Kühlwirkung mit Option ist die Wärmekapazität welche als Pt1 dargestellt Siehe Seite 70...92.

Wenn die Geschwindigkeit niedriger als  $n1=900 \text{ min}^{-1}$  im betrieb ist verringert sich die Effizienz der Zwangslüftung. Um die Wärmeleistung des Getriebes zu erhöhen, wird in diesem Fall separate Kühlschlange empfohlen.



TR

## SOĞUTMA BOBİNİ (SERPANTİN)

Soğutma bobin opsiyonu fabrikamızdan temin edilerek soğutma devresine entegre edilmesi için dizayn edilmiştir. Su kaynağı devresi takip eden özelliklerde olmalıdır: maksimum basınç 8 bar, akış hızı 5 l/dk, maksimum dolaşım sıcaklığı 20°C olmalıdır. Bakınız sayfa 70...92.

EN

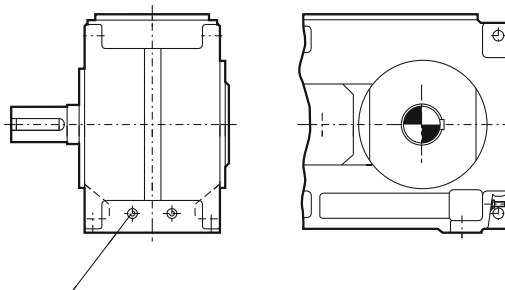
## COOLING COIL

The cooling coil option is designed for integration in a cooling circuit to be provided by the installer. The water supply circuit must correspond to the following specifications: maximum pressure 8 bar, flow rate 5 l/min, maximum delivery temperature 20°C. The increased cooling effect obtained in these conditions is shown by the thermal capacity value See the section 70...92.

DE

## KUHLSCHLANGE

Die Kühlschlange ist für den Einbau in einen Kühlkreis vorgesehen, der von Monteur realisiert werden muss. Das Wasserversorgungsnetz muss folgende Spezifikationen erfüllen: Druck max. 8 bar, Durchsatz 5 l/Min, Auslasstemperatur max. 20°C. Die erhöhte Kühlwirkung unter diesen Bedingungen ist durch den Wert der Wärmeleistung Seite 70...92 angegeben.



x) Gerekli soğutma suyu miktarı; basıncı 8 bar  
Cooling water quantity required, max. cooling water pressure: 8 bar  
Erforderliche Kühlwassermenge, max. kühlwasserdruck: 8 bar

TR

## ISITICILAR

Çok düşük ortam sıcaklıklarında çalışmadan önce ve/veya çalışma esnasında yağ haznesindeki yağlama maddesini önceden ısıtmak gerekebilir. Bu opsiyon bir elektriksel ısıtma elemanının kurulumunu öngörür, düzgün çalışmayı sağlamak için minimum sıcaklığın zamanını saptamak için bir termostat ile tedarik edilir. Termostat için gerekli olan elektrik bağlantısı / elektrik tertibatı / kablolama kurulumcu tarafından sağlanmalıdır. Sayfa 157.

EN

## HEATERS

In very low ambient temperatures it may prove necessary to pre-heat the lubricant in the sump before start-up and/or during operation. The option envisages the installation of an electrical heating element, supplied with a thermostat to detect when the minimum temperature needed for correct operation has been reached. The wiring necessary for the thermostat must be provided by the installer.

DE

## HEIZSTÄBEN

Bei sehr niedrigen Umgebungstemperaturen kann es sich als erforderlich erweisen, das Schmiermittel im Gehäuse vor Inbetriebnahme und/oder während des Betriebs vorzuwärmen. Die Option Heizzstäben siehe Seite 157 sieht die Installation eines elektrischen Heizwiderstands und die Lieferung eines Thermostats vor, mit dem das Erreichen der erforderlichen Mindesttemperatur für einen korrekten Betrieb angezeigt wird. Die Verkabelung ist vom Monteur vorzunehmen.

TR

## BASINÇLI YAĞLAMA

Sürekli çalışma uygulamalarında ve dikey montaj pozisyonu kurulumlarında, opsiyonel olarak basınçlı yağlama devresi istenildiği üzere mevcuttur, giriş milinin sonunda karşı tarafına tutturulan bir pompa ile tamamlanmıştır. Sistem rulmanların üstüne yeterli miktarda yağlama güvencesini verir. Bu opsiyon çift giriş millî konfigürasyonlar için uygun değildir. Bakınız sayfa 100...112.

EN

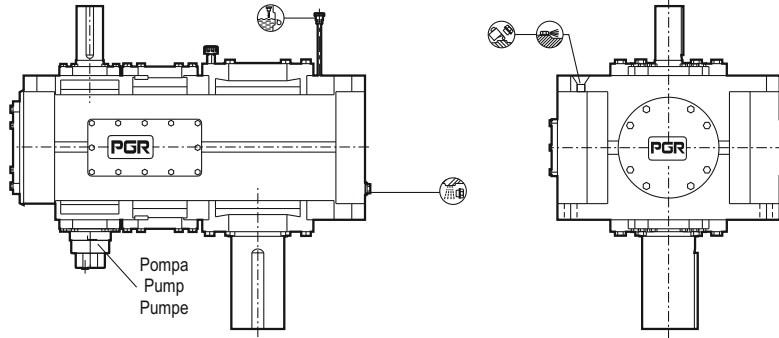
## FORCED LUBRICATION

In continuous duty applications and vertical mounting position installations, an optional forced lubrication circuit is available on request, complete with a pump keyed to the shaft end opposite the drive side. This system ensures adequate lubrication of the top bearings. This option is not available with other configurations that use the same shaft end.

DE

## ZWANGSSCHMIERUNG

Bei Dauerbetrieb und vertikalen Anwendungen ist Optional nach Anfrage Zwangsschmierung mit Mechanische Pumpe Verfügbar. Die Applikation der Schmierung ist an der Gehäuse die in der Nähe Antriebswelle ist dabei sorgt dieses system ausreichende Schmierung der oberen Antriebslagerungen. Diese Anwendung ist bei doppel Antriebswelle nicht Verfügbar siehe Seite 100...112.



TR

## MOTOR POMPASI

Aralıklı çalışma uygulamaları ve dikey montaj pozisyon kurulumları için, basınçlı yağlama devresi talep üzerine mevcuttur, güçlendirilmiş motor pompası ile tamamlanmıştır. Bu sistem rulmanların üstüne sabit yağ akışı güvencesini verir. Bakınız sayfa 100...124.

EN

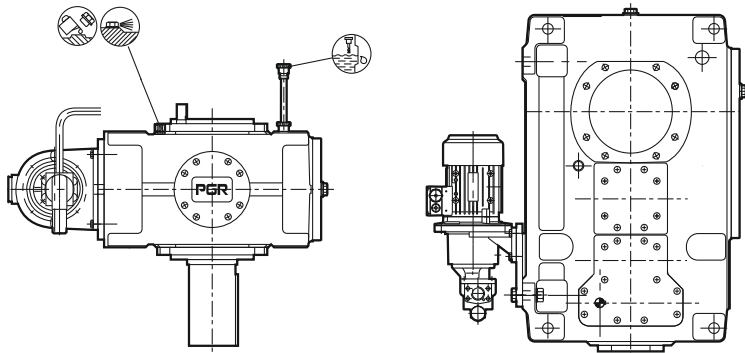
## MOTOR PUMP

For intermittent duty applications and vertical mounting position installations, a forced lubrication circuit is available on request, complete with an independently powered motor pump. This system ensures a constant oil flow to the top bearings. Specify the Motor pump option. Option Motor pump is not available if fan cooling - option FAN is also specified. See the section 100...124.

DE

## MOTORPUMPE

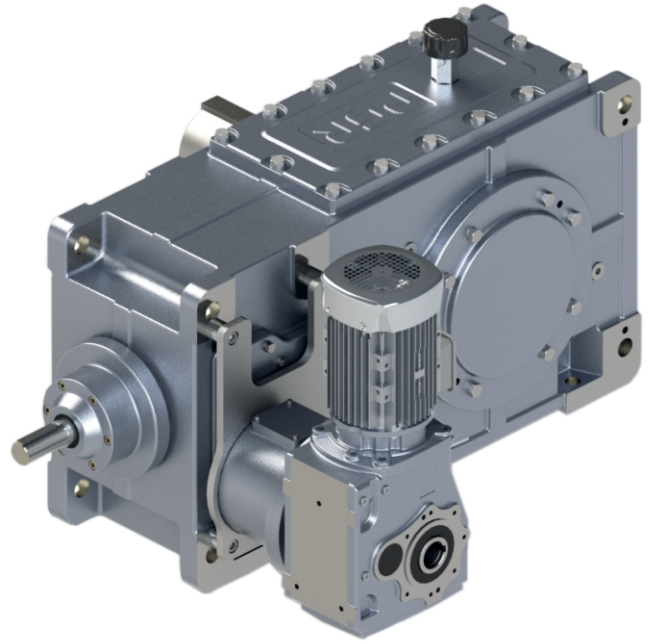
Bei periodische Anwendung Baulage Vertikal, Optional nach Anfrage Hydraulische Pumpe mit separaten Elektromotor Verfügbar. Dieses system sorgt ausreichende Schmierung der oberen Antriebslagerungen siehe Seite 100...124.



## Yardımcı Tahrikli Redüktörler

Bucket Elevator Drives

Becherwerksantriebe





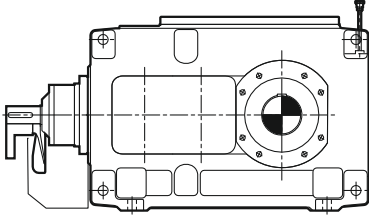
A series of horizontal dotted lines spanning the width of the page, providing a template for writing or drawing.

TR YARDIMCI TAHRİKLİ REDÜKTÖRLER

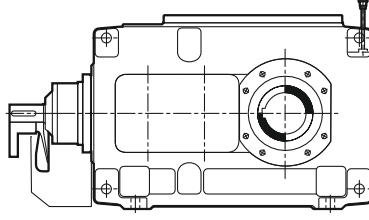
EN BUCKET ELEVATOR DRIVES

DE BECHERWERKSANTRIEBE

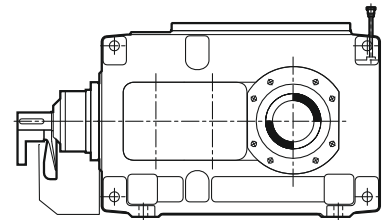
PB...3-SH



PB...3-HH



PB...3-DH



**Yardımcı Tahrikli Redüktörler**

Temel Tipler  
Helisel-Konik dişlili redüktör

**Tip PB...3-H, 3-kademe**

Boyut 43 ... 123  
Monoblok gövde  
Boyut 133 ... 183  
İki parçalı gövde

**Bucket Elevator Drives**

Summary of Basic Types  
Bevel-helical gear units

**Type PB...3-H, 3-stage**

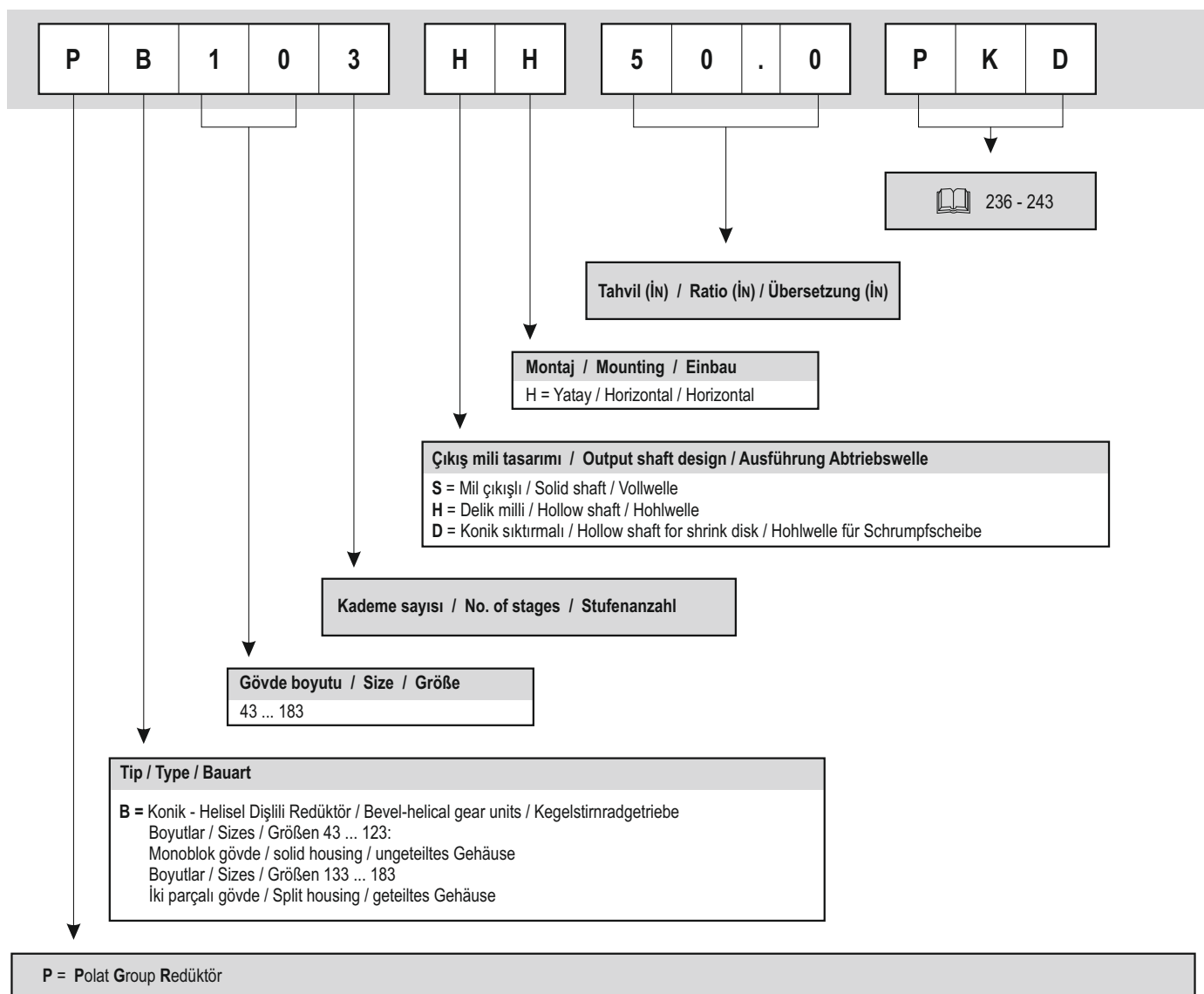
Sizes 43 ... 123  
Solid housing  
Sizes 133 ... 183  
Split housing

**Becherwerksantriebe**

Bauartenübersicht  
Kegelstirnradgetriebe

**Bauart PB...3-H, 3-stufig**

Größen 43 ... 123  
Ungeteiltes Gehäuse  
Größen 133 ... 183  
geteiltes Gehäuse



**Sipariş verirken gerekli ek bilgiler:**

Cevirim oranı i. tasarım B, D, v.b.

Çıkış milinin alnından bakıldığında, çıkış milinin dönüş yönü ile yardımcı redüktörün ana redüktöre bağlandığı milin dönüş yönü aynıdır.

**Further details required in orders:**

Transmission ratio  $i$ , designs B, D, etc.

Direction of rotation of output shaft  $d_2$  when looking at shaft end face in case of input via main as well as auxiliary drive

**Weitere bei Bestellung notwendige Angaben:**

Übersetzung i. Ausführungen B. D usw.

Drehrichtung der Abtriebswelle  $d_2$  bei Sicht auf Wellenspiegel bei Antrieb über den Haupt - als auch Hilfsantrieb

Örnek: PB103-HH-

Konik-helisel dişli ünitesi, 3 kademe, B tasarım,  $i=50$ , delik mili dizaynı, yatay montaj pozisyonu, gövde büyüklüğü 10 yardımcı sürücülü (yük altında operasyon)  $d_2$  shaft dönüş yönü CCW

### Example PB103-HH

Bevel-helical gear unit, 3-stage, design B,  $i=50$ , hollow shaft design, horizontal mounting position, size 10 with auxiliary drive (operation under load), rotation of shaft  $d_2$  CCW

### Beispiel PB103-HH

Kegelstrinradgetriebe 3-stufig, Ausführung B,  $i=50$ , Abtrieb in hohlwellenausführung, Horizontale Einbaulage, Größe 10 mit Hilfsantrieb (Lastbetrieb), Welle  $d_2$  linksdrehend

TR

## KARAKTERİSTİK ÖZELLİKLER

**İmalat**

PGR dişli redüktörleri, tamamen yeniden dizayn edildi. Üstün yenilikleri:

- Daha az parça çeşitliliği ile, daha fazla gövde büyüklüğü,
- Artan güç kapasitesi ile daha yüksek işletme şartlarında güvenli çalışma,
- Redüktör montajını kolaylaştıran ve daha az yer gerektiren flanşlı çıkış milleri (Sipariş üzerine temin edilir).

**Montaj Pozisyonları**

PGR dişli redüktörleri, yatay montajlı şekilde teslim edilir.

Redüktörün yağ miktarının ve yağ çubuğu uzunluğunun ayarlanması hariç aşağıdaki eğimleri başka bir işlem olmadan yapmak mümkündür.

Uzunlamasına  $\leq \pm 5^\circ$   
Yanlamasına  $\leq \pm 2^\circ$

Talep edildiğinde, diğer düzenlemelerin uygulanması mümkündür. Müşteri talebi üzerine seçilen redüktörlere örneğin motor bağlantı adaptörü, redüktör tabanı titreme önleyici ve tork kolu kilit v.b. farklı donanımların eklenmesi mümkündür.

**Gürültü Seviyesi**

PGR dişli redüktörlerinde, gürültü seviyesini kesinve kalıcı bir şekilde azaltmak için yapılanlar:

- Konik dişliler taşlanır,
- CNC bilgisayar programıyla, gürültü seviyesini azaltacak şekilde gövde ve yüksek kalitede dişliler işlenmektedir.
- Son derece geniş bir temas yüzeyi sağlanır.

**Isı İletkenliği**

PGR redüktörlerin sadece yüksek verimlilikleri değil ısı iletkenlikleri de uygundur.

Redüktör seçiminde PGR, gereken en düşük maksimum yağ sıcaklığını temel olarak alır. Bu sayede, işyeri güvenliği artar ve yağlama aralıklarının daha uzun olması nedeniyle, bakım masrafları da azalır.

**Depolama**

PGR dişli redüktörleri, yeni bir modüler sisteme göre tasarlandı. Bu sayede, farklı montaj parçalarının sayısı azaltıldı. İlgili montaj parçalarının oldukça büyük bölümü, stoklarımızda mevcuttur.

EN

## CHARACTERISTIC FEATURES

**Design**

PGR gear units are a completely new design. Outstanding innovations are:

- more sizes with a reduced variety of parts;
- higher operational reliability combined with increased power capacity;
- flanged output shafts to facilitate assembly of gear units in confined spaces (on request).

**Mounting position**

PGR gear units are available for horizontal installation.

The following inclinations are possible without any additional measures, with the exception of the adjustment of the oil quantity and the length of the oil dipstick:

Longitudinal  $\leq \pm 5^\circ$   
Lateral  $\leq \pm 2^\circ$

Other arrangements are also possible on request. Motor bell housings, gear unit swing-bases, and torque supports are part of our standard product range.

**Noise behaviour**

New concepts were applied to clearly improve the noise emission of the gear units by:

- grinding the bevel gears;
- designing noise - absorbing housings by means of the CNC computing program; and
- achieving exceptionally large contact ratios.

**Thermal conduction**

PGR gear units not only have a high efficiency but also a favourable thermal conduction.

The selection of PGR gear units is based on a lower maximum oil temperature. By that, the operational reliability will be increased and the cost of maintenance reduced due to longer oil change intervals.

**Storing**

PGR gear units have been designed according to a new unit construction principle. Through this, the variety of parts could be reduced.

DE

## CHARAKTERISTISCHE VORZÜGE

**Konstruktion**

PGR - Zahnradgetriebe wurden völlig neu konzipiert. Pluspunkte sind:

- mehr Baugrößen bei weniger Bauteilvarianten,
- höhere Betriebssicherheit bei gesteigerter Leistungsdichte,
- Flanschabtriebswellen zur leichteren Getriebemontage bei kleinem Raumbedarf (auf Anfrage).

**Einbaulage**

PGR - Zahnradgetriebe sind für horizontale Einbaulage lieferbar.

Ohne Zusatzmaßnahmen, bis auf die Anpassung von Ölmenge und Ölmesstablänge, sind folgende Getriebeneigungen möglich:

Längsneigung  $\leq \pm 5^\circ$   
Querneigung  $\leq \pm 2^\circ$

Auch andere Anordnungen sind nach Rücksprache möglich. Motorlaternen, Getriebschwingen und Drehmomentstützen gehören zum Standardprogramm.

**Geräuschverhalten**

Bei PGR - Zahnradgetrieben konnte das Geräuschverhalten entscheidend verbessert werden. Dazu wurden:

- die Kegelräder geschliffen,
- die geräuschkämpfenden Gehäuse mit CNC - Rechenprogramm entwickelt und
- außergewöhnlich hohe Überdeckungsgrade der Verzahnung erreicht.

**Temperaturverhalten**

PGR - Zahnradgetriebe haben bei einem guten Wirkungsgrad ein günstiges Temperaturverhalten.

Bei der Getriebeauswahl legt PGR eine niedrige maximale Öltemperatur zugrunde.

Die Betriebssicherheit wird dadurch erhöht, und der Wartungsaufwand verringert sich durch längere Ölstandszeiten.

**Vorratshaltung**

PGR-Zahnradgetriebe sind nach einem neuen Baukastensystem konstruiert. Dadurch konnte die Zahl der Bauteilvarianten reduziert werden.

TR

## GENEL BİLGİLER

**Dikkat!**

Aşağıda belirtilen unsurlara mutlaka dikkat edilmelidir!

- Burada yer alan resim ve çizimler sadece örnek olarak gösterilmiştir ve bağlayıcı değildir. Firmamızın ölçüleri değiştirme hakkı saklıdır.
- Belirtilen ağırlıklar, ortalama değerlerdir ve bağlayıcı değildir.
- Hareketli parçalara kazayla temas edilmemesi için, alıcı tarafından gereken tedbirler alınmalıdır. İlgili ülkede geçerli ve yürürlükte olan güvenlik yönetmeliklerine, mutlaka dikkat edilmelidir.
- Kullanmaya başlamadan önce, kullanma ve çalıştırma kılavuzu mutlaka incelenmelidir. Redüktörler, kullanıma hazır, ancak yağ doldurulmadan teslim edilir.
- Belirtilen yağ miktarları, sadece önerilen değerlerdir ve bağlayıcı değildir. Bu yüzden, yağ ölçme çubuğuyla tespit edilen yağ seviyesi belirleyicidir.
- Yağ viskozitesi, mutlaka alüminyum etikette belirtilen değere uygun olmalıdır.
- Sadece uygun görülen yağ tipleri kullanılmalıdır. En güncel kullanma kılavuzu ve yağ tipi tabloları, web sitemizde yer almaktadır: [www.pgr.com.tr](http://www.pgr.com.tr)
- Yardımcı redüktörler tarafımızdan sentetik yağ doldurularak gönderilir.
- Redüktörler keçeleri takılı durumda teslim edilir. Diğer sızdırmazlık yöntemleri, talep edildiğinde uygulanır.
- Dönme yönü bilgileri, d2 çıkış miline bağlıdır.

Kullanılan sembollerin açıklamaları:

-  = Yağ ölçme çubuğu
-  = Havalandırma
-  = Yağ boşaltma Noktası
-  = Yağ doldurma Noktası

Gövde büyüklüğü 13 ve üzeri olan redüktörlerde basınç civataları, gövde ayağında ve gövdenin üst kısmındaki ayar yüzeylerinde yer alır.

DIN EN 20273'e göre gövde üzerinde bulunan sabitleme deliklerine vidalanması gereken "kaba" sınıfı taban civatalarının mukavemet sınıfı en az 8.8'dir.

Redüktörlerin korozyona karşı korunması sağlanmış ve RAL 7000 renk tonunda boyanmıştır.

EN

## GENERAL INFORMATION

**Attention!**

The following items are absolutely to be observed!

- Illustrations are examples only and are not strictly binding. Dimensions are subject to change.
- The weights are mean values and not strictly binding.
- To prevent accidents, all rotating parts should be guarded according to local and national safety regulations.
- Prior to commissioning, the operating instructions must be observed. The gear units are delivered ready for operation but without oil filling.
- Oil quantities given are guide values only. The exact quantity of oil depends on the marks on the oil dipstick.
- The oil viscosity has to correspond to the data given on the name plate.
- Permitted lubricants may be used only. You will find current operating instructions and lubricant selection tables on our home page at: [www.pgr.com.tr](http://www.pgr.com.tr)
- Normally, auxiliary gear units are filled with a synthetic lubricant at the factory before dispatch. There is a note on the rating plate: Filled with oil.
- The gear units are supplied with radial shaft seals. Other sealing variants on request.
- Directions of rotation referring to output shaft d2.

Explanation of symbols used in the dimensioned drawings:

-  = Oil dipstick
-  = Breather
-  = Oil drain
-  = Oil filler

From size 13 up jack screws in the housing feet, and leveling pads on the upper housing part.

Foundation bolts of min. property class 8.8. Tolerance of the clearance holes in the housing acc. to DIN EN 20273 "coarse" series.

The gear housings are protected against corrosion and sprayed in RAL 7000.

DE

## ALLGEMEINE HINWEISE

**Achtung!**

Folgende Punkte sind unbedingt zu beachten!

- Abbildungen sind beispielhaft und nicht verbindlich. Maßänderungen bleiben vorbehalten.
- Die angegebenen Gewichte sind unverbindliche Mittelwerte.
- Umlaufende Teile müssen vom Käufer gegen unbeabsichtigtes Berühren geschützt werden. Die gültigen Sicherheitsbestimmungen des jeweiligen Einsatzlandes sind zu beachten.
- Vor Inbetriebnahme ist die Betriebsanleitung zu beachten. Die Getriebe werden betriebsfertig, jedoch ohne Ölfüllung geliefert.
- Ölmengenangaben sind unverbindliche Richtwerte. Maßgebend ist die Ölstandsmarkierung am Ölmesstab.
- Ölviskosität muss den Angaben des Typenschildes entsprechen.
- Es dürfen nur freigegebene Schmierstoffe verwendet werden. Aktuelle Betriebsanleitungen und Schmierstofftabellen finden Sie auf unserer Homepage unter: [www.pgr.com.tr](http://www.pgr.com.tr)
- Im Normalfall werden die Hilfsgetriebe von uns vor dem Versand mit synthetischem Schmierstoff gefüllt. Das Leistungsschild trägt den Hinweis: Mit Öl gefüllt.
- Die Getriebe werden mit Radialwellendichtringen ausgeliefert. Andere Dichtungsvarianten auf Anfrage.
- Drehrichtungsangaben beziehen sich auf die Abtriebswelle d2.

Erklärung der Symbole in den Maßzeichnungen:

-  = Ölmesstab
-  = Entlüftung
-  = Ölablass
-  = Öleinfüllung

Ab Getriebegröße 13 Druckschrauben im Gehäusefuß und Ausrichtflächen auf dem Oberteil des Gehäuses.

Fußschrauben mit Mindest-Festigkeitsklasse 8.8. Toleranz der Befestigungsbohrungen im Gehäuse nach DIN EN 20273 - Reihe "grob".

Die Getriebe sind konserviert und im Farbton RAL 7000 lackiert.

