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Type designation



The type designation for geared motors describes the construction of the unit starting from the output side.

Gear unit

K	4	3	C V
Gear Type	Size	Number of stages	Options
G–Helical gear unit			A – Foot mounted version C – Flange mounted version E – Foot-flange mounted version
F–Shaft Mounted Helical Gear unit			A – Shaft mounted version B – Shaft mounted version C – Flange mounted version D – Shaft mounted version + side areas E – Flange mounted version + side areas S – Hollow shaft with shrink disc V – Output shaft with key Z – Splined hollow shaft G – Rubber elements
S–Helical worm gear unit K–Helical bevel gear unit			A – Foot mounted version B – Shaft mounted version C – Flange mounted version D – Shaft mounted version + foot area E – Flange mounted version + foot area S – Hollow shaft with shrink disc V – Output shaft with key Z – Splined hollow shaft T1 – Torque arm

Double gearbox

F43	G12	C V
Gear unit 1	Gear unit 2	Options Gear unit 1

Gearbox input

-W2	Free input shaft, Size 2
-W3F	Free input shaft and Flange, Size 3
-M IEC112	adapter for IEC-motors, Frame size 112
-M NEMA180	adapter for Nema-motors, Frame size 180
-M S90/1	adapter for Servo-motors, Frame size 90/1

Three phase motor

DM	90S	4	F TW
Range	Frame size	Number of poles	Options
			B.. - Brake B..MB – Brake with hand release F - Forced ventilation I - Incremental encoder EAM – Absolute encoder multiturn TW – PTC thermistor sensor TS - Thermorelay (closed)

Servo motor

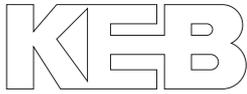
TA	43	V30	ER TW
Range	Frame size	Type of motor winding	Options
			BP.. - Brake ER – Resolver EAS – Absolute encoder singleturn EAM – Absolute encoder multiturn F - Forced ventilation TW – PTC thermistor sensor

Example

G23C DM80G4 B TW
G12A –M IEC71
S32G12AV DM63K4
K43BT1 TA51 V30 ER TW
DM80G6
TA42 VD0 EAM TW
F63 -W5

For full identification of geared motors, additional information has to be added to the type designation.

Product description



Selection table Geared motors

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]					Page
3.0 kW						
17	1690	0.85	83.01	K53A DM100LX4	171	66
19	1510	0.95	74.48	K53B DM100LX4		66
21	1370	1.05	67.22	K53C DM100LX4		70
23	1260	1.15	61.87			

The selection table contains standard geared motors with

- Three phase motor DM/DA, 4 pole, Pn=0.12..45kW
- Ratio of gear unit i<1000
- Gear coefficient cG<3.0

Additional geared motors can be combined with help of corresponding selection table for gearboxes.

Efficiency of gearbox

The efficiency of the gear unit for helical gear units G, shaft mounted helical gear units F and helical bevel gear units K depends on the number of gear stages, 2-stage (0.96) and 3-stage (0.94).

The efficiency of helical worm gear units S depends on the ratio of the worm gear stage, the input speed into the gear unit and the temperature of the gear unit.

The efficiency of helical worm gear units S is shown in the selection table for gear units.

The efficiency of helical worm gear units S for back driving is significantly lower than the normal efficiency. In certain cases the worm gear unit can be self-locking.

At certain mounting positions the gearbox is completely filled with lubricant. At high input speed mixing losses can reduce the efficiency of the gear unit.

Dimension sheet notes

If not stated differently in the dimension sheet, the following tolerances are used:

Tolerance of shaft height <250mm: -0.5mm >250mm: -1mm

Tolerance of shaft diameter ≤50mm: ISO k6 >50mm: ISO m6

Flanges - Tolerance of spigot ≤230mm: ISO j6 >230mm: ISO h6

Paint

Paint	Description	Total thickness of paint ~µm	Typical area of use
Standard	1x dip-primer 1x 1-component-coat 1)	60-80	normal environment conditions up to 120°C surface temperature Humidity <90%
C1	1x dip-primer 1x 2-component-primer 1x 2-component-coat 1)	110-140	corrosive environment conditions up to 120°C surface temperature Humidity <95%
C2	1x dip-primer 2x 2-component-primer 2x 2-component-coat 1)	190-240	high corrosive environment conditions up to 120°C surface temperature Humidity ..100%

- 1) Standard color RAL7031 bluegrey
Different colors on request.

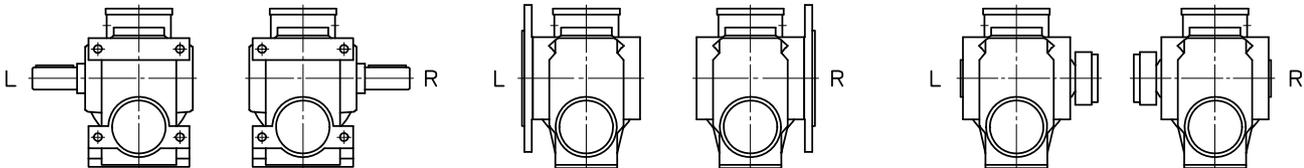
For the operation of the geared motors under corrosive environment the following additional options are available:

Dust- and water protection IP65 for normal and braked motors

Output shaft / hollow shaft from stainless steel

Mounting face

For helical-worm and helical bevel geared motors with flange, with solid shaft or with shrink disk the position of mounting face has to be specified.

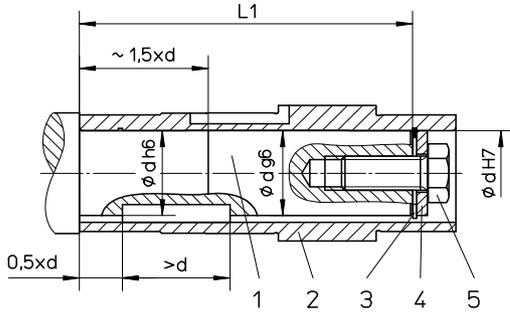


Example: Mounting face R

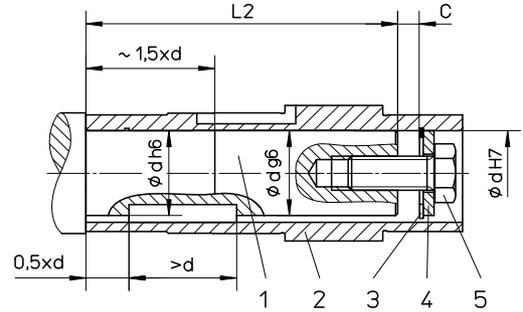
Product description



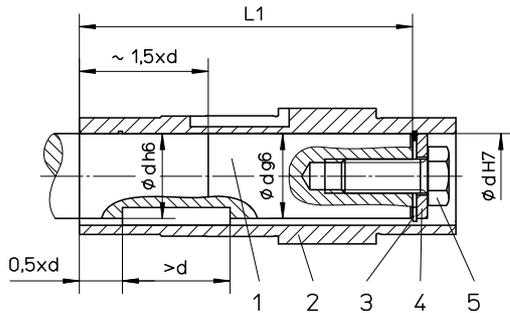
Assembly / Disassembly notes when using gear units with hollow shaft



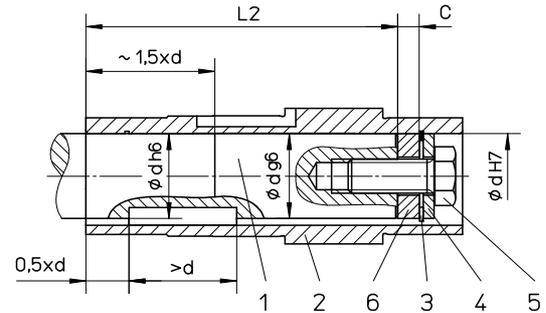
Assembly on shaft with shoulder
Length of customers shaft: L1-1mm



Assembly on shaft with shoulder
Disassembly with turn safe nut possible
Length of customers shaft: L2



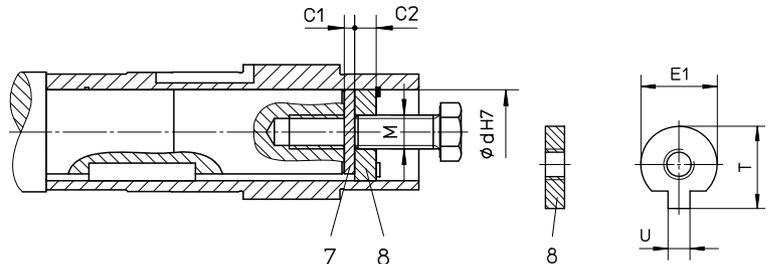
Assembly on shaft without shoulder
Length of customers shaft: L1



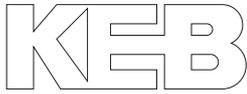
Assembly on shaft without shoulder
Disassembly with turn safe nut possible
Length of customers shaft: L2

Gear unit	d	L1	L2	C	C1	C2	E1	M	T	U
S0	20	76	64	12	5	6	19.7	M6	22.5	5.5
S1, F2, K2	25	105	89	16	5	10	24.7	M10	28	7.5
S2, F3, K3	30	132	116	16	5	10	29.7	M10	33	7.5
S2, F3, K3	35	132	116	16	5	10	34.7	M12	38	9.5
S3, F4, K4	40	155	137	18	5	12	39.7	M16	43	11.5
S4, F5, K5	50	185	167	18	5	12	49.7	M16	53.5	13.5
F6, K6	60	210	188	22	5	16	59.7	M20	64	17.5
F7, K7	70	270	248	22	5	16	69.7	M20	74.5	19.5
F8, K8	90	315	289	26	5	20	89.7	M24	95	24.5
K9	110	375	349	26	5	20	109.7	M24	116	27.5

- 1 Customer's shaft
- 2 Hollow shaft
- 3 Circlip DIN472
- 4 Washer
- 5 Screw DIN933
- 6 Spacer
- 7 Washer
- 8 Nut with tang



Drive selection



Selection conditions

The following conditions must be considered in the selection of the geared motor:

$T_2 \geq T_A$	T_2	[Nm]	Torque of geared motor (see selection table)
$cG \geq f_B$	T_A	[Nm]	Counter-torque of driven machine
	cG		Gear coefficient (see selection table)
	f_B		Application factor of driven machine

Further, the selection of the gearmotor is influenced by the following factors:

- Duty cycle of the motor
- Application of forces on the output shaft
- Ambient temperature and altitude
- Environment conditions

Please consult the manufacturer in the case of complicated drive applications.

Application factor f_B

The service factor of the driven machine is given from the shock grade, the average operating time / day and the number of switches per hour. The shock grade is given from the mass acceleration factor of the driven machine.

$$f_B = \frac{J_{red}}{J_{mot}}$$

f_B	Mass acceleration factor
J_{red}	All external inertias corrected to motor input
J_{mot}	Inertia (Motor)

Shock grade	FJ	Operating time hours/day	Operations per hour			
			< 10	10 ... 100	100 ... 200	> 200
I - uniform	0 ... 0.2	< 8	0.8	1.0	1.2	1.3
		8 ... 16	1.0	1.2	1.3	1.4
		16 ... 24	1.2	1.3	1.4	1.5
II - moderate shocks	0.2 ... 3	< 8	1.1	1.3	1.4	1.5
		8 ... 16	1.3	1.4	1.5	1.7
		16 ... 24	1.5	1.6	1.7	1.8
III - severe shocks	3 ... 10	< 8	1.4	1.6	1.7	1.8
		8 ... 16	1.6	1.7	1.8	2.0
		16 ... 24	1.8	1.9	2.0	2.1

Radial force on gear output shaft

$$F_R = \frac{M_{ab} \cdot 2000}{d_0} \cdot f_z$$

Transmission element	f_z	Remarks
Gears	1.1	< 17 teeth
Sprockets	1.4	< 13 teeth
V-belt pulleys	1.2	< 20 teeth
Flat belt pulleys	1.7	Influence of initial pretensioning force
		Influence of initial pretensioning force

F_R	[N]	Radial force on gear output shaft
M_{ab}	[Nm]	Torque of geared motor (see selection table)
d_0	[mm]	Effective diameter of fitted drive element
f_z		Incremental factor (see table)

The radial force determined must not exceed the permissible radial force for the gear unit.

Permissible Radial Forces for the Output Shaft

If there are radial loads on the output shaft, they should be compared with the permissible values for radial forces.

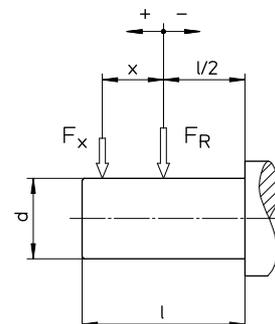
The values in the table for the permissible radial forces apply under the following conditions

gear unit with solid output shaft, normal shaft ends

constant load in continuous operation

radial load on the middle of the output shaft in the case of worst load direction

- no axial forces



Drive selection



If the radial force is not applied to the middle of the shaft, use the following formula for the conversion of the permissible radial force:

$$F_{Rx1} = F_{R1} \cdot \frac{1}{1 + \frac{x}{K_1}}$$

$$F_{Rx2} = F_{R2} \cdot \frac{1}{1 + \frac{x}{K_2}}$$

$$F_{Rxp} = \min(F_{Rx1}, F_{Rx2})$$

F_{R1}	[N]	permissible radial force for bearing lifetime application at middle of output shaft (table)
F_{R2}	[N]	permissible radial force for shaft strength application at middle of output shaft (table)
K_1, K_2	[mm]	Constant (table)
x	[mm]	Distance (subject to sign, see sketch)
F_{Rx1}	[N]	permissible radial force for bearing lifetime application at point x
F_{Rx2}	[N]	permissible radial force for shaft strength application at point x
F_{Rxp}	[N]	total value of permissible radial force application at point x

Gear unit	Output shaft d _{xl} [mm]	K1 [mm]	K2 [mm]	FR2 [N]	FR1 [N]							
					<16 1/min	<25 1/min	<40 1/min	<63 1/min	<100 1/min	<160 1/min	<250 1/min	<400 1/min
G0	20x40	81.5	32.5	2540	2850	2430	1950	1630	1460	1200	1080	950
G1	20x40	90	20	4030	4450	3600	3040	2420	2020	1770	1600	1440
G2	25x50	110.5	25	5900	6000	4920	4180	3410	2860	2440	2240	2040
G3	30x60	132	30	7050	10400	8650	7100	5800	4700	4300	3900	3550
G3	35x70	137	54.5	6760	10000	8330	6840	5600	4530	4140	3760	3420
G4	40x80	159	60.5	11500	16500	13600	11300	9400	7950	6650	6050	5500
G5	50x100	191.5	73.5	17600	21200	17900	14700	12800	10200	9000	8150	7450
G6	60x120	218.5	83.5	24000	27400	22500	19200	16300	14000	12600	11400	10300
G7	75x140	287	97.5	30700	36100	31900	22200	20700	19600	18200	16300	14700
G8	90x170	347.5	117	50000	101000	84500	70000	62000	60500	56000	51000	
G9	110x210	410	140	63000	179000	150000	128000	119000	112000	100000	89000	
F2	25x50	131	25	5830	6250	5300	4100	3450	3250	3050	2700	2350
F3	30x60	161	30	8000	9600	8050	6250	5150	4350	4250	3900	3600
F3	35x70	166	80	7960	9300	7800	6050	5000	4200	4150	3800	3500
F4	40x80	193.5	40	12700	10100	8000	6250	5800	3900	4200	4000	3800
F5	50x100	234.5	50	18200	15100	12100	9350	7300	5500	5750	5850	5650
F6	60x120	256	60	26200	15700	12800	9350	7750	5350	6550	6700	6700
F7	75x140	313	70	41700	50300	41600	34200	29600	28600	27200	24900	22800
F8	90x170	372.5	85	61000	64700	55700	45500	40500	39700	36700	33600	
S02A	20x40	91	20	4030	5370	4410	3750	3100	2380	2080	1910	
S02C	20x40	109	20	4030	4490	3680	3130	2590	1980	1740	1590	
S1	25x50	128	25	5830	6400	5470	4170	3430	2510	2470	2230	
S2	30x60	161	30	8000	10500	8060	6700	5730	3170	3530	3230	
S2	35x70	166	80	7960	10200	7820	6500	5560	3080	3430	3130	
S3	40x80	193.5	40	12700	11800	10400	7950	6150	5450	5200	5000	
S4	50x100	234.5	50	18200	16900	15100	10500	8900	8250	7950	7650	
K2	25x50	131	25	5830	6200	5200	4300	3350	3100	2820	2600	2530
K3	30x60	161	30	8000	9650	7800	6600	5150	4050	3800	3750	3650
K3	35x70	166	80	7960	9350	7550	6400	5000	3900	3700	3650	3550
K4	40x80	193.5	40	12700	10500	8200	6400	4700	3950	3750	3600	3600
K5	50x100	234.5	50	18200	15200	12100	9400	7800	4900	5050	5350	5350
K6	60x120	256	60	26200	15800	12100	8500	5800	4700	5100	5750	
K7	75x140	313	70	41700	49100	42600	36700	33200	27200	25400	24500	
K8	90x170	372.5	85	61000	65700	55200	46700	41000	38900	35600	34900	
K9	110x210	444.5	105	77300	87200	73300	62800	57300	55100	49300	48100	

The radial force determined from the application must not exceed the permissible radial force for the gear unit.

In certain conditions, the gear unit is able to accept higher radial forces.

If no radial force is applied, the permissible axial force for the gear unit is 50% of the calculated permissible radial force.

If the radial forces found for a special drive application are higher than the values in the table, or if radial and axial forces are acting at the same time, consultation with the manufacturer is necessary.

Mounting Position



Helical gear units G

B3

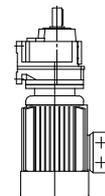
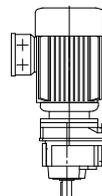
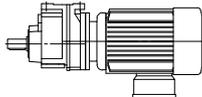
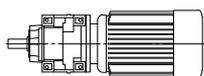
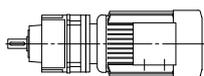
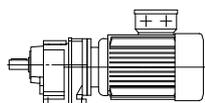
B6

B7

B8

V5

V6



B5

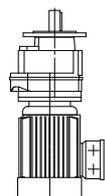
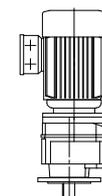
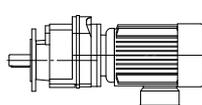
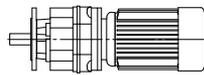
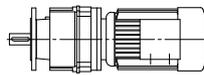
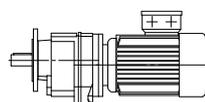
B5/90

B5/270

B5/180

V1

V3



Shaft mounted helical gear units F

H1

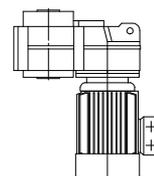
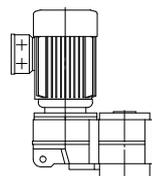
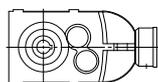
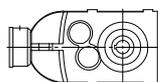
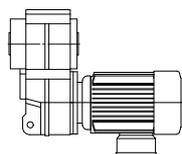
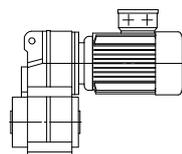
H2

H3

H4

H5

H6



Helical worm gear units S

H1

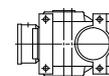
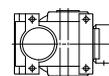
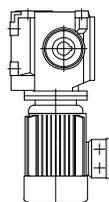
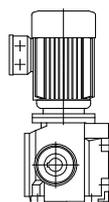
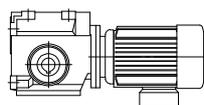
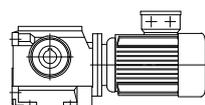
H2

H3

H4

H5

H6



Helical bevel gear units K

H1

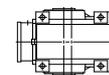
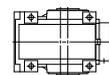
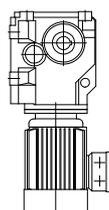
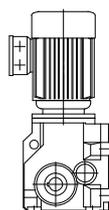
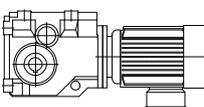
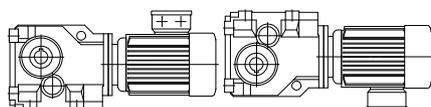
H2

H3

H4

H5

H6



Lubrication

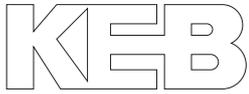


The geared motors are supplied oil filled for the mounting position and ambient temperature of the order.
If the gear unit is to be used in a different mounting position as given on the nameplate, the quantity of lubricant has to be adjusted.

Quantities of lubricant

Gear unit	Mounting position					
	Quantity of lubricant [l]					
	B3	B6	B7	B8	V5	V6
	B5	B5/90	B5/270	B5/180	V1	V3
G0	0.1	0.25	0.25	0.35	0.4	0.45
G1	0.15	0.4	0.4	0.55	0.65	0.65
G2	0.25	0.65	0.65	0.9	1.1	1.1
G3	0.35	1.0	1.0	1.2	1.8	1.8
G4	0.5	1.7	1.7	1.9	2.6	2.7
G5	1.1	3.1	3.1	4.1	4.8	5.2
G6	1.9	7.0	7.0	8.1	8.2	8.8
G7	3.0	12.2	12.2	13.4	12.7	14.5
G8	4.8	21.0	21.0	22.2	21.5	23.2
G9	8.1	22.0	20.7	28.5	37.0	38.2
	H1	H2	H3	H4	H5	H6
F2	0.75	0.6	0.65	0.7	1.0	1.1
F3	1.5	1.2	1.3	1.4	1.7	2.1
F4	2.7	1.9	2.1	2.3	3.0	3.5
F5	4.6	3.6	4.0	4.1	5.9	6.4
F6	7.6	6.2	7.2	6.2	10.4	11.5
F7	11.4	9.8	10.5	10.8	16.6	18.0
F8	19.9	17.4	17.1	17.4	29.8	30.1
	H1	H2	H3	H4	H5	H6
S0	0.1	0.25	0.35	0.35	0.25	0.25
S1	0.3	0.55	1.0	0.75	0.6	0.6
S2	0.5	0.85	1.7	1.2	1.0	1.0
S3	0.8	1.6	3.0	2.0	1.8	1.8
S4	1.4	2.8	5.1	3.5	3.0	3.0
	H1	H2	H3	H4	H5	H6
K2	0.3	0.8	1.0	0.7	0.75	0.75
K3	0.6	1.7	2.0	1.1	1.4	1.4
K4	1.0	2.9	3.2	1.8	2.5	2.5
K5	1.9	5.0	6.5	3.4	4.6	4.6
K6	3.1	7.6	10.5	5.7	7.1	7.1
K7	4.7	11.3	18.5	9.7	13.1	13.1
K8	7.5	18.0	28.0	14.5	20.5	20.5
K9	12.0	30.7	46.7	22.6	35.8	35.8

Lubrication



Type of lubricant	Area of use			Products					
	Gear unit	θ [°C]	1) 2)	ARAL	ESSO	KLÜBER	MOBIL	SHELL	FUCHS
Mineraloil									
CLP VG100	G,F,K	-20... +25	0 0	Degol BG 100	Spartan EP 100	Klüberoil GEM 1-100	Mobilgear 629	Shell Omala 100	Renolin CLP 100
	S	-20... +10	0 0						
CLP VG220	G,F,K	-10... +40	0 0	Degol BG 220	Spartan EP 220	Klüberoil GEM 1-220	Mobilgear 630	Shell Omala 220	Renolin CLP220
CLP VG680	S	0... +40	0 0	Degol BG 680		Klüberoil GEM 1-680	Mobilgear 636	Shell Omala 680	Renolin CLP460
Synthetic oil – PG									
PGLP VG220	G,F,K	-25... +80	+ +	Degol GS 220	Glycolube 220	Klübersynth GH 6-220	Glygoyle 30	Shell Tivela S220	Renolin PG220
	S	-25... +20	0 +						
PGLP VG460	S	-20... +60	+ +	Degol GS 460	Glycolube 460	Klübersynth GH 6-460	Glygoyle HE460	Shell Tivela S460	Renolin PG460
Synthetic oil – HC									
CLP HC VG220	G,F,K	-40... +80	+ ++	Degol PAS 220		Klübersynth EG 4-220	Mobilgear SHC XMP220	Shell Omala HD 220	Renolin Unisyn CLP220
CLP HC VG460	S	-30... +80	+ ++	Degol PAS 460		Klübersynth EG 4-460	Mobilgear SHC XMP460	Shell Omala HD 460	Renolin Unisyn CLP460
Synthetic oil Food grade									
USDA-H1 VG220	G,F,K	-30... +40	+ +	Eural Gear 220		Klüberoil 4 UH 1-220	Mobil DTE FM 220	Shell Cassida GL 220	
USDA-H1 VG460	S	-30... +40	+ +	Eural Gear 460		Klüberoil 4 UH 1-460	Mobil DTE FM 460	Shell Cassida GL 460	
Grease									
Grease GP 0 M-20	G,F,K,S	-20... +50	0 0	Aralub FDP 00	Fibrax EP 370		Mobilplex 44	Shell Alvania GL00	
Grease GP PG 00 N-50	G,F,K,S	-50... +100	0 0		Fließfett S420				
Bearing lubricants									
Mineral oil based		-25... +60					Mobilux 3	Alvania R3	
		-40... +80					Mobiltemp SHC100	Stamina EP2	
		-30... +40						Cassida RLS 2	
	Motor Iso H				Exxon Polyrex EM				

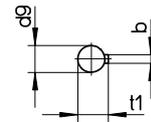
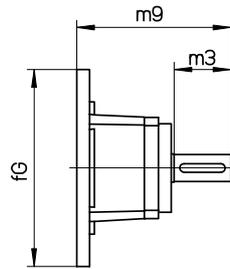
- θ** Ambient temperature
1) Load capacity
2) Resistance to ageing

O=normal, +=high, ++=very high
O=normal, +=high, ++=very high

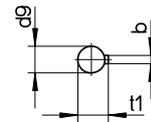
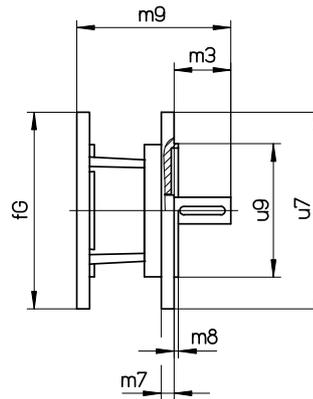
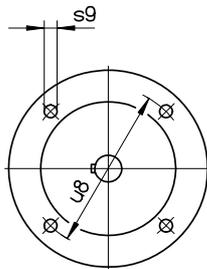
Free input shaft -W



-W

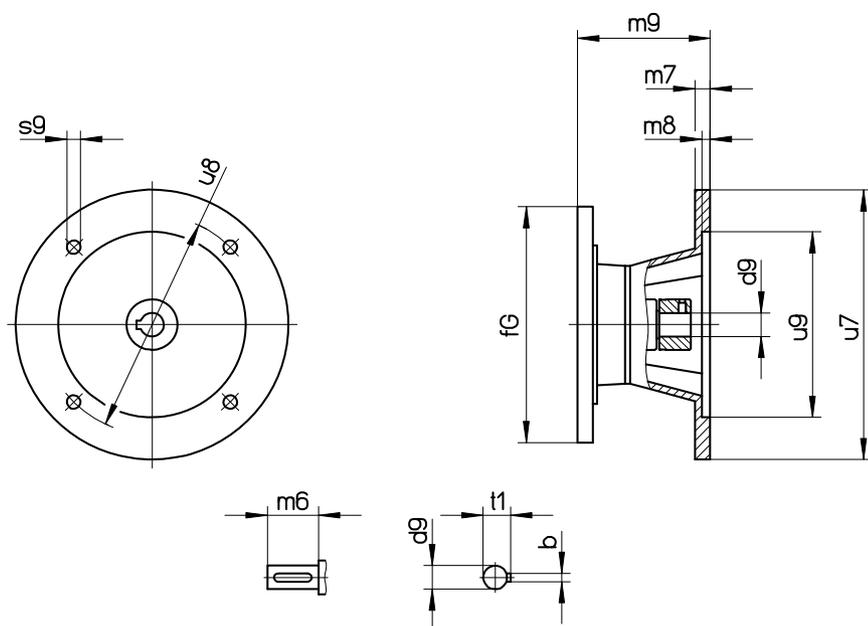


-WF



Adapter	-W1	-W2	-W3	-W4	-W5	fG	Gear unit
T1max [Nm]	4	12	30	60	180		
d9	14	19	28	38	48		
m3	30	40	60	80	110		
b	5	6	8	10	14		
t1	16	21.5	31	41	51.5		
u7	120	140	160	200	300		
u8	100	115	130	165	265		
u9	80	95	110	130	230		
m7	8	9	9	10	12		
m8	3	3	3.5	3.5	4		
s9	6.6	9	9	11	14		
m9	79.5					105	G0, S0
	78.5	113.5				120	G1, S1, F2, K2
	75.5	108.5	153.5			140	G2, S2, F3, K3
	75	110	154	192.5		160	G3, S3, F4, K4
	71.5	106.5	149.5	189		200	G4, S4, F5, K5
		101.5	146	185.5	243.5	250	G5, F6, K6
			139	178.5	237.5	300	G6, F7, K7
			132	170.5	230	350	G7, F8, K8
				154	215	400	G8, K9
					202.5	450	G9

Motor adapter -M IEC



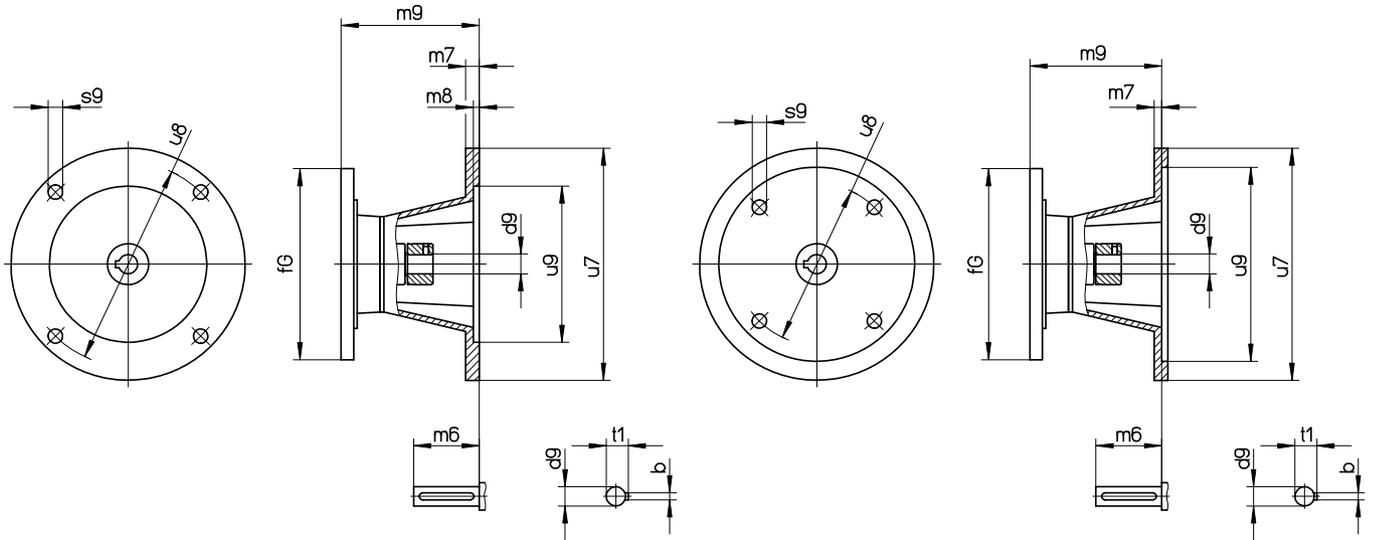
Adapter -M	IEC63	IEC71	IEC80	IEC90	IEC100	IEC112	IEC132	IEC160	IEC180		
T1max [Nm]	4	4	8	12	21	30	60	120	180		
Jad [kgcm²]	0.1	0.1	0.69	0.69	2.3	2.3	7.7	54.3	54.3		
u7	140	160	200	200	250	250	300	350	350		
u8	115	130	165	165	215	215	265	300	300		
u9	95	110	130	130	180	180	230	250	250		
s9	M8	M8	M10	M10	M12	M12	M12	M16	M16		
d9	11	14	19	24	28	28	38	42	48		
m6	23	30	40	50	60	60	80	110	110		
b	4	5	6	8	8	8	10	12	14		
t1	12.5	16	21.5	27	31	31	41	45	51.5		
m7	12	12	15	15	18	18	18	24	24		
m8	4	4.5	4.5	4.5	5	5	5	6	6	fG	Gear unit
m9	75	82								105	G0, S0
	74	81	118	128						120	G1, S1, F2, K2
	71	78	113	123	156.5	156.5				140	G2, S2, F3, K3
	70.5	77.5	114.5	124.5	157	157	196			160	G3, S3, F4, K4
	67	74	111	121	152.5	152.5	192.5			200	G4, S4, F5, K5
			106	116	149	149	189	249	249	250	G5, F6, K6
					142	142	182	243	243	300	G6, F7, K7
					135	135	174	234.5	234.5	350	G7, F8, K8
							157.5	223.5	223.5	400	G8, K9
								208	208	450	G9

Motor adapter -M NEMA



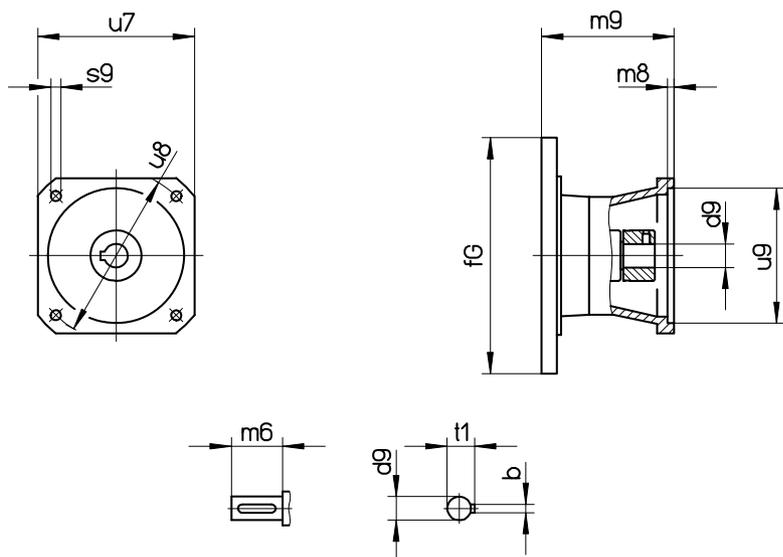
NEMA 56 .. 140

NEMA180 .. 280



Adapter -M	NEMA56	NEMA140	NEMA180	NEMA210	NEMA250	NEMA280		
T1max [Nm]	4	12	30	60	120	180		
Jad [kgcm²]	0.1	0.69	2.3	7.7	54.3	54.3		
u7 [inch]	6.69	6.69	9.00	9.00	9.00	11.26		
u8 [inch]	5.875	5.875	7.25	7.25	7.25	9.00		
u9 [inch]	4.50	4.50	8.50	8.50	8.50	10.50		
s9 [inch]	0.41	0.41	0.59	0.59	0.59	0.59		
d9 [inch]	0.625	0.875	1.125	1.375	1.625	1.875		
m6 [inch]	2.08	2.12	2.62	3.125	3.75	4.380		
b [inch]	0.188	0.188	0.250	0.312	0.375	0.500		
t1 [inch]	0.705	0.959	1.236	1.522	1.791	2.091		
m7 [inch]	0.43	0.47	0.39	0.43	0.47	0.59		
m8 [inch]	0.17	0.17	-	-	-	-	fG [mm]	Gear unit
m9 [mm]	104.5						105	G0, S0
	103.5	132					120	G1, S1, F2, K2
	100.5	127	163				140	G2, S2, F3, K3
	100	128.5	163.5	195.5			160	G3, S3, F4, K4
	96.5	125	159	192			200	G4, S4, F5, K5
		120	155.5	188.5	234.5	250.5	250	G5, F6, K6
			148.5	181.5	228.5	244.5	300	G6, F7, K7
			141.5	173.5	220	236	350	G7, F8, K8
				157	209	225	400	G8, K9
				193.5	209.5	450	G9	

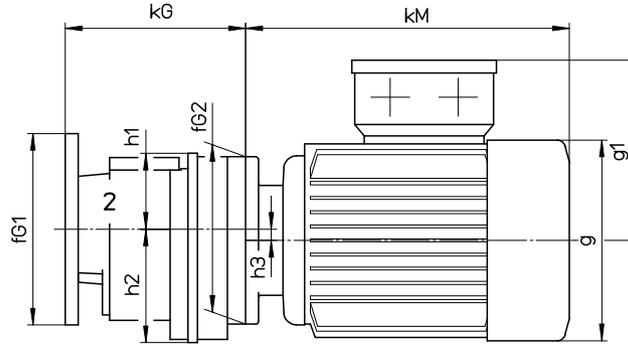
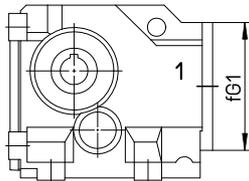
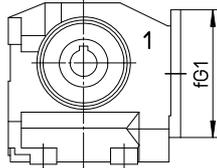
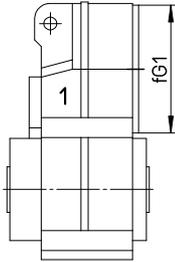
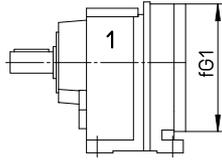
Motor adapter -M S



Adapter -M	S70/1	S90/1	S90/2	S110/1	S140/1	S140/2	S190/1	S190/2	fG	Gear unit
T1max [Nm]	4	8	8	12	30	30	60	60		
Jad [kgcm²]	0.1	0.69	0.69	0.69	2.3	2.3	7.7	7.7		
u7	70	92	92	110	140	140	190	190		
u8	75	100	100	115	165	130	215	165		
u9	60	80	80	95	130	110	180	130		
s9	M5	M6	M6	M8	M10	M8	M12	M10		
d9	11	14	19	19	24	24	32	32		
m6	23	30	40	40	50	50	58	58		
b	4	5	6	6	8	8	10	10		
t1	12.5	16	21.5	21.5	27	27	35	35		
m8	3.5	4	4	4	4.5	4.5	5	4.5		
m9	75								105	G0, S0
	74	108	118	118					120	G1, S1, F2, K2
	71	103	113	113	146.5	146.5			140	G2, S2, F3, K3
	70.5	104.5	114.5	114.5	147	147	174	174	160	G3, S3, F4, K4
	67	101	111	111	142.5	142.5	170.5	170.5	200	G4, S4, F5, K5
		96	106	106	139	139	167	167	250	G5, F6, K6
					132	132	160	160	300	G6, F7, K7
					125	125	152	152	350	G7, F8, K8
						135.5	135.5	400	G8, K9	

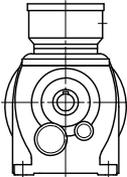
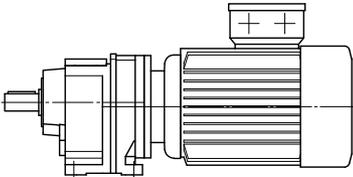
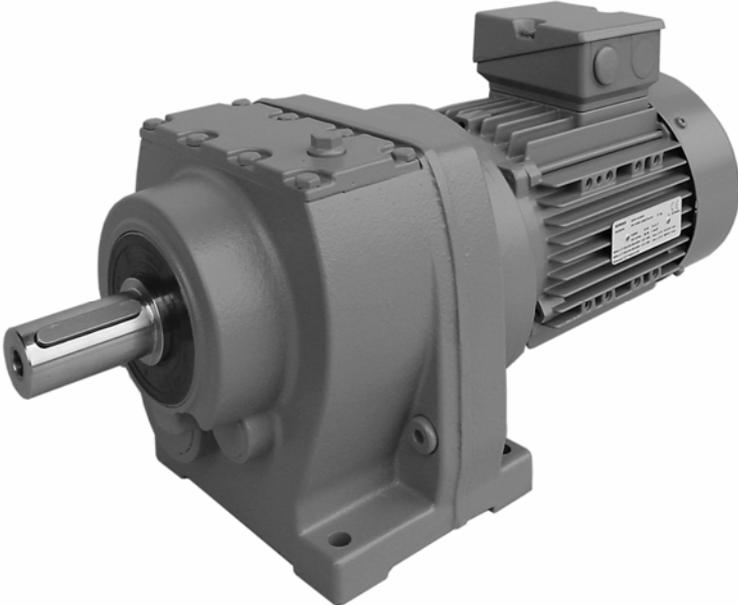
Double gearbox Dimensions

KEB

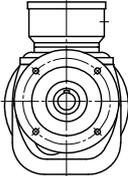
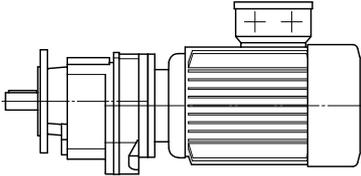


Gear unit 1	Gear unit 2	fG1	kG	fG2	h1	h2	h3	Motor	kM	g	g1
G1, S1, F2, K2	G0	120	111.5	105	47.5	71	7	DM63	202	123	106
								DM71	228	138	119
G2, S2, F3, K3	G1	140	123	120	57.5	85	5	DM63	201	123	106
G3, S3, F4, K4	G1	160	123	140	62.5	100.5	11	DM71	228	138	119
								DM80	250	156	140
G4, S4, F5, K5	G2	200	145	140	62.5	100.5	11	DM63	198	123	106
G5, F6, K6	G2	250	142.5	160	73.5	120	11	DM71	224	138	119
								DM80	247	156	140
								DM90S	261.5	176	144
								DM90L	286.5	176	144
								DM100	319	194	155
G6, F7, K7	G3	300	173	160	73.5	120	11	DM63	198.5	123	106
G7, K8, F8	G3	350	168	200	88	144.5	16	DM71	223.5	138	119
								DM80	247.5	156	140
								DM90S	262	176	144
								DM90L	287	176	144
								DM100	319	194	155
								DM112	342	218	165
G8, K9	G4	400	201	200	88	144.5	16	DA132	435	245	188
								DM71	220	138	119
G9	G4	450	189	200	88	144.5	16	DM80	243	156	140
								DM90S	259.5	176	144
								DM90L	284.5	176	144
								DM100	314	194	155
								DM112	337.5	218	165
								DA132	431.5	245	188
								DA160	539.5	311	250

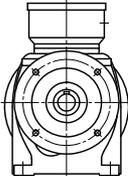
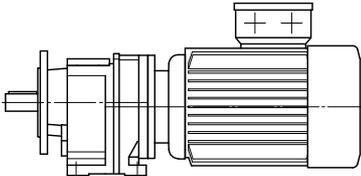
Helical gear units G



Foot mounted version
Example: G02A DM63G4

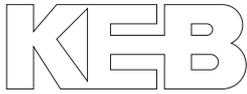


Flange mounted version
Example: G33C DM80G4



Foot-flange mounted version
Example: G22E DM90S4

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.12 kW						
1.4	785	2.1	984.77	G53G22A DM63K4	53/15	54
1.6	695	2.3	872.18	G53G22C DM63K4		55
1.7	640	2.5	802.80			
1.9	570	2.8	717.52			
1.5	720	1.20	906.23	G43G22A DM63K4	52/15	33
1.7	640	1.35	802.62	G43G22C DM63K4		33
1.9	575	1.50	719.94			
2.1	520	1.70	653.17			
2.4	465	1.85	585.39			
2.6	420	2.1	525.09			
2.9	380	2.3	477.22			
3.3	335	2.6	420.75			
3.7	295	2.9	372.64			
1.9	580	0.85	727.68	G33G12A DM63K4	51/15	20
2.2	510	0.95	641.09	G33G12C DM63K4		21
2.4	455	1.05	568.36			
2.7	405	1.20	506.40			
3.0	360	1.35	454.59			
3.5	315	1.50	396.78			
4.0	275	1.75	347.53			
4.5	245	1.95	310.04			
5.0	220	2.2	278.10			
5.5	200	2.4	252.75			
6.2	178	2.7	222.84			
3.8	295	0.80	361.24	G22G12A DM63K4	50/15	16
4.4	255	0.90	312.61	G22G12C DM63K4		16
5.1	220	1.05	273.25			
5.7	196	1.20	240.74			
6.5	174	1.35	213.43			
7.3	155	1.50	190.16			
8.1	139	1.70	170.71			
9.0	127	1.85	153.41	G23A DM63K4	50	11
11	109	2.1	131.06	G23C DM63K4		11
12	94	2.5	113.42			
14	82	2.8	99.14			
8.1	135	0.85	169.38	G13G02A DM63K4	49/15	13
9.5	116	1.00	145.94	G13G02C DM63K4		13
11	102	1.15	127.83			
12	96	1.20	115.34	G13A DM63K4	49	8
14	81	1.45	97.78	G13C DM63K4		9
16	70	1.70	83.91			
19	60	1.95	72.69			
22	53	2.2	63.42			
25	46	2.5	55.63			
28	41	2.9	49.00			
19	60	1.00	72.52	G03A DM63K4	48	8
23	51	1.20	61.26	G03C DM63K4		8
26	43	1.40	52.38			
31	38	1.60	45.19			
35	33	1.85	39.24			
40	28	2.1	34.25			
47	25	2.4	29.57			
54	21	2.8	25.51			
62	18	3.3	22.15			
71	16	3.7	19.33			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.12 kW						
81	14	4.3	16.97	G02A DM63K4	48	8
96	12	5.0	14.34	G02C DM63K4		8
113	10	5.9	12.26			
130	8.8	6.8	10.58			
150	7.6	7.9	9.18			
172	6.7	9.0	8.02			
197	5.8	10	7.02			
229	5.0	12	6.04			
265	4.3	13	5.21			
305	3.8	14	4.52			
350	3.3	15	3.95			
399	2.9	16	3.46			
0.18 kW						
1.6	1060	2.6	888.88	G63G32A DM63G4	54/15	82
1.7	950	2.9	796.35	G63G32C DM63G4		82
1.4	1180	1.40	984.77	G53G22A DM63G4	53/15	54
1.6	1040	1.55	872.18	G53G22C DM63G4		56
1.7	960	1.70	802.80			
1.9	860	1.90	717.52			
2.2	760	2.1	636.13			
2.4	680	2.4	570.60			
2.7	620	2.6	518.58			
3.0	545	3.0	457.21			
1.5	1080	0.80	906.23	G43G22A DM63G4	52/15	33
1.7	960	0.90	802.62	G43G22C DM63G4		34
1.9	860	1.00	719.94			
2.1	780	1.10	653.17			
2.4	700	1.25	585.39			
2.6	630	1.40	525.09			
2.9	570	1.55	477.22			
3.3	505	1.75	420.75			
3.7	445	1.95	372.64			
4.1	400	2.2	334.26			
4.6	365	2.4	303.26			
5.1	320	2.7	268.73			
2.7	605	0.80	506.40	G33G12A DM63G4	51/15	21
3.0	545	0.90	454.59	G33G12C DM63G4		21
3.5	475	1.00	396.78			
4.0	415	1.15	347.53			
4.5	370	1.30	310.04			
5.0	335	1.45	278.10			
5.5	300	1.60	252.75			
6.2	265	1.80	222.84			
7.0	235	2.0	197.36			
7.8	220	2.2	177.27	G33A DM63G4	51	16
9.1	190	2.5	152.19	G33C DM63G4		16
10	165	2.9	132.39			
5.7	295	0.80	240.74	G22G12A DM63G4	50/15	16
6.5	260	0.90	213.43	G22G12C DM63G4		17
7.3	230	1.00	190.16			
8.1	210	1.10	170.71			

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.18 kW

9.0	191	1.20	153.41	G23A DM63G4	50	11
11	163	1.45	131.06	G23C DM63G4		12
12	141	1.65	113.42			
14	123	1.90	99.14			
16	109	2.1	87.34			
18	96	2.4	77.43			
20	87	2.7	69.48			
12	144	0.80	115.34	G13A DM63G4	49	9
14	122	0.95	97.78	G13C DM63G4		9
16	105	1.10	83.91			
19	91	1.30	72.69			
22	79	1.50	63.42			
25	69	1.70	55.63			
28	61	1.90	49.00			
32	54	2.2	43.09			
37	46	2.5	36.98			
43	40	2.9	32.03			
23	76	0.80	61.26	G03A DM63G4	48	8
26	65	0.90	52.38	G03C DM63G4		9
31	56	1.05	45.19			
35	49	1.25	39.24			
40	43	1.40	34.25			
47	37	1.65	29.57			
54	32	1.90	25.51			
62	28	2.2	22.15			
71	24	2.5	19.33			
81	21	2.8	16.97	G02A DM63G4	48	8
96	18	3.4	14.34	G02C DM63G4		9
113	15	3.9	12.26			
130	13	4.6	10.58			
150	11	5.2	9.18			
172	10.0	6.0	8.02			
197	8.7	6.9	7.02			
229	7.5	7.8	6.04			
265	6.5	8.6	5.21			
305	5.6	9.4	4.52			
350	4.9	10.0	3.95			
399	4.3	11	3.46			

0.25 kW

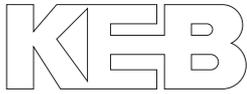
1.6	1440	1.95	888.88	G63G32A DM71K4	54/15	83
1.8	1290	2.2	796.35	G63G32C DM71K4		84
2.1	1120	2.5	686.91			
2.3	995	2.8	612.80			
1.4	1600	1.00	984.77	G53G22A DM71K4	53/15	56
1.6	1420	1.15	872.18	G53G22C DM71K4		57
1.8	1300	1.25	802.80			
2.0	1170	1.40	717.52			
2.2	1030	1.55	636.13			
2.5	930	1.75	570.60			
2.7	845	1.95	518.58			
3.1	745	2.2	457.21			
3.5	660	2.5	404.94			
3.8	605	2.7	372.73			
4.2	540	3.0	333.14			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.25 kW

2.2	1060	0.80	653.17	G43G22A DM71K4	52/15	35
2.4	950	0.90	585.39	G43G22C DM71K4		35
2.7	855	1.05	525.09			
3.0	775	1.15	477.22			
3.4	685	1.30	420.75			
3.8	605	1.45	372.64			
4.2	545	1.60	334.26			
4.6	495	1.80	303.26			
5.2	435	2.0	268.73			
5.9	390	2.2	240.42			
6.7	355	2.5	210.05	G43A DM71K4	52	29
7.8	305	2.8	181.51	G43C DM71K4		29
4.1	565	0.85	347.53	G33G12A DM71K4	51/15	22
4.5	505	0.95	310.04	G33G12C DM71K4		23
5.1	450	1.05	278.10			
5.6	410	1.15	252.75			
6.3	360	1.35	222.84			
7.1	320	1.50	197.36			
8.0	300	1.60	177.27	G33A DM71K4	51	18
9.3	260	1.85	152.19	G33C DM71K4		18
11	225	2.2	132.39			
12	197	2.4	116.36			
14	175	2.8	103.11			
15	156	3.1	91.99			
8.3	285	0.80	170.71	G22G12A DM71K4	50/15	18
				G22G12C DM71K4		18
9.2	260	0.90	153.41	G23A DM71K4	50	13
11	220	1.05	131.06	G23C DM71K4		13
12	192	1.20	113.42			
14	168	1.40	99.14			
16	148	1.60	87.34			
18	131	1.80	77.43			
20	118	2.00	69.48			
23	103	2.3	60.74			
26	91	2.6	53.51			
30	80	2.9	47.44			
17	142	0.80	83.91	G13A DM71K4	49	10
19	123	0.95	72.69	G13C DM71K4		11
22	107	1.10	63.42			
25	94	1.25	55.63			
29	83	1.40	49.00			
33	73	1.60	43.09			
38	63	1.85	36.98			
44	54	2.2	32.03			
50	47	2.5	27.95			
58	42	2.8	24.52			
57	42	2.8	24.88	G12A DM71K4	49	10
				G12C DM71K4		11
31	77	0.80	45.19	G03A DM71K4	48	10
36	66	0.90	39.24	G03C DM71K4		10
41	58	1.05	34.25			
48	50	1.20	29.57			
55	43	1.40	25.51			
64	38	1.60	22.15			
73	33	1.85	19.33			

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.25 kW						
83	29	2.1	16.97	G02A DM71K4	48	10
98	24	2.5	14.34	G02C DM71K4		10
115	21	2.9	12.26			
133	18	3.4	10.58			
154	16	3.9	9.18			
176	14	4.4	8.02			
201	12	5.0	7.02			
234	10	5.8	6.04			
271	8.8	6.4	5.21			
312	7.7	6.9	4.52			
357	6.7	7.3	3.95			
408	5.9	8.0	3.46			
0.37 kW						
1.5	2330	2.1	969.05	G73G32A DM71G4	55/15	131
1.6	2080	2.4	864.03	G73G32C DM71G4		132
1.8	1940	2.5	805.28			
2.0	1740	2.8	722.33			
2.2	1580	3.1	655.31			
1.6	2140	1.30	888.88	G63G32A DM71G4	54/15	84
1.8	1920	1.45	796.35	G63G32C DM71G4		85
2.1	1650	1.70	686.91			
2.3	1470	1.90	612.80			
2.6	1320	2.1	549.68			
2.9	1190	2.4	494.71			
3.3	1040	2.7	431.60			
3.6	930	3.0	386.67			
1.6	2100	0.80	872.18	G53G22A DM71G4	53/15	57
1.8	1930	0.85	802.80	G53G22C DM71G4		58
2.0	1730	0.95	717.52			
2.2	1530	1.05	636.13			
2.5	1370	1.20	570.60			
2.7	1250	1.30	518.58			
3.1	1100	1.50	457.21			
3.5	975	1.65	404.94			
3.8	895	1.80	372.73			
4.2	800	2.0	333.14			
4.8	710	2.3	295.82			
5.4	630	2.6	262.14			
6.1	550	2.9	229.46			
3.4	1010	0.85	420.75	G43G22A DM71G4	52/15	36
3.8	895	1.00	372.64	G43G22C DM71G4		36
4.2	805	1.10	334.26			
4.6	730	1.20	303.26			
5.2	645	1.35	268.73			
5.9	580	1.50	240.42			
6.7	525	1.65	210.05	G43A DM71G4	52	30
7.8	455	1.90	181.51	G43C DM71G4		30
8.9	400	2.2	158.99			
10	355	2.5	140.75			
11	315	2.8	125.69			
12	285	3.1	113.03			
5.6	610	0.80	252.75	G33G12A DM71G4	51/15	23
6.3	535	0.90	222.84	G33G12C DM71G4		24
7.1	475	1.00	197.36			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.37 kW						
8.0	445	1.10	177.27	G33A DM71G4	51	19
9.3	380	1.25	152.19	G33C DM71G4		19
11	330	1.45	132.39			
12	290	1.65	116.36			
14	260	1.85	103.11			
15	230	2.1	91.99			
17	205	2.3	82.51			
19	188	2.6	74.99			
21	166	2.9	66.12			
12	285	0.80	113.42	G23A DM71G4	50	14
14	250	0.95	99.14	G23C DM71G4		14
16	220	1.05	87.34			
18	194	1.20	77.43			
20	174	1.35	69.48			
23	152	1.55	60.74			
26	134	1.75	53.51			
30	119	1.95	47.44			
34	104	2.2	41.53			
39	92	2.5	36.59			
43	81	2.9	32.44			
25	139	0.85	55.63	G13A DM71G4	49	11
29	123	0.95	49.00	G13C DM71G4		12
33	108	1.10	43.09			
38	93	1.25	36.98			
44	80	1.45	32.03			
50	70	1.65	27.95			
58	61	1.90	24.52			
65	54	2.2	21.59			
57	62	1.90	24.88	G12A DM71G4	49	11
66	53	2.2	21.25	G12C DM71G4		12
77	46	2.5	18.39			
88	40	2.9	16.08			
48	74	0.80	29.57	G03A DM71G4	48	11
55	64	0.95	25.51	G03C DM71G4		11
64	56	1.10	22.15			
73	48	1.25	19.33			
83	43	1.40	16.97	G02A DM71G4	48	11
98	36	1.65	14.34	G02C DM71G4		11
115	31	1.95	12.26			
133	27	2.3	10.58			
154	23	2.6	9.18			
176	20	3.0	8.02			
201	18	3.4	7.02			
234	15	3.9	6.04			
271	13	4.3	5.21			
312	11	4.7	4.52			
357	9.9	5.0	3.95			
408	8.7	5.4	3.46			
0.55 kW						
1.4	3500	2.5	974.05	G83G42A DM80K4	56/15	212
1.7	3020	2.9	841.95	G83G42C DM80K4		219

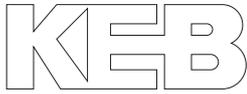
Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.55 kW						
1.4	3480	1.40	969.05	G73G32A DM80K4	55/15	133
1.6	3100	1.60	864.03	G73G32C DM80K4		135
1.7	2890	1.70	805.28			
1.9	2590	1.90	722.33			
2.1	2350	2.1	655.31			
2.5	2040	2.4	567.65			
2.7	1840	2.7	513.62			
3.0	1670	2.9	466.28			
1.6	3190	0.90	888.88	G63G32A DM80K4	54/15	86
1.8	2860	1.00	796.35	G63G32C DM80K4		87
2.0	2470	1.15	686.91			
2.3	2200	1.25	612.80			
2.6	1970	1.40	549.68			
2.8	1780	1.60	494.71			
3.3	1550	1.80	431.60			
3.6	1390	2.0	386.67			
4.1	1230	2.3	343.00			
4.7	1080	2.6	301.31			
2.5	2050	0.80	570.60	G53G22A DM80K4	53/15	59
2.7	1860	0.85	518.58	G53G22C DM80K4		60
3.1	1640	1.00	457.21			
3.5	1450	1.10	404.94			
3.8	1340	1.20	372.73			
4.2	1200	1.35	333.14			
4.7	1060	1.55	295.82			
5.4	940	1.75	262.14			
6.1	825	2.00	229.46			
6.8	745	2.2	207.08			
7.4	685	2.4	190.61			
7.5	700	2.3	186.77	G53A DM80K4	53	54
8.5	620	2.6	165.96	G53C DM80K4		56
9.4	555	2.9	148.78			
4.6	1090	0.80	303.26	G43G22A DM80K4	52/15	38
5.2	965	0.90	268.73	G43G22C DM80K4		38
5.8	865	1.00	240.42			
8.8	595	1.45	158.99	G43A DM80K4	52	32
10.0	525	1.65	140.75	G43C DM80K4		32
11	470	1.85	125.69			
12	425	2.1	113.03			
14	380	2.3	102.26			
15	350	2.5	93.21			
17	310	2.8	83.15			
11	495	0.95	132.39	G33A DM80K4	51	21
12	435	1.10	116.36	G33C DM80K4		21
14	385	1.25	103.11			
15	345	1.40	91.99			
17	310	1.55	82.51			
19	280	1.70	74.99			
21	245	1.95	66.12			
24	220	2.2	58.56			
27	193	2.5	51.70			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.55 kW						
20	260	0.90	69.48	G23A DM80K4	50	16
23	225	1.05	60.74	G23C DM80K4		16
26	200	1.15	53.51			
30	177	1.30	47.44			
34	155	1.50	41.53			
38	137	1.70	36.59			
43	121	1.90	32.44			
49	108	2.2	28.90			
54	97	2.4	25.95			
62	85	2.7	22.65			
64	82	2.9	21.82	G22A DM80K4 G22C DM80K4	50	16 16
38	138	0.85	36.98	G13A DM80K4	49	13
44	120	1.00	32.03	G13C DM80K4		14
50	104	1.10	27.95			
57	92	1.30	24.52			
65	81	1.45	21.59			
76	69	1.70	18.39	G12A DM80K4	49	13
87	60	1.95	16.08	G12C DM80K4		14
99	53	2.2	14.16			
112	47	2.5	12.56			
126	42	2.8	11.19			
140	38	3.0	10.04			
115	46	1.30	12.26	G02A DM80K4	48	13
133	40	1.50	10.58	G02C DM80K4		13
153	34	1.75	9.18			
175	30	2.0	8.02			
200	26	2.3	7.02			
233	23	2.6	6.04			
270	19	2.9	5.21			
311	17	3.1	4.52			
356	15	3.3	3.95			
406	13	3.6	3.46			
0.75 kW						
1.4	4820	2.8	988.90	G93G42A DM80G4	57/15	314
1.6	4250	2.5	871.17	G93G42C DM80G4		320
1.8	3920	3.5	803.56			
1.4	4750	1.85	974.05	G83G42A DM80G4	56/15	214
1.7	4110	2.2	841.95	G83G42C DM80G4		220
1.9	3570	2.5	731.87			
1.5	4730	1.05	969.05	G73G32A DM80G4	55/15	135
1.6	4210	1.15	864.03	G73G32C DM80G4		136
1.8	3930	1.25	805.28			
2.0	3520	1.40	722.33			
2.2	3200	1.55	655.31			
2.5	2770	1.75	567.65			
2.7	2500	1.95	513.62			
3.0	2270	2.1	466.28			
3.4	2030	2.4	415.75			
2.1	3350	0.85	686.91	G63G32A DM80G4	54/15	88
2.3	2990	0.95	612.80	G63G32C DM80G4		88
2.6	2680	1.05	549.68			
2.9	2410	1.15	494.71			
3.3	2100	1.35	431.60			
3.6	1890	1.50	386.67			
4.1	1670	1.65	343.00			
4.7	1470	1.90	301.31			

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.75 kW						
3.5	1970	0.80	404.94	G53G22A DM80G4	53/15	60
3.8	1820	0.90	372.73	G53G22C DM80G4		62
4.2	1620	1.00	333.14			
4.8	1440	1.15	295.82			
5.4	1280	1.25	262.14			
6.1	1120	1.45	229.46			
6.8	1010	1.60	207.08			
7.4	930	1.75	190.61			
7.5	950	1.70	186.77	G53A DM80G4	53	55
8.5	845	1.95	165.96	G53C DM80G4		57
9.5	755	2.2	148.78			
10	680	2.4	134.34			
12	620	2.6	122.04			
13	565	2.9	111.58			
8.9	810	1.10	158.99	G43A DM80G4	52	33
10	715	1.20	140.75	G43C DM80G4		34
11	640	1.35	125.69			
12	575	1.50	113.03			
14	520	1.70	102.26			
15	475	1.85	93.21			
17	420	2.1	83.15			
19	380	2.3	74.59			
25	290	3.0	56.95			
12	590	0.80	116.36	G33A DM80G4	51	22
14	525	0.90	103.11	G33C DM80G4		23
15	465	1.05	91.99			
17	420	1.15	82.51			
19	380	1.25	74.99			
21	335	1.45	66.12			
24	295	1.60	58.56			
27	265	1.85	51.70			
31	235	2.1	45.82			
34	210	2.3	40.87			
38	186	2.6	36.66			
42	169	2.7	33.32			
48	149	2.9	29.38			
26	270	0.85	53.51	G23A DM80G4	50	17
30	240	0.95	47.44	G23C DM80G4		18
34	210	1.10	41.53			
39	186	1.25	36.59			
43	165	1.40	32.44			
49	147	1.60	28.90			
54	132	1.75	25.95			
62	115	2.00	22.65			
71	101	2.3	19.83			
65	111	2.1	21.82	G22A DM80G4	50	17
74	97	2.4	19.18	G22C DM80G4		18
83	86	2.7	17.00			
93	77	3.0	15.16			
50	142	0.80	27.95	G13A DM80G4	49	15
58	125	0.95	24.52	G13C DM80G4		15
65	110	1.05	21.59			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.75 kW						
77	93	1.25	18.39	G12A DM80G4	49	15
88	82	1.45	16.08	G12C DM80G4		15
100	72	1.65	14.16			
112	64	1.85	12.56			
126	57	2.1	11.19			
140	51	2.2	10.04			
161	45	2.4	8.77			
184	39	2.6	7.68			
200	36	2.7	7.06			
227	32	2.9	6.22			
256	28	3.1	5.51			
287	25	3.3	4.91			
320	22	3.5	4.41			
366	20	3.8	3.85			
418	17	4.0	3.37			
115	62	0.95	12.26	G02A DM80G4	48	14
133	54	1.10	10.58	G02C DM80G4		15
154	47	1.30	9.18			
176	41	1.45	8.02			
201	36	1.70	7.02			
234	31	1.90	6.04			
271	26	2.1	5.21			
312	23	2.3	4.52			
357	20	2.4	3.95			
408	18	2.7	3.46			
1.1 kW						
1.4	7050	1.95	988.90	G93G42A DM90S4	57/15	316
1.6	6210	1.75	871.17	G93G42C DM90S4		323
1.8	5730	2.4	803.56			
2.0	5150	2.6	722.07			
2.2	4570	3.0	641.18			
1.5	6940	1.30	974.05	G83G42A DM90S4	56/15	216
1.7	6000	1.50	841.95	G83G42C DM90S4		223
1.9	5220	1.70	731.87			
2.2	4600	1.95	645.52			
2.5	4090	2.2	573.21			
2.8	3620	2.5	507.95			
3.1	3290	2.7	462.05			
3.4	2970	3.0	416.17			
1.6	6160	0.80	864.03	G73G32A DM90S4	55/15	137
1.8	5740	0.85	805.28	G73G32C DM90S4		138
2.0	5150	0.95	722.33			
2.2	4670	1.05	655.31			
2.5	4050	1.20	567.65			
2.8	3660	1.35	513.62			
3.0	3320	1.45	466.28			
3.4	2960	1.65	415.75			
4.0	2510	1.95	351.79			
4.4	2270	2.2	318.30			
4.9	2060	2.4	288.96			
5.5	1840	2.7	257.65			
2.9	3530	0.80	494.71	G63G32A DM90S4	54/15	90
3.3	3080	0.90	431.60	G63G32C DM90S4		90
3.7	2760	1.00	386.67			
4.1	2440	1.15	343.00			
4.7	2150	1.30	301.31			
5.2	1930	1.45	271.16			
6.0	1690	1.65	237.47			

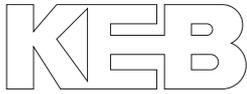
Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
1.1 kW						
6.4	1650	1.70	221.95	G63A DM90S4	54	82
7.1	1480	1.90	199.76	G63C DM90S4		83
7.8	1340	2.1	181.12			
8.6	1230	2.3	165.23			
9.3	1130	2.5	151.99			
10	1020	2.7	137.17			
11	925	3.0	124.54			
5.4	1870	0.85	262.14	G53G22A DM90S4	53/15	62
6.2	1640	1.00	229.46	G53G22C DM90S4		64
6.8	1480	1.10	207.08			
7.4	1360	1.20	190.61			
8.5	1230	1.30	165.96	G53A DM90S4	53	57
9.5	1100	1.45	148.78	G53C DM90S4		59
11	995	1.65	134.34			
12	905	1.80	122.04			
13	830	1.95	111.58			
14	745	2.2	100.12			
16	670	2.4	90.36			
17	615	2.6	83.17			
19	550	2.9	74.34			
10	1040	0.85	140.75	G43A DM90S4	52	36
11	935	0.95	125.69	G43C DM90S4		36
13	840	1.05	113.03			
14	760	1.15	102.26			
15	690	1.25	93.21			
17	615	1.40	83.15			
19	555	1.60	74.59			
21	500	1.75	67.67			
24	445	1.95	59.97			
25	425	2.1	56.95			
27	380	2.3	51.52			
30	350	2.5	46.96			
34	310	2.8	41.89			
17	615	0.80	82.51	G33A DM90S4	51	24
19	555	0.85	74.99	G33C DM90S4		25
21	490	1.00	66.12			
24	435	1.10	58.56			
27	390	1.25	52.40			
27	385	1.25	51.70			
31	340	1.40	45.82			
31	340	1.40	45.61			
35	305	1.60	40.87			
39	270	1.75	36.66			
42	245	1.85	33.32			
48	220	2.0	29.38			
54	193	2.2	26.02			
61	173	2.3	23.28			
70	150	2.6	20.27			
55	191	2.5	25.67	G32A DM90S4	51	24
62	170	2.8	22.92	G32C DM90S4		25
39	270	0.85	36.59	G23A DM90S4	50	19
44	240	0.95	32.44	G23C DM90S4		20
49	215	1.10	28.90			
55	193	1.20	25.95			
62	168	1.35	22.65			
71	147	1.60	19.83			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
1.1 kW						
74	142	1.65	19.18	G22A DM90S4	50	19
83	126	1.85	17.00	G22C DM90S4		20
93	113	2.1	15.16			
104	101	2.3	13.60			
114	92	2.5	12.36			
130	81	2.9	10.90			
88	119	1.00	16.08	G12A DM90S4	49	17
100	105	1.10	14.16	G12C DM90S4		17
113	93	1.25	12.56			
126	83	1.40	11.19			
141	75	1.50	10.04			
161	65	1.65	8.77			
184	57	1.75	7.68			
201	52	1.85	7.06			
228	46	2.00	6.22			
257	41	2.1	5.51			
288	36	2.3	4.91			
321	33	2.4	4.41			
368	29	2.6	3.85			
420	25	2.8	3.37			
1.5 kW						
1.4	9640	1.40	988.90	G93G42A DM90L4	57/15	319
1.6	8500	1.25	871.17	G93G42C DM90L4		326
1.8	7840	1.75	803.56			
2.0	7040	1.95	722.07			
2.2	6250	2.2	641.18			
2.5	5540	2.5	568.19			
2.7	5070	2.7	519.38			
3.0	4620	2.9	474.18			
1.4	9500	0.95	974.05	G83G42A DM90L4	56/15	219
1.7	8210	1.10	841.95	G83G42C DM90L4		226
1.9	7140	1.25	731.87			
2.2	6300	1.40	645.52			
2.5	5590	1.60	573.21			
2.8	4950	1.80	507.95			
3.1	4510	1.95	462.05			
3.4	4060	2.2	416.17			
3.8	3640	2.4	373.66			
4.4	3130	2.8	320.53			
2.5	5540	0.90	567.65	G73G32A DM90L4	55/15	140
2.7	5010	1.00	513.62	G73G32C DM90L4		141
3.0	4550	1.05	466.28			
3.4	4050	1.20	415.75			
4.0	3430	1.40	351.79			
4.4	3100	1.55	318.30			
4.9	2820	1.75	288.96			
5.5	2510	1.95	257.65			
4.1	3350	0.85	343.00	G63G32A DM90L4	54/15	93
4.7	2940	0.95	301.31	G63G32C DM90L4		93
5.2	2640	1.05	271.16			
5.9	2320	1.20	237.47			

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
1.5 kW						
6.4	2250	1.25	221.95	G63A DM90L4	54	85
7.1	2030	1.40	199.76	G63C DM90L4		86
7.8	1840	1.50	181.12			
8.5	1680	1.65	165.23			
9.3	1540	1.80	151.99			
10	1390	2.0	137.17			
11	1270	2.2	124.54			
12	1170	2.4	115.14			
14	1050	2.7	103.72			
15	945	3.0	92.94			
6.8	2020	0.80	207.08	G53G22A DM90L4	53/15	65
7.4	1860	0.90	190.61	G53G22C DM90L4		67
8.5	1690	0.95	165.96	G53A DM90L4	53	60
9.5	1510	1.10	148.78	G53C DM90L4		62
10	1360	1.20	134.34			
12	1240	1.30	122.04			
13	1130	1.45	111.58			
14	1020	1.60	100.12			
16	920	1.75	90.36			
17	845	1.95	83.17			
19	755	2.2	74.34			
21	670	2.4	66.01			
24	595	2.7	58.49			
14	1040	0.85	102.26	G43A DM90L4	52	39
15	945	0.90	93.21	G43C DM90L4		39
17	845	1.05	83.15			
19	760	1.15	74.59			
21	685	1.25	67.67			
24	610	1.45	59.97			
25	580	1.50	56.95			
27	525	1.65	51.52			
30	475	1.85	46.96			
34	425	2.1	41.89			
38	380	2.3	37.58			
41	345	2.5	34.09			
47	305	2.9	30.21			
24	595	0.80	58.56	G33A DM90L4	51	27
27	530	0.90	52.40	G33C DM90L4		28
27	525	0.90	51.70			
31	465	1.05	45.82			
31	465	1.05	45.61			
34	415	1.15	40.87			
38	370	1.30	36.66			
42	340	1.35	33.32			
48	300	1.45	29.38			
54	265	1.60	26.02			
61	235	1.70	23.28			
70	205	1.85	20.27			
55	260	1.85	25.67	G32A DM90L4	51	27
62	235	2.1	22.92	G32C DM90L4		28
68	210	2.3	20.61			
76	189	2.5	18.65			
83	173	2.8	17.00			
49	295	0.80	28.90	G23A DM90L4	50	22
54	265	0.90	25.95	G23C DM90L4		23
62	230	1.00	22.65			
71	200	1.15	19.83			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
1.5 kW						
74	195	1.20	19.18	G22A DM90L4	50	22
83	173	1.35	17.00	G22C DM90L4		23
93	154	1.50	15.16			
104	138	1.70	13.60			
114	126	1.85	12.36			
129	111	2.1	10.90			
146	98	2.3	9.65			
163	88	2.5	8.64			
188	76	2.7	7.52			
200	72	2.3	7.04			
223	64	2.6	6.31			
100	144	0.80	14.16	G12A DM90L4	49	20
112	128	0.90	12.56	G12C DM90L4		20
126	114	1.05	11.19			
140	102	1.10	10.04			
161	89	1.20	8.77			
184	78	1.30	7.68			
200	72	1.35	7.06			
227	63	1.45	6.22			
256	56	1.55	5.51			
287	50	1.65	4.91			
320	45	1.75	4.41			
366	39	1.90	3.85			
418	34	2.0	3.37			
2.2 kW						
1.4	14100	0.95	988.90	G93G42A DM100L4	57/15	324
1.6	12500	0.85	871.17	G93G42C DM100L4		331
1.8	11500	1.20	803.56			
2.0	10300	1.30	722.07			
2.2	9170	1.50	641.18			
2.5	8130	1.65	568.19			
2.7	7430	1.85	519.38			
3.0	6780	2.0	474.18			
3.3	6130	2.2	428.72			
3.8	5320	2.6	371.90			
4.3	4650	2.9	325.42			
1.9	10500	0.85	731.87	G83G42A DM100L4	56/15	224
2.2	9230	0.95	645.52	G83G42C DM100L4		231
2.5	8200	1.10	573.21			
2.8	7270	1.20	507.95			
3.1	6610	1.35	462.05			
3.4	5950	1.50	416.17			
3.8	5350	1.65	373.66			
4.4	4590	1.95	320.53			
4.9	4080	2.2	285.24			
3.4	5950	0.80	415.75	G73G32A DM100L4	55/15	146
4.0	5030	0.95	351.79	G73G32C DM100L4		147
4.4	4550	1.05	318.30			
4.9	4130	1.20	288.96			
5.5	3690	1.35	257.65			

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
2.2 kW						
5.6	3740	1.30	250.97	G73A DM100L4	55	143
6.2	3400	1.45	228.26	G73C DM100L4		144
6.7	3110	1.55	208.90			
7.3	2880	1.70	193.61			
8.0	2610	1.85	175.48			
8.8	2380	2.0	160.04			
9.5	2210	2.2	148.43			
10	2000	2.4	134.48			
12	1820	2.7	122.32			
13	1640	3.0	110.37			
5.9	3400	0.80	237.47	G63G32A DM100L4 G63G32C DM100L4	54/15	99 100
7.1	2980	0.95	199.76	G63A DM100L4	54	90
7.8	2700	1.05	181.12	G63C DM100L4		91
8.5	2460	1.15	165.23			
9.3	2260	1.25	151.99			
10	2040	1.35	137.17			
11	1860	1.50	124.54			
12	1720	1.65	115.14			
14	1550	1.80	103.72			
15	1380	2.0	92.94			
17	1240	2.3	83.23			
19	1120	2.5	74.91			
10	2000	0.80	134.34	G53A DM100L4	53	66
12	1820	0.90	122.04	G53C DM100L4		67
13	1660	1.00	111.58			
14	1490	1.10	100.12			
16	1350	1.20	90.36			
17	1240	1.30	83.17			
19	1110	1.45	74.34			
21	985	1.65	66.01			
24	870	1.85	58.49			
28	765	2.1	51.20			
31	690	2.4	46.21			
33	635	2.6	42.53			
37	565	2.9	38.01			
45	465	2.4	31.19	G52A DM100L4	53	66
50	425	2.6	28.45	G52C DM100L4		67
19	1110	0.80	74.59	G43A DM100L4	52	44
21	1010	0.85	67.67	G43C DM100L4		44
24	895	1.00	59.97			
25	850	1.05	56.95			
27	770	1.15	51.52			
30	700	1.25	46.96			
34	625	1.40	41.89			
38	560	1.55	37.58			
41	510	1.70	34.09			
47	450	1.95	30.21			
53	395	2.2	26.59			
61	345	2.3	23.29			
69	305	2.4	20.45			
53	400	2.2	26.83	G42A DM100L4	52	44
58	360	2.4	24.23	G42C DM100L4		44
64	330	2.6	22.01			
70	300	2.9	20.12			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
2.2 kW						
34	610	0.80	40.87	G33A DM100L4	51	34
38	545	0.85	36.66	G33C DM100L4		34
42	495	0.95	33.32			
48	440	1.00	29.38			
54	390	1.10	26.02			
61	345	1.15	23.28			
70	300	1.25	20.27			
62	340	1.40	22.92	G32A DM100L4	51	34
68	305	1.55	20.61	G32C DM100L4		34
76	280	1.75	18.65			
83	255	1.90	17.00			
93	225	2.1	15.16			
104	205	2.4	13.60			
114	184	2.6	12.34			
129	163	2.9	10.93			
83	255	0.90	17.00	G22A DM100L4	50	29
93	225	1.05	15.16	G22C DM100L4		29
104	205	1.15	13.60			
114	184	1.25	12.36			
129	162	1.45	10.90			
146	144	1.60	9.65			
163	129	1.70	8.64			
188	112	1.85	7.52			
200	105	1.60	7.04			
223	94	1.75	6.31			
246	86	2.3	5.74			
279	75	2.4	5.06			
315	67	2.5	4.48			
352	60	2.6	4.01			
404	52	2.7	3.49			
3.0 kW						
1.8	15700	0.85	803.56	G93G42A DM100LX4	57/15	327
2.0	14100	0.95	722.07	G93G42C DM100LX4		334
2.2	12500	1.10	641.18			
2.5	11100	1.25	568.19			
2.7	10100	1.35	519.38			
3.0	9250	1.45	474.18			
3.3	8360	1.65	428.72			
3.8	7250	1.90	371.90			
4.3	6350	2.1	325.42			
2.5	11200	0.80	573.21	G83G42A DM100LX4	56/15	227
2.8	9910	0.90	507.95	G83G42C DM100LX4		234
3.1	9010	1.00	462.05			
3.4	8120	1.10	416.17			
3.8	7290	1.20	373.66			
4.4	6250	1.40	320.53			
4.9	5560	1.60	285.24			
4.4	6210	0.80	318.30	G73G32A DM100LX4	55/15	149
4.9	5640	0.85	288.96	G73G32C DM100LX4		150
5.5	5030	0.95	257.65			

