

PHC / PBC SERIES

Helisel Sikloid - Konik Sikloid Serisi Redüktörler
Helical Cycloid - Bevel Cycloid Series Gear Units
Stirnrad Zykloid - Kegel Zykloidgetriebe

IE2 | IE3



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PHC

Helisel Sikloid Serisi Redüktörler

Helical Cycloid Series Gear Units

Stirrad Zykloidgetriebe



2

Sipariş Örneği
Example For Ordering
Beispiel Bestellbeschreibung

3-4

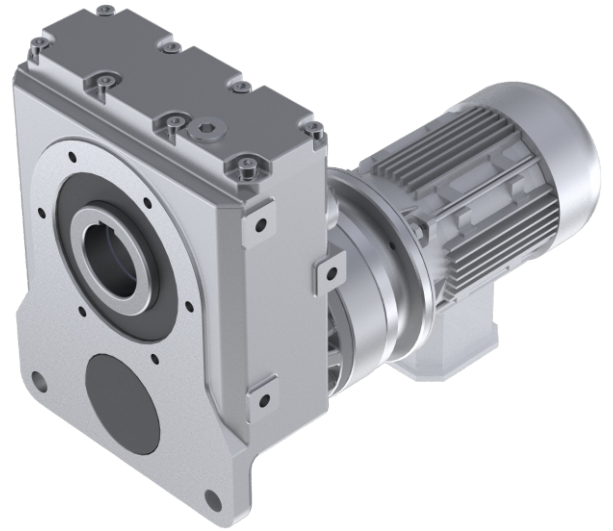
Montaj Pozisyonları
Mounting Positions
Einbaulage

5

Motorlu Seçim Tabloları
Selection Tables of Gearedmotors
Auswahltabellen der Getriebemotoren

6

Ölçü Tabloları
Dimension Tables
Maßtabellen



TR

SİPARİŞ ÖRNEĞİ

EN

EXAMPLE FOR ORDERING

DE

BEISPIEL BESTELLBESCHREIBUNG

PHC

20 - 611

D X M

88

2.2 kW

M1

100L / 4B BRE

Montaj Pozisyonu
 Mounting Position
 Einbaulage

 M1 - M2 - M3
 M4 - M5 - M6

Motor gücü
 Rated motor power
 Motormennleistung

İğes: Tahvil Oranı
 İges: Reduction Ratio
 İges: Verkleinerungsfaktor


MOTOR

100L

Gövde Büyüklüğü
 Case Width
 Gehäusegröße

 80 M
 90 S/L
 100 L
 112 M

4

Kutup sayısı
 Number of Poles
 Anzahl der Pole

 2
 4
 6
 8

BRE

Motor Seçenekleri
 Motor Options
 Motorauswahl

 BRE
 RG
 SR
 HL
 TF
 TW
 WU
 EF
 ZF
 DF
 IG
 KK/FK
 B

M

Motorlu
 With Motor
 Mit Motor

-

Motorsuz
 Without Motor
 Ohne Motor

X
Pam Adaptörü /
 Hollow Shaft
 Adapter /
 Hohlwellen-
 adapter

C
C-FACE, kaplinli
motor bağlantısı /
 C-FACE, motor
 connection with coupling /
 C-FACE, Motoranschluss
 mit Kupplung

W
Serbest Giriş
 Mili /
 Shaft /
 Freie
 Antriebswelle

D

Delik Millî
 Hollow shaft
 Hohlwelle

Sikloid Gövde Büyüklüğü
 Cycloid Case Width
 Zykloidgetriebe Gehäusegröße

609 - 610 - 611-614 - 616

Helisel Gövde Büyüklüğü
 Helical Case Width
 Stirrad Gehäusegröße

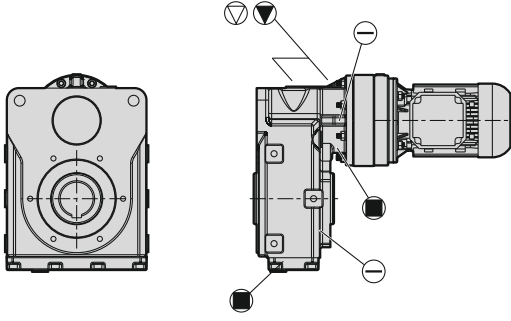
5 - 10 - 20 - 30 - 40

Polat Helisel Sikloid Serisi Redüktörler
 Polat Helical Cycloid Series Gear Units
 Polat Stirrad Zykloidgetriebe

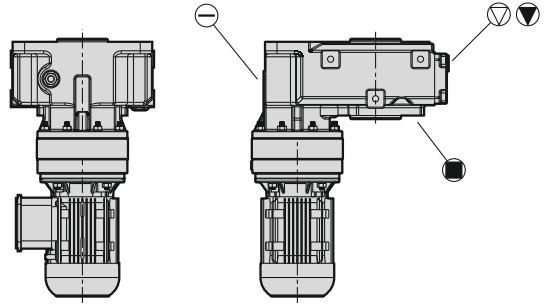
***** Farklı giriş ve çıkış bağlantı tipleri için PGR ile irtibata geçiniz.**
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 Für andere Eingangs- und Ausgangsverbindungstypen wenden Sie sich bitte an PGR.