TR REDÜKTÖR SEÇİMİ İÇİN KURALLAR

EN GUIDELINES FOR THE SELECTION

DE RICHTLINIEN FÜR DIE AUSWAHL

|                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>1. Redüktör tipi ve boyutunun belirlenmesi</b></p> <p><b>Determination of gear unit type and size</b></p> <p><b>Bestimmung von Getriebebauart und Größe</b></p>                                                         | <p><b>Redüktör Seçimi için kurallar / Guidelines for the Selection / Richtlinien für die Auswahl</b></p> <p><b>1.1 Çevrim oranını bulma / Find the transmission ratio / Bestimmung der Übersetzung</b></p> $i_s = \frac{n_1}{n_2}$ <p><b>1.2 Dişli ünitesi nominal güç belirleme / Determine nominal power rating of the gear unit / Bestimmung der Getriebennennleistung</b></p> $P_N \geq P_2 \times f_1$ <p>Bize danışmanıza gerek yok;<br/>It is not necessary to consult us, if;<br/>Rücksprache nicht erforderlich, wenn:</p> $3.33 \times P_2 > P_N$ <p><b>1.3 Örneğin redüktörün en yüksek çalışma momenti, başlangıç momenti ve frenleme momenti v.b. maksimum momentlerinin kontrol edilmesi</b><br/>Check for maximum torque, e.g. peak operating-, starting- or braking torque<br/>Kontrolle auf maximalmoment z.B.: Betriebsspitzen-, Anfahr- oder Bremsmoment</p> $P_N \geq \frac{T_A \times n_1}{9550} \times 0.5$ <p><math>i_N</math> ve <math>P_N</math>'e göre redüktör gövde büyüklükleri ve kademe sayıları tabloda verilmiştir<br/>Gear unit sizes and number of reduction stages are given in rating tables depending on <math>i_N</math> and <math>P_N</math><br/>Getriebegrößen und Stufenanzahl sind in den Leistungstabellen abhängig von <math>i_N</math> und <math>P_N</math> festgelegt</p> <p><b>1.4 Öngörülen i gerçek tahvil değerinin, uygun olup olmadığının kontrol edilmesi için</b><br/>sayfa 250'e bakınız.<br/>Check whether the actual ratio i as per tables on page 250 is acceptable<br/>Prüfung, ob Ist-Übersetzung i geeignet ist, siehe Seite 250</p> |
|                                                                                                                                                                                                                               | <p><b>Yatay montaj pozisyonu / Horizontal mounting position / Einbaulage Horizontal</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p><b>2. Yağ kaynağının belirlenmesi</b><br/><b>Determination of oil supply</b><br/><b>Bestimmung der Ölversorgung</b></p>                                                                                                    | <p>Yağlanması gereken tüm parçalar, yağ içerisinde veya benzer şekilde, sıçramalı yağlama uygulanarak yağlanır.<br/>Basıncılı yağlama, ancak istek ve sipariş üzerine temin edilir.<br/>All parts to be lubricated are lying in the oil or are splash lubricated<br/>Forced lubrication on request<br/>Alle zu schmierenden Elemente liegen im Öl bzw. werden mit Spritzöl versorgt<br/>Druckschmierung auf Anfrage</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p><b>3. Gerekli termal kapasitenin belirlenmesi <math>P_t</math></b><br/><b>Determination of required thermal capacity <math>P_t</math></b><br/><b>Bestimmung der erforderlichen Wärmegrenzleistung <math>P_t</math></b></p> | <p><b>3.1 Redüktörün ilave soğutucusu olmadan yeterli olması için / Gear unit without auxiliary cooling sufficient, if / Getriebe ohne Zusatzkühlung ausreichend, wenn</b></p> $P_2 \leq P_t = P_{t1} \times f_6$ <p><b>3.2 Fan soğutmasının redüktör için yeterli olması için / Gear unit with fan sufficient, if / Getriebe mit Lüfter ausreichend, wenn:</b></p> $P_2 \leq P_t = P_{t2} \times f_6$ <p><b>3.3 Talep edildiğinde yüksek termal kapasitelerde dış soğutma ünitesi</b><br/>For higher thermal capacities, cooling by external oil cooler on request<br/>Für größere Wärmegrenzleistungen Kühlung durch externen Ölkühler auf Anfrage</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| TR               | SEMBOLLER                                                                                                                                      | EN                    | KEY TO SYMBOLS                                                                                                                                                                                                         | DE                                 | ERKLÄRUNG DER BEZEICHNUNGEN                                                                                                                                                                                           |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Semboller</b> |                                                                                                                                                | <b>Key to Symbols</b> |                                                                                                                                                                                                                        | <b>Erklärung der Bezeichnungen</b> |                                                                                                                                                                                                                       |
| $E_D$            | = Saatte çalışma döngüsü %, e.g. ED= 80%/h                                                                                                     | $E_D$                 | = Operating cycle per hour in %, e.g. ED= 80%/h                                                                                                                                                                        | $E_D$                              | = Einschaltdauer in % (z.B. ED=80% je Stunde)                                                                                                                                                                         |
| $f_1$            | = İş makineleri faktörü (Tablo 1) sayfa..                                                                                                      | $f_1$                 | = Factor for driven machine (table 1), page 9                                                                                                                                                                          | $f_1$                              | = Arbeitsmaschinenfaktor (Tabelle 1), Seite 9                                                                                                                                                                         |
| $f_6$            | = Rakım faktörü (tablo 2), page 230                                                                                                            | $f_6$                 | = Factor for altitude (table 2), page 230                                                                                                                                                                              | $f_6$                              | = Höhenfaktor (Tabelle 2), Seite 230                                                                                                                                                                                  |
| $i$              | = Gerçek tahvil                                                                                                                                | $i$                   | = Actual ratio                                                                                                                                                                                                         | $i$                                | = Ist-Übersetzung                                                                                                                                                                                                     |
| $i_N$            | = Nominal tahvil                                                                                                                               | $i_N$                 | = Nominal ratio                                                                                                                                                                                                        | $i_N$                              | = Nennübersetzung                                                                                                                                                                                                     |
| $i_s$            | = Gereken tahvil                                                                                                                               | $i_s$                 | = Required ratio                                                                                                                                                                                                       | $i_s$                              | = Soll-Übersetzung                                                                                                                                                                                                    |
| $n_1$            | = Giriş devir sayısı (d/d)                                                                                                                     | $n_1$                 | = Input speed (min <sup>-1</sup> )                                                                                                                                                                                     | $n_1$                              | = Antriebsdrehzahl (min <sup>-1</sup> )                                                                                                                                                                               |
| $n_2$            | = Çıkış devir sayısı (d/d)                                                                                                                     | $n_2$                 | = Output speed (min <sup>-1</sup> )                                                                                                                                                                                    | $n_2$                              | = Antriebsdrehzahl (min <sup>-1</sup> )                                                                                                                                                                               |
| $n_3$            | = Çıkış şaftı üzerinde bulunan ana dişlinin çıkış devri (d/d) (50 Hz: $n_1=1500$ d/d, 60 Hz, $n_3 \approx 20\%$ ) sayfa 235-243 bakınız        | $n_3$                 | = Output speed (min <sup>-1</sup> ) on main gear unit output shaft (PB3.H) in case of input via auxiliary drive (50 Hz; $n_1 = 1500$ min <sup>-1</sup> ; at 60 Hz, $n_3$ will be $\approx 20\%$ higher), pages 235-243 | $n_3$                              | = Antriebsdrehzahl (min <sup>-1</sup> ) an Abtriebswelle des Hauptgetriebes (PB3.H) bei Antrieb über den Hilfsantrieb (50 Hz, $n_1=1500$ min <sup>-1</sup> ; bei 60 Hz wird $n_3 \approx 20\%$ höher), Seiten 235-243 |
| $P_t$            | = Gereken termal kapasite                                                                                                                      | $P_t$                 | = Required thermal capacity                                                                                                                                                                                            | $P_t$                              | = Erforderliche Wärmegrenzleistung                                                                                                                                                                                    |
| $P_{t1}$         | = İlave soğutucusu olmayan redüktörlerde termal kapasite (sayfa 232-233'e bakınız)                                                             | $P_{t1}$              | = Thermal capacity for gear units without auxiliary cooling, pages 232-233                                                                                                                                             | $P_{t1}$                           | = Wärmegrenzleistung für Getriebe ohne Zusatzkühlung, Seiten 232-233                                                                                                                                                  |
| $P_{t2}$         | = Fan soğutmalı redüktörlerde termal kapasite (sayfa 232-233 'e bakınız)                                                                       | $P_{t2}$              | = Thermal capacity for gear units with fan cooling, pages 232-233                                                                                                                                                      | $P_{t2}$                           | = Wärmegrenzleistung für Getriebe mit Lüfterkühlung, Seiten 232-233                                                                                                                                                   |
| $P_N$            | = Redüktör nominal gücü (kW) değer tablolarına bakınız (sayfa 231)                                                                             | $P_N$                 | = Nominal power rating of gear unit (kW), see rating tables page 231                                                                                                                                                   | $P_N$                              | = Getriebenennleistung (kW), siehe Leistungstabellen Seite 231                                                                                                                                                        |
| $P_2$            | = Sürücü makinanın güç oranı (kW)                                                                                                              | $P_2$                 | = Power rating of driven machine (kW)                                                                                                                                                                                  | $P_2$                              | = Leistung der Arbeitsmaschine (kW)                                                                                                                                                                                   |
| $t$              | = Ortam sıcaklığı (°C)                                                                                                                         | $t$                   | = Ambient temperature (°C)                                                                                                                                                                                             | $t$                                | = Umgebungstemperatur (°C)                                                                                                                                                                                            |
| $T_A$            | = Redüktörün en yüksek çalışma momenti, hareket momenti ve frenleme momenti (Nm) v.b. giriş milinde ortaya çıkan max. dönme momenti            | $T_A$                 | = Max. torque occurring on input shaft, e.g. peak operating-, starting-or braking torque (Nm)                                                                                                                          | $T_A$                              | = Max. auftretendes Drehmoment an Eingangswelle, z.B.: Betriebsspitzen - Anfahr - oder Bremsmoment (Nm)                                                                                                               |
| $T_{2N}$         | = Nominal çıkış momenti (kNm) (sayfa 234-235 'e bakınız)                                                                                       | $T_{2N}$              | = Nominal output torque (kNm) page 234-235                                                                                                                                                                             | $T_{2N}$                           | = Nenn-Abtriebsdrehmoment (kNm) Seite 234-235                                                                                                                                                                         |
| $T_3$            | = Çıkış şaftı (kNm) üzerinde bulunan ana dişlinin (PB3...H) çıkış momenti Yardımcı redüktör tahriği olması durumunda (sayfa 235-243'e bakınız) | $T_3$                 | = Output torque (kNm) on main gear unit output shaft (PB3.H) in case of input via auxiliary drive, pages 235-243                                                                                                       | $T_3$                              | = Abtriebsdrehmoment (kNm) an der Abtriebswelle des Hauptgetriebes (PB3.H) bei Antrieb über den Hilfsantrieb, Seiten 235-243                                                                                          |

TR

## ÖRNEK SEÇİM HESABI

### Bilinen kriterler:

#### GÜÇ KAYNAĞI

Elektrik motoru:  $P_1 = 30 \text{ kW}$   
Motor devir sayısı:  $n_1 = 1500 \text{ d/d}$   
Max. hareket momenti:  $T_A = 300 \text{ Nm}$

#### İŞ MAKİNELERİ

Bantlı elevatör:  $P_2 = 22 \text{ kW}$   
Devir sayısı:  $n_2 = 35 \text{ d/d}$   
Çalışma süresi:  $8 \text{ h / gün}$   
Saatlik çalışma döngüsü:  $10$   
Yardımcı redüktör:  $n_3 = 3.2 \text{ d/d}$   
 $T_3 = 6.5 \text{ kNm}$

Saat başı çalışma süresi:  $E_D = 100\%$   
Ortam sıcaklığı:  $30^\circ\text{C}$   
Dışarda kurulum:  $(w \geq 4 \text{ m/s})$   
Rakım durumu: Deniz seviyesi

#### REDÜKTÖR TASARIMI

Helisel konik dişli redüktör  
Montaj pozisyonu: Yatay  
 $d_2$  çıkış mili: Sağ tarafta, tasarım B, milli  
 $d_2$  çıkış milinin dönüş yönü: Sol

### İstenen:

Redüktör tipi ve boyutu

#### 1. Redüktör tip ve boyut seçimi

1.1 Tahvil oranının hesaplanması

EN

## GUIDELINES FOR THE SELECTION CALCULATION EXAMPLE

### Known criteria:

#### PRIME MOVER

Electric motor:  $P_1 = 30 \text{ kW}$   
Motor speed:  $n_1 = 1500 \text{ min}^{-1}$   
Max. starting torque:  $T_A = 300 \text{ Nm}$

#### DRIVEN MACHINE

Band elevator:  $P_2 = 22 \text{ kW}$   
Speed:  $n_2 = 35 \text{ min}^{-1}$   
Duty:  $8 \text{ h / day}$   
Starts per hour:  $10$   
Auxiliary drive:  $n_3 = 3.2 \text{ min}^{-1}$   
 $T_3 = 6.5 \text{ kNm}$

Operating cycle per hour:  $E_D = 100\%$   
Ambient temperature:  $30^\circ\text{C}$   
Outdoor installation:  $(w \geq 4 \text{ m/s})$   
Altitude: sea level

#### GEAR UNIT DESIGN

Bevel-helical gear unit  
Mounting position: horizontal  
Output shaft  $d_2$ : on right hand side design B  
Direction of rotation of output shaft  $d_2$ : CCW

### Required:

Type and size of gear unit

#### 1. Selection of gear unit type and size

1.1 Calculation of transmission ratio

$$i_s = \frac{n_1}{n_2} = \frac{1500}{35} = 42.9 \quad i_N = 45$$

1.2 Redüktör nominal güç değerinin belirlenmesi

1.2 Determination of the gear unit nominal power rating

1.2 Bestimmung der Getriebeennennleistung

$$P_N > P_2 \times f_1 > 22 \times 1.5 = 33.0 \text{ kW}$$

Güç oranı tablolarında  $P_N = 41 \text{ kW}$  PB53...H tipindeki redüktör ile yardımcı redüktör PKD 2390 100L/4A seçilir.  $n_3 = 3.2 \text{ d/d}$  ve  $T_3 = 6.5 \text{ kNm}$ .

Selected from power rating table: type PB53...H, with  $P_N = 41 \text{ kW}$  with auxiliary drive PKD 2390 100L/4A  $n_3 = 3.2 \text{ min}^{-1}$  and  $T_3 = 6.5 \text{ kNm}$ .

Aus Leistungstabelle Bauart PB53...H, mit  $P_N = 41 \text{ kW}$  mit Hilfsantrieb PKD 2390 100L/4A  $n_3 = 3.2 \text{ min}^{-1}$  und  $T_3 = 6.5 \text{ kNm}$  gewählt.

$$3.33 \times P_2 > P_N \quad 3.33 \times 22 = 73.3 > P_N$$

Bize danışmanıza gerek yok  
It is not necessary to consult us  
Rücksprache nicht erforderlich

1.3 Başlangıç momenti kontrolü

1.3 Checking the starting torque

1.3 Kontrolle auf Anfahrmoment

$$P_N \geq \frac{T_A \times n_1}{9550} \times 0.5 = \frac{300 \times 1500}{9550} \times 0.5 = 23.6 \text{ kW} \quad P_N = 100 \text{ kW} > 23.6 \text{ kW}$$

#### 2. Termal kapasitenin belirlenmesi

#### 2. Determination of thermal capacity

#### 2. Bestimmung der Wärmegrenzleistung

2.1 Termal kapasite tablosuna göre ilave soğutmasız PB53...H redüktör seçilir.

2.1 Thermal capacity for gear units without auxiliary cooling, acc. to table for type PB53...H

2.1 Wärmegrenzleistung ohne Zusatzkühlung aus Tabelle Bauart PB53...H

$$P_t = P_{t1} \times f_6 \quad P_t = 39.8 \times 1 = 39.8 \text{ kW}$$

$$P_2 = 22 \text{ kW} < P_t = 39.8 \text{ kW}$$

Redüktöre ilave soğutucuya gerek yoktur.

A gear unit without auxiliary cooling is sufficient!

Getriebe ohne Zusatzkühlung ausreichend!

## TR SERVİS FAKTÖRÜ - KULLANIM ALANLARI

## EN SERVICE FACTOR - APPLICATION AREAS

## DE BETRIEBSFAKTORE - EINSATZGEBIETE

Tablo 1 Müşteri makinaları için faktör f<sub>1</sub>Table 1 Factor for driven machines f<sub>1</sub>Tabelle 1 Arbeitsmaschinenfaktor f<sub>1</sub>

| Müşteri Makinaları / Driven Machines / Arbeitsmaschinen |                        |                          | Yük altında etkili<br>günlük çalışma süresi<br>Effective daily operating<br>period underload in hours<br>Tatsächliche tägliche<br>Laufzeit unter Last in Stunden |             |         |
|---------------------------------------------------------|------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|
|                                                         |                        |                          | <<br>0.5                                                                                                                                                         | ><br>0.5-10 | ><br>10 |
| Konveyörler**                                           | Conveyors**            | Förderanlagen**          |                                                                                                                                                                  |             |         |
| Kovalı konveyörler                                      | Bucket conveyors       | Becherwerke              | –                                                                                                                                                                | 1.4         | 1.5     |
| Soğutma kulesi fanları                                  | Hauling winches        | Förderhaspel             | 1.4                                                                                                                                                              | 1.6         | 1.6     |
| Vinçler                                                 | Hoists                 | Fördermaschinen          | –                                                                                                                                                                | 1.5         | 1.8     |
| Bantlı konveyörler ≤ 150kW                              | Belt conveyors ≤ 150kW | Gurtbandförderer ≤ 150kW | 1.0                                                                                                                                                              | 1.2         | 1.3     |
| Bantlı konveyörler ≥ 150kW                              | Belt conveyors ≥ 150kW | Gurtbandförderer ≥ 150kW | 1.1                                                                                                                                                              | 1.3         | 1.4     |
| Yük asansörleri*                                        | Goods lifts *          | Lastaufzüge *            | –                                                                                                                                                                | 1.2         | 1.5     |
| İnsan asansörleri *                                     | Passenger lifts *      | Personenaufzüge *        | –                                                                                                                                                                | 1.5         | 1.8     |
| Levhalı konveyörler                                     | Apron conveyors        | Plattenbänder            | –                                                                                                                                                                | 1.2         | 1.5     |
| Yürüyen merdiven                                        | Escalators             | Rolltreppen              | 1.0                                                                                                                                                              | 1.2         | 1.4     |
| Raylı araçlar                                           | Railway vehicles       | Schienenfahrzeuge        | –                                                                                                                                                                | 1.5         | –       |

Müşteri makinaları için güç seçimi P<sub>2</sub>Design for power rating of driven machine P<sub>2</sub>Auslegung für Arbeitsmaschinenleistung P<sub>2</sub>

\*) Seçim, max. moment değerine göre yapılmalı

\*) Designed power corresponding to max. torque

\*) Auslegung entsprechend dem Maximalmoment

\*\*) Termal kapasite mutlaka gereklidir.

\*\*) A check for thermal capacity is absolutely essential

\*\*) Thermische Überprüfung generell erforderlich

Burada belirtilen değerler, tecrübeyle tespit edilmiş değerlerdir. Burada belirtilen makine veya tertibatlar kapsamında uygulamanız için, genel olarak bilinen imalat ve yük şartlarının geçerli olduğu varsayılır. Ancak, uygulamanızın normal bilinenlerden farklı olması halinde, ve burada yer verilmemiş iş makineleri için, mutlaka işletmemizle görüşmelisiniz

The listed factors are empirical values. Prerequisite for their application is that the machinery and equipment mentioned correspond to generally accepted design - and load specifications. In case of deviations from standard conditions, please refer to us. For driven machines which are not listed in this table, please refer to us.

Die aufgeführten Faktoren sind Erfahrungswerte. Ihre Anwendung setzt für die genannten Maschinen oder Anlagen hierfür allgemein bekannte Konstruktions- und Belastungsbedingungen voraus. Bei Abweichung von Normalbedingungen ist Rückfrage erforderlich. Für nicht aufgeführte Arbeitsmaschinen bitten wir um Rückfrage.

Tablo 2 / Table 2 / Tabelle 2

| Rakım faktörü / Factor for altitude / Höhenfaktor f <sub>6</sub>                                                                           |                                                                                              |                               |                               |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------|-------------------------------|
| Yardımcı soğutma olmayan veya fanlı soğutma / Without auxiliary cooling or with fan cooling /<br>Ohne Zusatzkühlung oder mit Lüfterkühlung |                                                                                              |                               |                               |
| Faktör<br>Factor<br>Faktor                                                                                                                 | Rakım (deniz seviyesi üstünde) / Altitude (metres above MSL) /<br>Höhenlage (Meter über N.N) |                               |                               |
|                                                                                                                                            | e kadar / up to / bis<br>1000                                                                | e kadar / up to / bis<br>2000 | e kadar / up to / bis<br>3000 |
| f <sub>6</sub>                                                                                                                             | 1.0                                                                                          | 0.95                          | 0.90                          |

**Termal kapasite bilgileri:**

Kurulum alanı için verilen değerler  
Rakım < = 1000 m  
Rüzgar hızı >= 1.4 m/s  
(Kurulum yeri: büyük alan)

**Notes on the thermal capacities:**

The values listed refer to place of installation  
Altitude < = 1000 m  
Wind velocity >= 1.4 m/s  
(Place of installation: large halls)

**Hinweise zu den Wärmegrenzleistungen:**

Die angegebenen Werte gelten für den  
Aufstellungsort < = 1000 m  
Windgeschwindigkeit >= 1.4 m/s  
(Aufstellungsort: große Hallen)

**TR** NÖMİNAL GÜÇ DEĞERLERİ P<sub>2N</sub> (kW)

**EN** NOMINAL POWER RATINGS P<sub>2N</sub> (kW)

**DE** NENNLEISTUNGEN P<sub>2N</sub> (kW)

| iN   | n1<br>min <sup>-1</sup> | n2<br>min <sup>-1</sup> | Redüktör Gövdeleri / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |     |     |     |       |       |       |       |
|------|-------------------------|-------------------------|-------------------------------------------------------|------|------|------|------|------|------|------|-----|-----|-----|-------|-------|-------|-------|
|      |                         |                         | 43                                                    | 53   | 63   | 73   | 83   | 93   | 103  | 113  | 123 | 133 | 143 | 153   | 163   | 173   | 183   |
| 25.0 | 1800                    | 72.0                    | 51.0                                                  | 89.0 | 118  | 166  | 209  | 274  | 337  | 488  | 594 | 697 | 868 | 1176* | 1330* | 1537* | 1845* |
|      | 1500                    | 60.0                    | 43.0                                                  | 73.0 | 99.0 | 139  | 173  | 228  | 281  | 406  | 495 | 580 | 723 | 980   | 1108  | 1281  | 1537  |
|      | 1200                    | 48.0                    | 34.0                                                  | 59.0 | 79.0 | 111  | 139  | 183  | 224  | 325  | 396 | 464 | 578 | 784   | 886   | 1025  | 1230  |
|      | 1000                    | 40.0                    | 29.0                                                  | 49.0 | 65.0 | 92.0 | 115  | 152  | 187  | 270  | 329 | 387 | 482 | 653   | 738   | 854   | 1025  |
| 28.0 | 1800                    | 64.0                    | 45.0                                                  | 79.0 | 105  | 148  | 186  | 224  | 299  | 434  | 527 | 619 | 772 | 1046* | 1182* | 1367* | 1640* |
|      | 1500                    | 54.0                    | 38.0                                                  | 66.0 | 89.0 | 124  | 156  | 205  | 252  | 366  | 445 | 522 | 651 | 882   | 998   | 1153  | 1384  |
|      | 1200                    | 43.0                    | 31.0                                                  | 53.0 | 70.0 | 99.0 | 124  | 163  | 201  | 291  | 354 | 416 | 518 | 702   | 794   | 918   | 1102  |
|      | 1000                    | 36.0                    | 26.0                                                  | 44.0 | 59.0 | 83.0 | 104  | 137  | 168  | 244  | 297 | 348 | 434 | 588   | 665   | 768   | 922   |
| 31.5 | 1800                    | 57.0                    | 40.0                                                  | 70.0 | 94.0 | 132  | 165  | 217  | 266  | 387  | 469 | 552 | 687 | 931*  | 1053* | 1217* | 1461* |
|      | 1500                    | 48.0                    | 34.0                                                  | 59.0 | 79.0 | 111  | 139  | 183  | 224  | 325  | 396 | 464 | 578 | 784   | 886   | 1025  | 1230  |
|      | 1200                    | 38.0                    | 27.0                                                  | 47.0 | 62.0 | 88.0 | 110  | 145  | 177  | 257  | 313 | 367 | 458 | 620   | 702   | 811   | 973   |
|      | 1000                    | 32.0                    | 22.0                                                  | 39.0 | 52.0 | 73.0 | 93.0 | 121  | 149  | 216  | 263 | 309 | 386 | 522   | 591   | 683   | 820   |
| 35.5 | 1800                    | 51.0                    | 36.0                                                  | 62.0 | 84.0 | 117  | 148  | 194  | 238  | 346  | 420 | 494 | 615 | 833*  | 941*  | 1089* | 1307  |
|      | 1500                    | 42.0                    | 30.0                                                  | 52.0 | 69.0 | 97.0 | 121  | 160  | 196  | 285  | 346 | 406 | 506 | 685   | 775   | 897   | 1076  |
|      | 1200                    | 34.0                    | 23.0                                                  | 42.0 | 56.0 | 79.0 | 98.0 | 130  | 158  | 231  | 279 | 328 | 410 | 555   | 627   | 726   | 871   |
|      | 1000                    | 28.0                    | 19.0                                                  | 35.0 | 46.0 | 64.0 | 81.0 | 106  | 131  | 190  | 231 | 270 | 338 | 457   | 517   | 598   | 717   |
| 40.0 | 1800                    | 45.0                    | 32.0                                                  | 55.0 | 74.0 | 104  | 131  | 171  | 210  | 305  | 370 | 436 | 543 | 734*  | 831*  | 961*  | 1153* |
|      | 1500                    | 38.0                    | 27.0                                                  | 47.0 | 62.0 | 88.0 | 110  | 145  | 177  | 257  | 313 | 367 | 458 | 620   | 702   | 811   | 973   |
|      | 1200                    | 30.0                    | 21.0                                                  | 37.0 | 49.0 | 69.0 | 87.0 | 114  | 140  | 203  | 247 | 290 | 361 | 490   | 554   | 641   | 768   |
|      | 1000                    | 25.0                    | 17.0                                                  | 31.0 | 41.0 | 57.0 | 72.0 | 95.0 | 116  | 169  | 206 | 242 | 301 | 408   | 461   | 533   | 641   |
| 45.0 | 1800                    | 40.0                    | 29.0                                                  | 49.0 | 65.0 | 92.0 | 115  | 152  | 187  | 270  | 329 | 387 | 482 | 653*  | 738*  | 854*  | 1025* |
|      | 1500                    | 33.0                    | 23.0                                                  | 41.0 | 54.0 | 75.0 | 95.0 | 125  | 154  | 223  | 271 | 319 | 398 | 539   | 609   | 705   | 846   |
|      | 1200                    | 27.0                    | 18.0                                                  | 33.0 | 44.0 | 62.0 | 78.0 | 102  | 125  | 183  | 222 | 261 | 325 | 441   | 499   | 576   | 692   |
|      | 1000                    | 22.0                    | 15.0                                                  | 27.0 | 36.0 | 50.0 | 63.0 | 84.0 | 102  | 149  | 181 | 212 | 265 | 359   | 406   | 469   | 563   |
| 50.0 | 1800                    | 36.0                    | 26.0                                                  | 44.0 | 59.0 | 83.0 | 104  | 137  | 168  | 224  | 297 | 348 | 434 | 588   | 665*  | 768*  | 922   |
|      | 1500                    | 30.0                    | 21.0                                                  | 37.0 | 49.0 | 69.0 | 87.0 | 114  | 140  | 203  | 247 | 290 | 361 | 490   | 554   | 641   | 768   |
|      | 1200                    | 24.0                    | 16.0                                                  | 30.0 | 39.0 | 55.0 | 69.0 | 91.0 | 112  | 162  | 198 | 232 | 289 | 392   | 443   | 512   | 615   |
|      | 1000                    | 20.0                    | 14.0                                                  | 24.0 | 33.0 | 46.0 | 57.0 | 75.0 | 93.0 | 135  | 164 | 193 | 241 | 326   | 369   | 426   | 512   |
| 56.0 | 1800                    | 32.0                    | 22.0                                                  | 39.0 | 52.0 | 73.0 | 93.0 | 121  | 149  | 216  | 263 | 309 | 386 | 522   | 591   | 683*  | 820*  |
|      | 1500                    | 27.0                    | 18.0                                                  | 33.0 | 44.0 | 62.0 | 78.0 | 102  | 125  | 183  | 222 | 261 | 325 | 441   | 499   | 576   | 692   |
|      | 1200                    | 21.0                    | 14.0                                                  | 26.0 | 35.0 | 48.0 | 60.0 | 80.0 | 98.0 | 142  | 172 | 203 | 253 | 343   | 388   | 448   | 538   |
|      | 1000                    | 17.9                    | 12.0                                                  | 21.0 | 30.0 | 41.0 | 51.0 | 67.0 | 84.0 | 121  | 147 | 173 | 215 | 292   | 330   | 381   | 458   |
| 63.0 | 1800                    | 29.0                    | 20.0                                                  | 35.0 | 48.0 | 65.0 | 84.0 | 110  | 136  | 196  | 239 | 281 | 350 | 473   | 536   | 619*  | 743*  |
|      | 1500                    | 24.0                    | 16.0                                                  | 29.0 | 39.0 | 54.0 | 69.0 | 91.0 | 112  | 162  | 198 | 232 | 289 | 392   | 443   | 512   | 615   |
|      | 1200                    | 19.0                    | 13.0                                                  | 22.0 | 31.0 | 43.0 | 55.0 | 72.0 | 89.0 | 129  | 156 | 184 | 228 | 310   | 351   | 405   | 487   |
|      | 1000                    | 15.9                    | 10.0                                                  | 18.0 | 26.0 | 36.0 | 46.0 | 60.0 | 73.0 | 107  | 131 | 154 | 192 | 259   | 294   | 339   | 407   |
| 71.0 | 1800                    | 25.0                    | 17.0                                                  | 29.0 | 41.0 | 53.0 | 72.0 | 91.0 | 116  | 160  | 206 | 242 | 301 | 408   | 461   | 533*  | 641*  |
|      | 1500                    | 21.0                    | 14.0                                                  | 24.0 | 35.0 | 44.0 | 60.0 | 75.0 | 98.0 | 134  | 172 | 203 | 253 | 343   | 388   | 448   | 538   |
|      | 1200                    | 16.9                    | 11.0                                                  | 19.0 | 28.0 | 36.0 | 49.0 | 61.0 | 79.0 | 108  | 139 | 163 | 203 | 275   | 312   | 360   | 432   |
|      | 1000                    | 14.1                    | 10.0                                                  | 16.0 | 22.0 | 30.0 | 41.0 | 51.0 | 65.0 | 90.0 | 115 | 136 | 169 | 230   | 260   | 301   | 361   |