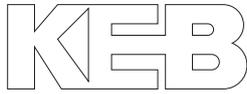
Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
3.0 kW						
5.6	5100	0.95	250.97	G73A DM100LX4	55	146
6.2	4640	1.05	228.26	G73C DM100LX4		147
6.7	4240	1.15	208.90			
7.3	3930	1.25	193.61			
8.0	3570	1.35	175.48			
8.8	3250	1.50	160.04			
9.5	3020	1.60	148.43			
10	2730	1.80	134.48			
12	2490	1.95	122.32			
13	2240	2.2	110.37			
14	2030	2.4	100.13			
8.5	3360	0.85	165.23	G63A DM100LX4	54	93
9.3	3090	0.90	151.99	G63C DM100LX4		94
10	2790	1.00	137.17			
11	2530	1.10	124.54			
12	2340	1.20	115.14			
14	2110	1.35	103.72			
15	1890	1.50	92.94			
17	1690	1.65	83.23			
19	1520	1.85	74.91			
31	915	2.7	45.13			
35	820	3.0	40.41			
14	2030	0.80	100.12	G53A DM100LX4	53	69
16	1840	0.90	90.36	G53C DM100LX4		70
17	1690	0.95	83.17			
19	1510	1.10	74.34			
21	1340	1.20	66.01			
24	1190	1.35	58.49			
28	1040	1.55	51.20			
31	940	1.75	46.21			
33	865	1.90	42.53			
37	770	2.1	38.01			
42	685	2.4	33.76			
47	610	2.6	29.91			
53	540	2.8	26.62			
45	635	1.80	31.19	G52A DM100LX4	53	69
50	580	1.95	28.45	G52C DM100LX4		70
54	530	2.5	26.17			
60	480	2.7	23.62			
66	435	3.0	21.45			
27	1050	0.85	51.52	G43A DM100LX4	52	47
30	955	0.90	46.96	G43C DM100LX4		47
34	850	1.05	41.89			
38	765	1.15	37.58			
41	695	1.25	34.09			
47	615	1.45	30.21			
53	540	1.60	26.59			
61	475	1.70	23.29			
69	415	1.75	20.45			
53	545	1.60	26.83	G42A DM100LX4	52	47
58	490	1.75	24.23	G42C DM100LX4		47
64	445	1.90	22.01			
70	410	2.1	20.12			
78	365	2.4	18.06			
87	330	2.6	16.30			
94	305	2.7	15.00			
105	270	3.0	13.41			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
3.0 kW						
54	530	0.80	26.02	G33A DM100LX4	51	37
61	475	0.85	23.28	G33C DM100LX4		37
70	410	0.95	20.27			
62	465	1.05	22.92	G32A DM100LX4	51	37
68	420	1.15	20.61	G32C DM100LX4		37
76	380	1.25	18.65			
83	345	1.40	17.00			
93	310	1.55	15.16			
104	275	1.75	13.60			
114	250	1.90	12.34			
129	220	2.1	10.93			
146	196	2.2	9.63			
167	171	2.4	8.43			
190	150	2.6	7.40			
193	148	2.2	7.30			
215	133	2.4	6.54			
237	121	2.7	5.94			
268	107	2.9	5.26			
104	275	0.85	13.60	G22A DM100LX4	50	32
114	250	0.95	12.36	G22C DM100LX4		32
129	220	1.05	10.90			
146	196	1.15	9.65			
163	176	1.25	8.64			
188	153	1.35	7.52			
200	143	1.15	7.04			
223	128	1.30	6.31			
246	117	1.70	5.74			
279	103	1.80	5.06			
315	91	1.85	4.48			
352	81	1.95	4.01			
404	71	2.0	3.49			
4.0 kW						
2.2	16500	0.80	641.18	G93G42A DM112M4	57/15	334
2.5	14600	0.95	568.19	G93G42C DM112M4		340
2.7	13400	1.00	519.38			
3.0	12200	1.10	474.18			
3.3	11000	1.25	428.72			
3.8	9570	1.40	371.90			
4.4	8370	1.65	325.42			
3.4	10700	0.85	416.17	G83G42A DM112M4	56/15	234
3.8	9620	0.95	373.66	G83G42C DM112M4		240
4.4	8250	1.10	320.53			
5.0	7340	1.20	285.24			
6.2	6120	0.80	228.26	G73A DM112M4	55	152
6.8	5600	0.85	208.90	G73C DM112M4		153
7.4	5190	0.95	193.61			
8.1	4700	1.05	175.48			
8.9	4290	1.15	160.04			
9.6	3980	1.25	148.43			
11	3600	1.35	134.48			
12	3280	1.50	122.32			
13	2960	1.65	110.37			
14	2680	1.80	100.13			

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
4.0 kW						
11	3340	0.85	124.54	G63A DM112M4	54	100
12	3090	0.90	115.14	G63C DM112M4		101
14	2780	1.00	103.72			
15	2490	1.10	92.94			
17	2230	1.25	83.23			
19	2010	1.40	74.91			
32	1210	2.1	45.13			
35	1080	2.3	40.41			
39	975	2.4	36.37			
46	835	2.4	31.16	G62A DM112M4	54	100
50	760	2.7	28.42	G62C DM112M4		101
54	705	3.0	26.36			
19	1990	0.80	74.34	G53A DM112M4	53	76
22	1770	0.90	66.01	G53C DM112M4		77
24	1570	1.05	58.49			
28	1370	1.20	51.20			
31	1240	1.30	46.21			
34	1140	1.45	42.53			
37	1020	1.60	38.01			
42	905	1.80	33.76			
48	800	1.95	29.91			
54	715	2.1	26.62			
46	835	1.35	31.19	G52A DM112M4	53	76
50	765	1.45	28.45	G52C DM112M4		77
54	700	1.90	26.17			
60	635	2.1	23.62			
66	575	2.2	21.45			
72	530	2.6	19.83			
80	480	3.0	17.86			
34	1120	0.80	41.89	G43A DM112M4	52	53
38	1010	0.85	37.58	G43C DM112M4		54
42	915	0.95	34.09			
47	810	1.10	30.21			
54	715	1.20	26.59			
61	625	1.30	23.29			
70	550	1.35	20.45			
59	650	1.35	24.23	G42A DM112M4	52	53
65	590	1.45	22.01	G42C DM112M4		54
71	540	1.60	20.12			
79	485	1.80	18.06			
87	435	1.95	16.30			
95	400	2.0	15.00			
106	360	2.2	13.41			
120	320	2.4	11.90			
135	285	2.6	10.55			
152	250	2.7	9.39			
209	183	2.6	6.82			
235	162	2.8	6.05			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
4.0 kW						
69	555	0.85	20.61	G32A DM112M4	51	43
76	500	0.95	18.65	G32C DM112M4		43
84	455	1.05	17.00			
94	405	1.20	15.16			
105	365	1.30	13.60			
115	330	1.45	12.34			
130	295	1.60	10.93			
148	260	1.70	9.63			
169	225	1.85	8.43			
192	198	1.95	7.40			
195	196	1.70	7.30			
218	175	1.80	6.54			
240	159	2.0	5.94			
271	141	2.2	5.26			
308	124	2.3	4.63			
351	109	2.5	4.06			
400	96	2.7	3.56			
5.5 kW						
3.1	16500	0.85	474.18	G93G42A DA132S4	57/15	347
3.4	14900	0.90	428.72	G93G42C DA132S4		354
3.9	12900	1.05	371.90			
4.5	11300	1.20	325.42			
5.0	10000	1.35	288.28			
5.8	8700	1.55	250.07			
6.6	7610	1.80	218.81			
7.5	6700	2.0	192.77			
8.2	6180	1.60	177.81			
4.5	11100	0.80	320.53	G83G42A DA132S4	56/15	247
5.1	9920	0.90	285.24	G83G42C DA132S4		254
5.9	8500	1.05	244.36			
6.7	7500	1.20	215.53			
7.8	6770	1.30	186.96	G83A DA132S4	56	232
8.5	6190	1.45	170.93	G83C DA132S4		239
9.2	5720	1.55	158.00			
10	5200	1.70	143.59			
11	4750	1.85	131.06			
12	4300	2.1	118.71			
13	3920	2.3	108.13			
15	3430	2.6	94.72			
17	3120	2.9	86.16			
9.1	5800	0.85	160.04	G73A DA132S4	55	164
9.8	5380	0.90	148.43	G73C DA132S4		165
11	4870	1.00	134.48			
12	4430	1.10	122.32			
13	4000	1.20	110.37			
14	3630	1.35	100.13			
17	3140	1.55	86.74			
18	2840	1.70	78.48			
20	2580	1.90	71.25			
23	2300	2.1	63.53			
27	1950	2.5	53.88			
31	1720	2.8	47.41			

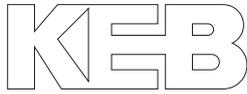
Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
5.5 kW						
16	3370	0.85	92.94	G63A DA132S4	54	114
17	3020	0.95	83.23	G63C DA132S4		114
19	2710	1.05	74.91			
22	2370	1.20	65.35			
25	2120	1.30	58.55			
28	1880	1.45	51.94			
32	1630	1.55	45.13			
36	1460	1.65	40.41			
40	1320	1.80	36.37			
46	1150	1.95	31.73			
51	1030	2.1	28.43			
57	915	2.3	25.22			
65	800	2.5	22.15			
47	1130	1.80	31.16	G62A DA132S4	54	114
51	1030	1.95	28.42	G62C DA132S4		114
55	955	2.2	26.36			
61	865	2.5	23.88			
67	785	2.7	21.72			
74	710	3.0	19.60			
28	1850	0.90	51.20	G53A DA132S4	53	89
31	1670	0.95	46.21	G53C DA132S4		90
34	1540	1.05	42.53			
38	1380	1.20	38.01			
43	1220	1.35	33.76			
48	1080	1.45	29.91			
54	965	1.55	26.62			
64	825	1.75	22.80			
72	730	1.85	20.11			
61	855	1.55	23.62	G52A DA132S4	53	89
68	775	1.65	21.45	G52C DA132S4		90
73	720	1.95	19.83			
81	645	2.2	17.86			
91	580	2.3	16.01			
101	520	2.6	14.33			
112	465	2.7	12.90			
129	410	2.9	11.25			
48	1090	0.80	30.21	G43A DA132S4	52	67
55	965	0.90	26.59	G43C DA132S4		68
62	845	0.95	23.29			
71	740	1.00	20.45			
80	655	1.35	18.06	G42A DA132S4	52	67
89	590	1.45	16.30	G42C DA132S4		68
97	545	1.50	15.00			
108	485	1.65	13.41			
122	430	1.75	11.90			
137	380	1.90	10.55			
154	340	2.00	9.39			
180	290	2.2	8.04			
204	255	2.3	7.09			
213	245	1.90	6.82			
240	220	2.1	6.05			
270	194	2.3	5.36			
304	173	2.5	4.77			
355	148	2.7	4.09			
402	131	2.9	3.61			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
5.5 kW						
96	550	0.90	15.16	G32A DA132S4	51	57
107	495	1.00	13.60	G32C DA132S4		57
118	445	1.10	12.34			
133	395	1.20	10.93			
151	350	1.25	9.63			
172	305	1.35	8.43			
196	270	1.45	7.40			
199	265	1.25	7.30			
222	235	1.35	6.54			
244	215	1.50	5.94			
276	191	1.60	5.26			
313	168	1.75	4.63			
358	147	1.85	4.06			
407	129	2.0	3.56			
7.5 kW						
4.5	15400	0.90	325.42	G93G42A DA132M4	57/15	352
5.0	13700	1.00	288.28	G93G42C DA132M4		358
5.8	11900	1.15	250.07			
6.6	10400	1.30	218.81			
7.5	9140	1.50	192.77			
8.2	8430	1.20	177.81			
6.7	10200	0.85	215.53	G83G42A DA132M4	56/15	252
				G83G42C DA132M4		258
7.8	9240	0.95	186.96	G83A DA132M4	56	237
8.5	8440	1.05	170.93	G83C DA132M4		243
9.2	7800	1.15	158.00			
10	7090	1.25	143.59			
11	6470	1.35	131.06			
12	5860	1.50	118.71			
13	5340	1.65	108.13			
15	4680	1.90	94.72			
17	4260	2.1	86.16			
19	3830	2.3	77.61			
21	3440	2.6	69.68			
24	2950	3.0	59.77			
12	6040	0.80	122.32	G73A DA132M4	55	169
13	5450	0.90	110.37	G73C DA132M4		170
14	4950	1.00	100.13			
17	4280	1.15	86.74			
18	3880	1.25	78.48			
20	3520	1.40	71.25			
23	3140	1.55	63.53			
27	2660	1.85	53.88			
31	2340	2.1	47.41			
35	2030	2.4	41.07			
39	1840	2.5	37.16			
43	1670	2.7	33.74			
48	1490	2.9	30.08			
22	3230	0.85	65.35	G63A DA132M4	54	118
25	2890	0.95	58.55	G63C DA132M4		119
28	2570	1.05	51.94			
32	2230	1.15	45.13			
36	2000	1.25	40.41			
40	1800	1.30	36.37			
46	1570	1.45	31.73			
51	1400	1.55	28.43			
57	1250	1.65	25.22			
65	1090	1.80	22.15			

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

7.5 kW

47	1540	1.35	31.16	G62A DA132M4	54	118
51	1400	1.45	28.42	G62C DA132M4		119
55	1300	1.65	26.36			
61	1180	1.85	23.88			
67	1070	1.95	21.72			
74	970	2.2	19.60			
82	880	2.3	17.78			
94	760	2.5	15.40			
104	690	2.7	13.94			
115	625	2.8	12.65			
38	1880	0.85	38.01	G53A DA132M4	53	93
43	1670	1.00	33.76	G53C DA132M4		95
48	1480	1.05	29.91			
54	1310	1.15	26.62			
64	1130	1.25	22.80			
72	995	1.35	20.11			
61	1170	1.10	23.62	G52A DA132M4	53	93
68	1060	1.20	21.45	G52C DA132M4		95
73	980	1.40	19.83			
81	880	1.60	17.86			
91	790	1.70	16.01			
101	710	1.90	14.33			
112	635	2.00	12.90			
129	555	2.1	11.25			
144	500	2.3	10.08			
162	440	2.4	8.94			
185	390	2.6	7.86			
206	345	2.3	7.02			
229	310	2.5	6.32			
263	270	2.8	5.51			
80	890	1.00	18.06	G42A DA132M4	52	71
89	805	1.05	16.30	G42C DA132M4		72
97	740	1.10	15.00			
108	660	1.20	13.41			
122	590	1.30	11.90			
137	520	1.40	10.55			
154	465	1.45	9.39			
180	395	1.60	8.04			
204	350	1.70	7.09			
213	335	1.40	6.82			
240	300	1.50	6.05			
270	265	1.65	5.36			
304	235	1.80	4.77			
355	200	2.0	4.09			
402	178	2.2	3.61			

9.2 kW

5.1	16500	0.80	288.28	G93G42A DA160MS4	57/15	373
5.9	14300	0.95	250.07	G93G42C DA160MS4		380
6.7	12600	1.10	218.81			
7.6	11100	1.25	192.77			
8.3	10200	1.00	177.81			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

9.2 kW

9.4	9390	1.45	157.04	G93A DA160MS4	57	356
10	8610	1.60	144.12	G93C DA160MS4		363
11	7830	1.75	131.03			
12	7160	1.90	119.82			
14	6330	2.1	105.95			
15	5790	2.4	96.85			
17	5280	2.6	88.42			
18	4780	2.8	79.95			
10	8580	1.05	143.59	G83A DA160MS4	56	256
11	7830	1.15	131.06	G83C DA160MS4		263
12	7100	1.25	118.71			
14	6460	1.40	108.13			
16	5660	1.55	94.72			
17	5150	1.75	86.16			
19	4640	1.90	77.61			
21	4160	2.1	69.68			
25	3570	2.5	59.77			
28	3090	2.9	51.67			
15	5980	0.80	100.13	G73A DA160MS4	55	188
17	5180	0.95	86.74	G73C DA160MS4		189
19	4690	1.05	78.48			
21	4260	1.15	71.25			
23	3800	1.30	63.53			
27	3220	1.50	53.88			
31	2830	1.70	47.41			
36	2450	1.95	41.07			
40	2220	2.1	37.16			
44	2020	2.2	33.74			
49	1800	2.4	30.08			
58	1520	2.7	25.51			
68	1300	3.0	21.77			
56	1560	2.6	26.11	G72A DA160MS4	55	188
62	1410	2.9	23.65	G72C DA160MS4		189
25	3500	0.80	58.55	G63A DA160MS4	54	139
28	3100	0.85	51.94	G63C DA160MS4		139
33	2700	0.95	45.13			
36	2420	1.00	40.41			
40	2170	1.10	36.37			
46	1900	1.20	31.73			
52	1700	1.25	28.43			
58	1510	1.40	25.22			
66	1320	1.50	22.15			
62	1430	1.55	23.88	G62A DA160MS4	54	139
68	1300	1.65	21.72	G62C DA160MS4		139
75	1170	1.80	19.60			
83	1060	1.90	17.78			
95	920	2.1	15.40			
105	835	2.2	13.94			
116	755	2.4	12.65			
130	675	2.5	11.28			
154	570	2.7	9.57			
180	490	3.0	8.16			
197	445	2.7	7.47			
218	405	2.9	6.76			
44	2020	0.80	33.76	G53A DA160MS4	53	114
49	1790	0.85	29.91	G53C DA160MS4		116
55	1590	0.95	26.62			
64	1360	1.05	22.80			
73	1200	1.10	20.11			

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

9.2 kW

82	1070	1.35	17.86	G52A DA160MS4	53	114
92	955	1.40	16.01	G52C DA160MS4		116
103	855	1.55	14.33			
114	770	1.65	12.90			
131	675	1.75	11.25			
146	605	1.90	10.08			
164	535	2.0	8.94			
187	470	2.1	7.86			
209	420	1.95	7.02			
233	380	2.1	6.32			
267	330	2.3	5.51			
298	295	2.5	4.94			
335	260	2.7	4.38			
382	230	2.9	3.85			
110	800	1.00	13.41	G42A DA160MS4	52	93
123	710	1.05	11.90	G42C DA160MS4		93
139	630	1.15	10.55			
157	560	1.20	9.39			
183	480	1.30	8.04			
207	425	1.40	7.09			
216	405	1.15	6.82			
243	360	1.25	6.05			
274	320	1.35	5.36			
308	285	1.50	4.77			
360	245	1.65	4.09			
408	215	1.80	3.61			

11.0 kW

5.9	17200	0.80	250.07	G93G42A DA160M4	57/15	373
6.7	15000	0.90	218.81	G93G42C DA160M4		380
7.6	13200	1.05	192.77			
8.3	12200	0.80	177.81			
9.4	11200	1.20	157.04	G93A DA160M4	57	356
10	10300	1.30	144.12	G93C DA160M4		363
11	9360	1.45	131.03			
12	8560	1.60	119.82			
14	7570	1.80	105.95			
15	6920	1.95	96.85			
17	6320	2.2	88.42			
18	5710	2.4	79.95			
21	4960	2.7	69.35			
10	10300	0.85	143.59	G83A DA160M4	56	256
11	9370	0.95	131.06	G83C DA160M4		263
12	8480	1.05	118.71			
14	7730	1.15	108.13			
16	6770	1.30	94.72			
17	6160	1.45	86.16			
19	5550	1.60	77.61			
21	4980	1.80	69.68			
25	4270	2.1	59.77			
28	3690	2.4	51.67			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

11.0 kW

17	6200	0.80	86.74	G73A DA160M4	55	188
19	5610	0.85	78.48	G73C DA160M4		189
21	5090	0.95	71.25			
23	4540	1.10	63.53			
27	3850	1.25	53.88			
31	3390	1.45	47.41			
36	2940	1.65	41.07			
40	2660	1.75	37.16			
44	2410	1.85	33.74			
49	2150	2.0	30.08			
58	1820	2.3	25.51			
68	1560	2.5	21.77			
56	1870	2.2	26.11	G72A DA160M4	55	188
62	1690	2.5	23.65	G72C DA160M4		189
68	1540	2.6	21.55			
78	1350	2.9	18.87			
86	1230	3.0	17.17			
33	3230	0.80	45.13	G63A DA160M4	54	139
36	2890	0.85	40.41	G63C DA160M4		139
40	2600	0.90	36.37			
46	2270	1.00	31.73			
52	2030	1.05	28.43			
58	1800	1.15	25.22			
66	1580	1.25	22.15			
62	1710	1.30	23.88	G62A DA160M4	54	139
68	1550	1.35	21.72	G62C DA160M4		139
75	1400	1.50	19.60			
83	1270	1.60	17.78			
95	1100	1.75	15.40			
105	995	1.85	13.94			
116	905	1.95	12.65			
130	805	2.1	11.28			
154	685	2.3	9.57			
180	585	2.5	8.16			
197	535	2.3	7.47			
218	485	2.4	6.76			
240	440	2.6	6.13			
269	390	2.8	5.47			
55	1900	0.80	26.62	G53A DA160M4	53	114
64	1630	0.90	22.80	G53C DA160M4		116
73	1440	0.95	20.11			
82	1280	1.10	17.86	G52A DA160M4	53	114
92	1140	1.20	16.01	G52C DA160M4		116
103	1020	1.30	14.33			
114	920	1.35	12.90			
131	805	1.50	11.25			
146	720	1.60	10.08			
164	640	1.65	8.94			
187	560	1.80	7.86			
209	500	1.60	7.02			
233	450	1.75	6.32			
267	395	1.95	5.51			
298	355	2.1	4.94			
335	315	2.2	4.38			
382	275	2.4	3.85			

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

11.0 kW

110	960	0.85	13.41	G42A DA160M4	52	93
123	850	0.90	11.90	G42C DA160M4		93
139	755	0.95	10.55			
157	670	1.00	9.39			
183	575	1.10	8.04			
207	505	1.20	7.09			
216	485	0.95	6.82			
243	430	1.05	6.05			
274	385	1.15	5.36			
308	340	1.25	4.77			
360	290	1.40	4.09			
408	260	1.50	3.61			

15.0 kW

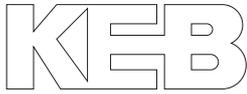
9.4	15300	0.90	157.04	G93A DA160L4	57	375
10	14000	0.95	144.12	G93C DA160L4		382
11	12800	1.05	131.03			
12	11700	1.15	119.82			
14	10300	1.30	105.95			
15	9440	1.45	96.85			
17	8620	1.60	88.42			
18	7790	1.75	79.95			
21	6760	2.0	69.35			
24	5910	2.3	60.68			
30	4810	2.8	49.31			
14	10500	0.85	108.13	G83A DA160L4	56	275
16	9230	0.95	94.72	G83C DA160L4		282
17	8400	1.05	86.16			
19	7560	1.20	77.61			
21	6790	1.30	69.68			
25	5820	1.55	59.77			
28	5030	1.75	51.67			
38	3760	2.3	38.61			
42	3380	2.5	34.66			
49	2900	2.7	29.74			
57	2500	3.0	25.70			
23	6190	0.80	63.53	G73A DA160L4	55	207
27	5250	0.95	53.88	G73C DA160L4		209
31	4620	1.05	47.41			
36	4000	1.20	41.07			
40	3620	1.30	37.16			
44	3290	1.35	33.74			
49	2930	1.50	30.08			
58	2490	1.65	25.51			
68	2120	1.85	21.77			
56	2540	1.60	26.11	G72A DA160L4	55	207
62	2310	1.80	23.65	G72C DA160L4		209
68	2100	1.90	21.55			
78	1840	2.1	18.87			
86	1670	2.2	17.17			
95	1510	2.3	15.46			
106	1350	2.5	13.88			
123	1160	2.7	11.91			
143	1000	2.9	10.29			
161	890	2.7	9.15			
177	810	2.9	8.32			
52	2770	0.80	28.43	G63A DA160L4	54	158
58	2460	0.85	25.22	G63C DA160L4		159
66	2160	0.90	22.15			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

15.0 kW

62	2330	0.95	23.88	G62A DA160L4	54	158
68	2120	1.00	21.72	G62C DA160L4		159
75	1910	1.10	19.60			
83	1730	1.15	17.78			
95	1500	1.30	15.40			
105	1360	1.35	13.94			
116	1230	1.45	12.65			
130	1100	1.55	11.28			
154	930	1.70	9.57			
180	795	1.85	8.16			
197	730	1.70	7.47			
218	660	1.80	6.76			
240	600	1.90	6.13			
269	535	2.1	5.47			
317	450	2.3	4.64			
371	385	2.6	3.96			
82	1740	0.80	17.86	G52A DA160L4	53	134
92	1560	0.85	16.01	G52C DA160L4		135
103	1400	0.95	14.33			
114	1260	1.00	12.90			
131	1100	1.10	11.25			
146	985	1.15	10.08			
164	870	1.25	8.94			
187	765	1.30	7.86			
209	685	1.20	7.02			
233	615	1.30	6.32			
267	535	1.40	5.51			
298	480	1.55	4.94			
335	425	1.65	4.38			
382	375	1.75	3.85			
11	15700	0.85	131.03	G93A DA180M4	57	404
12	14400	0.95	119.82	G93C DA180M4		411
14	12700	1.05	105.95			
15	11600	1.15	96.85			
17	10600	1.30	88.42			
18	9580	1.40	79.95			
21	8310	1.65	69.35			
24	7270	1.85	60.68			
28	6400	2.1	53.46			
30	5910	2.3	49.31			
33	5390	2.5	45.02			
36	4880	2.8	40.70			
16	11300	0.80	94.72	G83A DA180M4	56	304
17	10300	0.85	86.16	G83C DA180M4		311
19	9300	0.95	77.61			
21	8350	1.05	69.68			
25	7160	1.25	59.77			
29	6190	1.45	51.67			
33	5380	1.65	44.91			
38	4620	1.85	38.61			
43	4150	2.0	34.66			
50	3560	2.2	29.74			
57	3080	2.5	25.70			
66	2680	2.7	22.34			
78	2250	2.7	18.81	G82A DA180M4	56	304
87	2040	2.9	17.01	G82C DA180M4		311

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

18.5 kW

31	5680	0.85	47.41	G73A DA180M4	55	236
36	4920	1.00	41.07	G73C DA180M4		238
40	4450	1.05	37.16			
44	4040	1.10	33.74			
49	3600	1.20	30.08			
58	3060	1.35	25.51			
68	2610	1.50	21.77			
62	2830	1.45	23.65	G72A DA180M4	55	236
68	2580	1.55	21.55	G72C DA180M4		238
78	2260	1.75	18.87			
86	2060	1.80	17.17			
95	1850	1.90	15.46			
106	1660	2.0	13.88			
124	1430	2.2	11.91			
143	1230	2.4	10.29			
161	1100	2.2	9.15			
165	1070	2.6	8.95			
177	995	2.4	8.32			
197	900	2.5	7.50			
219	805	2.7	6.73			
255	690	2.9	5.77			
75	2350	0.90	19.60	G62A DA180M4	54	189
83	2130	0.95	17.78	G62C DA180M4		189
96	1840	1.05	15.40			
106	1670	1.10	13.94			
117	1520	1.15	12.65			
131	1350	1.25	11.28			
154	1150	1.35	9.57			
181	980	1.50	8.16			
198	895	1.35	7.47			
218	810	1.45	6.76			
240	735	1.55	6.13			
270	655	1.70	5.47			
318	555	1.90	4.64			
373	475	2.1	3.96			
114	1550	0.80	12.90	G52A DA180M4	53	164
131	1350	0.90	11.25	G52C DA180M4		165
146	1210	0.95	10.08			
165	1070	1.00	8.94			
188	940	1.05	7.86			
210	840	0.95	7.02			
233	755	1.05	6.32			
267	660	1.15	5.51			
299	590	1.25	4.94			
337	525	1.35	4.38			
383	460	1.45	3.85			

22.0 kW

12	17100	0.80	119.82	G93A DA180L4	57	434
14	15100	0.90	105.95	G93C DA180L4		441
15	13800	1.00	96.85			
17	12600	1.10	88.42			
18	11400	1.20	79.95			
21	9880	1.40	69.35			
24	8640	1.55	60.68			
28	7610	1.80	53.46			
30	7020	1.95	49.31			
33	6410	2.1	45.02			
36	5800	2.3	40.70			
42	5030	2.7	35.31			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

22.0 kW

19	11100	0.80	77.61	G83A DA180L4	56	334
21	9930	0.90	69.68	G83C DA180L4		341
25	8510	1.05	59.77			
29	7360	1.20	51.67			
33	6400	1.40	44.91			
38	5500	1.55	38.61			
43	4940	1.70	34.66			
50	4240	1.85	29.74			
57	3660	2.1	25.70			
66	3180	2.3	22.34			
78	2680	2.3	18.81	G82A DA180L4	56	334
87	2420	2.4	17.01	G82C DA180L4		341
100	2100	2.7	14.76			
114	1840	3.0	12.91			
36	5850	0.80	41.07	G73A DA180L4	55	266
40	5290	0.90	37.16	G73C DA180L4		268
44	4810	0.95	33.74			
49	4280	1.00	30.08			
58	3630	1.15	25.51			
68	3100	1.30	21.77			
62	3370	1.25	23.65	G72A DA180L4	55	266
68	3070	1.30	21.55	G72C DA180L4		268
78	2690	1.45	18.87			
86	2450	1.55	17.17			
95	2200	1.60	15.46			
106	1980	1.70	13.88			
124	1700	1.85	11.91			
143	1470	2.00	10.29			
161	1300	1.90	9.15			
165	1270	2.1	8.95			
177	1190	2.00	8.32			
197	1070	2.1	7.50			
219	960	2.2	6.73			
255	825	2.4	5.77			
296	710	2.6	4.99			
340	620	2.8	4.34			
83	2530	0.80	17.78	G62A DA180L4	54	219
96	2190	0.90	15.40	G62C DA180L4		219
106	1990	0.95	13.94			
117	1800	1.00	12.65			
131	1610	1.05	11.28			
154	1360	1.15	9.57			
181	1160	1.25	8.16			
198	1060	1.15	7.47			
218	965	1.25	6.76			
240	875	1.30	6.13			
270	780	1.40	5.47			
318	660	1.60	4.64			
373	565	1.75	3.96			

Helical geared motors G



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

30.0 kW

17	17200	0.80	88.42	G93A DA200L4	57	471
18	15500	0.90	79.95	G93C DA200L4		478
21	13500	1.00	69.35			
24	11800	1.15	60.68			
28	10400	1.30	53.46			
30	9580	1.40	49.31			
33	8740	1.55	45.02			
36	7910	1.70	40.70			
42	6860	2.00	35.31			
48	6000	2.2	30.89			
54	5290	2.5	27.22			
63	4520	2.7	23.27			
73	3930	3.0	20.23			
29	10000	0.90	51.67	G83A DA200L4	56	371
33	8720	1.00	44.91	G83C DA200L4		378
38	7500	1.15	38.61			
43	6730	1.25	34.66			
50	5780	1.35	29.74			
57	4990	1.50	25.70			
66	4340	1.70	22.34			
78	3650	1.65	18.81	G82A DA200L4	56	371
87	3300	1.80	17.01	G82C DA200L4		378
100	2870	1.95	14.76			
114	2510	2.2	12.91			
130	2210	2.4	11.37			
151	1900	2.4	9.79			
167	1720	2.5	8.85			
192	1490	2.7	7.68			
219	1310	3.0	6.72			
78	3670	1.05	18.87	G72A DA200L4	55	303
86	3330	1.10	17.17	G72C DA200L4		305
95	3000	1.20	15.46			
106	2700	1.25	13.88			
124	2310	1.35	11.91			
143	2000	1.45	10.29			
161	1780	1.40	9.15			
165	1740	1.60	8.95			
177	1620	1.45	8.32			
197	1460	1.55	7.50			
219	1310	1.65	6.73			
255	1120	1.80	5.77			
296	970	1.95	4.99			
340	845	2.1	4.34			

37.0 kW

21	16700	0.80	69.35	G93A DA225S4	57	604
24	14600	0.95	60.68	G93C DA225S4		611
27	12800	1.05	53.46			
30	11900	1.15	49.31			
33	10800	1.25	45.02			
36	9780	1.40	40.70			
42	8490	1.60	35.31			
48	7430	1.80	30.89			
54	6540	2.00	27.22			
63	5590	2.2	23.27			
73	4860	2.4	20.23			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

37.0 kW

85	4170	2.8	17.34	G92A DA225S4	57	604
96	3670	3.0	15.26	G92C DA225S4		611
109	3250	3.3	13.53			
125	2820	3.6	11.74			
143	2480	3.9	10.30			
161	2200	3.0	9.15			
33	10800	0.80	44.91	G83A DA225S4	56	504
38	9280	0.95	38.61	G83C DA225S4		511
42	8330	1.00	34.66			
49	7150	1.10	29.74			
57	6180	1.25	25.70			
66	5370	1.35	22.34			
78	4520	1.35	18.81	G82A DA225S4	56	504
86	4090	1.45	17.01	G82C DA225S4		511
100	3550	1.60	14.76			
114	3100	1.75	12.91			
129	2730	1.90	11.37			
150	2350	1.95	9.79			
166	2130	2.0	8.85			
191	1850	2.2	7.68			
219	1620	2.4	6.72			
248	1420	2.6	5.92			

45.0 kW

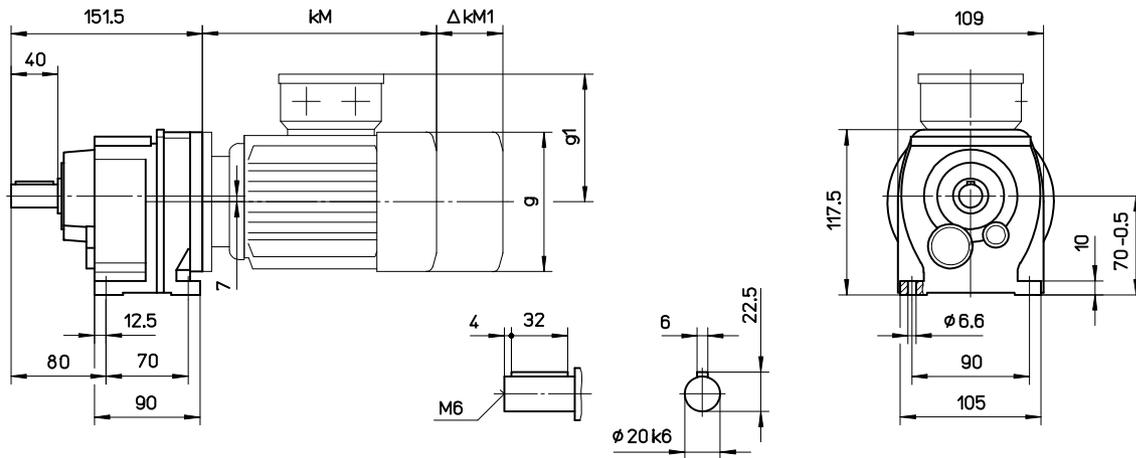
28	15600	0.85	53.46	G93A DA225M4	57	634
30	14400	0.95	49.31	G93C DA225M4		641
33	13100	1.05	45.02			
36	11900	1.15	40.70			
42	10300	1.30	35.31			
48	9000	1.50	30.89			
54	7930	1.65	27.22			
63	6780	1.80	23.27			
73	5890	2.00	20.23			
85	5050	2.3	17.34	G92A DA225M4	57	634
97	4450	2.5	15.26	G92C DA225M4		641
109	3940	2.7	13.53			
126	3420	3.0	11.74			
143	3000	3.3	10.30			
161	2670	2.5	9.15			
183	2350	2.7	8.05			
207	2080	2.9	7.14			
238	1800	3.2	6.19			
271	1580	3.5	5.43			
43	10100	0.80	34.66	G83A DA225M4	56	534
50	8660	0.90	29.74	G83C DA225M4		541
57	7490	1.00	25.70			
66	6510	1.10	22.34			
78	5480	1.10	18.81	G82A DA225M4	56	534
87	4960	1.20	17.01	G82C DA225M4		541
100	4300	1.30	14.76			
114	3760	1.45	12.91			
130	3310	1.60	11.37			
151	2850	1.60	9.79			
167	2580	1.70	8.85			
192	2240	1.85	7.68			
219	1960	2.00	6.72			
249	1720	2.1	5.92			

Helical geared motors G



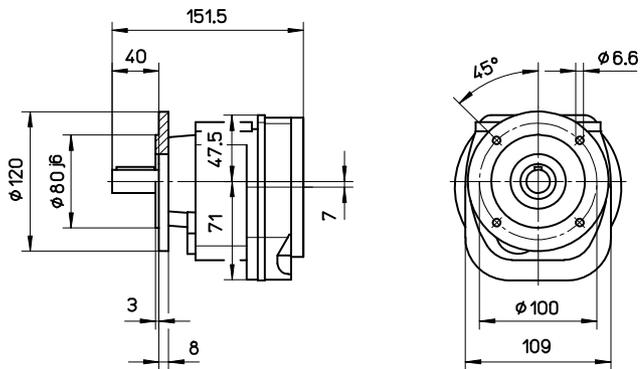
G02A / G03A

Foot mounted version



G02C / G03C

Flange mounted version

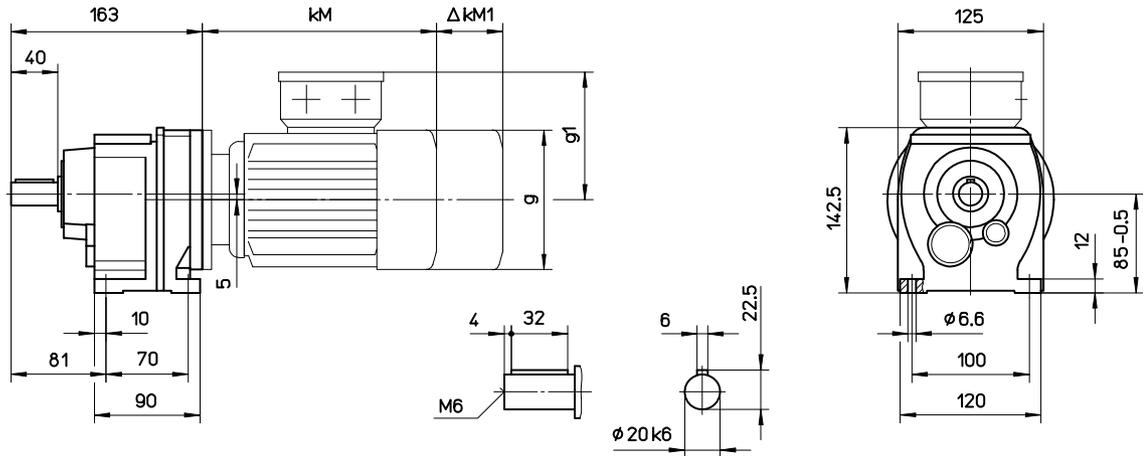


	kM	ΔkM1 Brake	g	g1
G0_DM63	202	59	123	109
G0_DM71	228	56	138	119
G0_DM80	251	66	156	140

Helical geared motors G



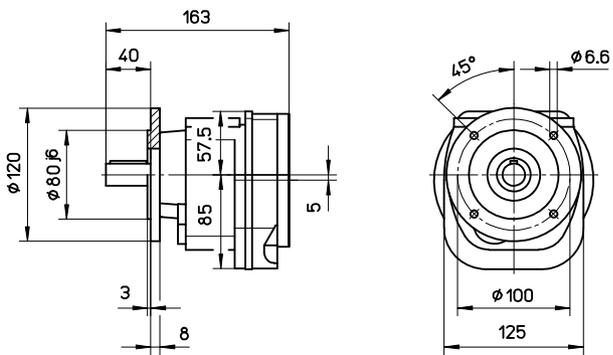
G12A / G13A Foot mounted version



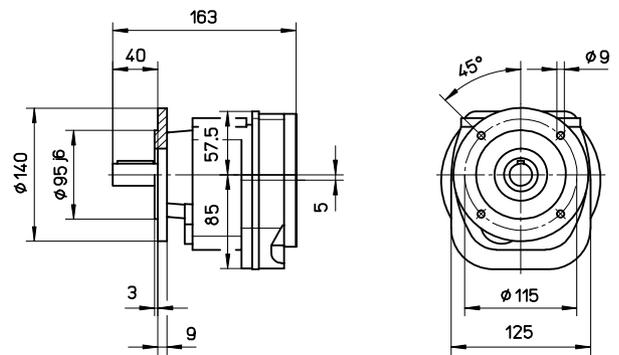
G12C / G13C

Flange mounted version

Ø120



Ø140



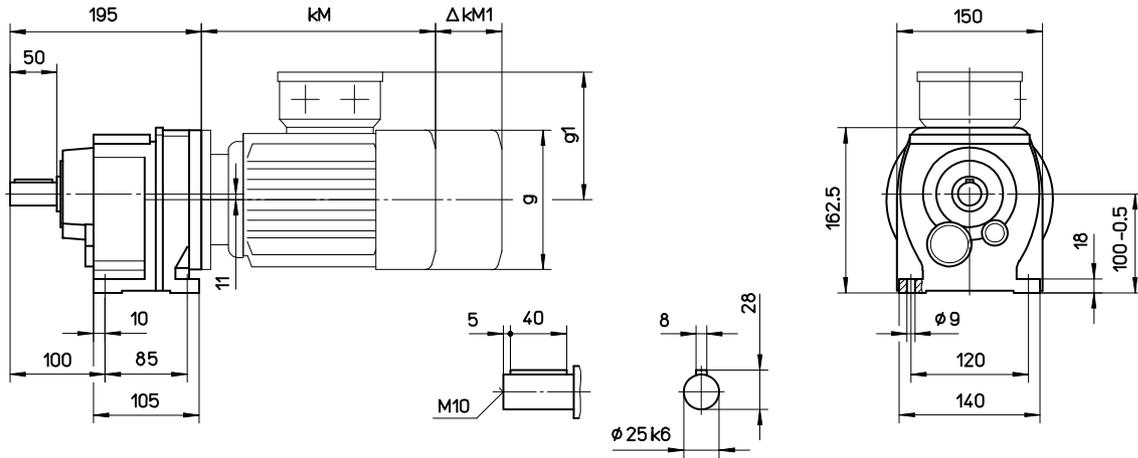
	kM	ΔkM1 Brake	g	g1
G1__DM63	201	59	123	109
G1__DM71	228	56	138	119
G1__DM80	250	66	156	140
G1__DM90S	266.5	74	176	144
G1__DM90L	291.5	74	176	144

Helical geared motors G



G22A / G23A

Foot mounted version

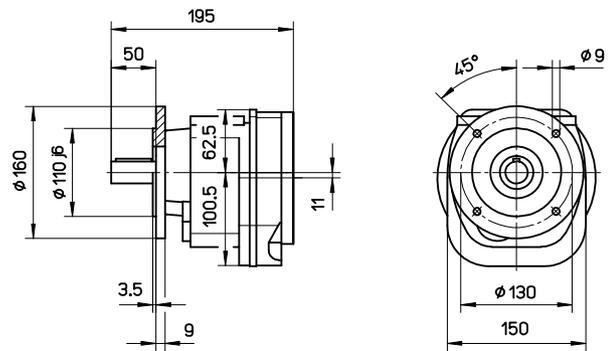
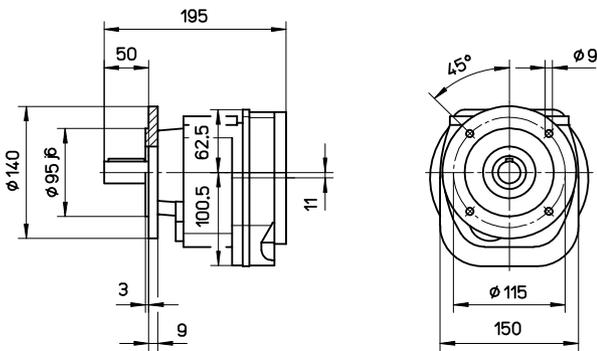


G22C / G23C

Flange mounted version

Ø140

Ø160



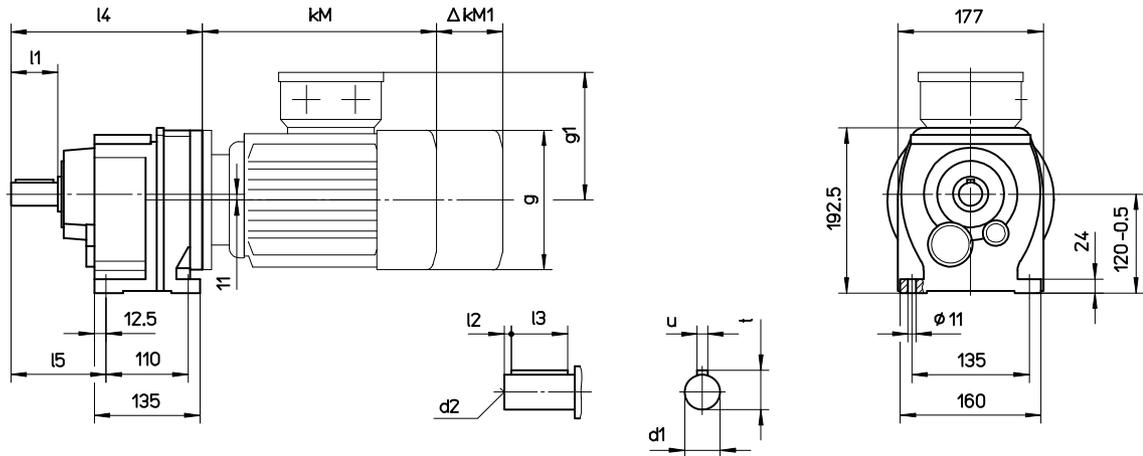
	kM	ΔkM1 Brake	g	g1
G2_DM63	198	59	123	109
G2_DM71	224	56	138	119
G2_DM80	247	66	156	140
G2_DM90S	261.5	74	176	144
G2_DM90L	286.5	74	176	144
G2_DM100	319	91	194	155

Helical geared motors G



G32A / G33A

Foot mounted version

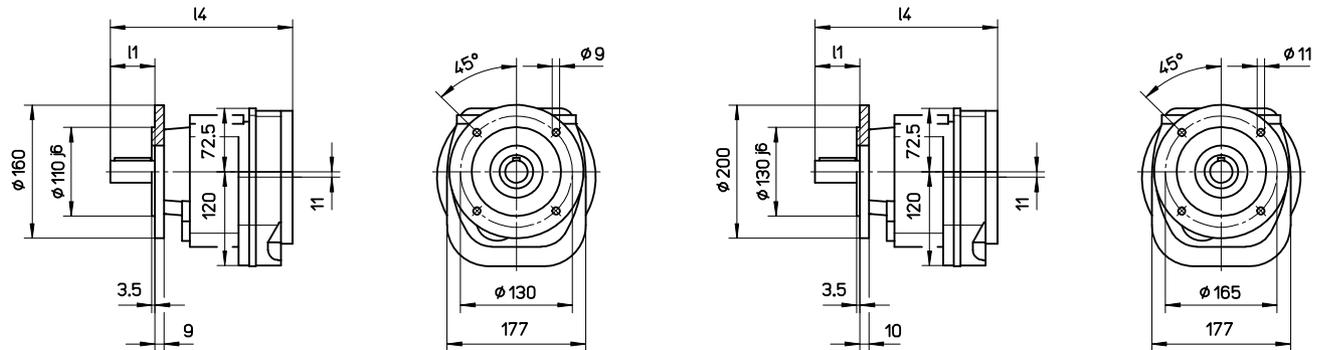


G32C / G33C

Flange mounted version

Ø160

Ø200



	kM	ΔkM1 Brake	g	g1
G3_DM63	198.5	59	123	109
G3_DM71	223.5	56	138	119
G3_DM80	247.5	66	156	140
G3_DM90S	262	74	176	144
G3_DM90L	287	74	176	144
G3_DM100	319	91	194	155
G3_DM112	342	96	218	165
G3_DA132	435	99	245	188

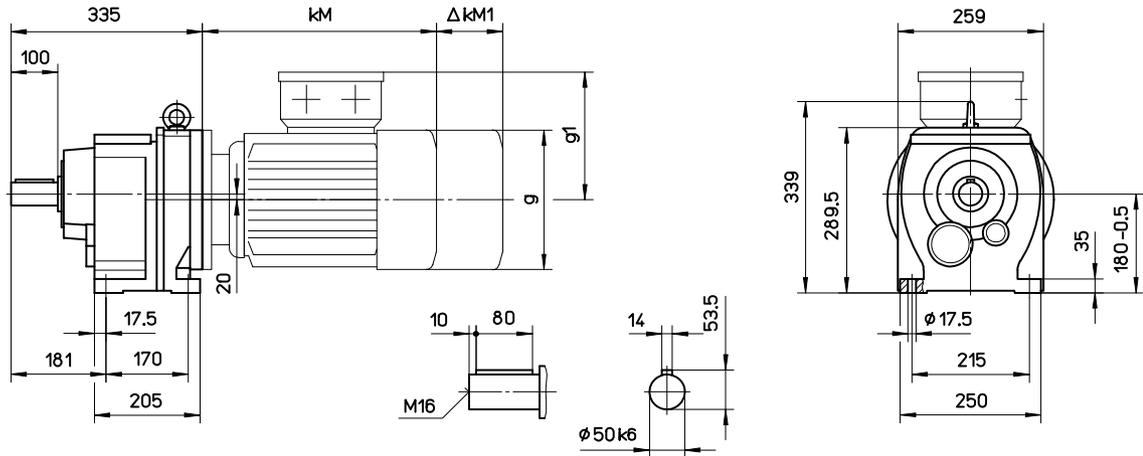
Shaft	d1	l1	t	u	d2	l2	l3	l4	l5
Ø30x60	30k6	60	33	8	M10	5	50	234	116.5
Ø35x70	35k6	70	38	10	M12	7	56	244	126.5

Helical geared motors G



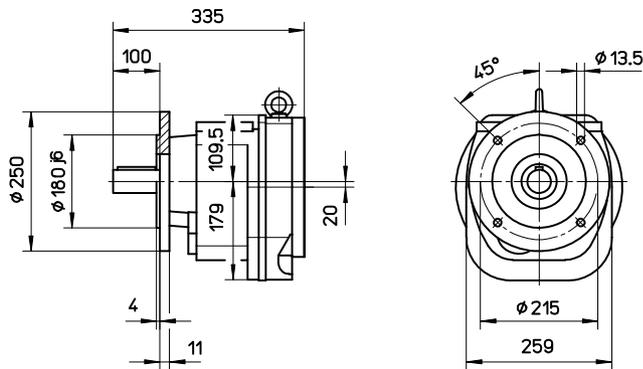
G52A / G53A

Foot mounted version



G52C / G53C

Flange mounted version



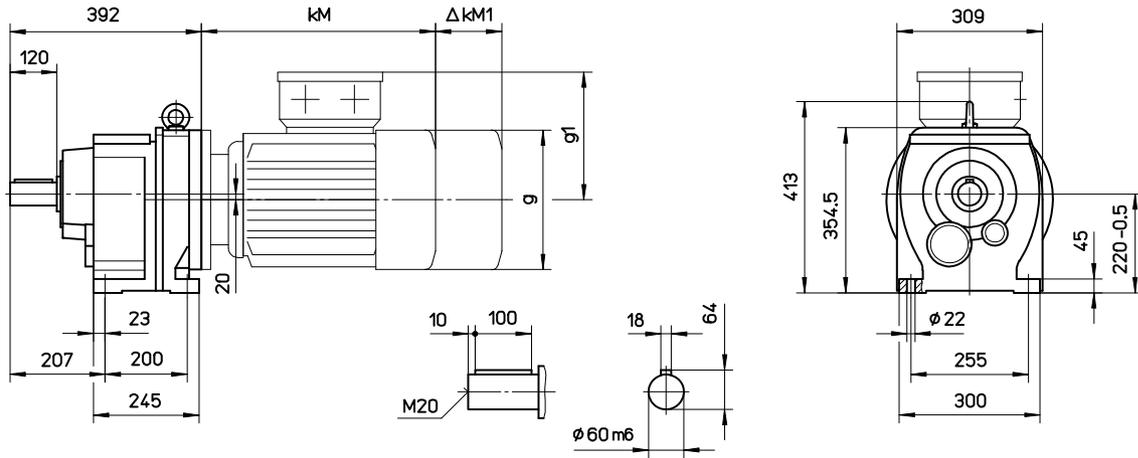
	kM	ΔkM1 Brake	g	g1
G5_DM80	238	66	156	140
G5_DM90S	254.5	74	176	144
G5_DM90L	279.5	74	176	144
G5_DM100	308	91	194	155
G5_DM112	332.5	96	218	165
G5_DA132	428	99	245	188
G5_DA160	532	120	311	250
G5_DA180	589	139	356	291

Helical geared motors G



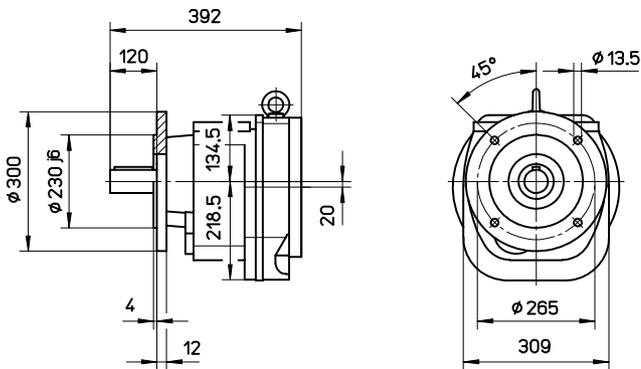
G62A / G63A

Foot mounted version



G62C / G63C

Flange mounted version



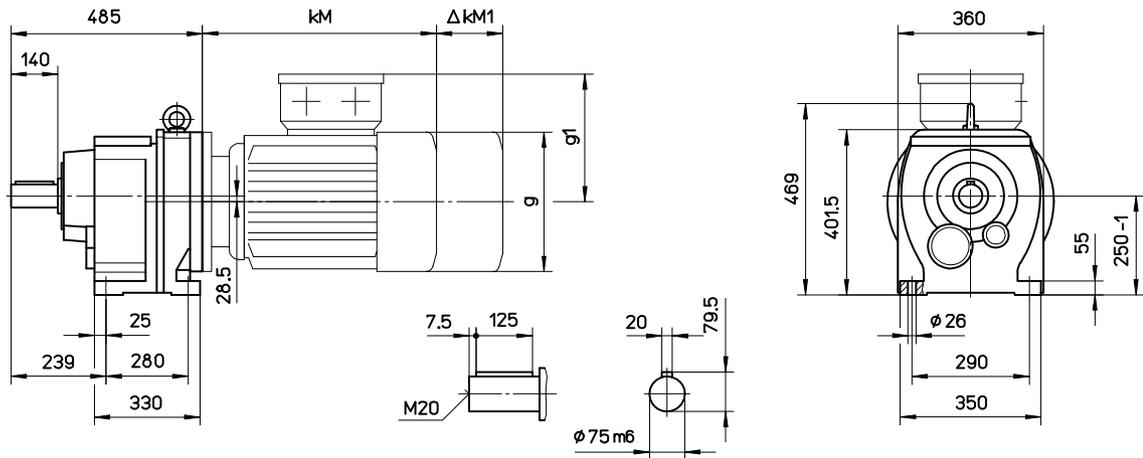
	kM	ΔkM1 Brake	g	g1
G6__DM90S	247.5	74	176	144
G6__DM90L	272.5	74	176	144
G6__DM100	304	91	194	155
G6__DM112	325.5	96	218	165
G6__DA132	421	99	245	188
G6__DA160	526	120	311	250
G6__DA180	583	139	356	291

Helical geared motors G



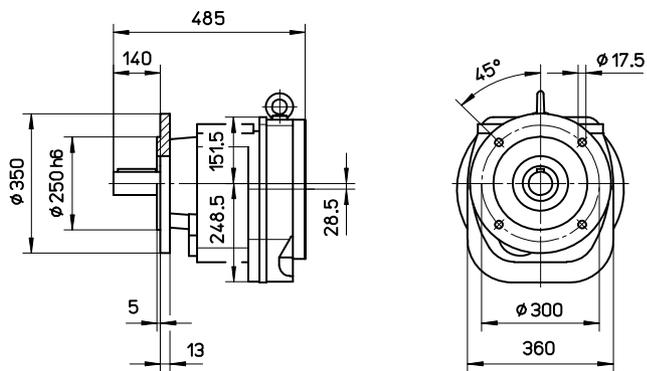
G72A / G73A

Foot mounted version



G72C / G73C

Flange mounted version



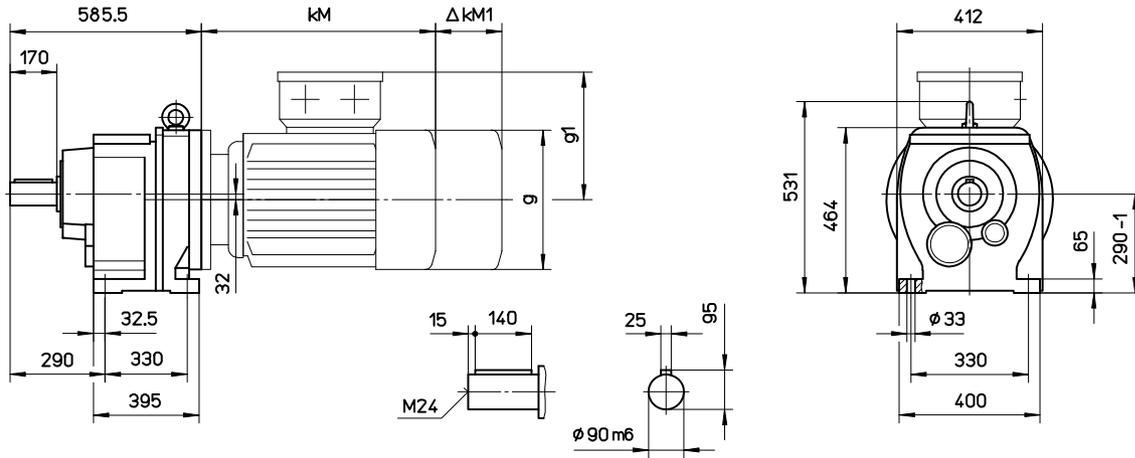
	kM	ΔkM1 Brake	g	g1
G7__DM100	299	91	194	155
G7__DM112	320.5	96	218	165
G7__DA132	413	99	245	188
G7__DA160	522	120	311	250
G7__DA180	577.5	139	356	291
G7__DA200	627.5	139	356	291

Helical geared motors G



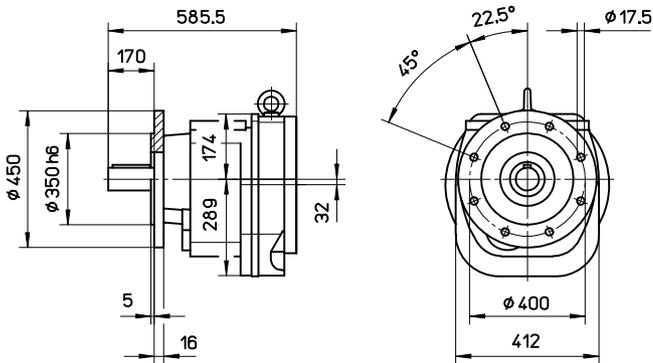
G82A / G83A

Foot mounted version



G82C / G83C

Flange mounted version



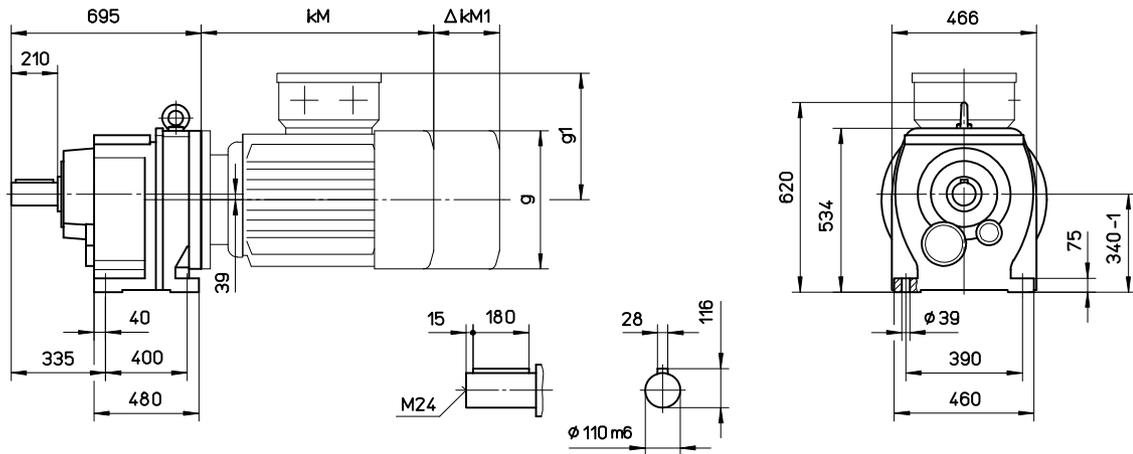
	kM	ΔkM1 Brake	g	g1
G8__DA132	396.5	99	245	188
G8__DA160	503.5	120	311	250
G8__DA180	560.5	139	356	291
G8__DA200	610.5	139	356	291
G8__DA225S	610.5	139	356	299
G8__DA225M	670.5	139	356	299

Helical geared motors G



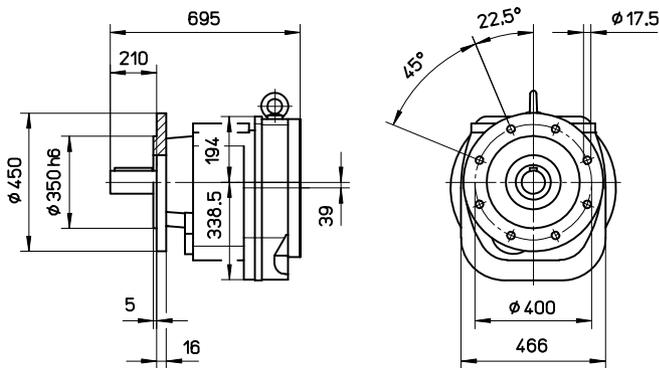
G92A / G93A

Foot mounted version



G92C / G93C

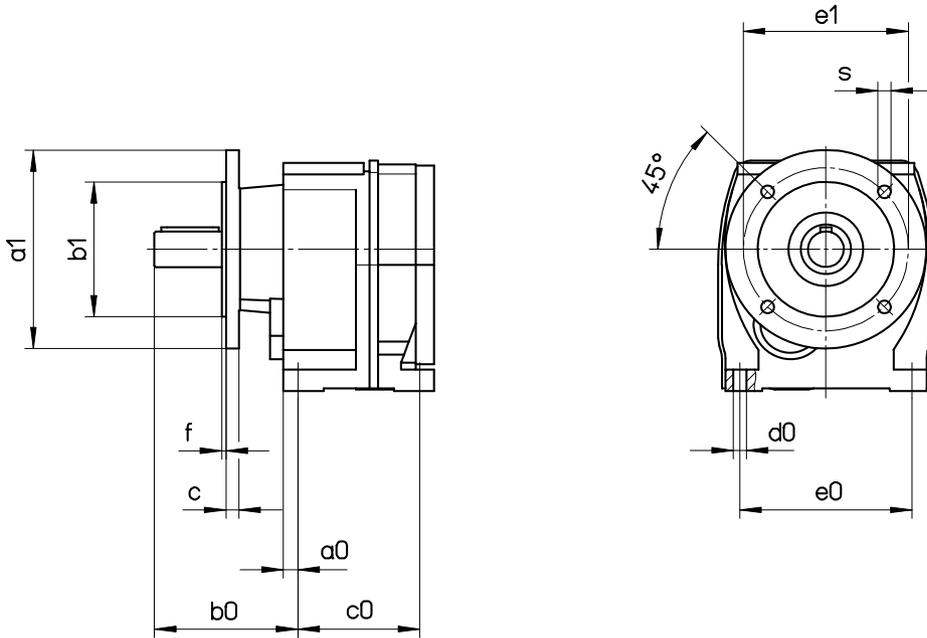
Flange mounted version



	kM	ΔkM1 Brake	g	g1
G9_ DA160	491.5	120	311	250
G9_ DA180	548	139	356	291
G9_ DA200	598	139	356	291
G9_ DA225S	598	139	356	299
G9_ DA225M	658	139	356	299

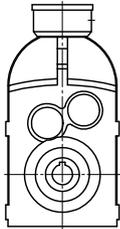
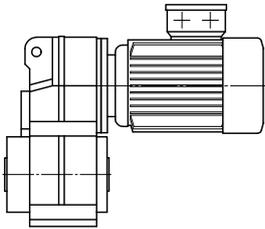
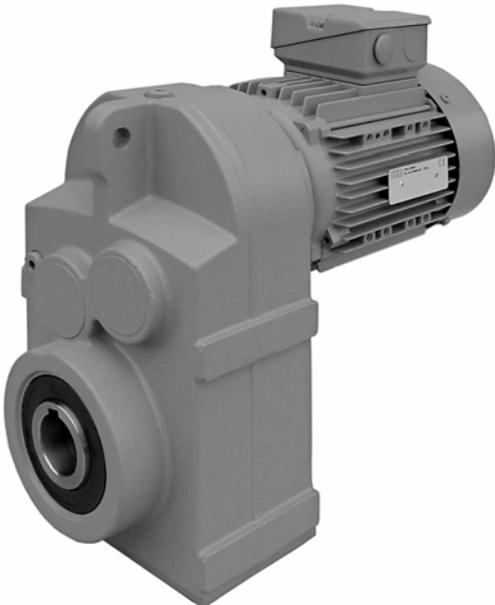
Helical gear units G

E - Foot-flange mounted version

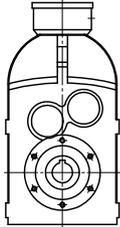
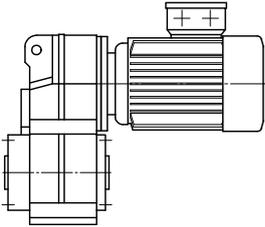


Gear unit	Shaft	a0	b0	c0	d0	e0	a1	e1	b1	c	s	f
G0	20x40	12.5	80	70	Ø6.6	90	120	100	80 j6	8	6.6	3
							140	115	95 j6	9	9	3
G1	20x40	10	81	70	Ø6.6	100	120	100	80 j6	8	6.6	3
							140	115	95 j6	9	9	3
G2	25x50	10	100	85	Ø9	120	140	115	95 j6	9	9	3
							160	130	110 j6	9	9	3.5
G3	30x60 35x70	12.5	116.5	110	Ø11	135	160	130	110 j6	9	9	3.5
			126.5				200	165	130 j6	10	11	3.5
G4	40x80	15	146	135	Ø13.5	170	200	165	130 j6	10	11	3.5
G5	50x100	17.5	181	170	Ø17.5	215	250	215	180 j6	11	13.5	4

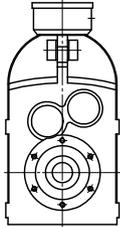
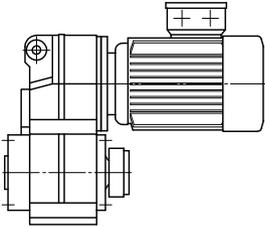
Shaft mounted helical gear units F



Shaft mounted version
Hollow shaft with keyway
Example: F42**A** DM100L4

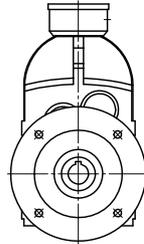
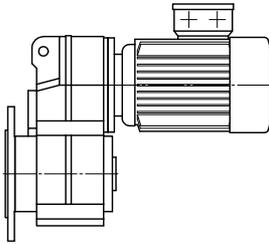


Shaft mounted version
Hollow shaft with keyway
Example: F53**B** DA132M4

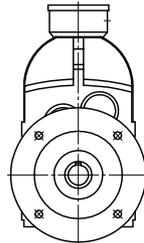
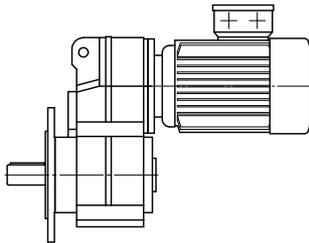


Shaft mounted version
Hollow shaft with shrink disc
Rubber elements
Example: F32**BSG** DM90S4

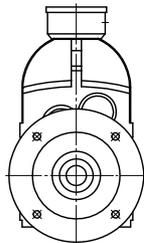
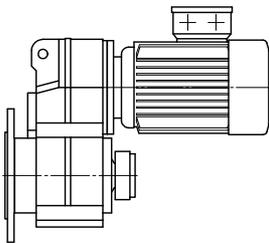
Shaft mounted helical gear units F



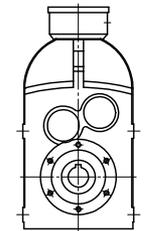
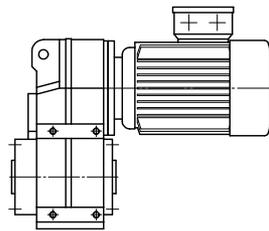
Flange mounted version
Hollow shaft with keyway
Example: F33**C** DM71G4



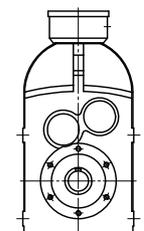
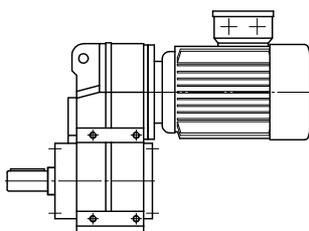
Flange mounted version
Output shaft with key
Example: F42**CV** DM100LX4



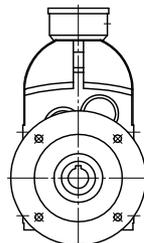
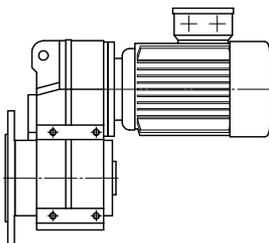
Flange mounted version
Hollow shaft with shrink disc
Example: F52**CS** DA132S4



Shaft mounted version + side areas
Hollow shaft with keyway
Example: F43**D** DM90L4

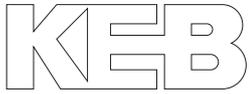


Shaft mounted version + side areas
Output shaft with key
Example: F32**DV** DM80G4



Flange mounted version + side areas
Hollow shaft with keyway
Example: F42**E** DM112M4

Shaft mounted helical gear units F



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC						-M NEMA			-M S							
					63	71	80	90	100	112	125	160	180	200	225	31	32	33		41	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180

F23G03

9125.4	0.15	245	<0.05	0.04	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
7709.2	0.18	245	<0.05	0.05	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
6591.1	0.21	245	<0.05	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
5686.0	0.25	245	<0.05	0.08	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
4938.4	0.28	245	<0.05	0.10	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
4310.3	0.32	245	<0.05	0.12	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
3720.4	0.38	245	<0.05	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
3209.5	0.44	245	<0.05	0.09	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2787.5	0.50	245	<0.05	0.11	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2433.0	0.58	245	<0.05	0.13	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -

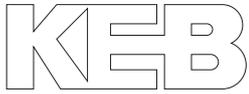
F23G02

2135.7	0.66	245	<0.05	0.05	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1804.3	0.78	245	<0.05	0.06	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1542.6	0.91	245	<0.05	0.08	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1330.8	1.1	245	<0.05	0.09	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1155.8	1.2	245	<0.05	0.12	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1008.8	1.4	245	<0.05	0.14	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
883.58	1.6	245	<0.05	0.18	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
759.44	1.8	245	<0.05	0.10	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
655.15	2.1	245	0.05	0.12	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
569.00	2.5	245	0.06	0.16	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
496.64	2.8	245	0.07	0.20	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
434.99	3.2	245	0.08	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
380.22	3.7	245	0.09	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
334.98	4.2	245	0.11	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
296.97	4.7	245	0.12	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
266.48	5.3	245	0.13	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
232.93	6.0	245	0.15	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
205.21	6.8	245	0.18	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
181.93	7.7	245	0.20	0.26	o o o - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -

F23

170.20	8.2	245	0.21	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
145.41	9.6	245	0.25	0.10	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
125.84	11	245	0.29	0.12	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
109.99	13	245	0.33	0.14	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
96.90	14	245	0.37	0.16	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
85.91	16	245	0.42	0.18	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
77.09	18	245	0.47	0.13	o o o - - - -	o o o - - - -	W1	o o o - - - -	o o o - - - -	o o o - - - -
67.38	21	245	0.53	0.15	o o o o - - -	o o o o - - -	W1	o o o o - - -	o o o o - - -	o o o o - - -
59.37	24	245	0.61	0.18	o o o o - - -	o o o o - - -	W2	o o o o - - -	o o o o - - -	o o o o - - -
52.63	27	245	0.68	0.21	o o o o - - -	o o o o - - -	W2	o o o o - - -	o o o o - - -	o o o o - - -
46.08	30	245	0.78	0.17	o o o o - - -	o o o o - - -	W2	o o o o - - -	o o o o - - -	o o o o - - -
40.60	34	245	0.88	0.20	o o o o - - -	o o o o - - -	W2	o o o o - - -	o o o o - - -	o o o o - - -
35.99	39	245	1.00	0.23	o o o o - - -	o o o o - - -	W2	o o o o - - -	o o o o - - -	o o o o - - -
32.07	44	245	1.12	0.29	o o o o - - -	o o o o - - -	W2	o o o o - - -	o o o o - - -	o o o o - - -
28.79	49	245	1.25	0.33	o o o o - - -	o o o o - - -	W2	o o o o - - -	o o o o - - -	o o o o - - -
25.12	56	245	1.43	0.41	o o o o - - -	o o o o - - -	W2	o o o o - - -	o o o o - - -	o o o o - - -
22.01	64	230	1.53	0.49	o o o o - - -	o o o o - - -	W2	o o o o - - -	o o o o - - -	o o o o - - -

Shaft mounted helical gear units F



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA										Servo motor TA										-W	Motor adapter -M IEC						-M NEMA				-M S									
					63	71	80	90	100	112	125	160	180	200	225	31	32	33	41	42	43	51	52	53		61	62	63	63	71	80	90	100	112	132	160	180	56	71	90	110	140	180	210	250

F33

190.26	7.4	470	0.36	0.13	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
163.34	8.6	470	0.42	0.15	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
142.09	9.9	470	0.49	0.20	o o o - - - -	o o o - - - -	W1	o o o - - - -	o o o - - - -	o o o - - - -
124.88	11	470	0.55	0.23	o o o o - - -	o o o o - - -	W1	o o o o - - -	o o o o - - -	o o o o - - -
110.67	13	470	0.62	0.27	o o o o o - -	o o o o o - -	W2	o o o o o - -	o o o o o - -	o o o o o - -
98.73	14	470	0.70	0.30	o o o o o - -	o o o o o - -	W2	o o o o o - -	o o o o o - -	o o o o o - -
88.56	16	470	0.78	0.34	o o o o o - -	o o o o o - -	W2	o o o o o - -	o o o o o - -	o o o o o - -
80.49	17	470	0.86	0.40	o o o o o - -	o o o o o - -	W2	o o o o o - -	o o o o o - -	o o o o o - -
70.96	20	470	0.97	0.45	o o o o o - -	o o o o o - -	W2	o o o o o - -	o o o o o - -	o o o o o - -
62.85	22	470	1.10	0.55	o o o o o - -	o o o o o - -	W2	o o o o o - -	o o o o o - -	o o o o o - -
56.24	25	470	1.23	0.78	- - - o o - -	- - - o o - -	W2	- - o o o - -	- o o o o - -	- o o o o - -
49.17	28	470	1.40	0.34	o o o o o - -	o o o o o - -	W2	o o o o o - -	o o o o o - -	o o o o o - -
43.87	32	470	1.57	0.40	o o o o o - -	o o o o o - -	W2	o o o o o - -	o o o o o - -	o o o o o - -
39.35	36	470	1.75	0.46	o o o o o - -	o o o o o - -	W2	o o o o o - -	o o o o o - -	o o o o o - -
35.76	39	470	1.93	0.54	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
31.53	44	470	2.19	0.64	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
27.93	50	470	2.47	0.79	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
24.99	56	470	2.76	1.1	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -
21.75	64	465	3.13	1.2	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -

F32

27.55	51	470	2.51	0.48	o o o o o - -	o o o o o - -	W2	o o o o o - -	o o o o o - -	o o o o o - -
24.60	57	470	2.81	0.56	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
22.12	63	470	3.12	0.64	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
20.01	70	465	3.41	0.82	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
18.24	77	450	3.62	0.90	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
16.27	86	435	3.92	1.0	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
14.60	96	425	4.00	1.2	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
13.24	106	415	4.00	1.5	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -
11.74	119	400	4.00	1.7	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -
10.33	136	385	4.00	2.2	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -
9.05	155	375	4.00	2.8	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -
8.50	165	245	4.00	1.3	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
7.95	176	360	4.00	3.0	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -
7.58	185	235	4.00	1.6	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
6.80	206	225	4.00	1.8	o o o o o - -	o o o o o - -	W3	o o o o o - -	o o o o o - -	o o o o o - -
6.17	227	215	4.00	2.3	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -
5.47	256	205	4.00	2.8	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -
4.81	291	192	4.00	3.5	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -
4.21	332	181	4.00	4.5	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -
3.70	378	170	4.00	5.3	- - - o o - -	- - - o o - -	W3	- - o o o - -	- o o o o - -	- o o o o - -

F43G13

16236	0.086	885	<0.05	0.05	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
13764	0.10	885	<0.05	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
11813	0.12	885	<0.05	0.08	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
10233	0.14	885	<0.05	0.09	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
8927.9	0.16	885	<0.05	0.11	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
7831.6	0.18	885	<0.05	0.13	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
6897.8	0.20	885	<0.05	0.16	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
6065.5	0.23	885	<0.05	0.08	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
5205.5	0.27	885	<0.05	0.09	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
4509.3	0.31	885	<0.05	0.11	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -
3934.2	0.36	885	<0.05	0.14	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -

Shaft mounted helical gear units F



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC					-M NEMA				-M S													
					63	71	80	90	100	112	132	160	180	200	225	31	32	33		41	42	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	140	180	210	250

F43G12

3501.9	0.40	885	<0.05	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2991.9	0.47	885	<0.05	0.11	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2589.2	0.54	885	<0.05	0.13	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2263.2	0.62	885	0.06	0.15	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1993.9	0.70	885	0.06	0.17	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1767.6	0.79	885	0.07	0.20	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1574.9	0.89	885	0.08	0.25	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1413.8	0.99	885	0.09	0.27	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1234.0	1.1	885	0.10	0.34	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1080.8	1.3	885	0.12	0.40	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
993.44	1.4	885	0.13	0.20	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
875.23	1.6	885	0.15	0.23	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
775.93	1.8	885	0.17	0.28	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
691.34	2.0	885	0.19	0.34	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
620.62	2.3	885	0.21	0.39	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
541.69	2.6	885	0.24	0.50	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
474.45	3.0	885	0.27	0.61	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
426.68	3.3	885	0.30	0.61	o o o - - - -	o o - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
386.00	3.6	885	0.34	0.63	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
351.84	4.0	885	0.37	0.63	o o o - - - -	o o - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
313.88	4.5	885	0.41	0.64	o o o o - - -	o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
281.55	5.0	885	0.46	0.65	o o o o - - -	o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
255.44	5.5	885	0.51	0.68	o o o o - - -	o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
226.36	6.2	885	0.57	0.69	o o o o - - -	o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
199.24	7.0	885	0.65	0.72	o o o o - - -	o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -

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235.25	6.0	885	0.55	0.22	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
203.29	6.9	885	0.64	0.31	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
178.07	7.9	885	0.73	0.38	o o o - - - -	o o o - - - -	W2	o o o - - - -	o o - - - -	o o - - - -
157.64	8.9	885	0.82	0.44	o o o o - - -	o o o o - - -	W2	o o o o - - -	o o - - - -	o o o - - -
140.77	9.9	885	0.92	0.50	o o o o o - -	o o o o - - -	W2	o o o o o - -	o o o - - -	o o o o -
126.60	11	885	1.02	0.57	o o o o o - -	o o o o - - -	W2	o o o o o - -	o o o - - -	o o o o -
114.53	12	885	1.13	0.74	o o o o o - -	o o o o - - -	W2	o o o o o - -	o o - - - -	o o o o -
104.39	13	885	1.24	0.80	o o o o o - -	o o o o - - -	W2	o o o o o - -	o o - - - -	o o o o -
93.13	15	885	1.39	0.91	o o o o o - -	o o o o o - - -	W2	o o o o o - -	o o o - - -	o o o o -
83.54	17	885	1.55	1.0	o o o o o - -	o o o o o - - -	W2	o o o o o - -	o o - - - -	o o o o -
75.79	18	885	1.71	1.3	- - - o o o -	- - - o o o - -	W2	- - o o o - -	- o o - - -	- o o o -
67.16	21	885	1.93	1.5	- - - o o o -	- - - o o o - -	W3	- - o o o - -	- o - - - -	- o o o -
59.12	24	885	2.19	1.8	- - - o o o -	- - - o o o - -	W3	- - o o o - -	- o - - - -	- o o o -
51.77	27	885	2.50	2.3	- - - o o o -	- - - o o o o - -	W3	- - o o o - -	- o - - - -	- o o o -
46.92	30	885	2.76	1.1	o o o o o - -	o o o o o - - -	W3	o o o o o - -	o o - - - -	o o o o -
42.08	33	885	3.08	1.3	o o o o o o -	o o o o o o - -	W3	o o o o o o -	o o o o - -	o o o o o
38.18	37	885	3.39	1.6	- - - o o o -	- - - o o o o - -	W3	- - o o o o -	- o o o - -	- o o o o
33.83	41	885	3.83	1.9	- - - o o o -	- - - o o o o - -	W3	- - o o o o -	- o - - - -	- o o o o
29.78	47	885	4.35	2.4	- - - o o o -	- - - o o o o - -	W3	- - o o o o -	- o o o - -	- o o o o
26.08	54	850	4.78	3.0	- - - o o o -	- - - o o o o - -	W4	- - o o o o -	- o o o - -	- o o o o
22.91	61	785	5.0	3.4	- - - - o o -	- - - - o o - - -	W4	- - - - o o -	- - o o - -	- - - - o

Shaft mounted helical gear units F



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC					-M NEMA				-M S													
					63	71	80	90	100	112	132	160	180	200	225	31	32	33		41	42	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	140	180	210	250

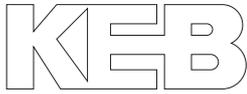
F53G22

3221.2	0.43	1580	0.07	0.14	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
2765.4	0.51	1580	0.08	0.17	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
2405.6	0.58	1580	0.10	0.22	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
2114.3	0.66	1580	0.11	0.26	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
1873.6	0.75	1580	0.12	0.30	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
1671.5	0.84	1580	0.14	0.34	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
1499.3	0.93	1580	0.15	0.39	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
1362.7	1.0	1580	0.17	0.46	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
1201.4	1.2	1580	0.19	0.53	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
1064.0	1.3	1580	0.22	0.65	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
960.29	1.5	1580	0.24	0.65	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
883.90	1.6	1580	0.26	0.66	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
776.06	1.8	1580	0.30	0.47	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
696.12	2.0	1580	0.33	0.55	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
632.66	2.2	1580	0.37	0.65	○ ○ ○ - - - - -	- - - - -	○ - - - - -	W1	○ ○ ○ - - - - -	○ - - - - -	○ - - - - -
557.80	2.5	1580	0.42	0.78	○ ○ ○ ○ - - - -	- - - - -	○ ○ - - - -	W1	○ ○ ○ ○ - - - -	○ ○ - - - -	○ ○ ○ ○ -
494.02	2.8	1580	0.47	0.97	○ ○ ○ ○ - - - -	- - - - -	○ ○ ○ - - - -	W1	○ ○ ○ ○ - - - -	○ ○ - - - -	○ ○ ○ ○ -
445.85	3.1	1580	0.52	0.98	○ ○ ○ ○ - - - -	- - - - -	○ ○ ○ - - - -	W1	○ ○ ○ ○ - - - -	○ ○ - - - -	○ ○ ○ ○ -
410.38	3.4	1580	0.57	1.0	○ ○ ○ ○ - - - -	- - - - -	○ ○ ○ - - - -	W1	○ ○ ○ ○ - - - -	○ ○ - - - -	○ ○ ○ ○ -
366.79	3.8	1580	0.63	1.0	○ ○ ○ ○ - - - -	- - - - -	○ ○ ○ - - - -	W2	○ ○ ○ ○ - - - -	○ ○ - - - -	○ ○ ○ ○ -
325.70	4.3	1580	0.71	1.0	○ ○ ○ ○ - - - -	- - - - -	○ ○ ○ - - - -	W2	○ ○ ○ ○ - - - -	○ ○ - - - -	○ ○ ○ ○ -
288.62	4.9	1580	0.80	1.1	○ ○ ○ ○ ○ - - -	- - - - -	○ ○ ○ ○ - - - -	W2	○ ○ ○ ○ ○ - - -	○ ○ ○ - - -	○ ○ ○ ○ ○
252.64	5.5	1580	0.92	0.99	○ ○ ○ ○ ○ - - -	- - - - -	○ ○ ○ ○ - - - -	W2	○ ○ ○ ○ ○ - - -	○ ○ ○ - - -	○ ○ ○ ○ ○
228.00	6.1	1580	1.02	1.0	○ ○ ○ ○ ○ - - -	- - - - -	○ ○ ○ ○ - - - -	W2	○ ○ ○ ○ ○ - - -	○ ○ ○ - - -	○ ○ ○ ○ ○
209.86	6.7	1580	1.11	1.0	○ ○ ○ ○ ○ - - -	- - - - -	○ ○ ○ ○ - - - -	W2	○ ○ ○ ○ ○ - - -	○ ○ ○ - - -	○ ○ ○ ○ ○
196.76	7.1	1580	1.18	1.5	- - - ○ ○ - - - -	- - - - -	- - - ○ - - - -	W2	- - - ○ ○ - - -	- - - ○ - - -	- - - ○ ○ -

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205.64	6.8	1580	1.13	0.70	- ○ ○ - - - - -	- - - ○ - - - - -	W2	○ ○ ○ - - - - -	○ ○ - - - -	○ ○ - - - -
182.73	7.7	1580	1.27	0.84	- ○ ○ ○ - - - -	- - - ○ ○ - - - -	W2	○ ○ ○ ○ - - - -	○ ○ ○ - - -	○ ○ ○ ○ -
163.81	8.5	1580	1.42	0.93	- ○ ○ ○ ○ - - -	- - - ○ ○ ○ ○ - - -	W2	○ ○ ○ ○ ○ - - -	○ ○ ○ ○ - -	○ ○ ○ ○ ○
147.91	9.5	1580	1.57	1.1	- ○ ○ ○ ○ ○ - -	- - - ○ ○ ○ ○ ○ - -	W2	○ ○ ○ ○ ○ ○ - -	○ ○ ○ ○ - -	○ ○ ○ ○ ○
134.37	10	1580	1.73	1.2	- ○ ○ ○ ○ ○ ○ -	- - - ○ ○ ○ ○ ○ ○ -	W2	○ ○ ○ ○ ○ ○ - -	○ ○ ○ ○ - -	○ ○ ○ ○ ○
122.86	11	1580	1.89	1.3	- ○ ○ ○ ○ ○ ○ ○	- - - ○ ○ ○ ○ ○ ○ ○	W3	○ ○ ○ ○ ○ ○ ○ -	○ ○ ○ ○ - -	○ ○ ○ ○ ○
110.24	13	1580	2.11	1.5	- ○ ○ ○ ○ ○ ○ ○	- - - ○ ○ ○ ○ ○ ○ ○	W3	○ ○ ○ ○ ○ ○ ○ -	○ ○ ○ ○ - -	○ ○ ○ ○ ○
99.49	14	1580	2.33	1.7	- ○ ○ ○ ○ ○ ○ ○	- - - ○ ○ ○ ○ ○ ○ ○	W3	○ ○ ○ ○ ○ ○ ○ -	○ ○ ○ ○ - -	○ ○ ○ ○ ○
91.57	15	1580	2.54	2.2	- - - ○ ○ ○ ○ - -	- - - ○ ○ ○ ○ ○ ○ -	W3	- - - ○ ○ ○ ○ - -	- ○ ○ ○ - -	- ○ ○ ○ ○
81.85	17	1580	2.84	2.5	- - - ○ ○ ○ ○ ○ -	- - - ○ ○ ○ ○ ○ ○ ○	W3	- - - ○ ○ ○ ○ ○ -	- ○ ○ ○ - -	- ○ ○ ○ ○
72.68	19	1580	3.20	2.8	- - - ○ ○ ○ ○ ○ ○	- - - ○ ○ ○ ○ ○ ○ ○	W3	- - - ○ ○ ○ ○ ○ ○	- ○ ○ ○ - -	- ○ ○ ○ ○
64.40	22	1580	3.61	3.7	- - - ○ ○ ○ ○ ○ ○	- - - ○ ○ ○ ○ ○ ○ ○	W3	- - - ○ ○ ○ ○ ○ ○	- ○ ○ ○ - -	- ○ ○ ○ ○
56.37	25	1580	4.12	1.9	- ○ ○ ○ ○ ○ ○ ○	- - - ○ ○ ○ ○ ○ ○ ○	W3	○ ○ ○ ○ ○ ○ ○ -	○ ○ ○ ○ - -	○ ○ ○ ○ ○
50.88	28	1580	4.56	2.2	- ○ ○ ○ ○ ○ ○ ○	- - - ○ ○ ○ ○ ○ ○ ○	W4	○ ○ ○ ○ ○ ○ ○ -	○ ○ ○ ○ - -	○ ○ ○ ○ ○
46.83	30	1580	4.96	2.8	- - - ○ ○ ○ ○ ○ ○	- - - ○ ○ ○ ○ ○ ○ ○	W4	- - - ○ ○ ○ ○ ○ ○	- ○ ○ ○ - -	- ○ ○ ○ ○
41.85	33	1580	5.5	3.2	- - - ○ ○ ○ ○ ○ ○	- - - ○ ○ ○ ○ ○ ○ ○	W4	- - - ○ ○ ○ ○ ○ ○	- ○ ○ ○ - -	- ○ ○ ○ ○
37.17	38	1580	6.2	3.7	- - - ○ ○ ○ ○ ○ ○	- - - ○ ○ ○ ○ ○ ○ ○	W4	- - - ○ ○ ○ ○ ○ ○	- ○ ○ ○ - -	- ○ ○ ○ ○
32.93	43	1580	7.1	4.8	- - - ○ ○ ○ ○ ○ ○	- - - ○ ○ ○ ○ ○ ○ ○	W4	- - - ○ ○ ○ ○ ○ ○	- ○ ○ ○ - -	- ○ ○ ○ ○
29.31	48	1580	7.9	5.5	- - - - - ○ ○ ○ ○	- - - - - ○ ○ ○ ○ ○ ○	W4	- - - - - ○ ○ ○ ○	- - - ○ ○ ○ -	- - - ○ ○ ○ ○
25.11	56	1580	9.2	8.0	- - - - - ○ ○ ○ ○	- - - - - ○ ○ ○ ○ ○ ○	W4	- - - - - ○ ○ ○ ○	- - - ○ ○ ○ -	- - - ○ ○ ○ ○
22.15	63	1480	9.8	9.7	- - - - - ○ ○ ○ ○	- - - - - ○ ○ ○ ○ ○ ○	W4	- - - - - ○ ○ ○ ○	- - - ○ ○ ○ -	- - - ○ ○ ○ ○

Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.12 kW						
1.4	765	2.1	960.29	F53G22A DM63K4	91/15	57
1.6	705	2.2	883.90	F53G22B DM63K4		57
1.8	620	2.6	776.06	F53G22C DM63K4		60
2.0	555	2.9	696.12			
1.4	790	1.10	993.44	F43G12A DM63K4	90/15	35
1.6	700	1.25	875.23	F43G12B DM63K4		35
1.8	620	1.45	775.93	F43G12C DM63K4		37
2.0	550	1.60	691.34			
2.2	495	1.80	620.62			
2.5	430	2.0	541.69			
2.9	380	2.3	474.45			
3.2	340	2.6	426.68			
3.6	310	2.9	386.00			
3.9	280	3.1	351.84			
2.0	550	0.85	688.08	F33G12A DM63K4	89/15	23
2.3	485	0.95	610.01	F33G12B DM63K4		23
2.5	435	1.10	543.51	F33G12C DM63K4		25
2.8	390	1.20	487.91			
3.2	340	1.40	425.86			
3.7	295	1.60	373.00			
4.1	265	1.80	332.76			
4.6	240	2.00	298.48			
5.1	215	2.2	271.27			
5.8	191	2.5	239.17			
6.5	169	2.8	211.83			
7.3	158	3.0	190.26	F33A DM63K4	89	18
				F33B DM63K4		18
				F33C DM63K4		20
3.6	305	0.80	380.22	F23G02A DM63K4	88/15	21
4.1	265	0.90	334.98	F23G02B DM63K4		21
4.6	235	1.05	296.97	F23G02C DM63K4		22
5.2	210	1.15	266.48			
5.9	186	1.30	232.93			
6.7	164	1.50	205.21			
7.6	145	1.70	181.93			
8.1	141	1.75	170.20	F23A DM63K4	88	16
9.5	121	2.0	145.41	F23B DM63K4		16
11	104	2.3	125.84	F23C DM63K4		17
13	91	2.7	109.99			
14	80	3.0	96.90			
16	71	3.4	85.91			
18	64	3.8	77.09			
20	56	4.4	67.38			
23	49	5.0	59.37			
26	44	5.6	52.63			
30	38	6.4	46.08			
34	34	7.3	40.60			
38	30	8.2	35.99			
43	27	9.2	32.07			
48	24	10	28.79			
55	21	12	25.12			
63	18	13	22.01			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.12 kW						
43	27	9.1	32.42	F22A DM63K4	88	16
50	23	11	27.83	F22B DM63K4		16
57	20	12	24.21	F22C DM63K4		17
65	18	14	21.28			
73	16	16	18.86			
82	14	18	16.82			
91	13	19	15.09			
101	11	21	13.71			
114	10	22	12.09			
129	8.9	24	10.71			
181	6.3	26	7.62			
203	5.6	28	6.80			
226	5.1	30	6.10			
249	4.6	31	5.54			
282	4.1	33	4.89			
319	3.6	34	4.33			
0.18 kW						
1.4	1150	2.4	958.03	F63G22A DM63G4	92/15	82
1.6	1030	2.7	859.35	F63G22B DM63G4		82
				F63G22C DM63G4		88
1.4	1150	1.40	960.29	F53G22A DM63G4	91/15	58
1.6	1060	1.50	883.90	F53G22B DM63G4		58
1.8	930	1.70	776.06	F53G22C DM63G4		61
2.0	830	1.90	696.12			
2.2	755	2.1	632.66			
2.5	665	2.4	557.80			
2.8	590	2.7	494.02			
3.1	535	3.0	445.85			
1.6	1050	0.85	875.23	F43G12A DM63G4	90/15	35
1.8	930	0.95	775.93	F43G12B DM63G4		35
2.0	825	1.05	691.34	F43G12C DM63G4		37
2.2	740	1.20	620.62			
2.5	650	1.35	541.69			
2.9	565	1.55	474.45			
3.2	510	1.75	426.68			
3.6	460	1.90	386.00			
3.9	420	2.1	351.84			
4.4	375	2.4	313.88			
4.9	335	2.6	281.55			
5.4	305	2.9	255.44			
2.8	585	0.80	487.91	F33G12A DM63G4	89/15	24
3.2	510	0.90	425.86	F33G12B DM63G4		24
3.7	445	1.05	373.00	F33G12C DM63G4		26
4.1	400	1.20	332.76			
4.6	355	1.30	298.48			
5.1	325	1.45	271.27			
5.8	285	1.65	239.17			
6.5	255	1.85	211.83			
7.3	235	2.00	190.26	F33A DM63G4	89	19
8.4	205	2.3	163.34	F33B DM63G4		19
9.7	177	2.7	142.09	F33C DM63G4		21
5.9	280	0.90	232.93	F23G02A DM63G4	88/15	21
6.7	245	1.00	205.21	F23G02B DM63G4		21
7.6	220	1.15	181.93	F23G02C DM63G4		22

Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.18 kW

8.1	210	1.15	170.20	F23A DM63G4	88	17
9.5	181	1.35	145.41	F23B DM63G4		17
11	157	1.55	125.84	F23C DM63G4		18
13	137	1.80	109.99			
14	121	2.0	96.90			
16	107	2.3	85.91			
18	96	2.6	77.09			
20	84	2.9	67.38			
23	74	3.3	59.37			
26	66	3.7	52.63			
30	57	4.3	46.08			
34	51	4.8	40.60			
38	45	5.5	35.99			
43	40	6.1	32.07			
48	36	6.8	28.79			
55	31	7.8	25.12			
63	27	8.4	22.01			
43	40	6.1	32.42	F22A DM63G4	88	17
50	35	7.1	27.83	F22B DM63G4		17
57	30	8.1	24.21	F22C DM63G4		18
65	27	9.2	21.28			
73	23	10	18.86			
82	21	12	16.82			
91	19	13	15.09			
101	17	14	13.71			
114	15	15	12.09			
129	13	16	10.71			
181	9.5	17	7.62			
203	8.5	19	6.80			
226	7.6	20	6.10			
249	6.9	21	5.54			
282	6.1	22	4.89			
319	5.4	23	4.33			

0.25 kW

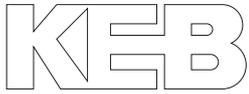
1.5	1560	1.80	958.03	F63G22A DM71K4	92/15	83
1.6	1400	2.0	859.35	F63G22B DM71K4		83
1.8	1270	2.2	781.01	F63G22C DM71K4		89
2.0	1120	2.5	688.59			
2.3	990	2.8	609.86			
2.5	915	3.1	563.82			
1.5	1560	1.00	960.29	F53G22A DM71K4	91/15	59
1.6	1440	1.10	883.90	F53G22B DM71K4		59
1.8	1260	1.25	776.06	F53G22C DM71K4		62
2.0	1130	1.40	696.12			
2.2	1030	1.55	632.66			
2.5	905	1.75	557.80			
2.9	805	1.95	494.02			
3.2	725	2.2	445.85			
3.4	665	2.4	410.38			
3.8	595	2.7	366.79			
4.3	530	3.0	325.70			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.25 kW

2.0	1120	0.80	691.34	F43G12A DM71K4	90/15	37
2.3	1010	0.90	620.62	F43G12B DM71K4		37
2.6	880	1.00	541.69	F43G12C DM71K4		39
3.0	770	1.15	474.45			
3.3	695	1.25	426.68			
3.7	625	1.40	386.00			
4.0	570	1.55	351.84			
4.5	510	1.75	313.88			
5.0	460	1.95	281.55			
5.5	415	2.1	255.44			
6.2	370	2.4	226.36			
7.1	325	2.7	199.24			
6.0	400	2.2	235.25	F43A DM71K4	90	32
6.9	345	2.6	203.29	F43B DM71K4		32
7.9	300	2.9	178.07	F43C DM71K4		34
3.8	605	0.80	373.00	F33G12A DM71K4	89/15	25
4.2	540	0.85	332.76	F33G12B DM71K4		25
4.7	485	0.95	298.48	F33G12C DM71K4		27
5.2	440	1.05	271.27			
5.9	390	1.20	239.17			
6.7	345	1.35	211.83			
7.4	320	1.45	190.26	F33A DM71K4	89	20
8.6	275	1.70	163.34	F33B DM71K4		20
9.9	240	1.95	142.09	F33C DM71K4		22
11	210	2.2	124.88			
13	187	2.5	110.67			
14	167	2.8	98.73			
7.8	295	0.85	181.93	F23G02A DM71K4	88/15	23
				F23G02B DM71K4		23
				F23G02C DM71K4		24
8.3	290	0.85	170.20	F23A DM71K4	88	18
9.7	245	1.00	145.41	F23B DM71K4		18
11	215	1.15	125.84	F23C DM71K4		19
13	186	1.30	109.99			
15	164	1.50	96.90			
16	145	1.70	85.91			
18	131	1.90	77.09			
21	114	2.1	67.38			
24	101	2.4	59.37			
27	89	2.7	52.63			
31	78	3.1	46.08			
35	69	3.6	40.60			
39	61	4.0	35.99			
44	54	4.5	32.07			
49	49	5.0	28.79			
56	43	5.8	25.12			
64	37	6.2	22.01			

Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.25 kW

43	55	4.5	32.42	F22A DM71K4	88	18
51	47	5.2	27.83	F22B DM71K4		18
58	41	6.0	24.21	F22C DM71K4		19
66	36	6.8	21.28			
75	32	7.7	18.86			
84	28	8.6	16.82			
93	26	9.4	15.09			
103	23	10	13.71			
117	20	11	12.09			
132	18	12	10.71			
185	13	13	7.62			
207	12	14	6.80			
231	10	15	6.10			
254	9.4	15	5.54			
289	8.3	16	4.89			
326	7.3	17	4.33			

0.37 kW

1.5	2270	2.1	944.12	F73G32A DM71G4	93/15	139
1.6	2120	2.3	879.92	F73G32B DM71G4		139
1.8	1900	2.6	789.28	F73G32C DM71G4		147
2.0	1720	2.8	716.05			
1.5	2300	1.20	958.03	F63G22A DM71G4	92/15	84
1.6	2070	1.35	859.35	F63G22B DM71G4		84
1.8	1880	1.50	781.01	F63G22C DM71G4		90
2.0	1660	1.70	688.59			
2.3	1470	1.90	609.86			
2.5	1360	2.1	563.82			
2.8	1220	2.3	507.91			
3.1	1090	2.6	455.13			
3.5	980	2.9	407.58			
1.8	1870	0.85	776.06	F53G22A DM71G4	91/15	60
2.0	1670	0.95	696.12	F53G22B DM71G4		60
2.2	1520	1.05	632.66	F53G22C DM71G4		63
2.5	1340	1.20	557.80			
2.9	1190	1.35	494.02			
3.2	1070	1.50	445.85			
3.4	985	1.60	410.38			
3.8	880	1.80	366.79			
4.3	785	2.0	325.70			
4.9	695	2.3	288.62			
5.6	610	2.6	252.64			
6.2	550	2.9	228.00			
6.9	515	3.1	205.64	F53A DM71G4	91	54
				F53B DM71G4		54
				F53C DM71G4		57
3.3	1030	0.85	426.68	F43G12A DM71G4	90/15	38
3.7	930	0.95	386.00	F43G12B DM71G4		38
4.0	845	1.05	351.84	F43G12C DM71G4		40
4.5	755	1.15	313.88			
5.0	675	1.30	281.55			
5.5	615	1.45	255.44			
6.2	545	1.60	226.36			
7.1	480	1.85	199.24			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.37 kW

6.0	590	1.50	235.25	F43A DM71G4	90	33
6.9	510	1.75	203.29	F43B DM71G4		33
7.9	445	2.00	178.07	F43C DM71G4		35
8.9	395	2.2	157.64			
10	355	2.5	140.77			
11	315	2.8	126.60			
12	285	3.1	114.53			
5.9	575	0.80	239.17	F33G12A DM71G4	89/15	26
6.7	510	0.90	211.83	F33G12B DM71G4		26
				F33G12C DM71G4		28
7.4	475	1.00	190.26	F33A DM71G4	89	21
8.6	410	1.15	163.34	F33B DM71G4		21
9.9	355	1.30	142.09	F33C DM71G4		23
11	315	1.50	124.88			
13	275	1.70	110.67			
14	245	1.90	98.73			
16	220	2.1	88.56			
18	200	2.3	80.49			
20	178	2.6	70.96			
22	158	3.0	62.85			
11	315	0.80	125.84	F23A DM71G4	88	19
13	275	0.90	109.99	F23B DM71G4		19
15	245	1.00	96.90	F23C DM71G4		20
16	215	1.15	85.91			
18	193	1.25	77.09			
21	169	1.45	67.38			
24	149	1.65	59.37			
27	132	1.85	52.63			
31	115	2.1	46.08			
35	102	2.4	40.60			
39	90	2.7	35.99			
44	80	3.0	32.07			
49	72	3.4	28.79			
56	63	3.9	25.12			
64	55	4.2	22.01			
43	81	3.0	32.42	F22A DM71G4	88	19
51	70	3.5	27.83	F22B DM71G4		19
58	61	4.0	24.21	F22C DM71G4		20
66	53	4.6	21.28			
75	47	5.2	18.86			
84	42	5.8	16.82			
93	38	6.3	15.09			
103	34	6.8	13.71			
117	30	7.4	12.09			
132	27	8.0	10.71			
185	19	8.6	7.62			
207	17	9.4	6.80			
231	15	9.8	6.10			
254	14	10	5.54			
289	12	11	4.89			
326	11	11	4.33			

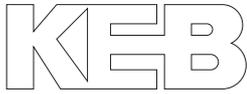
Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.55 kW						
1.5	3390	1.45	944.12	F73G32A DM80K4	93/15	141
1.6	3160	1.55	879.92	F73G32B DM80K4		141
1.8	2830	1.70	789.28	F73G32C DM80K4		150
2.0	2570	1.90	716.05			
2.3	2230	2.2	620.27			
2.5	2010	2.4	561.22			
2.8	1830	2.7	509.49			
3.1	1630	3.0	454.28			
1.5	3440	0.80	958.03	F63G22A DM80K4	92/15	86
1.6	3080	0.90	859.35	F63G22B DM80K4		86
1.8	2800	1.00	781.01	F63G22C DM80K4		92
2.0	2470	1.15	688.59			
2.3	2190	1.30	609.86			
2.5	2020	1.40	563.82			
2.8	1820	1.55	507.91			
3.1	1630	1.70	455.13			
3.4	1460	1.90	407.58			
3.8	1320	2.1	366.82			
4.4	1150	2.4	320.02			
4.9	1030	2.7	286.71			
5.5	915	3.1	254.33			
2.5	2000	0.80	557.80	F53G22A DM80K4	91/15	62
2.8	1770	0.90	494.02	F53G22B DM80K4		62
3.2	1600	1.00	445.85	F53G22C DM80K4		66
3.4	1470	1.10	410.38			
3.8	1320	1.20	366.79			
4.3	1170	1.35	325.70			
4.9	1040	1.55	288.62			
5.6	905	1.75	252.64			
6.2	820	1.95	228.00			
6.7	755	2.1	209.86			
6.8	770	2.1	205.64	F53A DM80K4	91	56
7.7	685	2.3	182.73	F53B DM80K4		56
8.6	610	2.6	163.81	F53C DM80K4		60
9.5	555	2.9	147.91			
4.5	1130	0.80	313.88	F43G12A DM80K4	90/15	40
5.0	1010	0.85	281.55	F43G12B DM80K4		40
5.5	915	0.95	255.44	F43G12C DM80K4		42
6.2	810	1.10	226.36			
7.1	715	1.25	199.24			
7.9	665	1.35	178.07	F43A DM80K4	90	35
8.9	590	1.50	157.64	F43B DM80K4		35
10.0	525	1.70	140.77	F43C DM80K4		37
11	475	1.85	126.60			
12	430	2.1	114.53			
13	390	2.3	104.39			
15	350	2.5	93.13			
17	310	2.8	83.54			
9.9	530	0.90	142.09	F33A DM80K4	89	24
11	465	1.00	124.88	F33B DM80K4		24
13	415	1.15	110.67	F33C DM80K4		26
14	370	1.30	98.73			
16	330	1.40	88.56			
17	300	1.55	80.49			
20	265	1.80	70.96			
22	235	2.0	62.85			
29	184	2.6	49.17			
32	164	2.9	43.87			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.55 kW						
18	290	0.85	77.09	F23A DM80K4	88	21
21	250	0.95	67.38	F23B DM80K4		21
24	220	1.10	59.37	F23C DM80K4		23
27	197	1.25	52.63			
30	172	1.40	46.08			
35	152	1.60	40.60			
39	135	1.80	35.99			
44	120	2.0	32.07			
49	108	2.3	28.79			
56	94	2.6	25.12			
64	82	2.8	22.01			
58	91	2.7	24.21	F22A DM80K4	88	21
66	80	3.1	21.28	F22B DM80K4		21
75	70	3.5	18.86	F22C DM80K4		23
84	63	3.9	16.82			
93	56	4.3	15.09			
102	51	4.6	13.71			
116	45	5.0	12.09			
131	40	5.4	10.71			
184	28	5.8	7.62			
207	25	6.3	6.80			
230	23	6.6	6.10			
254	21	6.9	5.54			
288	18	7.2	4.89			
325	16	7.5	4.33			
0.75 kW						
1.5	4530	1.95	929.40	F83G32A DM80G4	94/15	223
1.7	4070	2.2	833.66	F83G32B DM80G4		223
				F83G32C DM80G4		240
1.5	4600	1.05	944.12	F73G32A DM80G4	93/15	143
1.6	4290	1.15	879.92	F73G32B DM80G4		143
1.8	3850	1.25	789.28	F73G32C DM80G4		151
2.0	3490	1.40	716.05			
2.3	3020	1.60	620.27			
2.5	2740	1.80	561.22			
2.8	2480	1.95	509.49			
3.1	2220	2.2	454.28			
3.7	1880	2.6	385.26			
2.0	3360	0.85	688.59	F63G22A DM80G4	92/15	88
2.3	2970	0.95	609.86	F63G22B DM80G4		88
2.5	2750	1.00	563.82	F63G22C DM80G4		94
2.8	2480	1.15	507.91			
3.1	2220	1.25	455.13			
3.5	1990	1.40	407.58			
3.8	1790	1.55	366.82			
4.4	1560	1.80	320.02			
4.9	1400	2.0	286.71			
5.5	1240	2.3	254.33			
5.8	1230	2.3	242.53	F63A DM80G4	92	83
6.5	1110	2.5	218.27	F63B DM80G4		83
7.1	1010	2.8	197.90	F63C DM80G4		89
7.8	915	3.1	180.55			

Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.75 kW						
3.4	2000	0.80	410.38	F53G22A DM80G4	91/15	64
3.8	1790	0.90	366.79	F53G22B DM80G4		64
4.3	1590	1.00	325.70	F53G22C DM80G4		67
4.9	1410	1.15	288.62			
5.6	1230	1.30	252.64			
6.2	1110	1.40	228.00			
6.7	1020	1.55	209.86			
6.9	1040	1.50	205.64	F53A DM80G4	91	58
7.7	930	1.70	182.73	F53B DM80G4		58
8.6	830	1.90	163.81	F53C DM80G4		61
9.5	750	2.1	147.91			
10	685	2.3	134.37			
11	625	2.5	122.86			
13	560	2.8	110.24			
6.2	1100	0.80	226.36	F43G12A DM80G4	90/15	41
7.1	970	0.90	199.24	F43G12B DM80G4		41
				F43G12C DM80G4		43
7.9	905	1.00	178.07	F43A DM80G4	90	37
8.9	800	1.10	157.64	F43B DM80G4		37
10	715	1.25	140.77	F43C DM80G4		39
11	645	1.35	126.60			
12	580	1.50	114.53			
14	530	1.65	104.39			
15	475	1.85	93.13			
17	425	2.1	83.54			
13	560	0.85	110.67	F33A DM80G4	89	25
14	500	0.95	98.73	F33B DM80G4		25
16	450	1.05	88.56	F33C DM80G4		27
18	410	1.15	80.49			
20	360	1.30	70.96			
22	320	1.50	62.85			
29	250	1.90	49.17			
32	225	2.1	43.87			
36	200	2.4	39.35			
39	182	2.6	35.76			
45	160	2.9	31.53			
24	300	0.80	59.37	F23A DM80G4	88	23
27	265	0.90	52.63	F23B DM80G4		23
31	235	1.05	46.08	F23C DM80G4		24
35	205	1.20	40.60			
39	183	1.35	35.99			
44	163	1.50	32.07			
49	146	1.70	28.79			
56	128	1.90	25.12			
64	112	2.1	22.01			
58	123	2.00	24.21	F22A DM80G4	88	23
66	108	2.3	21.28	F22B DM80G4		23
75	96	2.6	18.86	F22C DM80G4		24
84	85	2.9	16.82			
93	77	3.1	15.09			
103	70	3.4	13.71			
117	61	3.7	12.09			
132	54	4.0	10.71			
185	39	4.3	7.62			
207	35	4.6	6.80			
231	31	4.8	6.10			
254	28	5.0	5.54			
289	25	5.3	4.89			
326	22	5.6	4.33			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
1.1 kW						
1.5	6620	1.35	929.40	F83G32A DM90S4	94/15	225
1.7	5940	1.50	833.66	F83G32B DM90S4		225
1.9	5390	1.65	756.35	F83G32C DM90S4		242
2.1	4780	1.85	670.24			
2.4	4200	2.1	589.95			
2.7	3680	2.4	516.64			
3.0	3350	2.7	470.60			
3.4	2940	3.0	412.22			
1.6	6270	0.80	879.92	F73G32A DM90S4	93/15	145
1.8	5630	0.85	789.28	F73G32B DM90S4		145
2.0	5100	0.95	716.05	F73G32C DM90S4		153
2.3	4420	1.10	620.27			
2.5	4000	1.20	561.22			
2.8	3630	1.35	509.49			
3.1	3240	1.50	454.28			
3.7	2750	1.80	385.26			
4.1	2480	1.95	347.80			
4.5	2250	2.2	315.75			
5.0	2010	2.4	281.53			
5.9	1700	2.9	238.76			
5.2	2040	2.4	274.23	F73A DM90S4	93	137
5.7	1850	2.6	249.41	F73B DM90S4		137
6.2	1690	2.9	228.27	F73C DM90S4		145
3.1	3240	0.85	455.13	F63G22A DM90S4	92/15	90
3.5	2900	0.95	407.58	F63G22B DM90S4		90
3.9	2610	1.05	366.82	F63G22C DM90S4		96
4.4	2280	1.25	320.02			
4.9	2040	1.35	286.71			
5.6	1810	1.55	254.33			
5.8	1800	1.55	242.53	F63A DM90S4	92	85
6.5	1620	1.75	218.27	F63B DM90S4		85
7.2	1470	1.90	197.90	F63C DM90S4		91
7.8	1340	2.1	180.55			
8.5	1230	2.3	166.08			
9.4	1110	2.5	149.88			
10	1010	2.8	136.08			
11	935	3.0	125.81			
5.6	1800	0.90	252.64	F53G22A DM90S4	91/15	66
6.2	1620	0.95	228.00	F53G22B DM90S4		66
6.7	1500	1.05	209.86	F53G22C DM90S4		69
7.2	1400	1.15	196.76			
7.7	1360	1.15	182.73	F53A DM90S4	91	60
8.6	1220	1.30	163.81	F53B DM90S4		60
9.6	1100	1.45	147.91	F53C DM90S4		64
11	1000	1.60	134.37			
12	910	1.75	122.86			
13	820	1.95	110.24			
14	740	2.1	99.49			
15	680	2.3	91.57			
17	610	2.6	81.85			
19	540	2.9	72.68			

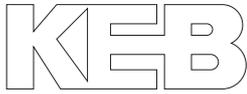
Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
1.1 kW						
10	1050	0.85	140.77	F43A DM90S4	90	39
11	940	0.95	126.60	F43B DM90S4		39
12	850	1.05	114.53	F43C DM90S4		41
14	775	1.15	104.39			
15	690	1.30	93.13			
17	620	1.40	83.54			
19	565	1.55	75.79			
21	500	1.75	67.16			
24	440	2.0	59.12			
27	385	2.3	51.77			
30	350	2.5	46.92			
34	310	2.8	42.08			
18	600	0.80	80.49	F33A DM90S4	89	27
20	525	0.90	70.96	F33B DM90S4		27
23	465	1.00	62.85	F33C DM90S4		29
25	420	1.15	56.24			
29	365	1.30	49.17			
32	325	1.45	43.87			
36	290	1.60	39.35			
40	265	1.75	35.76			
45	235	2.0	31.53			
51	205	2.3	27.93			
57	186	2.5	24.99			
65	161	2.9	21.75			
51	205	2.3	27.55	F32A DM90S4	89	27
58	183	2.6	24.60	F32B DM90S4		27
64	164	2.9	22.12	F32C DM90S4		29
35	300	0.80	40.60	F23A DM90S4	88	25
39	265	0.90	35.99	F23B DM90S4		25
44	240	1.05	32.07	F23C DM90S4		26
49	215	1.15	28.79			
56	187	1.30	25.12			
64	163	1.40	22.01			
66	158	1.55	21.28	F22A DM90S4	88	25
75	140	1.75	18.86	F22B DM90S4		25
84	125	1.95	16.82	F22C DM90S4		26
94	112	2.1	15.09			
103	102	2.3	13.71			
117	90	2.5	12.09			
132	80	2.7	10.71			
148	71	2.9	9.58			
170	62	3.1	8.34			
186	57	2.9	7.62			
208	50	3.2	6.80			
232	45	3.3	6.10			
255	41	3.5	5.54			
290	36	3.6	4.89			
327	32	3.8	4.33			
365	29	4.0	3.87			
420	25	4.2	3.37			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
1.5 kW						
1.5	9060	1.00	929.40	F83G32A DM90L4	94/15	228
1.7	8130	1.10	833.66	F83G32B DM90L4		228
1.9	7380	1.20	756.35	F83G32C DM90L4		245
2.1	6540	1.35	670.24			
2.4	5750	1.55	589.95			
2.7	5040	1.75	516.64			
3.0	4590	1.95	470.60			
3.4	4020	2.2	412.22			
3.8	3660	2.4	374.97			
4.2	3290	2.7	337.74			
2.3	6050	0.80	620.27	F73G32A DM90L4	93/15	148
2.5	5470	0.90	561.22	F73G32B DM90L4		148
2.8	4970	1.00	509.49	F73G32C DM90L4		156
3.1	4430	1.10	454.28			
3.7	3760	1.30	385.26			
4.1	3390	1.45	347.80			
4.5	3080	1.60	315.75			
5.0	2750	1.80	281.53			
5.9	2330	2.1	238.76			
5.1	2790	1.75	274.23	F73A DM90L4	93	140
5.7	2530	1.90	249.41	F73B DM90L4		140
6.2	2320	2.1	228.27	F73C DM90L4		148
6.7	2150	2.3	211.55			
7.4	1950	2.5	191.74			
8.1	1780	2.7	174.87			
8.7	1650	3.0	162.19			
3.8	3580	0.80	366.82	F63G22A DM90L4	92/15	93
4.4	3120	0.90	320.02	F63G22B DM90L4		93
4.9	2800	1.00	286.71	F63G22C DM90L4		99
5.5	2480	1.15	254.33			
5.8	2460	1.15	242.53	F63A DM90L4	92	88
6.5	2220	1.25	218.27	F63B DM90L4		88
7.1	2010	1.40	197.90	F63C DM90L4		94
7.8	1830	1.55	180.55			
8.5	1690	1.65	166.08			
9.4	1520	1.85	149.88			
10	1380	2.0	136.08			
11	1280	2.2	125.81			
12	1150	2.4	113.33			
14	1030	2.7	101.56			
16	925	3.0	90.95			
7.2	1920	0.85	196.76	F53G22A DM90L4	91/15	69
				F53G22B DM90L4		69
				F53G22C DM90L4		72
7.7	1860	0.85	182.73	F53A DM90L4	91	63
8.6	1660	0.95	163.81	F53B DM90L4		63
9.5	1500	1.05	147.91	F53C DM90L4		67
10	1370	1.15	134.37			
11	1250	1.25	122.86			
13	1120	1.40	110.24			
14	1010	1.55	99.49			
15	930	1.70	91.57			
17	830	1.90	81.85			
19	740	2.1	72.68			
22	655	2.4	64.40			
25	575	2.8	56.37			

Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
1.5 kW						
14	1060	0.85	104.39	F43A DM90L4	90	42
15	945	0.95	93.13	F43B DM90L4		42
17	850	1.05	83.54	F43C DM90L4		44
19	770	1.15	75.79			
21	680	1.30	67.16			
24	600	1.45	59.12			
27	525	1.70	51.77			
30	475	1.85	46.92			
34	430	2.1	42.08			
37	390	2.3	38.18			
42	345	2.6	33.83			
47	305	2.9	29.78			
47	305	2.9	30.05	F42A DM90L4	90	42
				F42B DM90L4		42
				F42C DM90L4		44
25	570	0.80	56.24	F33A DM90L4	89	30
29	500	0.95	49.17	F33B DM90L4		30
32	445	1.05	43.87	F33C DM90L4		32
36	400	1.20	39.35			
39	365	1.30	35.76			
45	320	1.45	31.53			
50	285	1.65	27.93			
56	255	1.85	24.99			
65	220	2.1	21.75			
51	280	1.70	27.55	F32A DM90L4	89	30
57	250	1.90	24.60	F32B DM90L4		30
64	225	2.1	22.12	F32C DM90L4		32
70	205	2.3	20.01			
77	185	2.4	18.24			
87	165	2.6	16.27			
49	290	0.85	28.79	F23A DM90L4	88	28
56	255	0.95	25.12	F23B DM90L4		28
64	225	1.05	22.01	F23C DM90L4		29
66	215	1.15	21.28	F22A DM90L4	88	28
75	192	1.30	18.86	F22B DM90L4		28
84	171	1.45	16.82	F22C DM90L4		29
93	153	1.55	15.09			
103	139	1.70	13.71			
117	123	1.85	12.09			
132	109	2.00	10.71			
147	97	2.1	9.58			
169	85	2.3	8.34			
185	77	2.1	7.62			
207	69	2.3	6.80			
231	62	2.4	6.10			
254	56	2.5	5.54			
289	50	2.7	4.89			
326	44	2.8	4.33			
364	39	2.9	3.87			
418	34	3.0	3.37			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
2.2 kW						
1.9	10800	0.80	756.35	F83G32A DM100L4	94/15	234
2.1	9590	0.95	670.24	F83G32B DM100L4		234
2.4	8440	1.05	589.95	F83G32C DM100L4		251
2.7	7390	1.20	516.64			
3.0	6730	1.30	470.60			
3.4	5900	1.50	412.22			
3.8	5360	1.65	374.97			
4.2	4830	1.85	337.74			
4.6	4340	2.1	303.24			
5.4	3720	2.4	260.13			
6.2	3270	2.7	228.49			
3.7	5510	0.90	385.26	F73G32A DM100L4	93/15	154
4.1	4980	1.00	347.80	F73G32B DM100L4		154
4.5	4520	1.10	315.75	F73G32C DM100L4		162
5.0	4030	1.20	281.53			
5.9	3420	1.45	238.76			
5.1	4090	1.20	274.23	F73A DM100L4	93	145
5.7	3720	1.30	249.41	F73B DM100L4		145
6.2	3400	1.45	228.27	F73C DM100L4		154
6.7	3150	1.55	211.55			
7.4	2860	1.70	191.74			
8.1	2610	1.85	174.87			
8.7	2420	2.0	162.19			
9.6	2190	2.2	146.94			
11	1990	2.4	133.66			
12	1800	2.7	120.60			
6.5	3250	0.85	218.27	F63A DM100L4	92	93
7.1	2950	0.95	197.90	F63B DM100L4		93
7.8	2690	1.05	180.55	F63C DM100L4		99
8.5	2470	1.15	166.08			
9.4	2230	1.25	149.88			
10	2030	1.40	136.08			
11	1870	1.50	125.81			
12	1690	1.65	113.33			
14	1510	1.85	101.56			
16	1360	2.1	90.95			
17	1220	2.3	81.85			
10	2000	0.80	134.37	F53A DM100L4	91	68
11	1830	0.85	122.86	F53B DM100L4		68
13	1640	0.95	110.24	F53C DM100L4		72
14	1480	1.05	99.49			
15	1360	1.15	91.57			
17	1220	1.30	81.85			
19	1080	1.45	72.68			
22	960	1.65	64.40			
25	840	1.90	56.37			
28	760	2.1	50.88			
30	700	2.3	46.83			
34	625	2.5	41.85			
38	555	2.9	37.17			
41	510	2.9	34.34	F52A DM100L4	91	68
				F52B DM100L4		68
				F52C DM100L4		72

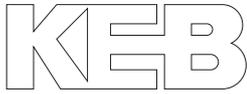
Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
2.2 kW						
19	1130	0.80	75.79	F43A DM100L4	90	48
21	1000	0.90	67.16	F43B DM100L4		48
24	880	1.00	59.12	F43C DM100L4		50
27	770	1.15	51.77			
30	700	1.25	46.92			
34	625	1.40	42.08			
37	570	1.55	38.18			
42	505	1.75	33.83			
47	445	2.00	29.78			
54	390	2.2	26.08			
62	340	2.3	22.91			
47	450	1.95	30.05	F42A DM100L4	90	48
52	405	2.2	27.14	F42B DM100L4		48
57	365	2.4	24.65	F42C DM100L4		50
63	335	2.6	22.54			
70	300	2.9	20.22			
36	585	0.80	39.35	F33A DM100L4	89	36
39	535	0.90	35.76	F33B DM100L4		36
45	470	1.00	31.53	F33C DM100L4		38
50	415	1.15	27.93			
56	370	1.25	24.99			
65	325	1.45	21.75			
57	365	1.30	24.60	F32A DM100L4	89	36
64	330	1.45	22.12	F32B DM100L4		36
70	300	1.55	20.01	F32C DM100L4		38
77	270	1.65	18.24			
87	240	1.80	16.27			
97	220	1.95	14.60			
106	197	2.1	13.24			
120	175	2.3	11.74			
136	154	2.5	10.33			
156	135	2.8	9.05			
166	127	1.95	8.50			
177	118	3.0	7.95			
186	113	2.1	7.58			
207	101	2.2	6.80			
229	92	2.3	6.17			
258	81	2.5	5.47			
293	72	2.7	4.81			
335	63	2.9	4.21			
381	55	3.1	3.70			
3.0 kW						
2.7	10100	0.90	516.64	F83G32A DM100LX4	94/15	237
3.0	9180	0.95	470.60	F83G32B DM100LX4		237
3.4	8040	1.10	412.22	F83G32C DM100LX4		254
3.8	7310	1.20	374.97			
4.2	6590	1.35	337.74			
4.6	5920	1.50	303.24			
5.4	5070	1.75	260.13			
6.2	4460	2.00	228.49			
7.0	4080	2.2	200.61	F83A DM100LX4	94	234
7.7	3730	2.4	183.42	F83B DM100LX4		234
8.3	3440	2.6	169.54	F83C DM100LX4		251
9.2	3130	2.8	154.08			
4.5	6160	0.80	315.75	F73G32A DM100LX4	93/15	157
5.0	5490	0.90	281.53	F73G32B DM100LX4		157
5.9	4660	1.05	238.76	F73G32C DM100LX4		165

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
3.0 kW						
5.1	5570	0.90	274.23	F73A DM100LX4	93	148
5.7	5070	0.95	249.41	F73B DM100LX4		148
6.2	4640	1.05	228.27	F73C DM100LX4		157
6.7	4300	1.15	211.55			
7.4	3900	1.25	191.74			
8.1	3550	1.35	174.87			
8.7	3300	1.50	162.19			
9.6	2990	1.65	146.94			
11	2720	1.80	133.66			
12	2450	2.00	120.60			
13	2220	2.2	109.41			
8.5	3370	0.85	166.08	F63A DM100LX4	92	96
9.4	3050	0.90	149.88	F63B DM100LX4		96
10	2770	1.00	136.08	F63C DM100LX4		102
11	2560	1.10	125.81			
12	2300	1.20	113.33			
14	2060	1.35	101.56			
16	1850	1.50	90.95			
17	1660	1.70	81.85			
29	1000	2.8	49.31			
14	2020	0.80	99.49	F53A DM100LX4	91	71
15	1860	0.85	91.57	F53B DM100LX4		71
17	1660	0.95	81.85	F53C DM100LX4		75
19	1480	1.05	72.68			
22	1310	1.20	64.40			
25	1150	1.40	56.37			
28	1030	1.55	50.88			
30	950	1.65	46.83			
34	850	1.85	41.85			
38	755	2.1	37.17			
43	670	2.4	32.93			
48	595	2.7	29.31			
41	700	2.1	34.34	F52A DM100LX4	91	71
45	635	2.3	31.33	F52B DM100LX4		71
49	585	2.7	28.82	F52C DM100LX4		75
54	530	3.0	26.01			
27	1050	0.85	51.77	F43A DM100LX4	90	51
30	955	0.95	46.92	F43B DM100LX4		51
34	855	1.05	42.08	F43C DM100LX4		53
37	775	1.15	38.18			
42	685	1.30	33.83			
47	605	1.45	29.78			
54	530	1.60	26.08			
62	465	1.70	22.91			
47	610	1.45	30.05	F42A DM100LX4	90	51
52	550	1.60	27.14	F42B DM100LX4		51
57	500	1.75	24.65	F42C DM100LX4		53
63	460	1.95	22.54			
70	410	2.1	20.22			
77	370	2.4	18.25			
84	340	2.6	16.80			
94	305	2.9	15.02			
50	565	0.85	27.93	F33A DM100LX4	89	39
56	510	0.95	24.99	F33B DM100LX4		39
65	440	1.05	21.75	F33C DM100LX4		41

Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

3.0 kW

57	500	0.95	24.60	F32A DM100LX4	89	39
64	450	1.05	22.12	F32B DM100LX4		39
70	405	1.15	20.01	F32C DM100LX4		41
77	370	1.20	18.24			
87	330	1.30	16.27			
97	295	1.45	14.60			
106	270	1.55	13.24			
120	240	1.70	11.74			
136	210	1.85	10.33			
156	184	2.0	9.05			
166	173	1.40	8.50			
177	161	2.2	7.95			
186	154	1.55	7.58			
207	138	1.65	6.80			
229	125	1.70	6.17			
258	111	1.85	5.47			
293	98	1.95	4.81			
335	86	2.1	4.21			
381	75	2.3	3.70			

4.0 kW

3.5	10600	0.85	412.22	F83G32A DM112M4	94/15	244
3.8	9650	0.90	374.97	F83G32B DM112M4		244
4.2	8690	1.00	337.74	F83G32C DM112M4		260
4.7	7800	1.15	303.24			
5.5	6690	1.35	260.13			
6.2	5880	1.50	228.49			
7.1	5380	1.65	200.61	F83A DM112M4	94	240
7.8	4920	1.80	183.42	F83B DM112M4		240
8.4	4540	1.95	169.54	F83C DM112M4		257
9.2	4130	2.2	154.08			
10	3770	2.4	140.63			
11	3410	2.6	127.39			
12	3110	2.9	116.03			
6.0	6140	0.80	238.76	F73G32A DM112M4	93/15	164
				F73G32B DM112M4		164
				F73G32C DM112M4		172
6.2	6120	0.80	228.27	F73A DM112M4	93	155
6.7	5670	0.85	211.55	F73B DM112M4		155
7.4	5140	0.95	191.74	F73C DM112M4		163
8.1	4690	1.05	174.87			
8.8	4350	1.10	162.19			
9.7	3940	1.25	146.94			
11	3580	1.35	133.66			
12	3230	1.50	120.60			
13	2930	1.65	109.41			
11	3370	0.85	125.81	F63A DM112M4	92	103
13	3040	0.90	113.33	F63B DM112M4		103
14	2720	1.05	101.56	F63C DM112M4		109
16	2440	1.15	90.95			
17	2190	1.30	81.85			
29	1320	2.1	49.31			
32	1180	2.4	44.16			
36	1070	2.6	39.74			
42	915	2.8	34.05	F62A DM112M4	92	103
46	830	3.0	31.05	F62B DM112M4		103
				F62C DM112M4		109

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

4.0 kW

20	1950	0.80	72.68	F53A DM112M4	91	78
22	1730	0.90	64.40	F53B DM112M4		78
25	1510	1.05	56.37	F53C DM112M4		81
28	1360	1.15	50.88			
30	1260	1.25	46.83			
34	1120	1.40	41.85			
38	995	1.60	37.17			
43	885	1.80	32.93			
49	785	2.0	29.31			
41	920	1.60	34.34	F52A DM112M4	91	78
45	840	1.70	31.33	F52B DM112M4		78
49	775	2.1	28.82	F52C DM112M4		81
55	695	2.3	26.01			
60	635	2.5	23.61			
65	585	2.7	21.83			
72	525	3.0	19.67			
34	1130	0.80	42.08	F43A DM112M4	90	58
37	1020	0.85	38.18	F43B DM112M4		58
42	905	0.95	33.83	F43C DM112M4		60
48	800	1.10	29.78			
55	700	1.20	26.08			
62	615	1.30	22.91			
53	725	1.20	27.14	F42A DM112M4	90	58
58	660	1.35	24.65	F42B DM112M4		58
63	605	1.45	22.54	F42C DM112M4		60
70	540	1.65	20.22			
78	490	1.80	18.25			
85	450	1.95	16.80			
95	405	2.2	15.02			
107	355	2.5	13.33			
121	315	2.8	11.82			
136	280	3.1	10.51			
194	197	2.2	7.36			
66	585	0.80	21.75	F33A DM112M4	89	46
				F33B DM112M4		46
				F33C DM112M4		48
64	595	0.80	22.12	F32A DM112M4	89	46
71	535	0.85	20.01	F32B DM112M4		46
78	490	0.90	18.24	F32C DM112M4		48
88	435	1.00	16.27			
98	390	1.10	14.60			
108	355	1.15	13.24			
121	315	1.25	11.74			
138	275	1.40	10.33			
158	245	1.55	9.05			
168	230	1.10	8.50			
179	215	1.70	7.95			
188	205	1.15	7.58			
210	182	1.25	6.80			
231	165	1.30	6.17			
261	147	1.40	5.47			
296	129	1.50	4.81			
338	113	1.60	4.21			
385	99	1.70	3.70			
4.8	10500	0.85	303.24	F83G32A DA132S4	94/15	257
5.6	9050	1.00	260.13	F83G32B DA132S4		257
6.3	7950	1.10	228.49	F83G32C DA132S4		274

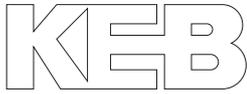
Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
5.5 kW						
7.2	7270	1.20	200.61	F83A DA132S4	94	252
7.9	6640	1.35	183.42	F83B DA132S4		252
8.6	6140	1.45	169.54	F83C DA132S4		269
9.4	5580	1.60	154.08			
10	5090	1.75	140.63			
11	4610	1.95	127.39			
12	4200	2.1	116.03			
14	3680	2.4	101.64			
16	3350	2.7	92.45			
17	3020	3.0	83.27			
8.9	5880	0.85	162.19	F73A DA132S4	93	169
9.9	5320	0.90	146.94	F73B DA132S4		169
11	4840	1.00	133.66	F73C DA132S4		177
12	4370	1.10	120.60			
13	3960	1.25	109.41			
15	3430	1.40	94.78			
17	3110	1.55	85.76			
19	2820	1.75	77.85			
21	2510	1.95	69.41			
25	2130	2.3	58.87			
28	1880	2.6	51.81			
32	1630	3.0	44.88			
16	3290	0.85	90.95	F63A DA132S4	92	116
18	2970	0.95	81.85	F63B DA132S4		116
20	2590	1.10	71.41	F63C DA132S4		122
23	2320	1.20	63.98			
26	2060	1.35	56.75			
29	1790	1.55	49.31			
33	1600	1.75	44.16			
36	1440	1.95	39.74			
42	1260	2.2	34.67			
47	1130	2.5	31.06			
53	1000	2.6	27.56			
60	875	2.7	24.21			
43	1230	2.1	34.05	F62A DA132S4	92	116
47	1120	2.2	31.05	F62B DA132S4		116
50	1040	2.7	28.80	F62C DA132S4		122
56	945	3.0	26.09			
26	2040	0.80	56.37	F53A DA132S4	91	91
29	1840	0.85	50.88	F53B DA132S4		91
31	1700	0.95	46.83	F53C DA132S4		95
35	1520	1.05	41.85			
39	1350	1.20	37.17			
44	1190	1.35	32.93			
49	1060	1.50	29.31			
58	910	1.75	25.11			
65	800	1.85	22.15			
56	940	1.70	26.01	F52A DA132S4	91	91
61	855	1.85	23.61	F52B DA132S4		91
66	790	2.0	21.83	F52C DA132S4		95
74	710	2.2	19.67			
82	640	2.5	17.62			
92	570	2.8	15.78			
49	1080	0.80	29.78	F43A DA132S4	90	71
56	945	0.90	26.08	F43B DA132S4		71
63	830	0.95	22.91	F43C DA132S4		73

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
5.5 kW						
72	735	1.20	20.22	F42A DA132S4	90	71
79	660	1.35	18.25	F42B DA132S4		71
86	610	1.45	16.80	F42C DA132S4		73
97	545	1.60	15.02			
109	485	1.85	13.33			
123	430	2.1	11.82			
138	380	2.3	10.51			
161	325	2.7	9.01			
183	290	3.1	7.94			
197	265	1.65	7.36			
214	245	2.3	6.77			
239	220	2.5	6.05			
270	195	2.9	5.38			
304	173	3.1	4.76			
342	154	3.3	4.24			
399	132	3.6	3.63			
453	116	3.8	3.20			
7.5 kW						
7.2	9910	0.90	200.61	F83A DA132M4	94	257
7.9	9060	1.00	183.42	F83B DA132M4		257
8.6	8370	1.05	169.54	F83C DA132M4		273
9.4	7610	1.15	154.08			
10	6950	1.30	140.63			
11	6290	1.40	127.39			
12	5730	1.55	116.03			
14	5020	1.75	101.64			
16	4570	1.95	92.45			
17	4110	2.2	83.27			
19	3690	2.4	74.77			
23	3170	2.8	64.14			
12	5960	0.80	120.60	F73A DA132M4	93	173
13	5400	0.90	109.41	F73B DA132M4		173
15	4680	1.05	94.78	F73C DA132M4		181
17	4240	1.15	85.76			
19	3850	1.25	77.85			
21	3430	1.40	69.41			
25	2910	1.70	58.87			
28	2560	1.90	51.81			
32	2220	2.2	44.88			
36	2010	2.4	40.61			
39	1820	2.5	36.86			
44	1620	2.7	32.87			
20	3530	0.80	71.41	F63A DA132M4	92	121
23	3160	0.90	63.98	F63B DA132M4		121
26	2800	1.00	56.75	F63C DA132M4		127
29	2440	1.15	49.31			
33	2180	1.30	44.16			
36	1960	1.45	39.74			
42	1710	1.65	34.67			
47	1530	1.80	31.06			
53	1360	1.90	27.56			
60	1200	2.00	24.21			
43	1680	1.50	34.05	F62A DA132M4	92	121
47	1530	1.65	31.05	F62B DA132M4		121
50	1420	1.95	28.80	F62C DA132M4		127
56	1290	2.2	26.09			
61	1170	2.4	23.73			
68	1060	2.6	21.42			
75	960	2.9	19.43			

Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

7.5 kW

39	1840	0.85	37.17	F53A DA132M4	91	96
44	1630	0.95	32.93	F53B DA132M4		96
49	1450	1.10	29.31	F53C DA132M4		99
58	1240	1.30	25.11			
65	1090	1.35	22.15			
56	1280	1.25	26.01	F52A DA132M4	91	96
61	1170	1.35	23.61	F52B DA132M4		96
66	1080	1.45	21.83	F52C DA132M4		99
74	970	1.65	19.67			
82	870	1.80	17.62			
92	780	2.0	15.78			
102	700	2.3	14.20			
117	610	2.6	12.39			
131	550	2.8	11.10			
147	485	3.0	9.85			
168	425	3.3	8.65			
187	385	2.4	7.74			
209	345	2.5	6.94			
72	1000	0.90	20.22	F42A DA132M4	90	75
79	900	1.00	18.25	F42B DA132M4		75
86	830	1.05	16.80	F42C DA132M4		77
97	740	1.20	15.02			
109	660	1.35	13.33			
123	585	1.50	11.82			
138	520	1.70	10.51			
161	445	2.00	9.01			
183	390	2.2	7.94			
197	365	1.20	7.36			
214	335	1.70	6.77			
239	300	1.85	6.05			
270	265	2.1	5.38			
304	235	2.3	4.76			
342	210	2.4	4.24			
399	179	2.6	3.63			
453	158	2.8	3.20			

9.2 kW

9.5	9210	0.95	154.08	F83A DA160MS4	94	276
10	8410	1.05	140.63	F83B DA160MS4		276
12	7610	1.15	127.39	F83C DA160MS4		293
13	6940	1.30	116.03			
14	6070	1.45	101.64			
16	5530	1.60	92.45			
18	4980	1.80	83.27			
20	4470	2.00	74.77			
23	3830	2.3	64.14			
27	3310	2.7	55.44			
16	5660	0.85	94.78	F73A DA160MS4	93	194
17	5130	0.95	85.76	F73B DA160MS4		194
19	4650	1.05	77.85	F73C DA160MS4		202
21	4150	1.20	69.41			
25	3520	1.40	58.87			
28	3100	1.55	51.81			
33	2680	1.80	44.88			
36	2430	2.00	40.61			
40	2200	2.1	36.86			
45	1960	2.2	32.87			
53	1670	2.5	27.88			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

9.2 kW

52	1710	2.6	28.53	F72A DA160MS4	93	194
57	1540	2.8	25.85	F72B DA160MS4		194
62	1410	3.0	23.54	F72C DA160MS4		202
26	3390	0.85	56.75	F63A DA160MS4	92	142
30	2950	0.95	49.31	F63B DA160MS4		142
33	2640	1.05	44.16	F63C DA160MS4		148
37	2380	1.20	39.74			
42	2070	1.35	34.67			
47	1860	1.50	31.06			
53	1650	1.55	27.56			
61	1450	1.65	24.21			
56	1560	1.80	26.09	F62A DA160MS4	92	142
62	1420	2.00	23.73	F62B DA160MS4		142
69	1280	2.2	21.42	F62C DA160MS4		148
76	1160	2.4	19.43			
87	1010	2.6	16.83			
97	910	2.8	15.23			
106	825	3.0	13.82			
45	1970	0.80	32.93	F53A DA160MS4	91	117
50	1750	0.90	29.31	F53B DA160MS4		117
59	1500	1.05	25.11	F53C DA160MS4		120
66	1320	1.10	22.15			
75	1180	1.35	19.67	F52A DA160MS4	91	117
83	1050	1.50	17.62	F52B DA160MS4		117
93	945	1.70	15.78	F52C DA160MS4		120
103	850	1.85	14.20			
119	740	2.1	12.39			
132	665	2.3	11.10			
149	590	2.5	9.85			
170	515	2.8	8.65			
190	465	1.95	7.74			
212	415	2.1	6.94			
236	375	2.2	6.24			
270	325	2.4	5.45			
301	290	2.6	4.88			
340	260	2.7	4.33			
387	225	2.9	3.80			

11.0 kW

9.5	11000	0.80	154.08	F83A DA160M4	94	276
10	10000	0.90	140.63	F83B DA160M4		276
12	9100	1.00	127.39	F83C DA160M4		293
13	8290	1.05	116.03			
14	7260	1.25	101.64			
16	6610	1.35	92.45			
18	5950	1.50	83.27			
20	5340	1.65	74.77			
23	4580	1.95	64.14			
27	3960	2.2	55.44			
35	2960	2.9	41.43			

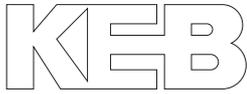
Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
11.0 kW						
17	6130	0.80	85.76	F73A DA160M4	93	194
19	5560	0.90	77.85	F73B DA160M4		194
21	4960	1.00	69.41	F73C DA160M4		202
25	4210	1.15	58.87			
28	3700	1.30	51.81			
33	3210	1.50	44.88			
36	2900	1.65	40.61			
40	2630	1.75	36.86			
45	2350	1.90	32.87			
53	1990	2.1	27.88			
62	1700	2.2	23.79			
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52	2040	2.2	28.53	F72A DA160M4	93	194
57	1850	2.3	25.85	F72B DA160M4		194
62	1680	2.5	23.54	F72C DA160M4		202
71	1470	2.7	20.62			
78	1340	2.9	18.76			
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30	3520	0.80	49.31	F63A DA160M4	92	142
33	3160	0.90	44.16	F63B DA160M4		142
37	2840	1.00	39.74	F63C DA160M4		148
42	2480	1.15	34.67			
47	2220	1.25	31.06			
53	1970	1.30	27.56			
61	1730	1.40	24.21			
<hr/>						
56	1860	1.50	26.09	F62A DA160M4	92	142
62	1700	1.65	23.73	F62B DA160M4		142
69	1530	1.85	21.42	F62C DA160M4		148
76	1390	2.00	19.43			
87	1200	2.2	16.83			
97	1090	2.4	15.23			
106	990	2.5	13.82			
119	880	2.8	12.33			
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59	1790	0.90	25.11	F53A DA160M4	91	117
66	1580	0.95	22.15	F53B DA160M4		117
				F53C DA160M4		120
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75	1410	1.15	19.67	F52A DA160M4	91	117
83	1260	1.25	17.62	F52B DA160M4		117
93	1130	1.40	15.78	F52C DA160M4		120
103	1010	1.55	14.20			
119	885	1.80	12.39			
132	795	1.95	11.10			
149	705	2.1	9.85			
170	620	2.3	8.65			
190	555	1.65	7.74			
212	495	1.75	6.94			
236	445	1.85	6.24			
270	390	2.0	5.45			
301	350	2.2	4.88			
340	310	2.3	4.33			
387	270	2.4	3.80			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
15.0 kW						
13	11300	0.80	116.03	F83A DA160L4	94	295
14	9900	0.90	101.64	F83B DA160L4		295
16	9010	1.00	92.45	F83C DA160L4		312
18	8110	1.10	83.27			
20	7290	1.20	74.77			
23	6250	1.40	64.14			
27	5400	1.65	55.44			
35	4040	2.1	41.43			
40	3620	2.3	37.20			
46	3110	2.5	31.91			
53	2690	2.8	27.58			
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25	5740	0.85	58.87	F73A DA160L4	93	213
28	5050	0.95	51.81	F73B DA160L4		213
33	4370	1.10	44.88	F73C DA160L4		221
36	3960	1.20	40.61			
40	3590	1.30	36.86			
45	3200	1.40	32.87			
53	2720	1.50	27.88			
62	2320	1.65	23.79			
<hr/>						
52	2780	1.60	28.53	F72A DA160L4	93	213
57	2520	1.70	25.85	F72B DA160L4		213
62	2290	1.85	23.54	F72C DA160L4		221
71	2010	2.0	20.62			
78	1830	2.1	18.76			
87	1650	2.3	16.90			
97	1480	2.5	15.17			
113	1270	2.8	13.01			
131	1100	3.1	11.25			
161	890	2.5	9.11			
177	810	2.7	8.29			
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42	3380	0.85	34.67	F63A DA160L4	92	161
47	3030	0.90	31.06	F63B DA160L4		161
53	2690	0.95	27.56	F63C DA160L4		167
61	2360	1.00	24.21			
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56	2540	1.10	26.09	F62A DA160L4	92	161
62	2310	1.20	23.73	F62B DA160L4		161
69	2090	1.35	21.42	F62C DA160L4		167
76	1890	1.45	19.43			
87	1640	1.60	16.83			
97	1480	1.75	15.23			
106	1350	1.85	13.82			
119	1200	2.0	12.33			
141	1020	2.3	10.45			
165	870	2.6	8.92			
191	750	1.90	7.70			
211	680	2.1	6.97			

Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

15.0 kW

75	1920	0.85	19.67	F52A DA160L4	91	136
83	1720	0.90	17.62	F52B DA160L4		136
93	1540	1.05	15.78	F52C DA160L4		140
103	1380	1.15	14.20			
119	1210	1.30	12.39			
132	1080	1.40	11.10			
149	960	1.55	9.85			
170	845	1.70	8.65			
190	755	1.20	7.74			
212	675	1.30	6.94			
236	610	1.35	6.24			
270	530	1.50	5.45			
301	475	1.60	4.88			
340	420	1.70	4.33			
387	370	1.80	3.80			

18.5 kW

16	11100	0.80	92.45	F83A DA180M4	94	324
18	9970	0.90	83.27	F83B DA180M4		324
20	8960	1.00	74.77	F83C DA180M4		341
23	7680	1.15	64.14			
27	6640	1.35	55.44			
31	5770	1.55	48.19			
36	4960	1.70	41.43			
40	4460	1.85	37.20			
46	3820	2.1	31.91			
53	3300	2.3	27.58			
62	2870	2.5	23.97			
73	2420	2.7	20.19	F82A DA180M4	94	324
81	2190	2.9	18.25	F82B DA180M4		324
				F82C DA180M4		341
28	6210	0.80	51.81	F73A DA180M4	93	244
33	5380	0.90	44.88	F73B DA180M4		244
36	4860	1.00	40.61	F73C DA180M4		252
40	4420	1.05	36.86			
45	3940	1.10	32.87			
53	3340	1.25	27.88			
62	2850	1.35	23.79			
57	3100	1.40	25.85	F72A DA180M4	93	244
63	2820	1.50	23.54	F72B DA180M4		244
72	2470	1.65	20.62	F72C DA180M4		252
79	2250	1.75	18.76			
87	2020	1.90	16.90			
97	1820	2.0	15.17			
113	1560	2.3	13.01			
131	1350	2.5	11.25			
151	1170	2.8	9.78			
162	1090	2.1	9.11			
178	995	2.2	8.29			
54	3300	0.80	27.56	F63A DA180M4	92	191
61	2900	0.80	24.21	F63B DA180M4		191
				F63C DA180M4		197

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

18.5 kW

69	2570	1.10	21.42	F62A DA180M4	92	191
76	2330	1.20	19.43	F62B DA180M4		191
88	2020	1.30	16.83	F62C DA180M4		197
97	1820	1.40	15.23			
107	1660	1.50	13.82			
120	1480	1.65	12.33			
141	1250	1.85	10.45			
165	1070	2.1	8.92			
192	920	1.55	7.70			
212	835	1.70	6.97			
233	760	1.75	6.33			
262	675	1.90	5.64			
308	575	2.1	4.78			
361	490	2.2	4.08			

22.0 kW

20	10700	0.85	74.77	F83A DA180L4	94	354
23	9140	0.95	64.14	F83B DA180L4		354
27	7900	1.15	55.44	F83C DA180L4		371
31	6860	1.30	48.19			
36	5900	1.45	41.43			
40	5300	1.55	37.20			
46	4540	1.75	31.91			
53	3930	1.90	27.58			
62	3410	2.1	23.97			
73	2880	2.3	20.19	F82A DA180L4	94	354
81	2600	2.4	18.25	F82B DA180L4		354
93	2260	2.7	15.83	F82C DA180L4		371
36	5780	0.85	40.61	F73A DA180L4	93	274
40	5250	0.90	36.86	F73B DA180L4		274
45	4680	0.95	32.87	F73C DA180L4		282
53	3970	1.05	27.88			
62	3390	1.10	23.79			
57	3680	1.15	25.85	F72A DA180L4	93	274
63	3350	1.25	23.54	F72B DA180L4		274
72	2940	1.35	20.62	F72C DA180L4		282
79	2670	1.45	18.76			
87	2410	1.60	16.90			
97	2160	1.70	15.17			
113	1850	1.90	13.01			
131	1600	2.1	11.25			
151	1390	2.3	9.78			
162	1300	1.75	9.11			
178	1180	1.85	8.29			
198	1060	1.95	7.46			
69	3050	0.90	21.42	F62A DA180L4	92	221
76	2770	1.00	19.43	F62B DA180L4		221
88	2400	1.10	16.83	F62C DA180L4		227
97	2170	1.20	15.23			
107	1970	1.25	13.82			
120	1760	1.40	12.33			
141	1490	1.55	10.45			
165	1270	1.75	8.92			
192	1100	1.30	7.70			
212	995	1.40	6.97			
233	900	1.50	6.33			
262	805	1.60	5.64			
308	680	1.75	4.78			
361	580	1.90	4.08			

Shaft mounted helical geared motors F



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

30.0 kW

27	10800	0.85	55.44	F83A DA200L4	94	391
31	9360	0.95	48.19	F83B DA200L4		391
36	8050	1.05	41.43	F83C DA200L4		408
40	7220	1.15	37.20			
46	6200	1.25	31.91			
53	5360	1.40	27.58			
62	4660	1.55	23.97			
73	3920	1.65	20.19	F82A DA200L4	94	391
81	3550	1.75	18.25	F82B DA200L4		391
93	3080	1.95	15.83	F82C DA200L4		408
106	2690	2.2	13.85			
121	2370	2.4	12.20			
146	1960	1.95	10.08			
62	4620	0.80	23.79	F73A DA200L4	93	311
				F73B DA200L4		311
				F73C DA200L4		319
72	4010	1.00	20.62	F72A DA200L4	93	311
79	3640	1.10	18.76	F72B DA200L4		311
87	3280	1.15	16.90	F72C DA200L4		319
97	2950	1.25	15.17			
113	2530	1.40	13.01			
131	2180	1.55	11.25			
151	1900	1.70	9.78			
162	1770	1.25	9.11			
178	1610	1.35	8.29			
198	1450	1.45	7.46			
220	1300	1.50	6.70			
257	1120	1.65	5.75			
297	965	1.80	4.97			
341	840	1.95	4.32			