HELİSEL SİKLOİD SERİSİ REDÜKTÖRLER / HELICAL CYCLOID SERIES GEAR UNITS / STIRNRAD ZYKLOIDGETRIEBE

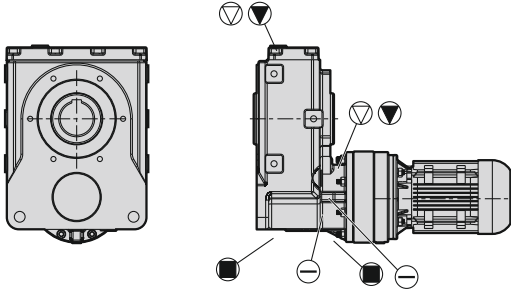
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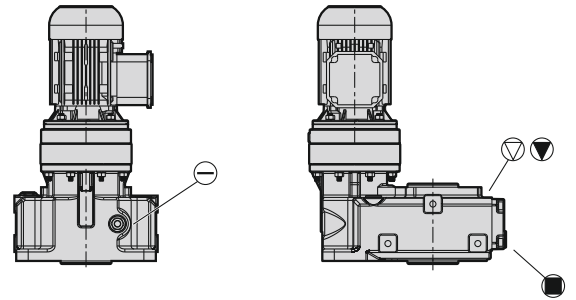
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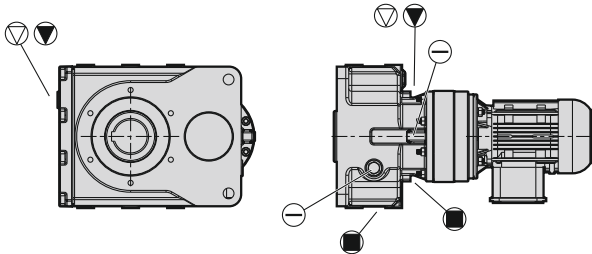
M3



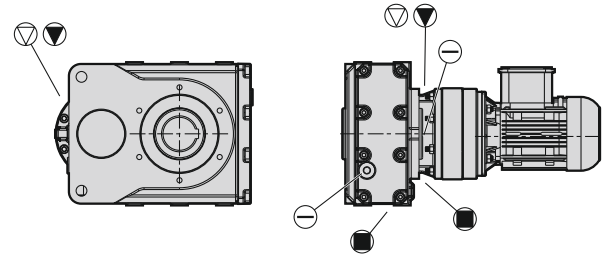
M4



M5



M6



☺ Havalandırma tapası /
Vent plug / Entlüftung

● Doldurma tapası /
Filling plug / Einfüllstopfen

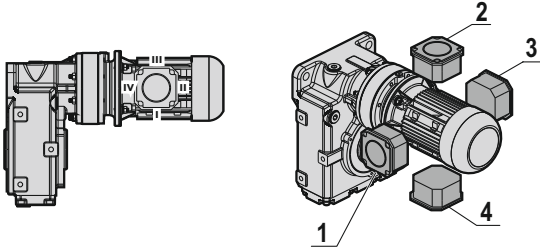
○ Yağ Seviye tapası /
Oil level / Ölstand

● Boşaltma tapası /
Drain plug / Ölabblass

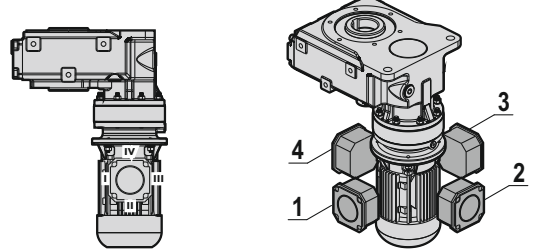
PHC

TERMİNAL KUTUSU VE KABLO GİRİŞ YÖNLERİ / POSITION OF TERMINAL BOX AND CABLE ENTRY /
KLEMMENKASTENLAGE UND KABELNİFÜHRUNG

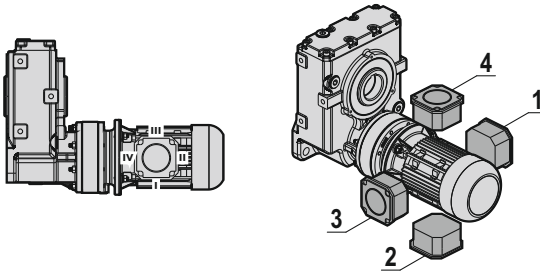
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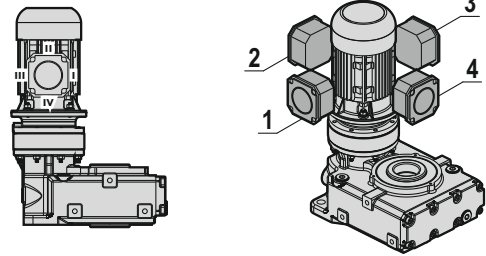
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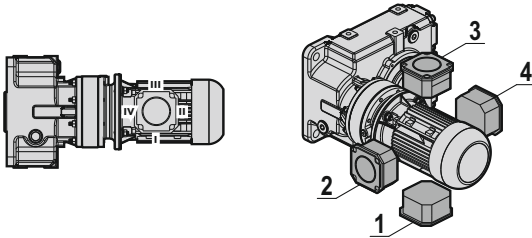
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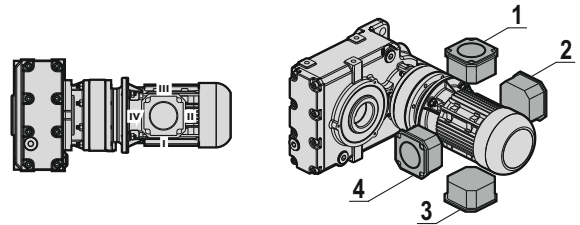
M4



M5



M6



* 1 - 2 - 3 - 4 : Terminal kutusu yönlerini gösterir.