■ Talep edildiğinde basınçlı yağlama

■ Forced lubrication required

■ Druckschmierung erforderlich

□\* Talep edildiğinde yapılan redüktörler

□\* Gear units only on request

□\* Getriebe nur auf Anfrage

TR

## TERMAL KAPASİTELER

EN

## THERMAL CAPACITIES

DE

## WÄRMEGRENZLEISTUNGEN

n<sub>1</sub>:1500min<sup>-1</sup>

| Boyut<br>Size<br>Größe | Tahvil<br>Ratio<br>Über-<br>setzung | Thermal kapasite kW (Ortam sıcaklığı)<br>Thermal capacity in kW (Ambient temperature)<br>Wärmegrenzleistung in kW (Umgebungstemperatur) |      |      |      |                                  |      |      |      |
|------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------|------|------|----------------------------------|------|------|------|
|                        |                                     | Fansız / without fan /<br>ohne Lüfter                                                                                                   |      |      |      | Fanlı / with fan /<br>mit Lüfter |      |      |      |
|                        |                                     | 20°C                                                                                                                                    | 30°C | 40°C | 50°C | 20°C                             | 30°C | 40°C | 50°C |
| 43                     | 25                                  | 42.1                                                                                                                                    | 36.1 | 29.8 | 23.1 | 88.4                             | 76.7 | 64.6 | 52.0 |
|                        | 28                                  | 41.1                                                                                                                                    | 35.3 | 29.2 | 22.7 | 85.3                             | 74.1 | 62.3 | 50.4 |
|                        | 31.5                                | 39.5                                                                                                                                    | 33.9 | 28.1 | 22.0 | 81.3                             | 70.5 | 59.3 | 48.1 |
|                        | 35.5                                | 37.7                                                                                                                                    | 32.5 | 27.0 | 21.3 | 76.8                             | 66.7 | 56.1 | 45.6 |
|                        | 40                                  | 33.4                                                                                                                                    | 28.8 | 24.0 | 19.0 | 66.6                             | 57.8 | 48.7 | 39.8 |
|                        | 45                                  | 32.6                                                                                                                                    | 28.2 | 23.5 | 18.6 | 65.0                             | 56.5 | 47.7 | 38.6 |
|                        | 50                                  | 34.3                                                                                                                                    | 29.8 | 25.3 | 20.5 | 65.7                             | 57.4 | 48.9 | 39.9 |
|                        | 56                                  | 31.4                                                                                                                                    | 27.3 | 23.2 | 18.9 | 59.6                             | 52.0 | 44.4 | 36.2 |
|                        | 63                                  | 30.1                                                                                                                                    | 26.2 | 22.2 | 18.1 | 56.7                             | 49.6 | 42.2 | 34.5 |
|                        | 71                                  | 27.4                                                                                                                                    | 24.0 | 20.3 | 16.5 | 51.3                             | 44.9 | 38.1 | 31.2 |
| 53                     | 25                                  | 58.7                                                                                                                                    | 50.0 | 41.0 | 31.5 | 133                              | 114  | 96.4 | 77.6 |
|                        | 28                                  | 57.5                                                                                                                                    | 49.1 | 40.4 | 31.3 | 128                              | 111  | 93.5 | 75.2 |
|                        | 31.5                                | 55.3                                                                                                                                    | 47.3 | 39.2 | 30.3 | 122                              | 106  | 89.0 | 72.1 |
|                        | 35.5                                | 53.0                                                                                                                                    | 45.6 | 37.7 | 29.6 | 115                              | 99.9 | 84.0 | 68.3 |
|                        | 40                                  | 47.2                                                                                                                                    | 40.7 | 33.8 | 26.5 | 100                              | 87.1 | 73.5 | 59.7 |
|                        | 45                                  | 46.2                                                                                                                                    | 39.8 | 33.0 | 26.1 | 97.6                             | 84.7 | 71.6 | 58.1 |
|                        | 50                                  | 47.3                                                                                                                                    | 41.2 | 34.7 | 28.1 | 96.3                             | 84.0 | 71.2 | 58.2 |
|                        | 56                                  | 43.7                                                                                                                                    | 37.9 | 32.0 | 25.9 | 87.8                             | 76.6 | 65.2 | 53.2 |
|                        | 63                                  | 41.9                                                                                                                                    | 36.4 | 30.9 | 25.0 | 83.6                             | 73.0 | 62.1 | 50.6 |
|                        | 71                                  | 39.6                                                                                                                                    | 34.4 | 29.2 | 23.7 | 78.1                             | 68.1 | 58.0 | 47.3 |
| 63                     | 25                                  | 67.2                                                                                                                                    | 57.1 | 46.5 | 35.6 | 150                              | 131  | 109  | 87.4 |
|                        | 28                                  | 66.7                                                                                                                                    | 56.8 | 46.6 | 35.8 | 148                              | 129  | 107  | 86.6 |
|                        | 31.5                                | 64.3                                                                                                                                    | 55.0 | 45.2 | 35.0 | 141                              | 122  | 103  | 83.0 |
|                        | 35.5                                | 62.9                                                                                                                                    | 54.0 | 44.7 | 34.7 | 136                              | 118  | 99.7 | 80.4 |
|                        | 40                                  | 60.5                                                                                                                                    | 52.0 | 42.9 | 33.7 | 130                              | 112  | 94.9 | 76.8 |
|                        | 45                                  | 58.0                                                                                                                                    | 49.9 | 41.5 | 32.7 | 122                              | 106  | 89.6 | 72.9 |
|                        | 50                                  | 51.6                                                                                                                                    | 44.5 | 37.0 | 29.3 | 107                              | 92.7 | 78.3 | 63.8 |
|                        | 56                                  | 50.3                                                                                                                                    | 43.4 | 36.2 | 28.7 | 104                              | 90.0 | 76.0 | 61.8 |
|                        | 63                                  | 51.4                                                                                                                                    | 44.7 | 37.8 | 30.6 | 102                              | 89.1 | 75.9 | 62.0 |
|                        | 71                                  | 47.2                                                                                                                                    | 41.2 | 34.9 | 28.4 | 93.0                             | 81.4 | 69.3 | 56.6 |
| 73                     | 25                                  | 82.8                                                                                                                                    | 69.9 | 56.1 | 41.6 | 190                              | 164  | 137  | 109  |
|                        | 28                                  | 80.0                                                                                                                                    | 67.6 | 54.9 | 41.3 | 180                              | 156  | 131  | 104  |
|                        | 31.5                                | 77.2                                                                                                                                    | 65.4 | 53.2 | 40.6 | 171                              | 148  | 123  | 99.3 |
|                        | 35.5                                | 74.2                                                                                                                                    | 63.1 | 51.4 | 39.5 | 162                              | 141  | 117  | 94.5 |
|                        | 40                                  | 65.7                                                                                                                                    | 56.1 | 46.1 | 35.5 | 141                              | 121  | 102  | 82.2 |
|                        | 45                                  | 64.0                                                                                                                                    | 54.7 | 45.1 | 35.0 | 136                              | 117  | 99.1 | 79.7 |
|                        | 50                                  | 66.3                                                                                                                                    | 57.4 | 47.9 | 38.3 | 136                              | 117  | 99.8 | 81.0 |
|                        | 56                                  | 61.3                                                                                                                                    | 53.0 | 44.5 | 35.5 | 123                              | 108  | 91.2 | 74.2 |
|                        | 63                                  | 58.9                                                                                                                                    | 50.9 | 42.7 | 34.2 | 118                              | 103  | 86.8 | 71.0 |
|                        | 71                                  | 55.3                                                                                                                                    | 47.9 | 40.3 | 32.2 | 110                              | 95.7 | 81.0 | 66.0 |
| 83                     | 25                                  | 95.5                                                                                                                                    | 80.1 | 64.2 | 47.1 | 216                              | 186  | 155  | 123  |
|                        | 28                                  | 93.4                                                                                                                                    | 78.7 | 63.5 | 47.2 | 209                              | 181  | 151  | 119  |
|                        | 31.5                                | 92.0                                                                                                                                    | 77.9 | 63.3 | 47.9 | 202                              | 174  | 146  | 117  |
|                        | 35.5                                | 88.4                                                                                                                                    | 75.3 | 61.3 | 47.1 | 191                              | 165  | 139  | 111  |
|                        | 40                                  | 85.3                                                                                                                                    | 72.6 | 59.3 | 45.7 | 182                              | 157  | 133  | 106  |
|                        | 45                                  | 81.6                                                                                                                                    | 69.9 | 57.6 | 44.6 | 171                              | 149  | 125  | 101  |
|                        | 50                                  | 72.3                                                                                                                                    | 61.9 | 51.3 | 39.9 | 149                              | 130  | 109  | 87.8 |
|                        | 56                                  | 70.3                                                                                                                                    | 60.4 | 49.9 | 39.0 | 144                              | 125  | 106  | 84.8 |
|                        | 63                                  | 72.4                                                                                                                                    | 62.7 | 52.7 | 42.2 | 144                              | 124  | 106  | 86.2 |
|                        | 71                                  | 66.9                                                                                                                                    | 58.0 | 48.8 | 39.2 | 132                              | 114  | 96.7 | 79.2 |
| 93                     | 25                                  | 108                                                                                                                                     | 90.1 | 71.0 | 50.6 | 264                              | 227  | 189  | 149  |
|                        | 28                                  | 106                                                                                                                                     | 88.4 | 70.5 | 51.5 | 253                              | 217  | 181  | 144  |
|                        | 31.5                                | 103                                                                                                                                     | 86.4 | 69.4 | 51.5 | 242                              | 209  | 174  | 139  |
|                        | 35.5                                | 99.0                                                                                                                                    | 83.7 | 67.8 | 51.0 | 227                              | 197  | 164  | 132  |
|                        | 40                                  | 93.6                                                                                                                                    | 79.5 | 64.8 | 49.2 | 212                              | 184  | 153  | 122  |
|                        | 45                                  | 87.2                                                                                                                                    | 74.2 | 60.6 | 46.2 | 195                              | 169  | 142  | 113  |
|                        | 50                                  | 90.5                                                                                                                                    | 77.9 | 64.7 | 51.0 | 194                              | 168  | 142  | 115  |
|                        | 56                                  | 83.2                                                                                                                                    | 71.7 | 59.6 | 47.1 | 175                              | 153  | 129  | 104  |
|                        | 63                                  | 79.9                                                                                                                                    | 68.7 | 57.3 | 45.4 | 167                              | 145  | 122  | 99.2 |
|                        | 71                                  | 74.1                                                                                                                                    | 64.0 | 53.2 | 42.2 | 153                              | 134  | 113  | 91.1 |
| 103                    | 25                                  | 115                                                                                                                                     | 94.7 | 73.3 | 50.3 | 285                              | 244  | 202  | 158  |
|                        | 28                                  | 113                                                                                                                                     | 93.5 | 73.3 | 51.1 | 275                              | 237  | 196  | 154  |
|                        | 31.5                                | 112                                                                                                                                     | 93.8 | 74.3 | 54.3 | 264                              | 227  | 189  | 150  |
|                        | 35.5                                | 109                                                                                                                                     | 91.8 | 73.4 | 54.9 | 252                              | 217  | 182  | 144  |
|                        | 40                                  | 106                                                                                                                                     | 89.7 | 72.6 | 54.6 | 242                              | 208  | 174  | 139  |
|                        | 45                                  | 102                                                                                                                                     | 86.6 | 70.7 | 53.8 | 227                              | 197  | 165  | 133  |
|                        | 50                                  | 96.8                                                                                                                                    | 82.2 | 67.1 | 51.6 | 212                              | 184  | 154  | 123  |
|                        | 56                                  | 90.3                                                                                                                                    | 76.8 | 62.8 | 48.5 | 196                              | 169  | 142  | 114  |
|                        | 63                                  | 92.9                                                                                                                                    | 80.2 | 66.9 | 52.9 | 194                              | 168  | 142  | 115  |
|                        | 71                                  | 85.5                                                                                                                                    | 73.8 | 61.7 | 49.0 | 176                              | 153  | 130  | 105  |
| 113                    | 25                                  | 150                                                                                                                                     | 121  | 92.1 | 59.6 | 439                              | 375  | 311  | 244  |
|                        | 28                                  | 148                                                                                                                                     | 121  | 93.3 | 63.4 | 420                              | 360  | 300  | 236  |
|                        | 31.5                                | 146                                                                                                                                     | 120  | 94.5 | 66.6 | 402                              | 345  | 288  | 227  |
|                        | 35.5                                | 144                                                                                                                                     | 119  | 93.6 | 67.0 | 387                              | 334  | 277  | 220  |
|                        | 40                                  | 139                                                                                                                                     | 115  | 91.9 | 66.7 | 365                              | 315  | 262  | 209  |
|                        | 45                                  | 130                                                                                                                                     | 108  | 86.8 | 63.6 | 338                              | 291  | 243  | 194  |
|                        | 50                                  | 140                                                                                                                                     | 119  | 98.2 | 76.2 | 337                              | 292  | 246  | 200  |
|                        | 56                                  | 129                                                                                                                                     | 110  | 91.4 | 71.3 | 307                              | 266  | 225  | 183  |
|                        | 63                                  | 124                                                                                                                                     | 107  | 88.5 | 69.6 | 292                              | 254  | 214  | 173  |
|                        | 71                                  | 115                                                                                                                                     | 99.1 | 82.4 | 65.0 | 267                              | 233  | 196  | 159  |

| Boyut<br>Size<br>Größe | Tahvil<br>Ratio<br>Über-<br>setzung | Thermal kapasite kW (Ortam sıcaklığı)<br>Thermal capacity in kW (Ambient temperature)<br>Wärmegrenzleistung in kW (Umgebungstemperatur) |      |      |      |                                  |      |      |      |
|------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------|------|------|----------------------------------|------|------|------|
|                        |                                     | Fansız / without fan /<br>ohne Lüfter                                                                                                   |      |      |      | Fanlı / with fan /<br>mit Lüfter |      |      |      |
|                        |                                     | 20°C                                                                                                                                    | 30°C | 40°C | 50°C | 20°C                             | 30°C | 40°C | 50°C |
| 123                    | 25                                  | 175                                                                                                                                     | 140  | 102  | 60.7 | 528                              | 451  | 371  | 288  |
|                        | 28                                  | 175                                                                                                                                     | 143  | 107  | 68.5 | 508                              | 435  | 360  | 281  |
|                        | 31.5                                | 175                                                                                                                                     | 144  | 111  | 76.3 | 483                              | 415  | 345  | 271  |
|                        | 35.5                                | 172                                                                                                                                     | 143  | 112  | 78.9 | 462                              | 397  | 332  | 261  |
|                        | 40                                  | 169                                                                                                                                     | 141  | 112  | 80.8 | 441                              | 380  | 317  | 252  |
|                        | 45                                  | 165                                                                                                                                     | 138  | 110  | 80.8 | 425                              | 366  | 306  | 244  |
|                        | 50                                  | 159                                                                                                                                     | 134  | 107  | 79.6 | 402                              | 347  | 290  | 232  |
|                        | 56                                  | 149                                                                                                                                     | 125  | 101  | 75.5 | 369                              | 319  | 266  | 214  |
|                        | 63                                  | 158                                                                                                                                     | 136  | 112  | 87.8 | 367                              | 320  | 269  | 219  |
| 71                     | 146                                 | 125                                                                                                                                     | 104  | 81.9 | 335  | 292                              | 247  | 200  |      |
| 133                    | 25                                  | 199                                                                                                                                     | 159  | 117  | 72.6 | 567                              | 486  | 401  | 312  |
|                        | 28                                  | 196                                                                                                                                     | 160  | 121  | 79.1 | 543                              | 465  | 387  | 303  |
|                        | 31.5                                | 194                                                                                                                                     | 159  | 123  | 85.1 | 519                              | 446  | 371  | 293  |
|                        | 35.5                                | 191                                                                                                                                     | 158  | 123  | 87.1 | 501                              | 431  | 359  | 285  |
|                        | 40                                  | 186                                                                                                                                     | 154  | 122  | 88.0 | 475                              | 410  | 343  | 271  |
|                        | 45                                  | 174                                                                                                                                     | 145  | 116  | 84.2 | 439                              | 377  | 315  | 251  |
|                        | 50                                  | 192                                                                                                                                     | 163  | 135  | 104  | 449                              | 390  | 327  | 266  |
|                        | 56                                  | 179                                                                                                                                     | 153  | 125  | 97.8 | 411                              | 358  | 302  | 245  |
|                        | 63                                  | 172                                                                                                                                     | 148  | 122  | 95.4 | 393                              | 342  | 289  | 234  |
| 71                     | 161                                 | 139                                                                                                                                     | 114  | 89.5 | 363  | 315                              | 267  | 216  |      |
| 143                    | 25                                  | 214                                                                                                                                     | 166  | 114  | 58.8 | 651                              | 552  | 453  | 348  |
|                        | 28                                  | 218                                                                                                                                     | 173  | 125  | 73.5 | 628                              | 537  | 442  | 342  |
|                        | 31.5                                | 220                                                                                                                                     | 180  | 137  | 88.3 | 599                              | 514  | 426  | 334  |
|                        | 35.5                                | 218                                                                                                                                     | 179  | 139  | 94.5 | 574                              | 493  | 409  | 322  |
|                        | 40                                  | 214                                                                                                                                     | 177  | 139  | 98.4 | 549                              | 472  | 393  | 311  |
|                        | 45                                  | 210                                                                                                                                     | 175  | 139  | 99.5 | 529                              | 457  | 380  | 301  |
|                        | 50                                  | 204                                                                                                                                     | 170  | 137  | 99.9 | 502                              | 432  | 362  | 288  |
|                        | 56                                  | 191                                                                                                                                     | 160  | 129  | 94.9 | 461                              | 399  | 333  | 265  |
|                        | 63                                  | 208                                                                                                                                     | 177  | 147  | 114  | 472                              | 411  | 347  | 281  |
| 71                     | 193                                 | 165                                                                                                                                     | 137  | 108  | 434  | 376                              | 318  | 258  |      |
| 153                    | 25                                  | 228                                                                                                                                     | 168  | 104  | -    | 743                              | 626  | 507  | 381  |
|                        | 28                                  | 241                                                                                                                                     | 184  | 121  | 54.5 | 731                              | 619  | 505  | 383  |
|                        | 31.5                                | 241                                                                                                                                     | 191  | 135  | 73.0 | 691                              | 587  | 481  | 369  |
|                        | 35.5                                | 240                                                                                                                                     | 190  | 138  | 79.9 | 667                              | 567  | 467  | 360  |
|                        | 40                                  | 235                                                                                                                                     | 189  | 141  | 87.2 | 633                              | 542  | 448  | 347  |
|                        | 45                                  | 223                                                                                                                                     | 182  | 137  | 88.7 | 585                              | 502  | 415  | 323  |
|                        | 50                                  | 261                                                                                                                                     | 220  | 179  | 134  | 612                              | 531  | 446  | 357  |
|                        | 56                                  | 245                                                                                                                                     | 207  | 169  | 128  | 563                              | 487  | 411  | 328  |
|                        | 63                                  | 238                                                                                                                                     | 202  | 165  | 125  | 540                              | 467  | 393  | 316  |
| 71                     | 226                                 | 193                                                                                                                                     | 158  | 122  | 506  | 440                              | 369  | 299  |      |
| 163                    | 25                                  | 227                                                                                                                                     | 160  | 87   | -    | 808                              | 677  | 544  | 401  |
|                        | 28                                  | 246                                                                                                                                     | 186  | 118  | -    | 768                              | 651  | 528  | 400  |
|                        | 31.5                                | 257                                                                                                                                     | 198  | 136  | 66.8 | 757                              | 643  | 524  | 401  |
|                        | 35.5                                | 255                                                                                                                                     | 203  | 146  | 83.6 | 713                              | 608  | 499  | 386  |
|                        | 40                                  | 254                                                                                                                                     | 203  | 149  | 90.0 | 691                              | 590  | 485  | 375  |
|                        | 45                                  | 248                                                                                                                                     | 202  | 151  | 97.1 | 656                              | 561  | 464  | 361  |
|                        | 50                                  | 235                                                                                                                                     | 192  | 146  | 97.6 | 605                              | 519  | 429  | 336  |
|                        | 56                                  | 272                                                                                                                                     | 231  | 188  | 142  | 631                              | 547  | 460  | 368  |
|                        | 63                                  | 255                                                                                                                                     | 216  | 177  | 135  | 579                              | 502  | 424  | 340  |
| 71                     | 247                                 | 210                                                                                                                                     | 172  | 133  | 555  | 481                              | 406  | 326  |      |
| 173                    | 25                                  | 188                                                                                                                                     | 107  | -    | -    | 941                              | 784  | 620  | 447  |
|                        | 28                                  | 215                                                                                                                                     | 140  | 57   | -    | 937                              | 782  | 628  | 460  |
|                        | 31.5                                | 236                                                                                                                                     | 168  | 94   | -    | 894                              | 753  | 607  | 458  |
|                        | 35.5                                | 242                                                                                                                                     | 176  | 106  | 28.8 | 866                              | 732  | 593  | 450  |
|                        | 40                                  | 247                                                                                                                                     | 186  | 122  | 50.3 | 828                              | 704  | 573  | 437  |
|                        | 45                                  | 239                                                                                                                                     | 185  | 124  | 58.4 | 769                              | 654  | 536  | 410  |
|                        | 50                                  | 307                                                                                                                                     | 255  | 201  | 143  | 820                              | 708  | 592  | 471  |
|                        | 56                                  | 292                                                                                                                                     | 245  | 195  | 143  | 758                              | 654  | 549  | 439  |
|                        | 63                                  | 286                                                                                                                                     | 241  | 194  | 143  | 727                              | 629  | 528  | 422  |
| 71                     | 275                                 | 233                                                                                                                                     | 189  | 141  | 685  | 595                              | 498  | 401  |      |
| 183                    | 25                                  | 152                                                                                                                                     | 59   | -    | -    | 992                              | 816  | 631  | 440  |
|                        | 28                                  | 213                                                                                                                                     | 134  | -    | -    | 966                              | 807  | 641  | 465  |
|                        | 31.5                                | 240                                                                                                                                     | 163  | 80   | -    | 960                              | 806  | 648  | 479  |
|                        | 35.5                                | 257                                                                                                                                     | 187  | 112  | 29.8 | 913                              | 772  | 626  | 472  |
|                        | 40                                  | 261                                                                                                                                     | 196  | 124  | 45.5 | 886                              | 750  | 609  | 464  |
|                        | 45                                  | 265                                                                                                                                     | 203  | 137  | 65.0 | 846                              | 718  | 588  | 450  |
|                        | 50                                  | 255                                                                                                                                     | 199  | 138  | 71.4 | 877                              | 668  | 549  | 422  |
|                        | 56                                  | 321                                                                                                                                     | 268  | 213  | 154  | 835                              | 722  | 605  | 482  |
|                        | 63                                  | 305                                                                                                                                     | 257  | 206  | 152  | 770                              | 667  | 561  | 449  |
| 71                     | 299                                 | 252                                                                                                                                     | 204  | 152  | 742  | 642                              | 541  | 431  |      |

TR

TERMAL KAPASİTELER

EN

THERMAL CAPACITIES

DE

WÄRMEGRENZLEISTUNGEN

n<sub>1</sub>:1800min<sup>-1</sup>

| Boyut<br>Size<br>Größe | Tahvil<br>Ratio<br>Über-<br>setzung | Thermal kapasite kW (Ortam sıcaklığı)<br>Thermal capacity in kW (Ambient temperature)<br>Wärmegrenzleistung in kW (Umgebungstemperatur) |      |      |      |                                  |      |      |      |
|------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------|------|------|----------------------------------|------|------|------|
|                        |                                     | Fansız / without fan /<br>ohne Lüfter                                                                                                   |      |      |      | Fanlı / with fan /<br>mit Lüfter |      |      |      |
|                        |                                     | 20°C                                                                                                                                    | 30°C | 40°C | 50°C | 20°C                             | 30°C | 40°C | 50°C |
| 43                     | 25                                  | 42.1                                                                                                                                    | 35.6 | 28.9 | 21.5 | 99.2                             | 85.7 | 71.7 | 57.2 |
|                        | 28                                  | 41.3                                                                                                                                    | 35.1 | 28.6 | 21.6 | 95.7                             | 82.8 | 69.5 | 55.5 |
|                        | 31.5                                | 39.8                                                                                                                                    | 33.9 | 27.6 | 21.1 | 91.2                             | 79.1 | 66.2 | 53.1 |
|                        | 35.5                                | 38.5                                                                                                                                    | 32.7 | 26.8 | 20.7 | 86.3                             | 74.8 | 62.9 | 50.6 |
|                        | 40                                  | 34.1                                                                                                                                    | 29.1 | 24.0 | 18.5 | 75.1                             | 65.1 | 54.7 | 44.1 |
|                        | 45                                  | 33.4                                                                                                                                    | 28.6 | 23.6 | 18.4 | 73.2                             | 63.4 | 53.4 | 43.0 |
|                        | 50                                  | 35.8                                                                                                                                    | 31.0 | 26.0 | 21.0 | 74.7                             | 65.0 | 55.1 | 45.0 |
|                        | 56                                  | 32.8                                                                                                                                    | 28.6 | 24.0 | 19.4 | 67.7                             | 59.0 | 50.1 | 40.8 |
|                        | 63                                  | 31.5                                                                                                                                    | 27.3 | 23.1 | 18.6 | 64.4                             | 56.2 | 47.6 | 39.0 |
|                        | 71                                  | 28.8                                                                                                                                    | 25.0 | 21.0 | 17.0 | 58.3                             | 50.8 | 43.1 | 35.2 |
| 53                     | 25                                  | 57.9                                                                                                                                    | 48.6 | 38.9 | 28.3 | 148                              | 128  | 106  | 85.1 |
|                        | 28                                  | 57.3                                                                                                                                    | 48.2 | 39.0 | 29.0 | 144                              | 124  | 104  | 83.0 |
|                        | 31.5                                | 55.5                                                                                                                                    | 46.8 | 37.9 | 28.7 | 137                              | 118  | 99.0 | 79.4 |
|                        | 35.5                                | 53.6                                                                                                                                    | 45.5 | 37.1 | 28.4 | 130                              | 112  | 94.0 | 75.4 |
|                        | 40                                  | 47.9                                                                                                                                    | 40.9 | 33.5 | 25.7 | 113                              | 98.0 | 82.3 | 66.2 |
|                        | 45                                  | 47.0                                                                                                                                    | 40.1 | 32.8 | 25.4 | 110                              | 95.2 | 80.0 | 64.5 |
|                        | 50                                  | 49.2                                                                                                                                    | 42.5 | 35.7 | 28.5 | 109                              | 95.1 | 80.3 | 65.6 |
|                        | 56                                  | 45.5                                                                                                                                    | 39.4 | 32.9 | 26.4 | 99.6                             | 86.8 | 73.6 | 60.0 |
|                        | 63                                  | 43.7                                                                                                                                    | 37.8 | 31.7 | 25.5 | 94.6                             | 82.6 | 70.2 | 57.1 |
|                        | 71                                  | 41.3                                                                                                                                    | 35.9 | 30.2 | 24.3 | 88.6                             | 77.1 | 65.4 | 53.4 |
| 63                     | 25                                  | 65.9                                                                                                                                    | 55.1 | 43.7 | 31.3 | 167                              | 144  | 120  | 95.6 |
|                        | 28                                  | 65.9                                                                                                                                    | 55.3 | 44.2 | 32.1 | 165                              | 143  | 119  | 94.8 |
|                        | 31.5                                | 64.2                                                                                                                                    | 54.1 | 43.7 | 32.4 | 158                              | 136  | 114  | 91.2 |
|                        | 35.5                                | 63.0                                                                                                                                    | 53.4 | 43.5 | 32.8 | 153                              | 132  | 111  | 88.9 |
|                        | 40                                  | 60.9                                                                                                                                    | 51.8 | 42.2 | 32.0 | 146                              | 126  | 106  | 85.0 |
|                        | 45                                  | 58.8                                                                                                                                    | 50.1 | 41.1 | 31.7 | 138                              | 119  | 100  | 80.6 |
|                        | 50                                  | 52.5                                                                                                                                    | 45.0 | 37.0 | 28.6 | 120                              | 104  | 87.6 | 70.8 |
|                        | 56                                  | 51.4                                                                                                                                    | 44.1 | 36.3 | 28.1 | 116                              | 101  | 85.3 | 68.9 |
|                        | 63                                  | 53.6                                                                                                                                    | 46.4 | 38.9 | 31.2 | 116                              | 101  | 85.6 | 69.6 |
|                        | 71                                  | 49.4                                                                                                                                    | 42.8 | 36.0 | 29.0 | 105                              | 92.1 | 78.2 | 63.8 |
| 73                     | 25                                  | 79.6                                                                                                                                    | 65.5 | 50.3 | 34.3 | 210                              | 180  | 149  | 117  |
|                        | 28                                  | 77.7                                                                                                                                    | 64.6 | 50.7 | 35.7 | 199                              | 171  | 143  | 113  |
|                        | 31.5                                | 75.8                                                                                                                                    | 63.0 | 49.8 | 35.8 | 190                              | 163  | 136  | 108  |
|                        | 35.5                                | 73.4                                                                                                                                    | 61.7 | 49.4 | 36.2 | 181                              | 155  | 130  | 103  |
|                        | 40                                  | 65.6                                                                                                                                    | 55.3 | 44.4 | 33.3 | 157                              | 135  | 113  | 90.1 |
|                        | 45                                  | 64.2                                                                                                                                    | 54.1 | 43.8 | 32.7 | 152                              | 131  | 109  | 87.5 |
|                        | 50                                  | 68.1                                                                                                                                    | 58.5 | 48.5 | 38.0 | 152                              | 132  | 111  | 90.3 |
|                        | 56                                  | 63.0                                                                                                                                    | 54.3 | 45.0 | 35.5 | 140                              | 121  | 102  | 82.6 |
|                        | 63                                  | 60.7                                                                                                                                    | 52.2 | 43.6 | 34.3 | 133                              | 115  | 97.4 | 78.8 |
|                        | 71                                  | 57.2                                                                                                                                    | 49.3 | 40.9 | 32.4 | 123                              | 107  | 90.8 | 73.5 |
| 83                     | 25                                  | 91.0                                                                                                                                    | 74.5 | 57.0 | 37.6 | 238                              | 204  | 168  | 132  |
|                        | 28                                  | 89.8                                                                                                                                    | 74.1 | 57.1 | 38.8 | 231                              | 197  | 163  | 129  |
|                        | 31.5                                | 89.5                                                                                                                                    | 74.6 | 58.7 | 41.4 | 223                              | 192  | 160  | 126  |
|                        | 35.5                                | 87.1                                                                                                                                    | 73.0 | 58.1 | 42.1 | 211                              | 183  | 152  | 120  |
|                        | 40                                  | 84.3                                                                                                                                    | 71.0 | 56.6 | 41.9 | 202                              | 174  | 145  | 116  |
|                        | 45                                  | 81.6                                                                                                                                    | 69.0 | 55.5 | 41.9 | 192                              | 165  | 139  | 110  |
|                        | 50                                  | 72.7                                                                                                                                    | 61.7 | 50.0 | 38.0 | 166                              | 144  | 120  | 96.4 |
|                        | 56                                  | 71.0                                                                                                                                    | 60.2 | 49.1 | 37.3 | 161                              | 139  | 116  | 93.4 |
|                        | 63                                  | 74.7                                                                                                                                    | 64.4 | 53.6 | 42.4 | 161                              | 140  | 118  | 96.0 |
|                        | 71                                  | 69.2                                                                                                                                    | 59.7 | 49.7 | 39.5 | 148                              | 129  | 108  | 88.0 |
| 93                     | 25                                  | 101                                                                                                                                     | 81.8 | 60.8 | 38.3 | 290                              | 247  | 204  | 158  |
|                        | 28                                  | 100                                                                                                                                     | 81.7 | 62.1 | 41.0 | 277                              | 237  | 196  | 153  |
|                        | 31.5                                | 98.7                                                                                                                                    | 81.1 | 62.6 | 42.8 | 266                              | 227  | 190  | 149  |
|                        | 35.5                                | 96.3                                                                                                                                    | 80.0 | 62.6 | 44.1 | 252                              | 216  | 180  | 142  |
|                        | 40                                  | 92.2                                                                                                                                    | 76.8 | 60.6 | 44.2 | 235                              | 202  | 168  | 134  |
|                        | 45                                  | 86.3                                                                                                                                    | 72.0 | 57.1 | 41.9 | 216                              | 186  | 155  | 123  |
|                        | 50                                  | 91.9                                                                                                                                    | 78.5 | 64.3 | 49.8 | 215                              | 188  | 157  | 126  |
|                        | 56                                  | 84.8                                                                                                                                    | 72.5 | 59.6 | 46.3 | 196                              | 170  | 143  | 115  |
|                        | 63                                  | 81.4                                                                                                                                    | 69.8 | 57.3 | 44.7 | 187                              | 161  | 136  | 110  |
|                        | 71                                  | 75.8                                                                                                                                    | 65.0 | 53.8 | 41.8 | 171                              | 148  | 125  | 101  |
| 103                    | 25                                  | 106                                                                                                                                     | 84.2 | 60.4 | 34.4 | 310                              | 264  | 216  | 167  |
|                        | 28                                  | 105                                                                                                                                     | 84.3 | 61.7 | 37.3 | 301                              | 257  | 211  | 163  |
|                        | 31.5                                | 106                                                                                                                                     | 86.6 | 65.9 | 43.2 | 290                              | 248  | 205  | 160  |
|                        | 35.5                                | 105                                                                                                                                     | 85.8 | 66.5 | 45.5 | 276                              | 237  | 197  | 154  |
|                        | 40                                  | 103                                                                                                                                     | 85.3 | 66.7 | 46.4 | 266                              | 228  | 190  | 150  |
|                        | 45                                  | 100                                                                                                                                     | 83.6 | 66.4 | 48.0 | 252                              | 216  | 181  | 143  |
|                        | 50                                  | 95.8                                                                                                                                    | 80.2 | 64.2 | 47.1 | 235                              | 202  | 168  | 135  |
|                        | 56                                  | 89.8                                                                                                                                    | 75.3 | 60.5 | 44.5 | 217                              | 187  | 156  | 124  |
|                        | 63                                  | 94.7                                                                                                                                    | 81.2 | 66.7 | 51.9 | 216                              | 188  | 158  | 128  |
|                        | 71                                  | 87.5                                                                                                                                    | 75.0 | 61.9 | 48.5 | 197                              | 171  | 144  | 116  |
| 113                    | 25                                  | 134                                                                                                                                     | 103  | 69.6 | 33.2 | 476                              | 405  | 332  | 256  |
|                        | 28                                  | 135                                                                                                                                     | 105  | 74.8 | 40.6 | 457                              | 390  | 320  | 249  |
|                        | 31.5                                | 135                                                                                                                                     | 108  | 78.6 | 47.2 | 438                              | 374  | 308  | 241  |
|                        | 35.5                                | 135                                                                                                                                     | 108  | 80.4 | 50.2 | 423                              | 362  | 299  | 235  |
|                        | 40                                  | 132                                                                                                                                     | 107  | 81.2 | 53.2 | 401                              | 343  | 285  | 223  |
|                        | 45                                  | 124                                                                                                                                     | 101  | 77.3 | 52.2 | 370                              | 318  | 264  | 208  |
|                        | 50                                  | 140                                                                                                                                     | 118  | 95.7 | 72.3 | 373                              | 323  | 271  | 218  |
|                        | 56                                  | 131                                                                                                                                     | 110  | 89.7 | 68.5 | 341                              | 295  | 249  | 200  |
|                        | 63                                  | 126                                                                                                                                     | 107  | 87.5 | 66.8 | 325                              | 281  | 237  | 191  |
|                        | 71                                  | 117                                                                                                                                     | 100  | 81.6 | 62.9 | 298                              | 258  | 216  | 175  |