37.0 kW

35	9960	0.85	41.43	F83A DA225S4	94	524
40	8940	0.90	37.20	F83B DA225S4		524
46	7670	1.05	31.91	F83C DA225S4		541
53	6630	1.15	27.58			
61	5760	1.25	23.97			
73	4850	1.35	20.19	F82A DA225S4	94	524
81	4390	1.45	18.25	F82B DA225S4		524
93	3810	1.60	15.83	F82C DA225S4		541
106	3330	1.75	13.85			
120	2930	1.90	12.20			
146	2420	1.55	10.08			
161	2190	1.65	9.11			
186	1900	1.80	7.90			
213	1660	1.95	6.92			
241	1460	2.1	6.09			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

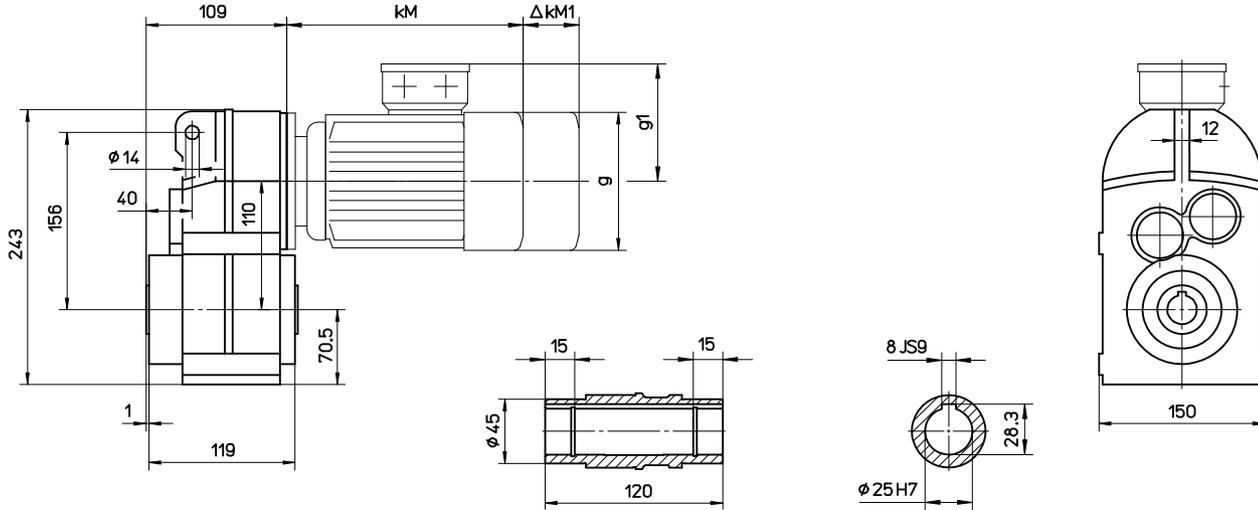
45.0 kW

46	9300	0.85	31.91	F83A DA225M4	94	554
53	8040	0.95	27.58	F83B DA225M4		554
62	6980	1.05	23.97	F83C DA225M4		571
73	5880	1.10	20.19	F82A DA225M4	94	554
81	5320	1.20	18.25	F82B DA225M4		554
93	4610	1.30	15.83	F82C DA225M4		571
106	4040	1.45	13.85			
121	3560	1.55	12.20			
146	2940	1.30	10.08			
162	2650	1.35	9.11			
187	2300	1.50	7.90			
213	2020	1.60	6.92			
242	1780	1.75	6.09			

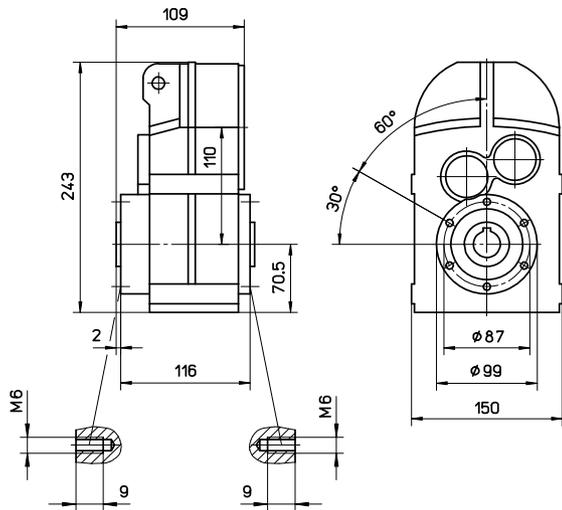
Shaft mounted helical geared motors F



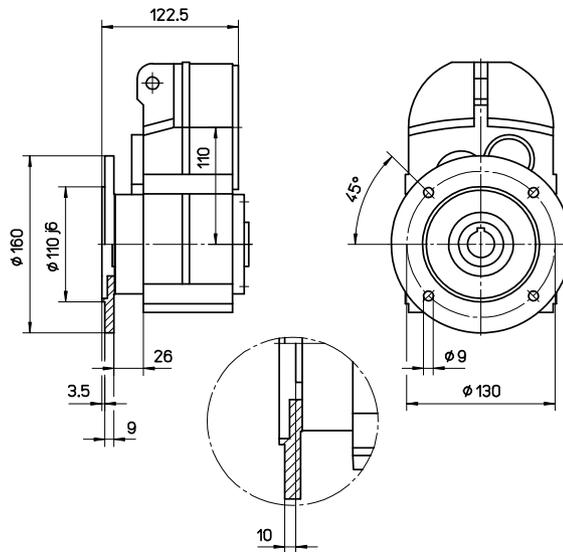
F22A, F23A Shaft mounted version



F22B, F23B Shaft mounted version



F22C, F23C Flange mounted version

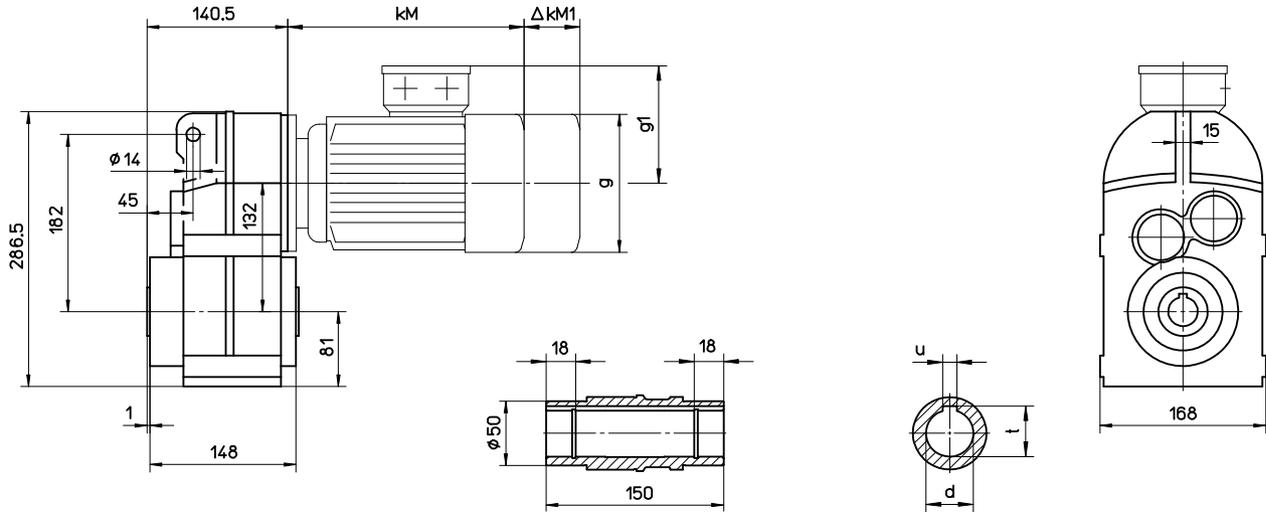


	kM	ΔkM1 Brake	g	g1
F2_DM63	201	59	123	109
F2_DM71	228	56	138	119
F2_DM80	250	66	156	140
F2_DM90S	266.5	74	176	144
F2_DM90L	291.5	74	176	144

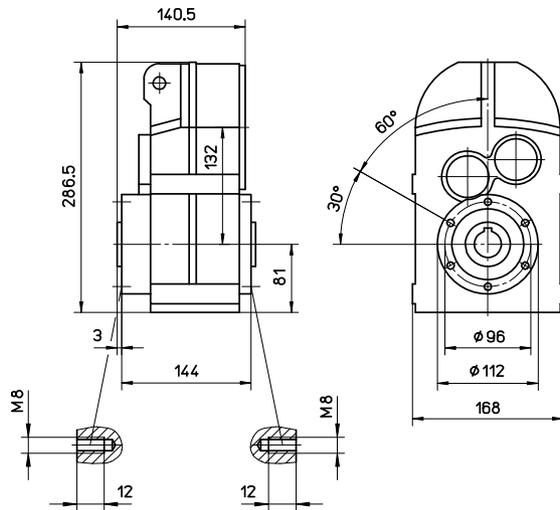
Shaft mounted helical geared motors F



F32A, F33A Shaft mounted version

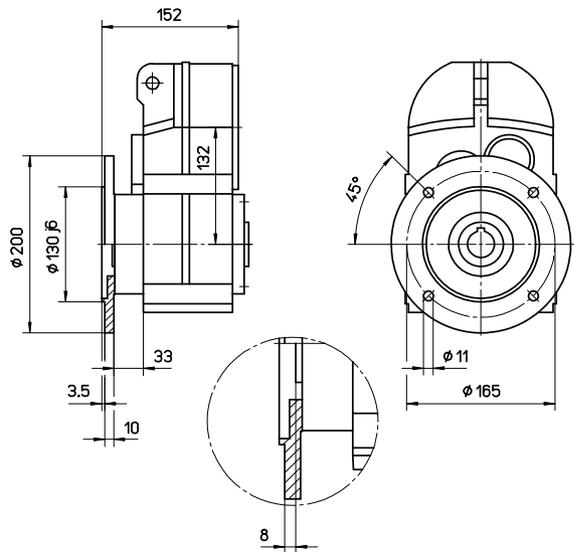


F32B, F33B Shaft mounted version



F32C, F33C Flange mounted version

Flange mounted version



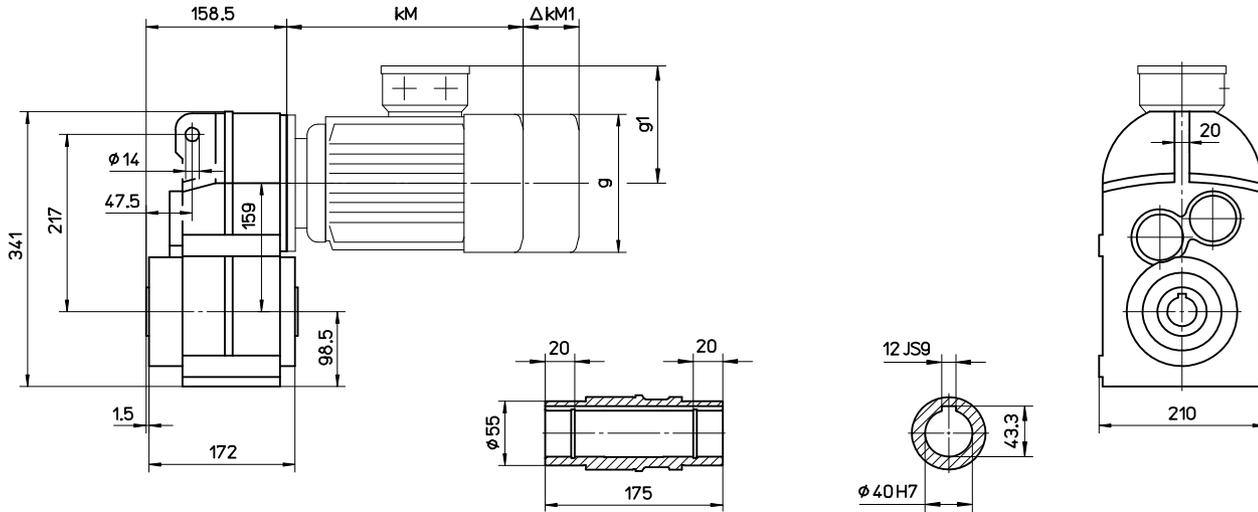
	kM	ΔkM1 Brake	g	g1
F3_DM63	198	59	123	109
F3_DM71	224	56	138	119
F3_DM80	247	66	156	140
F3_DM90S	261.5	74	176	144
F3_DM90L	286.5	74	176	144
F3_DM100	319	91	194	155
F3_DM112	343	96	218	165

Hollow shaft	d	t	u
35	35H7	38.3	10
30	30H7	33.3	8

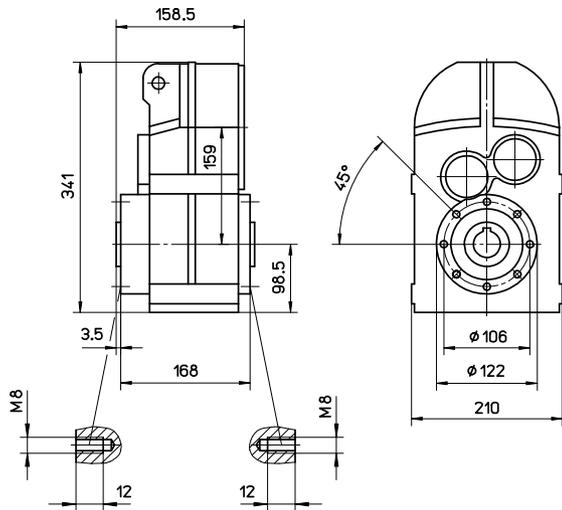
Shaft mounted helical geared motors F



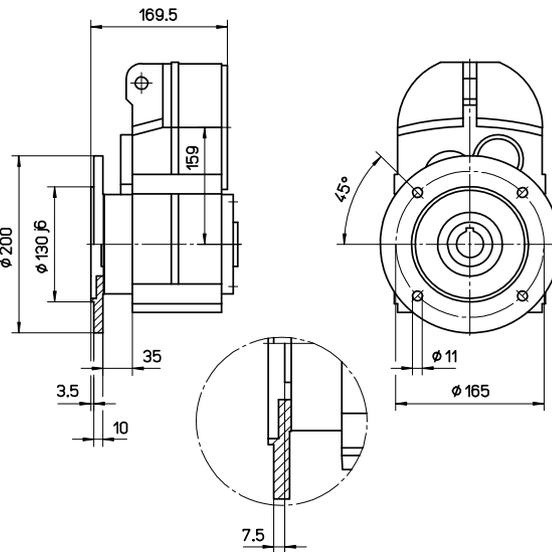
F42A, F43A Shaft mounted version



F42B, F43B Shaft mounted version



F42C, F43C Flange mounted version

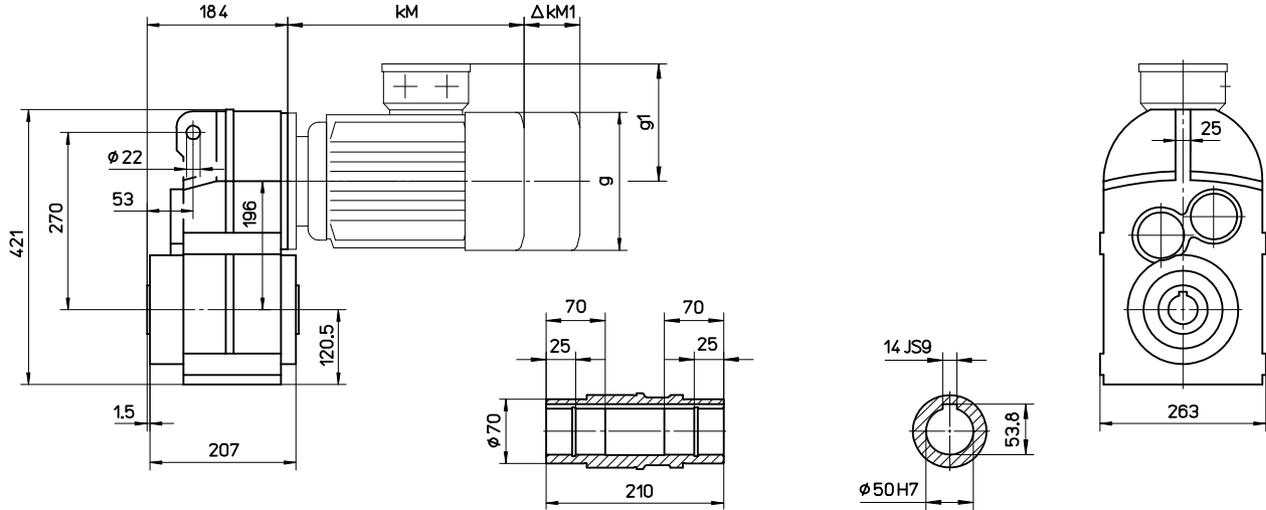


	kM	ΔkM1 Brake	g	g1
F4_ DM63	198.5	59	123	109
F4_ DM71	223.5	56	138	119
F4_ DM80	247.5	66	156	140
F4_ DM90S	262	74	176	144
F4_ DM90L	287	74	176	144
F4_ DM100	319	91	194	155
F4_ DM112	342	96	218	165
F4_ DA132	435	99	245	188

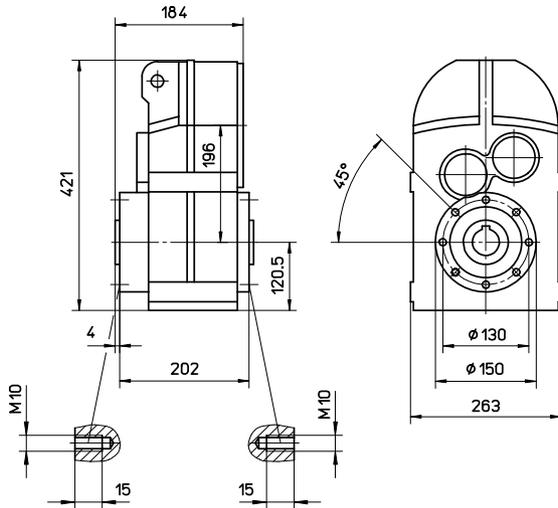
Shaft mounted helical geared motors F



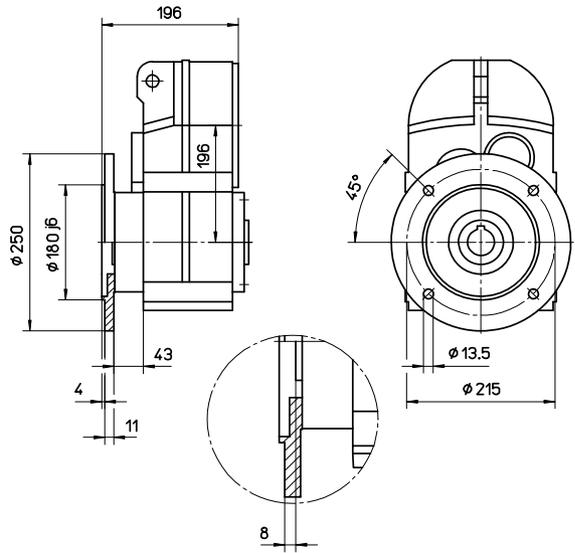
F52A, F53A Shaft mounted version



F52B, F53B Shaft mounted version



F52C, F53C Flange mounted version

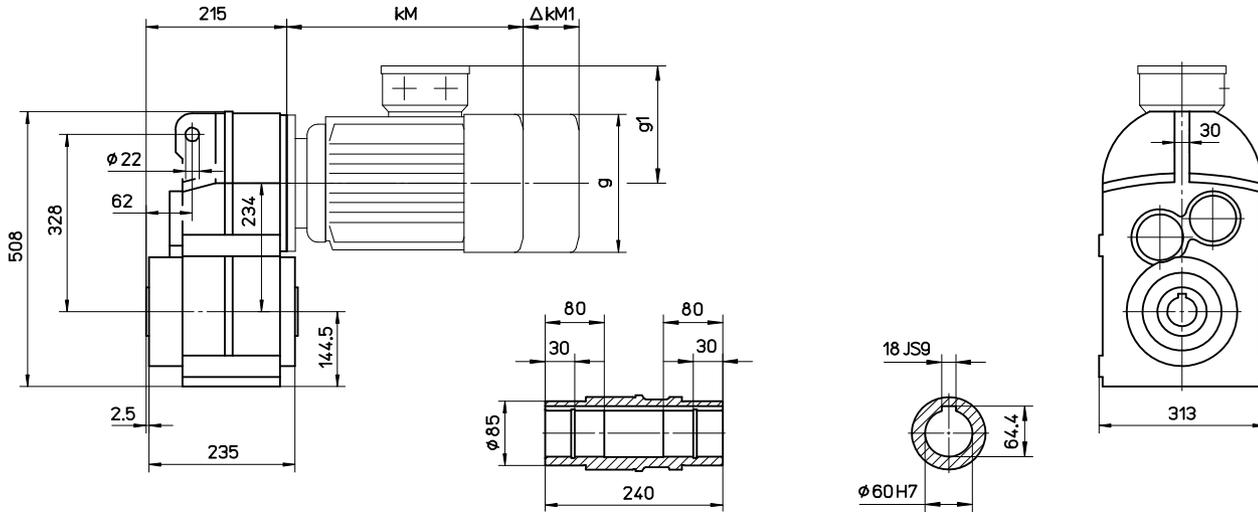


	kM	ΔkM1 Brake	g	g1
F5_DM71	220	56	138	119
F5_DM80	243	66	156	140
F5_DM90S	259.5	74	176	144
F5_DM90L	284.5	74	176	144
F5_DM100	314	91	194	155
F5_DM112	337.5	96	218	165
F5_DA132	431.5	99	245	188
F5_DA160	539.5	120	311	250

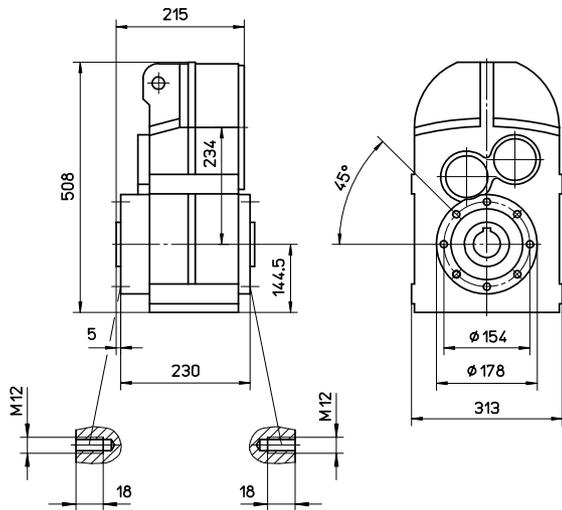
Shaft mounted helical geared motors F



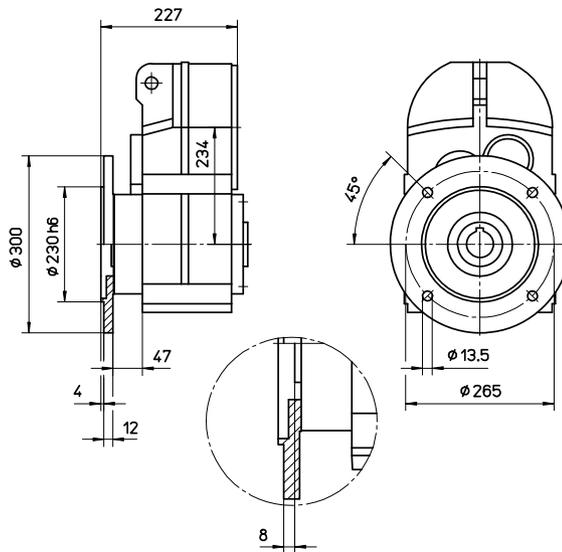
F62A, F63A Shaft mounted version



F62B, F63B Shaft mounted version



F62C, F63C Flange mounted version

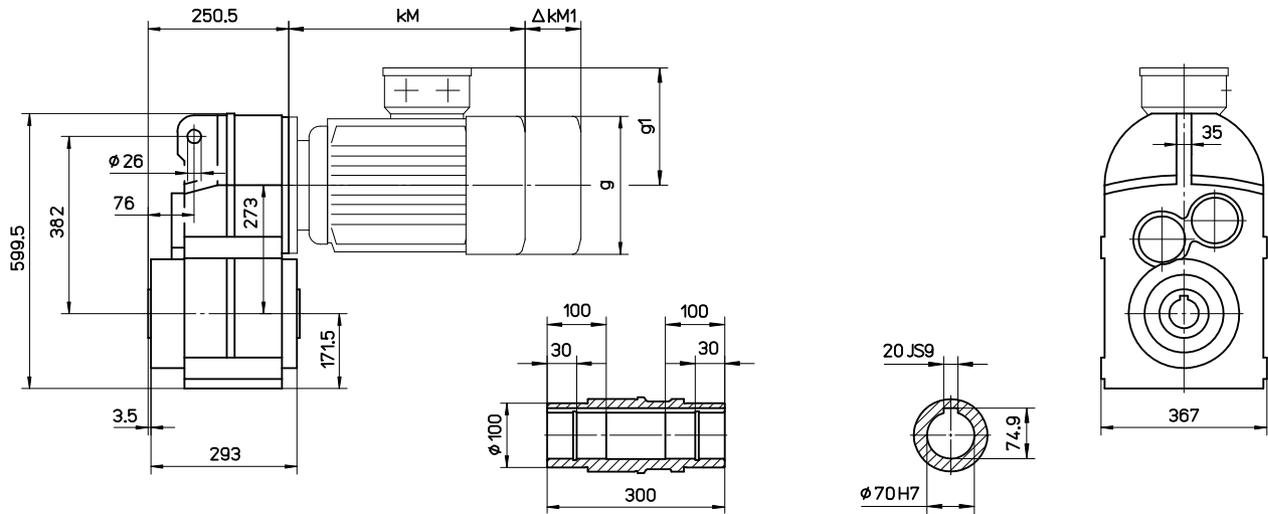


	kM	ΔkM1 Brake	g	g1
F6_ DM80	238	66	156	140
F6_ DM90S	254.5	74	176	144
F6_ DM90L	279.5	74	176	144
F6_ DM100	308	91	194	155
F6_ DM112	332.5	96	218	165
F6_ DA132	428	99	245	188
F6_ DA160	532	120	311	250
F6_ DA180	589	139	356	291

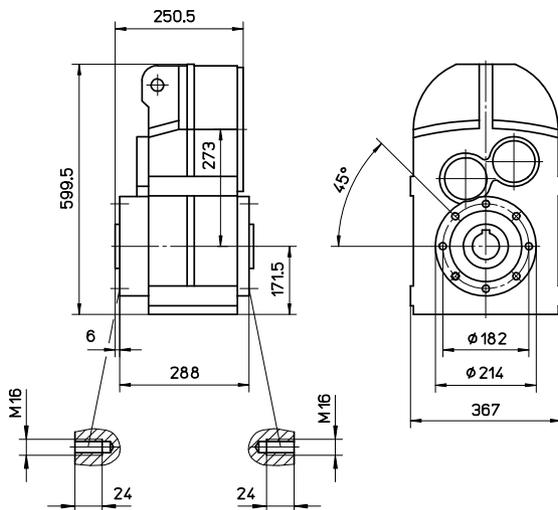
Shaft mounted helical geared motors F



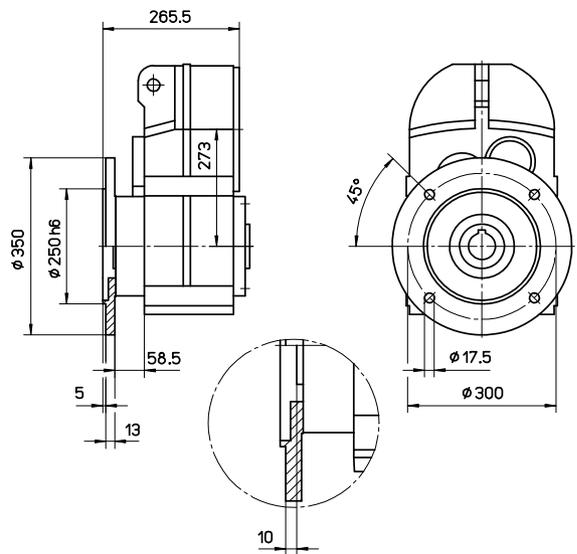
F72A, F73A Shaft mounted version



F72B, F73B Shaft mounted version



F72C, F73C Flange mounted version

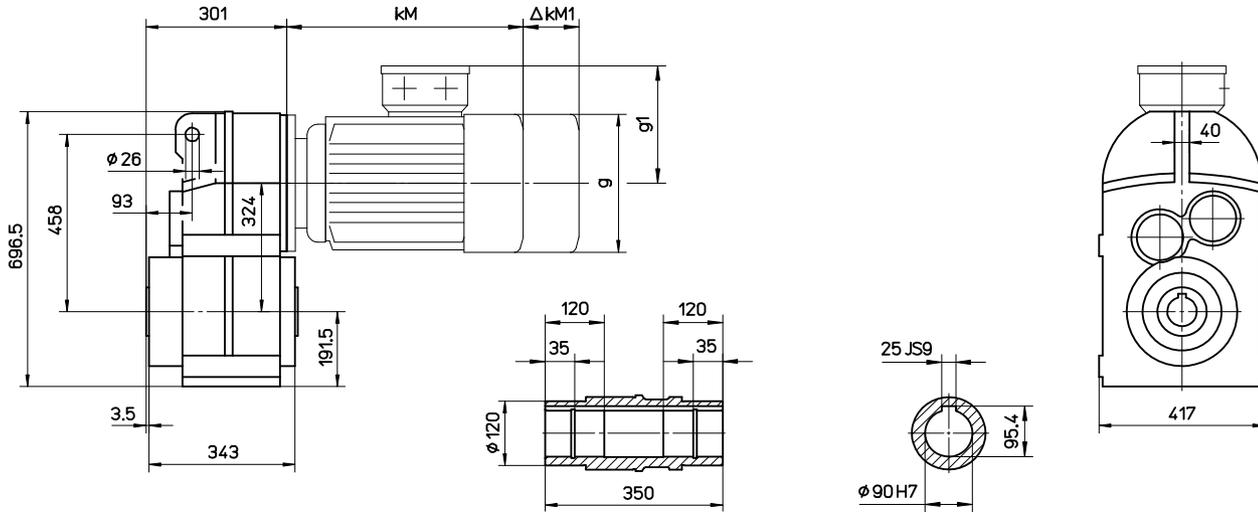


	kM	$\Delta kM1$ Brake	g	g_1
F7__DM90S	247.5	74	176	144
F7__DM90L	272.5	74	176	144
F7__DM100	304	91	194	155
F7__DM112	325.5	96	218	165
F7__DA132	421	99	245	188
F7__DA160	526	120	311	250
F7__DA180	583	139	356	291
F7__DA200	633	139	356	291

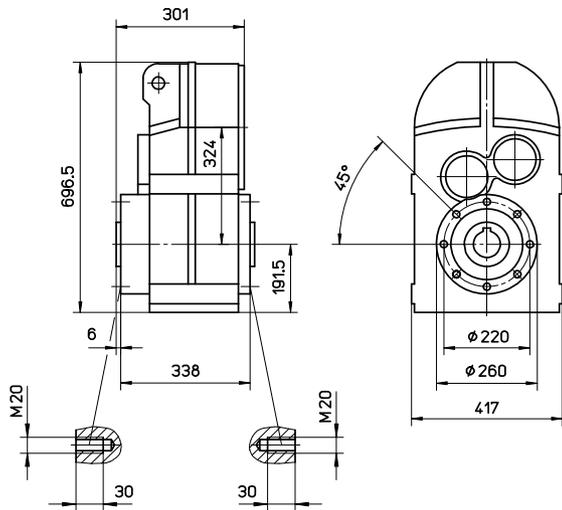
Shaft mounted helical geared motors F



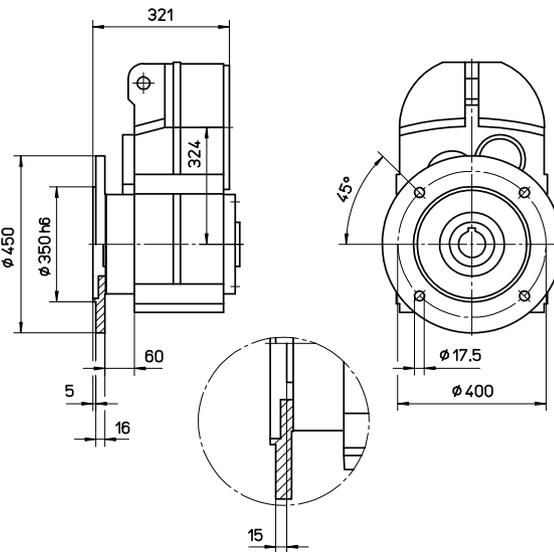
F82A, F83A Shaft mounted version



F82B, F83B Shaft mounted version



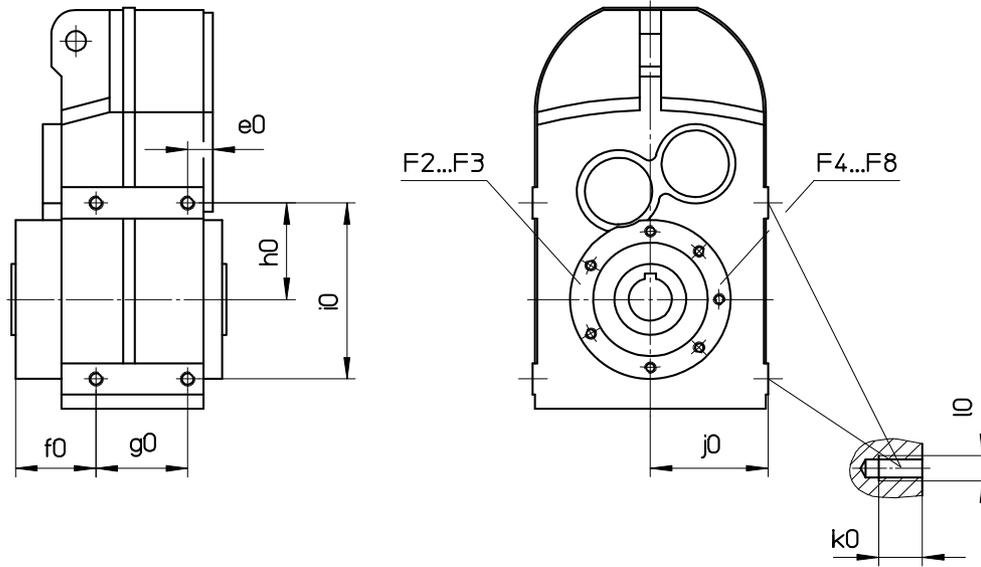
F82C, F83C Flange mounted version



	kM	ΔkM1 Brake	g	g1
F8_DM100	299	91	194	155
F8_DM112	320.5	96	218	165
F8_DA132	413	99	245	188
F8_DA160	522	120	311	250
F8_DA180	577.5	139	356	291
F8_DA200	627.5	139	356	291
F8_DA225S	627.5	139	356	299
F8_DA225M	687.5	139	356	299

Shaft mounted helical gear units F

D - Shaft mounted version + side areas

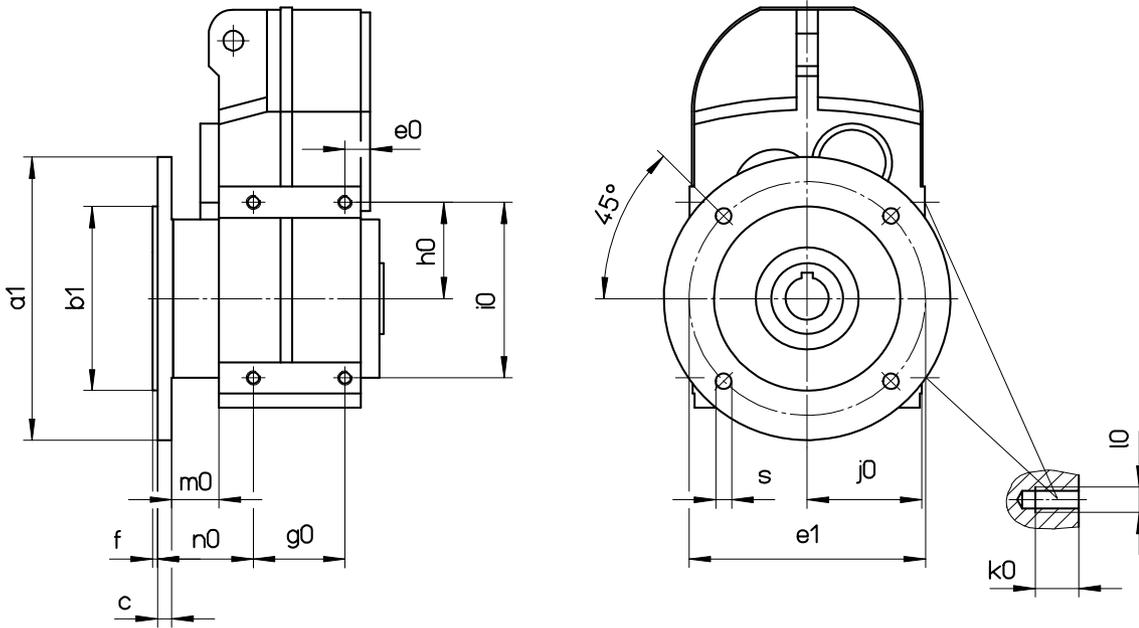


Gear unit	e0	f0	g0	h0	i0	j0	k0	l0
F2	12	31	64	55	100	73	12	M8
F3	17.5	56	64	68	124	82	15	M10
F4	18	57	80	87	158	103	18	M12
F5	16	60	104	112	202	129	18	M12
F6	20	70	120	134	244	154	24	M16
F7	24	75.5	145	245	370	181	30	M20
F8	29	81	185	298	440	206	36	M24

Shaft mounted helical gear units F

E - Flange mounted version + side areas

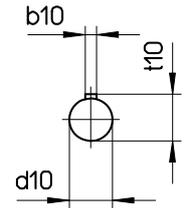
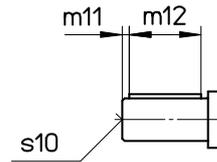
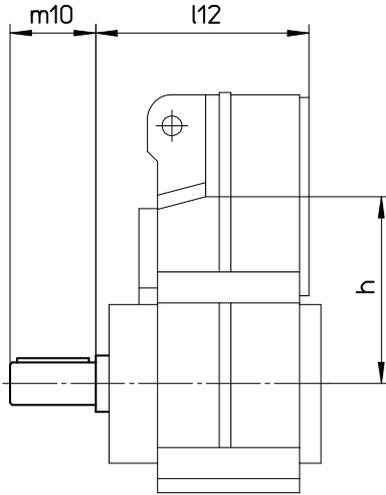
KEB



Gear unit	e0	g0	h0	i0	j0	k0	l0	m0	n0	a1	e1	b1	s	c	f
F2	12	64	55	100	73	12	M8	26	43	160	130	110	9	9	3,5
F3	17.5	64	68	124	82	15	M10	33	67	200	165	130 j6	11	10	3.5
F4	18	80	87	158	103	18	M12	35	68	200	165	130 j6	11	10	3.5
F5	16	104	112	202	129	18	M12	43	72	250	215	180 j6	13.5	11	4
F6	20	120	134	244	154	24	M16	47	83	300	265	230j6	13.5	12	4
F7	24	145	245	370	181	30	M20	58.5	91.5	350	300	250h6	17.5	13	5
F8	29	185	298	440	206	36	M24	60	102	450	400	350h6	17.5	16	5

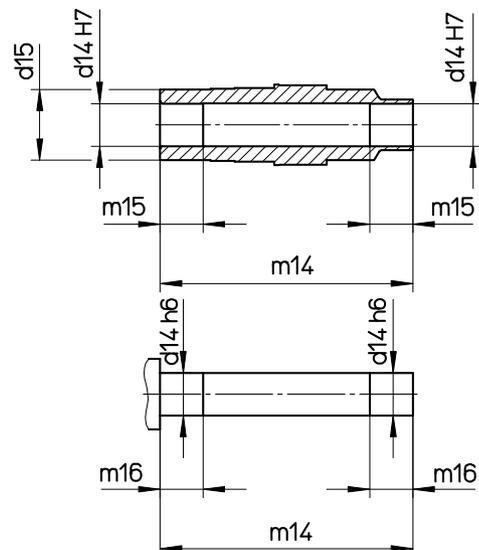
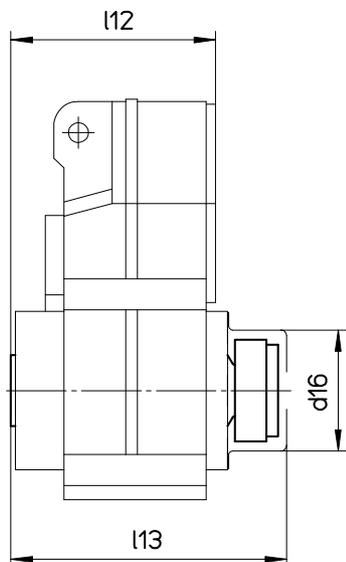
Shaft mounted helical gear units F

V - Output shaft with key



Gear unit	d_{10}	m_{10}	m_{11}	m_{12}	b_{10}	t_{10}	s_{10}	h	l_{12}
F2	25	50	5	40	8	28	M10	110	119
F3	30	60	5	50	8	33	M10	132	148.5
	35	70	5	60	10	38	M12	132	148.5
F4	40	80	5	70	12	43	M16	159	166
F5	50	100	10	80	14	53.5	M16	196	192
F6	60	120	10	100	18	64	M20	234	223
F7	75	140	7.5	125	20	79.5	M20	273	260.5
F8	90	170	15	140	25	95	M24	324	316

Shaft mounted helical gear units F S - Hollow shaft with shrink disc

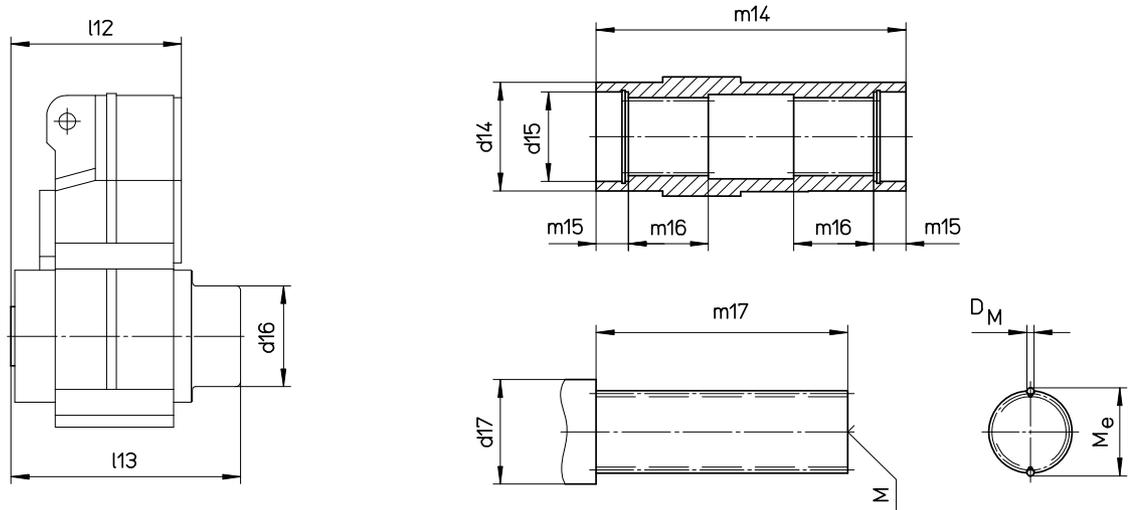


Gear unit	*)	d14	d15	d16	m14	m15	m16	l12	l13
F2	DM71	25	45	77	143	25	27	109	157
F3	DM80	30	50	86	176	30	32	140.5	188
	DM80	35	50	86	176	30	32	140.5	188
F4	DM100	40	55	96	202	40	42	158.5	214.5
F5	DA132	50	70	117	242	50	52	184	255
F6	DA180	60	85	148	274	60	62	215	292
F7	DA200	70	100	180	343	70	72	250.5	359
F8	DA225	90	120	225	402	80	82	301	422

*) largest possible motor size

Shaft mounted helical gear units F

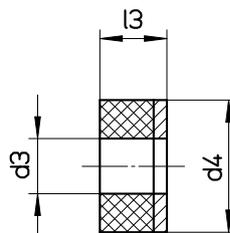
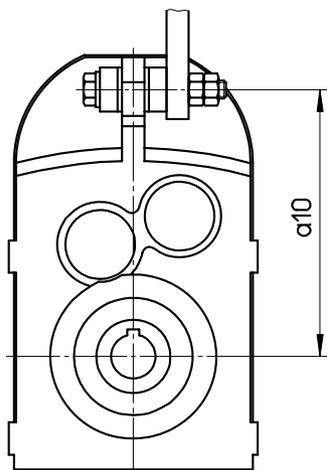
Z - Splined hollow shaft



Gear unit	DIN5480	l12	l13	d16	m14	m15	m16	d14	d15	m17	d17	D _M	M _e	M DIN 332
F2	30x1.25x30x22	109	157	77	120	18	25	45	35	88	40	2.75	33.05 _{-0.04}	D..M10
F3	35x2x30x16	140.5	188	86	150	18	32	50	40	118	46	4	38.94 _{-0.04}	D..M12
F4	40x2x30x18	158.5	214.5	96	175	23	42	55	42	140	50	4.5	45.08 _{-0.04}	D..M16
F5	50x2x30x24	184	255	117	210	23	52	70	52	174	62	4	54.16 _{-0.05}	D..M16
F6	65x2x30x31	215	292	148	240	25	62	85	70	195	82	4	68.99 _{-0.06}	D..M20
F7	70x2x30x34	250.5	359	180	300	25	72	100	72	255	85	4	74.18 _{-0.06}	D..M20

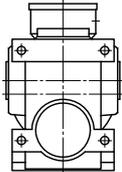
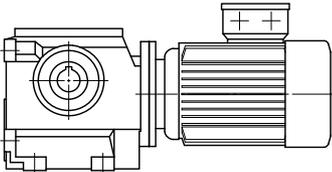
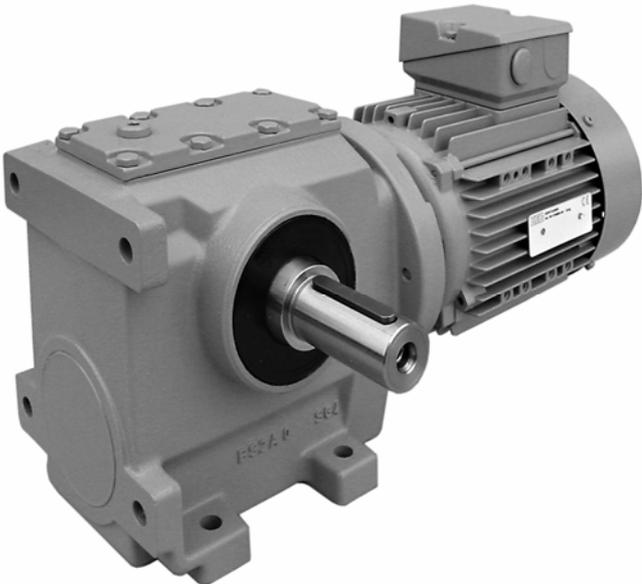
Shaft mounted helical gear units F G - Rubber elements

KEB

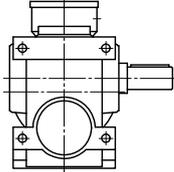
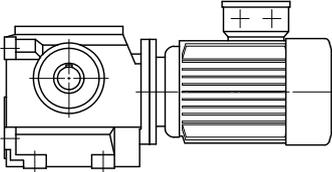


Gear unit	a10	d3	d4	l3
F2	156	12.5	30	15
F3	182	12.5	30	15
F4	217	12.5	40	20
F5	270	21	50	30
F6	328	21	60	30
F7	382	25	80	40
F8	458	25	80	40

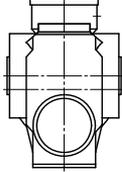
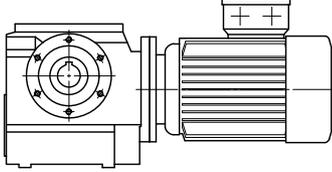
Helical worm gear units S



Foot mounted version
Hollow shaft with keyway
Example: S32A DM90L4

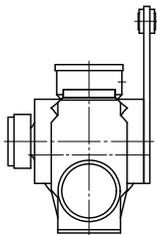
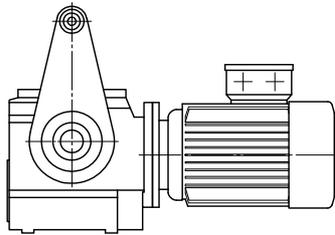


Foot mounted version
Output shaft with key
Example: S12AV DM80G4

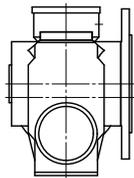
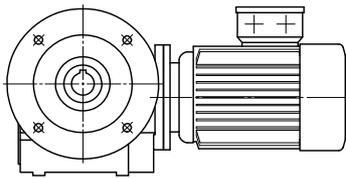


Shaft mounted version
Hollow shaft with keyway
Example: S22B DM100L4

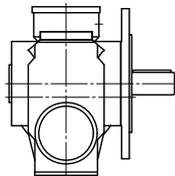
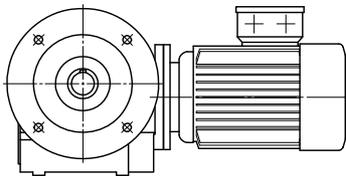
Helical worm gear units S



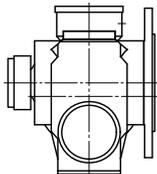
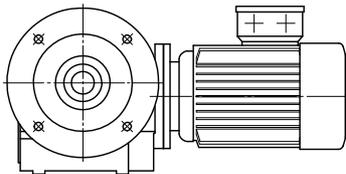
Shaft mounted version
Hollow shaft with shrink disc
Torque arm T1
Example: S22**BT1S** DM80K4



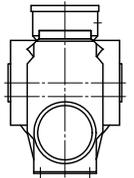
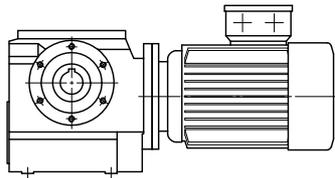
Flange mounted version
Hollow shaft with keyway
Example: S22**C** DM90S4



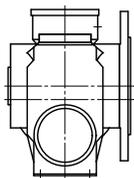
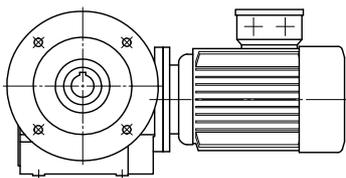
Flange mounted version
Output shaft with key
Example: S12**CV** DM71G4



Flange mounted version
Hollow shaft with shrink disc
Example: S32**CS** DM100LX4



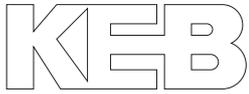
Shaft mounted version + foot area
Hollow shaft with keyway
Example: S22**D** DM80G4



Flange mounted version + foot area
Hollow shaft with keyway
Example: S32**E** DM90S4



Helical worm gear units S



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC							-M NEMA				-M S										
					63	71	80	90	100	112	122	160	180	200	225	31	32	33		41	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	140	180	210	250

S02

189.00	7.4	58	0.10	0.04	o o - - - - - - - -	- - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
159.35	8.8	58	0.11	0.06	o o - - - - - - - -	- - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
135.95	10	57	0.12	0.07	o o - - - - - - - -	- - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
117.00	12	56	0.14	0.09	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
101.35	14	55	0.15	0.10	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
88.20	16	53	0.16	0.14	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
77.00	18	52	0.18	0.17	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
69.00	20	69	0.21	0.05	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
58.18	24	67	0.24	0.07	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
49.63	28	66	0.27	0.09	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
42.71	33	64	0.30	0.11	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
37.00	38	62	0.34	0.14	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
32.20	43	60	0.37	0.18	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
28.11	50	58	0.41	0.22	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
25.00	56	63	0.44	0.06	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
21.08	66	61	0.50	0.09	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
17.98	78	59	0.56	0.11	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
15.48	90	57	0.63	0.15	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
13.41	104	55	0.70	0.18	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
12.50	112	67	0.75	0.08	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
11.67	120	53	0.75	0.24	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
10.54	133	65	0.75	0.11	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
10.19	137	51	0.75	0.30	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
8.99	156	63	0.75	0.13	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
7.74	181	61	0.75	0.18	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
6.70	209	59	0.75	0.22	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
5.83	240	57	0.75	0.30	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
5.09	275	55	0.75	0.37	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -

S12G03

9007.5	0.16	188	<0.05	0.04	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
7609.6	0.18	188	<0.05	0.05	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
6505.9	0.22	188	<0.05	0.07	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
5612.6	0.25	188	<0.05	0.08	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
4874.5	0.29	188	<0.05	0.10	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
4254.6	0.33	188	<0.05	0.12	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
3672.3	0.38	188	<0.05	0.08	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
3168.0	0.44	188	<0.05	0.09	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
2751.5	0.51	187	<0.05	0.11	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -
2401.5	0.58	187	<0.05	0.13	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - -	o - - - - -

Helical worm gear units S



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA								Servo motor TA								-W	Motor adapter -M IEC					-M NEMA				-M S												
					63	71	80	90	100	112	132	160	180	200	225	31	33	41	43	51		52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	71	90	110	140	180	210	250

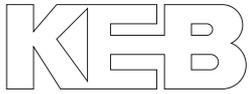
S12G02

2108.1	0.66	187	<0.05	0.05	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1781.0	0.79	187	<0.05	0.06	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1522.7	0.92	186	<0.05	0.08	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1313.6	1.1	186	<0.05	0.09	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1140.8	1.2	186	0.05	0.12	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
995.75	1.4	185	0.06	0.14	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
872.16	1.6	185	0.07	0.18	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
749.62	1.9	184	0.08	0.10	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
646.68	2.2	184	0.09	0.13	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
561.65	2.5	183	0.10	0.16	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
490.22	2.9	182	0.11	0.20	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
429.37	3.3	181	0.12	0.26	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
375.31	3.7	180	0.14	0.26	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
330.65	4.2	179	0.15	0.26	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
293.14	4.8	178	0.17	0.27	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
261.18	5.4	177	0.18	0.27	o o o - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
234.46	6.0	176	0.20	0.27	o o o - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
204.64	6.8	174	0.22	0.28	o o o - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
179.24	7.8	172	0.25	0.29	o o o - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -

S12

168.00	8.3	171	0.26	0.08	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
143.53	9.8	168	0.29	0.12	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
124.21	11	165	0.32	0.14	o o o - - - -	o o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
108.57	13	162	0.35	0.16	o o o - - - -	o o o - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
95.65	15	160	0.39	0.19	o o o o - - -	o o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
84.80	17	157	0.42	0.22	o o o o - - -	o o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
75.56	19	153	0.46	0.28	o o o o - - -	o o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
67.83	21	150	0.49	0.31	o o o o - - -	o o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
60.90	23	166	0.52	0.09	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
59.20	24	146	0.54	0.39	o o o o - - -	o o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
52.03	27	163	0.59	0.13	o o - - - - -	o o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
51.85	27	141	0.59	0.46	o o o o - - -	o o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
45.03	31	160	0.66	0.16	o o o - - - -	o o o - - - -	W2	o o o - - - -	o o - - - -	o o - - - -
39.36	36	156	0.73	0.19	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
34.67	40	153	0.80	0.23	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
30.74	46	150	0.88	0.26	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
27.39	51	146	0.96	0.33	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
24.59	57	143	1.04	0.37	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
22.68	62	152	1.12	0.10	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
21.46	65	138	1.14	0.48	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
19.38	72	149	1.27	0.14	o o - - - - -	o - - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
18.80	74	133	1.25	0.58	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
16.77	83	146	1.43	0.17	o o o - - - -	o o o - - - -	W2	o o o - - - -	o o - - - -	o o - - - -
14.66	96	142	1.50	0.21	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
12.91	108	139	1.50	0.25	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
11.45	122	136	1.50	0.30	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
10.20	137	132	1.50	0.37	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
9.16	153	129	1.50	0.43	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
7.99	175	124	1.50	0.55	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -
7.00	200	120	1.50	0.67	o o o o - - -	o o o - - - -	W2	o o o o - - -	o o - - - -	o o o - - -

Helical worm gear units S



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC					-M NEMA				-M S												
					63	71	80	90	100	112	132	160	180	200	225	31	32	33		41	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	140	180	210	250

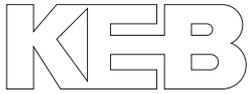
S22G13

13901	0.10	340	<0.05	0.05	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
11784	0.12	340	<0.05	0.07	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
10114	0.14	340	<0.05	0.08	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
8761.0	0.16	340	<0.05	0.09	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
7643.7	0.18	340	<0.05	0.11	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
6705.1	0.21	340	<0.05	0.13	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
5905.6	0.24	340	<0.05	0.16	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
5193.0	0.27	340	<0.05	0.08	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
4456.7	0.31	340	<0.05	0.09	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
3860.7	0.36	340	<0.05	0.11	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
3368.3	0.42	340	<0.05	0.14	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----

S22G12

2998.2	0.47	340	<0.05	0.07	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
2561.5	0.55	340	<0.05	0.11	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
2216.7	0.63	340	<0.05	0.13	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
1937.6	0.72	340	0.05	0.15	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
1707.1	0.82	340	0.06	0.17	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
1513.4	0.93	335	0.07	0.20	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
1348.4	1.0	335	0.07	0.24	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
1210.5	1.2	335	0.08	0.27	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
1056.5	1.3	335	0.09	0.34	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
925.37	1.5	335	0.10	0.40	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
850.54	1.6	335	0.11	0.19	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
749.33	1.9	335	0.12	0.23	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
664.32	2.1	330	0.14	0.27	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
591.90	2.4	330	0.15	0.33	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
531.34	2.6	330	0.17	0.38	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
463.77	3.0	330	0.19	0.48	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
406.20	3.4	325	0.21	0.59	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
362.38	3.9	325	0.23	0.59	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
325.05	4.3	325	0.25	0.59	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
295.42	4.7	320	0.27	0.60	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
260.46	5.4	320	0.30	0.60	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
230.68	6.1	315	0.34	0.61	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
206.44	6.8	315	0.37	0.64	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
179.67	7.8	310	0.41	0.64	o o o o	-----	o	-----	-----	W1	o o o o	-----	o	-----	o	-----

Helical worm gear units S



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC					-M NEMA			-M S														
					63	71	80	90	100	112	122	160	180	200	225	31	32	33		41	42	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	140	180	210	250

S32G13

18745	0.075	665	<0.05	0.05	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
15891	0.088	665	<0.05	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
13638	0.10	665	<0.05	0.08	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
11814	0.12	665	<0.05	0.09	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
10307	0.14	665	<0.05	0.11	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
9041.7	0.15	665	<0.05	0.13	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
7963.6	0.18	665	<0.05	0.16	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
7002.7	0.20	665	<0.05	0.08	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
6009.8	0.23	665	<0.05	0.09	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
5206.1	0.27	665	<0.05	0.11	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
4542.1	0.31	660	<0.05	0.14	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -

S32G12

4043.0	0.35	660	<0.05	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
3454.1	0.41	660	0.06	0.11	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2989.2	0.47	660	0.07	0.13	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2612.8	0.54	660	0.08	0.15	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2301.9	0.61	660	0.09	0.17	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2040.8	0.69	660	0.10	0.20	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1818.3	0.77	655	0.11	0.25	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1632.3	0.86	655	0.12	0.27	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1424.7	0.98	655	0.13	0.34	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1247.9	1.1	655	0.15	0.40	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1146.9	1.2	650	0.16	0.20	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1010.5	1.4	650	0.18	0.24	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
895.82	1.6	650	0.20	0.28	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
798.16	1.8	645	0.22	0.35	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
716.51	2.0	645	0.25	0.40	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
625.38	2.2	640	0.28	0.51	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
547.76	2.6	635	0.31	0.62	o o o - - - -	o o - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
492.61	2.8	635	0.33	0.63	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
445.64	3.1	630	0.36	0.65	o o o - - - -	o o - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
406.20	3.4	625	0.39	0.65	o o o o - - -	o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
362.38	3.9	625	0.42	0.67	o o o o - - -	o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
325.05	4.3	620	0.47	0.69	o o o o - - -	o o - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
294.91	4.7	615	0.51	0.72	o o o o - - -	o o o - - -	W1	o o o o - - -	o o - - - -	o o o - - -
261.33	5.4	610	0.56	0.75	o o o o - - -	o o o - - -	W1	o o o o - - -	o o - - - -	o o o - - -
230.03	6.1	600	0.62	0.79	o o o o - - -	o o o - - -	W2	o o o o - - -	o o - - - -	o o o - - -

Helical worm gear units S



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC						-M NEMA			-M S									
					63	71	80	90	100	112	125	160	180	200	225	31	32	33		41	42	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56

S42G23

20360	0.069	1530	<0.05	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
17395	0.080	1530	<0.05	0.10	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
15053	0.093	1530	<0.05	0.12	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
13158	0.11	1530	<0.05	0.14	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
11592	0.12	1530	<0.05	0.16	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
10277	0.14	1530	<0.05	0.18	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
9221.9	0.15	1530	0.05	0.13	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
8060.8	0.17	1530	0.06	0.15	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
7101.6	0.20	1530	0.07	0.18	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
6295.9	0.22	1530	0.08	0.20	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
5512.1	0.25	1530	0.09	0.17	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
4856.2	0.29	1520	0.10	0.20	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
4305.3	0.33	1520	0.11	0.23	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -

S42G22

3878.1	0.36	1520	0.12	0.14	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
3329.4	0.42	1520	0.14	0.17	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
2896.2	0.48	1520	0.16	0.22	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
2545.5	0.55	1510	0.18	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - -	o - - - -
2255.8	0.62	1510	0.20	0.30	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - -	o o - - -
2012.4	0.70	1510	0.22	0.34	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - -	o o - - -
1805.1	0.78	1510	0.24	0.39	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - -	o o - - -
1640.6	0.85	1500	0.27	0.46	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - -	o o - - -
1446.4	0.97	1500	0.30	0.54	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - -	o o - - -
1281.1	1.1	1500	0.33	0.65	o o o - - - -	o o - - - -	W1	o o o - - - -	o o - - - -	o o - - -	o o - - -
1156.1	1.2	1490	0.37	0.66	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - -	o o - - -
1064.2	1.3	1490	0.39	0.66	o o o o - - -	o - - - - -	W1	o o o o - - -	o o - - - -	o o o - -	o o o - -
934.35	1.5	1480	0.44	0.48	o o o o - - -	o o - - - -	W1	o o o o - - -	o o - - - -	o o o - -	o o o - -
838.10	1.7	1470	0.48	0.55	o o o o - - -	o o - - - -	W1	o o o o - - -	o o - - - -	o o o - -	o o o - -
761.70	1.8	1470	0.52	0.66	o o o o - - -	o o - - - -	W1	o o o o - - -	o o - - - -	o o o - -	o o o - -
671.56	2.1	1460	0.58	0.79	o o o o - - -	o o - - - -	W1	o o o o - - -	o o - - - -	o o o - -	o o o - -
594.78	2.4	1450	0.64	0.98	o o o o - - -	o o - - - -	W2	o o o o - - -	o o - - - -	o o o - -	o o o - -
536.78	2.6	1440	0.69	1.00	o o o o - - -	o o - - - -	W2	o o o o - - -	o o - - - -	o o o - -	o o o - -
494.08	2.8	1430	0.73	1.0	o o o o - - -	o o - - - -	W2	o o o o - - -	o o - - - -	o o o - -	o o o - -
441.60	3.2	1420	0.79	1.0	o o o o - - -	o o - - - -	W2	o o o o - - -	o o - - - -	o o o - -	o o o - -
392.13	3.6	1410	0.86	1.1	o o o o - - -	o o o - - -	W2	o o o o - - -	o o o - - -	o o o - -	o o o - -
384.81	3.6	1410	0.88	1.6	- - - o - - -	- - - - -	W2	- - - o - - -	- o - - - -	- o o o -	- o o o -
347.49	4.0	1390	0.96	1.1	o o o o - - -	o o o - - -	W2	o o o o - - -	o o o - - -	o o o - -	o o o - -
343.94	4.1	1390	0.96	1.6	- - - o - - -	- - - - -	W2	- - - o - - -	- o - - - -	- o o o -	- o o o -
309.22	4.5	1380	1.05	1.1	o o o o - - -	o o o - - -	W2	o o o o - - -	o o o - - -	o o o - -	o o o - -
305.41	4.6	1380	1.06	1.7	- - - o - - -	- - - - -	W2	- - - o - - -	- o - - - -	- o o o -	- o o o -
270.64	5.2	1360	1.17	1.7	- - - o - - -	- - - - -	W2	- - - o - - -	- o - - - -	- o o o -	- o o o -
264.91	5.3	1360	1.19	1.3	o o o o - - -	o o o o - - -	W2	o o o o - - -	o o o - - -	o o o - -	o o o - -
240.84	5.8	1350	1.29	1.8	- - - o - - -	- - - - -	W2	- - - o - - -	- o - - - -	- o o o -	- o o o -

Helical worm gear units S



S02

i	is	n1=3400 1/min				n1=2800 1/min				n1=1700 1/min				n1=1400 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η												
189.00	1/63	18	52	0.18	0.55	15	54	0.16	0.53	9.0	57	0.11	0.49	7.4	58	0.10	0.47
159.35	1/63	21	50	0.20	0.57	18	52	0.17	0.55	11	57	0.13	0.50	8.8	58	0.11	0.49
135.95	1/63	25	48	0.22	0.58	21	51	0.19	0.56	13	56	0.14	0.51	10	57	0.12	0.50
117.00	1/63	29	46	0.24	0.59	24	49	0.21	0.58	15	54	0.16	0.53	12	56	0.14	0.51
101.35	1/63	34	44	0.26	0.60	28	47	0.23	0.59	17	53	0.17	0.54	14	55	0.15	0.52
88.20	1/63	39	42	0.28	0.61	32	45	0.25	0.60	19	51	0.19	0.56	16	53	0.16	0.54
77.00	1/63	44	40	0.30	0.62	36	43	0.27	0.61	22	50	0.20	0.57	18	52	0.18	0.55
69.00	1/23	49	58	0.40	0.75	41	61	0.35	0.73	25	67	0.25	0.70	20	69	0.21	0.68
58.18	1/23	58	56	0.45	0.76	48	59	0.40	0.75	29	65	0.28	0.71	24	67	0.24	0.70
49.63	1/23	69	53	0.49	0.77	56	56	0.44	0.76	34	63	0.31	0.72	28	66	0.27	0.71
42.71	1/23	80	51	0.54	0.78	66	54	0.48	0.77	40	61	0.35	0.73	33	64	0.30	0.72
37.00	1/23	92	48	0.58	0.79	76	52	0.52	0.78	46	59	0.38	0.74	38	62	0.34	0.73
32.20	1/23	106	46	0.63	0.79	87	49	0.56	0.79	53	57	0.42	0.75	43	60	0.37	0.74
28.11	1/23	121	43	0.68	0.80	100	47	0.61	0.79	60	55	0.46	0.76	50	58	0.41	0.75
25.00	3/25	136	51	0.75	0.87	112	54	0.73	0.87	68	61	0.51	0.85	56	63	0.44	0.83
21.08	3/25	161	49	0.75	0.88	133	52	0.75	0.87	81	59	0.58	0.85	66	61	0.50	0.84
17.98	3/25	189	46	0.75	0.88	156	49	0.75	0.88	95	56	0.65	0.86	78	59	0.56	0.85
15.48	3/25	220	44	0.75	0.89	181	47	0.75	0.88	110	54	0.72	0.87	90	57	0.63	0.86
13.41	3/25	254	41	0.75	0.89	209	45	0.75	0.88	127	52	0.75	0.87	104	55	0.70	0.86
12.50	6/25	272	55	0.75	0.92	224	58	0.75	0.92	136	65	0.75	0.91	112	67	0.75	0.90
11.67	3/25	291	39	0.75	0.89	240	42	0.75	0.89	146	50	0.75	0.87	120	53	0.75	0.87
10.54	6/25	323	52	0.75	0.93	266	56	0.75	0.92	161	63	0.75	0.91	133	65	0.75	0.90
10.19	3/25	334	37	0.75	0.90	275	40	0.75	0.89	167	48	0.75	0.88	137	51	0.75	0.87
8.99	6/25	378	49	0.75	0.93	311	53	0.75	0.93	189	60	0.75	0.92	156	63	0.75	0.91
7.74	6/25	439	47	0.75	0.94	362	50	0.75	0.93	220	58	0.75	0.92	181	61	0.75	0.92
6.70	6/25	507	44	0.75	0.94	418	48	0.75	0.93	254	56	0.75	0.92	209	59	0.75	0.92
5.83	6/25	583	42	0.75	0.94	480	45	0.75	0.94	291	54	0.75	0.92	240	57	0.75	0.92
5.09	6/25	668	39	0.75	0.94	550	43	0.75	0.94	334	52	0.75	0.93	275	55	0.75	0.92

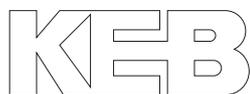
Helical worm gear units S



S02

i	is	n1=900 1/min				n1=700 1/min				n1=500 1/min				n1=10 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η												
189.00	1/63	4.8	61	0.07	0.43	3.7	62	0.06	0.41	2.6	63	<0.05	0.39	0.053	65	<0.05	0.32
159.35	1/63	5.6	60	0.08	0.44	4.4	61	0.07	0.42	3.1	62	0.05	0.40	0.063	65	<0.05	0.32
135.95	1/63	6.6	59	0.09	0.46	5.1	61	0.08	0.43	3.7	62	0.06	0.41	0.074	65	<0.05	0.32
117.00	1/63	7.7	58	0.10	0.48	6.0	60	0.08	0.45	4.3	61	0.07	0.42	0.085	65	<0.05	0.32
101.35	1/63	8.9	58	0.11	0.49	6.9	59	0.09	0.46	4.9	61	0.07	0.43	0.099	65	<0.05	0.32
88.20	1/63	10	57	0.12	0.50	7.9	58	0.10	0.48	5.7	60	0.08	0.44	0.11	65	<0.05	0.32
77.00	1/63	12	56	0.14	0.51	9.1	57	0.11	0.49	6.5	59	0.09	0.46	0.13	65	<0.05	0.32
69.00	1/23	13	72	0.15	0.64	10	73	0.13	0.62	7.2	75	0.09	0.60	0.14	78	<0.05	0.51
58.18	1/23	15	71	0.18	0.65	12	72	0.14	0.63	8.6	74	0.11	0.61	0.17	78	<0.05	0.51
49.63	1/23	18	70	0.20	0.67	14	72	0.16	0.64	10	73	0.12	0.62	0.20	78	<0.05	0.51
42.71	1/23	21	68	0.22	0.69	16	70	0.18	0.66	12	73	0.14	0.63	0.23	78	<0.05	0.51
37.00	1/23	24	67	0.24	0.70	19	69	0.20	0.67	14	72	0.16	0.64	0.27	78	<0.05	0.51
32.20	1/23	28	66	0.27	0.71	22	68	0.22	0.69	16	71	0.18	0.65	0.31	78	<0.05	0.51
28.11	1/23	32	64	0.30	0.72	25	67	0.25	0.70	18	70	0.20	0.67	0.36	78	<0.05	0.51
25.00	3/25	36	66	0.31	0.80	28	67	0.25	0.79	20	69	0.19	0.77	0.40	72	<0.05	0.69
21.08	3/25	43	65	0.36	0.81	33	66	0.29	0.80	24	68	0.22	0.78	0.47	72	<0.05	0.69
17.98	3/25	50	64	0.41	0.82	39	66	0.33	0.80	28	67	0.25	0.79	0.56	72	<0.05	0.69
15.48	3/25	58	62	0.45	0.84	45	64	0.37	0.82	32	67	0.28	0.79	0.65	72	<0.05	0.69
13.41	3/25	67	61	0.51	0.84	52	63	0.42	0.83	37	66	0.32	0.80	0.75	72	<0.05	0.69
12.50	6/25	72	71	0.61	0.88	56	72	0.49	0.87	40	74	0.36	0.86	0.80	77	<0.05	0.80
11.67	3/25	77	59	0.56	0.85	60	62	0.46	0.84	43	65	0.36	0.81	0.86	72	<0.05	0.69
10.54	6/25	85	69	0.70	0.88	66	71	0.57	0.87	47	73	0.42	0.87	0.95	77	<0.05	0.80
10.19	3/25	88	57	0.62	0.86	69	61	0.52	0.85	49	64	0.40	0.82	0.98	72	<0.05	0.69
8.99	6/25	100	68	0.75	0.89	78	70	0.65	0.88	56	72	0.48	0.87	1.1	77	<0.05	0.80
7.74	6/25	116	66	0.75	0.90	90	69	0.74	0.89	65	71	0.55	0.87	1.3	77	<0.05	0.80
6.70	6/25	134	65	0.75	0.90	104	67	0.75	0.89	75	70	0.63	0.88	1.5	77	<0.05	0.80
5.83	6/25	154	63	0.75	0.91	120	66	0.75	0.90	86	69	0.70	0.88	1.7	77	<0.05	0.80
5.09	6/25	177	61	0.75	0.92	137	65	0.75	0.91	98	68	0.75	0.89	2.0	77	<0.05	0.80

Helical worm gear units S



S12

i	is	n1=3400 1/min				n1=2800 1/min				n1=1700 1/min				n1=1400 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η												
168.00	1/40	20	151	0.49	0.66	17	156	0.43	0.64	10	168	0.30	0.59	8.3	171	0.26	0.57
143.53	1/40	24	146	0.54	0.67	20	152	0.47	0.65	12	164	0.33	0.61	9.8	168	0.29	0.59
124.21	1/40	27	141	0.59	0.68	23	148	0.52	0.67	14	161	0.37	0.63	11	165	0.32	0.61
108.57	1/40	31	136	0.65	0.69	26	143	0.57	0.68	16	158	0.41	0.64	13	162	0.35	0.62
95.65	1/40	36	131	0.70	0.70	29	139	0.62	0.69	18	155	0.45	0.65	15	160	0.39	0.63
84.80	1/40	40	126	0.75	0.70	33	134	0.67	0.69	20	151	0.48	0.66	17	157	0.42	0.64
75.56	1/40	45	121	0.80	0.71	37	129	0.71	0.70	23	148	0.52	0.67	19	153	0.46	0.65
67.83	1/40	50	116	0.84	0.72	41	124	0.76	0.71	25	144	0.56	0.68	21	150	0.49	0.66
60.90	2/29	56	144	1.02	0.82	46	150	0.89	0.81	28	162	0.61	0.78	23	166	0.52	0.76
59.20	1/40	57	110	0.91	0.73	47	119	0.82	0.72	29	139	0.61	0.69	24	146	0.54	0.67
52.03	2/29	65	138	1.14	0.83	54	145	0.99	0.82	33	158	0.68	0.79	27	163	0.59	0.77
51.85	1/40	66	104	0.98	0.73	54	113	0.88	0.72	33	134	0.66	0.69	27	141	0.59	0.68
45.03	2/29	76	133	1.26	0.83	62	140	1.10	0.83	38	155	0.76	0.80	31	160	0.66	0.79
39.36	2/29	86	128	1.38	0.84	71	135	1.21	0.83	43	151	0.85	0.81	36	156	0.73	0.80
34.67	2/29	98	123	1.49	0.85	81	131	1.32	0.84	49	148	0.93	0.82	40	153	0.80	0.81
30.74	2/29	111	117	1.50	0.85	91	126	1.42	0.84	55	144	1.01	0.82	46	150	0.88	0.81
27.39	2/29	124	112	1.50	0.86	102	121	1.50	0.85	62	140	1.10	0.83	51	146	0.96	0.82
24.59	2/29	138	107	1.50	0.86	114	116	1.50	0.85	69	136	1.19	0.83	57	143	1.04	0.82
22.68	5/27	150	130	1.50	0.91	123	136	1.50	0.91	75	148	1.31	0.89	62	152	1.12	0.88
21.46	2/29	158	101	1.50	0.86	130	110	1.50	0.86	79	131	1.30	0.84	65	138	1.14	0.83
19.38	5/27	175	124	1.50	0.92	145	131	1.50	0.91	88	144	1.48	0.90	72	149	1.27	0.88
18.80	2/29	181	95	1.50	0.87	149	104	1.50	0.86	90	126	1.42	0.84	74	133	1.25	0.83
16.77	5/27	203	119	1.50	0.92	167	126	1.50	0.92	101	141	1.50	0.90	83	146	1.43	0.89
14.66	5/27	232	114	1.50	0.93	191	121	1.50	0.92	116	137	1.50	0.91	96	142	1.50	0.90
12.91	5/27	263	109	1.50	0.93	217	117	1.50	0.92	132	134	1.50	0.91	108	139	1.50	0.90
11.45	5/27	297	105	1.50	0.93	245	112	1.50	0.93	148	130	1.50	0.91	122	136	1.50	0.91
10.20	5/27	333	100	1.50	0.93	275	108	1.50	0.93	167	126	1.50	0.92	137	132	1.50	0.91
9.16	5/27	371	95	1.50	0.93	306	103	1.50	0.93	186	122	1.50	0.92	153	129	1.50	0.91
7.99	5/27	425	90	1.50	0.93	350	98	1.50	0.93	213	118	1.50	0.92	175	124	1.50	0.92
7.00	5/27	486	84	1.50	0.94	400	92	1.50	0.93	243	113	1.50	0.93	200	120	1.50	0.92