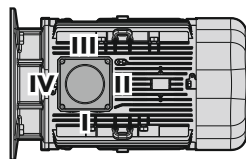
* I - II - III - IV: Kablo giriş yönlerini gösterir.




















* 1 - 2 - 3 - 4 : Shows terminal box position

* I - II - III - IV: Shows cable entry position

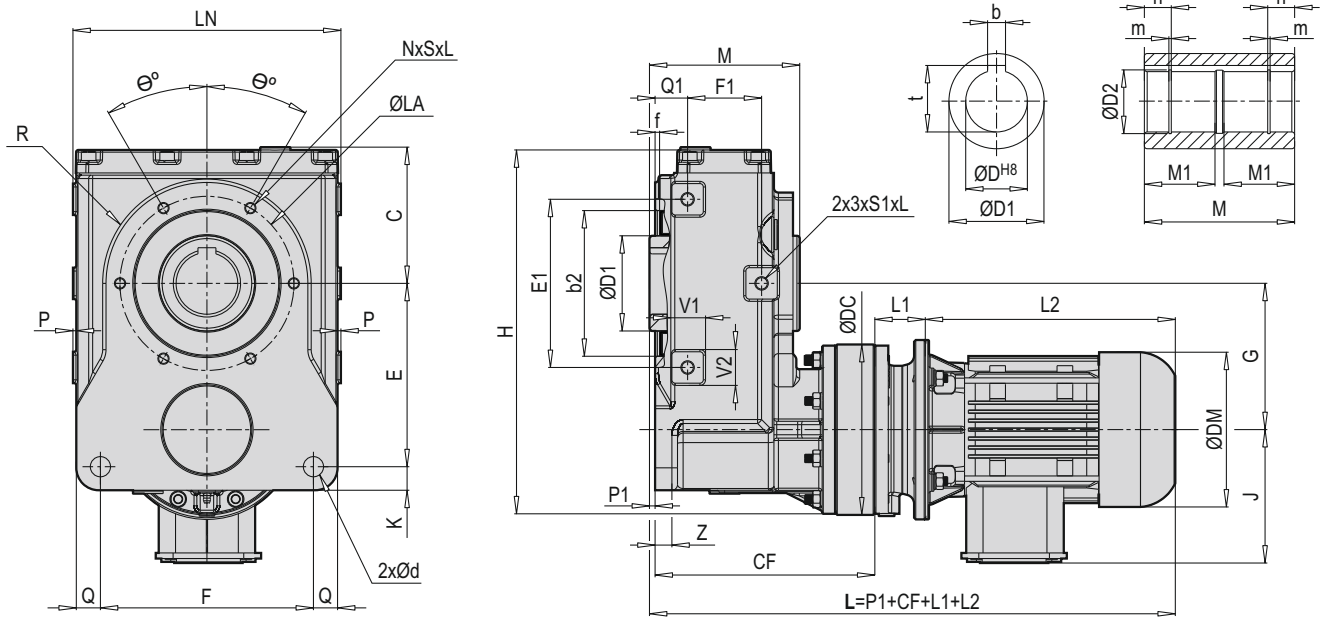
* 1 - 2 - 3 - 4 : Zeigt die Position des Klemmkastens an