| Boyut<br>Size<br>Größe | Tahvil<br>Ratio<br>Über-<br>setzung | Thermal kapasite kW (Ortam sıcaklığı)<br>Thermal capacity in kW (Ambient temperature)<br>Wärmegrenzleistung in kW (Umgebungstemperatur) |      |      |      |                                  |      |      |      |
|------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------|------|------|----------------------------------|------|------|------|
|                        |                                     | Fansız / without fan /<br>ohne Lüfter                                                                                                   |      |      |      | Fanlı / with fan /<br>mit Lüfter |      |      |      |
|                        |                                     | 20°C                                                                                                                                    | 30°C | 40°C | 50°C | 20°C                             | 30°C | 40°C | 50°C |
| 123                    | 25                                  | 149                                                                                                                                     | 109  | 66.5 | 20.9 | 569                              | 480  | 390  | 296  |
|                        | 28                                  | 156                                                                                                                                     | 118  | 79.2 | 35.7 | 549                              | 466  | 381  | 293  |
|                        | 31.5                                | 160                                                                                                                                     | 128  | 90.9 | 51.2 | 525                              | 449  | 369  | 286  |
|                        | 35.5                                | 160                                                                                                                                     | 129  | 94.6 | 57.4 | 504                              | 429  | 355  | 277  |
|                        | 40                                  | 159                                                                                                                                     | 130  | 97.5 | 62.6 | 482                              | 413  | 342  | 268  |
|                        | 45                                  | 157                                                                                                                                     | 129  | 97.8 | 65.2 | 465                              | 399  | 330  | 260  |
|                        | 50                                  | 153                                                                                                                                     | 125  | 97.4 | 67.0 | 441                              | 378  | 314  | 248  |
|                        | 56                                  | 144                                                                                                                                     | 119  | 92.6 | 64.9 | 407                              | 349  | 291  | 230  |
|                        | 63                                  | 159                                                                                                                                     | 136  | 110  | 84.5 | 409                              | 354  | 298  | 240  |
| 71                     | 148                                 | 125                                                                                                                                     | 104  | 79.4 | 372  | 323                              | 271  | 219  |      |
| 133                    | 25                                  | 171                                                                                                                                     | 128  | 81.1 | 30.7 | 608                              | 514  | 418  | 319  |
|                        | 28                                  | 175                                                                                                                                     | 136  | 91.9 | 44.1 | 583                              | 496  | 406  | 312  |
|                        | 31.5                                | 177                                                                                                                                     | 140  | 100  | 56.3 | 560                              | 478  | 393  | 305  |
|                        | 35.5                                | 176                                                                                                                                     | 141  | 103  | 61.5 | 542                              | 463  | 381  | 298  |
|                        | 40                                  | 174                                                                                                                                     | 141  | 105  | 66.7 | 515                              | 441  | 364  | 286  |
|                        | 45                                  | 165                                                                                                                                     | 135  | 102  | 66.7 | 475                              | 406  | 337  | 264  |
|                        | 50                                  | 191                                                                                                                                     | 160  | 129  | 95.7 | 493                              | 426  | 358  | 287  |
|                        | 56                                  | 179                                                                                                                                     | 151  | 121  | 91.7 | 453                              | 392  | 329  | 264  |
|                        | 63                                  | 173                                                                                                                                     | 147  | 119  | 90.2 | 432                              | 375  | 316  | 254  |
| 71                     | 163                                 | 139                                                                                                                                     | 113  | 86.0 | 400  | 347                              | 292  | 236  |      |
| 143                    | 25                                  | 167                                                                                                                                     | 114  | 55.7 | -    | 686                              | 576  | 463  | 343  |
|                        | 28                                  | 183                                                                                                                                     | 133  | 78.7 | 20.4 | 667                              | 563  | 457  | 345  |
|                        | 31.5                                | 197                                                                                                                                     | 150  | 102  | 48.1 | 643                              | 547  | 446  | 343  |
|                        | 35.5                                | 199                                                                                                                                     | 157  | 110  | 61.1 | 615                              | 525  | 431  | 334  |
|                        | 40                                  | 199                                                                                                                                     | 160  | 118  | 71.5 | 592                              | 506  | 417  | 325  |
|                        | 45                                  | 197                                                                                                                                     | 159  | 119  | 75.7 | 573                              | 490  | 405  | 316  |
|                        | 50                                  | 193                                                                                                                                     | 158  | 120  | 79.5 | 544                              | 466  | 386  | 303  |
|                        | 56                                  | 183                                                                                                                                     | 150  | 115  | 78.6 | 501                              | 430  | 357  | 282  |
|                        | 63                                  | 207                                                                                                                                     | 175  | 142  | 107  | 518                              | 449  | 377  | 303  |
| 71                     | 195                                 | 165                                                                                                                                     | 135  | 102  | 476  | 413                              | 347  | 281  |      |
| 153                    | 25                                  | 155                                                                                                                                     | 88.3 | 13.9 | -    | 772                              | 643  | 505  | 359  |
|                        | 28                                  | 181                                                                                                                                     | 116  | 47.2 | -    | 768                              | 642  | 511  | 374  |
|                        | 31.5                                | 196                                                                                                                                     | 138  | 75.4 | 6.3  | 730                              | 614  | 495  | 369  |
|                        | 35.5                                | 202                                                                                                                                     | 147  | 86.3 | 19.8 | 711                              | 599  | 483  | 364  |
|                        | 40                                  | 206                                                                                                                                     | 154  | 98.2 | 36.5 | 678                              | 573  | 466  | 353  |
|                        | 45                                  | 197                                                                                                                                     | 151  | 101  | 44.0 | 627                              | 531  | 432  | 330  |
|                        | 50                                  | 252                                                                                                                                     | 208  | 162  | 114  | 667                              | 575  | 478  | 378  |
|                        | 56                                  | 239                                                                                                                                     | 200  | 157  | 113  | 614                              | 529  | 443  | 352  |
|                        | 63                                  | 234                                                                                                                                     | 196  | 155  | 113  | 590                              | 509  | 425  | 339  |
| 71                     | 224                                 | 189                                                                                                                                     | 151  | 111  | 556  | 480                              | 402  | 321  |      |
| 163                    | 25                                  | 129                                                                                                                                     | 49.9 | -    | -    | 828                              | 681  | 524  | 361  |
|                        | 28                                  | 175                                                                                                                                     | 108  | 31.8 | -    | 804                              | 670  | 529  | 383  |
|                        | 31.5                                | 199                                                                                                                                     | 134  | 61.2 | -    | 797                              | 667  | 534  | 394  |
|                        | 35.5                                | 213                                                                                                                                     | 154  | 88.8 | 16.7 | 758                              | 639  | 514  | 386  |
|                        | 40                                  | 217                                                                                                                                     | 161  | 99.5 | 31.6 | 736                              | 621  | 504  | 379  |
|                        | 45                                  | 219                                                                                                                                     | 167  | 111  | 47.6 | 701                              | 595  | 483  | 369  |
|                        | 50                                  | 210                                                                                                                                     | 162  | 112  | 53.6 | 649                              | 551  | 449  | 344  |
|                        | 56                                  | 264                                                                                                                                     | 219  | 172  | 121  | 689                              | 594  | 495  | 393  |
|                        | 63                                  | 251                                                                                                                                     | 208  | 166  | 120  | 633                              | 547  | 457  | 364  |
| 71                     | 244                                 | 205                                                                                                                                     | 163  | 119  | 607  | 525                              | 439  | 351  |      |
| 173                    | 25                                  | 38.6                                                                                                                                    | -    | -    | -    | 948                              | 767  | 577  | 379  |
|                        | 28                                  | 91.7                                                                                                                                    | -    | -    | -    | 958                              | 785  | 602  | 413  |
|                        | 31.5                                | 144                                                                                                                                     | 65.4 | -    | -    | 926                              | 766  | 603  | 430  |
|                        | 35.5                                | 162                                                                                                                                     | 89.5 | -    | -    | 903                              | 752  | 597  | 431  |
|                        | 40                                  | 183                                                                                                                                     | 113  | 37.8 | -    | 871                              | 728  | 582  | 428  |
|                        | 45                                  | 186                                                                                                                                     | 122  | 53.2 | -    | 813                              | 681  | 547  | 407  |
|                        | 50                                  | 286                                                                                                                                     | 230  | 170  | 105  | 885                              | 760  | 629  | 494  |
|                        | 56                                  | 276                                                                                                                                     | 224  | 170  | 112  | 818                              | 704  | 585  | 462  |
|                        | 63                                  | 273                                                                                                                                     | 224  | 173  | 118  | 789                              | 678  | 565  | 448  |
| 71                     | 267                                 | 220                                                                                                                                     | 172  | 120  | 747  | 644                              | 536  | 426  |      |
| 183                    | 25                                  | -                                                                                                                                       | -    | -    | -    | 962                              | 764  | 557  | 336  |
|                        | 28                                  | 73.0                                                                                                                                    | -    | -    | -    | 976                              | 795  | 605  | 405  |
|                        | 31.5                                | 124                                                                                                                                     | 34.0 | -    | -    | 982                              | 811  | 626  | 436  |
|                        | 35.5                                | 170                                                                                                                                     | 92.8 | -    | -    | 950                              | 788  | 623  | 449  |
|                        | 40                                  | 187                                                                                                                                     | 111  | 28.8 | -    | 924                              | 771  | 615  | 450  |
|                        | 45                                  | 205                                                                                                                                     | 135  | 57.9 | -    | 891                              | 747  | 601  | 445  |
|                        | 50                                  | 204                                                                                                                                     | 142  | 72.5 | -    | 831                              | 699  | 563  | 420  |
|                        | 56                                  | 303                                                                                                                                     | 247  | 185  | 117  | 903                              | 775  | 644  | 506  |
|                        | 63                                  | 291                                                                                                                                     | 239  | 184  | 123  | 834                              | 718  | 598  | 472  |
| 71                     | 288                                 | 237                                                                                                                                     | 185  | 130  | 805  | 693                              | 578  | 458  |      |

TR

NOMİNAL ÇIKIŞ MOMENTİ

EN

NOMINAL OUTPUT TORQUES

DE

NENN-ABTRIEBSDREHMOMENTE

| Tip / Types / Bauarten PB...3-H                                                                                                                                                 |                                                       |      |      |      |      |      |      |      |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------|------|------|------|------|------|------|------|
| Tahvil oranı $i_N$ , Nominal çıkış momenti $T_{2N}$ .<br>Transmission ratios $i_N$ , nominal output torques $T_{2N}$<br>Übersetzungen $i_N$ , Nenn-Abtriebsdrehmomente $T_{2N}$ |                                                       |      |      |      |      |      |      |      |      |
| $i_N$                                                                                                                                                                           | Redüktör Boyutları / Gear unit sizes / Getriebegrößen |      |      |      |      |      |      |      |      |
|                                                                                                                                                                                 | 43                                                    | 53   | 63   | 73   | 83   | 93   | 103  | 113  | 123  |
| Nominal çıkış momenti $T_{2N}$ kNm / Nominal output torques $T_{2N}$ in kNm / Abtriebsdrehmomente $T_{2N}$ in kNm                                                               |                                                       |      |      |      |      |      |      |      |      |
| 25                                                                                                                                                                              | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 |
| 28                                                                                                                                                                              | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 |
| 31.5                                                                                                                                                                            | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 |
| 35.5                                                                                                                                                                            | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 |
| 40                                                                                                                                                                              | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 |
| 45                                                                                                                                                                              | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 |
| 50                                                                                                                                                                              | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 |
| 56                                                                                                                                                                              | 6.8                                                   | 11.8 | 15.8 | 22.1 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 |
| 63                                                                                                                                                                              | 6.7                                                   | 11.6 | 15.8 | 21.8 | 27.7 | 36.4 | 44.7 | 64.8 | 78.7 |
| 71                                                                                                                                                                              | 6.7                                                   | 11.2 | 15.8 | 20.4 | 27.7 | 34.7 | 44.7 | 61.2 | 78.7 |

| Tip / Types / Bauarten PB...3-H                                                                                                                                                 |                                                       |     |     |     |     |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----|-----|-----|-----|-----|
| Tahvil oranı $i_N$ , Nominal çıkış momenti $T_{2N}$ .<br>Transmission ratios $i_N$ , nominal output torques $T_{2N}$<br>Übersetzungen $i_N$ , Nenn-Abtriebsdrehmomente $T_{2N}$ |                                                       |     |     |     |     |     |
| $i_N$                                                                                                                                                                           | Redüktör Boyutları / Gear unit sizes / Getriebegrößen |     |     |     |     |     |
|                                                                                                                                                                                 | 133                                                   | 143 | 153 | 163 | 173 | 183 |
| Nominal çıkış momenti $T_{2N}$ kNm / Nominal output torques $T_{2N}$ in kNm / Abtriebsdrehmomente $T_{2N}$ in kNm                                                               |                                                       |     |     |     |     |     |
| 25                                                                                                                                                                              | 92.5                                                  | 115 | 156 | 176 | 204 | 245 |
| 28                                                                                                                                                                              | 92.5                                                  | 115 | 156 | 176 | 204 | 245 |
| 31.5                                                                                                                                                                            | 92.5                                                  | 115 | 156 | 176 | 204 | 245 |
| 35.5                                                                                                                                                                            | 92.5                                                  | 115 | 156 | 176 | 204 | 245 |
| 40                                                                                                                                                                              | 92.5                                                  | 115 | 156 | 176 | 204 | 245 |
| 45                                                                                                                                                                              | 92.5                                                  | 115 | 156 | 176 | 204 | 245 |
| 50                                                                                                                                                                              | 92.5                                                  | 115 | 156 | 176 | 204 | 245 |
| 56                                                                                                                                                                              | 92.5                                                  | 115 | 156 | 176 | 204 | 245 |
| 63                                                                                                                                                                              | 92.5                                                  | 115 | 156 | 176 | 204 | 245 |
| 71                                                                                                                                                                              | 92.5                                                  | 115 | 156 | 176 | 204 | 245 |



## NOMİNAL ÇIKIŞ MOMENTİ

Redüktörün uygulama alanına göre her gövde için iki farklı yardımcı redüktör seçilebilir:

### 1) Arıza-Bakım Çalışması

Yardımcı redüktörün motor dönme yönü ile boş kovalı elevatörün düşük hızlı dönüş yönü aynıdır.

### 2) Yük altında çalışma

Yardımcı redüktörün motor dönme yönü, dolu kovalarla düşük devirde kısa süreliğine aynı yönde dönecek şekilde çalıştırılabilir. Yardımcı redüktör ana redüktörün nominal çıkış momentini kapsamaz. Lütfen T<sub>3</sub> değerine dikkat ediniz.

### Yardımcı redüktör tasarımı

Yardımcı redüktör ana redüktöre motor bağlantı adaptörü ile montajı yapılmıştır. Yardımcı redüktör olarak PKD (helisel-konik dişli) TMG-B5 veya TMG-B14 versiyonları ana redüktöre serbest kavrama ile akupile edilmiştir. Kavrama, bağlantı adaptörü içerisinde yer almaktadır ve bu adaptör yağ ile doldurulmuştur. Yardımcı redüktörün bağlantısında kullanılan kavramanın fonksiyon bozukluklarında meydana gelebilecek hız artışlarını engellemek için müşteri hız göstergesi kullanarak sistemi koruma altına alınmalıdır (sayfa 253'e bakınız). Ana redüktörün 4 ila 12 gövde büyüklüğüne kadar kullanılan yardımcı redüktörler yumuşak kalkışı desteklemek için yüksek ataletli fan ile verilir.



## NOMINAL OUTPUT TORQUES

Dependent on the case of application, for each gear unit size two different auxiliary drives are available:

### 1) Maintenance drive

The motor of the auxiliary drive is dimensioned in such a way that the bucket elevator can be operated with empty buckets at low speed in the same direction of rotation.

### 2) Operation under load

The motor of the auxiliary drive is dimensioned in such a way that the bucket elevator can be operated with full buckets for a short time at low speed in the same direction of rotation. The auxiliary drive is not designed for the nominal output torque of the main drive, please note T<sub>3</sub>.

### Design of auxiliary drives

The auxiliary drive is flanged to the main gear unit by means of an intermediate flange. The auxiliary drive is a PKD bevel-helical geared motor type TMG-B5 or TMG-B14 which is coupled to the main gear unit via an overrunning clutch. The overrunning clutch is located in the intermediate flange and supplied with oil from the main gear unit. The PKD bevel-helical geared motor has an own oil filling and is supplied filled with oil. To prevent overspeeds in the case of malfunctions of the overrunning clutch, the customer has to provide a speed monitor for the protection of the drive combination, see page 253.

The auxiliary drives for operation under load, for main gear unit sizes 4 to 12, have a high inertia fan for supporting smooth starting.



## NENN-ABTRIEBSDREHMOMENTE

Je nach Einsatzfall stehen für jede Getriebegröße zwei unterschiedlich starke Hilfsantriebe zur Wahl:

### 1) Wartungsantrieb

Der Motor des Hilfsantriebes ist so dimensioniert, dass das Becherwerk mit leeren Bechern bei niedriger Drehzahl in gleicher Drehrichtung betrieben werden kann.

### 2) Lastbetrieb

Der Motor des Hilfsantriebes ist so dimensioniert, dass das Becherwerk mit vollen Bechern bei niedriger Drehzahl in gleicher Drehrichtung kurzzeitig betrieben werden kann. Der Hilfsantrieb ist nicht für das Nenn-Abtriebsdrehmoment des Hauptantriebes ausgelegt, bitte T<sub>3</sub> beachten.

### Ausführung des Hilfsantriebes

Der Hilfsantrieb ist über einen Zwischenflansch an das Hauptgetriebe angeflanscht. Beim Hilfsantrieb handelt es sich um einen PKD Kegelstrinradgetriebemotor Bauart TMG-B5 oder TMG-B14, der über eine Überholkupplung an das Hauptgetriebe angekuppelt ist. Die Überholkupplung ist im Zwischenflansch untergebracht und wird mit Öl befüllt geliefert. Zur Vermeidung von Überdrehzahlen bei Funktionsstörungen aus Überholkupplung ist die Antriebskombination aus Sicherheitsgründen kundenseitig mit einem Drehzahlwächter auszurüsten, siehe Seite 253. Die Hilfsantriebe für Lastbetrieb der Hauptgetriebegrößen 4 bis 12 erhalten zur Unterstützung des Sanftanlaufes einen Schwungmassenlüfter.

| Ana redüktör<br>Main gear unit<br>Hauptgetriebe<br>Boyut<br>Size<br>Größe | Arıza-Bakım Çalışması / Maintenance drive / Wartungsantrieb |                               |                                                         |                        |                                         |                |       |                                                           | Yük altında çalışma / Operation under load / Lastbetrieb |                               |                                                         |                        |                                         |                |       |                                                           |
|---------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------|---------------------------------------------------------|------------------------|-----------------------------------------|----------------|-------|-----------------------------------------------------------|----------------------------------------------------------|-------------------------------|---------------------------------------------------------|------------------------|-----------------------------------------|----------------|-------|-----------------------------------------------------------|
|                                                                           | 1)<br>n <sub>3</sub><br>[min <sup>-1</sup> ]                | 1)<br>T <sub>3</sub><br>[kNm] | 2)<br>Motorlu redüktör<br>Geared motor<br>Getriebemotor | P <sub>M</sub><br>[kW] | 3)<br>T <sub>MA</sub><br>T <sub>M</sub> | 4)<br>I<br>[A] | i     | Çıkış shaft<br>Output shaft<br>Abtriebswelle<br>Ødxl [mm] | 1)<br>n <sub>3</sub><br>[min <sup>-1</sup> ]             | 1)<br>T <sub>3</sub><br>[kNm] | 2)<br>Motorlu redüktör<br>Geared motor<br>Getriebemotor | P <sub>M</sub><br>[kW] | 3)<br>T <sub>MA</sub><br>T <sub>M</sub> | 4)<br>I<br>[A] | i     | Çıkış shaft<br>Output shaft<br>Abtriebswelle<br>Ødxl [mm] |
| 43                                                                        | 2.5                                                         | 2.7                           | PKD 1390 80M/4B                                         | 0.75                   | 2.5                                     | 2.1            | 34.86 | 40x80                                                     | 2.6                                                      | 4.0                           | PKD 1390 90S/4A                                         | 1.1                    | 2.5                                     | 2.7            | 34.86 | 40x80                                                     |
| 53                                                                        | 2.5                                                         | 5.1                           | PKD 1390 90L/4A                                         | 1.5                    | 2.5                                     | 3.6            | 34.86 | 40x80                                                     | 3.2                                                      | 6.5                           | PKD 2390 100L/4A                                        | 2.2                    | 2.7                                     | 5.1            | 29.22 | 50x100                                                    |
| 63                                                                        | 2.0                                                         | 6.3                           | PKD 1390 90L/4A                                         | 1.5                    | 2.5                                     | 3.6            | 34.86 | 40x80                                                     | 2.5                                                      | 8.1                           | PKD 2390 100L/4A                                        | 2.2                    | 2.7                                     | 5.1            | 29.22 | 50x100                                                    |
| 73                                                                        | 2.8                                                         | 7.0                           | PKD 2390 100L/4A                                        | 2.2                    | 2.7                                     | 5.1            | 31.43 | 50x100                                                    | 3.1                                                      | 11.9                          | PKD 3390 112M/4B                                        | 4                      | 2.7                                     | 8.7            | 29.67 | 70x140                                                    |
| 83                                                                        | 2.2                                                         | 8.7                           | PKD 2390 100L/4A                                        | 2.2                    | 2.7                                     | 5.1            | 31.43 | 50x100                                                    | 2.5                                                      | 15.0                          | PKD 3390 112M/4B                                        | 4                      | 2.7                                     | 8.7            | 29.67 | 70x140                                                    |
| 93                                                                        | 2.8                                                         | 9.5                           | PKD 2390 100L/4B                                        | 3                      | 2.7                                     | 6.8            | 31.43 | 50x100                                                    | 2.5                                                      | 20.0                          | PKD 3390 132S/4C                                        | 5.5                    | 2.7                                     | 11.3           | 35.65 | 70x140                                                    |
| 103                                                                       | 2.2                                                         | 11.9                          | PKD 2390 100L/4B                                        | 3                      | 2.7                                     | 6.8            | 40.37 | 50x100                                                    | 2.0                                                      | 25.0                          | PKD 3390 132S/4C                                        | 5.5                    | 2.7                                     | 11.3           | 35.65 | 70x140                                                    |
| 113                                                                       | 2.1                                                         | 12.4                          | PKD 3390 100L/4B                                        | 3                      | 2.7                                     | 6.8            | 40.37 | 70x140                                                    | 2.5                                                      | 34.8                          | PKD 4390 132M/4                                         | 9.2                    | 2.7                                     | 18.9           | 34.38 | 80x170                                                    |
| 123                                                                       | 1.65                                                        | 15.4                          | PKD 3390 100L/4B                                        | 3                      | 2.7                                     | 6.8            | 40.37 | 70x140                                                    | 1.9                                                      | 44.0                          | PKD 4390 132M/4                                         | 9.2                    | 2.7                                     | 18.9           | 34.38 | 80x170                                                    |
| 133                                                                       | 2.1                                                         | 16.6                          | PKD 3390 112M/4B                                        | 4                      | 2.7                                     | 8.7            | 40.37 | 70x140                                                    | 3.3                                                      | 51.7                          | PKD 5390 180M/4B                                        | 18.5                   | 2.3                                     | 36.8           | 27.37 | 90x170                                                    |
| 143                                                                       | 1.65                                                        | 20.6                          | PKD 3390 112M/4B                                        | 4                      | 2.7                                     | 8.7            | 40.37 | 70x140                                                    | 2.7                                                      | 64.2                          | PKD 5390 180M/4B                                        | 18.5                   | 2.3                                     | 36.8           | 27.37 | 90x170                                                    |
| 153                                                                       | 2.1                                                         | 16.6                          | PKD 3390 112M/4B                                        | 4                      | 2.7                                     | 8.7            | 40.37 | 70x140                                                    | 3.3                                                      | 85.5                          | PKD 8390 200L/4C                                        | 30                     | 2.6                                     | 56             | 26.79 | 120x210                                                   |
| 163                                                                       | 1.8                                                         | 18.6                          | PKD 3390 112M/4B                                        | 4                      | 2.7                                     | 8.7            | 40.37 | 70x140                                                    | 1.9                                                      | 97.0                          | PKD 8390 200L/4C                                        | 30                     | 2.6                                     | 56             | 26.79 | 120x210                                                   |
| 173                                                                       | 2.1                                                         | 16.6                          | PKD 3390 112M/4B                                        | 4                      | 2.7                                     | 8.7            | 40.37 | 70x140                                                    | 3.2                                                      | 101.1                         | PKD 8390 225S/4A                                        | 37                     | 2.4                                     | 70             | 26.79 | 120x210                                                   |
| 183                                                                       | 1.8                                                         | 18.6                          | PKD 3390 112M/4B                                        | 4                      | 2.7                                     | 8.7            | 40.37 | 70x140                                                    | 2.9                                                      | 117.2                         | PKD 8390 225S/4A                                        | 37                     | 2.4                                     | 70             | 26.79 | 120x210                                                   |

Redüktör tasarımı / Design of gear units / Ausführung der Getriebe

PGR : Helisel Konik Tasarım / Design / Ausführung D

PKD : Tasarım / Design / Ausführung A/2A

Montaj pozisyonu / Mounting position / Einbaulage B5-02

PGR: Tasarım / Design / Ausführung B

PKD: Tasarım / Design / Ausführung A/2A

Montaj pozisyonu / Mounting position / Einbaulage B5-02

1) Ana redüktörün yardımcı redüktöre bağlandığı yerdeki giriş hızı (50Hz, n<sub>1</sub>=1500d/d; 60 Hz de n<sub>3</sub> % ≈20 artar).

2) PKD helisel konik dişli redüktör

3) Direk çalışma durumunda motorun başlama torku T<sub>MA</sub> ile yardımcı redüktör motorunun nominal torku T<sub>M</sub>.

4) Anma akımı 400 V dur.

1) On main gear unit output shaft in case of input via auxiliary drive (50Hz, n<sub>1</sub> = 1500min<sup>-1</sup> ; at 60 Hz n<sub>3</sub> will be ≈20 % higher).

2) PKD bevel-helical geared motor

3) In case direct switching on, motor starting torque T<sub>MA</sub> as a multiple of the nominal motor torque T<sub>M</sub> of the auxiliary drive.

4) Rated current at 400 V.

1) An Abtriebswelle des Hauptgetriebes bei Antrieb über Hilfsantrieb (50 Hz, n<sub>1</sub> = 1500 min<sup>-1</sup> ; bei 60Hz wird n<sub>3</sub> ≈20 % höher).

2) PKD Kegelstrinradgetriebemotor

3) Motor-Anzugsdrehmoment T<sub>MA</sub> beim direkten Einschalten als Vielfaches des Motor -Nennmomentes T<sub>M</sub> des Hilfsantriebes.

4) Bemessungsstrom bei 400 V.