Helical worm gear units S



S12

i	is	n1=900 1/min				n1=700 1/min				n1=500 1/min				n1=10 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η												
168.00	1/40	5.4	177	0.18	0.54	4.2	179	0.15	0.52	3.0	182	0.11	0.50	0.060	188	<0.05	0.42
143.53	1/40	6.3	175	0.21	0.55	4.9	178	0.17	0.53	3.5	181	0.13	0.51	0.070	188	<0.05	0.42
124.21	1/40	7.2	173	0.23	0.56	5.6	176	0.19	0.54	4.0	179	0.14	0.52	0.081	188	<0.05	0.42
108.57	1/40	8.3	171	0.26	0.57	6.4	175	0.21	0.55	4.6	178	0.16	0.53	0.092	188	<0.05	0.42
95.65	1/40	9.4	169	0.28	0.58	7.3	173	0.24	0.56	5.2	177	0.18	0.54	0.10	188	<0.05	0.42
84.80	1/40	11	167	0.31	0.60	8.3	171	0.26	0.57	5.9	176	0.20	0.54	0.12	188	<0.05	0.42
75.56	1/40	12	164	0.33	0.61	9.3	169	0.28	0.58	6.6	174	0.22	0.55	0.13	188	<0.05	0.42
67.83	1/40	13	162	0.36	0.62	10	167	0.30	0.60	7.4	173	0.24	0.56	0.15	188	<0.05	0.42
60.90	2/29	15	173	0.36	0.73	11	175	0.29	0.72	8.2	178	0.22	0.70	0.16	185	<0.05	0.63
59.20	1/40	15	159	0.40	0.63	12	164	0.33	0.61	8.4	171	0.26	0.57	0.17	188	<0.05	0.42
52.03	2/29	17	171	0.42	0.74	13	174	0.33	0.73	9.6	177	0.25	0.71	0.19	185	<0.05	0.63
51.85	1/40	17	155	0.44	0.64	14	161	0.37	0.62	9.6	169	0.29	0.59	0.19	188	<0.05	0.42
45.03	2/29	20	168	0.47	0.75	16	172	0.38	0.74	11	175	0.28	0.72	0.22	185	<0.05	0.63
39.36	2/29	23	166	0.52	0.76	18	170	0.43	0.74	13	174	0.32	0.73	0.25	185	<0.05	0.63
34.67	2/29	26	164	0.58	0.77	20	168	0.47	0.75	14	173	0.36	0.73	0.29	185	<0.05	0.63
30.74	2/29	29	161	0.63	0.78	23	166	0.52	0.76	16	171	0.39	0.74	0.33	185	<0.05	0.63
27.39	2/29	33	158	0.69	0.79	26	164	0.57	0.77	18	170	0.43	0.75	0.37	185	<0.05	0.63
24.59	2/29	37	156	0.74	0.80	28	162	0.62	0.78	20	168	0.48	0.75	0.41	185	<0.05	0.63
22.68	5/27	40	159	0.77	0.86	31	161	0.61	0.85	22	164	0.45	0.84	0.44	171	<0.05	0.79
21.46	2/29	42	152	0.83	0.81	33	158	0.68	0.79	23	166	0.53	0.76	0.47	185	<0.05	0.63
19.38	5/27	46	157	0.88	0.86	36	160	0.70	0.86	26	163	0.52	0.85	0.52	171	<0.05	0.79
18.80	2/29	48	148	0.91	0.82	37	155	0.75	0.80	27	163	0.59	0.77	0.53	185	<0.05	0.63
16.77	5/27	54	154	1.00	0.87	42	158	0.80	0.86	30	161	0.59	0.85	0.60	171	<0.05	0.79
14.66	5/27	61	152	1.12	0.88	48	156	0.90	0.87	34	160	0.67	0.85	0.68	171	<0.05	0.79
12.91	5/27	70	150	1.24	0.88	54	154	1.01	0.87	39	159	0.75	0.86	0.77	171	<0.05	0.79
11.45	5/27	79	147	1.36	0.89	61	152	1.11	0.88	44	157	0.83	0.86	0.87	171	<0.05	0.79
10.20	5/27	88	144	1.49	0.90	69	150	1.22	0.88	49	156	0.92	0.87	0.98	171	<0.05	0.79
9.16	5/27	98	142	1.50	0.90	76	148	1.33	0.89	55	154	1.01	0.87	1.1	171	<0.05	0.79
7.99	5/27	113	138	1.50	0.90	88	144	1.48	0.90	63	152	1.13	0.88	1.3	171	<0.05	0.79
7.00	5/27	129	134	1.50	0.91	100	141	1.50	0.90	71	149	1.26	0.88	1.4	171	<0.05	0.79

Helical worm gear units S



S22

i	is	n1=3400 1/min				n1=2800 1/min				n1=1700 1/min				n1=1400 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η												
207.20	1/42	16	280	0.70	0.69	14	290	0.61	0.68	8.2	310	0.42	0.63	6.8	315	0.37	0.61
177.88	1/42	19	275	0.78	0.70	16	285	0.68	0.69	9.6	305	0.47	0.64	7.9	310	0.41	0.62
154.74	1/42	22	265	0.86	0.71	18	275	0.75	0.70	11	300	0.52	0.66	9.0	305	0.46	0.64
136.00	1/42	25	260	0.94	0.72	21	270	0.82	0.71	13	295	0.57	0.67	10	300	0.50	0.65
120.52	1/42	28	250	1.02	0.73	23	265	0.89	0.72	14	290	0.63	0.68	12	295	0.54	0.67
107.52	1/42	32	245	1.09	0.74	26	255	0.96	0.73	16	285	0.68	0.69	13	295	0.59	0.68
96.44	1/42	35	235	1.16	0.75	29	250	1.04	0.73	18	280	0.74	0.70	15	290	0.64	0.68
87.65	1/42	39	230	1.23	0.75	32	245	1.10	0.74	19	275	0.79	0.71	16	285	0.69	0.69
77.28	1/42	44	220	1.33	0.76	36	235	1.18	0.75	22	265	0.86	0.71	18	275	0.75	0.70
71.53	2/29	48	260	1.54	0.84	39	270	1.34	0.83	24	295	0.94	0.78	20	305	0.81	0.77
68.44	1/42	50	210	1.43	0.76	41	225	1.27	0.75	25	260	0.93	0.72	20	270	0.82	0.71
61.41	2/29	55	250	1.71	0.84	46	260	1.50	0.83	28	290	1.05	0.80	23	295	0.91	0.78
61.25	1/42	56	200	1.52	0.77	46	215	1.36	0.76	28	255	1.01	0.73	23	265	0.88	0.72
53.42	2/29	64	240	1.88	0.85	52	250	1.65	0.84	32	280	1.16	0.81	26	290	1.01	0.79
53.31	1/42	64	190	1.64	0.77	53	205	1.48	0.76	32	245	1.10	0.74	26	255	0.97	0.73
46.95	2/29	72	230	2.05	0.85	60	245	1.80	0.84	36	275	1.27	0.82	30	285	1.11	0.80
41.61	2/29	82	220	2.22	0.85	67	235	1.95	0.85	41	270	1.39	0.83	34	280	1.20	0.82
37.12	2/29	92	215	2.38	0.86	75	225	2.11	0.85	46	260	1.50	0.83	38	275	1.31	0.82
33.30	2/29	102	205	2.53	0.86	84	220	2.26	0.85	51	255	1.62	0.84	42	265	1.42	0.83
30.26	2/29	112	196	2.67	0.86	93	210	2.40	0.86	56	250	1.73	0.84	46	260	1.51	0.83
26.68	2/29	127	185	2.84	0.87	105	200	2.57	0.86	64	240	1.88	0.85	52	250	1.65	0.84
26.64	5/27	128	250	3.00	0.92	105	265	3.00	0.91	64	290	2.17	0.89	53	295	1.85	0.89
23.63	2/29	144	174	3.00	0.87	118	191	2.74	0.86	72	230	2.04	0.85	59	245	1.79	0.84
22.87	5/27	149	240	3.00	0.92	122	255	3.00	0.92	74	280	2.45	0.90	61	290	2.10	0.89
21.15	2/29	161	166	3.00	0.87	132	181	2.89	0.87	80	225	2.20	0.85	66	235	1.93	0.85
19.89	5/27	171	230	3.00	0.93	141	245	3.00	0.92	85	275	2.72	0.91	70	285	2.34	0.90
18.40	2/29	185	154	3.00	0.88	152	170	3.00	0.87	92	210	2.39	0.86	76	225	2.12	0.85
17.49	5/27	194	220	3.00	0.93	160	235	3.00	0.92	97	270	2.99	0.91	80	280	2.59	0.90
15.50	5/27	219	215	3.00	0.93	181	225	3.00	0.93	110	260	3.00	0.91	90	270	2.83	0.91
13.82	5/27	246	205	3.00	0.94	203	220	3.00	0.93	123	255	3.00	0.92	101	265	3.00	0.91
12.40	5/27	274	194	3.00	0.94	226	210	3.00	0.93	137	245	3.00	0.92	113	260	3.00	0.91
11.27	5/27	302	187	3.00	0.94	248	205	3.00	0.94	151	240	3.00	0.92	124	255	3.00	0.92
9.94	5/27	342	176	3.0	0.94	282	192	3.0	0.94	171	231	3.0	0.93	141	244	3.0	0.92
8.80	5/27	386	166	3.0	0.94	318	183	3.0	0.94	193	222	3.0	0.93	159	236	3.0	0.92
7.88	5/27	432	158	3.0	0.94	356	173	3.0	0.94	216	214	3.0	0.93	178	228	3.0	0.93
6.85	5/27	496	146	3.0	0.94	409	162	3.0	0.94	248	203	3.0	0.94	204	218	3.0	0.93

Helical worm gear units S



S22

i	is	n1=900 1/min				n1=700 1/min				n1=500 1/min				n1=10 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η												
207.20	1/42	4.3	325	0.25	0.58	3.4	325	0.20	0.56	2.4	330	0.16	0.54	0.048	340	<0.05	0.48
177.88	1/42	5.1	320	0.29	0.59	3.9	325	0.23	0.57	2.8	330	0.18	0.55	0.056	340	<0.05	0.48
154.74	1/42	5.8	320	0.32	0.60	4.5	325	0.26	0.58	3.2	325	0.20	0.56	0.065	340	<0.05	0.48
136.00	1/42	6.6	315	0.36	0.61	5.1	320	0.29	0.59	3.7	325	0.22	0.57	0.074	340	<0.05	0.48
120.52	1/42	7.5	310	0.40	0.62	5.8	320	0.32	0.60	4.1	325	0.24	0.58	0.083	340	<0.05	0.48
107.52	1/42	8.4	310	0.43	0.63	6.5	315	0.36	0.61	4.7	320	0.27	0.58	0.093	340	<0.05	0.48
96.44	1/42	9.3	305	0.47	0.64	7.3	315	0.39	0.61	5.2	320	0.29	0.59	0.10	340	<0.05	0.48
87.65	1/42	10	300	0.50	0.65	8.0	310	0.42	0.62	5.7	320	0.32	0.60	0.11	340	<0.05	0.48
77.28	1/42	12	295	0.54	0.67	9.1	305	0.46	0.64	6.5	315	0.35	0.60	0.13	340	<0.05	0.48
71.53	2/29	13	315	0.56	0.75	9.8	320	0.45	0.73	7.0	325	0.34	0.71	0.14	340	<0.05	0.64
68.44	1/42	13	290	0.59	0.68	10	300	0.50	0.65	7.3	315	0.39	0.61	0.15	340	<0.05	0.48
61.41	2/29	15	310	0.63	0.75	11	315	0.51	0.74	8.1	325	0.38	0.72	0.16	340	<0.05	0.64
61.25	1/42	15	290	0.65	0.68	11	300	0.54	0.66	8.2	310	0.42	0.63	0.16	340	<0.05	0.48
53.42	2/29	17	310	0.71	0.76	13	315	0.58	0.75	9.4	320	0.43	0.73	0.19	340	<0.05	0.64
53.31	1/42	17	280	0.71	0.70	13	290	0.59	0.68	9.4	305	0.47	0.64	0.19	340	<0.05	0.48
46.95	2/29	19	305	0.79	0.77	15	310	0.64	0.76	11	320	0.48	0.74	0.21	340	<0.05	0.64
41.61	2/29	22	300	0.87	0.78	17	310	0.71	0.76	12	315	0.53	0.75	0.24	340	<0.05	0.64
37.12	2/29	24	295	0.95	0.79	19	305	0.78	0.77	13	315	0.59	0.75	0.27	340	<0.05	0.64
33.30	2/29	27	290	1.03	0.80	21	300	0.85	0.78	15	310	0.65	0.76	0.30	340	<0.05	0.64
30.26	2/29	30	285	1.10	0.80	23	295	0.92	0.78	17	310	0.70	0.76	0.33	340	<0.05	0.64
26.68	2/29	34	280	1.20	0.82	26	290	1.01	0.79	19	305	0.78	0.77	0.37	340	<0.05	0.64
26.64	5/27	34	310	1.25	0.87	26	315	1.00	0.87	19	305	0.71	0.84	0.38	285	<0.05	0.79
23.63	2/29	38	270	1.32	0.82	30	285	1.10	0.80	21	300	0.86	0.78	0.42	340	<0.05	0.64
22.87	5/27	39	305	1.44	0.88	31	305	1.13	0.87	22	300	0.81	0.85	0.44	280	<0.05	0.79
21.15	2/29	43	265	1.43	0.83	33	280	1.19	0.82	24	295	0.93	0.78	0.47	340	<0.05	0.64
19.89	5/27	45	300	1.63	0.88	35	305	1.28	0.87	25	300	0.92	0.86	0.50	275	<0.05	0.79
18.40	2/29	49	255	1.57	0.84	38	270	1.31	0.82	27	290	1.04	0.80	0.54	340	<0.05	0.64
17.49	5/27	51	300	1.82	0.88	40	300	1.43	0.88	29	295	1.02	0.87	0.57	270	<0.05	0.79
15.50	5/27	58	295	2.01	0.89	45	295	1.59	0.88	32	295	1.14	0.87	0.65	265	<0.05	0.79
13.82	5/27	65	290	2.20	0.89	51	290	1.74	0.88	36	285	1.24	0.88	0.72	260	<0.05	0.79
12.40	5/27	73	285	2.40	0.90	56	285	1.90	0.89	40	285	1.36	0.88	0.81	255	<0.05	0.79
11.27	5/27	80	280	2.58	0.90	62	290	2.12	0.89	44	305	1.60	0.88	0.89	315	<0.05	0.79
9.94	5/27	91	270	2.83	0.91	70	285	2.35	0.90	50	300	1.78	0.88	1.0	300	<0.05	0.79
8.80	5/27	102	265	3.00	0.91	80	280	2.58	0.90	57	295	1.97	0.89	1.1	290	<0.05	0.79
7.88	5/27	114	260	3.00	0.91	89	275	2.79	0.91	63	290	2.16	0.89	1.3	335	0.06	0.79
6.85	5/27	131	250	3.00	0.92	102	265	3.00	0.91	73	285	2.41	0.90	1.5	320	0.06	0.79

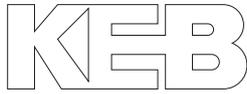
Helical worm gear units S



S32

i	is	n1=3400 1/min				n1=2800 1/min				n1=1700 1/min				n1=1400 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η												
271.60	1/42	13	545	1.03	0.69	10	565	0.91	0.67	6.3	600	0.63	0.62	5.2	610	0.54	0.61
234.71	1/42	14	530	1.14	0.70	12	550	0.99	0.69	7.2	590	0.71	0.63	6.0	605	0.61	0.62
205.58	1/42	17	515	1.25	0.71	14	535	1.09	0.70	8.3	580	0.78	0.65	6.8	595	0.68	0.63
182.00	1/42	19	500	1.35	0.72	15	520	1.19	0.71	9.3	570	0.85	0.66	7.7	585	0.74	0.64
162.52	1/42	21	485	1.45	0.73	17	510	1.28	0.72	10	560	0.91	0.67	8.6	580	0.80	0.65
146.16	1/42	23	470	1.55	0.74	19	495	1.37	0.72	12	550	0.98	0.69	9.6	570	0.86	0.66
132.22	1/42	26	455	1.65	0.74	21	480	1.46	0.73	13	540	1.05	0.69	11	560	0.92	0.67
120.52	1/42	28	440	1.75	0.75	23	470	1.54	0.74	14	530	1.12	0.70	12	550	0.98	0.69
107.52	1/42	32	425	1.87	0.75	26	455	1.66	0.74	16	520	1.21	0.71	13	540	1.06	0.70
96.44	1/42	35	405	1.98	0.76	29	440	1.78	0.75	18	505	1.30	0.72	15	530	1.14	0.70
87.50	1/42	39	390	2.08	0.77	32	425	1.88	0.75	19	495	1.38	0.73	16	515	1.22	0.71
77.54	1/42	44	375	2.21	0.77	36	400	2.00	0.76	22	475	1.49	0.73	18	500	1.32	0.72
68.25	1/42	50	350	2.35	0.78	41	385	2.14	0.77	25	460	1.62	0.74	21	485	1.43	0.73
59.77	1/42	57	330	2.52	0.78	47	360	2.27	0.78	28	440	1.76	0.75	23	465	1.55	0.74
52.50	1/42	65	310	2.66	0.79	53	340	2.44	0.78	32	420	1.89	0.75	27	450	1.69	0.74
52.21	3/32	65	530	4.00	0.89	54	555	3.53	0.88	33	615	2.47	0.85	27	635	2.12	0.84
46.22	3/32	74	510	4.00	0.89	61	540	3.86	0.89	37	605	2.70	0.86	30	625	2.33	0.85
41.28	3/32	82	490	4.00	0.90	68	520	4.00	0.89	41	590	2.93	0.87	34	615	2.54	0.86
37.12	3/32	92	475	4.00	0.90	75	505	4.00	0.89	46	575	3.14	0.88	38	600	2.75	0.86
33.58	3/32	101	455	4.00	0.90	83	490	4.00	0.90	51	565	3.38	0.88	42	590	2.95	0.87
30.61	3/32	111	440	4.00	0.90	91	475	4.00	0.90	56	550	3.63	0.88	46	575	3.14	0.88
27.31	3/32	125	420	4.00	0.91	103	455	4.00	0.90	62	535	3.93	0.89	51	560	3.42	0.88
24.49	3/32	139	400	4.00	0.91	114	435	4.00	0.90	69	515	4.00	0.89	57	545	3.70	0.88
22.44	5/29	151	445	4.00	0.94	125	470	4.00	0.93	76	535	4.00	0.91	62	530	3.84	0.90
22.22	3/32	153	385	4.00	0.91	126	420	4.00	0.91	77	505	4.00	0.89	63	535	3.96	0.89
20.18	5/29	168	425	4.00	0.94	139	455	4.00	0.93	84	525	4.00	0.92	69	525	4.00	0.91
19.69	3/32	173	360	4.00	0.92	142	395	4.00	0.91	86	485	4.00	0.90	71	515	4.00	0.89
18.26	5/29	186	410	4.00	0.94	153	440	4.00	0.94	93	510	4.00	0.92	77	515	4.00	0.91
17.33	3/32	196	335	4.00	0.92	162	375	4.00	0.91	98	460	4.00	0.90	81	495	4.00	0.89
16.64	5/29	204	395	4.00	0.94	168	425	4.00	0.94	102	500	4.00	0.92	84	525	4.00	0.92
15.18	3/32	224	315	4.00	0.92	184	345	4.00	0.92	112	440	4.00	0.90	92	470	4.00	0.90
14.85	5/29	229	380	4.00	0.94	189	410	4.00	0.94	114	485	4.00	0.93	94	510	4.00	0.92
13.33	3/32	255	290	4.00	0.92	210	325	4.00	0.92	128	415	4.00	0.91	105	450	4.00	0.90
13.32	5/29	255	360	4.00	0.94	210	395	4.00	0.94	128	470	4.00	0.93	105	495	4.00	0.92
12.08	5/29	281	340	4.00	0.94	232	375	4.00	0.94	141	455	4.00	0.93	116	485	4.00	0.93
10.71	5/29	318	320	4.00	0.95	261	355	4.00	0.94	159	435	4.00	0.94	131	465	4.00	0.93
9.43	5/29	361	300	4.00	0.95	297	335	4.00	0.94	180	415	4.00	0.94	149	445	4.00	0.93
8.25	5/29	412	280	4.00	0.95	339	310	4.00	0.95	206	395	4.00	0.94	170	425	4.00	0.94
7.25	5/29	469	260	4.00	0.95	386	290	4.00	0.95	234	375	4.00	0.94	193	405	4.00	0.94

Helical worm gear units S



S32

i	is	n1=900 1/min				n1=700 1/min				n1=500 1/min				n1=10 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η												
271.60	1/42	3.3	630	0.38	0.58	2.6	635	0.31	0.56	1.8	645	0.23	0.53	0.037	665	<0.05	0.48
234.71	1/42	3.8	625	0.42	0.59	3.0	635	0.35	0.57	2.1	640	0.26	0.54	0.043	665	<0.05	0.48
205.58	1/42	4.4	620	0.47	0.60	3.4	630	0.38	0.58	2.4	640	0.29	0.55	0.049	665	<0.05	0.48
182.00	1/42	4.9	615	0.52	0.61	3.8	625	0.42	0.59	2.7	635	0.32	0.56	0.055	665	<0.05	0.48
162.52	1/42	5.5	610	0.57	0.61	4.3	620	0.47	0.60	3.1	630	0.35	0.57	0.062	665	<0.05	0.48
146.16	1/42	6.2	600	0.62	0.62	4.8	615	0.51	0.60	3.4	630	0.38	0.59	0.068	665	<0.05	0.48
132.22	1/42	6.8	595	0.68	0.63	5.3	610	0.55	0.61	3.8	625	0.42	0.59	0.076	665	<0.05	0.48
120.52	1/42	7.5	590	0.72	0.64	5.8	605	0.60	0.62	4.1	620	0.45	0.60	0.083	665	<0.05	0.48
107.52	1/42	8.4	580	0.79	0.65	6.5	600	0.65	0.63	4.7	615	0.50	0.60	0.093	665	<0.05	0.48
96.44	1/42	9.3	570	0.85	0.66	7.3	590	0.71	0.63	5.2	610	0.54	0.61	0.10	665	<0.05	0.48
87.50	1/42	10	565	0.90	0.67	8.0	585	0.76	0.64	5.7	605	0.59	0.62	0.11	665	<0.05	0.48
77.54	1/42	12	550	0.98	0.69	9.0	575	0.83	0.66	6.4	600	0.65	0.62	0.13	665	<0.05	0.48
68.25	1/42	13	540	1.07	0.70	10	565	0.90	0.67	7.3	590	0.71	0.64	0.15	665	<0.05	0.48
59.77	1/42	15	525	1.17	0.71	12	550	0.98	0.69	8.4	580	0.79	0.65	0.17	665	<0.05	0.48
52.50	1/42	17	510	1.27	0.72	13	535	1.08	0.70	9.5	570	0.86	0.66	0.19	665	<0.05	0.48
52.21	3/32	17	665	1.46	0.83	13	680	1.17	0.82	9.6	695	0.88	0.79	0.19	730	<0.05	0.73
46.22	3/32	19	660	1.62	0.83	15	675	1.30	0.82	11	690	0.98	0.80	0.22	730	<0.05	0.73
41.28	3/32	22	650	1.78	0.83	17	665	1.43	0.83	12	685	1.08	0.81	0.24	730	<0.05	0.73
37.12	3/32	24	645	1.95	0.84	19	660	1.57	0.83	13	680	1.17	0.82	0.27	730	<0.05	0.73
33.58	3/32	27	635	2.12	0.84	21	655	1.72	0.83	15	675	1.28	0.82	0.30	730	<0.05	0.73
30.61	3/32	29	625	2.28	0.85	23	650	1.86	0.84	16	670	1.39	0.82	0.33	730	<0.05	0.73
27.31	3/32	33	615	2.49	0.85	26	640	2.04	0.84	18	665	1.53	0.83	0.37	730	<0.05	0.73
24.49	3/32	37	605	2.70	0.86	29	630	2.23	0.85	20	655	1.69	0.83	0.41	730	<0.05	0.73
22.44	5/29	40	525	2.47	0.89	31	520	1.92	0.88	22	510	1.37	0.87	0.45	475	<0.05	0.81
22.22	3/32	41	590	2.89	0.87	32	620	2.40	0.85	23	650	1.83	0.84	0.45	730	<0.05	0.73
20.18	5/29	45	515	2.68	0.89	35	510	2.09	0.89	25	505	1.49	0.88	0.50	465	<0.05	0.81
19.69	3/32	46	575	3.14	0.88	36	610	2.63	0.86	25	640	2.02	0.84	0.51	730	0.05	0.73
18.26	5/29	49	505	2.92	0.90	38	505	2.27	0.89	27	500	1.62	0.88	0.55	460	<0.05	0.81
17.33	3/32	52	560	3.45	0.88	40	595	2.89	0.87	29	630	2.24	0.85	0.58	730	0.06	0.73
16.64	5/29	54	575	3.62	0.90	42	595	2.94	0.89	30	615	2.19	0.88	0.60	565	<0.05	0.81
15.18	3/32	59	540	3.80	0.89	46	575	3.16	0.88	33	615	2.49	0.85	0.66	730	0.07	0.73
14.85	5/29	61	565	3.97	0.90	47	585	3.24	0.89	34	590	2.35	0.89	0.67	540	<0.05	0.81
13.33	3/32	68	520	4.00	0.89	53	560	3.48	0.88	38	600	2.74	0.86	0.75	730	0.08	0.73
13.32	5/29	68	550	4.00	0.91	53	580	3.54	0.90	38	575	2.55	0.89	0.75	525	0.05	0.81
12.08	5/29	74	540	4.00	0.91	58	570	3.83	0.90	41	595	2.90	0.89	0.83	645	0.07	0.81
10.71	5/29	84	525	4.00	0.92	65	555	4.00	0.91	47	590	3.22	0.89	0.93	625	0.08	0.81
9.43	5/29	95	510	4.00	0.92	74	540	4.00	0.91	53	575	3.57	0.90	1.1	660	0.09	0.81
8.25	5/29	109	490	4.00	0.93	85	525	4.00	0.92	61	565	3.96	0.90	1.2	625	0.10	0.81
7.25	5/29	124	475	4.00	0.93	97	510	4.00	0.92	69	550	4.00	0.91	1.4	595	0.11	0.81

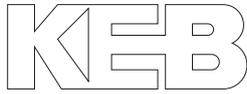
Helical worm gear units S



S42

i	is	n1=3400 1/min				n1=2800 1/min				n1=1700 1/min				n1=1400 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η												
247.58	1/42	14	1140	2.28	0.72	11	1190	2.01	0.70	6.9	1320	1.46	0.65	5.7	1350	1.26	0.64
220.00	1/42	15	1100	2.46	0.73	13	1160	2.17	0.71	7.7	1290	1.59	0.66	6.4	1330	1.38	0.64
197.22	1/42	17	1070	2.62	0.74	14	1130	2.33	0.72	8.6	1270	1.71	0.67	7.1	1310	1.49	0.65
178.08	1/42	19	1030	2.78	0.74	16	1100	2.48	0.73	9.5	1240	1.82	0.68	7.9	1290	1.60	0.66
161.78	1/42	21	1000	2.94	0.75	17	1070	2.62	0.74	11	1220	1.93	0.69	8.7	1270	1.71	0.67
147.91	1/42	23	970	3.08	0.76	19	1040	2.76	0.74	11	1190	2.03	0.71	9.5	1250	1.81	0.68
132.72	1/42	26	935	3.28	0.76	21	1000	2.95	0.75	13	1160	2.18	0.71	11	1220	1.93	0.69
119.78	1/42	28	900	3.48	0.77	23	965	3.11	0.76	14	1130	2.33	0.72	12	1180	2.05	0.71
110.25	1/42	31	865	3.62	0.77	25	935	3.26	0.76	15	1110	2.45	0.73	13	1160	2.16	0.71
98.54	1/42	35	820	3.81	0.78	28	895	3.48	0.77	17	1070	2.62	0.74	14	1130	2.33	0.72
87.50	1/42	39	775	4.03	0.78	32	850	3.69	0.77	19	1030	2.81	0.75	16	1090	2.51	0.73
77.54	1/42	44	730	4.25	0.79	36	800	3.88	0.78	22	985	3.01	0.75	18	1050	2.68	0.74
69.00	1/42	49	685	4.46	0.79	41	760	4.11	0.78	25	945	3.20	0.76	20	1000	2.84	0.75
59.37	3/34	57	1150	7.5	0.91	47	1220	6.7	0.90	29	1260	4.32	0.87	24	1260	3.59	0.87
59.11	1/42	58	630	4.79	0.79	47	695	4.37	0.79	29	895	3.50	0.77	24	920	3.00	0.76
53.22	3/34	64	1110	7.5	0.91	53	1180	7.2	0.90	32	1340	5.1	0.88	26	1390	4.38	0.87
52.14	1/42	65	585	4.99	0.80	54	655	4.65	0.79	33	845	3.72	0.77	27	915	3.37	0.77
48.05	3/34	71	1070	7.5	0.91	58	1150	7.5	0.91	35	1310	5.5	0.89	29	1360	4.74	0.88
43.65	3/34	78	1040	7.5	0.91	64	1110	7.5	0.91	39	1280	5.8	0.89	32	1320	5.0	0.88
39.91	3/34	85	1000	7.5	0.91	70	1080	7.5	0.91	43	1250	6.2	0.90	35	1250	5.2	0.89
35.81	3/34	95	960	7.5	0.91	78	1040	7.5	0.91	47	1210	6.7	0.90	39	1250	5.7	0.89
32.48	5/31	105	895	7.5	0.94	86	890	7.5	0.93	52	875	5.3	0.91	43	870	4.32	0.91
32.32	3/34	105	925	7.5	0.91	87	995	7.5	0.91	53	1180	7.2	0.90	43	1200	6.1	0.90
29.75	3/34	114	890	7.5	0.92	94	965	7.5	0.91	57	1140	7.5	0.91	47	1140	6.2	0.90
29.11	5/31	117	890	7.5	0.94	96	885	7.5	0.93	58	870	5.8	0.92	48	865	4.78	0.91
26.59	3/34	128	840	7.5	0.92	105	925	7.5	0.91	64	1110	7.5	0.91	53	1140	7.0	0.90
26.29	5/31	129	880	7.5	0.94	107	875	7.5	0.94	65	865	6.3	0.92	53	855	5.2	0.92
23.88	5/31	142	875	7.5	0.95	117	870	7.5	0.94	71	855	6.9	0.92	59	850	5.7	0.92
23.61	3/34	144	790	7.5	0.92	119	875	7.5	0.92	72	1070	7.5	0.91	59	1080	7.4	0.91
21.83	5/31	156	860	7.5	0.95	128	930	7.5	0.94	78	1010	7.5	0.93	64	1010	7.3	0.92
20.92	3/34	163	740	7.5	0.93	134	820	7.5	0.92	81	1010	7.5	0.91	67	1010	7.5	0.91
19.59	5/31	174	825	7.5	0.95	143	890	7.5	0.95	87	1000	7.5	0.93	71	995	7.5	0.93
18.62	3/34	183	695	7.5	0.93	150	775	7.5	0.92	91	950	7.5	0.91	75	950	7.5	0.91
17.68	5/31	192	790	7.5	0.95	158	855	7.5	0.95	96	990	7.5	0.93	79	985	7.5	0.93
16.28	5/31	209	760	7.5	0.95	172	825	7.5	0.95	104	995	7.5	0.94	86	1050	7.5	0.93
15.95	3/34	213	640	7.5	0.93	176	705	7.5	0.93	107	885	7.5	0.91	88	885	7.5	0.91
14.55	5/31	234	715	7.5	0.95	192	790	7.5	0.95	117	960	7.5	0.94	96	1000	7.5	0.93
14.07	3/34	242	590	7.5	0.93	199	665	7.5	0.93	121	820	7.5	0.92	100	820	7.5	0.91
12.92	5/31	263	675	7.5	0.95	217	745	7.5	0.95	132	920	7.5	0.94	108	940	7.5	0.94
11.45	5/31	297	630	7.5	0.95	245	695	7.5	0.95	149	880	7.5	0.95	122	885	7.5	0.94
10.19	5/31	334	585	7.5	0.95	275	655	7.5	0.95	167	835	7.5	0.95	137	835	7.5	0.94
8.73	5/31	390	540	7.5	0.95	321	600	7.5	0.95	195	775	7.5	0.95	160	775	7.5	0.95
7.70	5/31	442	495	7.5	0.96	364	560	7.5	0.95	221	725	7.5	0.95	182	725	7.5	0.95

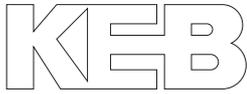
Helical worm gear units S



S42

i	is	n1=900 1/min				n1=700 1/min				n1=500 1/min				n1=10 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η												
247.58	1/42	3.6	1410	0.88	0.61	2.8	1430	0.73	0.58	2.0	1460	0.56	0.55	0.040	1530	<0.05	0.48
220.00	1/42	4.1	1390	0.97	0.62	3.2	1420	0.80	0.59	2.3	1450	0.62	0.56	0.045	1530	<0.05	0.48
197.22	1/42	4.6	1380	1.06	0.62	3.5	1410	0.86	0.61	2.5	1440	0.67	0.57	0.051	1530	<0.05	0.48
178.08	1/42	5.1	1370	1.15	0.63	3.9	1400	0.94	0.61	2.8	1430	0.73	0.58	0.056	1530	<0.05	0.48
161.78	1/42	5.6	1350	1.24	0.63	4.3	1390	1.01	0.62	3.1	1420	0.78	0.59	0.062	1530	<0.05	0.48
147.91	1/42	6.1	1340	1.33	0.64	4.7	1380	1.09	0.62	3.4	1410	0.83	0.60	0.068	1530	<0.05	0.48
132.72	1/42	6.8	1320	1.44	0.65	5.3	1360	1.19	0.63	3.8	1400	0.90	0.61	0.075	1530	<0.05	0.48
119.78	1/42	7.5	1300	1.55	0.66	5.8	1340	1.29	0.64	4.2	1390	0.98	0.62	0.083	1530	<0.05	0.48
110.25	1/42	8.2	1280	1.65	0.67	6.3	1330	1.38	0.64	4.5	1380	1.05	0.62	0.091	1530	<0.05	0.48
98.54	1/42	9.1	1250	1.77	0.68	7.1	1310	1.49	0.65	5.1	1370	1.16	0.63	0.10	1530	<0.05	0.48
87.50	1/42	10	1220	1.91	0.69	8.0	1290	1.62	0.66	5.7	1350	1.27	0.64	0.11	1530	<0.05	0.48
77.54	1/42	12	1190	2.04	0.71	9.0	1260	1.76	0.68	6.4	1330	1.39	0.64	0.13	1530	<0.05	0.48
69.00	1/42	13	1000	1.91	0.72	10	1000	1.54	0.69	7.2	1000	1.16	0.65	0.14	1000	<0.05	0.48
59.37	3/34	15	1260	2.34	0.85	12	1260	1.85	0.84	8.4	1260	1.36	0.81	0.17	1260	<0.05	0.76
59.11	1/42	15	920	2.02	0.73	12	920	1.61	0.71	8.5	920	1.22	0.67	0.17	920	<0.05	0.48
53.22	3/34	17	1460	3.03	0.86	13	1470	2.39	0.85	9.4	1430	1.71	0.82	0.19	1320	<0.05	0.76
52.14	1/42	17	1070	2.62	0.74	13	1150	2.25	0.72	9.6	1240	1.83	0.68	0.19	1530	0.06	0.48
48.05	3/34	19	1450	3.31	0.86	15	1460	2.61	0.85	10	1420	1.86	0.83	0.21	1300	<0.05	0.76
43.65	3/34	21	1320	3.31	0.86	16	1320	2.59	0.85	11	1320	1.89	0.84	0.23	1280	<0.05	0.76
39.91	3/34	23	1250	3.41	0.87	18	1250	2.68	0.86	13	1250	1.94	0.84	0.25	1250	<0.05	0.76
35.81	3/34	25	1250	3.78	0.87	20	1250	2.97	0.86	14	1250	2.15	0.85	0.28	1250	<0.05	0.76
32.48	5/31	28	865	2.78	0.90	22	855	2.16	0.89	15	835	1.54	0.87	0.31	795	<0.05	0.83
32.32	3/34	28	1200	4.00	0.87	22	1200	3.15	0.86	15	1200	2.28	0.85	0.31	1200	0.05	0.76
29.75	3/34	30	1140	4.12	0.88	24	1140	3.24	0.87	17	1140	2.34	0.86	0.34	1140	0.05	0.76
29.11	5/31	31	855	3.07	0.90	24	855	2.39	0.90	17	835	1.71	0.88	0.34	790	<0.05	0.83
26.59	3/34	34	1140	4.57	0.88	26	1140	3.61	0.87	19	1140	2.61	0.86	0.38	1140	0.06	0.76
26.29	5/31	34	845	3.36	0.91	27	845	2.61	0.90	19	825	1.86	0.88	0.38	775	<0.05	0.83
23.88	5/31	38	840	3.65	0.91	29	835	2.84	0.90	21	820	2.03	0.89	0.42	765	<0.05	0.83
23.61	3/34	38	1080	4.84	0.89	30	1080	3.82	0.88	21	1080	2.78	0.86	0.42	1080	0.06	0.76
21.83	5/31	41	995	4.71	0.91	32	985	3.67	0.90	23	980	2.62	0.90	0.46	905	0.05	0.83
20.92	3/34	43	1010	5.1	0.90	33	1010	4.01	0.88	24	1010	2.91	0.87	0.48	1010	0.07	0.76
19.59	5/31	46	985	5.2	0.91	36	975	4.03	0.91	26	970	2.88	0.90	0.51	895	0.06	0.83
18.62	3/34	48	950	5.3	0.90	38	950	4.20	0.89	27	950	3.06	0.87	0.54	950	0.07	0.76
17.68	5/31	51	970	5.6	0.91	40	960	4.39	0.91	28	955	3.14	0.90	0.57	880	0.06	0.83
16.28	5/31	55	1180	7.5	0.92	43	1230	6.1	0.91	31	1240	4.42	0.90	0.61	1140	0.09	0.83
15.95	3/34	56	885	5.8	0.91	44	885	4.52	0.90	31	885	3.30	0.88	0.63	885	0.08	0.76
14.55	5/31	62	1000	7.0	0.92	48	1000	5.5	0.91	34	1000	3.98	0.91	0.69	1000	0.09	0.83
14.07	3/34	64	820	6.0	0.91	50	820	4.73	0.90	36	820	3.44	0.89	0.71	820	0.08	0.76
12.92	5/31	70	940	7.4	0.92	54	940	5.8	0.92	39	940	4.20	0.91	0.77	940	0.09	0.83
11.45	5/31	79	885	7.5	0.93	61	885	6.2	0.92	44	885	4.45	0.91	0.87	885	0.10	0.83
10.19	5/31	88	835	7.5	0.93	69	835	6.5	0.92	49	835	4.70	0.91	0.98	835	0.10	0.83
8.73	5/31	103	775	7.5	0.94	80	775	7.0	0.93	57	775	5.1	0.92	1.1	775	0.11	0.83

Helical worm geared motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.12 kW						
1.5	390	1.65	895.82	S32G12A DM63K4	132/15	31
1.7	350	1.85	798.16	S32G12B DM63K4		31
1.9	320	2.0	716.51	S32G12C DM63K4		33
2.2	285	2.3	625.38			
2.5	255	2.5	547.76			
2.8	230	2.7	492.61			
3.1	215	3.0	445.64			
1.5	395	0.85	925.37	S22G12A DM63K4	131/15	20
1.6	365	0.90	850.54	S22G12B DM63K4		20
1.8	325	1.00	749.33	S22G12C DM63K4		22
2.1	290	1.15	664.32			
2.3	265	1.25	591.90			
2.6	240	1.40	531.34			
3.0	215	1.55	463.77			
3.4	191	1.70	406.20			
3.8	172	1.90	362.38			
4.2	156	2.1	325.05			
4.7	143	2.3	295.42			
5.3	128	2.5	260.46			
6.0	115	2.8	230.68			
2.5	225	0.80	561.65	S12G02A DM63K4	130/15	15
2.8	200	0.90	490.22	S12G02B DM63K4		15
3.2	180	1.00	429.37	S12G02C DM63K4		16
3.7	161	1.10	375.31			
4.2	144	1.25	330.65			
4.7	129	1.40	293.14			
5.3	117	1.50	261.18			
5.9	106	1.65	234.46			
6.7	94	1.85	204.64			
7.7	84	2.0	179.24			
8.2	80	2.2	168.00	S12A DM63K4	130	10
9.6	70	2.4	143.53	S12B DM63K4		10
11	62	2.7	124.21	S12C DM63K4		12
13	56	2.9	108.57			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.12 kW						
7.3	74	0.80	189.00	S02A DM63K4	129	7
8.7	64	0.90	159.35	S02B DM63K4		7
10	56	1.00	135.95	S02C DM63K4		8
12	49	1.15	117.00			
14	44	1.25	101.35			
16	39	1.35	88.20			
18	35	1.50	77.00			
20	39	1.75	69.00			
24	34	2.0	58.18			
28	29	2.3	49.63			
32	26	2.5	42.71			
37	22	2.8	37.00			
43	20	3.0	32.20			
49	17	3.3	28.11			
55	17	3.6	25.00			
65	15	4.1	21.08			
77	13	4.7	17.98			
89	11	5.2	15.48			
103	9.6	5.7	13.41			
110	9.3	7.2	12.50			
118	8.4	6.3	11.67			
131	7.9	8.2	10.54			
135	7.4	7.0	10.19			
153	6.8	9.3	8.99			
178	5.9	10	7.74			
206	5.1	12	6.70			
237	4.5	13	5.83			
271	3.9	14	5.09			

n2	T2	cG	i	Type	Dimensions	~kg
0.18 kW						
1.5	585	1.10	895.82	S32G12A DM63G4	132/15	31
1.7	525	1.25	798.16	S32G12B DM63G4		31
1.9	480	1.35	716.51	S32G12C DM63G4		33
2.2	425	1.50	625.38			
2.5	380	1.70	547.76			
2.8	345	1.85	492.61			
3.1	320	2.00	445.64			
3.4	295	2.1	406.20			
3.8	270	2.3	362.38			
4.2	240	2.6	325.05			
4.7	220	2.8	294.91			
2.3	395	0.85	591.90	S22G12A DM63G4	131/15	21
2.6	360	0.90	531.34	S22G12B DM63G4		21
3.0	320	1.05	463.77	S22G12C DM63G4		23
3.4	285	1.15	406.20			
3.8	260	1.25	362.38			
4.2	235	1.40	325.05			
4.7	215	1.50	295.42			
5.3	192	1.65	260.46			
6.0	172	1.85	230.68			
6.7	156	2.0	206.44			
7.7	139	2.2	179.67			
6.7	157	2.0	207.20	S22A DM63G4	131	16
7.8	137	2.3	177.88	S22B DM63G4		16
8.9	122	2.5	154.74	S22C DM63G4		18
10	110	2.8	136.00			
11	100	3.0	120.52			

Helical worm geared motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.18 kW

4.2	215	0.85	330.65	S12G02A DM63G4	130/15	15
4.7	194	0.90	293.14	S12G02B DM63G4		15
5.3	175	1.00	261.18	S12G02C DM63G4		16
5.9	159	1.10	234.46			
6.7	141	1.25	204.64			
7.7	126	1.35	179.24			
8.2	119	1.45	168.00	S12A DM63G4	130	11
9.6	105	1.60	143.53	S12B DM63G4		11
11	93	1.75	124.21	S12C DM63G4		12
13	84	1.95	108.57			
14	75	2.1	95.65			
16	67	2.3	84.80			
18	61	2.5	75.56			
20	56	2.7	67.83			
23	58	2.9	60.90			
23	50	3.0	59.20			
14	66	0.85	101.35	S02A DM63G4	129	8
16	59	0.90	88.20	S02B DM63G4		8
18	53	1.00	77.00	S02C DM63G4		9
20	58	1.20	69.00			
24	50	1.35	58.18			
28	44	1.50	49.63			
32	38	1.70	42.71			
37	34	1.85	37.00			
43	30	2.0	32.20			
49	26	2.2	28.11			
55	26	2.4	25.00			
65	22	2.8	21.08			
77	19	3.1	17.98			
89	17	3.4	15.48			
103	14	3.8	13.41			
110	14	4.8	12.50			
118	13	4.2	11.67			
131	12	5.5	10.54			
135	11	4.6	10.19			
153	10	6.2	8.99			
178	8.9	6.9	7.74			
206	7.7	7.7	6.70			
237	6.7	8.6	5.83			
271	5.9	9.4	5.09			

0.25 kW

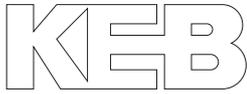
1.5	840	1.75	934.35	S42G22A DM71K4	133/15	51
1.7	760	1.95	838.10	S42G22B DM71K4		51
1.9	700	2.1	761.70	S42G22C DM71K4		55
2.1	630	2.3	671.56			
2.4	565	2.6	594.78			
2.6	520	2.8	536.78			
2.9	485	2.9	494.08			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.25 kW

1.6	795	0.80	895.82	S32G12A DM71K4	132/15	33
1.8	715	0.90	798.16	S32G12B DM71K4		33
2.0	650	1.00	716.51	S32G12C DM71K4		35
2.3	580	1.10	625.38			
2.6	515	1.25	547.76			
2.9	475	1.35	492.61			
3.2	435	1.45	445.64			
3.5	405	1.55	406.20			
3.9	365	1.70	362.38			
4.3	330	1.90	325.05			
4.8	300	2.0	294.91			
5.4	270	2.2	261.33			
6.1	240	2.5	230.03			
5.2	280	2.2	271.60	S32A DM71K4	132	28
6.0	245	2.5	234.71	S32B DM71K4		28
6.9	220	2.7	205.58	S32C DM71K4		30
7.7	197	3.0	182.00			
3.5	390	0.85	406.20	S22G12A DM71K4	131/15	22
3.9	350	0.90	362.38	S22G12B DM71K4		22
4.3	320	1.00	325.05	S22G12C DM71K4		24
4.8	290	1.10	295.42			
5.4	260	1.20	260.46			
6.1	235	1.35	230.68			
6.8	215	1.50	206.44			
7.8	189	1.65	179.67			
6.8	215	1.45	207.20	S22A DM71K4	131	17
7.9	187	1.65	177.88	S22B DM71K4		17
9.1	167	1.85	154.74	S22C DM71K4		19
10	150	2.0	136.00			
12	136	2.2	120.52			
13	123	2.4	107.52			
15	112	2.6	96.44			
16	103	2.8	87.65			
18	92	3.0	77.28			
6.0	215	0.80	234.46	S12G02A DM71K4	130/15	17
6.9	193	0.90	204.64	S12G02B DM71K4		17
7.9	172	1.00	179.24	S12G02C DM71K4		18
8.4	163	1.05	168.00	S12A DM71K4	130	12
9.8	143	1.15	143.53	S12B DM71K4		12
11	128	1.30	124.21	S12C DM71K4		14
13	114	1.40	108.57			
15	102	1.55	95.65			
17	92	1.70	84.80			
19	83	1.85	75.56			
21	76	2.00	67.83			
23	79	2.1	60.90			
24	68	2.2	59.20			
27	68	2.4	52.03			
27	60	2.4	51.85			
31	60	2.6	45.03			
36	53	2.9	39.36			

Helical worm geared motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.25 kW

20	80	0.85	69.00	S02A DM71K4	129	9
24	69	1.00	58.18	S02B DM71K4		9
28	60	1.10	49.63	S02C DM71K4		10
33	52	1.20	42.71			
38	46	1.35	37.00			
44	40	1.50	32.20			
50	36	1.65	28.11			
56	35	1.75	25.00			
67	30	2.0	21.08			
78	26	2.3	17.98			
91	23	2.5	15.48			
105	20	2.8	13.41			
113	19	3.5	12.50			
121	17	3.1	11.67			
134	16	4.0	10.54			
138	15	3.4	10.19			
157	14	4.5	8.99			
182	12	5.0	7.74			
210	10	5.6	6.70			
242	9.1	6.3	5.83			
277	8.0	6.9	5.09			

0.37 kW

1.5	1240	1.20	934.35	S42G22A DM71G4	133/15	52
1.7	1130	1.30	838.10	S42G22B DM71G4		52
1.9	1040	1.40	761.70	S42G22C DM71G4		56
2.1	930	1.55	671.56			
2.4	840	1.75	594.78			
2.6	770	1.85	536.78			
2.9	720	2.00	494.08			
3.2	660	2.2	441.60			
3.6	600	2.3	392.13			
4.1	535	2.6	347.49			
4.6	480	2.9	309.22			
2.6	765	0.85	547.76	S32G12A DM71G4	132/15	34
2.9	700	0.90	492.61	S32G12B DM71G4		34
3.2	645	1.00	445.64	S32G12C DM71G4		36
3.5	595	1.05	406.20			
3.9	540	1.15	362.38			
4.3	490	1.25	325.05			
4.8	445	1.40	294.91			
5.4	400	1.50	261.33			
6.1	360	1.70	230.03			
5.2	415	1.45	271.60	S32A DM71G4	132	29
6.0	365	1.65	234.71	S32B DM71G4		29
6.9	325	1.85	205.58	S32C DM71G4		31
7.7	290	2.0	182.00			
8.7	265	2.2	162.52			
9.6	245	2.3	146.16			
11	225	2.5	132.22			
12	210	2.6	120.52			
13	188	2.9	107.52			
5.4	385	0.85	260.46	S22G12A DM71G4	131/15	23
6.1	345	0.90	230.68	S22G12B DM71G4		23
6.8	315	1.00	206.44	S22G12C DM71G4		25
7.8	280	1.10	179.67			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.37 kW

6.8	315	1.00	207.20	S22A DM71G4	131	18
7.9	275	1.10	177.88	S22B DM71G4		18
9.1	245	1.25	154.74	S22C DM71G4		20
10	220	1.35	136.00			
12	200	1.45	120.52			
13	182	1.60	107.52			
15	165	1.75	96.44			
16	152	1.85	87.65			
18	136	2.0	77.28			
20	138	2.2	71.53			
21	122	2.2	68.44			
23	120	2.5	61.41			
26	106	2.7	53.42			
30	95	3.0	46.95			
9.8	210	0.80	143.53	S12A DM71G4	130	13
11	189	0.85	124.21	S12B DM71G4		13
13	169	0.95	108.57	S12C DM71G4		15
15	151	1.05	95.65			
17	136	1.15	84.80			
19	123	1.25	75.56			
21	112	1.35	67.83			
23	116	1.45	60.90			
24	100	1.45	59.20			
27	101	1.60	52.03			
27	89	1.60	51.85			
31	89	1.80	45.03			
36	79	2.00	39.36			
41	70	2.2	34.67			
46	63	2.4	30.74			
51	56	2.6	27.39			
57	51	2.8	24.59			
62	50	3.0	22.68			
33	77	0.85	42.71	S02A DM71G4	129	10
38	68	0.90	37.00	S02B DM71G4		10
44	60	1.00	32.20	S02C DM71G4		11
50	53	1.10	28.11			
56	52	1.20	25.00			
67	45	1.35	21.08			
78	38	1.55	17.98			
91	33	1.70	15.48			
105	29	1.90	13.41			
113	28	2.4	12.50			
121	25	2.1	11.67			
134	24	2.7	10.54			
138	22	2.3	10.19			
157	21	3.1	8.99			
182	18	3.4	7.74			
210	15	3.8	6.70			
242	13	4.2	5.83			
277	12	4.7	5.09			

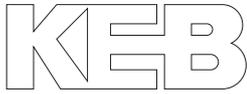
Helical worm geared motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.55 kW						
1.5	1850	0.80	934.35	S42G22A DM80K4	133/15	54
1.7	1680	0.90	838.10	S42G22B DM80K4		54
1.8	1550	0.95	761.70	S42G22C DM80K4		58
2.1	1390	1.05	671.56			
2.4	1250	1.15	594.78			
2.6	1150	1.25	536.78			
2.8	1070	1.35	494.08			
3.2	980	1.45	441.60			
3.6	895	1.55	392.13			
4.0	800	1.75	347.49			
4.5	720	1.90	309.22			
5.3	625	2.2	264.91			
5.7	590	2.3	247.58	S42A DM80K4	133	48
6.4	530	2.5	220.00	S42B DM80K4		48
7.1	480	2.7	197.22	S42C DM80K4		52
7.9	440	2.9	178.08			
4.3	730	0.85	325.05	S32G12A DM80K4	132/15	36
4.8	665	0.90	294.91	S32G12B DM80K4		36
5.4	600	1.00	261.33	S32G12C DM80K4		38
6.1	535	1.15	230.03			
6.8	485	1.25	205.58	S32A DM80K4	132	31
7.7	435	1.35	182.00	S32B DM80K4		31
8.6	395	1.45	162.52	S32C DM80K4		33
9.6	360	1.55	146.16			
11	335	1.70	132.22			
12	310	1.80	120.52			
13	280	1.95	107.52			
15	255	2.1	96.44			
9.1	370	0.85	154.74	S22A DM80K4	131	21
10	330	0.90	136.00	S22B DM80K4		21
12	300	1.00	120.52	S22C DM80K4		23
13	270	1.10	107.52			
15	245	1.15	96.44			
16	225	1.25	87.65			
18	205	1.35	77.28			
21	181	1.50	68.44			
26	158	1.85	53.42			
30	141	2.0	46.95			
34	127	2.2	41.61			
38	114	2.4	37.12			
42	103	2.6	33.30			
46	94	2.8	30.26			
53	84	3.0	26.68			
19	183	0.85	75.56	S12A DM80K4	130	16
21	167	0.90	67.83	S12B DM80K4		16
24	149	1.00	59.20	S12C DM80K4		17
27	132	1.05	51.85			
31	133	1.20	45.03			
36	118	1.30	39.36			
41	105	1.45	34.67			
46	93	1.60	30.74			
51	84	1.75	27.39			
57	76	1.90	24.59			
65	66	2.1	21.46			
75	59	2.3	18.80			
84	56	2.6	16.77			
96	49	2.9	14.66			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.55 kW						
78	57	1.05	17.98	S02A DM80K4	129	12
91	50	1.15	15.48	S02B DM80K4		12
105	43	1.25	13.41	S02C DM80K4		13
120	38	1.40	11.67			
138	33	1.55	10.19			
156	31	2.1	8.99			
182	27	2.3	7.74			
210	23	2.6	6.70			
241	20	2.8	5.83			
276	18	3.1	5.09			
0.75 kW						
2.4	1700	0.85	594.78	S42G22A DM80G4	133/15	56
2.6	1560	0.90	536.78	S42G22B DM80G4		56
2.9	1460	1.00	494.08	S42G22C DM80G4		59
3.2	1340	1.05	441.60			
3.6	1220	1.15	392.13			
4.1	1090	1.30	347.49			
4.6	975	1.40	309.22			
5.3	850	1.60	264.91			
5.7	800	1.70	247.58	S42A DM80G4	133	50
6.4	720	1.85	220.00	S42B DM80G4		50
7.1	655	2.0	197.22	S42C DM80G4		53
7.9	600	2.1	178.08			
8.7	550	2.3	161.78			
9.5	510	2.4	147.91			
11	470	2.6	132.72			
12	430	2.7	119.78			
6.1	725	0.85	230.03	S32G12A DM80G4	132/15	37
				S32G12B DM80G4		37
				S32G12C DM80G4		39
6.9	655	0.90	205.58	S32A DM80G4	132	33
7.7	590	1.00	182.00	S32B DM80G4		33
8.7	540	1.10	162.52	S32C DM80G4		35
9.6	490	1.15	146.16			
11	455	1.25	132.22			
12	420	1.30	120.52			
13	380	1.40	107.52			
15	345	1.55	96.44			
27	225	2.8	52.21			
13	370	0.80	107.52	S22A DM80G4	131	22
15	335	0.85	96.44	S22B DM80G4		22
16	310	0.90	87.65	S22C DM80G4		24
18	275	1.00	77.28			
21	245	1.10	68.44			
26	215	1.35	53.42			
30	192	1.50	46.95			
34	173	1.60	41.61			
38	155	1.75	37.12			
42	140	1.90	33.30			
47	128	2.0	30.26			
53	114	2.2	26.68			
60	101	2.4	23.63			

Helical worm geared motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.75 kW

27	180	0.80	51.85	S12A DM80G4	130	17
31	181	0.90	45.03	S12B DM80G4		17
36	160	0.95	39.36	S12C DM80G4		18
41	142	1.10	34.67			
46	127	1.20	30.74			
51	114	1.30	27.39			
57	103	1.40	24.59			
66	90	1.55	21.46			
75	80	1.65	18.80			
84	76	1.90	16.77			
96	67	2.1	14.66			
109	59	2.3	12.91			
123	53	2.6	11.45			
138	47	2.8	10.20			
154	42	3.0	9.16			
91	68	0.85	15.48	S02A DM80G4	129	14
105	59	0.95	13.41	S02B DM80G4		14
121	52	1.05	11.67	S02C DM80G4		15
138	45	1.15	10.19			
157	42	1.50	8.99			
182	36	1.70	7.74			
210	31	1.90	6.70			
242	27	2.1	5.83			
277	24	2.3	5.09			

1.1 kW

3.6	1780	0.80	392.13	S42G22A DM90S4	133/15	58
3.7	1750	0.80	384.81	S42G22B DM90S4		58
4.1	1590	0.90	347.49	S42G22C DM90S4		61
4.1	1570	0.90	343.94			
4.6	1430	0.95	309.22			
4.6	1410	1.00	305.41			
5.2	1270	1.10	270.64			
5.3	1240	1.10	264.91			
5.9	1140	1.20	240.84			
6.4	1050	1.25	220.00	S42A DM90S4	133	52
7.2	955	1.35	197.22	S42B DM90S4		52
7.9	875	1.45	178.08	S42C DM90S4		56
8.7	805	1.55	161.78			
9.6	750	1.65	147.91			
11	685	1.75	132.72			
12	630	1.85	119.78			
13	585	2.00	110.25			
14	530	2.1	98.54			
16	475	2.3	87.50			
18	425	2.5	77.54			
9.7	720	0.80	146.16	S32A DM90S4	132	35
11	665	0.85	132.22	S32B DM90S4		35
12	615	0.90	120.52	S32C DM90S4		37
13	555	0.95	107.52			
15	505	1.05	96.44			
16	460	1.10	87.50			
18	415	1.20	77.54			
21	370	1.30	68.25			
24	330	1.40	59.77			
31	290	2.1	46.22			
34	265	2.3	41.28			
38	240	2.5	37.12			
42	215	2.7	33.58			
46	200	2.9	30.61			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

1.1 kW

23	325	0.80	61.25	S22A DM90S4	131	24
27	290	0.90	53.31	S22B DM90S4		24
30	280	1.00	46.95	S22C DM90S4		26
34	255	1.10	41.61			
38	225	1.20	37.12			
42	205	1.30	33.30			
47	187	1.40	30.26			
53	167	1.50	26.68			
60	148	1.65	23.63			
67	133	1.75	21.15			
77	116	1.95	18.40			
81	117	2.4	17.49			
91	105	2.6	15.50			
102	94	2.8	13.82			
46	186	0.80	30.74	S12A DM90S4	130	19
52	167	0.90	27.39	S12B DM90S4		19
58	150	0.95	24.59	S12C DM90S4		20
66	132	1.05	21.46			
75	116	1.15	18.80			
97	98	1.45	14.66			
110	87	1.60	12.91			
124	77	1.75	11.45			
139	69	1.90	10.20			
155	62	2.1	9.16			
177	54	2.3	7.99			
202	48	2.5	7.00			

1.5 kW

5.2	1730	0.80	270.64	S42G22A DM90L4	133/15	61
5.3	1700	0.80	264.91	S42G22B DM90L4		61
5.9	1560	0.85	240.84	S42G22C DM90L4		64
6.4	1440	0.90	220.00	S42A DM90L4	133	55
7.1	1310	1.00	197.22	S42B DM90L4		55
7.9	1200	1.05	178.08	S42C DM90L4		59
8.7	1100	1.15	161.78			
9.5	1020	1.20	147.91			
11	935	1.30	132.72			
12	860	1.35	119.78			
13	800	1.45	110.25			
14	725	1.55	98.54			
16	650	1.70	87.50			
18	585	1.80	77.54			
24	525	2.4	59.37			
26	470	2.9	53.22			
16	630	0.80	87.50	S32A DM90L4	132	38
18	570	0.90	77.54	S32B DM90L4		38
21	505	0.95	68.25	S32C DM90L4		40
24	450	1.05	59.77			
31	400	1.55	46.22			
34	360	1.70	41.28			
38	325	1.85	37.12			
42	295	2.00	33.58			
46	275	2.1	30.61			
52	245	2.3	27.31			
58	220	2.5	24.49			
63	205	2.6	22.44			
63	200	2.7	22.22			
70	186	2.8	20.18			
72	178	2.9	19.69			

Helical worm geared motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

1.5 kW

34	345	0.80	41.61	S22A DM90L4	131	27
38	310	0.90	37.12	S22B DM90L4		27
42	280	0.95	33.30	S22C DM90L4		29
47	255	1.00	30.26			
53	230	1.10	26.68			
60	205	1.20	23.63			
67	182	1.30	21.15			
77	159	1.40	18.40			
81	160	1.75	17.49			
91	143	1.90	15.50			
102	128	2.1	13.82			
114	115	2.2	12.40			
125	105	2.4	11.27			
142	93	2.6	9.94			
160	83	2.9	8.80			
75	159	0.85	18.80	S12A DM90L4	130	22
96	134	1.05	14.66	S12B DM90L4		22
109	119	1.15	12.91	S12C DM90L4		23
123	105	1.30	11.45			
138	94	1.40	10.20			
154	85	1.50	9.16			
176	75	1.65	7.99			
201	66	1.80	7.00			

2.2 kW

8.7	1620	0.80	161.78	S42A DM100L4	133	60
9.5	1500	0.85	147.91	S42B DM100L4		60
11	1370	0.90	132.72	S42C DM100L4		64
12	1260	0.95	119.78			
13	1170	1.00	110.25			
14	1060	1.05	98.54			
16	955	1.15	87.50			
18	855	1.25	77.54			
20	770	1.30	69.00			
26	690	2.0	53.22			
29	625	2.2	48.05			
32	575	2.3	43.65			
35	525	2.4	39.91			
39	475	2.6	35.81			
44	435	2.8	32.32			
47	400	2.9	29.75			
48	395	2.2	29.11			
53	360	3.2	26.59			
54	360	2.4	26.29			
59	325	2.6	23.88			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

2.2 kW

34	525	1.15	41.28	S32A DM100L4	132	44
38	480	1.25	37.12	S32B DM100L4		44
42	435	1.35	33.58	S32C DM100L4		46
46	400	1.45	30.61			
52	360	1.55	27.31			
58	325	1.70	24.49			
63	300	1.75	22.44			
63	295	1.80	22.22			
70	275	1.90	20.18			
72	260	1.95	19.69			
77	250	2.1	18.26			
81	230	2.1	17.33			
85	230	2.3	16.64			
93	205	2.3	15.18			
95	205	2.5	14.85			
106	179	2.5	13.33			
106	183	2.7	13.32			
117	167	2.9	12.08			
60	295	0.80	23.63	S22A DM100L4	131	33
67	265	0.90	21.15	S22B DM100L4		33
77	235	0.95	18.40	S22C DM100L4		35
91	210	1.30	15.50			
102	188	1.40	13.82			
114	169	1.55	12.40			
125	154	1.65	11.27			
142	136	1.80	9.94			
160	121	1.95	8.80			
179	109	2.1	7.88			
206	95	2.3	6.85			

3.0 kW

14	1450	0.80	98.54	S42A DM100LX4	133	63
16	1300	0.85	87.50	S42B DM100LX4		63
18	1170	0.90	77.54	S42C DM100LX4		67
20	1050	0.95	69.00			
26	940	1.45	53.22			
29	855	1.60	48.05			
32	780	1.70	43.65			
35	720	1.75	39.91			
39	650	1.95	35.81			
44	590	2.0	32.32			
47	545	2.1	29.75			
48	540	1.60	29.11			
53	490	2.3	26.59			
54	490	1.75	26.29			
59	445	1.90	23.88			
60	435	2.5	23.61			
65	410	2.5	21.83			
67	385	2.6	20.92			
72	370	2.7	19.59			
76	345	2.8	18.62			
80	335	2.9	17.68			

Helical worm geared motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

3.0 kW

34	720	0.85	41.28	S32A DM100LX4	132	47
38	650	0.90	37.12	S32B DM100LX4		47
42	595	1.00	33.58	S32C DM100LX4		49
46	545	1.05	30.61			
52	490	1.15	27.31			
58	440	1.25	24.49			
63	410	1.30	22.44			
63	400	1.35	22.22			
70	375	1.40	20.18			
72	355	1.45	19.69			
77	340	1.55	18.26			
81	315	1.55	17.33			
85	310	1.70	16.64			
93	275	1.70	15.18			
95	280	1.85	14.85			
106	245	1.85	13.33			
106	250	2.00	13.32			
117	230	2.1	12.08			
132	200	2.3	10.71			
150	179	2.5	9.43			
171	158	2.7	8.25			
194	138	2.9	7.25			
91	285	0.95	15.50	S22A DM100LX4	131	36
102	255	1.05	13.82	S22B DM100LX4		36
114	230	1.10	12.40	S22C DM100LX4		38
125	210	1.20	11.27			
142	186	1.30	9.94			
160	165	1.45	8.80			
179	149	1.55	7.88			
206	130	1.70	6.85			

4.0 kW

30	1130	1.20	48.05	S42A DM112M4	133	70
33	1030	1.30	43.65	S42B DM112M4		70
36	950	1.30	39.91	S42C DM112M4		73
40	855	1.45	35.81			
44	780	1.55	32.32			
48	720	1.60	29.75			
54	645	1.75	26.59			
54	645	1.35	26.29			
60	590	1.45	23.88			
60	575	1.90	23.61			
65	540	1.85	21.83			
68	510	2.00	20.92			
73	485	2.1	19.59			
77	455	2.1	18.62			
81	440	2.2	17.68			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

4.0 kW

47	720	0.80	30.61	S32A DM112M4	132	54
52	645	0.85	27.31	S32B DM112M4		54
58	580	0.95	24.49	S32C DM112M4		56
64	530	1.00	22.22			
71	490	1.05	20.18			
72	470	1.10	19.69			
78	450	1.15	18.26			
82	415	1.20	17.33			
86	410	1.25	16.64			
94	365	1.30	15.18			
96	365	1.40	14.85			
107	325	1.40	13.33			
107	330	1.50	13.32			
118	300	1.60	12.08			
133	265	1.75	10.71			
151	235	1.90	9.43			
173	210	2.0	8.25			
197	183	2.2	7.25			

5.5 kW

40	1160	1.10	35.81	S42A DA132S4	133	84
45	1050	1.15	32.32	S42B DA132S4		84
49	970	1.15	29.75	S42C DA132S4		87
55	870	1.30	26.59			
61	775	1.40	23.61			
69	690	1.45	20.92			
74	660	1.50	19.59			
78	615	1.55	18.62			
82	595	1.65	17.68			
89	550	1.90	16.28			
91	525	1.70	15.95			
100	495	2.0	14.55			
103	465	1.75	14.07			
112	440	2.1	12.92			
127	390	2.3	11.45			
142	350	2.4	10.19			
166	300	2.6	8.73			
188	265	2.7	7.70			

7.5 kW

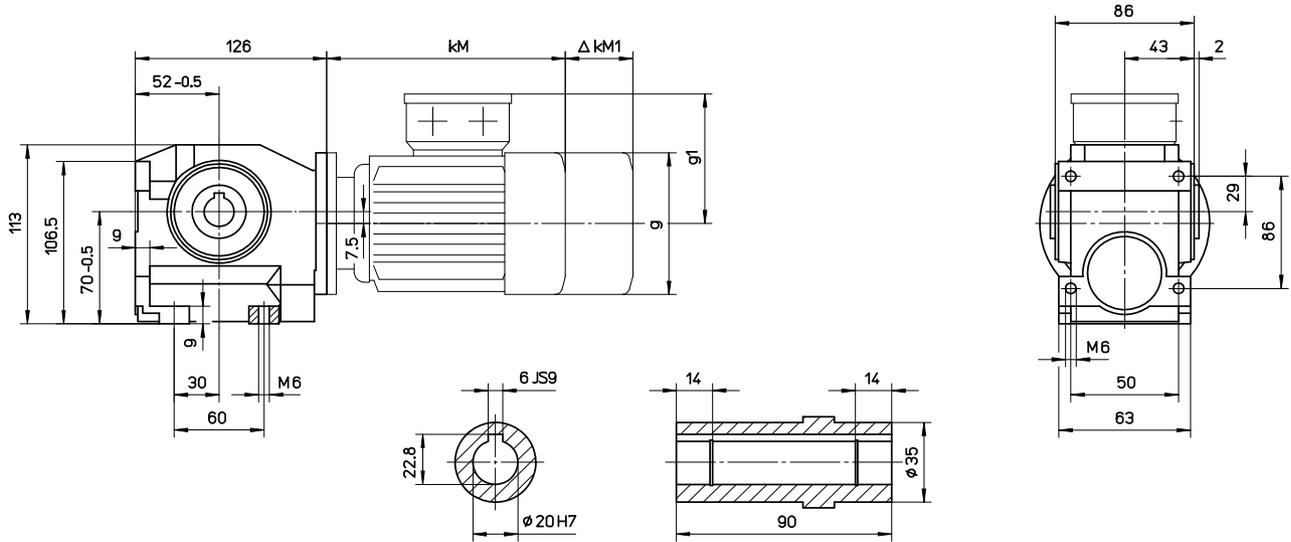
40	1580	0.80	35.81	S42A DA132M4	133	88
45	1440	0.85	32.32	S42B DA132M4		88
49	1330	0.85	29.75	S42C DA132M4		91
55	1190	0.95	26.59			
61	1060	1.00	23.61			
69	940	1.05	20.92			
74	895	1.10	19.59			
78	835	1.15	18.62			
82	815	1.20	17.68			
89	750	1.40	16.28			
91	715	1.25	15.95			
100	670	1.50	14.55			
103	635	1.30	14.07			
112	600	1.55	12.92			
127	530	1.65	11.45			
142	475	1.75	10.19			
166	410	1.90	8.73			
188	360	2.0	7.70			

Helical worm geared motors S



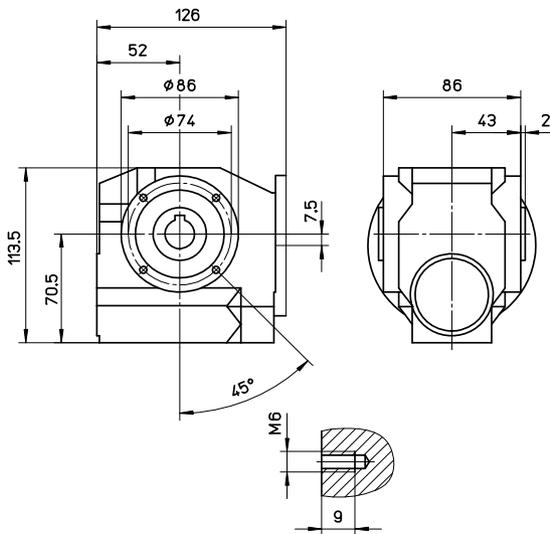
S02A

Foot mounted version



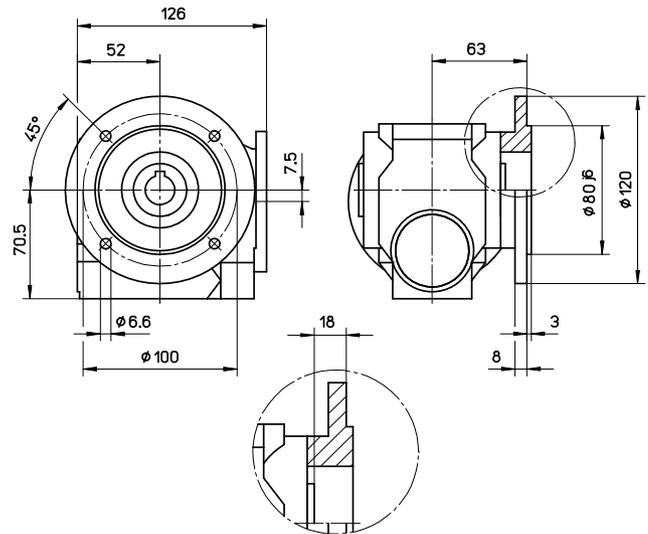
S02B

Shaft mounted version



S02C

Flange mounted version



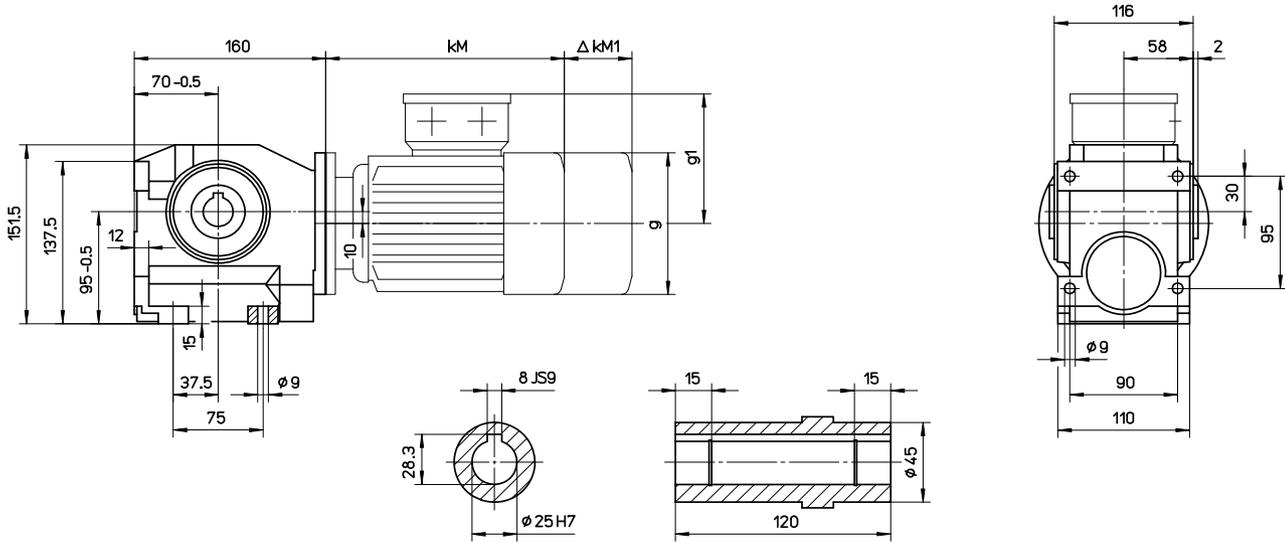
	kM	ΔkM1 Brake	g	g1
S02_DM63	202	59	123	109
S02_DM71	228	56	138	119
S02_DM80	251	66	156	140

Helical worm geared motors S



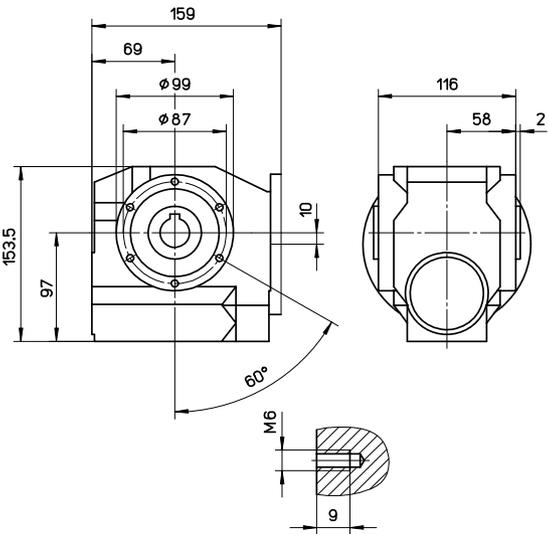
S12A

Foot mounted version



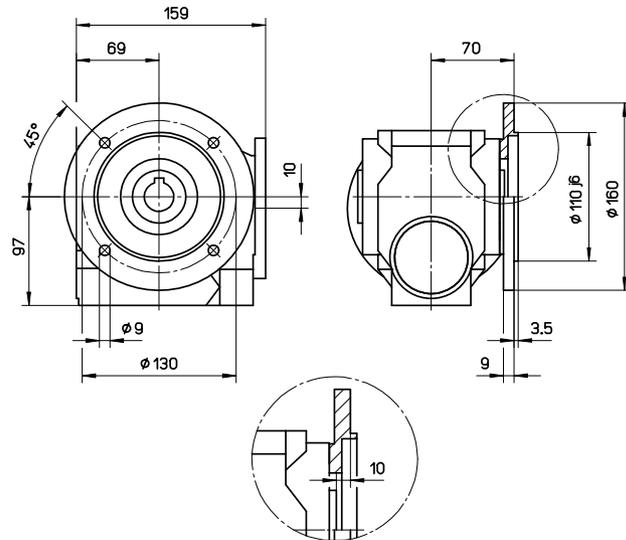
S12B

Shaft mounted version



S12C

Flange mounted version



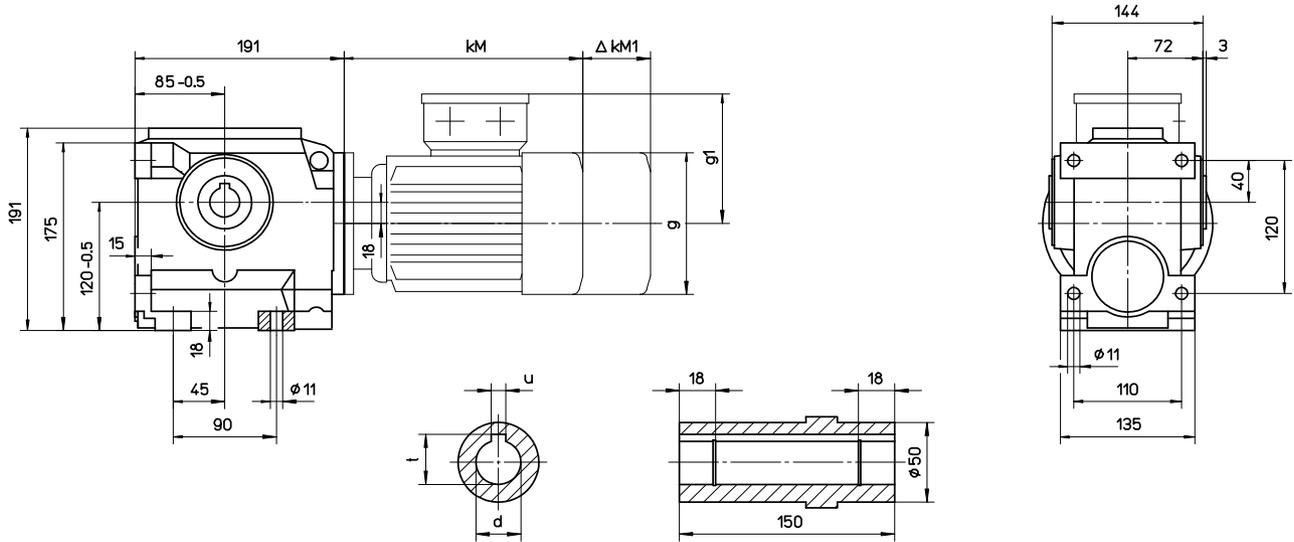
	kM	ΔkM1 Brake	g	g1
S12_DM63	201	59	123	109
S12_DM71	228	56	138	119
S12_DM80	250	66	156	140
S12_DM90S	266.5	74	176	144
S12_DM90L	291.5	74	176	144