* I - II - III - IV: Zeigt die kabeleinführungsposition an



P_1 [kW]	n_2 [Min ⁻¹]	M_2 [Nm]	f_B	i_{ges} [1.stage]	i_{ges} [2.stage]	i_{ges} [Total]		 IE2 / IE3	 mm			
0.75	67.3	95	2.03	6	3.47	20.8		80M4C / 80M4D	6			
	50.5	127	2.03	8	3.47	27.7						
	36.7	174	2.03	11	3.47	38.1						
	31.1	206	2.03	13	3.47	45.1						
	26.9	237	1.83	15	3.47	52.0						
	23.8	269	1.61	17	3.47	58.9						
	19.2	332	1.31	21	3.47	72.8						
	16.2	396	1.10	25	3.47	86.7						
	13.8	463	1.69	29	3.50	101.5					80M4C / 80M4D	6
	11.4	559	1.58	35	3.50	122.5						
	9.3	687	1.29	43	3.50	150.5						
	7.8	815	1.03	51	3.50	178.5						
1.50	6.8	943	1.88	59	3.50	206.5		80M4C / 80M4D	6			
	5.6	1135	1.52	71	3.50	248.5						
	4.6	1390	2.55	87	3.50	304.5		80M4C / 80M4D	6			
	1.50	66.7	192	2.12	6	3.50	21.0		90L4C / 90L4D	6		
		50.0	256	2.12	8	3.50	28.0					
		36.4	352	2.12	11	3.50	38.5					
		30.8	415	2.12	13	3.50	45.5					
		26.7	479	1.85	15	3.50	52.5					
		23.5	543	1.63	17	3.50	59.5					
		19.0	671	1.32	21	3.50	73.5					
		16.0	799	1.11	25	3.50	87.5					
		13.8	927	1.91	29	3.50	101.5					90L4C / 90L4D
11.4		1119	1.59	35	3.50	122.5						
9.3		1374	1.29	43	3.50	150.5						
7.8		1630	2.18	51	3.50	178.5						
2.20	6.8	1886	1.88	59	3.50	206.5		90L4C / 90L4D	6			
	5.6	2269	1.56	71	3.50	248.5						
	4.6	2780	1.28	87	3.50	304.5		90L4C / 90L4D	6			
	2.20	66.7	281	3.16	6	3.50	21.0		100L4B / 100L4C	6		
		50.0	375	3.16	8	3.50	28.0					
		36.4	516	2.69	11	3.50	38.5					
		30.8	609	2.69	13	3.50	45.5					
		26.7	703	2.52	15	3.50	52.5					
		23.5	797	2.23	17	3.50	59.5					
		19.0	984	1.80	21	3.50	73.5					
		16.0	1172	1.51	25	3.50	87.5					
		13.8	1359	1.31	29	3.50	101.5					100L4B / 100L4C
11.4		1641	1.08	35	3.50	122.5						
9.3		2016	1.76	43	3.50	150.5						
7.8		2391	1.48	51	3.50	178.5						
4.00	6.8	2766	1.28	59	3.50	206.5		100L4B / 100L4C	6			
	5.6	3328	1.07	71	3.50	248.5						
	4.6	4039	1.51	87	3.47	301.6		100L4B / 100L4C	6			
	4.00	66.7	511	1.88	6	3.50	21.0		112M4C / 112M4D	6		
		50.0	682	1.88	8	3.50	28.0					
		36.4	937	1.60	11	3.50	38.5					
		30.8	1108	1.60	13	3.50	45.5					
		26.7	1278	1.50	15	3.50	52.5					
		23.5	1449	1.32	17	3.50	59.5					
		19.0	1790	1.07	21	3.50	73.5					
		16.0	2131	0.90	25	3.50	87.5					
		13.8	2472	1.55	29	3.50	101.5					112M4C / 112M4D
11.4		2983	1.29	35	3.50	122.5						
9.3		3665	1.05	43	3.50	150.5						
7.9		4305	1.53	51	3.47	176.8						
4.00	6.8	4980	1.32	59	3.47	204.5		112M4C / 112M4D	6			
	5.7	5993	1.10	71	3.47	246.1						
	4.6	7344	1.25	87	3.47	301.6		112M4C / 112M4D	6			

PHC - DXM



Tip/Type/Typ	CF	C	ØDC	E	F	E1	F1	G	H	K	LN	M	P	P1	Q	Q1	R	V1	V2	Z	ØLA	Θ
05-609	166	107.5	150	157	180	140	56	119	301.5	15	217	120	3	5	15.5	27	73	26	26	20	120	0
10-610	195	117	150	163.5	190	150	66	130.5	322.5	20	239	134	3	5	21.5	29	90	28	28	20	155	30
20-611	228	144.5	204	202.5	220	190	86	162.5	409	20	296	160	3	5	35	31	105	34	32	25	175	30
30-614	292	171	230	242	270	220	97	192.5	478.5	25	346	192	3	5	35	41	130	101	52	30	212	30
40-616	342	214	300	293	324	250	114	244	608	32	436	218	5	7	51	45	150	92	60	35	255	30
50-617	376	240	340	332	360	300	127	272	682	38	490	238	5	7	60	50	165	97	62	45	280	22.5

Tip/Type/Typ	b2xf	Ød	ØD	b	t	ØD1	ØD2	M1	m	n	S1xL	SxL	N
05-609	100x3.5	14	40	12	43.3	65	43	57	1.95	24	M10x20	M10x20	4
10-610	130x4	18	55	16	59.3	85	58	63	2.2	30	M12x22	M10x20	6
20-611	150x4	18	65	18	69.4	100	68	75	2.7	30	M16x26	M12x22	6
30-614	180x6	22	75	20	79.9	110	78	90	2.7	37	M20x35	M16x30	6
40-616	210x6	26	85	22	90.4	130	89	100	3.2	37	M24x40	M20x35	6
50-617	240x6	33	100	28	106.4	150	104	110	3.2	37	M24x40	M20x35	8

Tip Type / Typ	L1										
	56	63	71	80	90	100	112	132	160	180	200
609	-	41	48	62	73	-	-	-	-	-	-
610	-	32.5	45	47	65	77	77	-	-	-	-
611	-	-	55	59	69	85.5	85.5	105.5	-	-	-
614	-	-	-	53.5	68.5	84	84	109.5	137.5	-	-
616	-	-	-	-	71	77	77	95	128	-	-
617	-	-	-	-	-	*	*	*	*	*	*
618	-	-	-	-	-	*	*	*	*	*	*

Motor Sizes [kW]	56	63	71	80	90	100	112	132	160	180	200
	0.09	0.12 - 0.18	0.25 - 0.37	0.55 - 0.75	1.1 - 1.5	2.2 - 3	4	5.5 - 7.5 - 9.2	11 - 15	18.5 - 22	30
L2	-	196.5	223	229	293	340	336	379	480	586	595.5
J	-	111	119	134.5	129	154.5	158.5	187	214	249	249
ØDM	-	123	138	165	179	199	219	270	321	363	363