**TR ÜÇ KADEMELİ YARDIMCI REDÜKTÖR**  
 (Yük Altında Çalışma)

**EN THREE STAGE WITH AUXILIARY DRIVE**  
 (Operation Under Load)

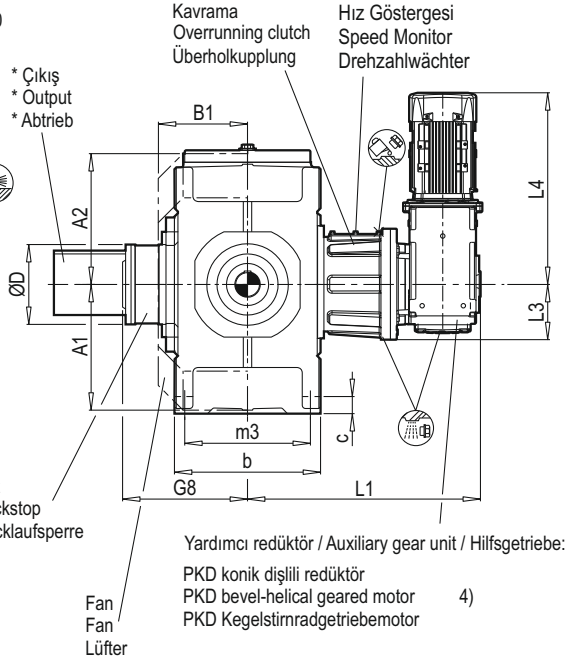
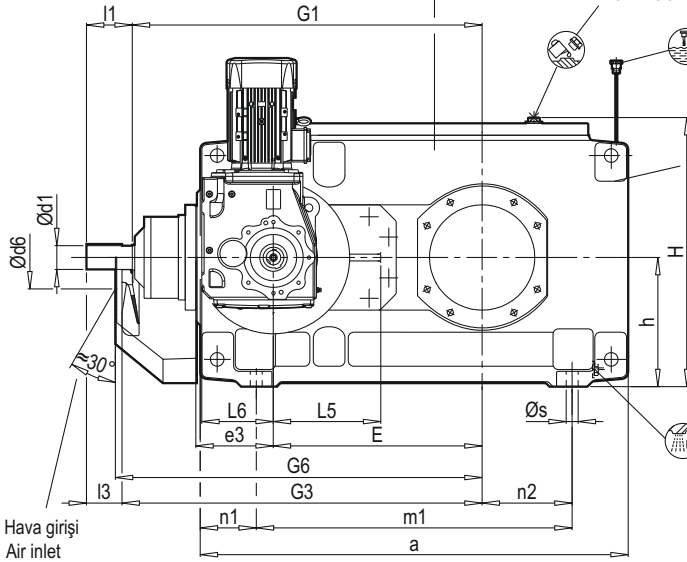
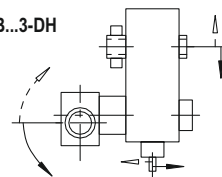
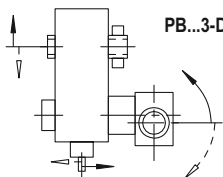
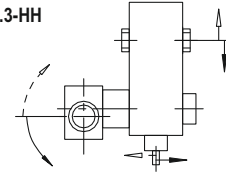
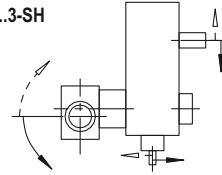
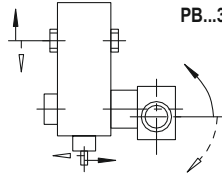
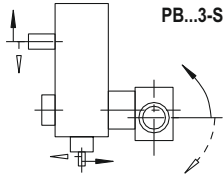
**DE DREISTUFIG MIT HILFSANTRIEB**  
 (Lastbetrieb)

**PB...3-SH PB...3-HH PB...3-DH**

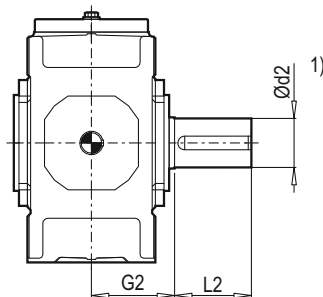
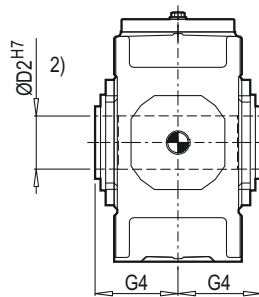
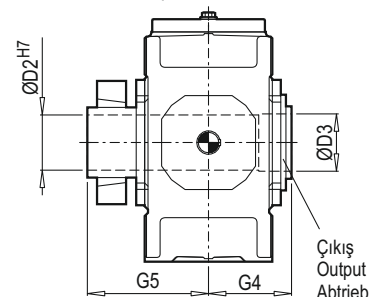
Ana redüktör / Main gear unit / Hauptgetriebe:

 PGR dişli ünitesi  
 PGR gear unit  
 PGR-Zahnradgetriebe

**Operation under load**

 Yağ / Oil / Öl :  
 PGLP ISO VG 320

**PB...3-H: Dizayn / Design / Ausführung D**  
**PKD: Dizayn / Design / Ausführung A/2A<sup>6)</sup>**  
 Montaj pozisyonu / Mounting position / Einbaulage **B5-02**
**PB...3-H: Dizayn / Design / Ausführung B**  
**PKD: Dizayn / Design / Ausführung B/2A<sup>6)</sup>**  
 Montaj pozisyonu / Mounting position / Einbaulage **B5-02**


Çıkış / Output / Abtrieb

**PB...3-SH**  
 Mil çıkışı / Solid shaft / Vollwelle

**PB...3-HH**  
 Delik millî / Hollow shaft / Hohlwelle

**PB...3-DH**  
 Delik millî, konik sıkırtmalı  
 Hollow shaft for shrink disk  
 Hohlwelle für Schrumpfscheibe

 1)  $k6 \leq \varnothing 25$   $\varnothing 28 \geq m_6 \leq \varnothing 100$   $n_6 > \varnothing 100$ 

 Kamalar DIN 6885/1'e göre form B merkez kılavuz delikleri için sayfa 244'e bakınız / For parallel key DIN 6885/1 form B and for centre hole, see page 244  
 Passfedern DIN 6885/1 Form B und Zentrierung siehe Seite 244.

2) Kama kanalları DIN 6885/1'e göre / Passfedernut DIN 6885/1 / Keyway DIN 6885/1

**TR ÜÇ KADEMELİ YARDIMCI REDÜKTÖR**  
(Yük Altında Çalışma)

**EN THREE STAGE WITH AUXILIARY DRIVE**  
(Operation Under Load)

**DE DREISTUFIG MIT HILFSANTRIEB**  
(Lastbetrieb)

| Ana Redüktör<br>Main gear unit<br>Hauptgetriebe | Yardımcı redüktör<br>Auxiliary gear unit<br>Hilfsgetriebe | Ölçüler mm / Dimensions in mm / Maße in mm |                |                |                               |                |                |                               |                |                |                               |                |                |                |                |
|-------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|----------------|----------------|
|                                                 |                                                           | Giriş / Input / Antrieb                    |                |                |                               |                |                |                               |                |                |                               |                |                |                |                |
|                                                 |                                                           | i <sub>N</sub> = 25 - 45                   |                |                | i <sub>N</sub> = 25 - 56      |                |                | i <sub>N</sub> = 50 - 71      |                |                | i <sub>N</sub> = 63 - 71      |                |                | G <sub>1</sub> | G <sub>3</sub> |
|                                                 |                                                           | Ød <sub>1</sub> <sup>1)</sup>              | l <sub>1</sub> | l <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> |                |                |
| 43                                              | PKD 1390 80M/4B                                           | 30                                         | 70             | 50             |                               |                |                | 25                            | 60             | 40             |                               |                |                | 500            | 520            |
| 53                                              | PKD 1390 90L/4A                                           | 35                                         | 80             | 60             |                               |                |                | 28                            | 60             | 40             |                               |                |                | 575            | 595            |
| 63                                              | PKD 1390 90L/4A                                           |                                            |                |                | 35                            | 80             | 60             |                               |                |                | 28                            | 60             | 40             | 610            | 630            |
| 73                                              | PKD 2390 100L/4A                                          | 45                                         | 100            | 80             |                               |                |                | 35                            | 80             | 60             |                               |                |                | 690            | 710            |
| 83                                              | PKD 2390 100L/4A                                          |                                            |                |                | 45                            | 100            | 80             |                               |                |                | 35                            | 80             | 60             | 735            | 755            |
| 93                                              | PKD 2390 100L/4A                                          | 55                                         | 110            | 80             |                               |                |                | 40                            | 100            | 70             |                               |                |                | 800            | 830            |
| 103                                             | PKD 2390 100L/4A                                          |                                            |                |                | 55                            | 110            | 80             |                               |                |                | 40                            | 100            | 70             | 850            | 880            |
| 113                                             | PKD 3390 100L/4B                                          | 70                                         | 135            | 105            |                               |                |                | 50                            | 110            | 80             |                               |                |                | 960            | 990            |
| 123                                             | PKD 3390 100L/4B                                          |                                            |                |                | 70                            | 135            | 105            |                               |                |                | 50                            | 110            | 80             | 1030           | 1060           |

| Boyut<br>Size<br>Größe | Ölçüler mm / Dimensions in mm / Maße in mm |                |                |     |                |    |                 |                |     |                |                |     |     |                |                |                |                |    |                |                |                |                |                |     |
|------------------------|--------------------------------------------|----------------|----------------|-----|----------------|----|-----------------|----------------|-----|----------------|----------------|-----|-----|----------------|----------------|----------------|----------------|----|----------------|----------------|----------------|----------------|----------------|-----|
|                        | Redüktör / Gear units / Zahnradgetriebe    |                |                |     |                |    |                 |                |     |                |                |     |     |                |                |                |                |    |                |                |                |                |                |     |
|                        | a                                          | A <sub>1</sub> | A <sub>2</sub> | b   | B <sub>1</sub> | c  | Ød <sub>6</sub> | e <sub>3</sub> | E   | G <sub>6</sub> | G <sub>8</sub> | h   | H   | m <sub>1</sub> | m <sub>3</sub> | n <sub>1</sub> | n <sub>2</sub> | Øs | L <sub>1</sub> | L <sub>3</sub> | L <sub>4</sub> | L <sub>5</sub> | L <sub>6</sub> | ØD  |
| 43                     | 569                                        | 197            | 202            | 217 | 145            | 30 | 110             | 110            | 270 | 530            | 204            | 200 | 420 | 355            | 180            | 107            | 85             | 19 | 480            | 125            | 435            | 145            | 112            | 129 |
| 53                     | 644                                        | 222            | 237            | 257 | 170            | 30 | 130             | 130            | 315 | 605            | 223            | 230 | 487 | 430            | 220            | 107            | 100            | 19 | 485            | 125            | 478            | 175            | 112            | 154 |
| 63                     | 724                                        | 222            | 237            | 257 | 170            | 30 | 130             | 130            | 350 | 640            | 223            | 230 | 487 | 510            | 220            | 107            | 145            | 19 | 485            | 125            | 478            | 175            | 112            | 154 |
| 73                     | 789                                        | 277            | 277            | 302 | 195            | 37 | 165             | 160            | 385 | 720            | 281            | 280 | 577 | 545            | 260            | 122            | 130            | 24 | 587            | 150            | 529            | 220            | 143            | 179 |
| 83                     | 894                                        | 277            | 277            | 302 | 195            | 37 | 165             | 160            | 430 | 765            | 281            | 280 | 587 | 650            | 260            | 122            | 190            | 24 | 587            | 150            | 529            | 220            | 143            | 179 |
| 93                     | 929                                        | 317            | 327            | 372 | 233            | 42 | 175             | 185            | 450 | 845            | 317            | 320 | 667 | 635            | 320            | 147            | 155            | 28 | 667            | 175            | 529            | 265            | 143            | 194 |
| 103                    | 1029                                       | 317            | 327            | 372 | 233            | 42 | 175             | 185            | 500 | 895            | 317            | 320 | 667 | 735            | 320            | 147            | 205            | 28 | 667            | 175            | 529            | 265            | 143            | 194 |
| 113                    | 1109                                       | 372            | 387            | 432 | 265            | 52 | 190             | 225            | 545 | 1010           | 368            | 380 | 787 | 775            | 370            | 167            | 180            | 35 | 765            | 225            | 541            | 325            | 180            | 237 |
| 123                    | 1264                                       | 372            | 387            | 432 | 265            | 52 | 190             | 225            | 615 | 1080           | 368            | 380 | 795 | 930            | 370            | 167            | 265            | 35 | 765            | 225            | 541            | 325            | 180            | 237 |

| Boyut<br>Size<br>Größe | Ölçüler mm / Dimensions in mm / Maße in mm |                |                |                               |                |                 |                 |                |                | Yağ / Oil / Öl          |                        | Ağırlık / Weight<br>Gewicht |                        |
|------------------------|--------------------------------------------|----------------|----------------|-------------------------------|----------------|-----------------|-----------------|----------------|----------------|-------------------------|------------------------|-----------------------------|------------------------|
|                        | Çıkış / Output / Abtrieb                   |                |                |                               |                |                 |                 |                |                |                         |                        |                             |                        |
|                        | PB...3-SH                                  |                |                | PB...3-HH                     |                | PB...3-DH       |                 |                |                | TMGB14-B5 <sup>4)</sup> | PB...3-H <sup>3)</sup> | TMGB14-B5 <sup>4)</sup>     | PB...3-H <sup>3)</sup> |
|                        | Ød <sub>2</sub> <sup>1)</sup>              | G <sub>2</sub> | l <sub>2</sub> | ØD <sub>2</sub> <sup>2)</sup> | G <sub>4</sub> | ØD <sub>2</sub> | ØD <sub>3</sub> | G <sub>4</sub> | G <sub>5</sub> | (l)                     | (l)                    | (kg)                        | (kg)                   |
| 43                     | 80                                         | 140            | 170            | 80                            | 140            | 85              | 85              | 140            | 205            | 2.5                     | 10                     | 43                          | 245                    |
| 53                     | 100                                        | 165            | 210            | 95                            | 165            | 100             | 100             | 165            | 240            | 2.5                     | 16                     | 45                          | 360                    |
| 63                     | 110                                        | 165            | 210            | 105                           | 165            | 110             | 110             | 165            | 240            | 2.5                     | 17                     | 45                          | 410                    |
| 73                     | 120                                        | 195            | 210            | 115                           | 195            | 120             | 120             | 195            | 280            | 4.3                     | 30                     | 64                          | 620                    |
| 83                     | 130                                        | 195            | 250            | 125                           | 195            | 130             | 130             | 195            | 285            | 4.3                     | 33                     | 64                          | 700                    |
| 93                     | 140                                        | 235            | 250            | 135                           | 235            | 140             | 145             | 235            | 330            | 4.3                     | 45                     | 64                          | 980                    |
| 103                    | 160                                        | 235            | 300            | 150                           | 235            | 150             | 155             | 235            | 350            | 4.3                     | 48                     | 64                          | 1220                   |
| 113                    | 170                                        | 270            | 300            | 165                           | 270            | 165             | 170             | 270            | 400            | 7.4                     | 79                     | 89                          | 1615                   |
| 123                    | 180                                        | 270            | 300            | 180                           | 270            | 180             | 185             | 270            | 405            | 7.4                     | 84                     | 89                          | 1890                   |

3) Diğer bilgilere ve ölçülere PKD kataloğundan ulaşabilirsiniz.

4) Diğer ölçüler ve bilgiler için gerekli kataloglara bakınız.

6) B/2A tasarım mümkündür.

3) Other data and dimensions acc. to PKD catalog.

4) Other data and dimensions acc.

6) Design B/2A is possible.

3) Sonst. Daten und Abmessungen nach Katalog

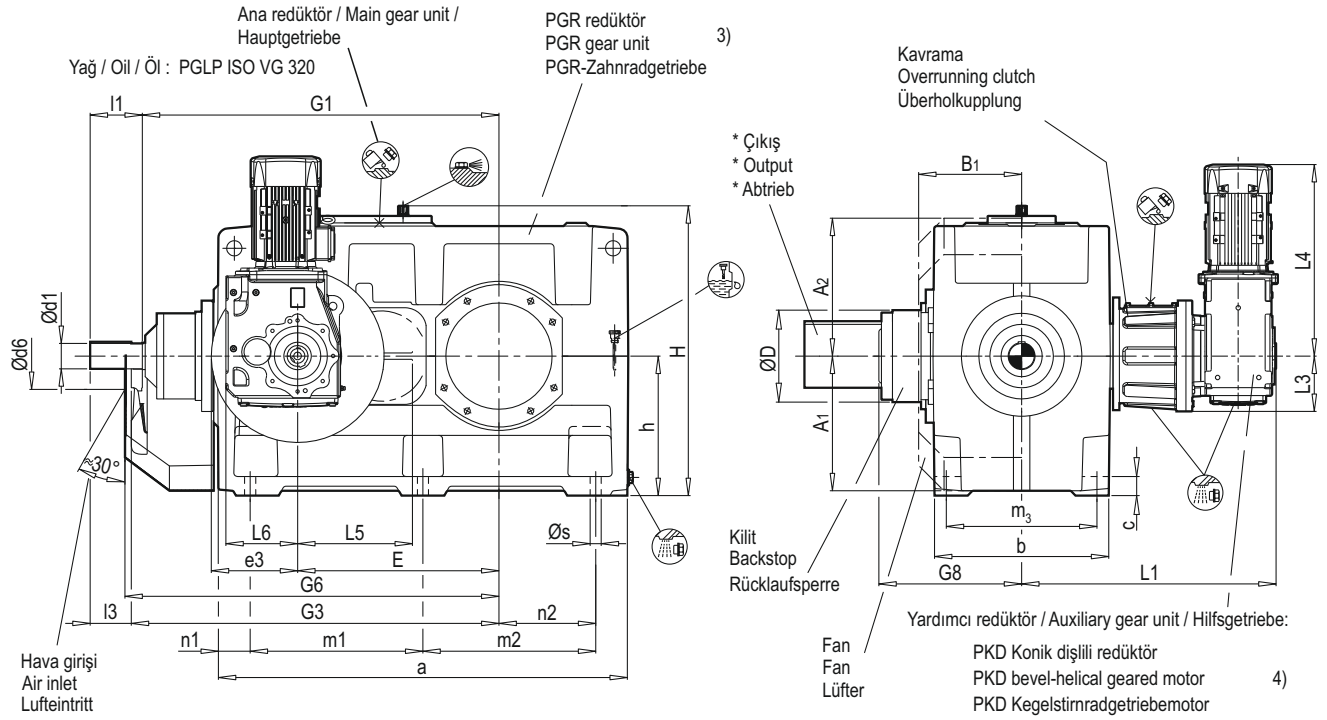
4) Sonst. Daten und Abmessungen nach Katalog

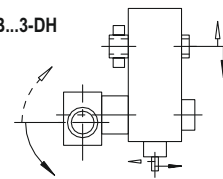
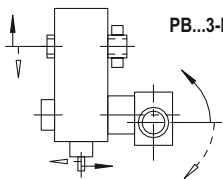
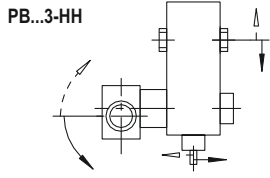
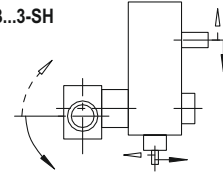
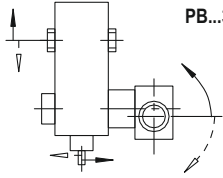
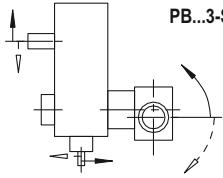
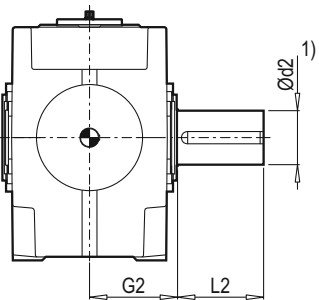
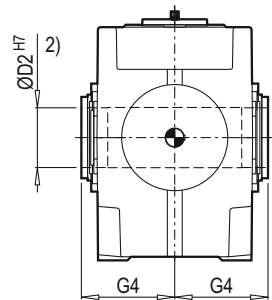
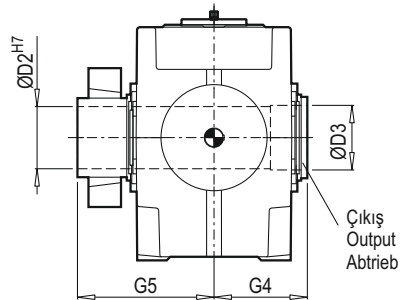
6) Ausführung B/2A ist möglich.


**ÜÇ KADEMELİ YARDIMCI REDÜKTÖR**  
 (Yük Altında Çalışma)

**THREE STAGE WITH AUXILIARY DRIVE**  
 (Operation Under Load)

**DREISTUFIG MIT HILFSANTRIEB**  
 (Lastbetrieb)

**PB...3-SH PB...3-HH PB...3-DH**

**PB...3-H:** Dizayn / Design / Ausführung D  
**PKD:** Dizayn / Design / Ausführung A/2A<sup>6)</sup>  
 Montaj pozisyonu / Mounting position / Einbaulage B5-02

**PB...3-H:** Dizayn / Design / Ausführung B  
**PKD:** Dizayn / Design / Ausführung B/2A<sup>6)</sup>  
 Montaj pozisyonu / Mounting position / Einbaulage B5-02

**Çıkış / Output / Abtrieb**
**PB...3-SH**  
 Mil çıkışlı / Solid shaft  
 Vollwelle

**PB...3-HH**  
 Delik millî / Hollow shaft  
 Hohlwelle

**PB...3-DH**  
 Delik millî, konik sıkırtmalı  
 Hollow shaft for shrink disk  
 Hohlwelle für Schrumpfscheibe

 1)  $m_6 \leq \varnothing 100$   $n_6 > \varnothing 100$ 

 Kamalar DIN 6885/1'e göre form B merkez klavuz delikleri için sayfa 244'ye bakınız / For parallel key DIN 6885/1 form B and for centre hole, see page 244  
 Passfedern DIN 6885/1 Form B und Zentrierung siehe Seite 244

2) Kama kanalları DIN 6885/1'e göre / Passfedernut DIN 6885/1 / Keyway DIN 6885/1

**TR ÜÇ KADEMELİ YARDIMCI REDÜKTÖR**  
(Yük Altında Çalışma)

**EN THREE STAGE WITH AUXILIARY DRIVE**  
(Operation Under Load)

**DE DREISTUFIG MIT HILFSANTRIEB**  
(Lastbetrieb)

| Ana Redüktör<br>Main gear unit<br>Hauptgetriebe | Yardımcı redüktör<br>Auxiliary gear unit<br>Hilfsgetriebe | Ölçüler mm / Dimensions in mm / Maße in mm |                |                |                               |                |                |                               |                |                |                               |                |                |                               |                |                |                               |                |                |
|-------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|
|                                                 |                                                           | Giriş / Input / Antrieb                    |                |                |                               |                |                |                               |                |                |                               |                |                |                               |                |                |                               |                |                |
|                                                 |                                                           | i <sub>N</sub> = 25 - 45                   |                |                | i <sub>N</sub> = 25 - 50      |                |                | i <sub>N</sub> = 25 - 56      |                |                | i <sub>N</sub> = 50 - 71      |                |                | i <sub>N</sub> = 56 - 71      |                |                | i <sub>N</sub> = 63 - 71      |                |                |
|                                                 |                                                           | Ød <sub>1</sub> <sup>1)</sup>              | l <sub>1</sub> | l <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> |
| 133                                             | PKD 3390 112M/4B                                          | 80                                         | 165            | 130            |                               |                |                |                               |                |                | 60                            | 140            | 105            |                               |                |                |                               |                |                |
| 143                                             | PKD 3390 112M/4B                                          |                                            |                |                |                               |                |                | 80                            | 165            | 130            |                               |                |                |                               |                |                | 60                            | 140            | 105            |
| 153                                             | PKD 3390 112M/4B                                          | 90                                         | 165            | 130            |                               |                |                |                               |                |                | 70                            | 140            | 105            |                               |                |                |                               |                |                |
| 163                                             | PKD 3390 112M/4B                                          |                                            |                |                | 90                            | 165            | 130            |                               |                |                |                               |                |                | 70                            | 140            | 105            |                               |                |                |
| 173                                             | PKD 3390 112M/4B                                          | 110                                        | 205            | 165            |                               |                |                |                               |                |                | 80                            | 170            | 130            |                               |                |                |                               |                |                |
| 183                                             | PKD 3390 112M/4B                                          |                                            |                |                | 110                           | 205            | 165            |                               |                |                |                               |                |                | 80                            | 170            | 130            |                               |                |                |

| Boyut<br>Size<br>Größe | Ölçüler mm / Dimensions in mm / Maße in mm |                |                |     |                |    |                 |                |     |                |                |     |      |                |                |                |                |                |    |                |                |                |                |                |     |
|------------------------|--------------------------------------------|----------------|----------------|-----|----------------|----|-----------------|----------------|-----|----------------|----------------|-----|------|----------------|----------------|----------------|----------------|----------------|----|----------------|----------------|----------------|----------------|----------------|-----|
|                        | Redüktör / Gear units / Zahnradgetriebe    |                |                |     |                |    |                 |                |     |                |                |     |      |                |                |                |                |                |    |                |                |                |                |                |     |
|                        | a                                          | A <sub>1</sub> | A <sub>2</sub> | b   | B <sub>1</sub> | c  | Ød <sub>6</sub> | e <sub>3</sub> | E   | G <sub>6</sub> | G <sub>8</sub> | h   | H    | m <sub>1</sub> | m <sub>2</sub> | m <sub>3</sub> | n <sub>1</sub> | n <sub>2</sub> | Øs | L <sub>1</sub> | L <sub>3</sub> | L <sub>4</sub> | L <sub>5</sub> | L <sub>6</sub> | ØD  |
| 133                    | 1294                                       | 427            | 437            | 552 | 327            | 62 | 210             | 265            | 635 | 1180           | 451            | 440 | 905  | 545            | 545            | 475            | 102            | 305            | 35 | 815            | 273            | 586            | 367            | 180            | 291 |
| 143                    | 1434                                       | 427            | 437            | 552 | 327            | 62 | 210             | 265            | 705 | 1250           | 451            | 440 | 905  | 545            | 685            | 475            | 102            | 375            | 35 | 815            | 273            | 586            | 367            | 180            | 291 |
| 153                    | 1554                                       | 487            | 522            | 627 | 367            | 72 | 210             | 320            | 762 | 1420           | 497            | 500 | 1005 | 655            | 655            | 535            | 122            | 365            | 42 | 865            | 300            | 586            | 448            | 180            | 323 |
| 163                    | 1644                                       | 487            | 522            | 627 | 367            | 72 | 210             | 320            | 808 | 1470           | 497            | 500 | 1005 | 655            | 745            | 535            | 122            | 410            | 42 | 865            | 300            | 586            | 448            | 180            | 323 |
| 173                    | 1744                                       | 537            | 572            | 572 | 397            | 82 | 230             | 370            | 860 | 1620           | 564            | 550 | 1115 | 735            | 735            | 600            | 137            | 390            | 42 | 905            | 333            | 586            | 525            | 180            | 413 |
| 183                    | 1864                                       | 537            | 572            | 572 | 397            | 82 | 230             | 370            | 920 | 1680           | 564            | 550 | 1115 | 735            | 855            | 600            | 137            | 450            | 42 | 905            | 333            | 586            | 525            | 180            | 413 |

| Boyut<br>Size<br>Größe | Ölçüler mm / Dimensions is mm / Maße in mm |                |                |                               |                |                 |                 |                |                | Yağ / Oil / Öl          |                        | Ağırlık / Weight<br>Gewicht |                        |
|------------------------|--------------------------------------------|----------------|----------------|-------------------------------|----------------|-----------------|-----------------|----------------|----------------|-------------------------|------------------------|-----------------------------|------------------------|
|                        | Çıkış / Output / Abtrieb                   |                |                |                               |                |                 |                 |                |                |                         |                        |                             |                        |
|                        | PB...3-SH                                  |                |                | PB...3-HH                     |                | PB...3-DH       |                 |                |                | TMGB14-B5 <sup>4)</sup> | PB...3-H <sup>3)</sup> | TMGB14-B5 <sup>4)</sup>     | PB...3-H <sup>3)</sup> |
|                        | Ød <sub>2</sub> <sup>1)</sup>              | G <sub>2</sub> | l <sub>2</sub> | ØD <sub>2</sub> <sup>2)</sup> | G <sub>4</sub> | ØD <sub>2</sub> | ØD <sub>3</sub> | G <sub>4</sub> | G <sub>5</sub> | (l)                     | (l)                    | (kg)                        | (kg)                   |
| 133                    | 200                                        | 335            | 350            | 190                           | 335            | 190             | 195             | 335            | 480            | 7.4                     | 145                    | 96                          | 2595                   |
| 143                    | 210                                        | 335            | 350            | 210                           | 335            | 210             | 215             | 335            | 480            | 7.4                     | 155                    | 96                          | 2945                   |
| 153                    | 230                                        | 380            | 410            | 230                           | 380            | 230             | 235             | 380            | 550            | 7.4                     | 230                    | 96                          | 4010                   |
| 163                    | 240                                        | 380            | 410            | 240                           | 380            | 240             | 245             | 380            | 550            | 7.4                     | 240                    | 96                          | 4275                   |
| 173                    | 250                                        | 415            | 410            | 250                           | 415            | 250             | 260             | 415            | 600            | 7.4                     | 315                    | 96                          | 5485                   |
| 183                    | 270                                        | 415            | 410            | 275                           | 415            | 280             | 285             | 415            | 600            | 7.4                     | 315                    | 96                          | 5940                   |

3) Diğer bilgilere ve ölçülere PKD kataloğundan ulaşabilirsiniz.

4) Diğer ölçüler ve bilgiler için gerekli kataloğlara bakınız.

6) B/2A tasarım mümkündür.

3) Other data and dimensions acc. to PKD catalog page...

4) Other data and dimensions acc. to page..

6) Design B/2A is possible.

3) Sonst. Daten und Abmessungen nach Katalog

4) Sonst. Daten und Abmessungen nach Katalog

6) Ausführung B/2A ist möglich.