Helical worm geared motors S



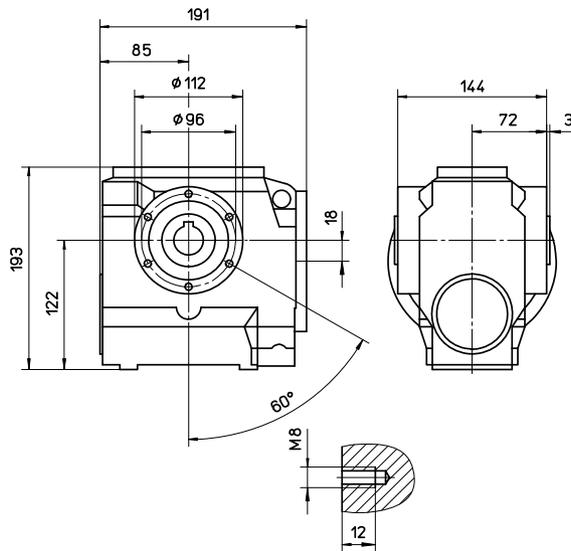
S22A

Foot mounted version



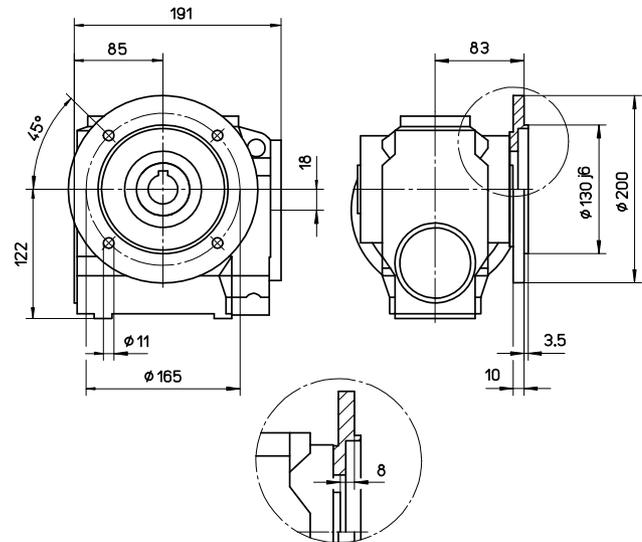
S22B

Shaft mounted version



S22C

Flange mounted version



	kM	$\Delta kM1$ Brake	g	g1
S22_DM63	198	59	123	109
S22_DM71	224	56	138	119
S22_DM80	247	66	156	140
S22_DM90S	261.5	74	176	144
S22_DM90L	286.5	74	176	144
S22_DM100	319	91	194	155

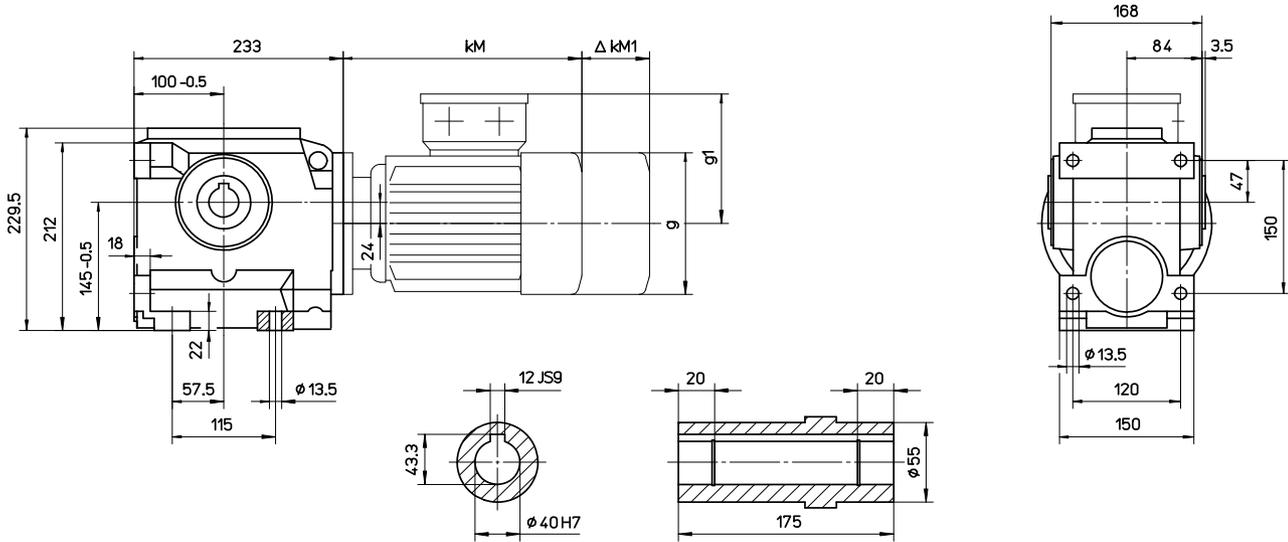
Hollow shaft	d	t	u
35	35H7	38.3	10
30	30H7	33.3	8

Helical worm geared motors S



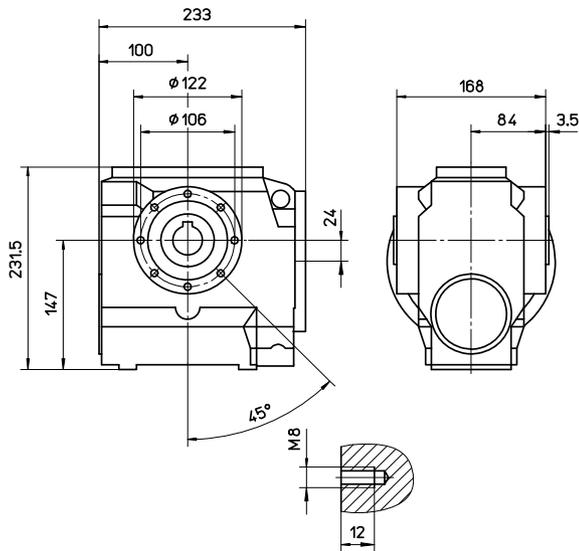
S32A

Foot mounted version



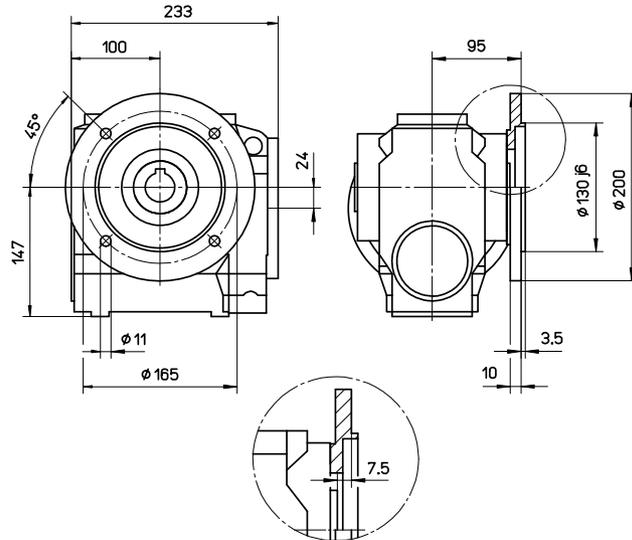
S32B

Shaft mounted version



S32C

Flange mounted version



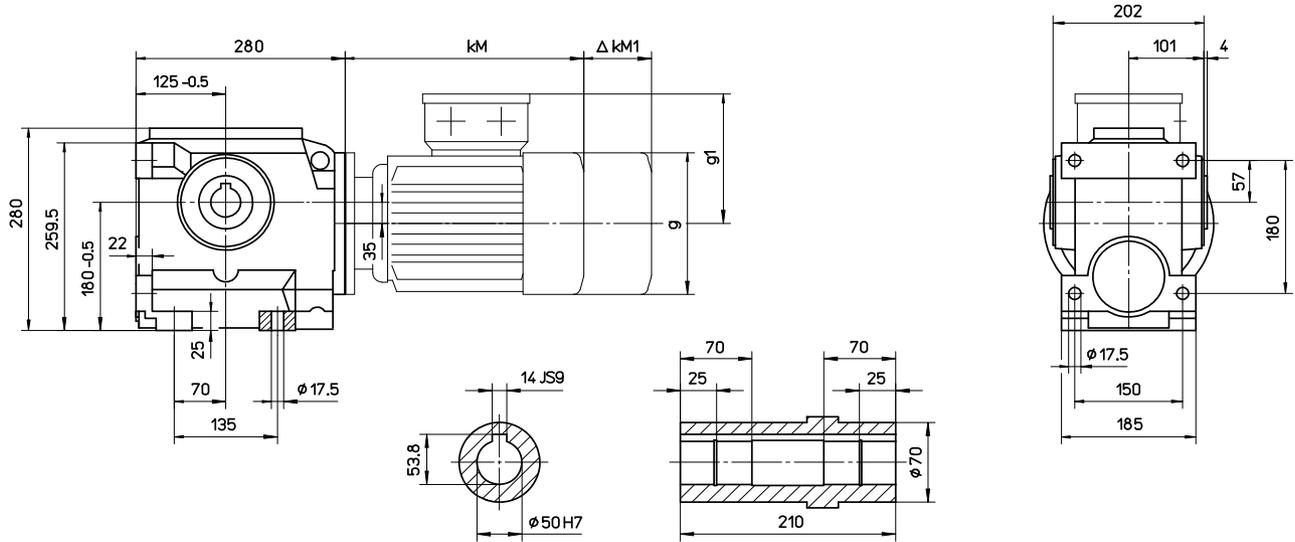
	kM	ΔkM1 Brake	g	g1
S32_DM63	198.5	59	123	109
S32_DM71	223.5	56	138	119
S32_DM80	247.5	66	156	140
S32_DM90S	262	74	176	144
S32_DM90L	287	74	176	144
S32_DM100	319	91	194	155
S32_DM112	342	96	218	165

Helical worm geared motors S



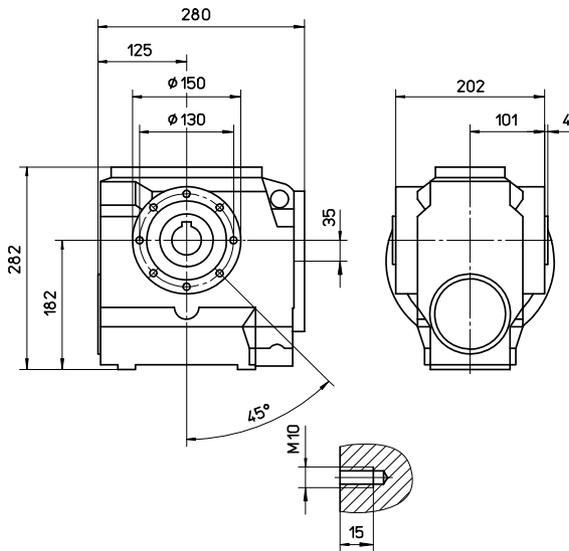
S42A

Foot mounted version



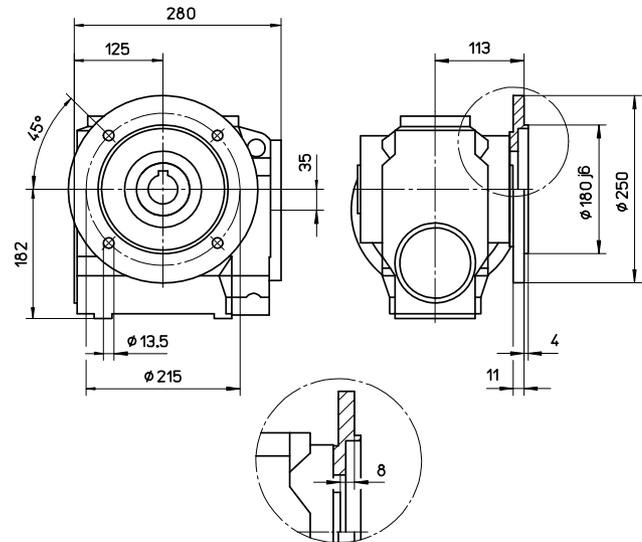
S42B

Shaft mounted version



S42C

Flange mounted version

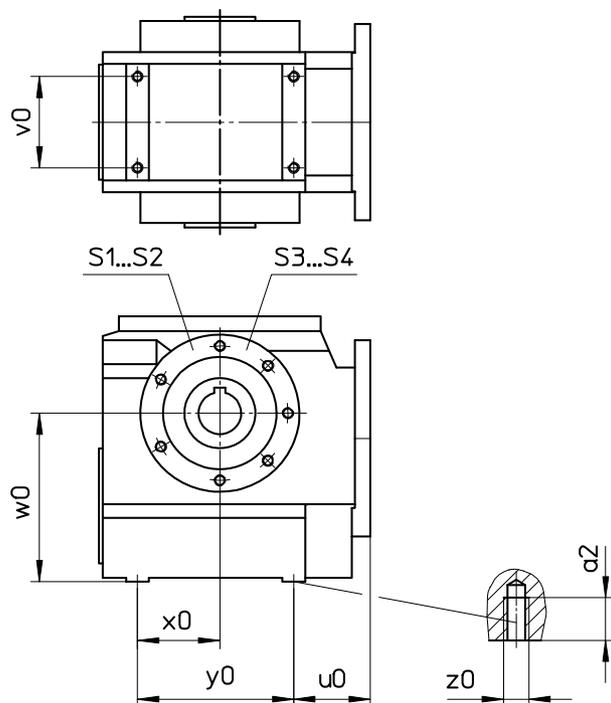


	kM	$\Delta kM1$ Brake	g	g1
S42_DM71	220	56	138	119
S42_DM80	243	66	156	140
S42_DM90S	259.5	74	176	144
S42_DM90L	284.5	74	176	144
S42_DM100	314	91	194	155
S42_DM112	337.5	96	218	165
S42_DA132	431.5	99	245	188

Helical worm gear units S

D - Shaft mounted version + foot area

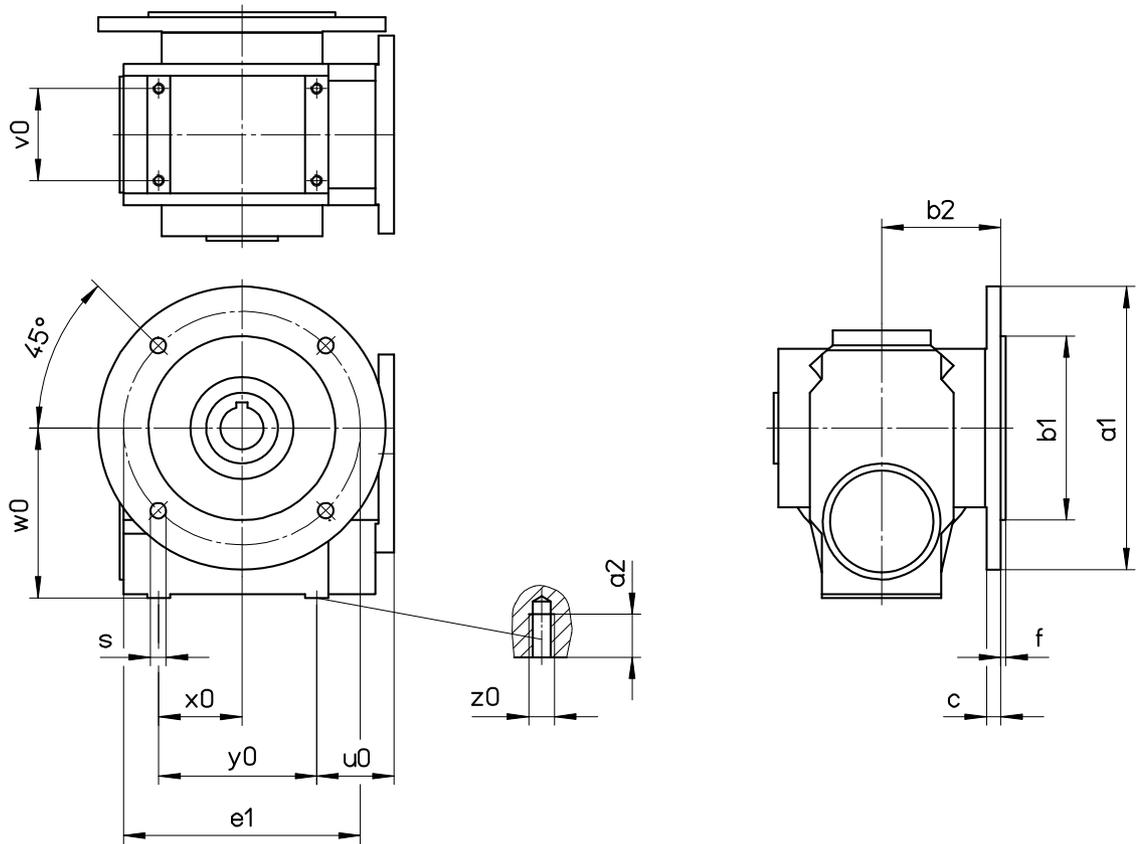
KEB



Gear unit	u_0	v_0	w_0	x_0	y_0	z_0	a_2
S1	54	50	95	46	82	M8	12
S2	54	65	120	58	110	M8	12
S3	65.5	70	145	67.5	135	M10	15
S4	67.5	80	180	87.5	175	M16	24

Helical worm gear units S

E - Flange mounted version + foot area

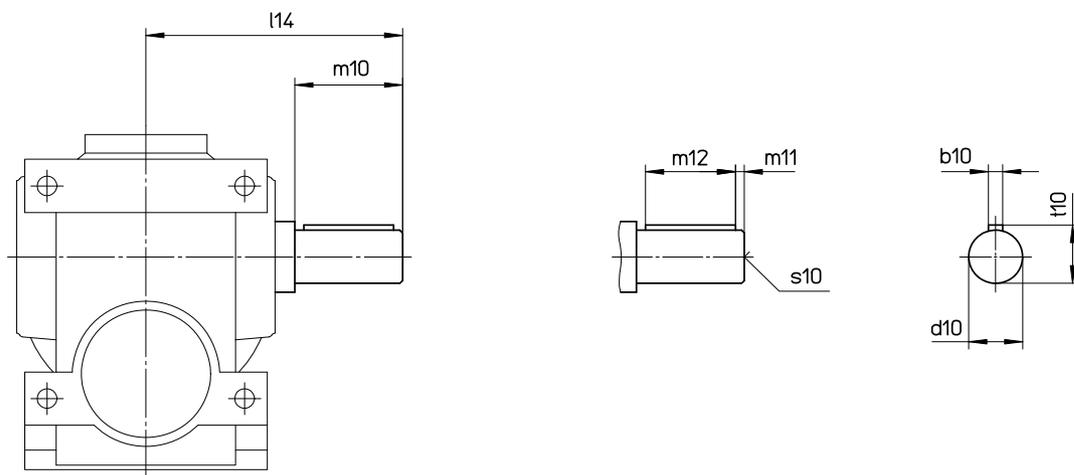


Gear unit	u0	v0	w0	x0	y0	z0	a2	a1	e1	b1	s	c	f	b2
S1	54	50	95	46	82	M8	12	160	130	110 j6	9	9	3.5	70
S2	54	65	120	58	110	M8	12	200	165	130 j6	11	10	3.5	83
S3	65.5	70	145	67.5	135	M10	15	200	165	130 j6	11	10	3.5	95
S4	67.5	80	180	87.5	175	M16	24	250	215	180 j6	13.5	11	4	113

Helical worm gear units S

V - Output shaft with key

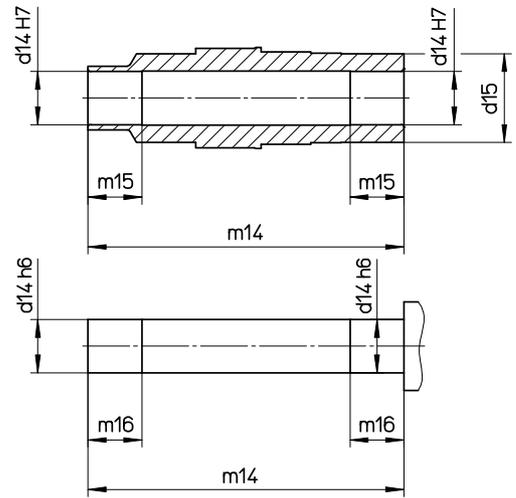
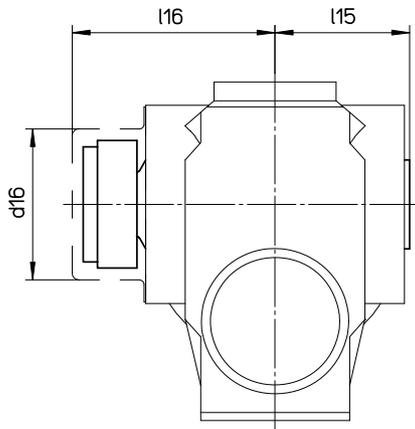
KEB



Gear unit	d_{10}	m_{10}	m_{11}	m_{12}	b_{10}	t_{10}	s_{10}	l_{14}
S02A S02C	20	40	4	32	6	22.5	M6	85 103
S1	25	50	5	40	8	28	M10	120
S2	30	60	5	50	8	33	M10	143
	35	70	5	60	10	38	M12	153
S3	40	80	5	70	12	43	M16	175
S4	50	100	10	80	14	53.5	M16	213

Helical worm gear units S

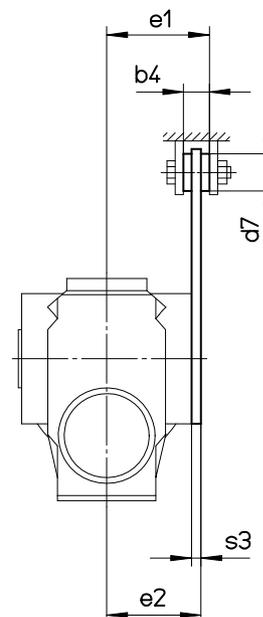
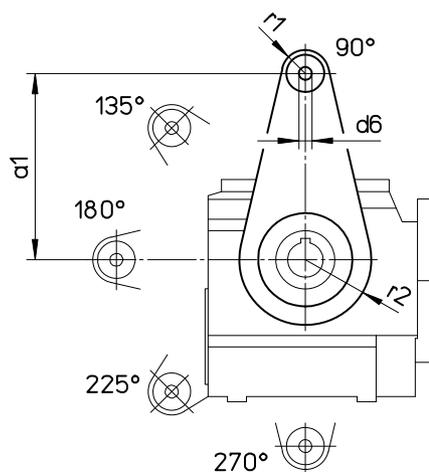
S - Hollow shaft with shrink disc



Gear unit	d14	d15	d16	m14	m15	m16	l15	l16
S1	25	45	77	143	25	27	60	97
S2	30	50	85	176	30	32	75	113
	35	50	85	176	30	32	75	113
S3	40	55	96	202	40	42	87.5	127
S4	50	70	116	242	50	52	105	150

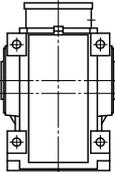
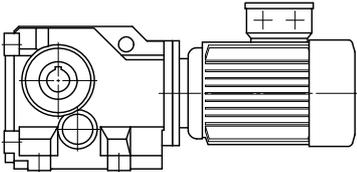
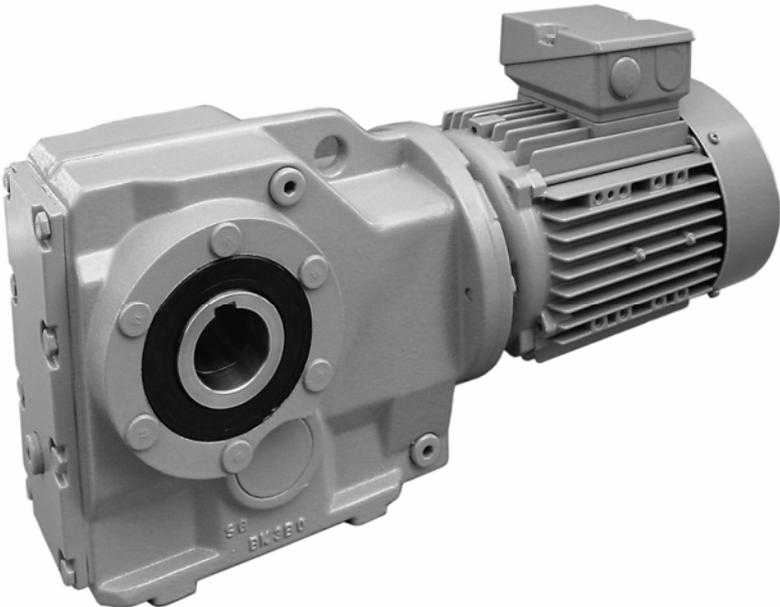
Helical worm gear units S

T1 - Torque arm

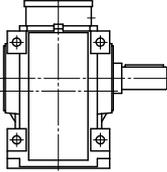
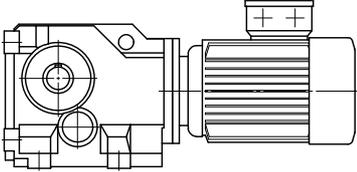


Gear unit	a_1	b_4	d_6	d_7	e_1	e_2	s_3	r_1	r_2
S0	100	15	11	32	52.5	47	4	20	43
S1	130	15	11	32	68.5	64	6	20	49.5
S2	160	22	11	32	87	80	8	20	56
S3	200	22	11	32	99	92	8	23	61
S4	250	32	17	40	121	109	8	30	75

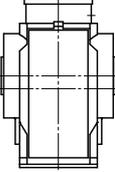
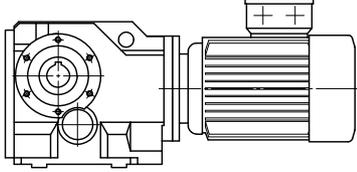
Helical bevel gear units K



Foot mounted version
Hollow shaft with keyway
Example: K43A DM90L4



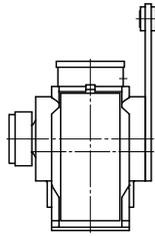
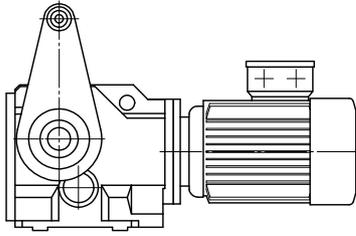
Foot mounted version
Output shaft with key
Example: K33AV DM80G4



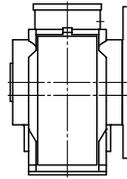
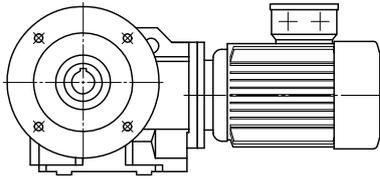
Shaft mounted version
Hollow shaft with keyway
Example: K53B DA132S4

Helical bevel gear units K

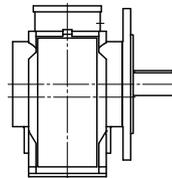
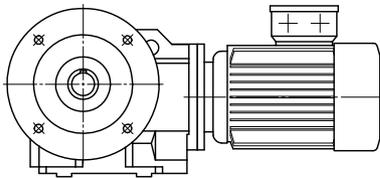
KEB



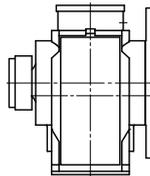
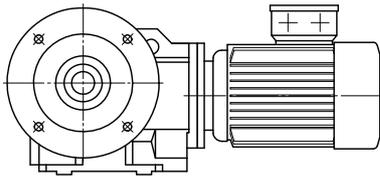
Shaft mounted version
Hollow shaft with shrink disc
Torque arm T1
Example: K53**BT1S** DA160M4



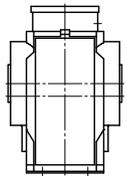
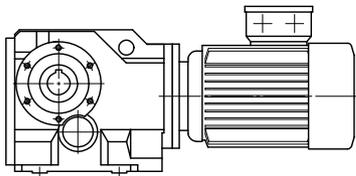
Flange mounted version
Hollow shaft with keyway
Example: K43**C** DA132S4



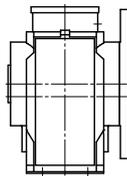
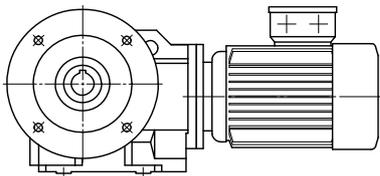
Flange mounted version
Output shaft with key
Example: K33**CV** DM71G4



Flange mounted version
Hollow shaft with shrink disc
Example: K43**CS** DM100LX4



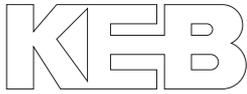
Shaft mounted version + foot area
Hollow shaft with keyway
Example: K53**D** DM80G4



Flange mounted version + foot area
Hollow shaft with keyway
Example: K33**E** DM90S4



Helical bevel gear units K



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC							-M NEMA				-M S															
					63	71	80	90	100	112	125	160	180	200	225	31	32	33		41	42	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	71	90	110	140	160	180	210	250

K23G03

5483.4	0.26	205	<0.05	0.04	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
4632.4	0.30	205	<0.05	0.05	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
3960.6	0.35	205	<0.05	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
3416.7	0.41	205	<0.05	0.08	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2967.4	0.47	205	<0.05	0.10	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2590.0	0.54	205	<0.05	0.12	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2235.6	0.63	205	<0.05	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1928.6	0.73	205	<0.05	0.09	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1675.0	0.84	205	<0.05	0.11	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1462.0	0.96	205	<0.05	0.13	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -

K23G02

1283.3	1.1	205	<0.05	0.05	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1084.2	1.3	205	<0.05	0.06	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
926.94	1.5	205	<0.05	0.08	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
799.65	1.8	205	<0.05	0.09	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
694.50	2.0	205	<0.05	0.12	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
606.18	2.3	205	<0.05	0.14	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
530.94	2.6	205	0.06	0.18	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
456.34	3.1	205	0.07	0.10	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
393.68	3.6	205	0.08	0.12	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
341.91	4.1	205	0.09	0.16	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
298.43	4.7	205	0.10	0.20	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
261.38	5.4	205	0.11	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
228.47	6.1	205	0.13	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
201.29	7.0	205	0.15	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
178.45	7.8	205	0.17	0.26	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
159.00	8.8	205	0.19	0.27	o o o - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
142.73	9.8	205	0.21	0.27	o o o - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
124.58	11	205	0.24	0.27	o o o - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
109.11	13	205	0.27	0.28	o o o - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -

K23

102.27	14	205	0.29	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
87.38	16	205	0.34	0.10	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
75.61	19	205	0.40	0.12	o o o - - - -	o - - - - -	W1	o o o - - - -	o - - - - -	o o - - -
66.09	21	205	0.45	0.14	o o o - - - -	o - - - - -	W1	o o o - - - -	o - - - - -	o o o - -
58.23	24	205	0.51	0.16	o o o o - - -	o - - - - -	W1	o o o o - - -	o - - - - -	o o o o -
51.62	27	205	0.58	0.18	o o o o - - -	o - - - - -	W1	o o o o - - -	o - - - - -	o o o o -
46.00	30	205	0.65	0.22	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
41.29	34	205	0.72	0.24	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
36.04	39	205	0.83	0.31	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
31.57	44	205	0.95	0.35	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
26.14	54	205	1.14	0.18	o o o - - - -	o - - - - -	W2	o o o - - - -	o - - - - -	o o - - -
22.85	61	205	1.31	0.21	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
20.13	70	205	1.49	0.25	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
17.84	78	205	1.68	0.30	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
15.90	88	205	1.88	0.37	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
14.27	98	205	2.10	0.43	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
12.46	112	205	2.40	0.55	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
10.91	128	205	2.74	0.67	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
9.34	150	161	2.53	0.31	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
8.28	169	161	2.85	0.37	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
7.38	190	161	3.00	0.46	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
6.63	211	161	3.00	0.54	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
5.78	242	161	3.00	0.69	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -
5.07	276	161	3.00	0.86	o o o o - - -	o - - - - -	W2	o o o o - - -	o - - - - -	o o o o -

Helical bevel gear units K



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA								Servo motor TA							-W	Motor adapter -M IEC						-M NEMA				-M S											
					63	71	80	90	100	112	132	160	180	200	225	31	32	33	41		42	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	140	180	210	250

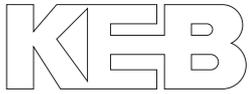
K33G13

8059.3	0.17	400	<0.05	0.05	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
6832.3	0.20	400	<0.05	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
5863.6	0.24	400	<0.05	0.08	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
5079.4	0.28	400	<0.05	0.09	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
4431.6	0.32	400	<0.05	0.11	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
3887.4	0.36	400	<0.05	0.13	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
3423.9	0.41	400	<0.05	0.16	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
3010.7	0.47	400	<0.05	0.08	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2583.9	0.54	400	<0.05	0.09	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
2238.3	0.63	400	<0.05	0.11	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1952.8	0.72	400	<0.05	0.14	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -

K33G12

1738.3	0.81	400	<0.05	0.07	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1485.1	0.94	400	<0.05	0.11	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1285.2	1.1	400	<0.05	0.13	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
1123.4	1.2	400	0.05	0.15	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
989.70	1.4	400	0.06	0.17	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
877.42	1.6	400	0.07	0.20	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
781.77	1.8	400	0.07	0.24	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
701.79	2.0	400	0.08	0.27	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
612.54	2.3	400	0.10	0.34	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
536.51	2.6	400	0.11	0.40	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
493.12	2.8	400	0.12	0.19	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
434.44	3.2	400	0.13	0.23	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
385.15	3.6	400	0.15	0.27	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
343.16	4.1	400	0.17	0.33	o o - - - - -	o - - - - -	W1	o o - - - - -	o - - - - -	o - - - - -
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268.88	5.2	400	0.22	0.48	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
235.51	5.9	400	0.25	0.59	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
210.10	6.7	400	0.28	0.59	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
188.46	7.4	400	0.31	0.59	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
171.28	8.2	400	0.34	0.60	o o o - - - -	o - - - - -	W1	o o o - - - -	o o - - - -	o o - - - -
151.01	9.3	400	0.39	0.60	o o o o - - -	o - - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
133.74	10	400	0.44	0.61	o o o o - - -	o - - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
119.69	12	400	0.49	0.63	o o o o - - -	o - - - - -	W1	o o o o - - -	o o - - - -	o o o - - -
104.17	13	400	0.56	0.64	o o o o - - -	o - - - - -	W1	o o o o - - -	o o - - - -	o o o - - -

Helical bevel gear units K



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC					-M NEMA				-M S												
					63	71	80	90	100	112	122	160	180	200	225	31	32	33		41	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	140	180	210	250

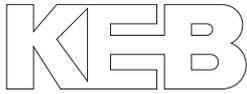
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62.34	22	400	0.94	0.31	o o o o o - - - - - - - - - -	o o o o o - - - - - - - - - -	W2	o o o o o - - - - - - - - - -	o o o o o - - - - - - - - - -	o o o o o - - - - -
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39.68	35	400	1.47	0.57	o o o o o - - - - - - - - - -	o o o o o o - - - - - - - - - -	W2	o o o o o o - - - - - - - - - -	o o o o o - - - - - - - - - -	o o o o o - - - - -
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27.26	51	400	2.15	0.39	o o o o o - - - - - - - - - -	o o o o o - - - - - - - - - -	W2	o o o o o - - - - - - - - - -	o o o o o - - - - - - - - - -	o o o o o - - - - -
24.15	58	400	2.42	0.47	o o o o o - - - - - - - - - -	o o o o o o - - - - - - - - - -	W3	o o o o o o - - - - - - - - - -	o o o o o - - - - - - - - - -	o o o o o - - - - -
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8.45	166	300	4.00	0.95	o o o o o - - - - - - - - - -	o o o o o o - - - - - - - - - -	W3	o o o o o o - - - - - - - - - -	o o o o o - - - - - - - - - -	o o o o o - - - - -
7.45	188	285	4.00	1.2	o o o o o - - - - - - - - - -	o o o o o o - - - - - - - - - -	W3	o o o o o o - - - - - - - - - -	o o o o o - - - - - - - - - -	o o o o o - - - - -
6.60	212	275	4.00	1.4	o o o o o - - - - - - - - - -	o o o o o o - - - - - - - - - -	W3	o o o o o o - - - - - - - - - -	o o o o o - - - - - - - - - -	o o o o o - - - - -
5.91	237	300	4.00	1.9	- - - - o o o - - - - - - - - - -	- - - - o o o - - - - - - - - - -	W3	- - - o o o o - - - - - - - - - -	- o o o - - - - - - - - - -	- o o o o - - - - -
5.14	272	290	4.00	2.3	- - - - o o o - - - - - - - - - -	- - - - o o o - - - - - - - - - -	W3	- - - o o o o - - - - - - - - - -	- o o o - - - - - - - - - -	- o o o o - - - - -

K43G13

10485	0.13	745	<0.05	0.05	o o - - - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - - - -	o - - - - - - - - - -	o - - - - -
8888.4	0.16	745	<0.05	0.07	o o - - - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - - - -	o - - - - - - - - - -	o - - - - -
7628.2	0.18	745	<0.05	0.08	o o - - - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - - - -	o - - - - - - - - - -	o - - - - -
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5765.3	0.24	745	<0.05	0.11	o o - - - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - - - -	o - - - - - - - - - -	o - - - - -
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4454.3	0.31	745	<0.05	0.16	o o - - - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - - - -	o - - - - - - - - - -	o - - - - -
3916.8	0.36	745	<0.05	0.08	o o - - - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - - - -	o - - - - - - - - - -	o - - - - -
3361.5	0.42	745	<0.05	0.09	o o - - - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - - - -	o - - - - - - - - - -	o - - - - -
2911.9	0.48	745	<0.05	0.11	o o - - - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - - - -	o - - - - - - - - - -	o - - - - -
2540.6	0.55	745	<0.05	0.14	o o - - - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - - - -	o - - - - - - - - - -	o - - - - -

Helical bevel gear units K



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC						-M NEMA				-M S											
					63	71	80	90	100	112	125	160	180	200	225	31	32	33		41	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	140	180	210	250

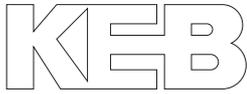
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11426	0.12	1430	<0.05	0.07	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
9761.9	0.14	1430	<0.05	0.10	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
8447.9	0.17	1430	<0.05	0.12	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
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6505.6	0.22	1430	<0.05	0.16	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
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4523.7	0.31	1430	<0.05	0.15	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
3985.4	0.35	1430	0.05	0.18	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
3533.2	0.40	1430	0.06	0.20	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
3093.4	0.45	1430	0.07	0.17	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
2725.3	0.51	1430	0.08	0.20	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
2416.1	0.58	1430	0.09	0.23	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -

K53G22

2176.4	0.64	1430	0.10	0.14	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
1868.5	0.75	1430	0.11	0.17	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
1625.3	0.86	1430	0.13	0.22	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
1428.5	0.98	1430	0.15	0.26	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
1266.0	1.1	1430	0.17	0.30	o o - - - - - - - -	o - - - - - - - - - -	W1	o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
1129.4	1.2	1430	0.19	0.34	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
1013.0	1.4	1430	0.21	0.39	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
920.69	1.5	1430	0.23	0.46	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
811.74	1.7	1430	0.26	0.53	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
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648.83	2.2	1430	0.32	0.65	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
597.22	2.3	1430	0.35	0.66	o o o - - - - - - - -	o - - - - - - - - - -	W1	o o o - - - - - - - -	o - - - - - - - - - -	o - - - - -	o - - - - -
524.36	2.7	1430	0.40	0.47	o o o o - - - - - - - -	o - - - - - - - - - -	W1	o o o o - - - - - - - -	o - - - - - - - - - -	o o o - - -	o o o - - -
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333.79	4.2	1430	0.63	0.97	o o o o - - - - - - - -	o - - - - - - - - - -	W2	o o o o - - - - - - - -	o - - - - - - - - - -	o o o - - -	o o o - - -
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173.54	8.1	1430	1.21	1.1	o o o o o - - - - - - - -	o - - - - - - - - - -	W2	o o o o o - - - - - - - -	o - - - - - - - - - -	o o o o - -	o o o o - -
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Helical bevel gear units K



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC						-M NEMA			-M S												
					63	71	80	90	100	112	125	160	180	200	225	31	32	33		41	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	140	180	210	250

K63G23

13818	0.10	2550	<0.05	0.07	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
11805	0.12	2550	<0.05	0.10	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
10216	0.14	2550	<0.05	0.12	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
8930.1	0.16	2550	<0.05	0.14	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
7867.5	0.18	2550	<0.05	0.16	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
6974.9	0.20	2550	0.05	0.18	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
6258.7	0.22	2550	0.06	0.13	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
5470.7	0.26	2550	0.07	0.15	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
4819.7	0.29	2550	0.08	0.18	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
4272.9	0.33	2550	0.09	0.20	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
3741.0	0.37	2550	0.10	0.17	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
3295.8	0.42	2550	0.11	0.20	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
2921.9	0.48	2550	0.13	0.23	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----

K63G22

2632.0	0.53	2550	0.14	0.14	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
2259.6	0.62	2550	0.17	0.17	o o	-----	o	-----	-----	W1	o o	-----	o	-----	o	-----
1965.6	0.71	2550	0.19	0.22	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
1727.6	0.81	2550	0.22	0.26	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
1531.0	0.91	2550	0.24	0.31	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
1365.8	1.0	2550	0.27	0.35	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
1225.1	1.1	2550	0.31	0.40	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
1113.4	1.3	2550	0.34	0.47	o o o	-----	o	-----	-----	W1	o o o	-----	o	-----	o	-----
981.68	1.4	2550	0.38	0.55	o o o o	-----	o	-----	-----	W1	o o o o	-----	o	-----	o	-----
869.44	1.6	2550	0.43	0.67	o o o o	-----	o	-----	-----	W1	o o o o	-----	o	-----	o	-----
803.80	1.7	2550	0.47	0.68	o o o o	-----	o	-----	-----	W1	o o o o	-----	o	-----	o	-----
724.09	1.9	2550	0.52	0.68	o o o o	-----	o	-----	-----	W1	o o o o	-----	o	-----	o	-----
634.13	2.2	2550	0.59	0.51	o o o o	-----	o	-----	-----	W2	o o o o	-----	o	-----	o	-----
568.80	2.5	2550	0.66	0.60	o o o o	-----	o	-----	-----	W2	o o o o	-----	o	-----	o	-----
516.95	2.7	2550	0.72	0.72	o o o o	-----	o	-----	-----	W2	o o o o	-----	o	-----	o	-----
455.78	3.1	2550	0.82	0.86	o o o o o	-----	o	-----	-----	W2	o o o o o	-----	o	-----	o	-----
403.67	3.5	2550	0.93	1.1	o o o o o	-----	o	-----	-----	W2	o o o o o	-----	o	-----	o	-----
373.19	3.8	2550	1.00	1.1	o o o o o	-----	o	-----	-----	W2	o o o o o	-----	o	-----	o	-----
336.18	4.2	2550	1.11	1.1	o o o o o	-----	o	-----	-----	W2	o o o o o	-----	o	-----	o	-----
301.25	4.6	2550	1.24	1.1	o o o o o	-----	o	-----	-----	W2	o o o o o	-----	o	-----	o	-----
269.78	5.2	2550	1.39	1.2	o o o o o o	-----	o	-----	-----	W2	o o o o o o	-----	o	-----	o	-----
242.80	5.8	2550	1.54	1.3	o o o o o o	-----	o	-----	-----	W2	o o o o o o	-----	o	-----	o	-----
234.63	6.0	2550	1.59	1.8	-----	o o o o	-----	-----	-----	W2	-----	o o o o	-----	-----	o o o o	-----
211.83	6.6	2550	1.77	1.4	o o o o o o o	-----	o	-----	-----	W3	o o o o o o o	-----	o	-----	o	-----
210.12	6.7	2550	1.78	1.9	-----	o o o o	-----	-----	-----	W3	-----	o o o o	-----	-----	o o o o	-----
189.77	7.4	2550	1.97	1.5	o o o o o o o	-----	o	-----	-----	W3	o o o o o o o	-----	o	-----	o	-----
189.10	7.4	2550	1.98	2.0	-----	o o o o	-----	-----	-----	W3	-----	o o o o	-----	-----	o o o o	-----

Helical bevel gear units K



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC						-M NEMA				-M S															
					63	71	80	90	100	112	122	160	180	200	225	31	32	33		41	42	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	71	90	110	140	180	210	250

K73G32

2068.0	0.68	4330	0.31	0.49	o o o - - - - -	o o - - - - -	W1	o o o - - - - -	o o - - - - -	o o - - -
1846.7	0.76	4330	0.34	0.57	o o o - - - - -	o o - - - - -	W1	o o o - - - - -	o o - - - - -	o o - - -
1660.8	0.84	4330	0.38	0.66	o o o - - - - -	o o - - - - -	W1	o o o - - - - -	o o - - - - -	o o o - -
1502.4	0.93	4330	0.42	0.84	o o o o - - - - -	o o - - - - -	W1	o o o o - - - - -	o o - - - - -	o o o - -
1369.5	1.0	4330	0.46	0.93	o o o o - - - - -	o o o - - - - -	W1	o o o o - - - - -	o o - - - - -	o o o - -
1221.7	1.1	4330	0.52	1.1	o o o o - - - - -	o o o - - - - -	W1	o o o o - - - - -	o o - - - - -	o o o - -
1095.9	1.3	4330	0.58	1.2	o o o o - - - - -	o o o - - - - -	W1	o o o o - - - - -	o o - - - - -	o o o - -
994.22	1.4	4330	0.64	1.2	o o o o - - - - -	o o o - - - - -	W2	o o o o - - - - -	o o - - - - -	o o o - -
861.22	1.6	4330	0.74	1.3	o o o o - - - - -	o o o - - - - -	W2	o o o o - - - - -	o o - - - - -	o o o - -
779.24	1.8	4330	0.81	1.3	o o o o o - - - - -	o o o o - - - - -	W2	o o o o o - - - - -	o o o - - - -	o o o o -
707.41	2.0	4330	0.90	1.3	o o o o o - - - - -	o o o o - - - - -	W2	o o o o o - - - - -	o o o - - - -	o o o o -
630.75	2.2	4330	1.01	1.3	o o o o o - - - - -	o o o o - - - - -	W2	o o o o o - - - - -	o o o - - - -	o o o o -
587.86	2.4	4330	1.08	1.4	o o o o o - - - - -	o o o o - - - - -	W2	o o o o o - - - - -	o o o - - - -	o o o o -
527.31	2.7	4330	1.20	1.7	o o o o o - - - - -	o o o o o - - - - -	W2	o o o o o - - - - -	o o o - - - -	o o o o -
478.39	2.9	4330	1.33	1.7	o o o o o - - - - -	o o o o o - - - - -	W2	o o o o o - - - - -	o o o - - - -	o o o o -
414.39	3.4	4330	1.53	1.8	o o o o o - - - - -	o o o o o - - - - -	W2	o o o o o - - - - -	o o o - - - -	o o o o -
374.95	3.7	4330	1.69	1.9	o o o o o - - - - -	o o o o o - - - - -	W2	o o o o o - - - - -	o o o - - - -	o o o o -
340.39	4.1	4330	1.86	1.9	o o o o o - - - - -	o o o o o - - - - -	W3	o o o o o - - - - -	o o o - - - -	o o o o -
303.50	4.6	4330	2.09	2.0	o o o o o - - - - -	o o o o o - - - - -	W3	o o o o o - - - - -	o o o - - - -	o o o o -
256.81	5.5	4330	2.47	4.4	- - - o o o - - - - -	- - - o o o o - - - - -	W3	- - - o o o - - - - -	- o o - - - -	- o o o -
232.36	6.0	4330	2.73	4.5	- - - o o o - - - - -	- - - o o o o - - - - -	W3	- - - o o o - - - - -	- o o - - - -	- o o o -
210.95	6.6	4330	3.01	4.7	- - - o o o - - - - -	- - - o o o o - - - - -	W3	- - - o o o - - - - -	- o o - - - -	- o o o -
188.09	7.4	4330	3.37	4.9	- - - o o o - - - - -	- - - o o o o - - - - -	W3	- - - o o o - - - - -	- o o - - - -	- o o o -

K73

183.21	7.6	4330	3.46	3.8	- - - o o - - - - -	- - - - - o - - - - -	W3	- - - - - o - - - - -	- - o - - - -	- - - o -
166.63	8.4	4330	3.81	4.4	- - - o o - - - - -	- - - - - o o - - - - -	W3	- - - - - o - - - - -	- - o - - - -	- - - o -
152.50	9.2	4330	4.16	5.0	- - - o o o - - - - -	- - - - - o o o - - - - -	W3	- - - - - o - - - - -	- - o - - - -	- - - o -
141.34	9.9	4330	4.49	5.6	- - - o o o - - - - -	- - - - - o o o - - - - -	W3	- - - - - o - - - - -	- - o - - - -	- - - o -
128.10	11	4330	4.95	6.5	- - - o o o o - - - - -	- - - - - o o o o - - - - -	W4	- - - - - o o o o - - - - -	- - o o - - -	- - - o o
116.83	12	4330	5.4	7.4	- - - o o o o - - - - -	- - - - - o o o o - - - - -	W4	- - - - - o o o o - - - - -	- - o o - - -	- - - o o
108.36	13	4330	5.9	8.3	- - - o o o o - - - - -	- - - - - o o o o - - - - -	W4	- - - - - o o o o - - - - -	- - o o - - -	- - - o o
98.17	14	4330	6.5	9.5	- - - o o o o o - - - - -	- - - - - o o o o o - - - - -	W4	- - - - - o o o o o - - - - -	- - o o o - -	- - - o o
89.29	16	4330	7.1	10.7	- - - o o o o o - - - - -	- - - - - o o o o o - - - - -	W4	- - - - - o o o o o - - - - -	- - o o o - -	- - - o o
80.57	17	4330	7.9	12.2	- - - o o o o o - - - - -	- - - - - o o o o o - - - - -	W4	- - - - - o o o o o - - - - -	- - o o o - -	- - - o o
73.10	19	4330	8.7	13.5	- - - - - o o o o o - - - - -	- - - - - o o o o o - - - - -	W4	- - - - - o o o o o - - - - -	- - o o o - -	- - - o o
63.32	22	4330	10.0	17.7	- - - - - o o o - - - - -	- - - - - o o o - - - - -	W5	- - - - - o o o - - - - -	- - - o o o -	- - - - - o
57.29	24	4330	11.1	20.0	- - - - - o o o - - - - -	- - - - - o o o - - - - -	W5	- - - - - o o o - - - - -	- - - o o o -	- - - - - o
52.01	27	4330	12.2	23.2	- - - - - o o o - - - - -	- - - - - o o o - - - - -	W5	- - - - - o o o - - - - -	- - - o o o -	- - - - - o
46.38	30	4330	13.7	26.7	- - - - - o o o - - - - -	- - - - - o o o - - - - -	W5	- - - - - o o o - - - - -	- - - o o o -	- - - - - o
43.99	32	4330	14.4	14.3	- - - o o o o o - - - - -	- - - - - o o o o o - - - - -	W5	- - - - - o o o o o - - - - -	- - o o o - -	- - - o o
40.01	35	4330	15.9	16.5	- - - o o o o o - - - - -	- - - - - o o o o o - - - - -	W5	- - - - - o o o o o - - - - -	- - o o o - -	- - - o o
36.10	39	4330	17.6	19.4	- - - o o o o o - - - - -	- - - - - o o o o o - - - - -	W5	- - - - - o o o o o - - - - -	- - o o o - -	- - - o o
32.75	43	4330	19.4	22.2	- - - o o o o o - - - - -	- - - - - o o o o o - - - - -	W5	- - - - - o o o o o - - - - -	- - o o o - -	- - - o o
28.37	49	4330	22.4	29.2	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o
25.67	55	4330	24.7	34.2	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o
23.31	60	4330	27.2	40.3	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o
20.78	67	4330	30.0	48.3	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o
17.62	79	4330	30.0	65	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o
15.04	93	4160	30.0	84	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o
13.76	102	3100	30.0	32.0	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o
12.45	112	3090	30.0	37.5	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o
11.30	124	3100	30.0	44.4	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o
10.08	139	3100	30.0	53	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o
8.54	164	3100	30.0	72	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o
7.29	192	3100	30.0	94	- - - - - o o o o - - - - -	- - - - - o o o o - - - - -	W5	- - - - - o o o o - - - - -	- - - o o o -	- - - - - o

Helical bevel gear units K



i	n2 (n1=1400) [1/min]	T2max [Nm]	P1max [kW]	Jg [kgcm²]	Three phase motor DM/DA							Servo motor TA							-W	Motor adapter -M IEC					-M NEMA				-M S													
					63	71	80	90	100	112	132	160	180	200	225	31	32	33		41	42	43	51	52	53	61	62	63	63	71	80	90	100	112	132	160	180	56	140	180	210	250

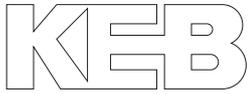
K83G33

16285	0.086	7960	0.07	0.13	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
13981	0.10	7960	0.08	0.15	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
12162	0.12	7960	0.10	0.20	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
10689	0.13	7960	0.11	0.23	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
9472.7	0.15	7960	0.12	0.27	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
8450.8	0.17	7960	0.14	0.30	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
7580.3	0.18	7960	0.15	0.34	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
6889.3	0.20	7960	0.17	0.40	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
6074.0	0.23	7960	0.19	0.46	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
5379.6	0.26	7960	0.22	0.55	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
4900.2	0.29	7960	0.24	0.56	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
4292.3	0.33	7960	0.27	0.56	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
3755.0	0.37	7960	0.31	0.41	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
3368.2	0.42	7960	0.35	0.47	○ ○ ○ - - - - -	○ ○ ○ - - - - -	W1	○ ○ ○ - - - - -	○ ○ ○ - - - - -	○ ○ ○ - - - - -
3061.2	0.46	7960	0.38	0.56	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	W1	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -
2698.9	0.52	7960	0.43	0.66	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	W1	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -

K83G32

2357.9	0.59	7960	0.49	0.51	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	W1	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -
2105.6	0.66	7960	0.55	0.59	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	W1	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -
1893.6	0.74	7960	0.62	0.68	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	W2	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -
1713.0	0.82	7960	0.68	0.87	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	W2	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -
1561.4	0.90	7960	0.75	0.96	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	W2	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -	○ ○ ○ ○ - - - - -
1393.0	1.0	7960	0.84	1.1	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	W2	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -
1249.5	1.1	7960	0.93	1.3	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	W2	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -
1138.2	1.2	7960	1.02	1.3	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	W2	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -
996.96	1.4	7960	1.17	1.3	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	W2	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -
906.86	1.5	7960	1.29	1.3	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	W2	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -
816.82	1.7	7960	1.43	1.4	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	W2	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -	○ ○ ○ ○ ○ - - - - -
774.35	1.8	7960	1.51	3.0	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W2	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
705.34	2.0	7960	1.65	3.0	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W2	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
617.84	2.3	7960	1.89	3.1	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W3	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
545.46	2.6	7960	2.14	2.3	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W3	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
483.36	2.9	7960	2.41	2.8	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W3	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
425.46	3.3	7960	2.74	3.5	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W3	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
372.59	3.8	7960	3.13	4.6	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W3	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
327.28	4.3	7960	3.56	5.4	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W3	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
298.11	4.7	7960	3.91	5.7	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W3	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
261.13	5.4	7960	4.47	6.1	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W4	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
237.53	5.9	7960	4.91	6.4	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W4	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
213.95	6.5	7960	5.5	6.7	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W4	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
192.10	7.3	7960	6.1	7.1	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W4	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
187.60	7.5	7680	6.0	6.4	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W4	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -
164.78	8.5	7060	6.3	7.8	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	W4	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -	- - - ○ ○ ○ - - - - -

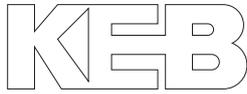
Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.12 kW						
1.5	735	1.95	920.69	K53G22A DM63K4	171/15	52
1.7	645	2.2	811.74	K53G22B DM63K4		52
1.9	575	2.5	718.94	K53G22C DM63K4		56
2.1	515	2.8	648.83			
1.5	730	1.00	912.99	K43G12A DM63K4	170/15	33
1.7	635	1.15	796.88	K43G12B DM63K4		33
2.0	555	1.35	697.97	K43G12C DM63K4		35
2.2	510	1.45	641.52			
2.4	450	1.65	565.19			
2.8	400	1.85	501.06			
3.1	355	2.1	446.44			
3.4	320	2.3	400.77			
3.9	280	2.7	349.80			
2.3	490	0.80	612.54	K33G12A DM63K4	169/15	25
2.6	430	0.95	536.51	K33G12B DM63K4		25
2.8	395	1.00	493.12	K33G12C DM63K4		27
3.2	345	1.15	434.44			
3.6	305	1.30	385.15			
4.0	275	1.45	343.16			
4.5	245	1.60	308.06			
5.1	215	1.85	268.88			
5.9	188	2.1	235.51			
6.6	167	2.4	210.10			
7.3	150	2.7	188.46			
8.1	137	2.9	171.28			
4.6	240	0.85	298.43	K23G02A DM63K4	168/15	22
5.3	210	1.00	261.38	K23G02B DM63K4		22
6.0	182	1.10	228.47	K23G02C DM63K4		23
6.9	160	1.25	201.29			
7.7	142	1.45	178.45			
8.7	127	1.60	159.00			
9.7	114	1.80	142.73			
11	99	2.1	124.58			
13	87	2.3	109.11			
13	85	2.4	102.27	K23A DM63K4	168	18
16	73	2.8	87.38	K23B DM63K4		18
18	63	3.2	75.61	K23C DM63K4		19
21	55	3.7	66.09			
24	48	4.2	58.23			
27	43	4.8	51.62			
30	38	5.3	46.00			
33	34	5.9	41.29			
38	30	6.8	36.04			
44	26	7.8	31.57			
53	22	9.4	26.14			
60	19	11	22.85			
69	17	12	20.13			
77	15	14	17.84			
87	13	15	15.90			
97	12	17	14.27			
111	10	20	12.46			
126	9.1	23	10.91			
148	7.8	21	9.34			
167	6.9	23	8.28			
187	6.1	26	7.38			
208	5.5	29	6.63			
239	4.8	34	5.78			
272	4.2	38	5.07			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.18 kW						
1.4	1170	2.2	981.68	K63G22A DM63G4	172/15	77
1.6	1040	2.5	869.44	K63G22B DM63G4		77
1.7	960	2.7	803.80	K63G22C DM63G4		82
1.9	865	2.9	724.09			
1.5	1100	1.30	920.69	K53G22A DM63G4	171/15	53
1.7	970	1.45	811.74	K53G22B DM63G4		53
1.9	860	1.65	718.94	K53G22C DM63G4		56
2.1	775	1.85	648.83			
2.3	715	2.00	597.22			
2.6	625	2.3	524.36			
2.9	560	2.5	470.34			
3.2	510	2.8	427.46			
1.7	955	0.80	796.88	K43G12A DM63G4	170/15	33
2.0	835	0.90	697.97	K43G12B DM63G4		33
2.2	765	0.95	641.52	K43G12C DM63G4		35
2.4	675	1.10	565.19			
2.8	600	1.25	501.06			
3.1	535	1.40	446.44			
3.4	480	1.55	400.77			
3.9	420	1.80	349.80			
4.5	365	2.0	306.38			
5.0	330	2.3	275.54			
5.5	300	2.5	249.26			
6.1	270	2.7	227.20			
3.6	460	0.85	385.15	K33G12A DM63G4	169/15	25
4.0	410	0.95	343.16	K33G12B DM63G4		25
4.5	370	1.10	308.06	K33G12C DM63G4		27
5.1	320	1.25	268.88			
5.9	280	1.40	235.51			
6.6	250	1.60	210.10			
7.3	225	1.75	188.46			
8.1	205	1.95	171.28			
9.1	181	2.2	151.01			
10	160	2.5	133.74			
12	143	2.8	119.69			
11	150	2.7	120.13	K33A DM63G4	169	20
				K33B DM63G4		20
				K33C DM63G4		23
6.9	240	0.85	201.29	K23G02A DM63G4	168/15	23
7.7	215	0.95	178.45	K23G02B DM63G4		23
8.7	190	1.05	159.00	K23G02C DM63G4		24
9.7	171	1.20	142.73			
11	149	1.35	124.58			
13	130	1.55	109.11			

Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.18 kW

13	127	1.60	102.27	K23A DM63G4	168	18
16	109	1.85	87.38	K23B DM63G4		18
18	94	2.2	75.61	K23C DM63G4		19
21	82	2.5	66.09			
24	73	2.8	58.23			
27	64	3.2	51.62			
30	57	3.6	46.00			
33	51	4.0	41.29			
38	45	4.5	36.04			
44	39	5.2	31.57			
53	33	6.3	26.14			
60	28	7.2	22.85			
69	25	8.1	20.13			
77	22	9.2	17.84			
87	20	10	15.90			
97	18	11	14.27			
111	16	13	12.46			
126	14	15	10.91			
148	12	14	9.34			
167	10	16	8.28			
187	9.2	18	7.38			
208	8.3	20	6.63			
239	7.2	22	5.78			
272	6.3	26	5.07			

0.25 kW

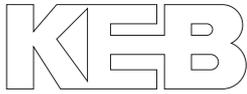
1.4	1620	2.7	994.22	K73G32A DM71K4	173/15	130
1.6	1400	3.1	861.22	K73G32B DM71K4		130
				K73G32C DM71K4		139
1.4	1600	1.60	981.68	K63G22A DM71K4	172/15	78
1.6	1410	1.80	869.44	K63G22B DM71K4		78
1.8	1310	1.95	803.80	K63G22C DM71K4		84
1.9	1180	2.2	724.09			
2.2	1030	2.5	634.13			
2.5	925	2.8	568.80			
2.7	840	3.0	516.95			
1.5	1500	0.95	920.69	K53G22A DM71K4	171/15	54
1.7	1320	1.10	811.74	K53G22B DM71K4		54
2.0	1170	1.20	718.94	K53G22C DM71K4		58
2.2	1050	1.35	648.83			
2.4	970	1.45	597.22			
2.7	850	1.70	524.36			
3.0	765	1.85	470.34			
3.3	695	2.1	427.46			
3.7	615	2.3	376.88			
4.2	545	2.6	333.79			
4.7	490	2.9	301.24			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.25 kW

2.5	920	0.80	565.19	K43G12A DM71K4	170/15	35
2.8	815	0.90	501.06	K43G12B DM71K4		35
3.2	725	1.00	446.44	K43G12C DM71K4		37
3.5	650	1.15	400.77			
4.0	570	1.30	349.80			
4.6	500	1.50	306.38			
5.1	450	1.65	275.54			
5.7	405	1.85	249.26			
6.2	370	2.0	227.20			
7.0	330	2.3	202.69			
7.8	295	2.5	181.81			
8.5	270	2.8	164.95			
9.6	240	3.1	146.17			
11	210	3.6	128.66			
9.3	255	2.9	151.92	K43A DM71K4	170	30
				K43B DM71K4		30
				K43C DM71K4		32
4.6	500	0.80	308.06	K33G12A DM71K4	169/15	27
5.2	435	0.90	268.88	K33G12B DM71K4		27
6.0	385	1.05	235.51	K33G12C DM71K4		29
6.7	340	1.15	210.10			
7.5	305	1.30	188.46			
8.2	280	1.45	171.28			
9.3	245	1.65	151.01			
11	215	1.85	133.74			
12	195	2.1	119.69			
14	169	2.4	104.17			
12	205	1.95	120.13	K33A DM71K4	169	22
14	175	2.3	103.13	K33B DM71K4		22
16	152	2.6	89.71	K33C DM71K4		24
18	134	3.0	78.85			
8.9	260	0.80	159.00	K23G02A DM71K4	168/15	24
9.9	230	0.90	142.73	K23G02B DM71K4		24
11	205	1.00	124.58	K23G02C DM71K4		25
13	177	1.15	109.11			
14	173	1.20	102.27	K23A DM71K4	168	20
16	148	1.40	87.38	K23B DM71K4		20
19	128	1.60	75.61	K23C DM71K4		21
21	112	1.80	66.09			
24	99	2.1	58.23			
27	87	2.3	51.62			
31	78	2.6	46.00			
34	70	2.9	41.29			
39	61	3.3	36.04			
45	53	3.8	31.57			
54	44	4.6	26.14			
62	39	5.3	22.85			
70	34	6.0	20.13			
79	30	6.8	17.84			
89	27	7.6	15.90			
99	24	8.4	14.27			
113	21	9.7	12.46			
129	18	11	10.91			
151	16	10	9.34			
170	14	11	8.28			
191	12	13	7.38			
213	11	14	6.63			
244	9.8	16	5.78			
278	8.6	19	5.07			

Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.37 kW						
1.4	2390	1.80	994.22	K73G32A DM71G4	173/15	131
1.6	2070	2.1	861.22	K73G32B DM71G4		131
1.8	1870	2.3	779.24	K73G32C DM71G4		140
2.0	1700	2.5	707.41			
2.2	1520	2.9	630.75			
1.4	2360	1.10	981.68	K63G22A DM71G4	172/15	79
1.6	2090	1.20	869.44	K63G22B DM71G4		79
1.8	1930	1.30	803.80	K63G22C DM71G4		85
1.9	1740	1.45	724.09			
2.2	1530	1.65	634.13			
2.5	1370	1.85	568.80			
2.7	1240	2.1	516.95			
3.1	1100	2.3	455.78			
3.5	970	2.6	403.67			
3.8	900	2.8	373.19			
2.0	1730	0.85	718.94	K53G22A DM71G4	171/15	55
2.2	1560	0.90	648.83	K53G22B DM71G4		55
2.4	1440	1.00	597.22	K53G22C DM71G4		59
2.7	1260	1.15	524.36			
3.0	1130	1.25	470.34			
3.3	1030	1.40	427.46			
3.7	905	1.55	376.88			
4.2	805	1.80	333.79			
4.7	725	1.95	301.24			
5.1	665	2.1	277.28			
5.7	595	2.4	247.82			
6.4	530	2.7	220.06			
7.2	470	3.0	195.01			
4.0	840	0.90	349.80	K43G12A DM71G4	170/15	36
4.6	735	1.00	306.38	K43G12B DM71G4		36
5.1	665	1.10	275.54	K43G12C DM71G4		38
5.7	600	1.25	249.26			
6.2	545	1.35	227.20			
7.0	490	1.50	202.69			
7.8	435	1.70	181.81			
8.5	395	1.85	164.95			
9.6	350	2.1	146.17			
11	310	2.4	128.66			
9.3	380	1.95	151.92	K43A DM71G4	170	31
11	330	2.3	131.28	K43B DM71G4		31
12	290	2.6	114.99	K43C DM71G4		33
14	255	2.9	101.80			
6.7	505	0.80	210.10	K33G12A DM71G4	169/15	28
7.5	455	0.90	188.46	K33G12B DM71G4		28
8.2	410	0.95	171.28	K33G12C DM71G4		30
9.3	365	1.10	151.01			
11	320	1.25	133.74			
12	290	1.40	119.69			
14	250	1.60	104.17			
12	300	1.35	120.13	K33A DM71G4	169	23
14	260	1.55	103.13	K33B DM71G4		23
16	225	1.75	89.71	K33C DM71G4		25
18	198	2.0	78.85			
20	175	2.3	69.88			
23	156	2.6	62.34			
25	140	2.8	55.92			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.37 kW						
14	255	0.80	102.27	K23A DM71G4	168	21
16	220	0.95	87.38	K23B DM71G4		21
19	189	1.10	75.61	K23C DM71G4		22
21	166	1.25	66.09			
24	146	1.40	58.23			
27	129	1.60	51.62			
31	115	1.75	46.00			
34	103	1.95	41.29			
39	90	2.3	36.04			
45	79	2.6	31.57			
54	66	3.1	26.14			
62	57	3.6	22.85			
70	50	4.0	20.13			
79	45	4.6	17.84			
89	40	5.1	15.90			
99	36	5.7	14.27			
113	31	6.5	12.46			
129	27	7.5	10.91			
151	23	6.9	9.34			
170	21	7.8	8.28			
191	18	8.7	7.38			
213	17	9.7	6.63			
244	14	11	5.78			
278	13	13	5.07			
0.55 kW						
1.4	3580	2.2	996.96	K83G32A DM80K4	174/15	201
1.5	3250	2.4	906.86	K83G32B DM80K4		201
1.7	2930	2.7	816.82	K83G32C DM80K4		218
1.4	3570	1.20	994.22	K73G32A DM80K4	173/15	133
1.6	3090	1.40	861.22	K73G32B DM80K4		133
1.8	2800	1.55	779.24	K73G32C DM80K4		142
2.0	2540	1.70	707.41			
2.2	2260	1.90	630.75			
2.4	2110	2.1	587.86			
2.7	1890	2.3	527.31			
2.9	1720	2.5	478.39			
3.4	1490	2.9	414.39			
1.6	3120	0.80	869.44	K63G22A DM80K4	172/15	81
1.7	2880	0.90	803.80	K63G22B DM80K4		81
1.9	2600	1.00	724.09	K63G22C DM80K4		87
2.2	2280	1.10	634.13			
2.5	2040	1.25	568.80			
2.7	1860	1.40	516.95			
3.1	1640	1.55	455.78			
3.5	1450	1.75	403.67			
3.8	1340	1.90	373.19			
4.2	1210	2.1	336.18			
4.7	1080	2.4	301.25			
5.2	970	2.6	269.78			
5.8	870	2.9	242.80			
6.6	760	3.4	211.83			
7.4	680	3.7	189.77			

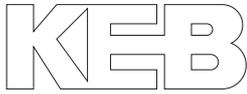
Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.55 kW						
3.0	1690	0.85	470.34	K53G22A DM80K4	171/15	57
3.3	1530	0.95	427.46	K53G22B DM80K4		57
3.7	1350	1.05	376.88	K53G22C DM80K4		61
4.2	1200	1.20	333.79			
4.7	1080	1.30	301.24			
5.1	995	1.45	277.28			
5.7	890	1.60	247.82			
6.4	790	1.80	220.06			
7.2	700	2.0	195.01			
8.1	625	2.3	173.54			
9.5	535	2.7	148.66			
10	520	2.7	138.94	K53A DM80K4	171	51
				K53B DM80K4		51
				K53C DM80K4		55
5.6	895	0.85	249.26	K43G12A DM80K4	170/15	38
6.2	815	0.90	227.20	K43G12B DM80K4		38
6.9	725	1.00	202.69	K43G12C DM80K4		40
7.7	655	1.15	181.81			
8.5	590	1.25	164.95			
9.6	525	1.40	146.17			
11	460	1.60	128.66			
12	430	1.75	114.99	K43A DM80K4	170	33
14	380	1.95	101.80	K43B DM80K4		33
15	340	2.2	90.90	K43C DM80K4		35
17	305	2.4	81.75			
19	275	2.7	73.96			
21	250	2.9	67.41			
11	480	0.85	133.74	K33G12A DM80K4	169/15	30
12	430	0.95	119.69	K33G12B DM80K4		30
13	375	1.05	104.17	K33G12C DM80K4		32
16	335	1.20	89.71	K33A DM80K4	169	25
18	295	1.35	78.85	K33B DM80K4		25
20	260	1.55	69.88	K33C DM80K4		27
23	235	1.70	62.34			
25	210	1.90	55.92			
28	190	2.1	50.82			
31	167	2.4	44.80			
35	148	2.7	39.68			
21	245	0.85	66.09	K23A DM80K4	168	23
24	220	0.95	58.23	K23B DM80K4		23
27	193	1.05	51.62	K23C DM80K4		24
31	172	1.20	46.00			
34	154	1.30	41.29			
39	135	1.50	36.04			
45	118	1.75	31.57			
54	98	2.1	26.14			
61	85	2.4	22.85			
70	75	2.7	20.13			
79	67	3.1	17.84			
88	59	3.4	15.90			
98	53	3.8	14.27			
113	47	4.4	12.46			
129	41	5.0	10.91			
150	35	4.6	9.34			
170	31	5.2	8.28			
190	28	5.8	7.38			
212	25	6.5	6.63			
243	22	7.4	5.78			
277	19	8.5	5.07			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.75 kW						
1.4	4820	2.5	988.56	K93G42A DM80G4	175/15	309
1.6	4220	2.9	864.99	K93G42B DM80G4		309
1.9	3720	3.3	762.02	K93G42C DM80G4		325
2.2	3180	3.9	651.55			
1.4	4860	1.65	996.96	K83G32A DM80G4	174/15	203
1.6	4420	1.80	906.86	K83G32B DM80G4		203
1.7	3980	2.00	816.82	K83G32C DM80G4		220
1.4	4850	0.90	994.22	K73G32A DM80G4	173/15	135
1.6	4200	1.05	861.22	K73G32B DM80G4		135
1.8	3800	1.15	779.24	K73G32C DM80G4		144
2.0	3450	1.25	707.41			
2.2	3080	1.40	630.75			
2.4	2870	1.50	587.86			
2.7	2570	1.70	527.31			
2.9	2330	1.85	478.39			
3.4	2020	2.1	414.39			
3.8	1830	2.4	374.95			
4.1	1660	2.6	340.39			
4.6	1480	2.9	303.50			
2.2	3090	0.85	634.13	K63G22A DM80G4	172/15	83
2.5	2770	0.90	568.80	K63G22B DM80G4		83
2.7	2520	1.00	516.95	K63G22C DM80G4		88
3.1	2220	1.15	455.78			
3.5	1970	1.30	403.67			
3.8	1820	1.40	373.19			
4.2	1640	1.55	336.18			
4.7	1470	1.75	301.25			
5.2	1320	1.95	269.78			
5.8	1180	2.2	242.80			
6.7	1030	2.5	211.83			
7.4	925	2.8	189.77			
3.7	1840	0.80	376.88	K53G22A DM80G4	171/15	59
4.2	1630	0.90	333.79	K53G22B DM80G4		59
4.7	1470	0.95	301.24	K53G22C DM80G4		62
5.1	1350	1.05	277.28			
5.7	1210	1.20	247.82			
6.4	1070	1.35	220.06			
7.2	950	1.50	195.01			
8.1	845	1.70	173.54			
9.5	725	1.95	148.66			
10	705	2.0	138.94	K53A DM80G4	171	53
11	625	2.3	123.46	K53B DM80G4		53
13	560	2.5	110.68	K53C DM80G4		56
14	510	2.8	99.94			
7.8	885	0.85	181.81	K43G12A DM80G4	170/15	39
8.5	805	0.90	164.95	K43G12B DM80G4		39
9.6	715	1.05	146.17	K43G12C DM80G4		41
11	625	1.20	128.66			
12	585	1.25	114.99	K43A DM80G4	170	35
14	515	1.45	101.80	K43B DM80G4		35
16	460	1.60	90.90	K43C DM80G4		37
17	415	1.80	81.75			
19	375	2.00	73.96			
21	340	2.2	67.41			
23	305	2.4	60.14			
26	275	2.7	53.94			

Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.75 kW

14	510	0.80	104.17	K33G12A DM80G4 K33G12B DM80G4 K33G12C DM80G4	169/15	31 31 34
16	455	0.90	89.71	K33A DM80G4	169	27
18	400	1.00	78.85	K33B DM80G4		27
20	355	1.10	69.88	K33C DM80G4		29
23	315	1.25	62.34			
25	285	1.40	55.92			
28	260	1.55	50.82			
31	230	1.75	44.80			
36	200	2.00	39.68			
52	138	2.9	27.26			
27	260	0.80	51.62	K23A DM80G4	168	24
31	235	0.85	46.00	K23B DM80G4		24
34	210	0.95	41.29	K23C DM80G4		26
39	183	1.10	36.04			
45	160	1.25	31.57			
54	133	1.55	26.14			
62	116	1.75	22.85			
70	102	2.00	20.13			
79	91	2.3	17.84			
89	81	2.5	15.90			
99	73	2.8	14.27			
113	63	3.2	12.46			
129	55	3.7	10.91			
151	47	3.4	9.34			
170	42	3.8	8.28			
191	37	4.3	7.38			
213	34	4.8	6.63			
244	29	5.5	5.78			
278	26	6.3	5.07			

1.1 kW

1.4	7050	1.75	988.56	K93G42A DM90S4	175/15	311
1.6	6160	2.00	864.99	K93G42B DM90S4		311
1.9	5430	2.3	762.02	K93G42C DM90S4		328
2.2	4640	2.6	651.55			
2.2	4500	2.7	631.60			
1.4	7110	1.10	996.96	K83G32A DM90S4	174/15	205
1.6	6460	1.25	906.86	K83G32B DM90S4		205
1.7	5820	1.35	816.82	K83G32C DM90S4		222
1.8	5520	1.45	774.35			
2.0	5030	1.60	705.34			
2.3	4400	1.80	617.84			
2.6	3890	2.0	545.46			
2.9	3440	2.3	483.36			
3.3	3030	2.6	425.46			
3.8	2660	3.0	372.59			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

1.1 kW

1.8	5550	0.80	779.24	K73G32A DM90S4	173/15	137
2.0	5040	0.85	707.41	K73G32B DM90S4		137
2.2	4500	0.95	630.75	K73G32C DM90S4		146
2.4	4190	1.05	587.86			
2.7	3760	1.15	527.31			
3.0	3410	1.25	478.39			
3.4	2950	1.45	414.39			
3.8	2670	1.60	374.95			
4.2	2430	1.80	340.39			
4.7	2160	2.0	303.50			
5.5	1830	2.4	256.81			
6.1	1660	2.6	232.36			
6.7	1500	2.9	210.95			
3.1	3250	0.80	455.78	K63G22A DM90S4	172/15	85
3.5	2880	0.90	403.67	K63G22B DM90S4		85
3.8	2660	0.95	373.19	K63G22C DM90S4		90
4.2	2400	1.05	336.18			
4.7	2150	1.20	301.25			
5.2	1920	1.35	269.78			
5.8	1730	1.45	242.80			
6.0	1670	1.55	234.63			
6.7	1510	1.70	211.83			
6.7	1500	1.70	210.12			
7.5	1350	1.90	189.77			
7.5	1350	1.90	189.10			
8.8	1190	2.1	160.53	K63A DM90S4	172	80
9.8	1070	2.4	144.48	K63B DM90S4		80
11	970	2.6	130.99	K63C DM90S4		86
12	885	2.9	119.50			
5.7	1770	0.80	247.82	K53G22A DM90S4	171/15	61
6.4	1570	0.90	220.06	K53G22B DM90S4		61
7.3	1390	1.05	195.01	K53G22C DM90S4		64
8.2	1240	1.15	173.54			
9.5	1060	1.35	148.66			
10	965	1.50	135.16			
11	915	1.55	123.46	K53A DM90S4	171	55
13	820	1.75	110.68	K53B DM90S4		55
14	740	1.90	99.94	K53C DM90S4		59
16	675	2.1	90.79			
17	615	2.3	83.01			
19	555	2.6	74.48			
21	500	2.9	67.22			
14	755	1.00	101.80	K43A DM90S4	170	37
16	675	1.10	90.90	K43B DM90S4		37
17	605	1.20	81.75	K43C DM90S4		39
19	550	1.35	73.96			
21	500	1.50	67.41			
24	445	1.65	60.14			
26	400	1.85	53.94			
29	365	2.0	48.94			
33	320	2.3	43.37			
37	285	2.6	38.17			
42	250	3.0	33.43			

Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

1.1 kW

23	465	0.85	62.34	K33A DM90S4	169	29
25	415	0.95	55.92	K33B DM90S4		29
28	375	1.05	50.82	K33C DM90S4		31
32	335	1.20	44.80			
36	295	1.35	39.68			
40	265	1.50	35.51			
46	230	1.75	30.91			
52	200	1.95	27.26			
59	179	2.2	24.15			
66	160	2.5	21.55			
73	143	2.8	19.33			
45	235	0.85	31.57	K23A DM90S4	168	27
62	170	1.20	22.85	K23B DM90S4		27
70	149	1.35	20.13	K23C DM90S4		28
79	132	1.55	17.84			
89	118	1.75	15.90			
99	106	1.95	14.27			
114	92	2.2	12.46			
130	81	2.5	10.91			
151	69	2.3	9.34			
171	62	2.6	8.28			
192	55	2.9	7.38			
214	49	3.3	6.63			
245	43	3.7	5.78			
279	38	4.3	5.07			

1.5 kW

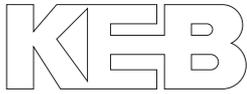
1.4	9640	1.25	988.56	K93G42A DM90L4	175/15	314
1.6	8440	1.45	864.99	K93G42B DM90L4		314
1.9	7430	1.65	762.02	K93G42C DM90L4		331
2.2	6350	1.95	651.55			
2.2	6160	2.00	631.60			
2.5	5470	2.2	560.85			
2.8	4850	2.5	497.00			
3.1	4430	2.8	454.31			
3.4	4050	3.0	414.77			
1.4	9720	0.80	996.96	K83G32A DM90L4	174/15	208
1.6	8840	0.90	906.86	K83G32B DM90L4		208
1.7	7970	1.00	816.82	K83G32C DM90L4		225
1.8	7550	1.05	774.35			
2.0	6880	1.15	705.34			
2.3	6030	1.30	617.84			
2.6	5320	1.50	545.46			
2.9	4710	1.70	483.36			
3.3	4150	1.90	425.46			
3.8	3630	2.2	372.59			
7.5	1830	4.2	187.60			
2.7	5140	0.85	527.31	K73G32A DM90L4	173/15	140
2.9	4670	0.95	478.39	K73G32B DM90L4		140
3.4	4040	1.05	414.39	K73G32C DM90L4		149
3.8	3660	1.20	374.95			
4.1	3320	1.30	340.39			
4.6	2960	1.45	303.50			
5.5	2500	1.75	256.81			
6.1	2270	1.90	232.36			
6.7	2060	2.1	210.95			
7.5	1830	2.4	188.09			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

1.5 kW

7.7	1860	2.3	183.21	K73A DM90L4	173	132
8.5	1690	2.6	166.63	K73B DM90L4		132
9.2	1550	2.8	152.50	K73C DM90L4		141
10.0	1440	3.0	141.34			
4.2	3280	0.80	336.18	K63G22A DM90L4	172/15	88
4.7	2940	0.85	301.25	K63G22B DM90L4		88
5.2	2630	0.95	269.78	K63G22C DM90L4		93
5.8	2370	1.10	242.80			
6.0	2290	1.10	234.63			
6.7	2070	1.25	211.83			
6.7	2050	1.25	210.12			
7.4	1850	1.40	189.77			
7.5	1840	1.40	189.10			
8.8	1630	1.55	160.53	K63A DM90L4	172	83
9.8	1470	1.75	144.48	K63B DM90L4		83
11	1330	1.90	130.99	K63C DM90L4		89
12	1210	2.1	119.50			
13	1120	2.3	109.93			
14	1010	2.5	99.21			
16	915	2.8	90.07			
8.1	1690	0.85	173.54	K53G22A DM90L4	171/15	64
9.5	1450	1.00	148.66	K53G22B DM90L4		64
10	1320	1.10	135.16	K53G22C DM90L4		67
11	1250	1.15	123.46	K53A DM90L4	171	58
13	1120	1.25	110.68	K53B DM90L4		58
14	1020	1.40	99.94	K53C DM90L4		62
16	920	1.55	90.79			
17	845	1.70	83.01			
19	755	1.90	74.48			
21	685	2.1	67.22			
23	630	2.3	61.87			
25	560	2.5	55.30			
29	500	2.9	49.10			
16	925	0.80	90.90	K43A DM90L4	170	40
17	830	0.90	81.75	K43B DM90L4		40
19	750	1.00	73.96	K43C DM90L4		42
21	685	1.10	67.41			
23	610	1.20	60.14			
26	550	1.35	53.94			
29	495	1.50	48.94			
33	440	1.70	43.37			
37	390	1.90	38.17			
42	340	2.2	33.43			
55	260	2.9	25.56			
31	455	0.90	44.80	K33A DM90L4	169	32
36	405	1.00	39.68	K33B DM90L4		32
40	360	1.10	35.51	K33C DM90L4		34
46	315	1.25	30.91			
52	275	1.45	27.26			
58	245	1.65	24.15			
65	220	1.80	21.55			
73	196	2.0	19.33			
80	178	2.2	17.57			
91	157	2.5	15.49			
103	139	2.9	13.72			

Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

1.5 kW

62	230	0.90	22.85	K23A DM90L4	168	30
70	205	1.00	20.13	K23B DM90L4		30
79	181	1.15	17.84	K23C DM90L4		31
89	162	1.25	15.90			
99	145	1.40	14.27			
113	127	1.60	12.46			
129	111	1.85	10.91			
151	95	1.70	9.34			
170	84	1.90	8.28			
191	75	2.1	7.38			
213	67	2.4	6.63			
244	59	2.7	5.78			
278	51	3.1	5.07			

2.2 kW

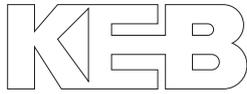
1.4	14100	0.85	988.56	K93G42A DM100L4	175/15	319
1.6	12400	1.00	864.99	K93G42B DM100L4		319
1.9	10900	1.10	762.02	K93G42C DM100L4		336
2.2	9320	1.30	651.55			
2.2	9030	1.35	631.60			
2.5	8020	1.55	560.85			
2.8	7110	1.70	497.00			
3.1	6500	1.90	454.31			
3.4	5930	2.1	414.77			
3.8	5360	2.3	375.01			
4.3	4650	2.6	325.31			
5.0	4070	3.0	284.64			
2.0	10100	0.80	705.34	K83G32A DM100L4	174/15	214
2.3	8840	0.90	617.84	K83G32B DM100L4		214
2.6	7800	1.00	545.46	K83G32C DM100L4		231
2.9	6910	1.15	483.36			
3.3	6090	1.30	425.46			
3.8	5330	1.50	372.59			
4.3	4680	1.70	327.28			
4.7	4260	1.85	298.11			
5.4	3740	2.1	261.13			
5.9	3400	2.3	237.53			
6.6	3060	2.6	213.95			
7.3	2750	2.9	192.10			
7.5	2680	2.9	187.60			
8.6	2360	3.0	164.78			
3.8	5360	0.80	374.95	K73G32A DM100L4	173/15	146
4.1	4870	0.90	340.39	K73G32B DM100L4		146
4.6	4340	1.00	303.50	K73G32C DM100L4		155
5.5	3670	1.20	256.81			
6.1	3320	1.30	232.36			
6.7	3020	1.45	210.95			
7.5	2690	1.60	188.09			
7.7	2730	1.60	183.21	K73A DM100L4	173	137
8.5	2480	1.75	166.63	K73B DM100L4		137
9.2	2270	1.90	152.50	K73C DM100L4		146
10.0	2110	2.1	141.34			
11	1910	2.3	128.10			
12	1740	2.5	116.83			
13	1610	2.7	108.36			
14	1460	3.0	98.17			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

2.2 kW

6.7	3030	0.85	211.83	K63G22A DM100L4	172/15	94
6.7	3010	0.85	210.12	K63G22B DM100L4		94
7.4	2710	0.95	189.77	K63G22C DM100L4		100
7.5	2710	0.95	189.10			
9.8	2150	1.20	144.48	K63A DM100L4	172	88
11	1950	1.30	130.99	K63B DM100L4		88
12	1780	1.45	119.50	K63C DM100L4		94
13	1640	1.55	109.93			
14	1480	1.75	99.21			
16	1340	1.90	90.07			
17	1240	2.1	83.27			
19	1120	2.3	75.02			
21	1000	2.5	67.22			
23	895	2.8	60.20			
13	1650	0.85	110.68	K53A DM100L4	171	63
14	1490	0.95	99.94	K53B DM100L4		63
16	1350	1.05	90.79	K53C DM100L4		67
17	1240	1.15	83.01			
19	1110	1.30	74.48			
21	1000	1.45	67.22			
23	920	1.55	61.87			
25	825	1.75	55.30			
29	730	1.95	49.10			
32	650	2.2	43.51			
36	575	2.5	38.72			
23	895	0.85	60.14	K43A DM100L4	170	46
26	805	0.90	53.94	K43B DM100L4		46
29	730	1.00	48.94	K43C DM100L4		48
33	645	1.15	43.37			
37	570	1.30	38.17			
42	500	1.50	33.43			
48	440	1.70	29.37			
55	380	1.95	25.56			
61	345	2.1	23.30			
68	310	2.4	20.79			
76	280	2.7	18.65			
83	250	2.9	16.92			
94	225	3.3	14.99			
46	460	0.85	30.91	K33A DM100L4	169	38
58	360	1.10	24.15	K33B DM100L4		38
65	320	1.25	21.55	K33C DM100L4		40
73	290	1.40	19.33			
80	260	1.50	17.57			
91	230	1.75	15.49			
103	205	1.95	13.72			
115	183	2.1	12.27			
132	159	2.4	10.68			
152	139	1.75	9.30			
167	126	2.4	8.45			
189	111	2.6	7.45			
214	98	2.8	6.60			
239	88	3.4	5.91			
274	77	3.8	5.14			

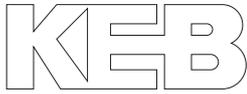
Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
3.0 kW						
1.9	14900	0.80	762.02	K93G42A DM100LX4	175/15	322
2.2	12700	0.95	651.55	K93G42B DM100LX4		322
2.2	12300	1.00	631.60	K93G42C DM100LX4		339
2.5	10900	1.10	560.85			
2.8	9690	1.25	497.00			
3.1	8860	1.40	454.31			
3.4	8090	1.50	414.77			
3.8	7320	1.65	375.01			
4.3	6350	1.95	325.31			
5.0	5550	2.2	284.64			
2.9	9430	0.85	483.36	K83G32A DM100LX4	174/15	217
3.3	8300	0.95	425.46	K83G32B DM100LX4		217
3.8	7270	1.10	372.59	K83G32C DM100LX4		234
4.3	6380	1.25	327.28			
4.7	5820	1.35	298.11			
5.4	5090	1.55	261.13			
5.9	4630	1.70	237.53			
6.6	4170	1.90	213.95			
7.3	3750	2.1	192.10			
7.5	3660	2.1	187.60			
8.6	3210	2.2	164.78			
9.7	2940	2.7	144.68	K83A DM100LX4	174	214
11	2690	3.0	132.28	K83B DM100LX4		214
				K83C DM100LX4		231
5.5	5010	0.85	256.81	K73G32A DM100LX4	173/15	149
6.1	4530	0.95	232.36	K73G32B DM100LX4		149
6.7	4110	1.05	210.95	K73G32C DM100LX4		158
7.5	3670	1.20	188.09			
7.7	3720	1.15	183.21	K73A DM100LX4	173	140
8.5	3390	1.30	166.63	K73B DM100LX4		140
9.2	3100	1.40	152.50	K73C DM100LX4		149
10.0	2870	1.50	141.34			
11	2600	1.65	128.10			
12	2370	1.80	116.83			
13	2200	1.95	108.36			
14	1990	2.2	98.17			
16	1810	2.4	89.29			
17	1640	2.6	80.57			
19	1490	2.9	73.10			
9.8	2940	0.85	144.48	K63A DM100LX4	172	91
11	2660	0.95	130.99	K63B DM100LX4		91
12	2430	1.05	119.50	K63C DM100LX4		97
13	2230	1.15	109.93			
14	2020	1.25	99.21			
16	1830	1.40	90.07			
17	1690	1.50	83.27			
19	1520	1.65	75.02			
21	1370	1.85	67.22			
23	1220	2.1	60.20			
26	1100	2.3	54.18			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
3.0 kW						
17	1690	0.85	83.01	K53A DM100LX4	171	66
19	1510	0.95	74.48	K53B DM100LX4		66
21	1370	1.05	67.22	K53C DM100LX4		70
23	1260	1.15	61.87			
25	1120	1.25	55.30			
29	1000	1.45	49.10			
32	885	1.60	43.51			
36	785	1.80	38.72			
48	600	2.4	29.56			
53	540	2.6	26.68			
57	500	2.9	24.56			
33	880	0.85	43.37	K43A DM100LX4	170	49
37	775	0.95	38.17	K43B DM100LX4		49
42	680	1.10	33.43	K43C DM100LX4		51
48	595	1.25	29.37			
55	520	1.45	25.56			
61	475	1.55	23.30			
68	420	1.75	20.79			
76	380	1.95	18.65			
83	345	2.2	16.92			
94	305	2.4	14.99			
107	270	2.8	13.20			
122	235	3.2	11.56			
139	205	3.6	10.15			
164	175	3.2	8.60			
185	155	3.5	7.62			
58	490	0.80	24.15	K33A DM100LX4	169	41
65	440	0.90	21.55	K33B DM100LX4		41
73	395	1.00	19.33	K33C DM100LX4		43
80	355	1.10	17.57			
91	315	1.25	15.49			
103	280	1.45	13.72			
115	250	1.55	12.27			
132	215	1.75	10.68			
152	189	1.30	9.30			
167	172	1.75	8.45			
189	151	1.90	7.45			
214	134	2.1	6.60			
239	120	2.5	5.91			
274	104	2.8	5.14			
4.0 kW						
2.5	14400	0.85	560.85	K93G42A DM112M4	175/15	329
2.9	12800	0.95	497.00	K93G42B DM112M4		329
3.1	11700	1.05	454.31	K93G42C DM112M4		345
3.4	10700	1.15	414.77			
3.8	9650	1.25	375.01			
4.4	8370	1.45	325.31			
5.0	7330	1.65	284.64			
3.8	9590	0.85	372.59	K83G32A DM112M4	174/15	224
4.4	8420	0.95	327.28	K83G32B DM112M4		224
4.8	7670	1.05	298.11	K83G32C DM112M4		240
5.5	6720	1.20	261.13			
6.0	6110	1.30	237.53			
6.7	5510	1.45	213.95			
7.4	4940	1.60	192.10			
7.6	4830	1.60	187.60			
8.6	4240	1.65	164.78			

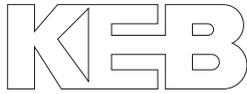
Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
4.0 kW						
9.8	3880	2.1	144.68	K83A DM112M4	174	220
11	3550	2.2	132.28	K83B DM112M4		220
12	3280	2.4	122.27	K83C DM112M4		237
13	2980	2.7	111.12			
14	2720	2.9	101.42			
6.8	5430	0.80	210.95	K73G32A DM112M4	173/15	156
7.6	4840	0.90	188.09	K73G32B DM112M4		156
				K73G32C DM112M4		165
8.6	4470	0.95	166.63	K73A DM112M4	173	147
9.3	4090	1.05	152.50	K73B DM112M4		147
10	3790	1.15	141.34	K73C DM112M4		156
11	3430	1.25	128.10			
12	3130	1.40	116.83			
13	2900	1.50	108.36			
15	2630	1.65	98.17			
16	2390	1.80	89.29			
18	2160	2.0	80.57			
19	1960	2.2	73.10			
12	3200	0.80	119.50	K63A DM112M4	172	98
13	2950	0.85	109.93	K63B DM112M4		98
14	2660	0.95	99.21	K63C DM112M4		104
16	2410	1.05	90.07			
17	2230	1.15	83.27			
19	2010	1.25	75.02			
21	1800	1.40	67.22			
24	1610	1.60	60.20			
26	1450	1.75	54.18			
21	1800	0.80	67.22	K53A DM112M4	171	73
23	1660	0.85	61.87	K53B DM112M4		73
26	1480	0.95	55.30	K53C DM112M4		76
29	1320	1.10	49.10			
33	1170	1.20	43.51			
37	1040	1.40	38.72			
48	790	1.80	29.56			
53	715	2.00	26.68			
58	660	2.2	24.56			
65	590	2.4	21.95			
73	520	2.7	19.49			
83	465	3.0	17.27			
93	410	3.2	15.37			
133	290	3.4	10.75			
43	895	0.85	33.43	K43A DM112M4	170	56
49	785	0.95	29.37	K43B DM112M4		56
56	685	1.10	25.56	K43C DM112M4		58
61	625	1.20	23.30			
69	555	1.35	20.79			
76	500	1.50	18.65			
84	455	1.65	16.92			
95	400	1.85	14.99			
108	355	2.1	13.20			
123	310	2.4	11.56			
140	270	2.7	10.15			
166	230	2.5	8.60			
187	205	2.7	7.62			
212	180	3.2	6.71			
243	157	3.5	5.87			
276	138	3.8	5.16			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
4.0 kW						
81	470	0.85	17.57	K33A DM112M4	169	47
92	415	0.95	15.49	K33B DM112M4		47
104	370	1.10	13.72	K33C DM112M4		49
116	330	1.20	12.27			
133	285	1.30	10.68			
153	250	0.95	9.30			
169	225	1.30	8.45			
191	200	1.45	7.45			
216	177	1.55	6.60			
241	158	1.90	5.91			
277	138	2.1	5.14			
5.5 kW						
3.2	15800	0.80	454.31	K93G42A DA132S4	175/15	342
3.5	14400	0.85	414.77	K93G42B DA132S4		342
3.9	13000	0.95	375.01	K93G42C DA132S4		359
4.5	11300	1.10	325.31			
5.1	9900	1.25	284.64			
5.8	8770	1.40	252.16			
6.6	7610	1.60	218.74			
7.6	6660	1.85	191.40			
8.6	5860	2.1	168.61			
10	5010	2.4	144.17			
11	4980	2.5	137.36	K93A DA132S4	175	327
12	4570	2.7	126.06	K93B DA132S4		327
13	4150	3.0	114.62	K93C DA132S4		344
5.6	9080	0.90	261.13	K83G32A DA132S4	174/15	237
6.1	8260	0.95	237.53	K83G32B DA132S4		237
6.8	7440	1.05	213.95	K83G32C DA132S4		254
7.5	6680	1.20	192.10			
7.7	6520	1.20	187.60			
8.8	5730	1.25	164.78			
10	5240	1.50	144.68	K83A DA132S4	174	232
11	4790	1.65	132.28	K83B DA132S4		232
12	4430	1.80	122.27	K83C DA132S4		249
13	4030	2.00	111.12			
14	3670	2.2	101.42			
16	3330	2.4	91.87			
17	3030	2.6	83.68			
20	2660	3.0	73.30			
11	4640	0.95	128.10	K73A DA132S4	173	161
12	4230	1.00	116.83	K73B DA132S4		161
13	3930	1.10	108.36	K73C DA132S4		170
15	3560	1.20	98.17			
16	3230	1.35	89.29			
18	2920	1.50	80.57			
20	2650	1.65	73.10			
23	2290	1.90	63.32			
25	2080	2.1	57.29			
28	1880	2.3	52.01			
31	1680	2.6	46.38			
33	1590	2.7	43.99			
36	1450	3.0	40.01			

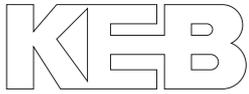
Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
5.5 kW						
16	3260	0.80	90.07	K63A DA132S4	172	111
17	3020	0.85	83.27	K63B DA132S4		111
19	2720	0.95	75.02	K63C DA132S4		117
22	2440	1.05	67.22			
24	2180	1.15	60.20			
27	1960	1.30	54.18			
31	1710	1.50	47.27			
34	1530	1.65	42.35			
39	1360	1.90	37.56			
44	1200	2.1	33.00			
49	1080	2.4	29.77			
54	965	2.6	26.68			
61	865	2.9	23.89			
30	1780	0.80	49.10	K53A DA132S4	171	87
33	1580	0.90	43.51	K53B DA132S4		87
37	1400	1.00	38.72	K53C DA132S4		90
44	1200	1.20	33.17			
49	1070	1.35	29.56			
54	965	1.50	26.68			
59	890	1.60	24.56			
66	795	1.80	21.95			
74	705	2.0	19.49			
84	625	2.2	17.27			
94	555	2.4	15.37			
110	475	2.6	13.17			
125	420	2.9	11.61			
135	390	2.5	10.75			
152	345	2.9	9.55			
171	305	3.2	8.46			
193	275	3.6	7.53			
225	235	4.1	6.45			
70	755	1.00	20.79	K43A DA132S4	170	69
78	675	1.10	18.65	K43B DA132S4		69
86	615	1.20	16.92	K43C DA132S4		71
97	545	1.35	14.99			
110	480	1.55	13.20			
125	420	1.75	11.56			
143	370	2.0	10.15			
169	310	1.80	8.60			
190	275	2.00	7.62			
216	245	2.4	6.71			
247	215	2.6	5.87			
281	187	2.8	5.16			
7.5 kW						
4.5	15400	0.80	325.31	K93G42A DA132M4	175/15	347
5.1	13500	0.90	284.64	K93G42B DA132M4		347
5.8	12000	1.00	252.16	K93G42C DA132M4		363
6.6	10400	1.20	218.74			
7.6	9080	1.35	191.40			
8.6	8000	1.55	168.61			
10	6840	1.80	144.17			
11	6790	1.80	137.36	K93A DA132M4	175	332
12	6230	1.95	126.06	K93B DA132M4		332
13	5660	2.2	114.62	K93C DA132M4		348
14	5180	2.4	104.80			
16	4580	2.7	92.68			
17	4180	2.9	84.72			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
7.5 kW						
10	7150	1.10	144.68	K83A DA132M4	174	237
11	6530	1.20	132.28	K83B DA132M4		237
12	6040	1.30	122.27	K83C DA132M4		253
13	5490	1.45	111.12			
14	5010	1.60	101.42			
16	4540	1.75	91.87			
17	4130	1.90	83.68			
20	3620	2.2	73.30			
22	3290	2.4	66.68			
24	2970	2.7	60.06			
27	2660	3.0	53.92			
13	5350	0.80	108.36	K73A DA132M4	173	165
15	4850	0.90	98.17	K73B DA132M4		165
16	4410	1.00	89.29	K73C DA132M4		174
18	3980	1.10	80.57			
20	3610	1.20	73.10			
23	3130	1.40	63.32			
25	2830	1.55	57.29			
28	2570	1.70	52.01			
31	2290	1.90	46.38			
33	2170	2.00	43.99			
36	1980	2.2	40.01			
40	1780	2.4	36.10			
44	1620	2.7	32.75			
51	1400	3.1	28.37			
24	2970	0.85	60.20	K63A DA132M4	172	116
27	2680	0.95	54.18	K63B DA132M4		116
31	2330	1.10	47.27	K63C DA132M4		121
34	2090	1.20	42.35			
39	1860	1.40	37.56			
44	1630	1.55	33.00			
49	1470	1.75	29.77			
54	1320	1.95	26.68			
61	1180	2.1	23.89			
67	1060	2.3	21.50			
77	925	2.5	18.76			
86	830	2.7	16.81			
97	735	2.9	14.91			
111	645	3.2	13.10			
125	570	3.0	11.58			
44	1640	0.85	33.17	K53A DA132M4	171	91
49	1460	1.00	29.56	K53B DA132M4		91
54	1320	1.10	26.68	K53C DA132M4		94
59	1210	1.20	24.56			
66	1080	1.30	21.95			
74	965	1.50	19.49			
84	855	1.60	17.27			
94	760	1.75	15.37			
110	650	1.95	13.17			
125	575	2.1	11.61			
135	530	1.85	10.75			
152	470	2.1	9.55			
171	420	2.4	8.46			
193	370	2.7	7.53			
225	320	3.0	6.45			
255	280	3.3	5.69			

Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

7.5 kW

78	920	0.80	18.65	K43A DA132M4	170	73
86	835	0.90	16.92	K43B DA132M4		73
97	740	1.00	14.99	K43C DA132M4		75
110	650	1.15	13.20			
125	570	1.30	11.56			
143	500	1.50	10.15			
169	425	1.35	8.60			
190	375	1.45	7.62			
216	330	1.75	6.71			
247	290	1.90	5.87			
281	255	2.0	5.16			

9.2 kW

5.8	14500	0.85	252.16	K93G42A DA160MS4	175/15	368
6.7	12600	1.00	218.74	K93G42B DA160MS4		368
7.7	11000	1.10	191.40	K93G42C DA160MS4		385
8.7	9670	1.25	168.61			
10	8270	1.50	144.17			
11	8210	1.50	137.36	K93A DA160MS4	175	351
12	7530	1.65	126.06	K93B DA160MS4		351
13	6850	1.80	114.62	K93C DA160MS4		368
14	6260	1.95	104.80			
16	5540	2.2	92.68			
17	5060	2.4	84.72			
19	4620	2.7	77.34			
21	4180	2.9	69.93			
13	6640	1.20	111.12	K83A DA160MS4	174	256
14	6060	1.30	101.42	K83B DA160MS4		256
16	5490	1.45	91.87	K83C DA160MS4		273
18	5000	1.60	83.68			
20	4380	1.80	73.30			
22	3990	2.00	66.68			
24	3590	2.2	60.06			
27	3220	2.5	53.92			
32	2760	2.9	46.25			
16	5340	0.80	89.29	K73A DA160MS4	173	186
18	4820	0.90	80.57	K73B DA160MS4		186
20	4370	1.00	73.10	K73C DA160MS4		195
23	3780	1.15	63.32			
26	3420	1.25	57.29			
28	3110	1.40	52.01			
32	2770	1.55	46.38			
33	2630	1.65	43.99			
37	2390	1.80	40.01			
41	2160	2.0	36.10			
45	1960	2.2	32.75			
52	1700	2.6	28.37			
57	1530	2.8	25.67			
63	1390	3.1	23.31			
71	1240	3.5	20.78			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

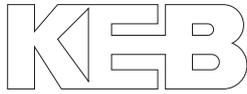
9.2 kW

27	3240	0.80	54.18	K63A DA160MS4	172	137
31	2830	0.90	47.27	K63B DA160MS4		137
35	2530	1.00	42.35	K63C DA160MS4		143
39	2250	1.15	37.56			
45	1970	1.25	33.00			
49	1780	1.45	29.77			
55	1590	1.60	26.68			
62	1430	1.75	23.89			
68	1290	1.85	21.50			
78	1120	2.1	18.76			
87	1000	2.2	16.81			
99	890	2.4	14.91			
112	785	2.6	13.10			
127	690	2.5	11.58			
141	625	2.7	10.43			
67	1310	1.10	21.95	K53A DA160MS4	171	112
75	1160	1.20	19.49	K53B DA160MS4		112
85	1030	1.35	17.27	K53C DA160MS4		116
96	920	1.45	15.37			
112	785	1.60	13.17			
127	695	1.75	11.61			
137	645	1.55	10.75			
154	570	1.75	9.55			
174	505	1.95	8.46			
195	450	2.2	7.53			
228	385	2.5	6.45			
258	340	2.7	5.69			

11.0 kW

6.7	15000	0.80	218.74	K93G42A DA160M4	175/15	368
7.7	13100	0.95	191.40	K93G42B DA160M4		368
8.7	11600	1.05	168.61	K93G42C DA160M4		385
10	9890	1.25	144.17			
11	9820	1.25	137.36	K93A DA160M4	175	351
12	9010	1.35	126.06	K93B DA160M4		351
13	8190	1.50	114.62	K93C DA160M4		368
14	7490	1.65	104.80			
16	6620	1.85	92.68			
17	6050	2.0	84.72			
19	5530	2.2	77.34			
21	5000	2.5	69.93			
24	4340	2.8	60.66			
13	7940	1.00	111.12	K83A DA160M4	174	256
14	7250	1.10	101.42	K83B DA160M4		256
16	6570	1.20	91.87	K83C DA160M4		273
18	5980	1.35	83.68			
20	5240	1.50	73.30			
22	4760	1.65	66.68			
24	4290	1.85	60.06			
27	3850	2.1	53.92			
32	3310	2.4	46.25			
37	2860	2.8	39.98			
45	2350	3.4	32.84			

Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

11.0 kW

20	5220	0.85	73.10	K73A DA160M4	173	186
23	4520	0.95	63.32	K73B DA160M4		186
26	4090	1.05	57.29	K73C DA160M4		195
28	3720	1.15	52.01			
32	3310	1.30	46.38			
33	3140	1.40	43.99			
37	2860	1.50	40.01			
41	2580	1.70	36.10			
45	2340	1.85	32.75			
52	2030	2.1	28.37			
57	1830	2.4	25.67			
63	1670	2.6	23.31			
71	1480	2.9	20.78			
83	1260	3.4	17.62			
35	3030	0.85	42.35	K63A DA160M4	172	137
39	2680	0.95	37.56	K63B DA160M4		137
45	2360	1.05	33.00	K63C DA160M4		143
49	2130	1.20	29.77			
55	1910	1.35	26.68			
62	1710	1.45	23.89			
68	1540	1.55	21.50			
78	1340	1.70	18.76			
87	1200	1.85	16.81			
99	1070	2.0	14.91			
112	935	2.2	13.10			
127	830	2.1	11.58			
141	745	2.2	10.43			
162	650	2.6	9.10			
180	580	2.9	8.15			
67	1570	0.90	21.95	K53A DA160M4	171	112
75	1390	1.00	19.49	K53B DA160M4		112
85	1230	1.10	17.27	K53C DA160M4		116
96	1100	1.20	15.37			
112	940	1.35	13.17			
127	830	1.45	11.61			
137	770	1.30	10.75			
154	680	1.45	9.55			
174	605	1.65	8.46			
195	540	1.85	7.53			
228	460	2.1	6.45			
258	405	2.3	5.69			

15.0 kW

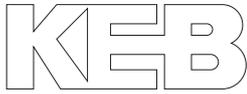
11	13400	0.90	137.36	K93A DA160L4	175	370
12	12300	1.00	126.06	K93B DA160L4		370
13	11200	1.10	114.62	K93C DA160L4		387
14	10200	1.20	104.80			
16	9030	1.35	92.68			
17	8260	1.50	84.72			
19	7540	1.65	77.34			
21	6810	1.80	69.93			
24	5910	2.1	60.66			
28	5170	2.4	53.08			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

15.0 kW

14	9880	0.80	101.42	K83A DA160L4	174	275
16	8950	0.90	91.87	K83B DA160L4		275
18	8150	1.00	83.68	K83C DA160L4		292
20	7140	1.10	73.30			
22	6500	1.20	66.68			
24	5850	1.35	60.06			
27	5250	1.50	53.92			
32	4510	1.75	46.25			
37	3900	2.0	39.98			
45	3200	2.5	32.84			
49	2910	2.7	29.88			
55	2620	3.0	26.91			
61	2350	3.4	24.16			
71	2020	3.8	20.73			
26	5580	0.80	57.29	K73A DA160L4	173	205
28	5070	0.85	52.01	K73B DA160L4		205
32	4520	0.95	46.38	K73C DA160L4		214
33	4290	1.00	43.99			
37	3900	1.10	40.01			
41	3520	1.25	36.10			
45	3190	1.35	32.75			
52	2760	1.55	28.37			
57	2500	1.75	25.67			
63	2270	1.90	23.31			
71	2020	2.1	20.78			
83	1720	2.5	17.62			
98	1470	2.8	15.04			
107	1340	2.3	13.76			
118	1210	2.5	12.45			
130	1100	2.8	11.30			
146	980	3.2	10.08			
172	835	3.7	8.54			
49	2900	0.90	29.77	K63A DA160L4	172	156
55	2600	1.00	26.68	K63B DA160L4		156
62	2330	1.05	23.89	K63C DA160L4		162
68	2100	1.15	21.50			
78	1830	1.25	18.76			
87	1640	1.35	16.81			
99	1450	1.45	14.91			
112	1280	1.60	13.10			
127	1130	1.50	11.58			
141	1020	1.65	10.43			
162	885	1.90	9.10			
180	795	2.1	8.15			
203	705	2.3	7.23			
232	620	2.5	6.35			
85	1680	0.80	17.27	K53A DA160L4	171	132
96	1500	0.90	15.37	K53B DA160L4		132
112	1280	1.00	13.17	K53C DA160L4		135
127	1130	1.10	11.61			
137	1050	0.95	10.75			
154	930	1.05	9.55			
174	825	1.20	8.46			
195	735	1.35	7.53			
228	630	1.55	6.45			
258	555	1.65	5.69			

Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
18.5 kW						
13	13700	0.90	114.62	K93A DA180M4	175	399
14	12600	1.00	104.80	K93B DA180M4		399
16	11100	1.10	92.68	K93C DA180M4		416
17	10100	1.20	84.72			
19	9260	1.30	77.34			
21	8380	1.45	69.93			
24	7270	1.70	60.66			
28	6360	1.95	53.08			
32	5600	2.2	46.76			
18	10000	0.80	83.68	K83A DA180M4	174	304
20	8780	0.90	73.30	K83B DA180M4		304
22	7990	1.00	66.68	K83C DA180M4		321
25	7190	1.10	60.06			
27	6460	1.25	53.92			
32	5540	1.45	46.25			
37	4790	1.65	39.98			
42	4160	1.90	34.75			
45	3930	2.0	32.84			
49	3580	2.2	29.88			
55	3220	2.5	26.91			
61	2890	2.7	24.16			
71	2480	3.1	20.73			
82	2150	3.4	17.91			
95	1870	3.8	15.57			
105	1680	2.9	14.01			
117	1510	3.2	12.58			
32	5550	0.80	46.38	K73A DA180M4	173	236
41	4320	1.00	36.10	K73B DA180M4		236
45	3920	1.10	32.75	K73C DA180M4		245
52	3400	1.25	28.37			
57	3070	1.40	25.67			
63	2790	1.55	23.31			
71	2490	1.75	20.78			
84	2110	2.1	17.62			
98	1800	2.3	15.04			
107	1650	1.90	13.76			
118	1490	2.1	12.45			
131	1350	2.3	11.30			
146	1210	2.6	10.08			
173	1020	3.0	8.54			
202	875	3.6	7.29			
62	2860	0.85	23.89	K63A DA180M4	172	186
69	2580	0.95	21.50	K63B DA180M4		186
79	2250	1.00	18.76	K63C DA180M4		192
88	2010	1.10	16.81			
99	1790	1.20	14.91			
113	1570	1.30	13.10			
127	1390	1.25	11.58			
141	1250	1.35	10.43			
162	1090	1.55	9.10			
181	975	1.75	8.15			
204	865	1.90	7.23			
232	760	2.1	6.35			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
22.0 kW						
14	14900	0.80	104.80	K93A DA180L4	175	429
16	13200	0.95	92.68	K93B DA180L4		429
17	12100	1.00	84.72	K93C DA180L4		446
19	11000	1.10	77.34			
21	9960	1.25	69.93			
24	8640	1.40	60.66			
28	7560	1.60	53.08			
32	6660	1.80	46.76			
47	4460	2.7	31.33			
22	9500	0.85	66.68	K83A DA180L4	174	334
25	8550	0.95	60.06	K83B DA180L4		334
27	7680	1.05	53.92	K83C DA180L4		351
32	6590	1.20	46.25			
37	5700	1.40	39.98			
42	4950	1.60	34.75			
45	4680	1.70	32.84			
49	4260	1.85	29.88			
55	3830	2.1	26.91			
61	3440	2.3	24.16			
71	2950	2.6	20.73			
82	2550	2.9	17.91			
95	2220	3.2	15.57			
105	2000	2.4	14.01			
117	1790	2.7	12.58			
137	1540	3.2	10.79			
158	1330	3.7	9.32			
41	5140	0.85	36.10	K73A DA180L4	173	266
45	4670	0.95	32.75	K73B DA180L4		266
52	4040	1.05	28.37	K73C DA180L4		275
57	3660	1.20	25.67			
63	3320	1.30	23.31			
71	2960	1.45	20.78			
84	2510	1.70	17.62			
98	2140	1.95	15.04			
107	1960	1.60	13.76			
118	1770	1.75	12.45			
131	1610	1.95	11.30			
146	1440	2.2	10.08			
173	1220	2.5	8.54			
202	1040	3.0	7.29			
69	3060	0.80	21.50	K63A DA180L4	172	216
79	2670	0.85	18.76	K63B DA180L4		216
88	2390	0.95	16.81	K63C DA180L4		222
99	2120	1.00	14.91			
113	1870	1.10	13.10			
127	1650	1.05	11.58			
141	1490	1.10	10.43			
162	1300	1.30	9.10			
181	1160	1.45	8.15			
204	1030	1.60	7.23			
232	905	1.75	6.35			

Helical bevel geared motors K



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

30.0 kW

19	15000	0.80	77.34	K93A DA200L4	175	466
21	13600	0.90	69.93	K93B DA200L4		466
24	11800	1.05	60.66	K93C DA200L4		483
28	10300	1.20	53.08			
32	9080	1.35	46.76			
37	7770	1.50	39.98			
42	6750	1.65	34.75			
47	6090	2.0	31.33			
54	5280	2.3	27.18			
62	4620	2.6	23.78			
70	4070	2.8	20.95			
82	3480	3.1	17.91			
95	3020	3.4	15.57			
103	2790	2.6	14.34			
118	2440	3.0	12.55			

32	8980	0.90	46.25	K83A DA200L4	174	371
37	7770	1.00	39.98	K83B DA200L4		371
42	6750	1.20	34.75	K83C DA200L4		388
45	6380	1.25	32.84			
49	5800	1.35	29.88			
55	5230	1.50	26.91			
61	4690	1.70	24.16			
71	4030	1.90	20.73			
82	3480	2.1	17.91			
95	3020	2.3	15.57			
105	2720	1.80	14.01			
117	2440	2.00	12.58			
137	2100	2.3	10.79			
158	1810	2.7	9.32			
182	1570	3.1	8.11			

52	5510	0.80	28.37	K73A DA200L4	173	303
57	4990	0.85	25.67	K73B DA200L4		303
63	4530	0.95	23.31	K73C DA200L4		312
71	4040	1.05	20.78			
84	3420	1.25	17.62			
98	2920	1.40	15.04			
107	2670	1.15	13.76			
118	2420	1.30	12.45			
131	2190	1.40	11.30			
146	1960	1.60	10.08			
173	1660	1.85	8.54			
202	1420	2.2	7.29			

37.0 kW

24	14600	0.85	60.66	K93A DA225S4	175	599
28	12800	0.95	53.08	K93B DA225S4		599
31	11200	1.10	46.76	K93C DA225S4		616
37	9610	1.20	39.98			
42	8350	1.35	34.75			
47	7530	1.65	31.33			
54	6530	1.90	27.18			
62	5720	2.1	23.78			
70	5040	2.3	20.95			
82	4310	2.5	17.91			
94	3740	2.8	15.57			
102	3450	2.1	14.34			
117	3020	2.4	12.55			
133	2660	2.8	11.06			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

37.0 kW

37	9610	0.85	39.98	K83A DA225S4	174	504
42	8350	0.95	34.75	K83B DA225S4		504
45	7890	1.00	32.84	K83C DA225S4		521
49	7180	1.10	29.88			
55	6470	1.25	26.91			
61	5810	1.35	24.16			
71	4980	1.55	20.73			
82	4310	1.70	17.91			
94	3740	1.90	15.57			
105	3370	1.45	14.01			
117	3020	1.60	12.58			
136	2590	1.85	10.79			
158	2240	2.2	9.32			
181	1950	2.5	8.11			

45.0 kW

28	15500	0.80	53.08	K93A DA225M4	175	629
32	13600	0.90	46.76	K93B DA225M4		629
37	11600	1.00	39.98	K93C DA225M4		646
42	10100	1.10	34.75			
47	9130	1.35	31.33			
54	7920	1.55	27.18			
62	6930	1.70	23.78			
70	6100	1.85	20.95			
82	5220	2.1	17.91			
95	4540	2.3	15.57			
103	4180	1.75	14.34			
118	3660	2.0	12.55			
133	3220	2.3	11.06			
156	2750	2.7	9.45			
179	2390	3.0	8.22			

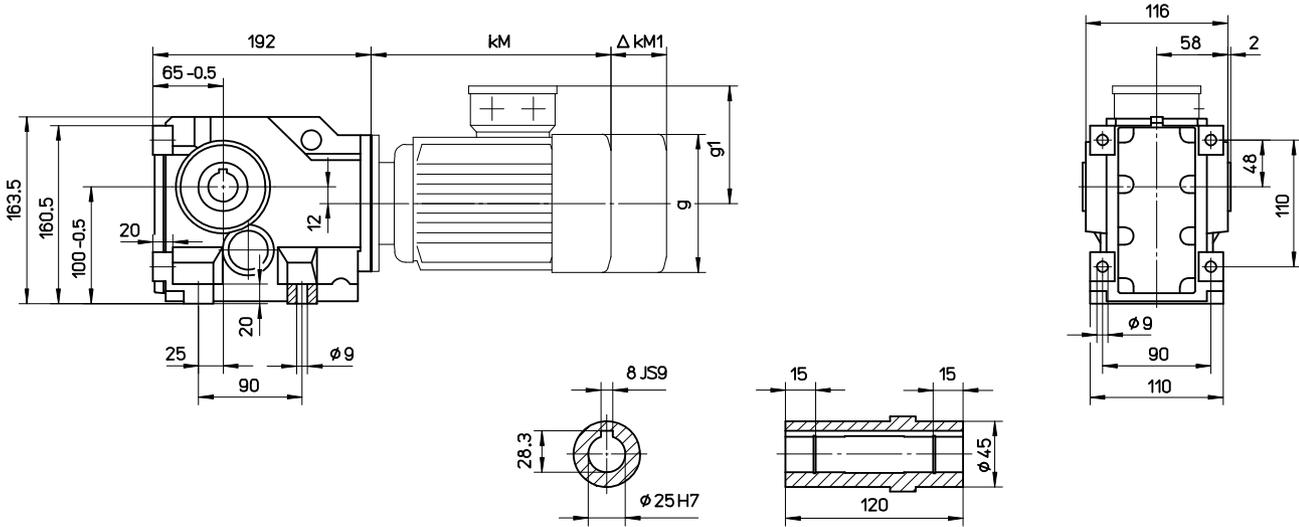
42	10100	0.80	34.75	K83A DA225M4	174	534
45	9570	0.85	32.84	K83B DA225M4		534
49	8700	0.90	29.88	K83C DA225M4		551
55	7840	1.00	26.91			
61	7040	1.15	24.16			
71	6040	1.30	20.73			
82	5220	1.40	17.91			
95	4540	1.55	15.57			
105	4080	1.20	14.01			
117	3660	1.30	12.58			
137	3140	1.55	10.79			
158	2720	1.80	9.32			
182	2360	2.1	8.11			

Helical bevel geared motors K



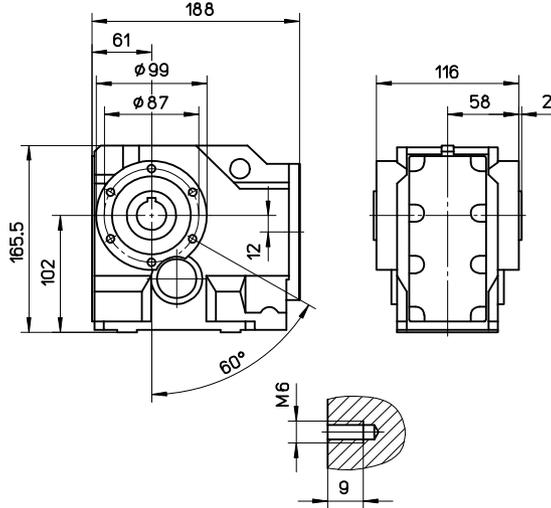
K23A

Foot mounted version



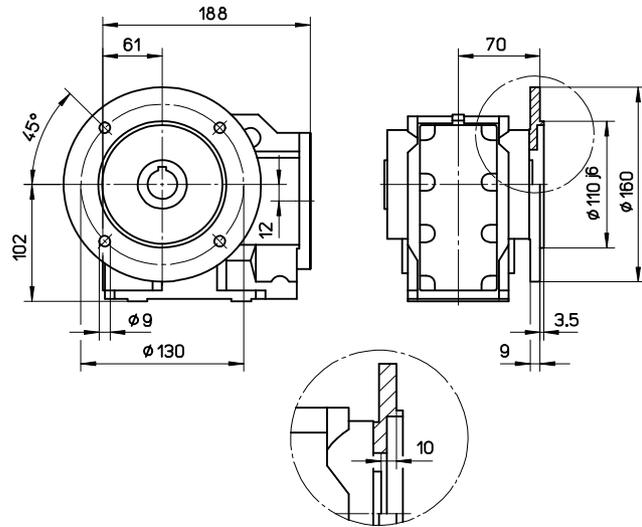
K23B

Shaft mounted version



K23C

Flange mounted version



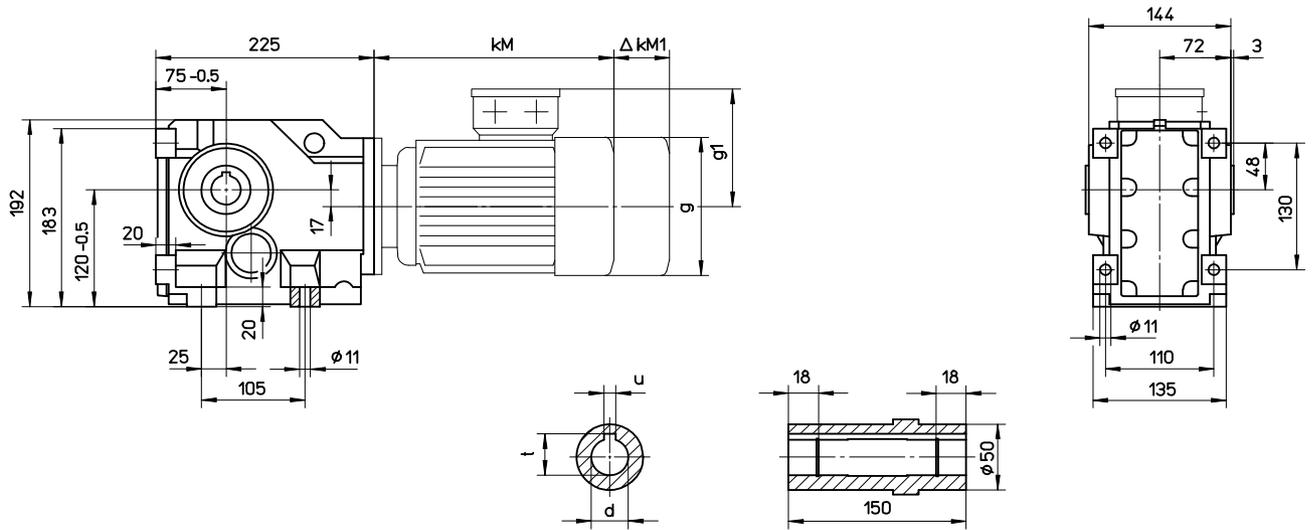
	km	Δkm1 Brake	g	g1
K23_DM63	201	59	123	109
K23_DM71	228	56	138	119
K23_DM80	250	66	156	140
K23_DM90S	266.5	74	176	144
K23_DM90L	291.5	74	176	144

Helical bevel geared motors K



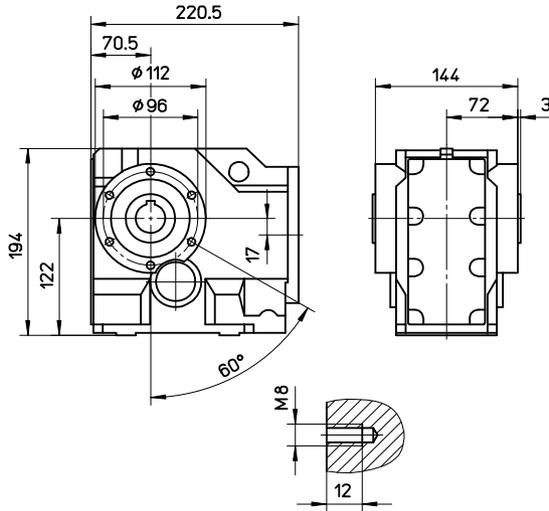
K33A

Foot mounted version



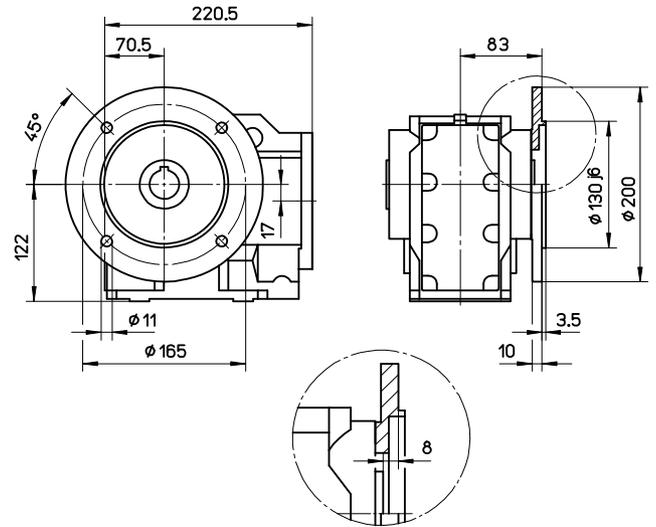
K33B

Shaft mounted version



K33C

Flange mounted version



	kM	ΔkM1 Brake	g	g1
K33_DM63	198	59	123	109
K33_DM71	224	56	138	119
K33_DM80	247	66	156	140
K33_DM90S	261.5	74	176	144
K33_DM90L	286.5	74	176	144
K33_DM100	319	91	194	155
K33_DM112	343	96	218	165

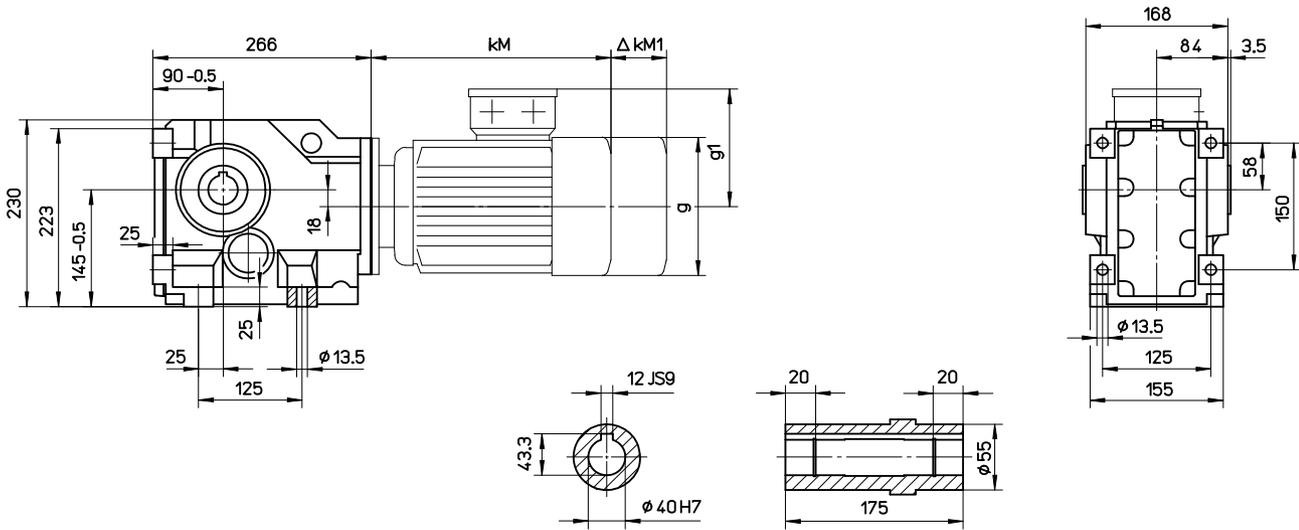
Hollow shaft	d	t	u	
	35	35H7	38.3	10
	30	30H7	33.3	8

Helical bevel geared motors K



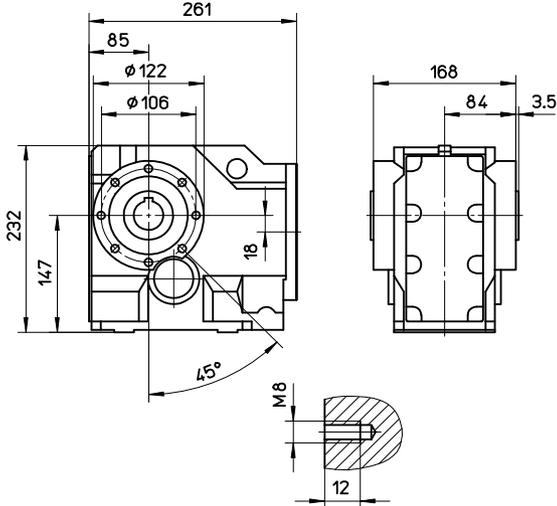
K43A

Foot mounted version



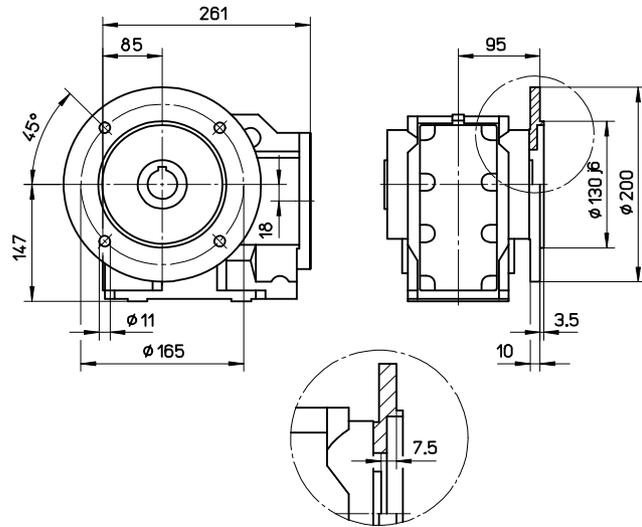
K43B

Shaft mounted version



K43C

Flange mounted version



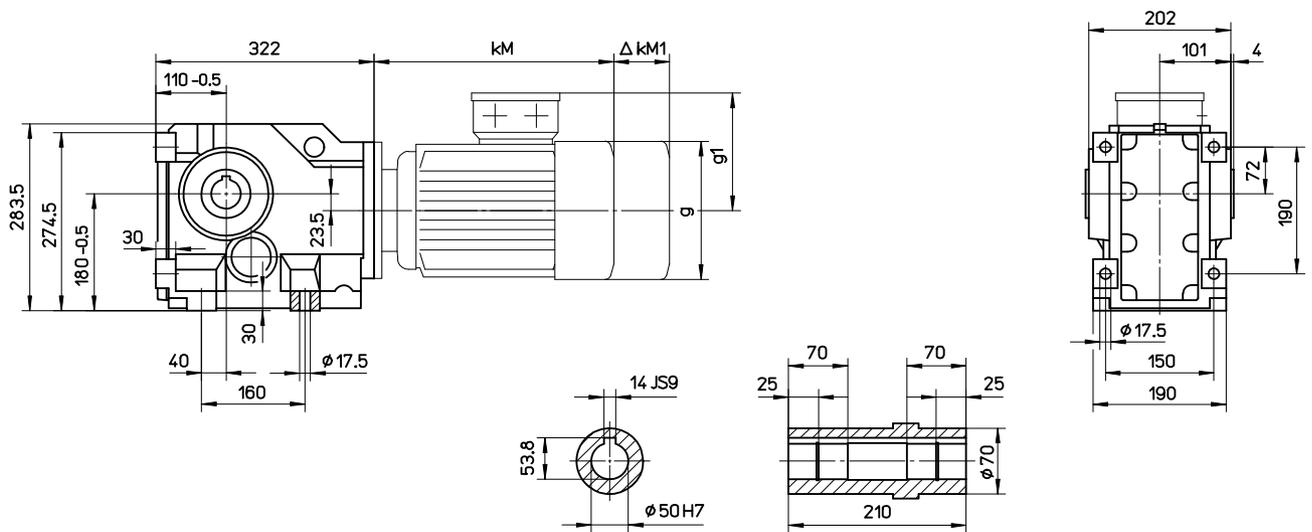
	kM	$\Delta kM1$ Brake	g	g1
K43_DM63	198.5	59	123	109
K43_DM71	223.5	56	138	119
K43_DM80	247.5	66	156	140
K43_DM90S	262	74	176	144
K43_DM90L	287	74	176	144
K43_DM100	319	91	194	155
K43_DM112	342	96	218	165
K43_DA132	435	99	245	188

Helical bevel geared motors K



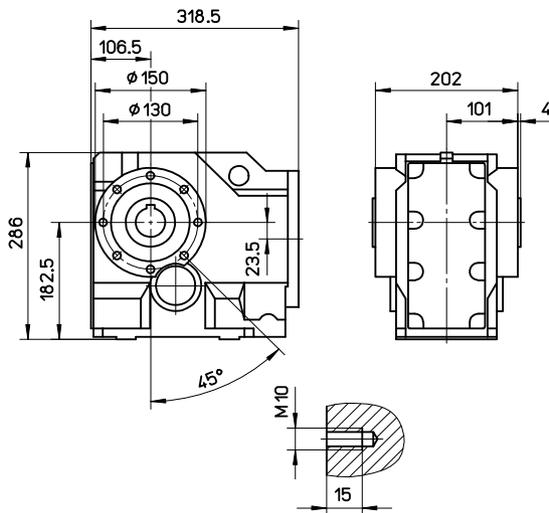
K53A

Foot mounted version



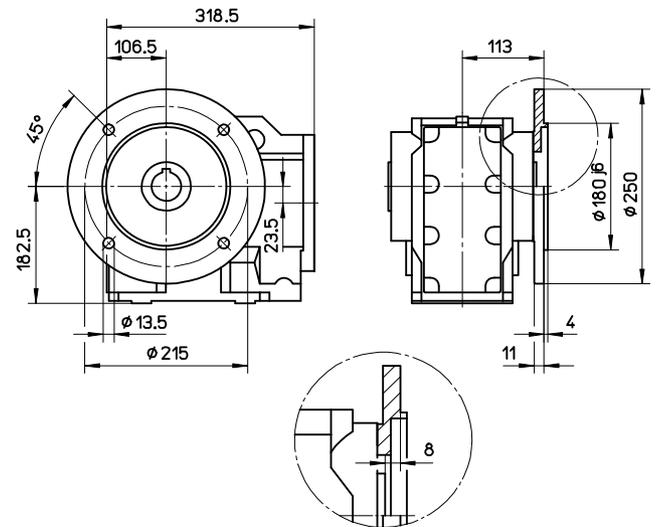
K53B

Shaft mounted version



K53C

Flange mounted version



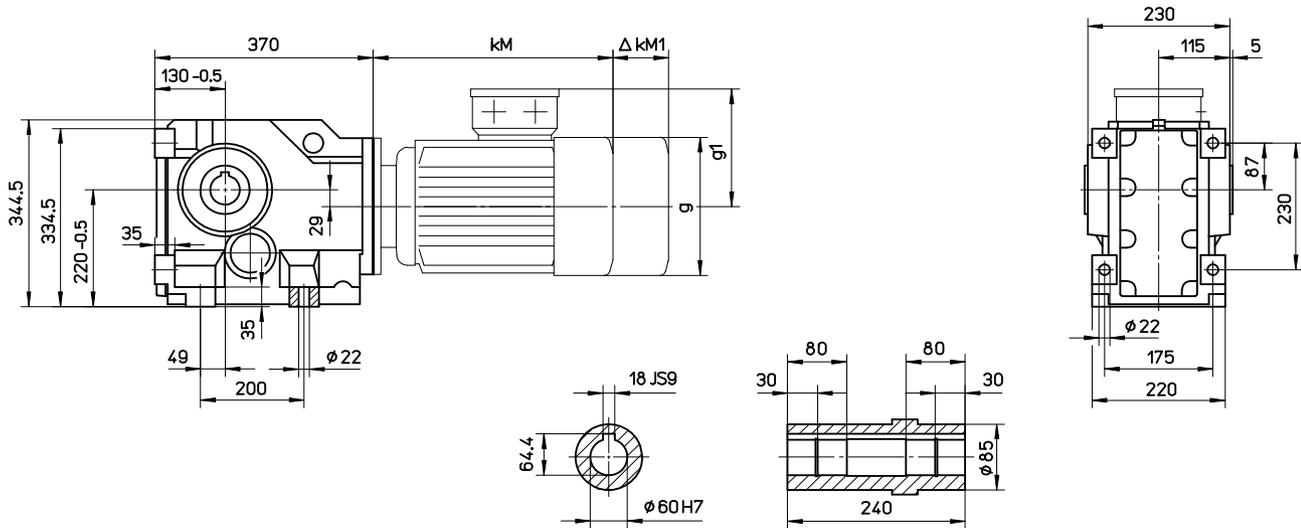
	kM	ΔkM1 Brake	g	g1
K53_DM71	220	56	138	119
K53_DM80	243	66	156	140
K53_DM90S	259.5	74	176	144
K53_DM90L	284.5	74	176	144
K53_DM100	314	91	194	155
K53_DM112	337.5	96	218	165
K53_DA132	431.5	99	245	188
K53_DA160	539.5	120	311	250

Helical bevel geared motors K



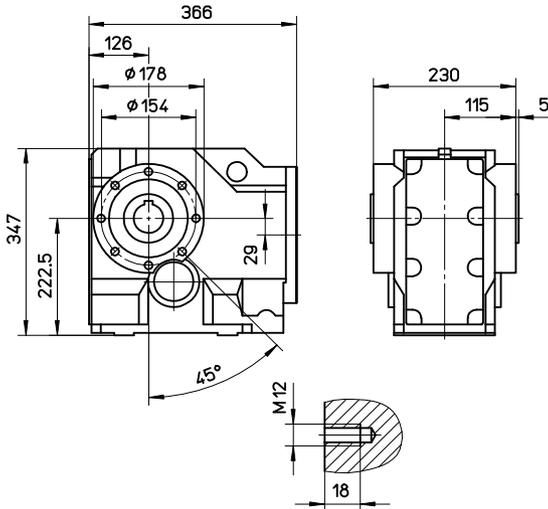
K63A

Foot mounted version



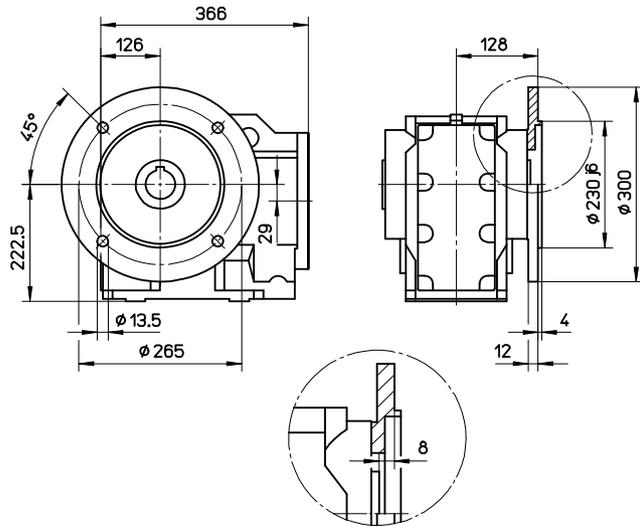
K63B

Shaft mounted version



K63C

Flange mounted version



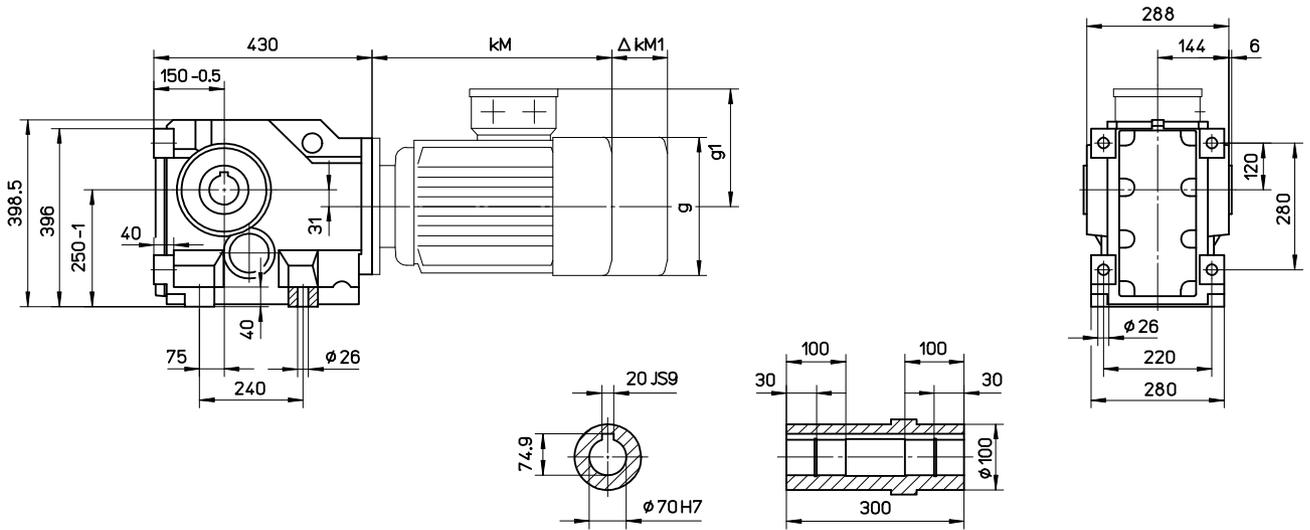
	kM	ΔkM1 Brake	g	g1
K63_DM80	238	66	156	140
K63_DM90S	254.5	74	176	144
K63_DM90L	279.5	74	176	144
K63_DM100	308	91	194	155
K63_DM112	332.5	96	218	165
K63_DA132	428	99	245	188
K63_DA160	532	120	311	250
K63_DA180	589	139	356	291

Helical bevel geared motors K



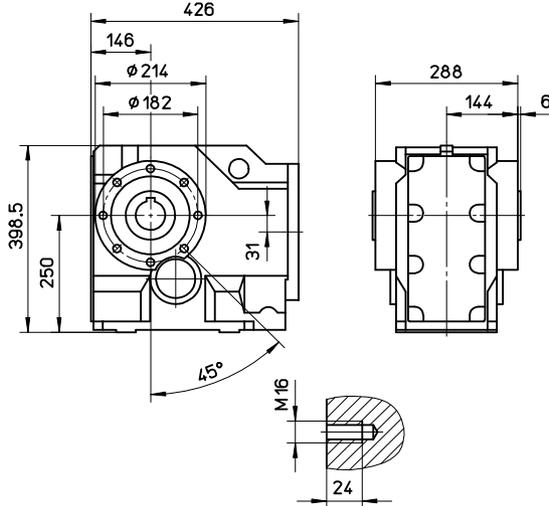
K73A

Foot mounted version



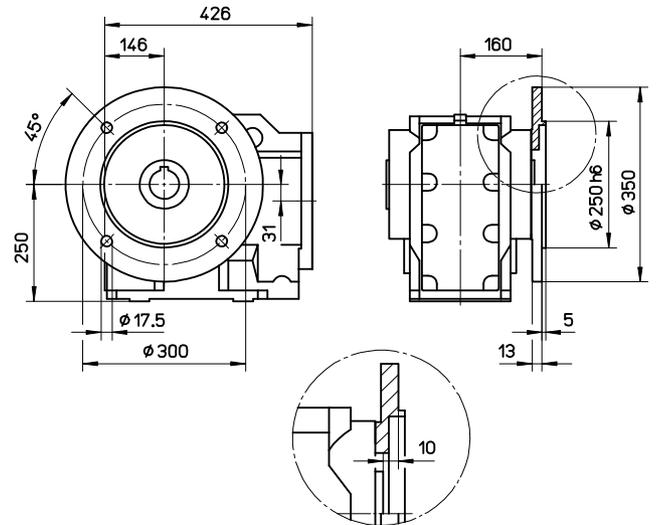
K73B

Shaft mounted version



K73C

Flange mounted version



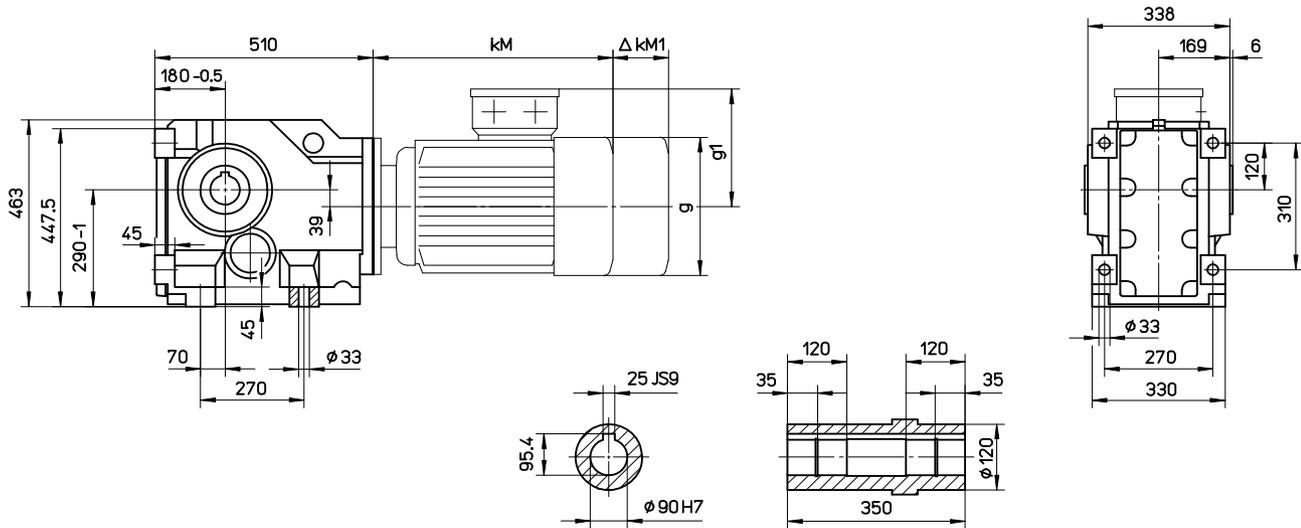
	kM	ΔkM1 Brake	g	g1
K73_DM90S	247.5	74	176	144
K73_DM90L	272.5	74	176	144
K73_DM100	304	91	194	155
K73_DM112	325.5	96	218	165
K73_DA132	421	99	245	188
K73_DA160	526	120	311	250
K73_DA180	583	139	356	291
K73_DA200	633	139	356	291

Helical bevel geared motors K



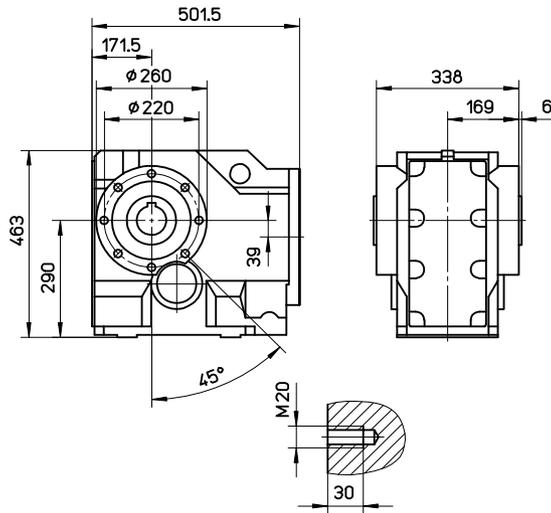
K83A

Foot mounted version



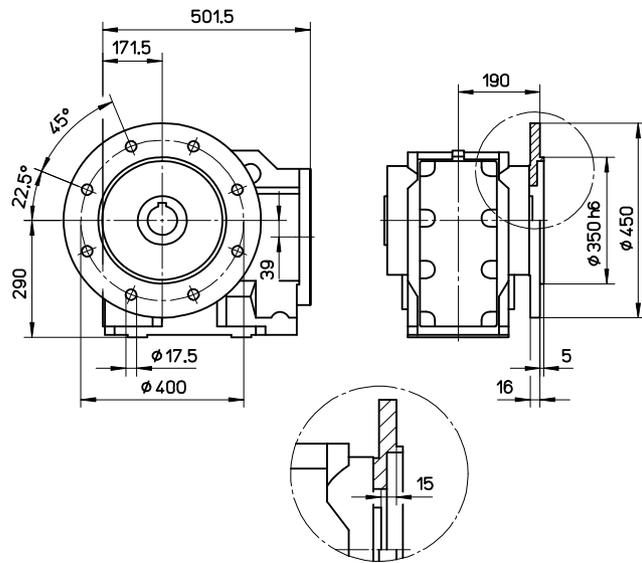
K83B

Shaft mounted version



K83C

Flange mounted version



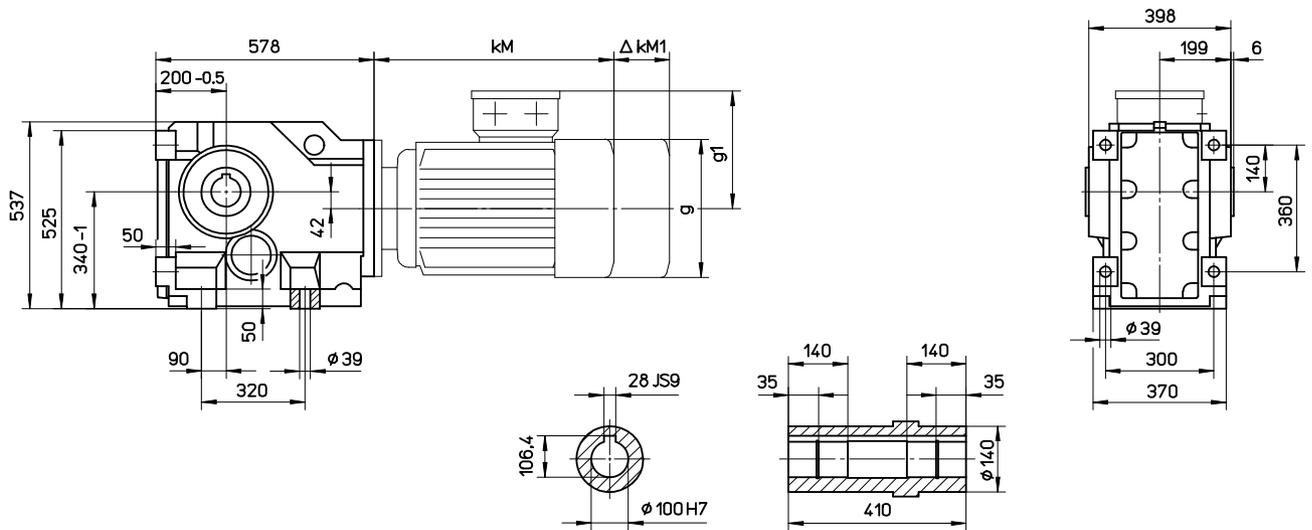
	kM	ΔkM1 Brake	g	g1
K83_DM100	299	91	194	155
K83_DM112	320.5	96	218	165
K83_DA132	413	99	245	188
K83_DA160	522	120	311	250
K83_DA180	577.5	139	356	291
K83_DA200	627.5	139	356	291
K83_DA225S	627.5	139	356	299
K83_DA225M	687.5	139	356	299