* PGR'ye danışınız. / Please contact with PGR. / Wenden Sie sich an PGR

PBC

Konik Sikloid Serisi Redüktörler
Bevel Cycloid Series Gear Units
Kegel Zykloidgetriebe



8

Sipariş Örneği
Example For Ordering
Beispiel Bestellbeschreibung

9-10

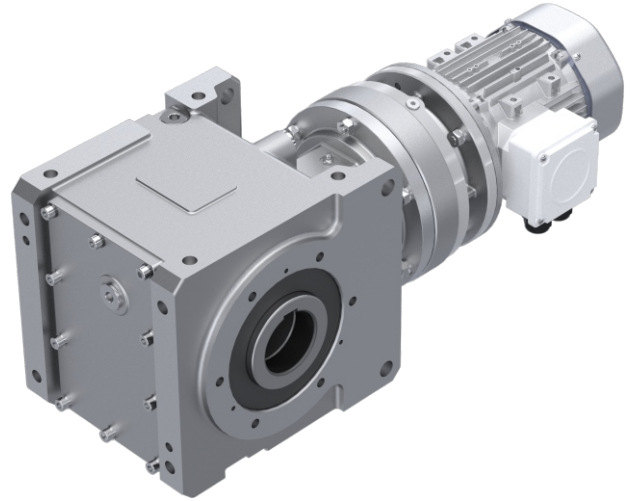
Montaj Pozisyonları
Mounting Positions
Einbaulage

11

Motorlu Seçim Tabloları
Selection Tables of Gearedmotors
Auswahltabellen der Getriebemotoren

12

Ölçü Tabloları
Dimension Tables
Maßtabellen



TR

SİPARİŞ ÖRNEĞİ

EN

EXAMPLE FOR ORDERING

DE

BEISPIEL BESTELLBESCHREIBUNG

PBC

10 - 610

D X M

88

0.75 kW

M1

80M / 4C BRE

Montaj Pozisyonu
Mounting Position
Einbaulage

M1 - M2 - M3
M4 - M5 - M6

Motor gücü
Rated motor power
Motormennleistung

İğes: Tahvil Oranı
İges: Reduction Ratio
İges: Verkleinerungsfaktor



MOTOR

100L

Gövde Büyüklüğü
Case Width
Gehäusegröße

80 M
90 S/L
100 L
112 M

4

Kutup sayısı
Number of Poles
Anzahl der Pole

2
4
6
8

BRE

Motor Seçenekleri
Motor Options
Motorauswahl

BRE
RG
SR
HL
TF
TW
WU
EF
ZF
DF
IG
KK/FK
B

M

Motorlu
With Motor
Mit Motor

-

Motorsuz
Without Motor
Ohne Motor



X
Pam Adaptörü /
Hollow Shaft
Adapter /
Hohlwellen-
adapter



C
C-FACE, kaplinli
motor bağlantısı /
C-FACE, motor
connection with coupling /
C-FACE, Motoranschluss
mit Kupplung



W
Serbest Giriş
Mili /
Free Input
Shaft /
Freie
Antriebswelle

D

Delik Millî
Hollow shaft
Hohlwelle

Sikloid Gövde Büyüklüğü
Cycloid Case Width
Zykloidgetriebe Gehäusegröße

610 - 611- 614 - 616 - 617

Konik Gövde Büyüklüğü
Bevel Case Width
Kegel Gehäusegröße

10 - 20 - 30 - 40 - 50

Polat Konik Sikloid Serisi Redüktörler
Polat Bevel Cycloid Series Gear Units
Polat Kegel Zykloidgetriebe

*** Farklı giriş ve çıkış bağlantı tipleri için PGR ile irtibata geçiniz.
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TR