**ÜÇ KADEMELİ YARDIMCI REDÜKTÖR**  
 (Yük Altında Çalışma)

**THREE STAGE WITH AUXILIARY DRIVE**  
 (Operation Under Load)

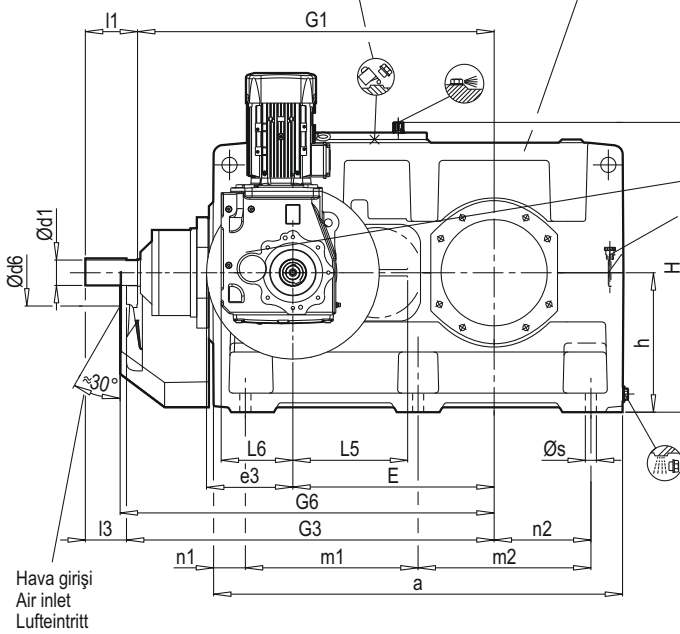
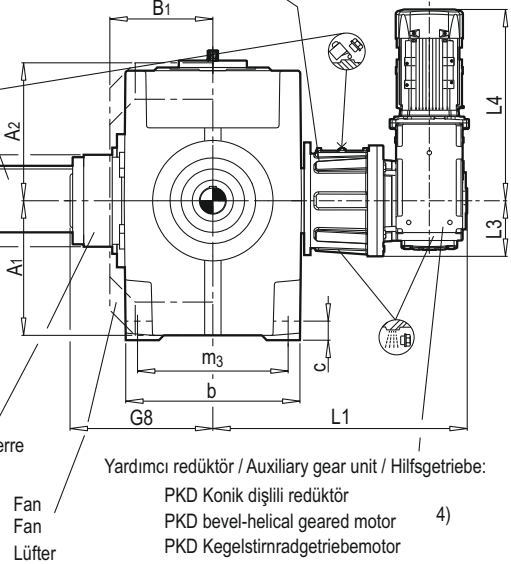
**DREISTUFIG MIT HILFSANTRIEB**  
 (Lastbetrieb)

**PB...3-SH PB...3-HH PB...3-DH**

Ana redüktör / Main gear unit / Hauptgetriebe

Yağ / Oil / Öl : PGLP ISO VG 320

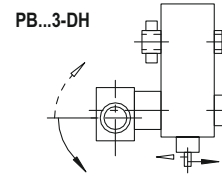
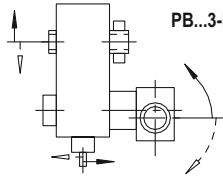
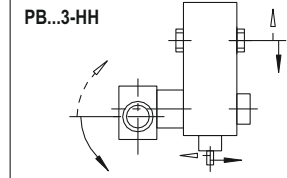
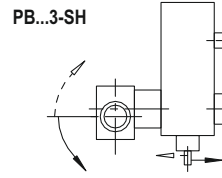
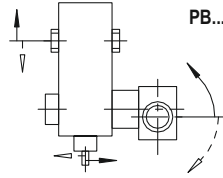
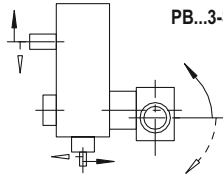
 PGR redüktör  
 PGR gear unit  
 PGR-Zahnradgetriebe 3)

 Kavrama  
 Overrunning clutch  
 Überholkupplung

 \* Çıkış  
 \* Output  
 \* Abtrieb

**PB...3-H: Dizayn / Design / Ausführung D**
**PKD:** Dizayn / Design / Ausführung A/2A6)

Montaj pozisyonu / Mounting position / Einbaulage B5-02

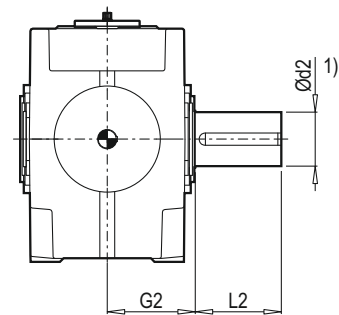
**PB...3-H: Dizayn / Design / Ausführung B**
**PKD:** Dizayn / Design / Ausführung B/2A6)

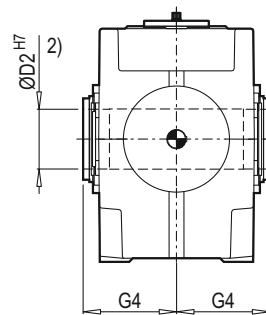
Montaj pozisyonu / Mounting position / Einbaulage B5-02

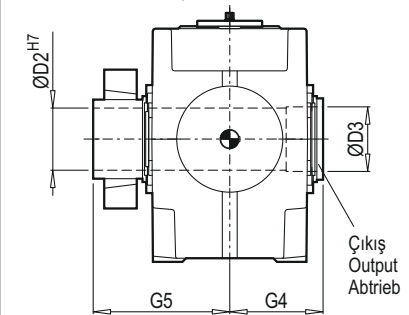


Çıkış / Output / Abtrieb

**PB...3-SH**

 Mil çıkışlı / Solid shaft  
 Vollwelle

**PB...3-HH**

 Delik mili / Hollow shaft  
 Hohlwelle

**PB...3-DH**

 Delik milli, konik sıkırtmalı  
 Hollow shaft for shrink disk  
 Hohlwelle für Schrumpfscheibe

 1)  $m_6 \leq \emptyset 100$   $n_6 > \emptyset 100$ 

 Kamalar DIN 6885/1'e göre form B merkez klavuz delikleri için sayfa 244'ye bakınız / For parallel key DIN 6885/1 form B and for centre hole, see page 244  
 Passfedern DIN 6885/1 Form B und Zentrierung siehe Seite 244

2) Kama kanalları DIN 6885/1'e göre / Passfedernut DIN 6885/1 / Keyway DIN 6885/1

**TR ÜÇ KADEMELİ YARDIMCI REDÜKTÖR**  
(Yük Altında Çalışma)

**EN THREE STAGE WITH AUXILIARY DRIVE**  
(Operation Under Load)

**DE DREISTUFIG MIT HILFSANTRIEB**  
(Lastbetrieb)

| Ana redüktör<br>Main gear unit<br>Hauptgetriebe | Yardımcı redüktör<br>Auxiliary gear unit<br>Hilfsgetriebe | Ölçüler mm / Dimensions in mm / Maße in mm |                |                |                               |                |                |                               |                |                |                               |                |                |                |                |
|-------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|----------------|----------------|
|                                                 |                                                           | Giriş / Input / Antrieb                    |                |                |                               |                |                |                               |                |                |                               |                |                |                |                |
|                                                 |                                                           | i <sub>N</sub> = 25 - 45                   |                |                | i <sub>N</sub> = 25 - 56      |                |                | i <sub>N</sub> = 50 - 71      |                |                | i <sub>N</sub> = 63 - 71      |                |                | G <sub>1</sub> | G <sub>3</sub> |
|                                                 |                                                           | Ød <sub>1</sub> <sup>1)</sup>              | l <sub>1</sub> | l <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> |                |                |
| 43                                              | PKD 1390 90S/4A                                           | 30                                         | 70             | 50             |                               |                |                | 25                            | 60             | 40             |                               |                |                | 500            | 520            |
| 53                                              | PKD 2390 100L/4A                                          | 35                                         | 80             | 60             |                               |                |                | 28                            | 60             | 40             |                               |                |                | 575            | 595            |
| 63                                              | PKD 2390 100L/4A                                          |                                            |                |                | 35                            | 80             | 60             |                               |                |                | 28                            | 60             | 40             | 610            | 630            |
| 73                                              | PKD 3390 112M/4B                                          | 45                                         | 100            | 80             |                               |                |                | 35                            | 80             | 60             |                               |                |                | 690            | 710            |
| 83                                              | PKD 3390 112M/4B                                          |                                            |                |                | 45                            | 100            | 80             |                               |                |                | 35                            | 80             | 60             | 735            | 755            |
| 93                                              | PKD 3390 132S/4C                                          | 55                                         | 110            | 80             |                               |                |                | 40                            | 100            | 70             |                               |                |                | 800            | 830            |
| 103                                             | PKD 3390 132S/4C                                          |                                            |                |                | 55                            | 110            | 80             |                               |                |                | 40                            | 100            | 70             | 850            | 880            |
| 113                                             | PKD 4390 132M/4                                           | 70                                         | 135            | 105            |                               |                |                | 50                            | 110            | 80             |                               |                |                | 960            | 990            |
| 123                                             | PKD 4390 132M/4                                           |                                            |                |                | 70                            | 135            | 105            |                               |                |                | 50                            | 110            | 80             | 1030           | 1060           |

| Boyut<br>Size<br>Größe | Ölçüler mm / Dimensions in mm / Maße in mm |                |                |     |                |    |                 |                |     |                |                |     |     |                |                |                |                |    |                |                |                |                |                |     |
|------------------------|--------------------------------------------|----------------|----------------|-----|----------------|----|-----------------|----------------|-----|----------------|----------------|-----|-----|----------------|----------------|----------------|----------------|----|----------------|----------------|----------------|----------------|----------------|-----|
|                        | Redüktör / Gear units / Zahnradgetriebe    |                |                |     |                |    |                 |                |     |                |                |     |     |                |                |                |                |    |                |                |                |                |                |     |
|                        | a                                          | A <sub>1</sub> | A <sub>2</sub> | b   | B <sub>1</sub> | c  | Ød <sub>6</sub> | e <sub>3</sub> | E   | G <sub>6</sub> | G <sub>8</sub> | h   | H   | m <sub>1</sub> | m <sub>3</sub> | n <sub>1</sub> | n <sub>2</sub> | Øs | L <sub>1</sub> | L <sub>3</sub> | L <sub>4</sub> | L <sub>5</sub> | L <sub>6</sub> | ØD  |
| 43                     | 569                                        | 197            | 202            | 217 | 145            | 30 | 110             | 110            | 270 | 530            | 204            | 200 | 420 | 355            | 180            | 107            | 85             | 19 | 483            | 125            | 478            | 142            | 112            | 129 |
| 53                     | 644                                        | 222            | 237            | 257 | 170            | 30 | 130             | 130            | 315 | 605            | 223            | 230 | 487 | 430            | 220            | 107            | 100            | 19 | 513            | 125            | 529            | 170            | 143            | 154 |
| 63                     | 724                                        | 222            | 237            | 257 | 170            | 30 | 130             | 130            | 350 | 640            | 223            | 230 | 487 | 510            | 220            | 107            | 145            | 19 | 513            | 125            | 629            | 170            | 143            | 154 |
| 73                     | 789                                        | 277            | 277            | 302 | 195            | 37 | 165             | 160            | 385 | 720            | 281            | 280 | 577 | 545            | 260            | 122            | 130            | 24 | 636            | 150            | 586            | 215            | 180            | 179 |
| 83                     | 894                                        | 277            | 277            | 302 | 195            | 37 | 165             | 160            | 430 | 765            | 281            | 280 | 587 | 650            | 260            | 122            | 190            | 24 | 636            | 150            | 586            | 215            | 180            | 179 |
| 93                     | 929                                        | 317            | 327            | 372 | 233            | 42 | 175             | 185            | 450 | 845            | 317            | 320 | 667 | 635            | 320            | 147            | 155            | 28 | 718            | 175            | 593            | 260            | 180            | 194 |
| 103                    | 1029                                       | 317            | 327            | 372 | 233            | 42 | 175             | 185            | 500 | 895            | 317            | 320 | 667 | 735            | 320            | 147            | 205            | 28 | 718            | 175            | 593            | 260            | 180            | 194 |
| 113                    | 1109                                       | 372            | 387            | 432 | 265            | 52 | 190             | 225            | 545 | 1010           | 368            | 380 | 787 | 775            | 370            | 167            | 180            | 35 | 802            | 225            | 648            | 320            | 217            | 237 |
| 123                    | 1264                                       | 372            | 387            | 432 | 265            | 52 | 190             | 225            | 615 | 1080           | 368            | 380 | 795 | 930            | 370            | 167            | 265            | 35 | 802            | 225            | 648            | 320            | 217            | 237 |

| Boyut<br>Size<br>Größe | Ölçüler mm / Dimensions in mm / Maße in mm |                |                |                               |                |                 |                 |                |                | Yağ / Oil / Öl          |                        | Ağırlık / Weight<br>Gewicht |                        |
|------------------------|--------------------------------------------|----------------|----------------|-------------------------------|----------------|-----------------|-----------------|----------------|----------------|-------------------------|------------------------|-----------------------------|------------------------|
|                        | Çıkış / Output / Abtrieb                   |                |                |                               |                |                 |                 |                |                |                         |                        |                             |                        |
|                        | PB...3-SH                                  |                |                | PB...3-HH                     |                | PB...3-DH       |                 |                |                | TMGB14-B5 <sup>4)</sup> | PB...3-H <sup>3)</sup> | TMGB14-B5 <sup>4)</sup>     | PB...3-H <sup>3)</sup> |
|                        | Ød <sub>2</sub> <sup>1)</sup>              | G <sub>2</sub> | l <sub>2</sub> | ØD <sub>2</sub> <sup>2)</sup> | G <sub>4</sub> | ØD <sub>2</sub> | ØD <sub>3</sub> | G <sub>4</sub> | G <sub>5</sub> | (l)                     | (l)                    | (kg)                        | (kg)                   |
| 43                     | 80                                         | 140            | 170            | 80                            | 140            | 85              | 85              | 140            | 205            | 2                       | 10                     | 45                          | 245                    |
| 53                     | 100                                        | 165            | 210            | 95                            | 165            | 100             | 100             | 165            | 240            | 2.65                    | 16                     | 64                          | 360                    |
| 63                     | 110                                        | 165            | 210            | 105                           | 165            | 110             | 110             | 165            | 240            | 2.65                    | 17                     | 64                          | 410                    |
| 73                     | 120                                        | 195            | 210            | 115                           | 195            | 120             | 120             | 195            | 280            | 7.4                     | 30                     | 96                          | 620                    |
| 83                     | 130                                        | 195            | 250            | 125                           | 195            | 130             | 130             | 195            | 285            | 7.4                     | 33                     | 96                          | 700                    |
| 93                     | 140                                        | 235            | 250            | 135                           | 235            | 140             | 145             | 235            | 330            | 7.4                     | 45                     | 112                         | 980                    |
| 103                    | 160                                        | 235            | 300            | 150                           | 235            | 150             | 155             | 235            | 350            | 7.4                     | 48                     | 112                         | 1220                   |
| 113                    | 170                                        | 270            | 300            | 165                           | 270            | 165             | 170             | 270            | 400            | 11.6                    | 79                     | 171                         | 1615                   |
| 123                    | 180                                        | 270            | 300            | 180                           | 270            | 180             | 185             | 270            | 405            | 11.6                    | 84                     | 171                         | 1890                   |

3) Diğer bilgilere ve ölçülere PKD kataloğundan ulaşabilirsiniz.

3) Other data and dimensions acc. to PKD catalog.

3) Sonst. Daten und Abmessungen nach Katalog.

4) Diğer ölçüler ve bilgiler için gerekli kataloğlara bakınız.

4) Other data and dimensions acc. to page..

4) Sonst. Daten und Abmessungen nach Katalog

6) B/2A tasarımı mümkündür.

6) Design B/2A is possible.

6) Ausführung B/2A ist möglich.


**ÜÇ KADEMELİ YARDIMCI REDÜKTÖR**  
 (Yük Altında Çalışma)

**THREE STAGE WITH AUXILIARY DRIVE**  
 (Operation Under Load)

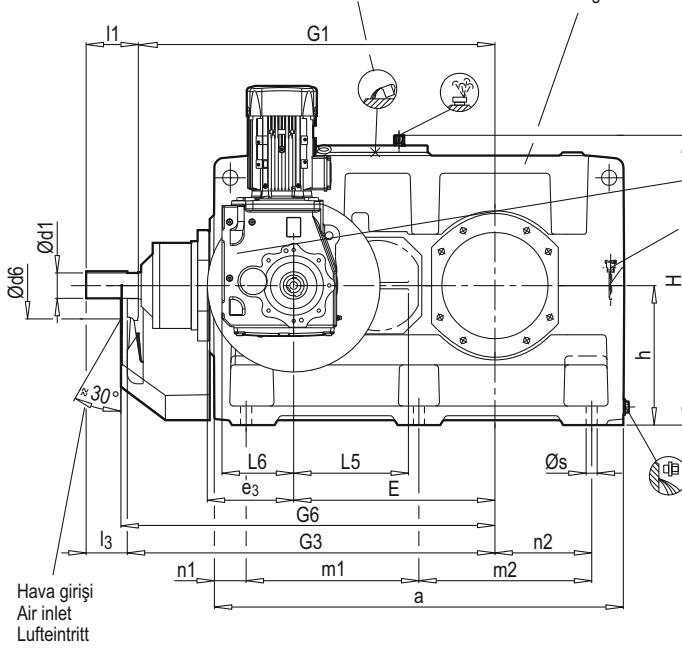
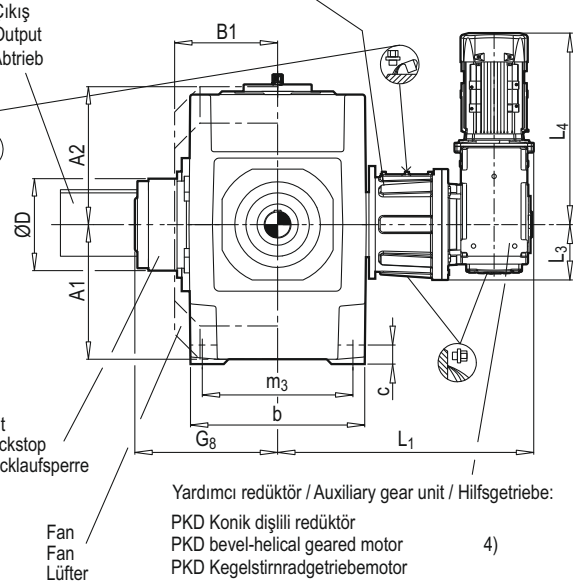
**DREISTUFIG MIT HILFSANTRIEB**  
 (Lastbetrieb)

**PB...3-SH PB...3-HH PB...3-DH**

 Ana redüktör / Main gear unit / Hauptgetriebe  
 Yağ / Oil / Öl: PGLP ISO VG 320

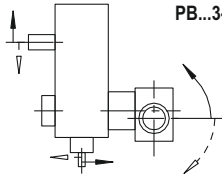
 PGR-Redüktör  
 PGR gear unit  
 PGR-Zahnradgetriebe

3)

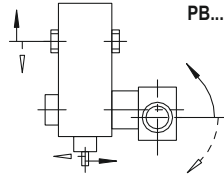
 Kavrama  
 Overrunning clutch  
 Überholkupplung

 \* Çıkış  
 \* Output  
 \* Abtrieb

 Yardımcı redüktör / Auxiliary gear unit / Hilfsgetriebe:  
 PKD Konik dişli redüktör  
 PKD bevel-helical geared motor  
 PKD Kegelmotor

4)

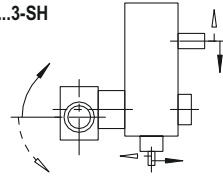
**PB...3-H:** Dizayn / Design / Ausführung D  
**PKD:** Dizayn / Design / Ausführung A/2A<sup>6)</sup>  
 Montaj pozisyonu / Mounting position / Einbaulage B5-02

**PB...3-H:** Dizayn / Design / Ausführung B  
**PKD:** Dizayn / Design / Ausführung B/2A<sup>6)</sup>  
 Montaj pozisyonu / Mounting position / Einbaulage B5-02


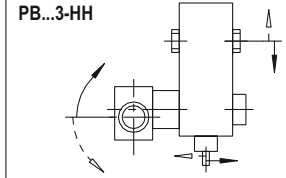
PB...3-SH



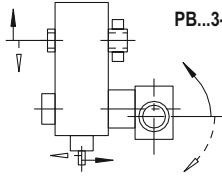
PB...3-HH



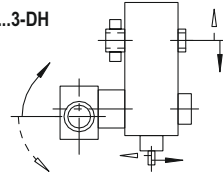
PB...3-SH



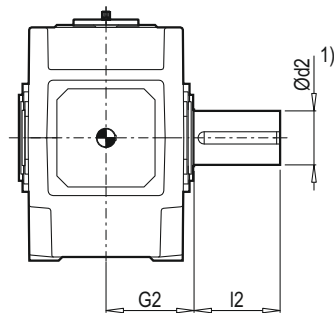
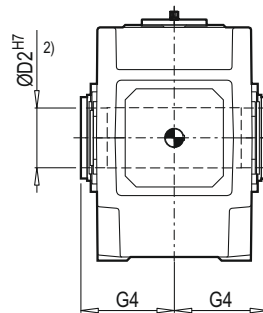
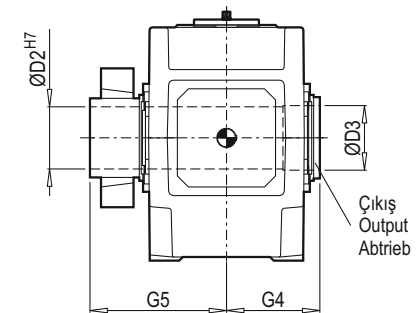
PB...3-HH



PB...3-DH



PB...3-DH

**Çıkış / Output / Abtrieb**
**PB...3-SH**  
 Mil çıkışlı / Solid shaft  
 Vollwelle

**PB...3-HH**  
 Delik millî / Hollow shaft  
 Hohlwelle

**PB...3-DH**  
 Delik millî konik sıkırtmalı  
 Hollow shaft for shrink disk  
 Hohlwelle für Schrumpfscheibe

 1)  $m_6 \leq \varnothing 100$   $n_6 > \varnothing 100$ 

 Kamalar DIN 6885/1'e göre form B merkez klavuz delikleri için sayfa 244'ye bakınız / For parallel key DIN 6885/1 form B and for centre hole, see page 244  
 Passfedern DIN 6885/1 Form B und Zentrierung siehe Seite 244

2) Kama kanalları DIN 6885/1'e göre / Passfedernut DIN 6885/1/Keyway DIN 6885/1

**TR ÜÇ KADEMELİ YARDIMCI REDÜKTÖR**  
(Yük Altında Çalışma)

**EN THREE STAGE WITH AUXILIARY DRIVE**  
(Operation Under Load)

**DE DREISTUFIG MIT HILFSANTRIEB**  
(Lastbetrieb)

| Ana redüktör<br>Main gear unit<br>Hauptgetriebe | Yardımcı redüktör<br>Auxiliary gear unit<br>Hilfsgetriebe            | Ölçüler mm / Dimensions in mm / Maße in mm |                |                |                               |                |                |                               |                |                |                               |                |                |                               |                |                |                               |                |                |
|-------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|
|                                                 |                                                                      | Giriş / Input / Antrieb                    |                |                |                               |                |                |                               |                |                |                               |                |                |                               |                |                |                               |                |                |
|                                                 |                                                                      | i <sub>N</sub> = 25 - 45                   |                |                | i <sub>N</sub> = 25 - 50      |                |                | i <sub>N</sub> = 25 - 56      |                |                | i <sub>N</sub> = 50 - 71      |                |                | i <sub>N</sub> = 56 - 71      |                |                | i <sub>N</sub> = 63 - 71      |                |                |
|                                                 |                                                                      | Ød <sub>1</sub> <sup>1)</sup>              | I <sub>1</sub> | I <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | I <sub>1</sub> | I <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | I <sub>1</sub> | I <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | I <sub>1</sub> | I <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | I <sub>1</sub> | I <sub>3</sub> | Ød <sub>1</sub> <sup>1)</sup> | I <sub>1</sub> | I <sub>3</sub> |
| Boyut / Size / Größe                            | Tip / Boyut / Motor<br>Type / Size / Motor<br>Bauart / Größe / Motor |                                            |                |                |                               |                |                |                               |                |                |                               |                |                |                               |                |                |                               | G <sub>1</sub> | G <sub>3</sub> |
| 133                                             | PKD 5390 180M/4B                                                     | 80                                         | 165            | 130            |                               |                |                |                               |                |                | 60                            | 140            | 105            |                               |                |                |                               | 1125           | 1160           |
| 143                                             | PKD 5390 180M/4B                                                     |                                            |                |                |                               |                |                | 80                            | 165            | 130            |                               |                |                |                               |                |                | 60                            | 140            | 105            |
| 153                                             | PKD 8390 200L/4C                                                     | 90                                         | 165            | 130            |                               |                |                |                               |                |                | 70                            | 140            | 105            |                               |                |                |                               | 1367           | 1402           |
| 163                                             | PKD 8390 200L/4C                                                     |                                            |                |                | 90                            | 165            | 130            |                               |                |                |                               |                |                | 70                            | 140            | 105            |                               | 1413           | 1448           |
| 173                                             | PKD 8390 225S/4A                                                     | 110                                        | 205            | 165            |                               |                |                |                               |                |                | 80                            | 170            | 130            |                               |                |                |                               | 1560           | 1600           |
| 183                                             | PKD 8390 225S/4A                                                     |                                            |                |                | 110                           | 205            | 165            |                               |                |                |                               |                |                | 80                            | 170            | 130            |                               | 1620           | 1660           |

| Boyut<br>Size<br>Größe | Ölçüler mm / Dimensions in mm / Maße in mm |                |                |     |                |    |                 |                |     |                |                |     |      |                |                |                |                |                |    |                |                |                |                |                |     |
|------------------------|--------------------------------------------|----------------|----------------|-----|----------------|----|-----------------|----------------|-----|----------------|----------------|-----|------|----------------|----------------|----------------|----------------|----------------|----|----------------|----------------|----------------|----------------|----------------|-----|
|                        | Redüktör / Gear units / Zahnradgetriebe    |                |                |     |                |    |                 |                |     |                |                |     |      |                |                |                |                |                |    |                |                |                |                |                |     |
|                        | a                                          | A <sub>1</sub> | A <sub>2</sub> | b   | B <sub>1</sub> | c  | Ød <sub>6</sub> | e <sub>3</sub> | E   | G <sub>6</sub> | G <sub>8</sub> | h   | H    | m <sub>1</sub> | m <sub>2</sub> | m <sub>3</sub> | n <sub>1</sub> | n <sub>2</sub> | Øs | L <sub>1</sub> | L <sub>3</sub> | L <sub>4</sub> | L <sub>5</sub> | L <sub>6</sub> | ØD  |
| 133                    | 1294                                       | 427            | 437            | 552 | 327            | 62 | 210             | 265            | 635 | 1180           | 451            | 440 | 905  | 545            | 545            | 475            | 102            | 305            | 35 | 946            | 273            | 881            | 367            | 262            | 291 |
| 143                    | 1434                                       | 427            | 437            | 552 | 327            | 62 | 210             | 265            | 705 | 1250           | 451            | 440 | 905  | 545            | 685            | 475            | 102            | 375            | 35 | 946            | 273            | 881            | 367            | 262            | 291 |
| 153                    | 1554                                       | 487            | 522            | 627 | 367            | 72 | 210             | 320            | 762 | 1420           | 497            | 500 | 1005 | 655            | 655            | 535            | 122            | 365            | 42 | 1117           | 300            | 1120           | 448            | 375            | 323 |
| 163                    | 1644                                       | 487            | 522            | 627 | 367            | 72 | 210             | 320            | 808 | 1470           | 497            | 500 | 1005 | 655            | 745            | 535            | 122            | 410            | 42 | 1117           | 300            | 1120           | 448            | 375            | 323 |
| 173                    | 1744                                       | 537            | 572            | 692 | 397            | 82 | 230             | 370            | 860 | 1620           | 564            | 550 | 1115 | 735            | 735            | 600            | 137            | 390            | 42 | 1167           | 332            | 1202           | 518            | 375            | 413 |
| 183                    | 1864                                       | 537            | 572            | 692 | 397            | 82 | 230             | 370            | 920 | 1680           | 564            | 550 | 1115 | 735            | 855            | 600            | 137            | 450            | 42 | 1167           | 332            | 1202           | 518            | 375            | 413 |

| Boyut<br>Size<br>Größe | Ölçüler mm / Dimensions in mm / Maße in mm |                |                |                               |                |                 |                 |                |                | Yağ / Oil / Öl          |                        | Ağırlık / Weight<br>Gewicht |                        |
|------------------------|--------------------------------------------|----------------|----------------|-------------------------------|----------------|-----------------|-----------------|----------------|----------------|-------------------------|------------------------|-----------------------------|------------------------|
|                        | Çıkış / Output / Abtrieb                   |                |                |                               |                |                 |                 |                |                |                         |                        |                             |                        |
|                        | PB...3-SH                                  |                |                | PB...3-HH                     |                | PB...3-DH       |                 |                |                | TMGB14-B5 <sup>4)</sup> | PB...3-H <sup>3)</sup> | TMGB14-B5 <sup>4)</sup>     | PB...3-H <sup>3)</sup> |
|                        | Ød <sub>2</sub> <sup>1)</sup>              | G <sub>2</sub> | l <sub>2</sub> | ØD <sub>2</sub> <sup>2)</sup> | G <sub>4</sub> | ØD <sub>2</sub> | ØD <sub>3</sub> | G <sub>4</sub> | G <sub>5</sub> | (l)                     | (l)                    | (kg)                        | (kg)                   |
| 133                    | 200                                        | 335            | 350            | 190                           | 335            | 190             | 195             | 335            | 480            | 23.6                    | 145                    | 322                         | 2595                   |
| 143                    | 210                                        | 335            | 350            | 210                           | 335            | 210             | 215             | 335            | 480            | 23.6                    | 155                    | 322                         | 2945                   |
| 153                    | 230                                        | 380            | 410            | 230                           | 380            | 230             | 235             | 380            | 550            | 80.5                    | 230                    | 792                         | 4010                   |
| 163                    | 240                                        | 380            | 410            | 240                           | 380            | 240             | 245             | 380            | 550            | 80.5                    | 240                    | 792                         | 4275                   |
| 173                    | 250                                        | 415            | 410            | 250                           | 415            | 250             | 260             | 415            | 600            | 80.5                    | 315                    | 847                         | 5485                   |
| 183                    | 270                                        | 415            | 470            | 275                           | 415            | 280             | 285             | 415            | 600            | 80.5                    | 325                    | 847                         | 5940                   |

3) Diğer bilgilere ve ölçülere PKD kataloğundan ulaşabilirsiniz.

3) Other data and dimensions acc. to PKD catalog.

3) Sonst. Daten und Abmessungen nach Katalog.

4) Diğer ölçüler ve bilgiler için gerekli kataloglara bakınız.

4) Other data and dimensions acc. to page..

4) Sonst. Daten und Abmessungen nach Katalog

6) B/2A tasarım mümkündür.

6) Design B/2A is possible.

6) Ausführung B/2A ist möglich.