Helical bevel geared motors K



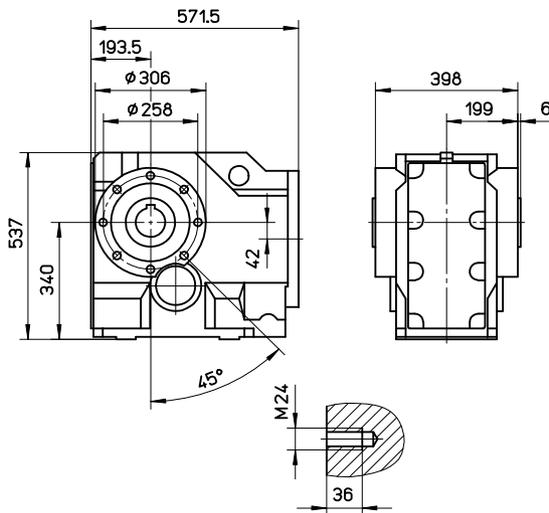
K93A

Foot mounted version



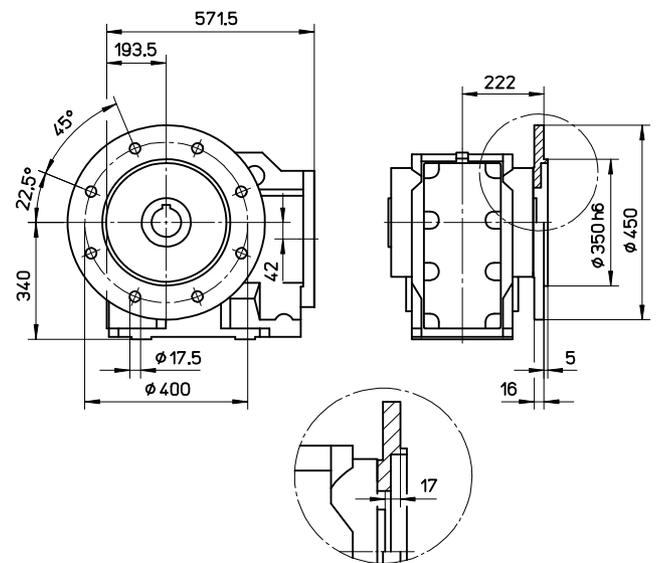
K93B

Shaft mounted version



K93C

Flange mounted version

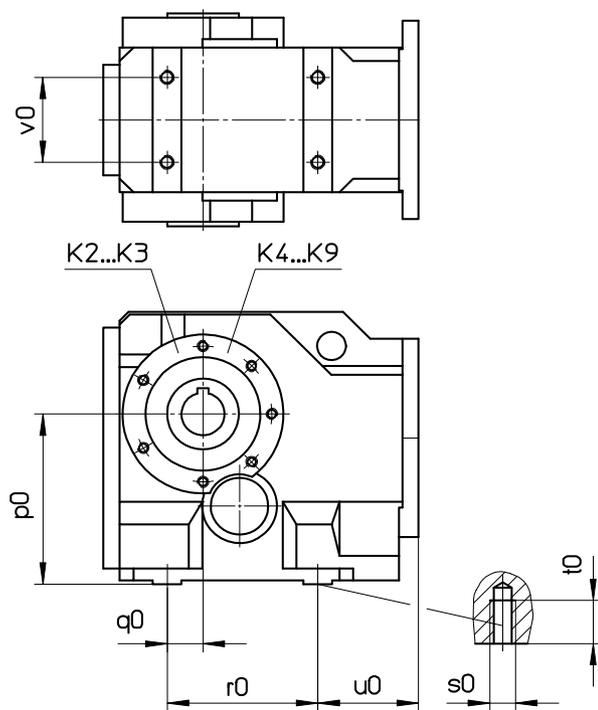


	kM	ΔkM1 Brake	g	g1
K93_DA132	396.5	99	245	188
K93_DA160	503.5	120	311	250
K93_DA180	560.5	139	356	291
K93_DA200	610.5	139	356	291
K93_DA225S	610.5	139	356	299
K93_DA225M	670.5	139	356	299

Helical bevel gear units K

D - Shaft mounted version + foot area

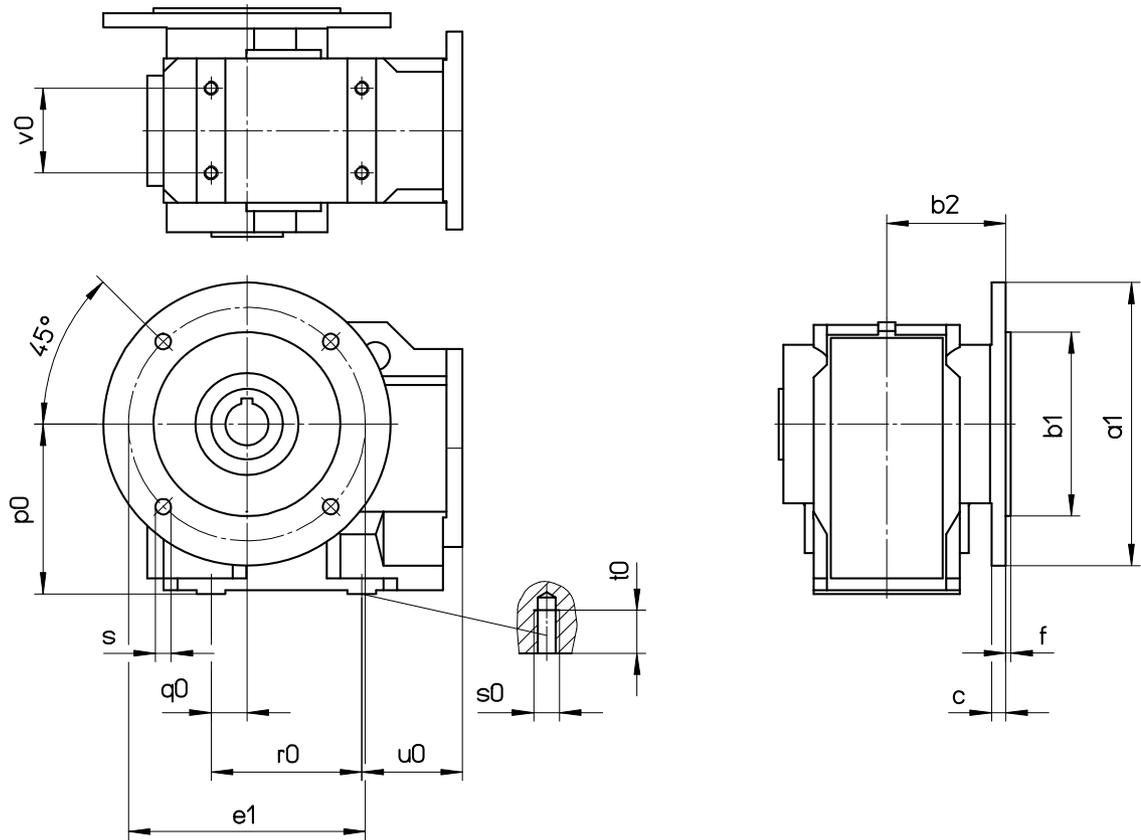
KEB



Gear unit	p0	q0	r0	s0	t0	u0	v0
K2	100	25	90	M8	12	62	50
K3	120	25	105	M10	15	70	60
K4	145	25	125	M12	18	76	70
K5	180	40	160	M16	24	92	80
K6	220	49	200	M16	24	89	95
K7	250	75	240	M20	30	115	125
K8	290	70	270	M24	36	130	150
K9	340	90	320	M30	45	148	160

Helical bevel gear units K

E - Flange mounted version + foot area

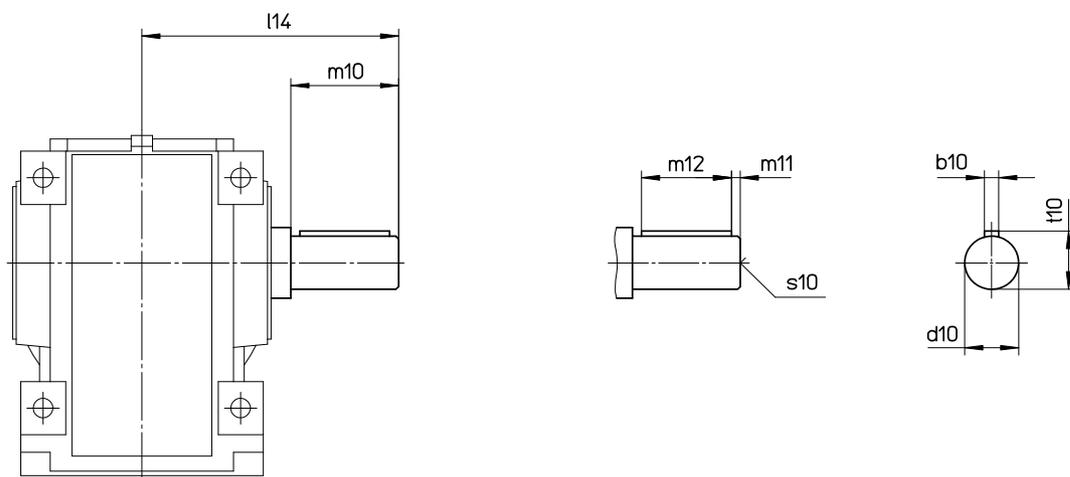


Gear unit	p0	q0	r0	s0	t0	u0	v0	a1	e1	b1	s	c	f	b2
K2	100	25	90	M8	12	62	50	160	130	110	9	9	3.5	70
K3	120	25	105	M10	15	70	60	200	165	130 j6	11	10	3.5	83
K4	145	25	125	M12	18	76	70	200	165	130 j6	11	10	3.5	95
K5	180	40	160	M16	24	92	80	250	215	180 j6	13.5	11	4	113
K6	220	49	200	M16	24	89	95	300	265	230j6	13.5	12	4	128
K7	250	75	240	M20	30	115	125	350	300	250h6	17.5	13	5	160
K8	290	70	270	M24	36	130	150	450	400	350h6	17.5	16	5	190
K9	340	90	320	M30	45	148	160	450	400	350h6	17.5	16	5	222

Helical bevel gear units K

V - Output shaft with key

KEB

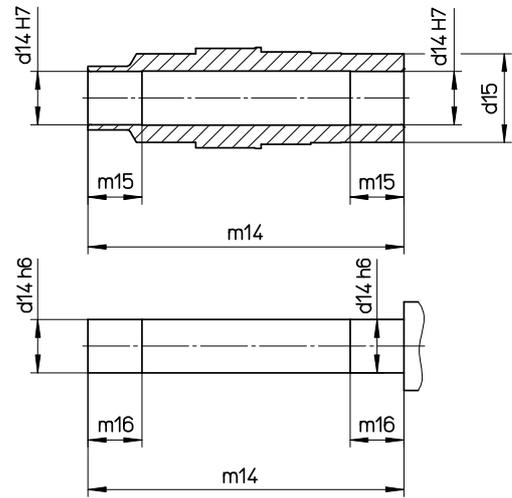
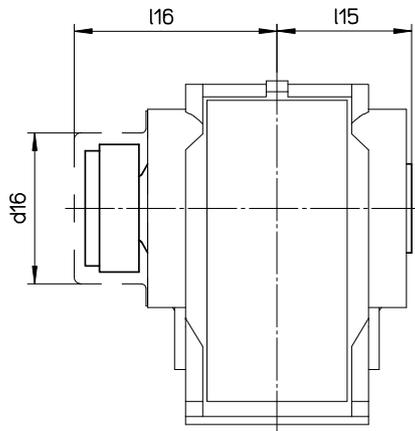


Gear unit	d_{10}	m_{10}	m_{11}	m_{12}	b_{10}	t_{10}	s_{10}	l_{14}
K2	25	50	5	40	8	28	M10	120
K3	30	60	5	50	8	33	M10	143
	35	70	5	60	10	38	M12	153
K4	40	80	5	70	12	43	M16	175
K5	50	100	10	80	14	53.5	M16	213
K6	60	120	10	100	18	64	M20	248
K7	75	140	7.5	125	20	79.5	M20	300
K8	90	170	15	140	25	95	M24	360
K9	110	210	15	180	28	116	M24	432

Helical bevel gear units K

S - Hollow shaft with shrink disc

KEB

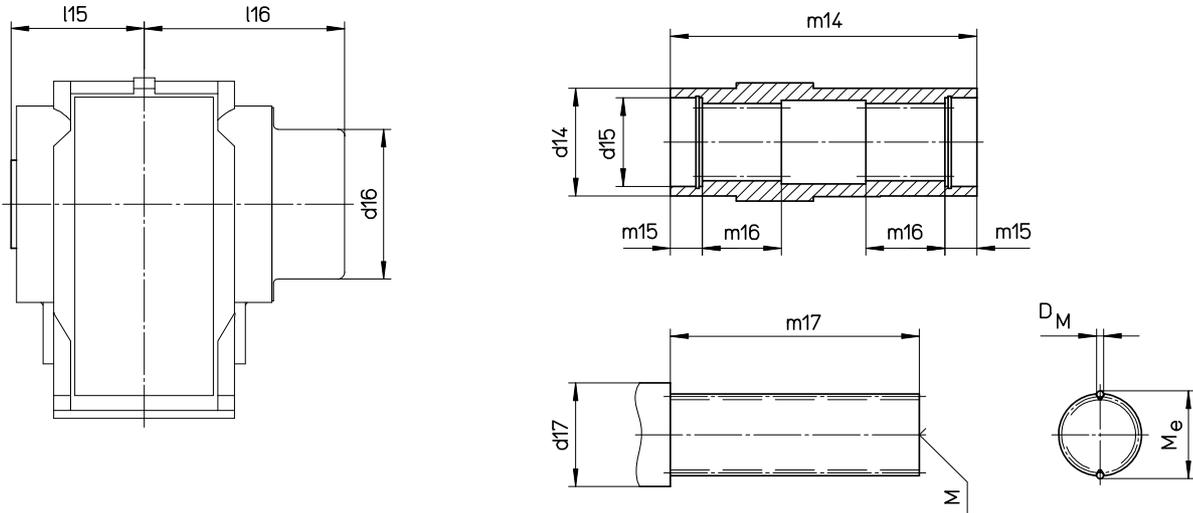


Gear unit	d14	d15	d16	m14	m15	m16	l15	l16
K2	25	45	77	143	25	27	60	97
K3	30	50	86	176	30	32	75	113
	35	50	86	176	30	32	75	113
K4	40	55	96	202	40	42	87.5	127
K5	50	70	117	242	50	52	105	150
K6	60	85	148	274	60	62	120	172
K7	70	100	180	343	70	72	150	209
K8	90	120	225	402	80	82	175	247
K9	110	140	242	473	100	102	205	288

Helical bevel gear units K

Z - Splined hollow shaft

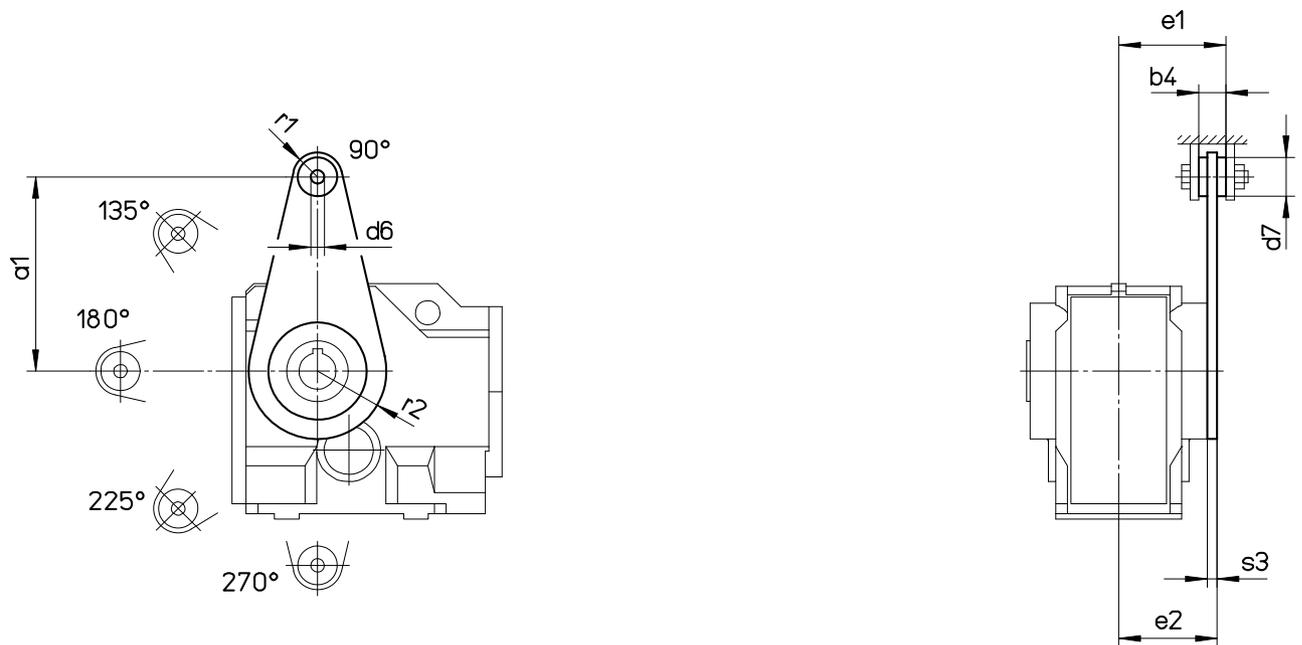
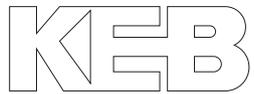
KEB



Gear unit	DIN5480	l15	l16	d16	m14	m15	m16	d14	d15	m17	d17	Dm	Me	M DIN 332
K2	30x1.25x30x22	60	97	77	120	18	25	45	35	88	40	2.75	33.05 _{-0.04}	D..M10
K3	35x2x30x16	75	113	86	150	18	32	50	40	118	46	4	38.94 _{-0.04}	D..M12
K4	40x2x30x18	87.5	127	96	175	23	42	55	42	140	50	4.5	45.08 _{-0.04}	D..M16
K5	50x2x30x24	105	150	117	210	23	52	70	52	174	62	4	54.16 _{-0.05}	D..M16
K6	65x2x30x31	120	172	148	240	25	62	85	70	195	82	4	68.99 _{-0.06}	D..M20
K7	70x2x30x34	150	209	180	300	25	72	100	72	255	85	4	74.18 _{-0.06}	D..M20

Helical bevel gear units K

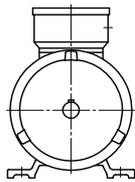
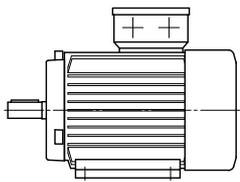
T1 - Torque arm



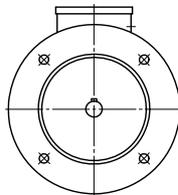
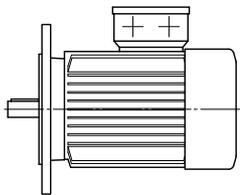
Gear unit	a1	b4	d6	d7	e1	e2	s3	r1	r2
K2	130	15	11	32	68.5	64	6	20	49.5
K3	160	22	11	32	87	80	8	20	56
K4	200	22	11	32	99	92	8	23	61
K5	250	32	17	40	121	109	8	30	75
K6	300	66	16	32	155.5	130	15	30	89
K7	350	96	24	42	202	164	20	36	107
K8	450	96	24	42	229.5	194	25	36	130
K9	550	135	38	64	281.5	229	30	56	153

Three phase motors

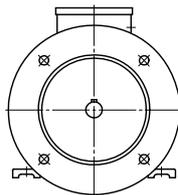
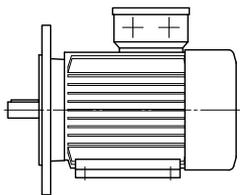
KEB



Foot mounted version
Example: DM80G4 – B3



Flange mounted version
Example: DA132M4 – B5



Foot-flange mounted version
Example: DM90S4 – B3/B5

Three phase motors



Technical characteristics

The motors correspond to the following standards:

DIN EN 60034	Rotating electrical machines, rating and performance.
IEC60072	Totally enclosed fan-cooled motors with squirrel cage, fixing dimensions and allocation of rating.
DIN42948	Mounting flanges for electrical machines

In the standard version the motors have insulation class F. Insulation class H is available.

Voltage/Frequency

DM63 .. DM112	DA132 .. DA225
<ul style="list-style-type: none"> 230/400V Δ/Y 50Hz 220-240/380-420V Δ/Y 50/60Hz 275/480 V Δ/Y 60 Hz *) 230/460V 60 Hz 	<ul style="list-style-type: none"> 230/400V Δ/Y 50Hz 220-240/380-420V Δ/Y 50/60Hz 275/480 V Δ/Y 60Hz *) 230/460V 60Hz
400/690 V Δ/Y 50 Hz 380-420/660-690 V Δ/Y 50 oder 60 Hz 480V 60Hz *)	<ul style="list-style-type: none"> 400/690 V Δ/Y 50 Hz 380-420/660-690 V Δ/Y 50/60Hz 480V 60Hz *)
290/500 V Δ/Y 50Hz 200V 50Hz / 220V 60Hz	500V Δ 50Hz 200V 50Hz / 220V 60Hz

• Standard voltages

*) Power and speed are increased by about 20%.

Different voltages and frequencies are available.

Motor Power Pn

The values given in the tables are valid for the following conditions:

- Duty cycle S1
- Maximum ambient temperature +40°C
- Installation altitude up to 1000m above mean sea level

The available motor power for different conditions is calculated as follows: $P = P_n \cdot f_s \cdot f_t \cdot f_h$

Factor fs for different duty type

Duty type		fs
S1	Continuous duty. Operation with constant load. The motor reaches the thermal equilibrium.	1.0
S2-10min	Short term duty. Operation with constant load followed by a stop. During the stop the motor returns to the ambient temperature. Described by the duration of the load period in min.	1.4
S2-30min		1.25
S2-60min		1.1
S3-15%ED	Intermittent periodic duty. Operation with a sequence of identical cycles including a time of operation with constant load and a stop. Described by the cyclic duration factor in %.	1.4
S3-25%ED		1.3
S3-40%ED		1.2
S3-60%ED		1.1
S4 .. S10	Intermittent periodic duty. The start or stop phase of the motor is effecting the temperature raise. More data of the duty cycle are necessary.	On request

Factor ft for different ambient temperature θ

θ ≤ 40°C	ft=1.0
40°C < θ ≤ 50°C	ft=0.87
50°C < θ ≤ 60°C	ft=0.75

Factor fh for different altitude h

h ≤ 1000m	fh=1.0
1000m < h ≤ 2000m	fh=0.95
2000m < h ≤ 3000m	fh=0.87
3000m < h ≤ 4000m	fh=0.80

Three phase motors



Type of protection IP

IP	1. Code number Protection against foreign objects	2. Code number Protection against water
0	Not protected	Not protected
1	Protected against solid foreign objects \geq 50 mm and larger	Protected against dripping water
2	Protected against solid foreign objects \geq 12 mm and larger	Protected against dripping water if the housing is tilted by up to 15°
3	Protected against solid foreign objects \geq 2.5 mm and larger	Protected against spraying water
4	Protected against solid foreign objects \geq 1 mm and larger	Protected against splash water
5	Protected against dust	Protected against water jets
6	Dust-proof	Protected against powerful water jets
7		Protected against intermittent immersion in water
8		Protected against sustained immersion in water

In the standard version the motors have protection IP55 (braked motors IP54).

With the option "Dust and water protected" the motors are IP65. Motors with higher protection standard on request.

Permissible Radial Forces for the Output Shaft

Motor	Output shaft d _{xl} [mm]	K1 [mm]	F _{R1} [N]			
			3000 1/min	1500 1/min	1000 1/min	750 1/min
DM63	11x23	187	330	410	470	520
DM71	14x30	158	330	410	470	520
DM80	19x40	201	550	690	790	870
DM90	24x50	240.5	600	760	870	960
DM100	28x60	287	830	1040	1190	1310
DM112	28x60	318	1210	1520	1740	1920
DA132	38x80	368.5	1330	1670	1910	2100
DA160	42x110	495	1430	1800	2060	2270
DA180	48x110	540.5	2260	2840	3250	3580
DA200	55x110	590.5	2260	2840	3250	3580
DA225	60x140	665.5	3980	5010	5730	6310

For selection condition formulas, see page 6/7

Three phase motors



Three phase motors 4 pole

Motor	Pn [kW]	n1 [1/min]	In (400V)	cos φ	η [%]	Ma/Mn	Ia/In	Mk/Mn	JE [kgcm ²]	~kg	Brake
DM63K4	0.12	1380	0.47	0.61	61.3	2.1	3.0	2.4	2.1	3.5	B02
DM63G4	0.18	1380	0.67	0.66	58.2	1.8	2.7	2.0	2.8	4	B02
DM71K4	0.25	1410	0.79	0.64	71.4	2.5	4.3	2.9	5.6	5.5	B02
DM71G4	0.37	1410	1.00	0.71	75.5	2.5	4.6	2.8	7.3	6.5	B02
DM80K4	0.55	1405	1.40	0.74	77.4	2.5	4.8	2.6	12.8	8.5	B03/B02
DM80G4	0.75	1410	1.85	0.74	79.6	2.5	5	2.7	16.5	10	B03/B02
DM90S4	1.1	1415	2.80	0.72	78.8	2.6	4.7	2.8	23.5	12	B04/B03
DM90L4	1.5	1410	3.50	0.78	78.7	2.4	4.5	2.6	31.3	15	B04/B03
DM100L4	2.2	1410	5.2	0.76	81.0	2.0	4.3	2.4	45	20	B05/B04
DM100LX4	3	1410	7.0	0.75	82.6	2.3	4.4	2.5	60	23	B05/B04
DM112M4	4	1425	8.3	0.82	85.3	2.4	5.6	2.7	119	29	B06/B05
DA132S4	5.5	1450	11.3	0.82	86.0	2.6	7.4	3.3	143	47	B07/B06
DA132M4	7.5	1450	15.2	0.82	87.2	2.6	7.6	3.3	190	56	B07/B06
DA160MS4	9.2	1470	17.5	0.87	88.5	1.9	6.9	3.0	513	76	B08/B07
DA160M4	11	1470	21.0	0.85	89.2	2.4	7.6	3.3	580	82	B08/B07
DA160L4	15	1470	27.8	0.86	90.5	2.5	8.2	3.5	780	103	B09/B08
DA180M4	18.5	1475	35.0	0.84	91.0	2.5	7.2	3.2	1600	125	B09/B08
DA180L4	22	1475	42.0	0.83	91.5	2.8	7.6	3.4	1800	140	B10/B09
DA200L4	30	1475	55	0.85	92.0	2.7	7.9	3.3	2580	180	B10/B09
DA225S4	37	1470	68	0.85	92.5	2.8	8.4	3.5	2700	310	B10/B09
DA225M4	45	1475	81	0.87	92.5	2.9	8.0	3.0	3240	340	B10/B09

Pn	Nominal power
n1	Nominal speed
In	Nominal current
cos φ	Power factor
η	Efficiency
Ma/Mn	Relative starting torque
Ia/In	Relative starting current
Mk/Mn	Relative pull-out torque
JE	Inertia

Motor options



B - Brake COMBISTOP

- spring-set twin-disc safety brake
- asbestos-free friction linings
- Protection standard: IP54
- connection via contacts in terminal box
- adjustment provision for wear of friction linings without dismantling
- torque reduction possible
- Standard voltages: 230VAC, 400VAC, 24VDC

Options:

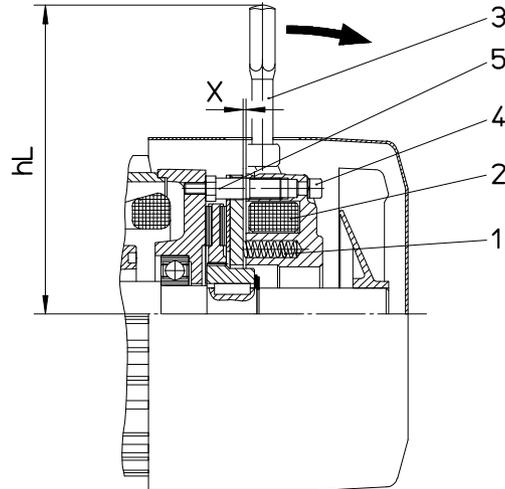
- Manual brake release MB
 - CSA approved version
 - Corrosion-proof version
 - Quick-acting rectifier „Powerbox“ for switch cabinet mounting
- Depending on the type of application, this rectifier improves the off period, or the on period, or the service life of the brake before readjustment of the air gap is required.

Mode of Operation

The brake is released by direct-current excitation of the brake coil (2) or by a manual release unit MB (3) which can be attached as an option.

Braking is achieved in power off condition by means of spring force (1).

The adjusting screws (5) are used to adjust the nominal air gap (X) in case of wear.



Technical Data

Brake	Mbr [Nm]	Mbred [Nm]		JB [kgcm ²]	P20 [W]	t2 [ms]	t11~ [ms]	t11= [ms]	WR0.1 [J*10 ⁶]	WRmax [J*10 ³]	X [mm]	Xn [mm]	hL [mm]	~kg
B02	5	2.5	1.5	0.3	25	40	70	10	7.5	5.3	0.2	0.4	106	1.4
B03	10	7.5	5	3	30	55	100	15	12.5	7.5	0.2	0.5	114	2.0
B04	20	15	10	6	30	90	180	25	19.1	18	0.2	0.6	128	3.6
B05	36	27	18	11	3.5	48	110	25	28.0	28	0.2	0.6	168	5.7
B06	70	53	35	21	5.6	62	240	25	28.8	38	0.3	1.0	176	9.1
B07	100	75	50	30	16	65	220	400	35.7	49	0.3	1.0	225	15
B08	150	113	75	45	30	75	320	700	44.2	56	0.4	1.2	235	24
B09	250	188	125	75	75	80	350	900	69.0	78	0.4	1.2	256	34
B10	500	375	250	150	210	130	400	1400	80.0	100	0.5	1.5	335	49

Mbr	Static braking torque after completed run-in phase
Mbred	possible reduced brake torques
JB	Inertia
P20	Excitation rating at 20°C
t2	Release time, time from connecting the current to the beginning of torque decrease
t11~	Engagement delay time for AC side switching (Fig. 1,3)
t11=	Engagement delay time for DC side switching (Fig. 2)
WR0.1	friction work until 0.1mm abrasion
WRmax	permissible friction work for emergency stop from 3000 1/min (B08..B10 - 1500 1/min)
X	Nominal clearance
Xn	Clearance, at which a readjustment is recommended

The specified switching times apply to nominal clearance and nominal torque. It relates to average values and depends on the type of rectification and coil temperature.

Motor options



Electrical Connection

Figure 1: AC side switching

- The brake is switched independent from the motor voltage, Engagement delay time $t_{11\sim}$
- Suitable for operation with frequency inverter

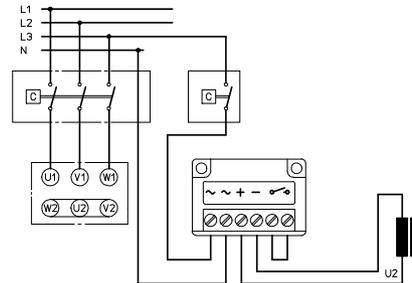


Figure 2: DC side switching

- The switching of the brake on AC and DC side leads to faster Engagement delay times $t_{11=}$.

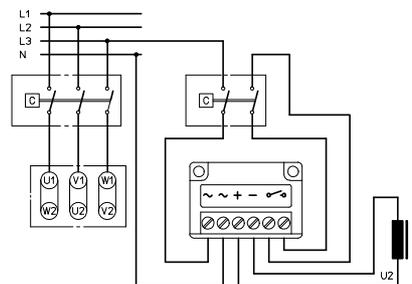
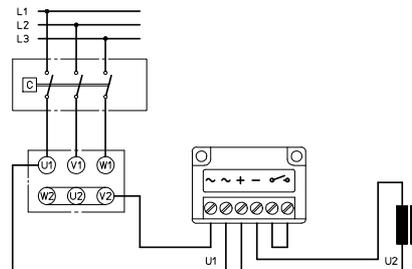


Figure 3: Brake ready for connection

- Voltage supply from motor terminal board.
- The brake is switched together with the motor voltage, Engagement delay time $t_{11\sim}$
- In comparison to Figure 1 the connection to the brake is made within the motor terminal box
- Not suitable for frequency inverter operation and for pole changing motors with separate windings



RS - Backstop

The mechanical backstop RS prevents the reverse motion of the drive when the motor is switched off.

Specify the direction of rotation of the motor or geared motor when ordering.

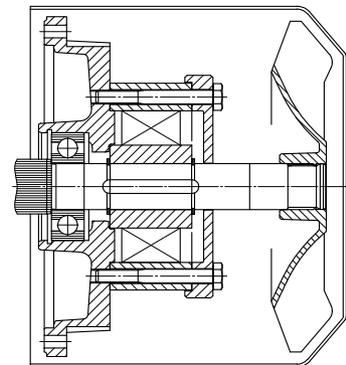
For Helical worm geared motors S and Helical bevel geared motors K, the position of mounting face has to be specified.

The backstop applies for ambient temperatures of $-40..+60^{\circ}\text{C}$.

Motor	Nominal locking torque	
	1) [Nm]	2) n_{\min} [1/min]
DM63 RS, DM71 RS	16.9	875
DM80 RS .. DM112 RS	150	875
DA132 RS, DA160 RS	562	720
DA180 RS, DA200 RS	1025	610

1) maximum locking torque = 2* nominal locking torque

2) the continuous operating speed shall not be lower than the minimum allowable overrunning speed



Motor options



F - Forced ventilation

In the standard version a forced ventilation is supplied with the following specification:

- Radial or axial air inlet
- Protection standard IP 66
- Standard voltages
 - DM63 .. DA200: 1 ~ 220 – 277 V, 50/60 Hz
 - 3 ~ 220 V Δ – 500 V Y 50/60 Hz
- The connection is in a extra terminal box mounted on the fan cowl.

Motor	I _F [A]	I _F [A]
	3 ~ 230/400V 50Hz	1 ~ 230V 50Hz
DM63 .. DM100	0.23 / 0.13	0.23
DM112 .. DA132	0.24 / 0.14	0.27
DA160 .. DA200	0.59 / 0.35	0.84

I_F Rated current of forced ventilation

Motor protection

The following motor protection can be supplied:

- TW - PTC thermistor sensor
- TS - Thermorelay (closed)

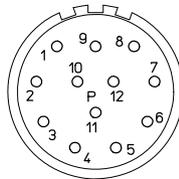
I - Incremental encoder

Standard version

Pulses/Rev.	1024
Signals	A, /A, B, /B, 0, /0
Interface	RS422 (TTL)
Supply voltage	5VDC ± 5%
Current consumption	40mA / max. 90mA
Permissible load / channel	± 20 mA
Protection standard	IP65

The encoder is mounted under the motor fan cowl for added protection

Signal connector 12pole



Counterplug optional

Pin	Signal
10	0V
11	0V Sensor
12	+5V
2	+5V Sensor
5	A
6	/A
8	B
1	/B
3	0
4	/0

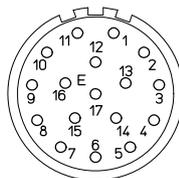
EAM - Absolute encoder multiturn

Standard version

Resolution singleturn	13bit
Resolution multiturn	12bit (4096 rev)
Code type	SSI-Gray-Code
Sin/Cos-periods	2048ppr 1Vpp
Supply voltage	5VDC ± 5%
Current consumption	max. 70mA
Permissible load / channel	± 20 mA
Protection standard	IP65
Encoder system position	
KEB F5-Multi	ec02 = 0

The encoder is mounted under the motor fan cowl for added protection

Signal connector 17pole



Counterplug optional

Pin	Signal
10	0V
7	+5V
8	clock
9	/clock
14	data
17	/data
1	set
2	dir
15	A
16	/A
12	B
13	/B

Motor options

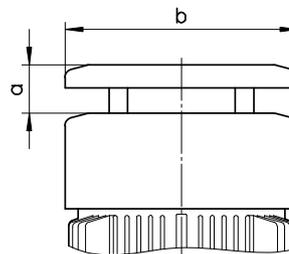


Protection cowl

The protection cowl prevents the penetration of foreign objects or liquids when the motor is mounted in vertical position.

Motor	a	b
DM63	25	126
DM71	25	126
DM80	25	160
DM90	25	160
DM100	25	200
DM112	25	200
DA132	42	230
DA160	43	240/338 1)
DA180..DA225	43	240/338 1)

1) Dimension for forced ventilation

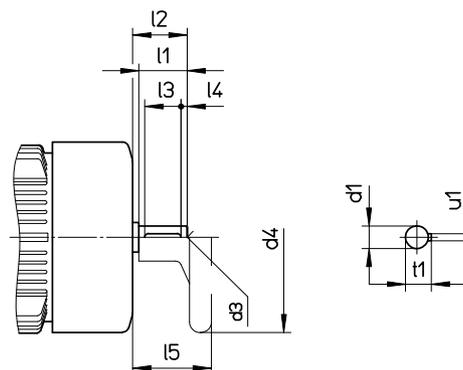


Second shaft end WE2 and handwheel

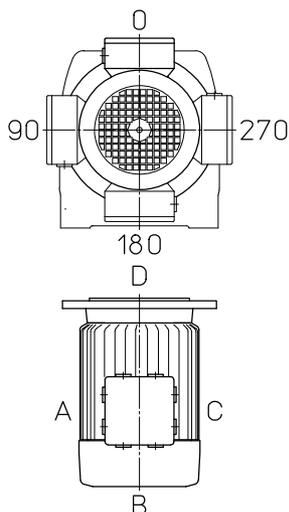
The second shaft end can be used for fixing a handwheel or for radial force free transmission of the motor torque.

If radial forces apply to the second shaft end, please consult the manufacturer.

	d1	l1	t1	u1	l2	l3	l4	d3	d4	l5
DM63	11	23	12.5	4	28	18	2.5	M4	100	46
DM71	11	23	12.5	4	28	18	2.5	M4	100	46
DM80	14	30	16	5	35	25	2.5	M5	100	52
DM90	19	40	21.5	6	45	32	4	M6	160	66
DM100	24	50	27	8	55	40	5	M8	160	75
DM112	24	50	27	8	55	40	5	M8	160	75
DA132	32	80	35	10	85	70	5	M12	225	108
DA160	38	80	41	10	90	70	5	M12	225	113
DA180	42	110	45	12	120	100	5	M16	280	144
DA200	42	110	45	12	120	100	5	M16	280	144
DA225	42	110	45	12	120	100	5	M16	280	144



Position of terminal box



Example: 270C is for terminal box at 270 cable lead in at C

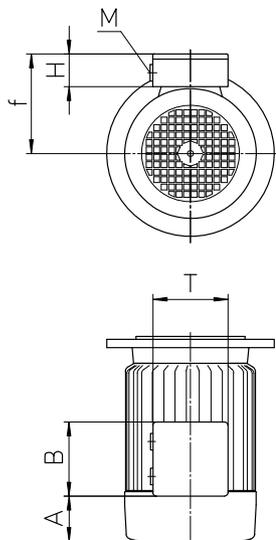
The position of other motor options (manual brake release, connection of forced ventilation, connection of encoder) is specified with the same method, independently, if different from position of terminal box.

Example: 90A, Manual brake release 270

Motor options



Dimensions of terminal box



	A normal	B	T	H	f	M normal	M Brake or TW / TS	M Brake and TW / TS
DM63	76.5	100	100	42.5	109	1xM20	2xM20	2xM20+1xM16
DM71	90	100	100	42.5	119	1xM20	2xM20	2xM20+1xM16
DM80	97	115	115	55	140.5	1xM25	2xM25	2xM25+1xM16
DM90S	110	115	115	55	144	1xM25	2xM25	2xM25+1xM16
DM90L	135	115	115	55	144	1xM25	2xM25	2xM25+1xM16
DM100	157	115	115	55	155	1xM25	2xM25	2xM25+1xM16
DM112	172	115	115	55	165	1xM25	2xM25	2xM25+1xM16
DA132	143.5	142	117	62	188	2xM32	2xM32	2xM32+1xM16
DA160	107.5	140	140	90	250	2xM40	2xM40	2xM40+1xM16
DA180	205	226	230	121	291	2xM40	2xM40	2xM40+1xM16
DA200	230	226	230	121	291	2xM40	2xM40	2xM40+1xM16

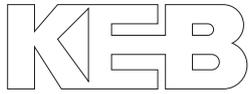
More Motor Options

The following motor options are available on request.

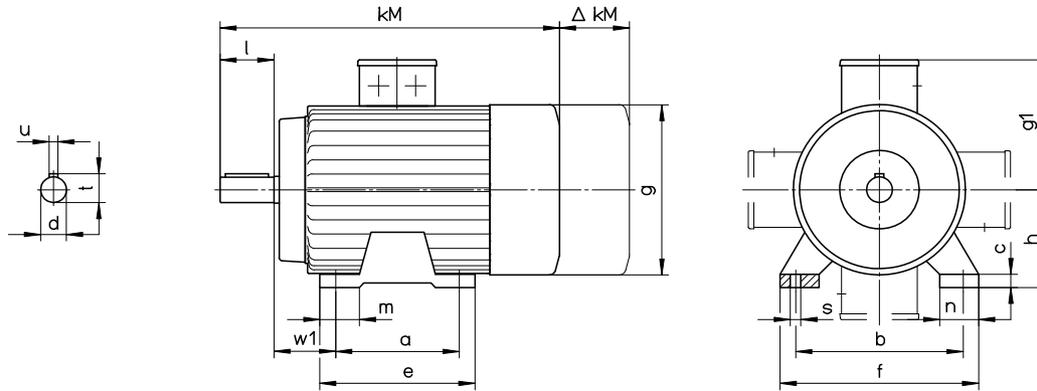
- Number of poles: 2 pole; 6 pole; 8 pole
- Pole changing motors
4/2 pole; 8/4 pole; 8/2 pole; 6/2 pole; 12/2 pole; 6/4 pole
- Single phase motors, 0.12..1.5 kW
with service capacitor and increased resistance rotor Ma / Mn ca. 0.8
- Reluctance motors, 0.25..1.5 kW, 4 pole
The output speed of these motors is 1500 1/min and independent from the load (up to the nominal torque).
- Explosion proof motor in accordance with ATEX, for use in zone 1, 2, 21, or 22
- Flame proof Motor EExd
- motors with noise reduced brake or with double brake

Three phase motors

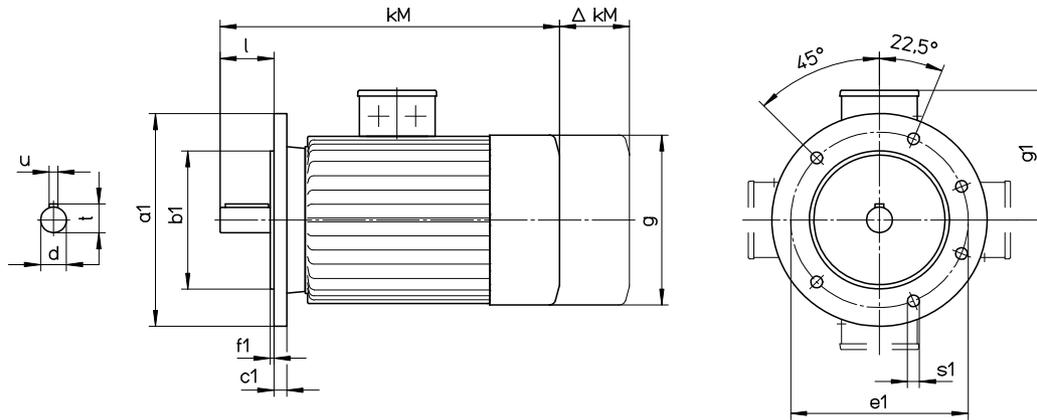
Dimensions



B3 - Foot mounted version



B5 - Flange mounted version

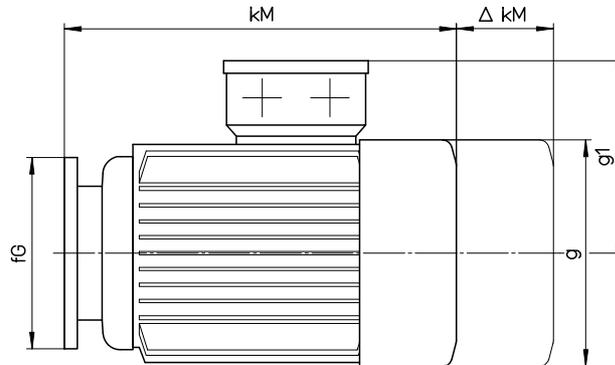
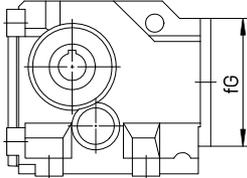
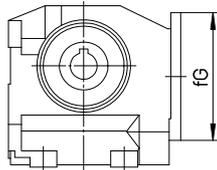
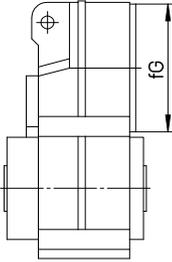
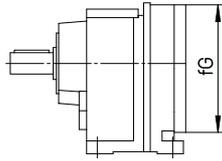


Motor	DM63	DM71	DM80	DM90S/L	DM100	DM112	DA132S/M	DA160M/L	DA180M/L	DA200	DA225S/M
a	80	90	100	100/125	140	140	140/178	210/254	241/279	305	286/311
b	100	112	125	140	160	190	216	254	279	318	356
c	10	12	14	15	15	15	18	22	20	27	35
e	105	108	125	130/155	175	177	180/218	260/304	300/340	380	341/366
f	120	136	154	174	192	224	256	320	352	403	440
h	63	71	80	90	100	112	132	160	180	200	225
m	27	25	28	30/32	32	34	50	62	75	95	70
n	20	27	27	32	32	43	55	69	74	100	108.5
w1	40	45	50	56	63	70	89	108	121	133	149
s	Ø7	Ø8	Ø10	Ø10	Ø12	Ø12	Ø12	Ø14	Ø14	Ø18	Ø18
a1	140	160	200	200	250	250	300	350	350	400	450
b1	95	110	130	130	180	180	230	250	250	300	350
c1	10.5	10	10	11	14.5	15	12	13	13	15	16
e1	115	130	165	165	215	215	265	300	300	350	400
f1	3	3.5	3.5	3.5	4	4	4	5	5	5	5
s1	4xØ10	4xØ10	4xØ11	4xØ12	4xØ14	4xØ14	4xØ14	4xØ18	4xØ18	4xØ18	8xØ18
d	11	14	19	24	28	28	38	42	48	55	60
l	23	30	40	50	60	60	80	110	110	110	140
u	4	5	6	8	8	8	10	12	14	16	18
t	12.5	16	21.5	27	31	31	41	45	51.5	59	64
g	123	138	156	176	194	218	245	311	356	356	356
g1	109	119	140	144	155	165	188	250	291	291	299
kM	210.5	242	273.5	300.5/325.5	365	382.5	485	627	688	738	768/828
ΔkM1	59	56	65	74	91	96	99	120	139	139	139
ΔkM2	115	120	130	129	139	149	156	176	199	199	199
ΔkM3	181	182	192	198	205	215	216	286	294	294	294
ΔkM4	91	87	87	98	101	96	98	151	154	139	139

Three phase motors

Dimensions

KEB

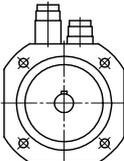
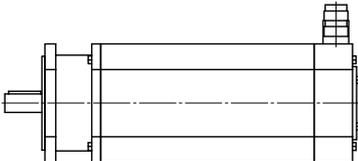


Motor	DM63	DM71	DM80	DM90S/L	DM100	DM112	DA132	DA160	DA180	DA200	DA225S/M		
g	123	138	156	176	194	218	245	311	356	356	356		
g1	109	119	140	144	155	165	188	250	291	291	299	fG	Gear unit
kM	202	228	251									105	G0, S0
	201	228	250	266.5/291.5								120	G1, S1, F2, K2
	198	224	247	261.5/286.5	319	343						140	G2, S2, F3, K3
	198.5	223.5	247.5	262/287	319	342	435					160	G3, S3, F4, K4
		220	243	259.5/284.5	314	337.5	431.5	539.5				200	G4, S4, F5, K5
			238	254.5/279.5	308	332.5	428	532	589	639		250	G5, F6, K6
				247.5/272.5	304	325.5	421	526	583	633		300	G6, F7, K7
					299	320.5	413	522	577.5	627.5	627.5/687.5	350	G7, F8, K8
							396.5	503.5	560.5	610.5	610.5/670.5	400	G8, K9
							491.5	548	598	598/658	450	G9	
ΔkM1	59	56	65	74	91	96	99	120	139	139	139		
ΔkM2	115	120	130	129	139	149	156	176	199	199	199		
ΔkM3	181	182	192	198	205	215	216	286	294	294	294		
ΔkM4	91	87	87	98	101	96	98	151	154	154	154		

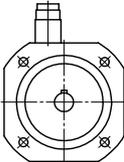
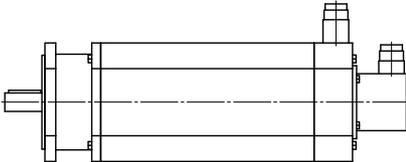
kM + ΔkM1	B or I or EAM(DM90..DA225) or RS
kM + ΔkM2	B I or B EAM or EAM(DM63..DM80)
kM + ΔkM3	F I or B F or B F I or F EAM or B F EAM
kM + ΔkM4	F

B Brake
 F Forced ventilation
 I Incremental encoder
 EAM Absolute encoder multiturn
 RS Backstop

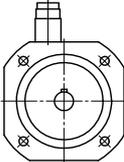
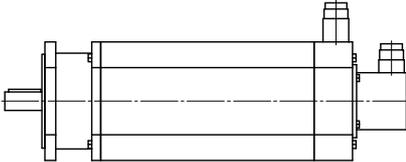
Servo motors TA



Encoder system ER
Resolver
Example: TA21 VD0 ER TW



Encoder system EAS
Absolute encoder singleturn
Example: TA52 V30 EAS TW



Encoder system EAM
Absolute encoder multiturn
Example: TA41 V40 EAM TW

Servo motors TA



Technical characteristics

AC servo-motor, suitable for frequency inverter F5-Multi

Standard version:

- Protection standard IP64
- Insulation class F
- PTC thermistor sensor
- Nominal voltage $U_n=400V$
optional for motors TA2, TA3 and TA4: Nominal voltage $U_n=230V$
- Number of poles: TA2 2-pole, TA3..TA6 6-pole

The motors correspond to the following standards:

DIN EN 60034 Rotating electrical machines, rating and performance.
DIN 42948 Mounting flanges for electrical machines

Nominal torque Mn

The values given in the tables are valid for the following conditions:

- Duty cycle S1
- Maximum ambient temperature $+40^{\circ}C$

reduced motor torque at ambient temperature $40^{\circ}C < \theta \leq 80^{\circ}C$: $M_{th} = M_n \cdot \left(\frac{145^{\circ}C - \theta}{105^{\circ}C} \right)$

- Installation altitude up to 1000m above mean sea level

selection conditions at periodical load

$$M_a = \sqrt{\frac{1}{t} \cdot \sum_i M_{ai}^2 \cdot t_i} \leq M_n$$

$$M_{amax} = \max(M_{ai}) \leq M_{max}$$

M_n	[Nm]	Nominal torque Servo motor
M_{max}	[Nm]	Maximum torque Servo motor
M_a	[Nm]	Actual average load torque
M_{amax}	[Nm]	Maximum load torque
M_{ai}	[Nm]	Load torque of cycle i
t_i	[s]	Duration of cycle i
t	[s]	Total time $t = \sum_i t_i$

Permissible Radial Forces for the Output Shaft

Motor	Output shaft dxl [mm]	K1 [mm]	F_{R1} [N]				
			1500 1/min	2000 1/min	3000 1/min	4500 1/min	6000 1/min
TA2	11x23	166	370	340	300	260	240
TA3	14x30	196	410	380	330	290	260
TA4	19x40	261.5	690	630	550	480	440
TA5	24x50	296.5	1040	950	830	720	660
TA6	32x58	401	1390	1260	1100	960	870

For selection condition formulas, see page 6/7

Servo motors TA



Selection table 400V

Motor	M0 [Nm]	Mn [Nm]	Mmax [Nm]	~kg	Jm [kgcm ²]	I0 [A]	R _{u-v} [Ω]	L _{u-v} [mH]	kEpk [mV/min]	F5 MULTI - Mmax/M0				
1500 1/min														
TA61 V10	34.5	31.5	103.5	38.7	77.71	11.1	2.323	19.302	278.64	13-1.6	14-2.2	15-3.0		
TA62 V10	50	44	150	50.4	113.71	16.4	1.200	12.356	273.51	14-1.5	15-2.2	16-3.0	17-3.0	
TA63 V10	64	55	192	63.4	149.7	21.5	0.783	8.867	267.65	15-1.7	16-2.3	17-2.9	18-3.0	
TA63 V10 F	100	82	192	63.4	149.7	33.5	0.783	8.867	267.65	16-1.5	17-1.9	18-1.9		
2000 1/min														
TA41 V20	6.9	6.6	20.7	10.3	5.65	3.15	13.812	32.931	198.16	09-2.0	10-2.8	12-3.0		
TA42 V20	9.2	8.6	27.6	12.9	8.15	4.0	8.388	23.631	205.81	09-1.5	10-2.2	12-3.0		
TA43 V20	11.7	10.8	35.1	15.2	10.65	5.00	5.554	18.360	209.53	10-1.7	12-2.9	13-3.0		
TA51 V20	11.5	10.8	34.5	16.8	14.9	5.00	7.336	27.341	205.42	10-1.7	12-2.9	13-3.0		
TA52 V20	16.1	14.7	48.3	21	21.53	6.9	4.114	19.124	210.74	12-2.1	13-2.6	14-3.0		
TA53 V20	20	17.7	60	25	28.15	8.7	2.553	13.752	206.64	12-1.6	13-2.1	14-2.8	15-3.0	
TA61 V20	34.5	30	103.5	38.7	77.71	15.1	1.259	10.558	206.20	14-1.6	15-2.4	16-3.0		
TA62 V20	50	41	150	50.4	113.71	22.5	0.649	6.638	200.37	15-1.6	16-2.2	17-2.8	18-3.0	
TA63 V20	64	50	192	63.4	149.7	29.5	0.413	4.687	194.54	16-1.7	17-2.1	18-2.5	19-3.0 20-3.0	
TA63 V20 F	100	75	192	63.4	149.7	46.5	0.413	4.687	194.54	18-1.6	19-1.9	20-1.9		
3000 1/min														
TA31 V30	1.5	1.45	4.5	4	0.82	1.10	83.179	43.928	122.73	07-3.0				
TA32 V30	2.75	2.55	8.25	5.5	1.51	1.85	31.805	26.072	133.55	07-2.1	09-3.0			
TA33 V30	3.9	3.55	11.7	6.8	2.19	2.60	17.874	17.906	135.88	07-1.5	09-2.4	10-3.0		
TA41 V30	6.9	6.3	20.7	10.3	5.65	4.45	6.995	16.493	139.96	10-2.0	12-3.0			
TA42 V30	9.2	8.1	27.6	12.9	8.15	5.9	3.727	11.042	140.55	10-1.5	12-2.4	13-3.0		
TA43 V30	11.7	10.1	35.1	15.2	10.65	7.3	2.611	8.735	144.54	12-2.0	13-2.5	14-3.0		
TA51 V30	11.5	10.2	34.5	16.8	14.9	7.4	3.441	12.710	140.06	12-1.9	13-2.4	14-3.0		
TA52 V30	16.1	13.5	48.3	21	21.53	10.3	1.815	8.498	140.47	13-1.7	14-2.4	15-3.0		
TA53 V30	20	16.1	60	25	28.15	12.8	1.279	6.390	140.83	14-1.9	15-2.8	16-3.0		
TA61 V30	34.5	26	103.5	38.7	77.71	21.5	0.635	5.256	145.43	15-1.7	16-2.3	17-2.9	18-3.0	
TA62 V30	50	33	150	50.4	113.71	31.0	0.345	3.515	145.89	16-1.6	17-2.0	18-2.4	19-2.9 20-3.0	
TA63 V30	64	37	192	63.4	149.7	39.5	0.232	2.637	145.90	17-1.6	18-1.9	19-2.3	20-2.8 21-3.0	
TA63 V30 F	100	55	192	66	149.7	62	0.232	2.637	145.90	19-1.5	20-1.8	21-1.9		
4500 1/min														
TA21 V40	0.85	0.82	2.55	2.5	0.37	0.90	81.799	52.994	85.00	07-3.0				
TA22 V40	1.55	1.45	4.65	3.4	0.7	1.52	29.433	30.423	91.72	07-2.6	09-3.0			
TA31 V40	1.5	1.41	4.5	4	0.82	1.57	41.481	21.871	86.17	07-2.5	09-3.0			
TA32 V40	2.75	2.4	8.25	5.5	1.51	2.70	14.624	12.177	91.28	09-2.3	10-3.0			
TA33 V40	3.9	3.25	11.7	6.8	2.19	3.80	8.226	8.252	92.23	09-1.6	10-2.3	12-3.0		
TA41 V40	6.9	5.7	20.7	10.3	5.65	6.5	3.165	7.611	95.05	12-2.2	13-2.8	14-3.0		
TA42 V40	9.2	7.1	27.6	12.9	8.15	8.5	1.766	5.295	97.35	12-1.7	13-2.1	14-2.9	15-3.0	
TA43 V40	11.7	8.6	35.1	15.2	10.65	11.2	1.120	3.690	93.94	13-1.6	14-2.2	15-3.0		
TA51 V40	11.5	9	34.5	16.8	14.9	11.0	1.521	5.679	93.88	13-1.6	14-2.3	15-3.0		
TA52 V40	16.1	11.3	48.3	21	21.53	15.8	0.828	3.594	91.40	14-1.6	15-2.3	16-3.0		
TA53 V40	20	10.4	60	25	28.15	19.2	0.513	2.839	93.84	15-1.9	16-2.6	17-3.0		
6000 1/min														
TA21 V60	0.85	0.81	2.55	2.5	0.37	1.14	50.88	32.935	67.30	07-3.0				
TA22 V60	1.55	1.39	4.65	3.4	0.7	1.98	17.821	17.866	70.32	07-2.0	09-3.0			
TA31 V60	1.5	1.35	4.5	4	0.82	1.98	25.718	13.751	68.16	07-2.0	09-3.0			
TA32 V60	2.75	2.15	8.25	5.5	1.51	3.60	8.126	6.976	69.16	09-1.7	10-2.4	12-3.0		
TA33 V60	3.9	2.75	11.7	6.8	2.19	5.00	4.701	4.813	70.44	10-1.7	12-2.9	13-3.0		

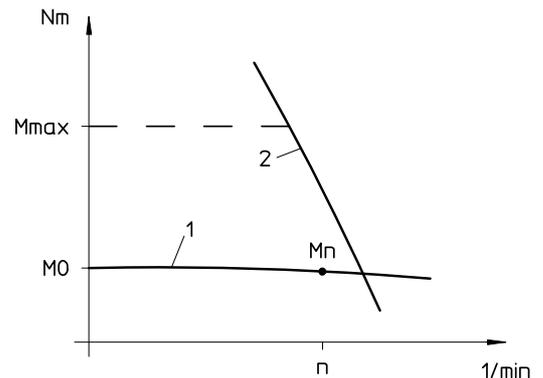
Servo motors TA



Selection table 230V

Motor	M0 [Nm]	Mn [Nm]	Mmax [Nm]	~kg	Jm [kgcm ²]	I0 [A]	R _{u-v} [Ω]	L _{u-v} [mH]	kEpk [mV/min]	F5 MULTI - Mmax/M0		
2000 1/min												
TA41 VB0	6.9	6.6	20.7	10.3	5.65	6.2	3.601	8.499	100.46	09-1.7	10-2.4	12-3.0
TA42 VB0	9.2	8.6	27.6	12.9	8.15	8.0	2.096	5.905	102.86	10-1.9	12-3.0	
TA43 VB0	11.7	10.8	35.1	15.2	10.65	10.4	1.309	4.278	101.12	12-2.4	13-3.0	
3000 1/min												
TA31 VC0	1.5	1.45	4.5	4	0.82	2.20	20.355	10.899	60.90	05-1.6	07-2.7	09-3.0
TA32 VC0	2.75	2.55	8.25	5.5	1.51	3.70	7.961	6.521	66.80	07-1.6	09-2.8	10-3.0
TA33 VC0	3.9	3.55	11.7	6.8	2.19	5.2	4.416	4.372	67.18	09-2.0	10-2.9	12-3.0
TA41 VC0	6.9	6.3	20.7	10.3	5.65	9.1	1.674	3.919	68.26	10-1.6	12-2.7	13-3.0
TA42 VC0	9.2	8.1	27.6	12.9	8.15	11.8	0.955	2.761	70.28	12-2.1	13-3.0	
TA43 VC0	11.7	10.1	35.1	15.2	10.65	14.6	0.654	2.183	72.25	12-1.7	13-2.5	14-3.0
4500 1/min												
TA21 VD0	0.85	0.82	2.55	2.5	0.37	1.82	18.721	12.832	41.96	05-1.9	07-3.0	
TA22 VD0	1.55	1.45	4.65	3.4	0.7	3.05	6.723	7.491	45.49	07-2.0	09-3.0	
TA31 VD0	1.5	1.41	4.5	4	0.82	3.15	10.245	5.341	42.63	07-1.9	09-3.0	
TA32 VD0	2.75	2.4	8.25	5.5	1.51	5.4	3.753	3.044	45.64	09-1.9	10-2.8	12-3.0
TA33 VD0	3.9	3.25	11.7	6.8	2.19	7.5	2.131	2.139	46.96	10-2.0	12-3.0	
TA41 VD0	6.9	5.7	20.7	10.3	5.65	13.3	0.760	1.835	46.73	12-1.9	13-2.7	14-3.0
TA42 VD0	9.2	7.1	27.6	12.9	8.15	17.0	0.446	1.324	48.68	12-1.5	13-2.1	14-2.9 15-3.0
TA43 VD0	11.7	8.6	35.1	15.2	10.65	24.5	0.233	0.786	43.36	13-1.5	14-2.0	15-3.0 16-3.0
6000 1/min												
TA21 VF0	0.85	0.81	2.55	2.5	0.37	2.30	12.614	8.107	33.46	05-1.5	07-2.6	09-3.0
TA22 VF0	1.55	1.39	4.65	3.4	0.7	4.05	4.373	4.304	34.52	07-1.5	09-2.6	10-3.0
TA31 VF0	1.5	1.35	4.5	4	0.82	3.95	6.354	3.437	34.08	07-1.5	09-2.7	10-3.0
TA32 VF0	2.75	2.15	8.25	5.5	1.51	6.9	2.097	1.859	35.70	09-1.5	10-2.2	12-3.0
TA33 VF0	3.9	2.75	11.7	6.8	2.19	10.0	1.175	1.203	35.22	10-1.5	12-2.5	13-3.0

- n Nominal speed
- M0 Stall torque
- Mn Nominal torque S1
- Mmax Maximum torque
- ~kg Weight
- Jm Inertia
- I0 Current at stall torque
- R_{u-v} Winding resistance
- L_{u-v} Winding inductance
- kEpk Voltage constant, Peak value
mV/min = V/(1000 1/min)
- Effektive value $kE = kEpk / \sqrt{2}$
- nmax Maximum speed
n ≤ 2000 1/min → nmax = 3000 1/min
n = 3000 1/min → nmax = 4500 1/min
n ≤ 6000 1/min → nmax = 6000 1/min
- F5 MULTI - Mmax/M0 Available maximum torque of the servo-motor for operation with frequency inverter COMBIVERT F5-MULTI
Current at maximum torque $I_{max} = 1.5 \cdot I_{n_F5}$

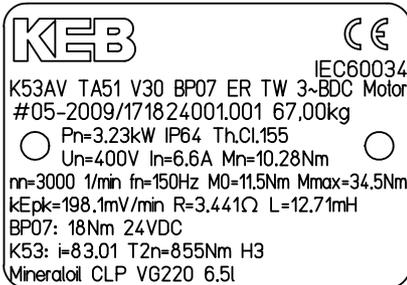


1 - Characteristic curve for S1-duty cycle
2 - Voltage limit curve 400V or 230V

Servo motors TA



Rating plate (Example)



Brake COMBIPERM

- Permanent magnet holding brake with emergency-stop-function
- Standard voltages: 24VDC
- Insulation class: F

Connection with power connector

Technical Data

Brake	Mbr [Nm]	JB [kgcm ²]	P20 [W]	t2 [ms]	t1= [ms]	t11= [ms]	WR0.1 [J*10 ⁶]	WRmax [J*10 ³]	~kg
BP03	2	0.068	11	25	8	2	0.41	5.3	0.2
BP05	4.5	0.18	12	35	15	2.5	0.58	8.0	0.4
BP06	9	0.54	18	40	20	2	0.89	11	0.6
BP07	18	1.66	24	60	30	5	1.29	14	1.0
BP08	36	5.56	26	100	25	5	2.90	30	2.0

Mbr	Static braking torque after completed run-in phase (20°C)
JB	Inertia
P20	Excitation rating at 20°C
t2	Release time, time from connecting the current to the beginning of torque decrease
t1=	Engaging time: Time from disconnecting of current until the rated torque is attained
t11=	Engaging delay time: Time from disconnecting of current until the torque rises
WR0.1	friction work until 0.1mm abrasion
WRmax	permissible friction work for emergency stop from 3000 1/min

The specified switching times apply to nominal clearance and nominal torque. It relates to average values and depends on the type of rectification and coil temperature.

Servo motors TA



Electrical Connection

Motor TA2..TA5

Power connector Size 1, 8pole 1)	Pin	Signal
	1	U
	⊖	PE
	3	W
	4	V
	A	Brake +
	B	Brake -
	C	TW
	D	TW

Motor TA6

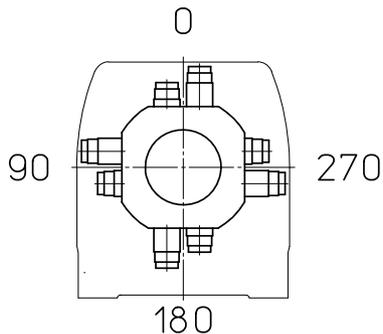
Power connector Size 1.5, 8pole 1)	Pin	Signal
	U	U
	V	V
	W	W
	⊖	PE
	+	Brake +
	-	Brake -
	1	TW
	2	TW

F – Forced ventilation

Power connector 4pole 2)	Pin	Signal
	1	U
	2	V
	3	W
	⊖	PE

Voltage/Frequency: 3 ~ 400V 50Hz
 Rated current of forced ventilation: 0.14A
 Counterplug included

Position of motor connection for geared motors



Example: Motor connection 90, Plug connector radial

Servo motors TA

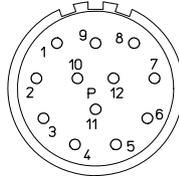


Encoder system

ER – Resolver

Type	BRX 2-pole
Voltage	7Vrms
Frequency	10kHz
Transformation factor	0.5
Encoder system position	
KEB F5-Multi	ec02 = 57344

Signal connector 12pole



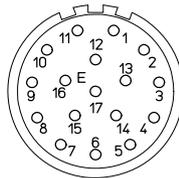
Counterplug optional

Pin	Signal
1	/sin
2	/cos
5	/sin-ref
7	sin-ref
10	sin
11	cos

EAS – Absolute encoder singleturn EAM - Absolute encoder multiturn

Standard version	
Resolution singleturn	13bit
Resolution multiturn	12bit (4096 rev)
Code type	SSI-Gray-Code
Sin/Cos-periods	2048ppr 1Vpp
Supply voltage	5VDC ± 5%
Current consumption	max. 70mA
Permissible load / channel	± 20 mA
Protection standard	IP65
Encoder system position	
KEB F5-Multi	ec02 = 0

Signal connector 17pole

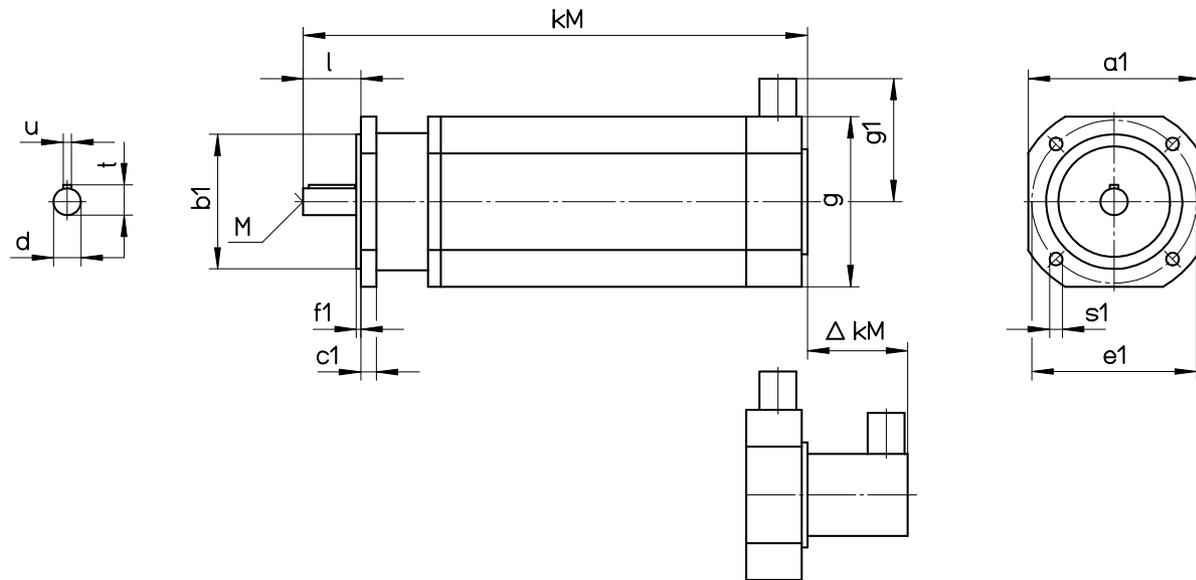


Counterplug optional

Pin	Signal
10	0V
7	+5V
8	clock
9	/clock
14	data
17	/data
1	set
2	dir
15	A
16	/A
12	B
13	/B

Servo motors TA

Dimensions



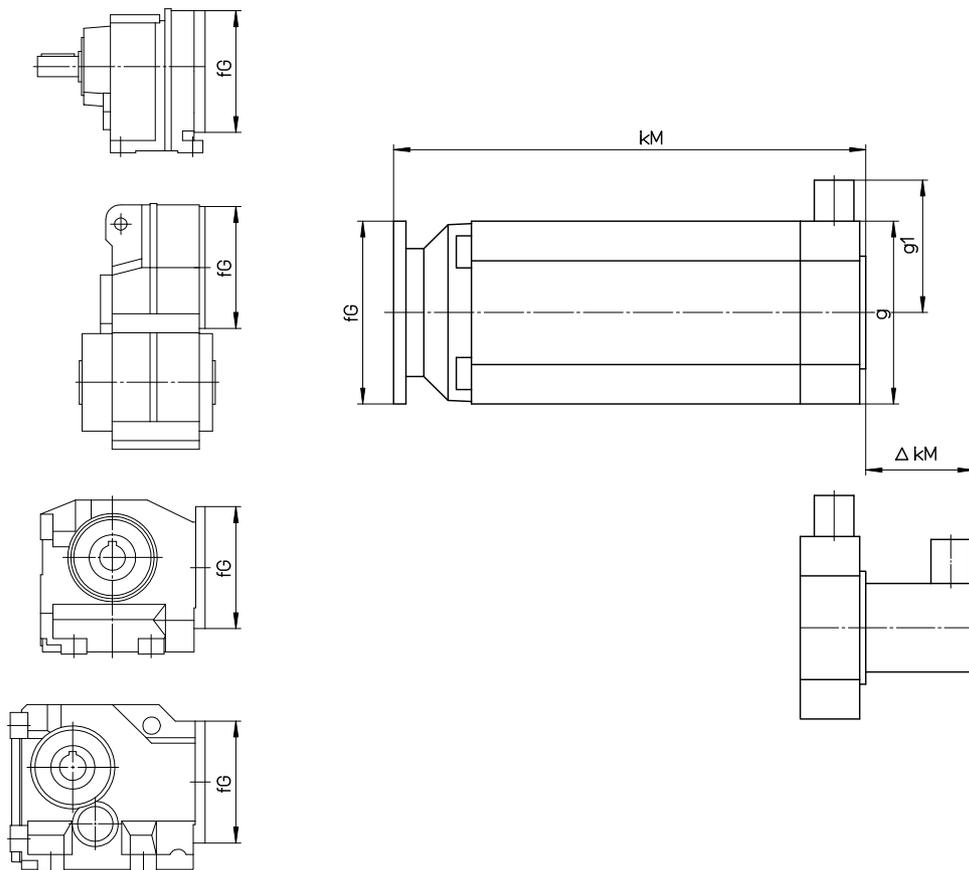
Motor	TA21	TA22	TA31	TA32	TA33	TA41	TA42	TA43	TA51	TA52	TA53	TA61	TA62	TA63
a1	73		88			115.5			145			190		
e1	Ø75		Ø100			Ø115			Ø165			Ø215		
b1	Ø60		Ø80			Ø95			Ø130			Ø180		
c1	8		10			11			12			14		
f1	2.5		3			3			3.5			4		
s1	5.8		7			9			11			14		
d	Ø11k6		Ø14k6			Ø19k6			Ø24k6			Ø32k6		
l	23		30			40			50			58		
t	12.5		16			21.5			27			35		
u	4		5			6			8			10		
M	M4		M5			M6			M8			M12		
g	75		90			120			150			182 1)		
g1	77		84.5			99.5			114.5			144		
kM	186	221	211.5	246.5	281.5	281	316	351	323	358	393	425	495	565
ΔkM1	25			35			35			35			40	
ΔkM2	65			64			64			64			68	
ΔkM3	90			99			99			99			108	
ΔkM4													183	

kM	ER
kM + ΔkM1	BP ER
kM + ΔkM2	EAS or EAM
kM + ΔkM3	BP EAS or BP EAM
kM + ΔkM4	F ER or BP F ER

ER Resolver
 BP Permanent magnet brake
 EAS Absolute encoder singleturn
 EAM Absolute encoder multiturn
 F Forced ventilation
 1) Motor TA6 with forced ventilation: g=200

Servo motors TA

Dimensions



Motor	TA31	TA32	TA33	TA41	TA42	TA43	TA51	TA52	TA53	TA61	TA62	TA63		
g	90			120			150			182 1)				
g1	84.5			99.5			114.5			144			fG	Gear unit
kM	172	207	242										105	G0, S0
	171	206	241	235.5	270.5	305.5							120	G1, S1, F2, K2
	168	203	238	231.5	266.5	301.5	257	292	327				140	G2, S2, F3, K3
	167.5	202.5	237.5	231	266	301	257.5	292.5	327.5	356	426	496	160	G3, S3, F4, K4
				227.5	262.5	297.5	255	290	325	351.5	421.5	491.5	200	G4, S4, F5, K5
							250	285	320	346.5	416.5	486.5	250	G5, F6, K6
							243	278	313	339.5	409.5	479.5	300	G6, F7, K7
									334.5	404.5	474.5	350	G7, K8	
ΔkM1	35			35			35			40				
ΔkM2	64			64			64			68				
ΔkM3	99			99			99			108				
ΔkM4										183				

kM	ER
kM + ΔkM1	BP ER
kM + ΔkM2	EAS or EAM
kM + ΔkM3	BP EAS or BP EAM
kM + ΔkM4	F ER or BP F ER

- ER Resolver
- BP Permanent magnet brake
- EAS Absolute encoder singleturn
- EAM Absolute encoder multiturn
- F Forced ventilation
- 1) Motor TA6 with forced ventilation: g=200