MONTAJ POZİSYONLARI

EN

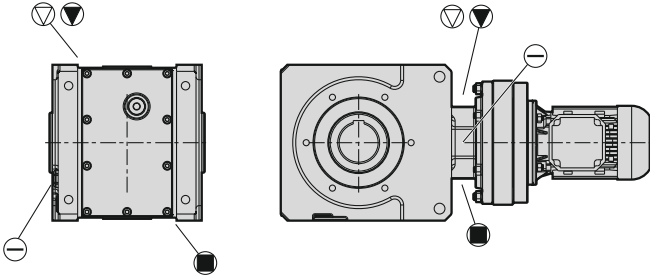
MOUNTING POSITIONS

DE

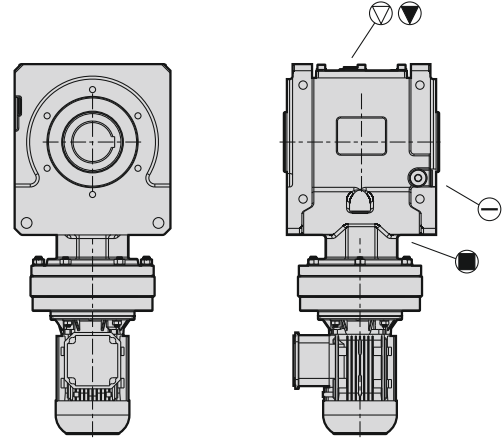
MONTAGEPOSITIONEN

**KONİK SİKLOİD SERİSİ REDÜKTÖRLER / BEVEL CYCLOID SERIES GEAR UNITS /
KEGEL ZYKLOIDGETRIEBE**

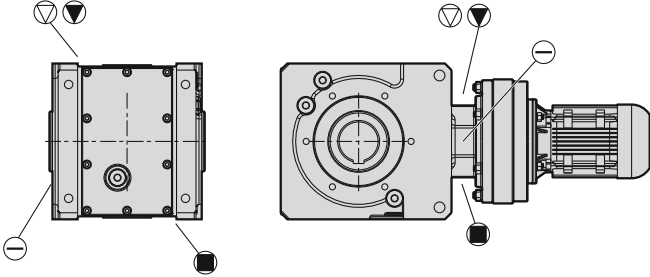
M1



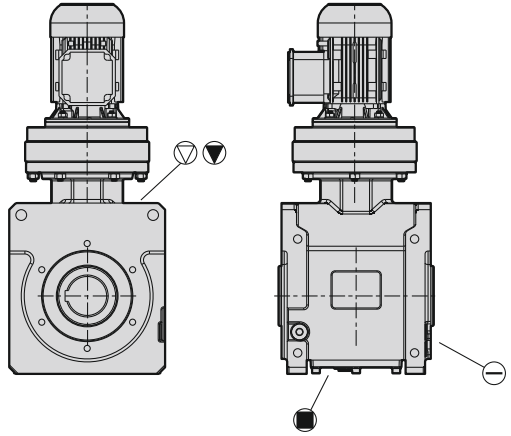
M2



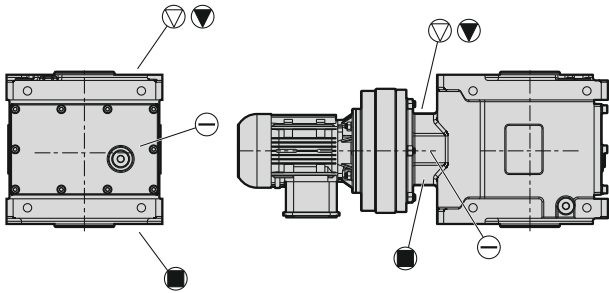
M3



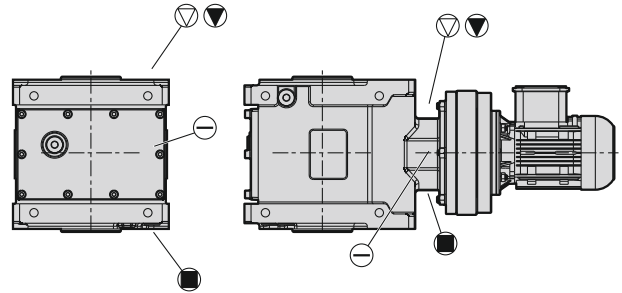
M4



M5



M6



○ Havalandırma tapası /
Vent plug / Entlüftung

● Doldurma tapası /
Filling plug / Einfüllstopfen

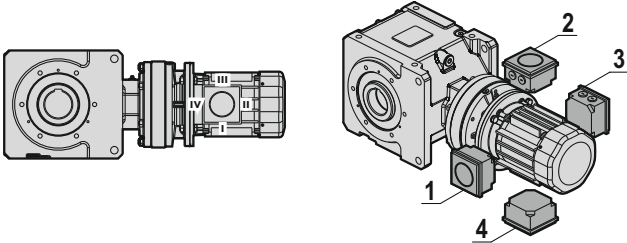
○ Yağ Seviye tapası /
Oil level / Ölstand