TR

MİL UCU MERKEZİ DELİKLERİ  
FORMU DS DIN332/2

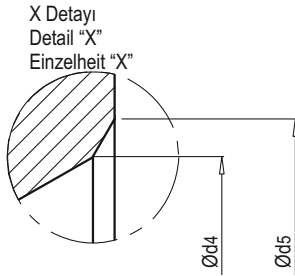
EN

CENTER HOLES, FORM DS IN SHAFT  
ENDS DIN 332/2

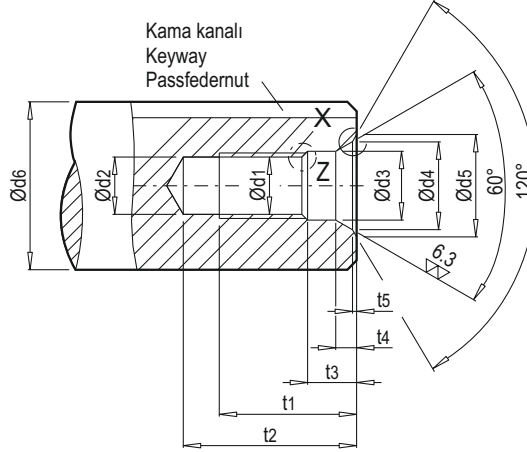
DE

ZENTRIERBOHRUNGEN FORM DS IN  
WELLENENDEN DIN 332/2

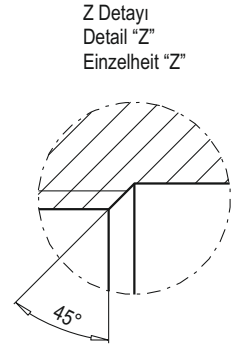
DS Formu  
klavuz deliği ile  
düz yüzeydeki havşa



Forms DS  
Tapped hole, with straight running  
face and counterbore



Forms DS  
mit Gewinde, gerader Lauffläche  
und Schutzsenkung



| Önerilen<br>çaplar<br>Recommended<br>diameters<br>Empfohlene<br>Durchmesserbereiche<br>Ød6 <sup>1)</sup> |                    | DS Formu / Form DS / Form DS              |      |           |      |      |      |          |            |            |          |         |         |
|----------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------|------|-----------|------|------|------|----------|------------|------------|----------|---------|---------|
| Üstünde<br>above<br>über                                                                                 | kadar<br>to<br>bis | DS-<br>Merkez<br>Centering<br>Zentrierung | Ød1  | Ød2<br>2) | Ød3  | Ød4  | Ød5  | t1<br>+2 | t2<br>min. | t2<br>max. | t3<br>+1 | t4<br>≈ | t5<br>≈ |
| mm                                                                                                       | mm                 |                                           |      |           |      |      |      | mm       |            |            |          |         |         |
| 16                                                                                                       | 21                 | DS 6                                      | M 6  | 5.0       | 6.4  | 9.6  | 10.5 | 16.0     | 21         | 23         | 5.0      | 2.8     | 0.4     |
| 21                                                                                                       | 24                 | DS 8                                      | M 8  | 6.8       | 8.4  | 12.2 | 13.2 | 19.0     | 25         | 28         | 6.0      | 3.3     | 0.4     |
| 24                                                                                                       | 30                 | DS 10                                     | M 10 | 8.5       | 10.5 | 14.9 | 16.3 | 22.0     | 30         | 34         | 7.5      | 3.8     | 0.6     |
| 30                                                                                                       | 38                 | DS 12                                     | M 12 | 10.2      | 13.0 | 18.1 | 19.8 | 28.0     | 37         | 42         | 9.5      | 4.4     | 0.7     |
| 38                                                                                                       | 50                 | DS 16                                     | M 16 | 14.0      | 17.0 | 23.0 | 25.3 | 36.0     | 45         | 50         | 12.0     | 5.2     | 1.0     |
| 50                                                                                                       | 85                 | DS 20                                     | M 20 | 17.5      | 21.0 | 28.4 | 31.3 | 42.0     | 53         | 59         | 15.0     | 6.4     | 1.3     |
| 85                                                                                                       | 130                | DS 24                                     | M 24 | 21.0      | 25.0 | 34.2 | 38.0 | 50.0     | 63         | 68         | 18.0     | 8.0     | 1.6     |
| 130                                                                                                      | 225                | DS 30 *                                   | M 30 | 26.5      | 31.0 | 40.2 | 44.6 | 60.0     | 77         | 83         | 17.0     | 8.0     | 1.9     |
| 225                                                                                                      | 320                | DS 36 *                                   | M 36 | 32.0      | 37.0 | 49.7 | 55.0 | 74.0     | 93         | 99         | 22.0     | 11.0    | 2.3     |
| 320                                                                                                      | 500                | DS 42 *                                   | M 42 | 37.5      | 43.0 | 60.3 | 66.6 | 84.0     | 105        | 111        | 26.0     | 15.0    | 2.7     |

1) Bitmiş iş parçası çapı

2) DIN 336-1 e göre klavuzların matkap çapları

1) Diameter of the finished work piece

2) Drill diameters for tapping-size holes acc. to DIN 336 Pt.1

1) Durchmesser gilt für das fertige Werkstück

2) Kernloch- bohrerdurchmesser nach DIN 336 Teil1

\*) Ölçüler DIN 332'ye göre değildir.

\*) Dimensions not acc. to DIN 332

\*) Abmessungen nicht nach DIN 332

| Uygun ISO seçimi / Selection of ISO fits / Passungsauswahl                                                  |                                |                          |                                                    |                                                     |
|-------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------|----------------------------------------------------|-----------------------------------------------------|
| Uygun ISO seçimi<br>Selection of ISO fits<br>Passungsauswahl                                                | Şaft / Shaft / Welle<br>Ød     |                          | Mil toleransı<br>Shaft tolerance<br>Wellentoleranz | Çap toleransı<br>Bore tolerance<br>Bohrungstoleranz |
|                                                                                                             | üstünde<br>above<br>über<br>mm | kadar<br>to<br>bis<br>mm |                                                    |                                                     |
| Mil toleransı v.b için PGR standart<br>Shaft tolerance acc. to PGR Standard<br>Wellentoleranz nach PGR Norm |                                | 25                       | k6                                                 | H7                                                  |
|                                                                                                             | 25                             | 100                      | m6                                                 |                                                     |
|                                                                                                             | 100                            |                          | n6                                                 |                                                     |

Ağır çalışma koşullarında, yükün geri gelmesinden oluşan kesme kuvvetleri için kama sıkı geçme olmalıdır. ISO'ya göre P9 tavsiye edilir.

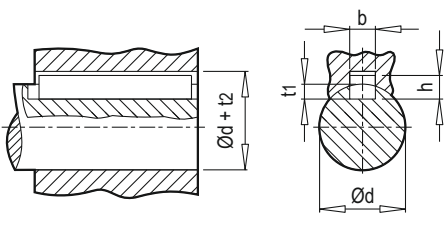
For heavy-duty operating conditions, e.g. reversing under load, it is recommended that a tighter fit and for the hub keyway width the ISO P9 tolerance is selected.

Für außergewöhnliche Betriebsverhältnisse, z.B. Reversierbetrieb unter Last, ist ein festerer Sitz und für die Nabennutbreite das ISO - Toleranzfeld P9 vorzusehen.

Bu durumda, müşteri ilgili bilgileri vermelidir.

In this case, the customer should give the relevant information.

Seitens des Kunden sind hierzu entsprechende Vorgaben notwendig.

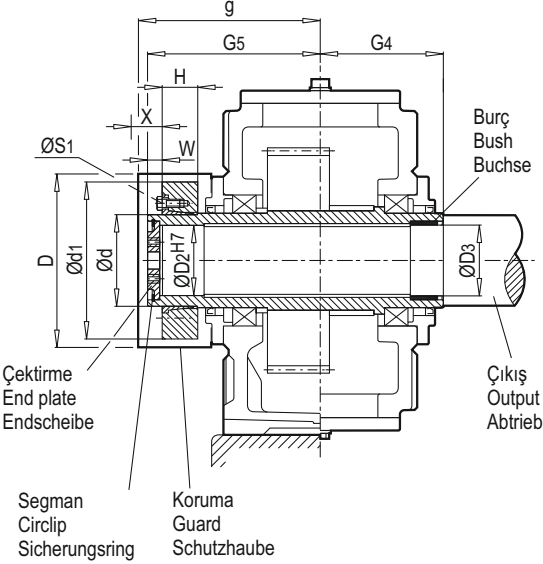
| Paralel kamalar / Parallel keys / Passfedern                                                                                                                                                                                                                                                                                                                          |                                      |                 |                             |                             |                                                                                      |                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------|-----------------------------|-----------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Kama ve kama kanalı<br>DIN 6885/1'e göre<br><br>Parallel key and<br>keyway acc.<br>to DIN 6885/1<br><br>Passfeder<br>und Nut nach<br>DIN 6885/1                                                                                                                                                                                                                       | Çap<br>Diameter<br>Durchmesser<br>Ød |                 | Genişlik<br>Width<br>Breite | Yükseklik<br>Height<br>Höhe | Şafttaki kama<br>kanalı derinliği<br>Depth of key-<br>way in shaft<br>Wellennuttiefe | Delikten kama<br>kanalı derinliği<br>Depth of key-<br>way in hub<br>Nabennuttiefe |
|                                                                                                                                                                                                                                                                                                                                                                       | above<br>über<br>mm                  | to<br>bis<br>mm | b<br>1)<br>mm               | h<br>mm                     | t <sub>1</sub><br>mm                                                                 | Ød + t <sub>2</sub><br>DIN 6885/1<br>mm                                           |
|                                                                                                                                                                                                                                                                                    | 17                                   | 22              | 6                           | 6                           | 3.5                                                                                  | d + 2.8                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 22                                   | 30              | 8                           | 7                           | 4                                                                                    | d + 3.3                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 30                                   | 38              | 10                          | 8                           | 5                                                                                    | d + 3.3                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 38                                   | 44              | 12                          | 8                           | 5                                                                                    | d + 3.3                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 44                                   | 50              | 14                          | 9                           | 5.5                                                                                  | d + 3.8                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 50                                   | 58              | 16                          | 10                          | 6                                                                                    | d + 4.3                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 58                                   | 65              | 18                          | 11                          | 7                                                                                    | d + 4.4                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 65                                   | 75              | 20                          | 12                          | 7.5                                                                                  | d + 4.9                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 75                                   | 85              | 22                          | 14                          | 9                                                                                    | d + 5.4                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 85                                   | 95              | 25                          | 14                          | 9                                                                                    | d + 5.4                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 95                                   | 110             | 28                          | 16                          | 10                                                                                   | d + 6.4                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 110                                  | 130             | 32                          | 18                          | 11                                                                                   | d + 7.4                                                                           |
| <p>1) Kamalardaki merkezi Kama genişliği b için ağır ağır çalışma koşullarında ISO P9 veya JS9.</p> <p>1) The tolerance zone for the hub keyway width b for parallel keys is ISO JS9, or ISO P9 for heavy-duty operating conditions.</p> <p>1) Das Toleranzfeld der Nabennutbreite b für Passfedern ist ISO JS9, bzw. ISO P9 bei erschwerten Betriebsbedingungen.</p> | 130                                  | 150             | 36                          | 20                          | 12                                                                                   | d + 8.4                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 150                                  | 170             | 40                          | 22                          | 13                                                                                   | d + 9.4                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                       | 170                                  | 200             | 45                          | 25                          | 15                                                                                   | d + 10.4                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                       | 200                                  | 230             | 50                          | 28                          | 17                                                                                   | d + 11.4                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                       | 230                                  | 260             | 56                          | 32                          | 20                                                                                   | d + 12.4                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                       | 260                                  | 290             | 63                          | 32                          | 20                                                                                   | d + 12.4                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                       | 290                                  | 330             | 70                          | 36                          | 22                                                                                   | d + 14.4                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                       | 330                                  | 380             | 80                          | 40                          | 25                                                                                   | d + 15.4                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                       | 380                                  | 440             | 90                          | 45                          | 28                                                                                   | d + 17.4                                                                          |

## TR DELİK MİLLİ KONİK SIKTIRMALI ŞAFTLAR

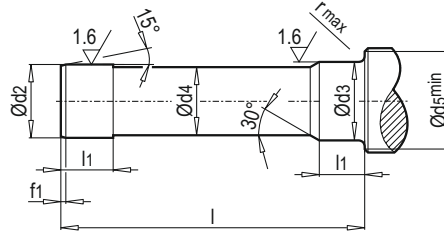
## EN HOLLOW SHAFTS FOR SHRINK DISKS

## DE HOHLWELLEN FÜR SCHRUMPFSCHEIBEN

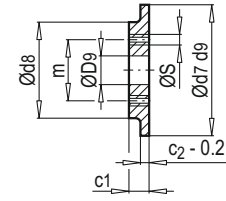
x = Tork anahtarları için gerekli boşluk  
 x = Space required for torque wrench  
 x = Platzbedarf für Drehmomentschlüssel berücksichtigen



Konik sıkırtma bağlantısı yapılacak müşteri milleri mutlaka gressiz olmalıdır.  
 Driven machine shaft for shrink disk connection. Driven machine shaft must be free of oil or grease.  
 Arbeitsmaschinenwelle für Schrumpfscheibenverbindung, bei Montage nicht gefettet.



Merkez delik formu DS ile müşteri milinin (klavuz deliği) DIN 332'ye göre.  
 Driven machine shaft with centre hole form DS (tapped hole) acc. to DIN 332.  
 Arbeitsmaschinenwelle mit Zentrierung Form DS (mit Gewinde) nach DIN 332.



Çektirme  
End plate  
Endscheibe

Tip / Type / Bauart PB...3-H

| Redüktör<br>gövdesi | Müşteri mili<br>Driven machine shaft<br>Arbeitsmaschinenwelle |        |       |     |    |     |     |   | Çektirme<br>End plate<br>Endscheibe |    |     |     |     |     |      |                            | Segman<br>Circlip<br>Siche-<br>rungsring | Delik Mil<br>Hollow shaft<br>Hohlwelle |     |     |     | Konik sıkırma<br>Shrink disk<br>Schrumpfscheibe |     |     |    | Civata<br>Screw<br>Schra-<br>ube | Koruma<br>Guard<br>Schutz-<br>haube |     |    |   |
|---------------------|---------------------------------------------------------------|--------|-------|-----|----|-----|-----|---|-------------------------------------|----|-----|-----|-----|-----|------|----------------------------|------------------------------------------|----------------------------------------|-----|-----|-----|-------------------------------------------------|-----|-----|----|----------------------------------|-------------------------------------|-----|----|---|
|                     |                                                               |        |       |     |    |     |     |   |                                     |    |     |     |     |     |      |                            |                                          | 1)                                     |     |     |     |                                                 |     |     |    |                                  |                                     |     |    |   |
|                     | Ød2                                                           | Ød3    | Ød4   | Ød5 | f1 | l   | l1  | r | c1                                  | c2 | Ød7 | Ød8 | ØD9 | m   | Øs   | Adt.<br>Qty<br>An-<br>zahl |                                          | DIN<br>472                             | ØD2 | ØD3 | G4  | G5                                              | Ød  | Ød1 | H  |                                  | W                                   | Øs1 | ØD | g |
|                     | mm                                                            |        |       |     |    |     |     |   |                                     |    |     |     |     |     |      |                            |                                          | mm                                     |     |     |     |                                                 |     |     |    |                                  |                                     |     |    |   |
| Gear unit<br>size   |                                                               |        |       |     |    |     |     |   |                                     |    |     |     |     |     |      |                            |                                          |                                        |     |     |     |                                                 |     |     |    |                                  |                                     |     |    |   |
| Getriebe-<br>größe  |                                                               |        |       |     |    |     |     |   |                                     |    |     |     |     |     |      |                            |                                          |                                        |     |     |     |                                                 |     |     |    |                                  |                                     |     |    |   |
| 43                  | 85 g6                                                         | 85 h6  | 84.5  | 95  | 4  | 326 | 48  | 2 | 17                                  | 7  | 90  | 70  | 22  | 50  | M 8  | 2                          | 90 x 3                                   | 85                                     | 85  | 140 | 205 | 110                                             | 185 | 51  | 20 | M 12                             | 235                                 | 225 |    |   |
| 53                  | 100 g6                                                        | 100 h6 | 99.5  | 114 | 5  | 383 | 53  | 2 | 20                                  | 8  | 105 | 80  | 26  | 55  | M 10 | 2                          | 105 x 4                                  | 100                                    | 100 | 165 | 240 | 125                                             | 215 | 55  | 20 | M 12                             | 275                                 | 260 |    |   |
| 63                  | 110 g6                                                        | 110 h6 | 109.5 | 124 | 5  | 383 | 58  | 3 | 20                                  | 8  | 115 | 85  | 26  | 60  | M 10 | 2                          | 115 x 4                                  | 110                                    | 110 | 165 | 240 | 140                                             | 230 | 61  | 20 | M 14                             | 285                                 | 255 |    |   |
| 73                  | 120 g6                                                        | 120 h6 | 119.5 | 134 | 5  | 453 | 68  | 3 | 20                                  | 8  | 125 | 90  | 26  | 65  | M 12 | 2                          | 125 x 4                                  | 120                                    | 120 | 195 | 289 | 155                                             | 263 | 64  | 23 | M 14                             | 330                                 | 305 |    |   |
| 83                  | 130 g6                                                        | 130 h6 | 129.5 | 145 | 6  | 458 | 73  | 3 | 20                                  | 8  | 135 | 100 | 26  | 70  | M 12 | 2                          | 135 x 4                                  | 130                                    | 130 | 195 | 285 | 165                                             | 290 | 70  | 23 | M 16                             | 340                                 | 305 |    |   |
| 93                  | 140 g6                                                        | 145 m6 | 139.5 | 160 | 6  | 538 | 82  | 4 | 23                                  | 10 | 150 | 110 | 33  | 80  | M 12 | 2                          | 150 x 4                                  | 140                                    | 145 | 235 | 330 | 175                                             | 300 | 71  | 28 | M 16                             | 360                                 | 355 |    |   |
| 103                 | 150 g6                                                        | 155 m6 | 149.5 | 170 | 6  | 559 | 92  | 4 | 23                                  | 10 | 160 | 120 | 33  | 90  | M 12 | 2                          | 160 x 4                                  | 150                                    | 155 | 235 | 350 | 185                                             | 340 | 87  | 28 | M 16                             | 395                                 | 365 |    |   |
| 113                 | 165 f6                                                        | 170 m6 | 164.5 | 185 | 7  | 644 | 112 | 4 | 23                                  | 10 | 175 | 130 | 33  | 90  | M 12 | 2                          | 175 x 4                                  | 165                                    | 170 | 270 | 400 | 220                                             | 370 | 103 | 30 | M 20                             | 435                                 | 420 |    |   |
| 123                 | 180 f6                                                        | 185 m6 | 179.5 | 200 | 7  | 649 | 122 | 4 | 23                                  | 10 | 190 | 140 | 33  | 100 | M 16 | 2                          | 190 x 4                                  | 180                                    | 185 | 270 | 405 | 240                                             | 405 | 107 | 30 | M 20                             | 450                                 | 420 |    |   |
| 133                 | 180 f6                                                        | 195 m6 | 189.5 | 213 | 7  | 789 | 137 | 5 | 23                                  | 10 | 200 | 150 | 33  | 110 | M 16 | 2                          | 200 x 4                                  | 190                                    | 195 | 335 | 480 | 260                                             | 430 | 119 | 30 | M 20                             | 500                                 | 505 |    |   |
| 143                 | 210 f6                                                        | 215 m6 | 209.5 | 233 | 8  | 784 | 147 | 5 | 28                                  | 14 | 220 | 170 | 33  | 130 | M 16 | 2                          | 220 x 5                                  | 210                                    | 215 | 335 | 480 | 280                                             | 460 | 132 | 30 | M 20                             | 525                                 | 505 |    |   |
| 153                 | 230 f6                                                        | 235 m6 | 229.5 | 253 | 8  | 899 | 157 | 5 | 28                                  | 14 | 240 | 180 | 39  | 140 | M 16 | 2                          | 240 x 5                                  | 230                                    | 235 | 380 | 550 | 300                                             | 485 | 140 | 35 | M 24                             | 575                                 | 575 |    |   |
| 163                 | 240 f6                                                        | 245 m6 | 239.5 | 263 | 8  | 899 | 157 | 5 | 28                                  | 14 | 250 | 190 | 39  | 150 | M 20 | 2                          | 250 x 5                                  | 240                                    | 245 | 380 | 550 | 320                                             | 520 | 140 | 35 | M 24                             | 595                                 | 575 |    |   |
| 173                 | 250 f6                                                        | 260 m6 | 249.5 | 278 | 8  | 982 | 177 | 5 | 30                                  | 14 | 265 | 200 | 39  | 150 | M 20 | 2                          | 265 x 5                                  | 250                                    | 260 | 415 | 600 | 340                                             | 570 | 155 | 35 | M 24                             | 615                                 | 630 |    |   |
| 183                 | 280 f6                                                        | 285 m6 | 279.5 | 306 | 9  | 982 | 177 | 5 | 30                                  | 14 | 290 | 210 | 39  | 160 | M 20 | 2                          | 290 x 5                                  | 280                                    | 285 | 415 | 600 | 360                                             | 590 | 162 | 35 | M 24                             | 635                                 | 625 |    |   |

1) Konik sıkırtma tedarik alanımıza ait değil. Gerekirse, lütfen ayrıca sipariş ediniz. Sipariş olması durumunda konik sıkırtma serbest öge olarak temin edilecektir.

2) Müşteri milinin malzemesi: C60N veya daha yüksek mukavemette malzeme. Konik sıkırtma yeri makine tarafında istek üzerine

1) Shrink disk does not belong to our scope of supply. Please order separately, if required. Shrink disk will be supplied as loose item.

2) Material of driven machine shaft: C60N or higher strength. Shrink disk on machine side on request.

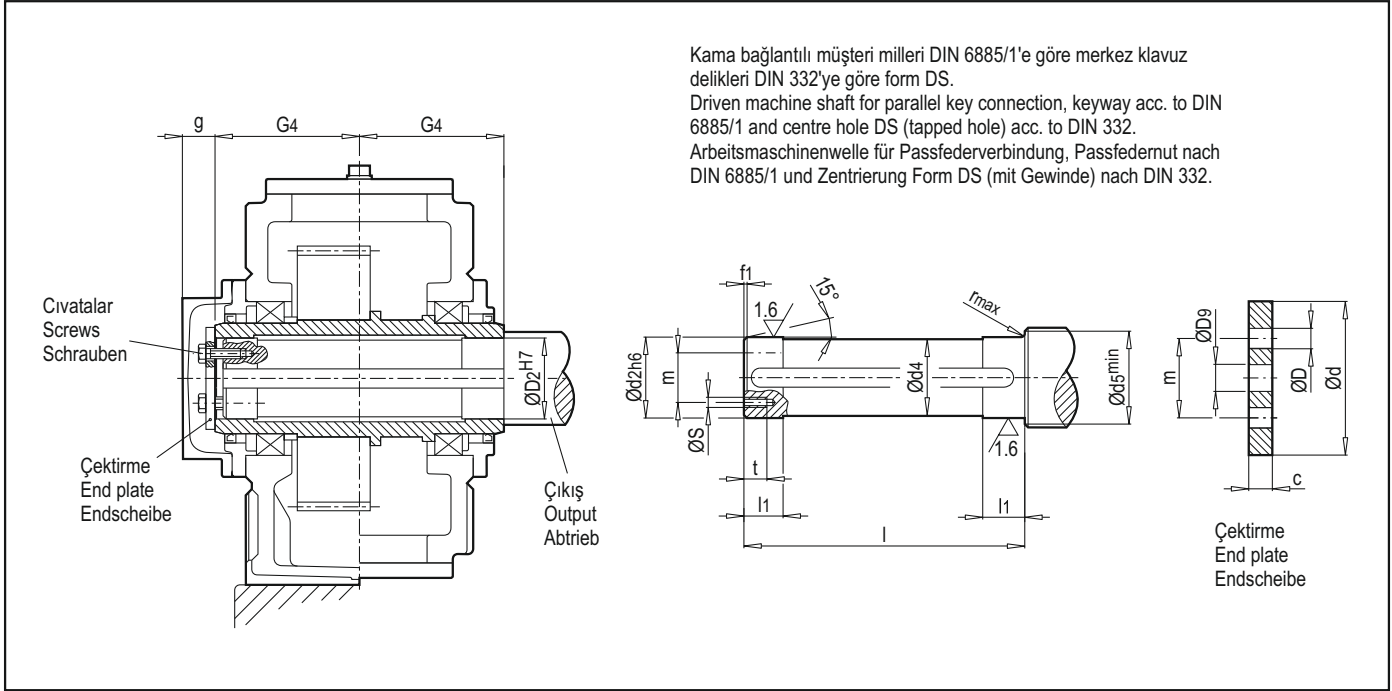
1) Schrumpfscheibe gehört nicht zum Lieferumfang. Bei Bedarf gesondert bestellen. Schrumpfscheibe wird lose mit geliefert.

2) Werkstoff Arbeitsmaschinenwelle C60N oder höhere Festigkeit. Schrumpfscheibe an Maschinenseite auf Anfrage.

TR DELİK MİLLİ KAMA BAĞLANTILI ŞAFTLAR

EN HOLLOW SHAFTS FOR PARALLEL KEY CONNECTIONS

DE HOHLWELLEN FÜR PASSFEDER VERBINDUNGEN



| Tipler / Types / Bauarten PB...3-H                                 |                                                               |       |     |    |     |     |     |      |    |                                     |      |     |     |                             |                        |                                               |     |     |    |  |
|--------------------------------------------------------------------|---------------------------------------------------------------|-------|-----|----|-----|-----|-----|------|----|-------------------------------------|------|-----|-----|-----------------------------|------------------------|-----------------------------------------------|-----|-----|----|--|
| Redüktör gövdeleri<br><br>Gear unit size<br><br>Getriebe-<br>größe | Müşteri mili<br>Driven machine shaft<br>Arbeitsmaschinenwelle |       |     |    |     |     |     |      |    | Çektirme<br>End plate<br>Endscheibe |      |     |     | Cıvata<br>Screw<br>Schraube |                        | Delik milli şaft<br>Hollow shaft<br>Hohlwelle |     |     |    |  |
|                                                                    | Ød2                                                           | Ød4   | Ød5 | f1 | l   | l1  | r   | Øs   | t  | c                                   | ØD   | ØD9 | Ød  | m                           | Boyut<br>Size<br>Größe | Adet<br>Qty.<br>Anzahl                        | ØD2 | G4  | g  |  |
|                                                                    | mm                                                            |       |     |    |     |     |     |      |    |                                     |      |     |     |                             |                        |                                               |     | mm  |    |  |
|                                                                    |                                                               |       |     |    |     |     |     |      |    |                                     |      |     |     |                             |                        |                                               |     |     |    |  |
| PB43                                                               | 80                                                            | 79.5  | 88  | 4  | 278 | 35  | 1.2 | M 10 | 18 | 10                                  | 11   | 22  | 100 | 60                          | M 10 x 25              | 2                                             | 80  | 140 | 35 |  |
| PB53                                                               | 95                                                            | 94.5  | 105 | 5  | 328 | 40  | 1.6 | M 10 | 18 | 10                                  | 11   | 26  | 120 | 70                          | M 10 x 25              | 2                                             | 95  | 165 | 40 |  |
| PB63                                                               | 105                                                           | 104.5 | 116 | 5  | 328 | 45  | 1.6 | M 10 | 18 | 10                                  | 11   | 26  | 120 | 70                          | M 10 x 25              | 2                                             | 105 | 165 | 40 |  |
| PB73                                                               | 115                                                           | 114.5 | 126 | 5  | 388 | 50  | 1.6 | M 12 | 20 | 12                                  | 13.5 | 26  | 140 | 80                          | M 12 x 30              | 2                                             | 115 | 195 | 40 |  |
| PB83                                                               | 125                                                           | 124.5 | 136 | 6  | 388 | 55  | 2.5 | M 12 | 20 | 12                                  | 13.5 | 26  | 150 | 85                          | M 12 x 30              | 2                                             | 125 | 195 | 40 |  |
| PB93                                                               | 135                                                           | 134.5 | 147 | 6  | 467 | 60  | 2.5 | M 12 | 20 | 12                                  | 13.5 | 33  | 160 | 90                          | M 12 x 30              | 2                                             | 135 | 235 | 45 |  |
| PB103                                                              | 150                                                           | 149.5 | 162 | 6  | 467 | 65  | 2.5 | M 12 | 20 | 12                                  | 13.5 | 33  | 185 | 110                         | M 12 x 30              | 2                                             | 150 | 235 | 45 |  |
| PB113                                                              | 165                                                           | 164.5 | 177 | 7  | 537 | 70  | 2.5 | M 16 | 28 | 15                                  | 17.5 | 33  | 195 | 120                         | M 16 x 40              | 2                                             | 165 | 270 | 45 |  |
| PB123                                                              | 180                                                           | 179.5 | 192 | 7  | 537 | 75  | 2.5 | M 16 | 28 | 15                                  | 17.5 | 33  | 220 | 130                         | M 16 x 40              | 2                                             | 180 | 270 | 45 |  |
| PB133                                                              | 190                                                           | 189.5 | 206 | 7  | 667 | 80  | 3   | M 16 | 28 | 18                                  | 17.5 | 33  | 230 | 140                         | M 16 x 40              | 2                                             | 190 | 335 | 45 |  |
| PB143                                                              | 210                                                           | 209.5 | 226 | 8  | 667 | 85  | 3   | M 16 | 28 | 18                                  | 17.5 | 33  | 250 | 160                         | M 16 x 40              | 2                                             | 210 | 335 | 45 |  |
| PB153                                                              | 230                                                           | 229.5 | 248 | 8  | 756 | 100 | 3   | M 20 | 38 | 25                                  | 22   | 39  | 270 | 180                         | M 20 x 55              | 4                                             | 230 | 380 | 60 |  |
| PB163                                                              | 240                                                           | 239.5 | 258 | 8  | 756 | 100 | 3   | M 20 | 38 | 25                                  | 22   | 39  | 280 | 180                         | M 20 x 55              | 4                                             | 240 | 380 | 60 |  |
| PB173                                                              | 250                                                           | 249.5 | 270 | 8  | 826 | 110 | 4   | M 20 | 38 | 25                                  | 22   | 39  | 300 | 190                         | M 20 x 55              | 4                                             | 250 | 415 | 60 |  |
| PB183                                                              | 275                                                           | 274.5 | 295 | 9  | 826 | 120 | 4   | M 20 | 38 | 25                                  | 22   | 39  | 330 | 210                         | M 20 x 55              | 4                                             | 275 | 415 | 60 |  |

1) Müşteri milinin malzemesi: C60N veya daha yüksek mukavemetli malzeme.

1) Material of driven machine shaft: C60N or higher strength.

1) Werkstoff Arbeitsmaschinenwelle C60N oder höhere Festigkeit.

Kama redüktörle birlikte verilmemektedir. Gerekirse, lütfen ayrıca sipariş ediniz.

Parallel key does not belong to our scope of supply. Please order separately, if required.

Passfeder gehört nicht zum Lieferumfang. Bei Bedarf gesondert bestellen.