● Boşaltma tapası /
Drain plug / Ölabblass

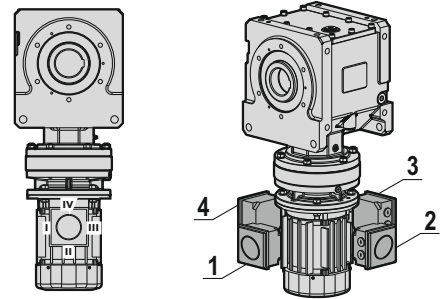
PBC

TERMİNAL KUTUSU VE KABLO GİRİŞ YÖNLERİ / POSITION OF TERMINAL BOX AND CABLE ENTRY /
KLEMMENKASTENLAGE UND KABELNÜHRUNG

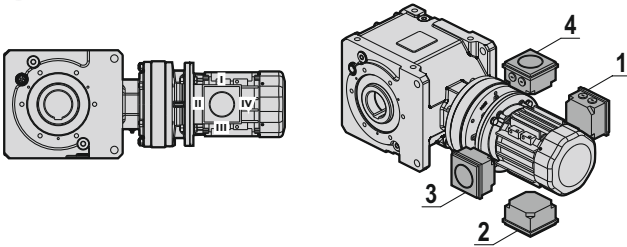
M1



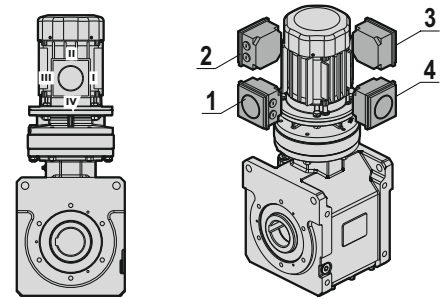
M2



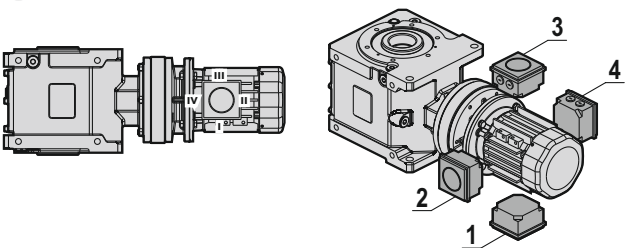
M3



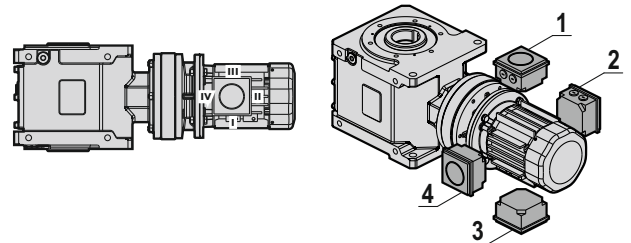
M4



M5



M6



* 1 - 2 - 3 - 4 : Terminal kutusu yönlerini gösterir.

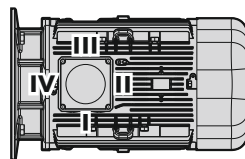
* I - II - III - IV: Kablo giriş yönlerini gösterir.




* 1 - 2 - 3 - 4 : Shows terminal box position

* I - II - III - IV: Shows cable entry position

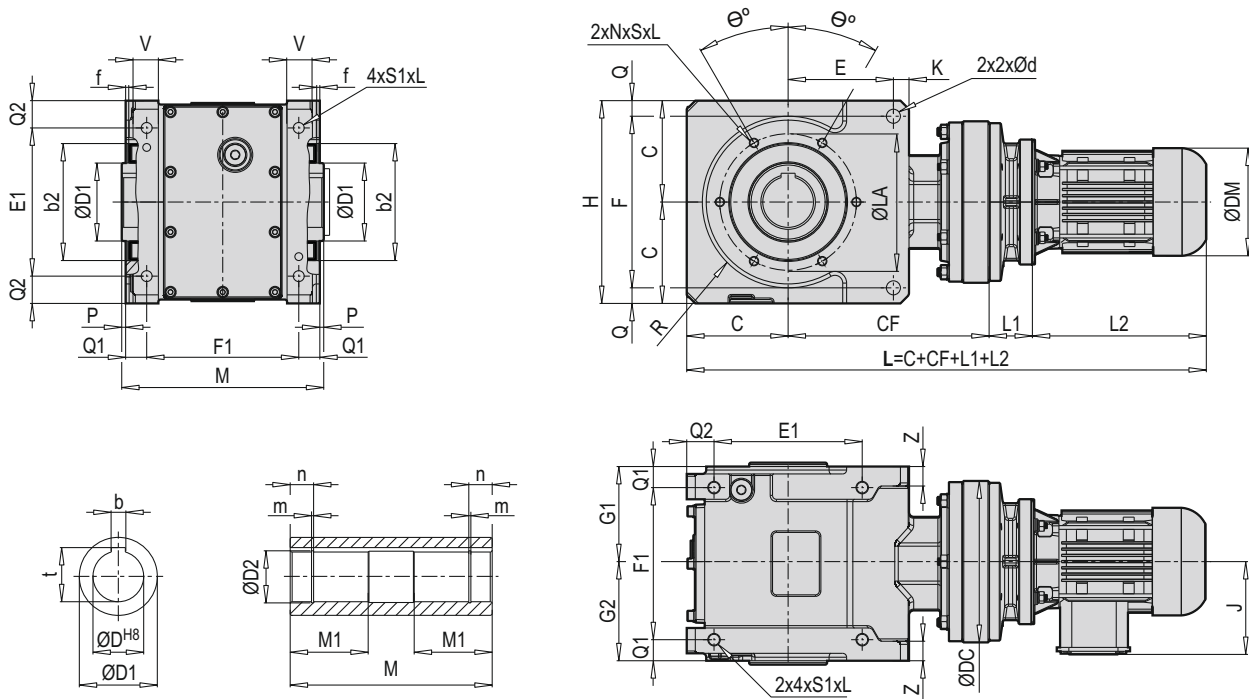
* 1 - 2 - 3 - 4 : Zeigt die Position des Klemmkastens an

* I - II - III - IV: Zeigt die kabeleinführungsposition an



P_1 [kW]	n_2 [Min ⁻¹]	M_2 [Nm]	f_B	i_{ges} [1.stage]	i_{ges} [2.stage]	i_{ges} [Total]		 IE2 / IE3	 mm			
0.75	16.0	399	1.69	25	3.50	87.5	PBC 10-610	80M4C / 80M4D	12			
	13.8	463	1.61	29	3.50	101.5						
	11.4	559	1.30	35	3.50	122.5						
	9.3	687	1.04	43	3.50	150.5						
	7.8	815	1.03	51	3.50	178.5						
	6.8	943	0.94	59	3.50	206.5						
1.50	5.6	1135	1.01	71	3.50	248.5	PBC 20-611	80M4C / 80M4D	12			
	4.6	1390	0.93	87	3.50	304.5						
	66.7	192	2.12	6	3.50	21.0				PBC 10-610	90L4C / 90L4D	12
	50.0	256	2.12	8	3.50	28.0						
	36.4	352	2.12	11	3.50	38.5						
	30.8	415	2.12	13	3.50	45.5						
26.7	479	2.12	15	3.50	52.5							
23.5	543	1.64	17	3.50	59.5							
19.0	671	1.52	21	3.50	73.5	PBC 20-611	90L4C / 90L4D	12				
16.0	799	1.11	25	3.50	87.5							
13.8	927	1.39	29	3.50	101.5							
11.4	1119	1.58	35	3.50	122.5							
9.3	1374	1.27	43	3.50	150.5							
7.8	1630	1.09	51	3.50	178.5							
6.8	1886	1.08	59	3.50	206.5	PBC 30-614	90L4C / 90L4D	12				
5.6	2269	1.62	71	3.50	248.5							
4.6	2780	1.44	87	3.50	304.5							
2.20	66.7	281	1.78	6	3.50				21.0	PBC 20-611	100L4B / 100L4C	12
	50.0	375	1.78	8	3.50				28.0			
	36.4	516	1.78	11	3.50				38.5			
	30.8	609	1.77	13	3.50	45.5						
	26.7	703	1.77	15	3.50	52.5						
	23.5	797	1.62	17	3.50	59.5						
	19.0	984	1.51	21	3.50	73.5						
	16.0	1172	1.40	25	3.50	87.5						
	13.8	1359	1.32	29	3.50	101.5						
	11.4	1641	1.26	35	3.50	122.5						
	9.3	2016	1.19	43	3.50	150.5						
	7.8	2391	1.68	51	3.50	178.5	PBC 30-614	100L4B / 100L4C	12			
6.8	2766	1.45	59	3.50	206.5							
5.6	3328	1.19	71	3.50	248.5							
4.6	4078	1.71	87	3.50	304.5	PBC 40-616	100L4B / 100L4C	12				
4.00	66.7	511	1.57	6	3.50	21.0	PBC 20-611	112M4C / 112M4D	12			
	50.0	682	1.88	8	3.50	28.0						
	36.4	937	1.60	11	3.50	38.5						
	30.8	1108	1.60	13	3.50	45.5						
	26.7	1278	1.58	15	3.50	52.5						
	23.5	1449	1.53	17	3.50	59.5						
	19.0	1790	1.32	21	3.50	73.5						
	16.0	2131	1.07	25	3.50	87.5						
	13.8	2472	2.14	29	3.50	101.5				PBC 30-614	112M4C / 112M4D	12
	11.4	2983	2.04	35	3.50	122.5						
	9.3	3665	1.36	43	3.50	150.5						
	7.8	4346	1.14	51	3.50	178.5						
6.8	5028	1.55	59	3.50	206.5							
5.6	6051	1.39	71	3.50	248.5							
4.6	7415	1.05	87	3.50	304.5	PBC 40-616	112M4C / 112M4D	12				

PBC - DXM



Tip/Type/Typ	CF	C	ØDC	E	F	E1	F1	G1	G2	H	K	M	P	Q	Q1	Q2	R	V	Z	ØLA	Θ
10-610	237	110	150	117	190	150	160	96	110	220	15	216	5	15	23	35	90	-	22	155	22.5
20-611	257	130	204	135	220	190	195	122	127	260	20	259	5	20	27	35	105	32	25	175	30
30-614	356	160	230	155	270	220	213	124	151	320	25	285	5	25	31	50	135	40	30	212	30
40-616	450	190	300	193	310	250	254	148	178	380	35	340	7	28	36	65	150	-	55	255	22.5
50-617	468	215	340	230	360	300	283	156	203	430	35	373	7	35	38	65	165	-	55	280	22.5

Tip/Type/Typ	b2xf	Ød	ØD	b	t	ØD1	ØD2	M1	m	n	S1xL	SxL	N
10-610	130x4	18	55	16	59.3	85	58	85	2.2	30	M12x20	M10x17	8
20-611	150x4	18	65	18	69.4	100	68	100	2.7	30	M16x26	M12x22	6
30-614	180x5	26	75	20	79.9	120	78	120	2.7	37	M20x33	M16x26	6
40-616	210x5	33	85	22	90.4	140	88.5	145	3.2	37	M24x35	M20x33	8
50-617	240x5	33	100	28	106.4	160	104	165	3.2	37	M24x40	M20x35	8

Tip Type / Typ	L1									
	63	71	80	90	100	112	132	160	180	200
609	41	48	62	73	-	-	-	-	-	-
610	32.5	45	47	65	77	77	-	-	-	-
611	-	55	59	69	85.5	85.5	105.5	-	-	-
614	-	-	53.5	68.5	84	84	109.5	137.5	-	-
616	-	-	-	71	77	77	95	128	-	-
617	-	-	-	-	*	*	*	*	*	*
618	-	-	-	-	*	*	*	*	*	*

Motor Sizes [kW]	63	71	80	90	100	112	132	160	180	200
L2	196.5	223	229	293	340	336	379	480	586	595.5
J	111	119	134.5	129	154.5	158.5	187	214	249	249
ØDM	123	138	165	179	199	219	270	321	363	363

* PGR'ye danışınız. / Please contact with PGR. / Wenden Sie sich an PGR



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