TR

KİLİT

EN

BACKSTOPS

DE

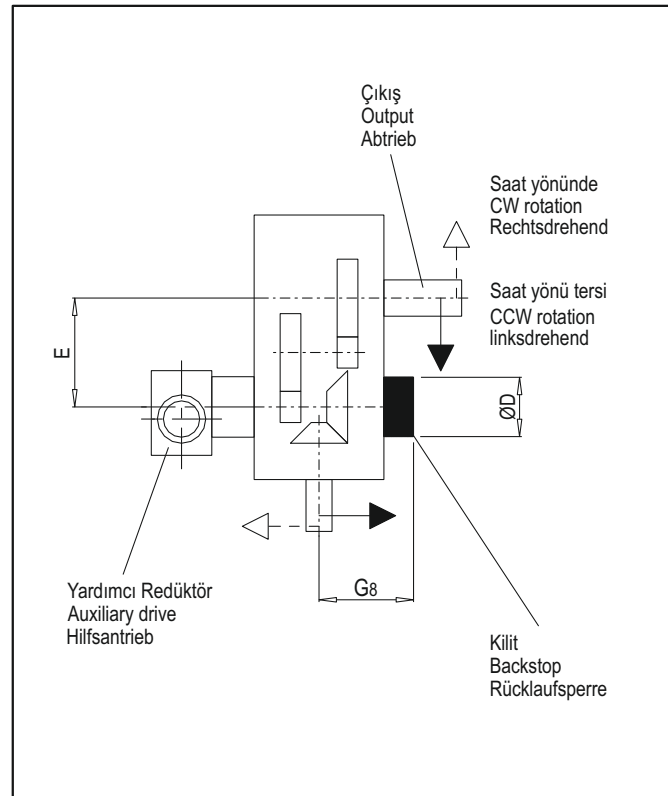
RÜCKLAUFSPERREN

Standart kilidin montajı istenen dönme yönüne bağlıdır.  
 Standard backstop arrangement and dependence of direction of rotation  
 Standardmäßige Rücklaufsperrenanordnung und Drehrichtungsabhängigkeit

1)

| Tip<br>Type<br>Bauart | Dizayn / Design / Ausführung<br>Boyutlar / Sizes / Größen 43 ... 183 |   |
|-----------------------|----------------------------------------------------------------------|---|
|                       | B                                                                    | D |
| PB...3-SH             |                                                                      |   |
| PB...3-HH             |                                                                      |   |
| PB...3-DH             |                                                                      |   |

| Tip / Types / Bauarten PB...3-H |         |                      |          |
|---------------------------------|---------|----------------------|----------|
| Boyut<br>Size<br>Größe          | E<br>mm | G <sub>8</sub><br>mm | ØD<br>mm |
| 43                              | 270     | 204                  | 129      |
| 53                              | 315     | 223                  | 154      |
| 63                              | 350     | 223                  | 154      |
| 73                              | 385     | 281                  | 179      |
| 83                              | 430     | 281                  | 179      |
| 93                              | 450     | 317                  | 194      |
| 103                             | 500     | 317                  | 194      |
| 113                             | 545     | 368                  | 237      |
| 123                             | 615     | 368                  | 237      |
| 133                             | 635     | 451                  | 277      |
| 143                             | 705     | 451                  | 277      |
| 153                             | 762     | 497                  | 323      |
| 163                             | 808     | 497                  | 323      |
| 173                             | 860     | 564                  | 413      |
| 183                             | 920     | 564                  | 413      |



1) Diğer düzenler ve tasarımlar için lütfen bize başvurunuz.

1) For other arrangements and designs, please refer to us.

1) Bei anderer Anordnung und Ausführung bitte Rücksprache.

TR

KİLİT

EN

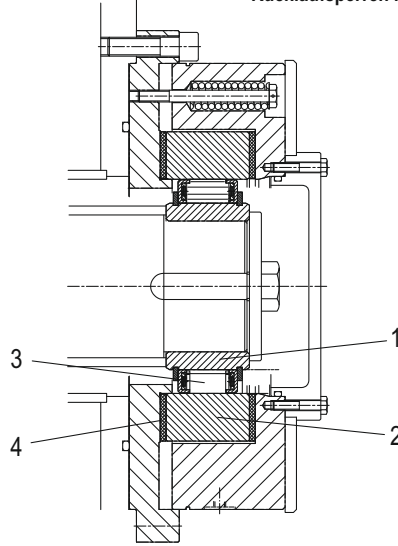
BACKSTOPS

DE

RÜCKLAUFSPERREN

Kilidin montajı istenen dönme yönüne bağlıdır (sayfa 248)  
Backstop arrangement and dependence of direction of rotation (page 248) 1)  
Rücklaufsperrenanordnung und Drehrichtungsabhängigkeit (seite 248)

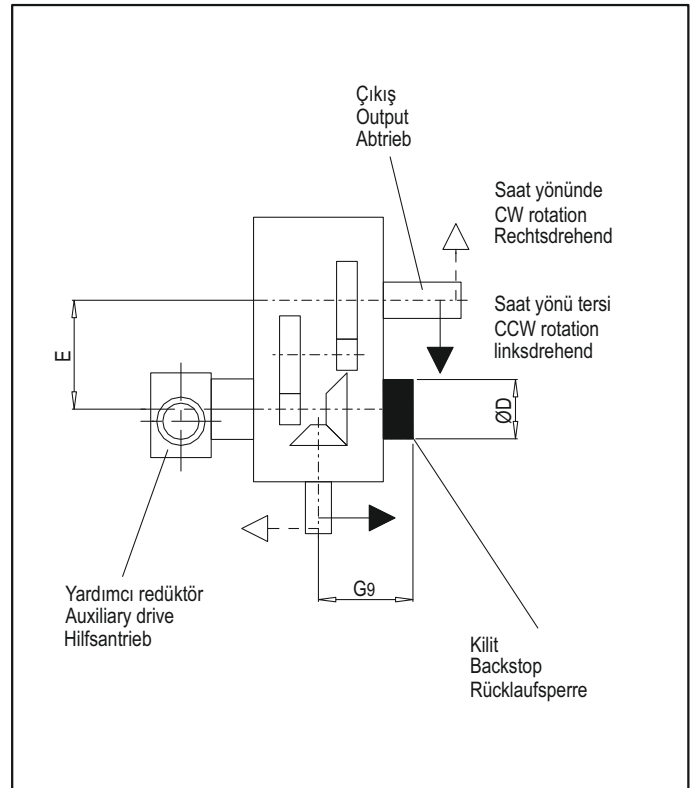
**Moment sınırlayıcı kilit**  
**Torque limiting backstops**  
**Rücklaufsperren mit Drehmomentbegrenzung 2)**



- 1 İç Burç
- 2 Dış Burç
- 3 Kafesli kilit
- 4 Sürtünme kaplaması
- 1 Inner ring
- 2 Outer ring
- 3 Cage freewheel
- 4 Friction lining
- 1 Innenring
- 2 Außenring
- 3 Käfigfreilauf
- 4 Reibbelag

Tip / Types / Bauarten **PB...3-H**

| Boyut<br>Size<br>Größe | E<br>mm | Gg<br>mm | ØD<br>mm |
|------------------------|---------|----------|----------|
| 43                     | 270     | 295      | 280      |
| 53                     | 315     | 315      | 280      |
| 63                     | 350     | 315      | 280      |
| 73                     | 385     | 340      | 280      |
| 83                     | 430     | 340      | 280      |
| 93                     | 450     | 390      | 295      |
| 103                    | 500     | 390      | 295      |
| 113                    | 545     | 420      | 371      |
| 123                    | 615     | 420      | 371      |
| 133                    | 635     | 515      | 441      |
| 143                    | 705     | 515      | 441      |
| 153                    | 762     | 580      | 496      |
| 163                    | 808     | 580      | 496      |
| 173                    | 860     | 630      | 630      |
| 183                    | 920     | 630      | 630      |



1) Diğer düzenler ve tasarımlar için lütfen bize başvurunuz.  
2) Birden fazla sürücü kullanıldığı durumlarda istenmeyen geri dönüş momentleri bir dişli grubunda meydana gelebilir ve kilit buna uygun olmalıdır. Moment sınırlayıcı kilit redüktör içerisindeki dişli gruplarında oluşan maksimum geri dönüş momentlerini dağıtmaktadır.

1) For other arrangements and designs, please refer to us.  
2) In case of double and multiple drives, an unacceptable concentration of restoring torque may occur on one gear unit and the backstop fitted to it. The torque limiting backstop evenly distributes the restoring torque between all gear units in a plant and in addition reduces peak torques.

1) Bei anderer Anordnung und Ausführung bitte Rücksprache.  
2) Bei Doppel- und Mehrfachantrieben kann es zu einer unzulässigen Konzentration des Rückdrehmoments auf ein Getriebe und der dort angeordneten Rücklaufsperr kommen. Die drehmomentbegrenzende Rücklaufsperr verteilt das Rückdrehmoment gleichmäßig auf die Getriebe der Anlage und baut zusätzlich Drehmomentsspitzen ab.

TR

GERÇEK TAHVİLLER

EN

ACTUAL RATIOS

DE

IST-ÜBERSETZUNGEN

| Tipler / Types / Bauarten PB...3-H                         |                                                       |        |        |        |        |        |        |        |        |
|------------------------------------------------------------|-------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Gerçek Tahviller i / Actual ratios i / Ist-Übersetzungen i |                                                       |        |        |        |        |        |        |        |        |
| i <sub>N</sub>                                             | Redüktör Boyutları / Gear unit sizes / Getriebegrößen |        |        |        |        |        |        |        |        |
|                                                            | 43                                                    | 53     | 63     | 73     | 83     | 93     | 103    | 113    | 123    |
| 25                                                         | 25.380                                                | 25.421 | 24.349 | 25.446 | 25.152 | 25.843 | 25.400 | 25.185 | 25.103 |
| 28                                                         | 27.836                                                | 27.881 | 27.211 | 28.125 | 27.923 | 28.563 | 27.842 | 27.836 | 27.517 |
| 31.5                                                       | 30.196                                                | 30.245 | 31.508 | 30.509 | 32.084 | 30.985 | 32.400 | 31.975 | 32.021 |
| 35.5                                                       | 34.771                                                | 34.827 | 34.557 | 35.131 | 35.461 | 35.679 | 35.811 | 34.771 | 35.392 |
| 40                                                         | 39.487                                                | 39.551 | 37.486 | 39.896 | 38.468 | 40.902 | 38.846 | 39.861 | 40.654 |
| 45                                                         | 43.077                                                | 43.146 | 43.168 | 43.523 | 44.296 | 44.202 | 44.732 | 43.077 | 44.209 |
| 50                                                         | 49.060                                                | 49.139 | 49.021 | 49.568 | 50.304 | 50.341 | 51.280 | 49.060 | 50.681 |
| 56                                                         | 55.152                                                | 55.240 | 53.477 | 55.723 | 54.877 | 56.592 | 55.417 | 55.152 | 54.769 |
| 63                                                         | 60.808                                                | 60.906 | 60.904 | 61.438 | 62.499 | 62.396 | 63.114 | 60.808 | 62.376 |
| 71                                                         | 69.293                                                | 69.404 | 68.467 | 70.011 | 70.259 | 71.102 | 70.951 | 69.293 | 70.121 |

| Tipler / Types / Bauarten PB...3-H                         |                                                       |        |        |        |        |        |
|------------------------------------------------------------|-------------------------------------------------------|--------|--------|--------|--------|--------|
| Gerçek Tahviller i / Actual ratios i / Ist-Übersetzungen i |                                                       |        |        |        |        |        |
| i <sub>N</sub>                                             | Redüktör Boyutları / Gear unit sizes / Getriebegrößen |        |        |        |        |        |
|                                                            | 133                                                   | 143    | 153    | 163    | 173    | 183    |
| 25                                                         | 25.864                                                | 25.131 | 24.916 | 24.842 | 25.409 | 25.936 |
| 28                                                         | 28.587                                                | 27.548 | 27.847 | 28.263 | 28.398 | 29.507 |
| 31.5                                                       | 32.838                                                | 32.057 | 31.634 | 31.588 | 32.259 | 32.979 |
| 35.5                                                       | 35.709                                                | 35.432 | 34.400 | 35.883 | 35.080 | 37.463 |
| 40                                                         | 40.936                                                | 40.700 | 39.435 | 39.021 | 40.215 | 40.738 |
| 45                                                         | 44.238                                                | 44.259 | 42.617 | 44.732 | 43.460 | 46.702 |
| 50                                                         | 50.383                                                | 50.737 | 48.536 | 48.341 | 49.496 | 50.469 |
| 56                                                         | 56.639                                                | 54.831 | 54.562 | 55.055 | 55.641 | 57.479 |
| 63                                                         | 62.448                                                | 62.446 | 60.158 | 61.892 | 61.348 | 64.616 |
| 71                                                         | 71.161                                                | 70.200 | 68.553 | 68.239 | 69.909 | 71.243 |

TR

KÜTLE ATALET MOMENTİ J<sub>1</sub>

Redüktörün d<sub>2</sub> çıkış miline ilişkin kgm<sup>2</sup> cinsinden J<sub>2</sub> Atalet Momenti, şu formülle hesaplanır:

$J_2 = i_N^2 \times J_1$  kgm<sup>2</sup> cinsinden J<sub>1</sub> Atalet Momentleri, redüktörün d<sub>1</sub> giriş miline bağlıdır ve fansız d<sub>1</sub> giriş milleri için geçerlidir.

Fanlı d<sub>1</sub> millerinde ise J<sub>L</sub> ilave edilir.

EN

MASS MOMENTS OF INERTIA J<sub>1</sub>

The mass moment of inertia J<sub>2</sub> in kgm<sup>2</sup> refers to the output shaft d<sub>2</sub> of a gear unit and is calculated with the following formula:

$J_2 = i_N^2 \times J_1$ . The mass moment of inertia J<sub>1</sub> kgm<sup>2</sup> refers to the input shaft d<sub>1</sub> of a gear unit without fan.

For shaft d<sub>1</sub> with fan, J<sub>L</sub> has to be added.

DE

MASSENTRÄGHEITSMOMENTE J<sub>1</sub>

Das auf Welle d<sub>2</sub> eines Getriebes bezogene Massenträgheitsmoment J<sub>2</sub> in kgm<sup>2</sup> wird nach folgender Formel errechnet:  $J_2 = i_N^2 \times J_1$ .

Die Massenträgheitsmomente J<sub>1</sub> in kgm<sup>2</sup> sind auf Welle d<sub>1</sub> der Getriebe bezogen und gelten für Welle d<sub>1</sub> ohne Lüfter.

Bei Welle d<sub>1</sub> mit Lüfter ist J<sub>L</sub> zu addieren.

| Tip / Types / Bauarten PB...3-H                                                                                                                                                                                                                                                     |                                                       |        |        |        |        |        |        |        |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| d <sub>1</sub> millinin kgm <sup>2</sup> cinsinden kütle atalet momenti J <sub>1</sub><br>Mass moments of inertia J <sub>1</sub> in kgm <sup>2</sup> referring to shaft d <sub>1</sub> / Massenträgheitsmomente J <sub>1</sub> in kgm <sup>2</sup> bezogen auf Welle d <sub>1</sub> |                                                       |        |        |        |        |        |        |        |        |
| i <sub>N</sub>                                                                                                                                                                                                                                                                      | Redüktör Boyutları / Gear unit sizes / Getriebegrößen |        |        |        |        |        |        |        |        |
|                                                                                                                                                                                                                                                                                     | 43                                                    | 53     | 63     | 73     | 83     | 93     | 103    | 113    | 123    |
| 25                                                                                                                                                                                                                                                                                  | 0.0039                                                | 0.0083 | 0.0130 | 0.0243 | 0.0356 | 0.0534 | 0.0805 | 0.1462 | 0.2270 |
| 28                                                                                                                                                                                                                                                                                  | 0.0036                                                | 0.0077 | 0.0111 | 0.0209 | 0.0296 | 0.0452 | 0.0687 | 0.1286 | 0.1926 |
| 31.5                                                                                                                                                                                                                                                                                | 0.0029                                                | 0.0062 | 0.0087 | 0.0162 | 0.0253 | 0.0348 | 0.0555 | 0.0936 | 0.1539 |
| 35.5                                                                                                                                                                                                                                                                                | 0.0024                                                | 0.0055 | 0.0080 | 0.0137 | 0.0218 | 0.0315 | 0.0470 | 0.0837 | 0.1349 |
| 40                                                                                                                                                                                                                                                                                  | 0.0019                                                | 0.0041 | 0.0065 | 0.0110 | 0.0169 | 0.0265 | 0.0363 | 0.0720 | 0.0983 |
| 45                                                                                                                                                                                                                                                                                  | 0.0018                                                | 0.0039 | 0.0057 | 0.0098 | 0.0142 | 0.0227 | 0.0326 | 0.0623 | 0.0877 |
| 50                                                                                                                                                                                                                                                                                  | 0.0013                                                | 0.0030 | 0.0043 | 0.0081 | 0.0114 | 0.0178 | 0.0274 | 0.0469 | 0.0751 |
| 56                                                                                                                                                                                                                                                                                  | 0.0011                                                | 0.0025 | 0.0040 | 0.0068 | 0.0102 | 0.0146 | 0.0235 | 0.0384 | 0.0649 |
| 63                                                                                                                                                                                                                                                                                  | 0.00087                                               | 0.0021 | 0.0031 | 0.0059 | 0.0084 | 0.0124 | 0.0184 | 0.0326 | 0.0489 |
| 71                                                                                                                                                                                                                                                                                  | 0.00067                                               | 0.0016 | 0.0026 | 0.0047 | 0.0070 | 0.0100 | 0.0150 | 0.0262 | 0.0400 |
| J <sub>L</sub>                                                                                                                                                                                                                                                                      | 0.006                                                 | 0.010  | 0.010  | 0.020  | 0.020  | 0.045  | 0.045  | 0.100  | 0.100  |

| Tip / Type / Bauart PB...3-H                                                                                                                                                                                                                                                        |                                                       |        |        |        |        |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------|--------|--------|--------|--------|
| d <sub>1</sub> millinin kgm <sup>2</sup> cinsinden kütle atalet momenti J <sub>1</sub><br>Mass moments of inertia J <sub>1</sub> in kgm <sup>2</sup> referring to shaft d <sub>1</sub> / Massenträgheitsmomente J <sub>1</sub> in kgm <sup>2</sup> bezogen auf Welle d <sub>1</sub> |                                                       |        |        |        |        |        |
| i <sub>N</sub>                                                                                                                                                                                                                                                                      | Redüktör Boyutları / Gear unit sizes / Getriebegrößen |        |        |        |        |        |
|                                                                                                                                                                                                                                                                                     | 133                                                   | 143    | 153    | 163    | 173    | 183    |
| 25                                                                                                                                                                                                                                                                                  | 0.3196                                                | 0.4938 | 0.9016 | 1.1644 | 1.9196 | 2.4645 |
| 28                                                                                                                                                                                                                                                                                  | 0.2714                                                | 0.4189 | 0.7728 | 0.9159 | 1.6758 | 1.9474 |
| 31.5                                                                                                                                                                                                                                                                                | 0.2004                                                | 0.3317 | 0.5615 | 0.7842 | 1.2159 | 1.6981 |
| 35.5                                                                                                                                                                                                                                                                                | 0.1819                                                | 0.2812 | 0.5062 | 0.5703 | 1.0968 | 1.2332 |
| 40                                                                                                                                                                                                                                                                                  | 0.1539                                                | 0.2079 | 0.4306 | 0.5137 | 0.9481 | 1.1114 |
| 45                                                                                                                                                                                                                                                                                  | 0.1312                                                | 0.1882 | 0.3694 | 0.4363 | 0.8188 | 0.9592 |
| 50                                                                                                                                                                                                                                                                                  | 0.1028                                                | 0.1587 | 0.2765 | 0.3743 | 0.5713 | 0.8283 |
| 56                                                                                                                                                                                                                                                                                  | 0.0853                                                | 0.1353 | 0.2284 | 0.2802 | 0.4692 | 0.5787 |
| 63                                                                                                                                                                                                                                                                                  | 0.0725                                                | 0.1060 | 0.1956 | 0.2314 | 0.4054 | 0.4750 |
| 71                                                                                                                                                                                                                                                                                  | 0.0585                                                | 0.0878 | 0.1587 | 0.1981 | 0.3333 | 0.4101 |
| J <sub>L</sub>                                                                                                                                                                                                                                                                      | 0.290                                                 | 0.290  | 0.290  | 0.290  | 0.690  | 0.690  |

TR

 TALEP EDİLDİĞİNDE EKLENEBİLEN  
 SEÇENEKLER

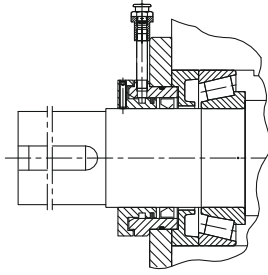
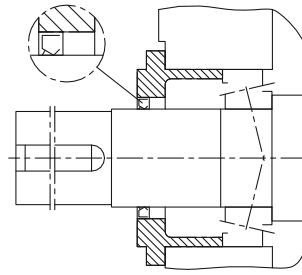
EN

 ADDITIONAL VARIANTS INFORMATION  
 ON REQUEST

DE

 ZUSÄTZLICHE VARIANTEN  
 INFORMATIONEN AUF ANFRAGE

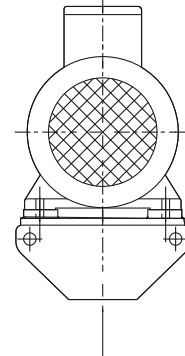
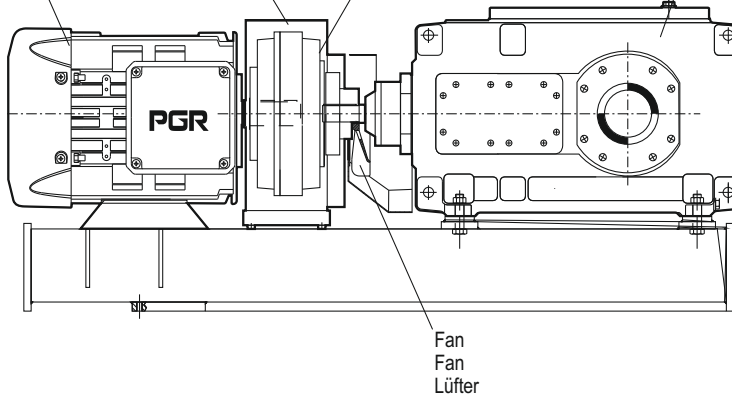
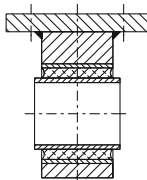
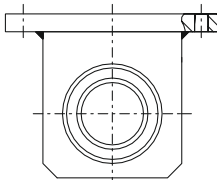
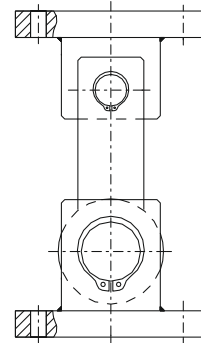
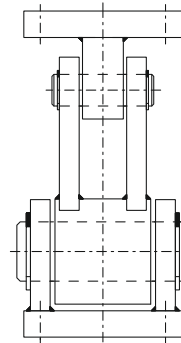
 Şaft keçesi varyasyonları  
 Variants of shaft seals  
 Wellenabdichtungsvarianten

 Takonite keçe  
 Taconite seals  
 Taconite-Dichtungen

 Şaft keçesi  
 Radial shaft seals  
 Radialwellendichtringe

 Redüktörlerde titreşim  
 Gear unit swing-bases  
 Getriebschwingen

 Standart motor  
 Standard motor  
 Normmotor

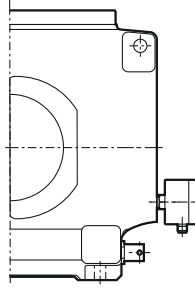
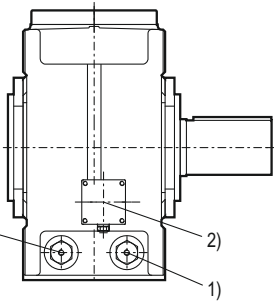
 Koruma  
 Guard  
 Schutzhaube

 Kaplin F  
 F Coupling  
 F Kupplung

 Konik dişli redüktör  
 Bevel-helical gear unit  
 Kegelstirradgetriebe

 Redüktör titreşimindeki destek ekipmanları  
 Supports for gear unit swing-bases  
 Abstützungen für Getriebschwingen

 Elastik destek  
 Flexible pedestal  
 Stützbock elastisch

 Tork kolu  
 Torque arm  
 Drehmomentstützen

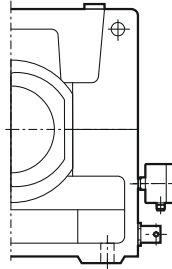
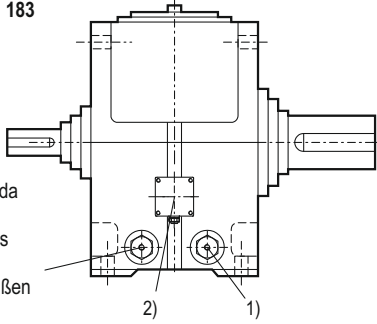
**Boyut / Sizes**  
**Größen 43 ... 123**

Gövdeler dışında  
43, 63, 83, 103, 123  
Except for sizes  
43, 63, 83, 103, 123  
Entfällt bei Größen  
43, 63, 83, 103, 123



**Boyut / Sizes**  
**Größen 133 ... 183**

Gövdeler dışında  
143, 163, 183  
Except for sizes  
143, 163, 183  
Entfällt bei Größen  
143, 163, 183

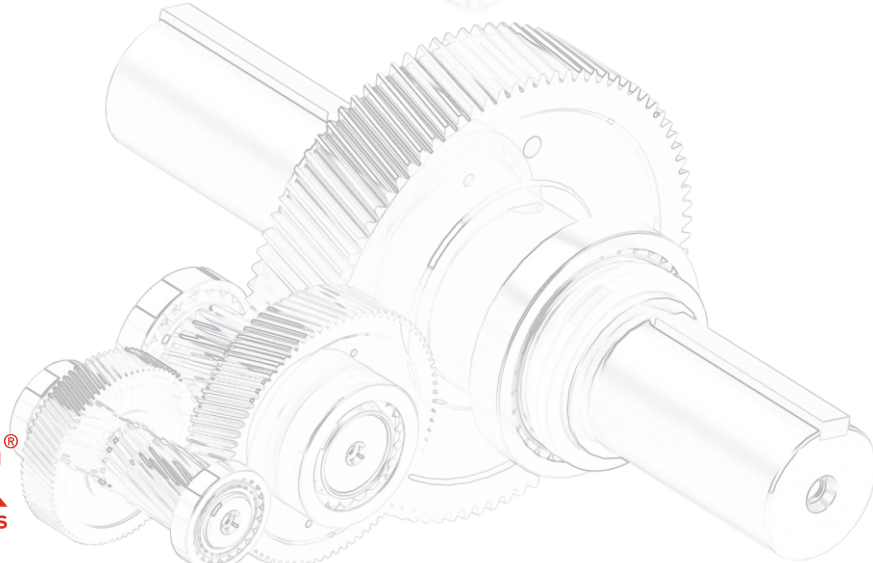
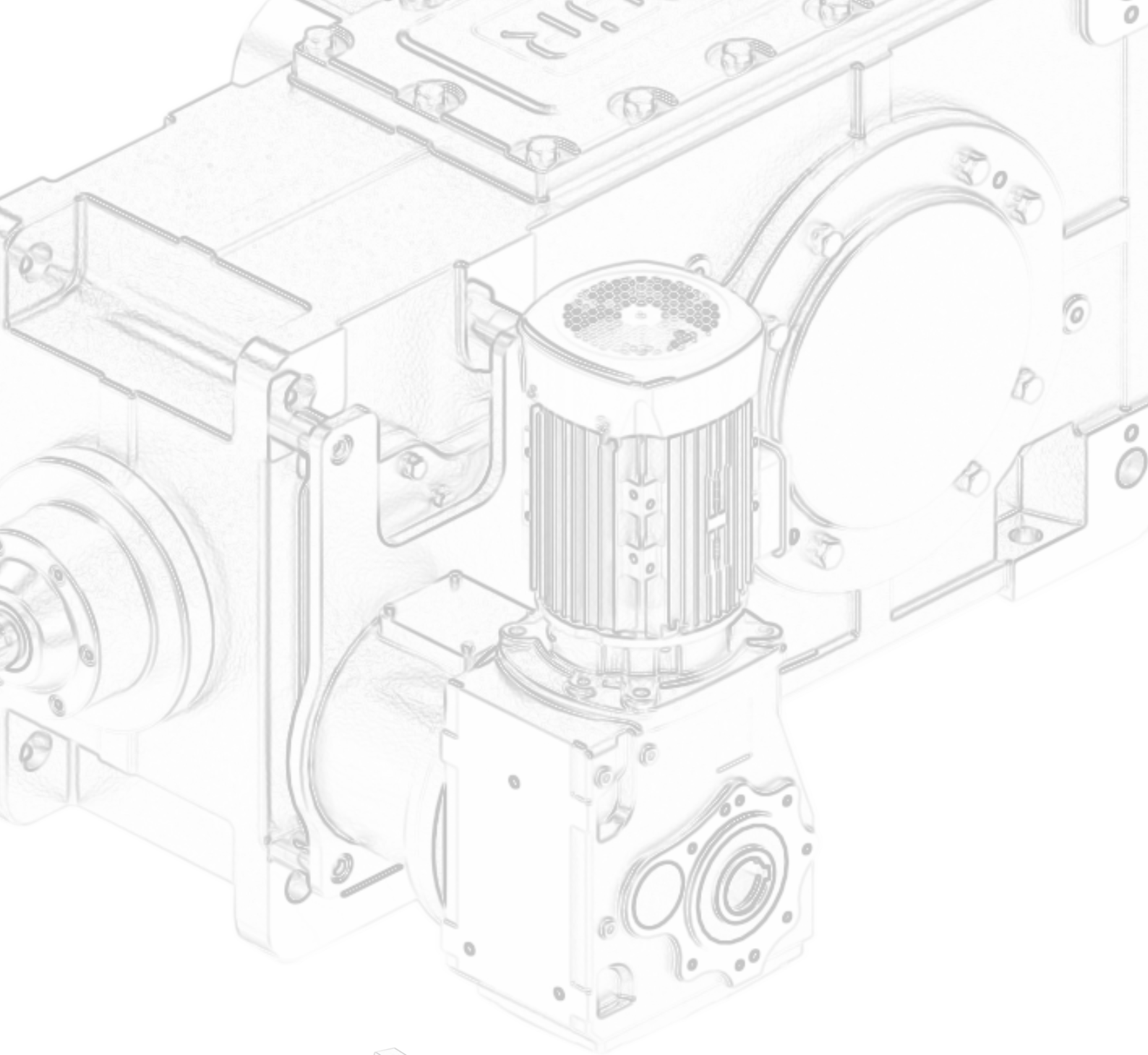


- 1) Isıtma elementi teknik bilgileri;  
Koruma sınıfı IP 65, 230V 50Hz, performansı kullanım şartlarına göre değişir (Lütfen bizimle iletişime geçiniz).
- 2) Isı göstergesi teknik bilgiler (ATH-SW22);  
Koruma sınıfı IP 65, iki kademeli ayarlanabilir şalter maksimum kapasitesi:  
2A/230 V AC/460 VA cos  $\Phi=0.6$  (alternatif akım)  
0.25 A / 230 V DC/58 W (direk akım)
- 1) Screwed heating element; Technical data and notes: Type of protection IP 65, 230 V, 50 Hz, power rating acc. to design. (Please refer to us)
- 2) Temperature monitor ATH-SW22; Technical data and notes: Type of protection IP 65, 2 change-over contacts (adjustable), max. switching capacity:  
2 A/230 V AC/460 VA cos  $\Phi = 0.6$  (alternating current),  
0.25 A/230 V DC/58 W (direct current)
- 1) Einschraubheizkörper, Technische Daten und Hinweise: Schutzartl P65,230V,50Hz, Leistung je nach Auslegung (Rückfrageerforderlich)
- 2) Temperaturwächter ATH-SW22, Technische Daten und Hinweise: Schutzart IP 65,2 Umschaltkontakte (einstellbar), maxSchaltleistung:  
2A/230VAC/460VAcos  $\Phi=0,6$ (Wechselspannung),  
0,25A/230VDC/58W(Gleichspannung)



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DRIVE TECHNOLOGIES

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