G□□motion const

414170

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Geared motors

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G□□motion const - The programme

Geared motors for constant output speed providing high functionality through a great variety of gearbox possibilities and motor options

Helical geared motor
GST
0.12 to 45 kW
Geared motor with parallel-axial solid shaft in foot and flange design. Like all other gearboxes, the optimised toothing geometry ensures quiet running.

Low-profile geared motor
GFL
0.12 to 45 kW
Mainly used with a shaft-mounted geared motor with hollow shaft.
Perfectly matching connection elements and high toothing quality ensure a low backlash for all Lenze gearboxes.

Bevel geared motor
GKR
0.12 to 0.75 kW
Right-angle geared motor for the lower torque range with a wear-resistant bevel-gear toothing. Thanks to the comparatively high efficiency energy savings are also possible for this power range.

Helical-bevel geared motor
GKS
0.12 to 45 kW
Right-angle geared motor in solid and hollow shaft design providing high efficiency.
Precisely selectable output speeds are ensured by a reasonably divided ratio range from 5 to 315.

Helical-worm geared motor
GSS
0.12 to 9.2 kW
Economical, providing a high power density. All Lenze right-angle geared motors can be easily integrated into the machine construction because of three mounting surfaces and a pitch circle.

Solid shaft

Hollow shaft

Hollow shaft with shrink disc

Output flange

Internal fan

Internal fan with increased inertia load

Separate fan

Spring-operated brake

Backstop

Internal fan

Hand wheel

Internal fan with increased inertia load

Speed / position encoder

Separate fan

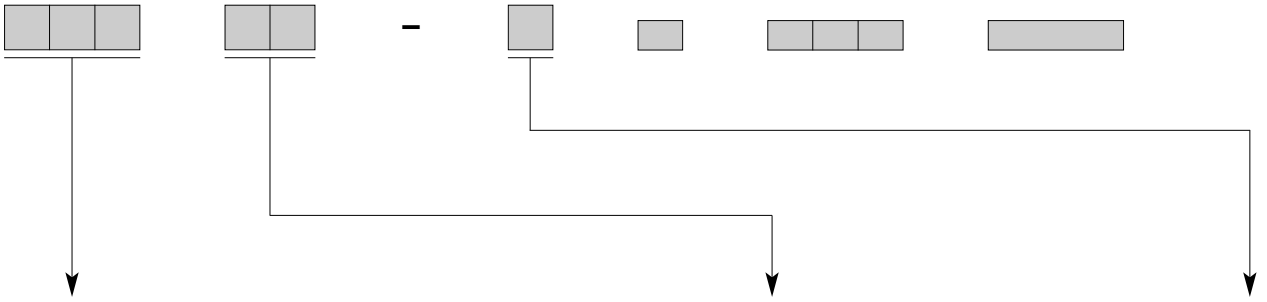
Internal fan

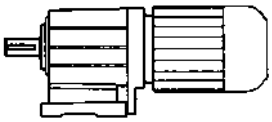
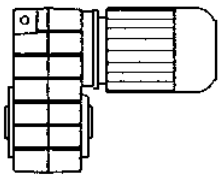
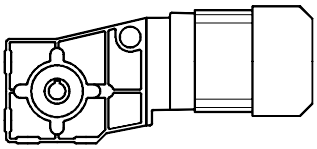
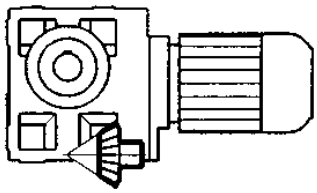
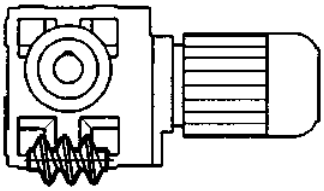
Speed / position encoder

Separate fan

Product key

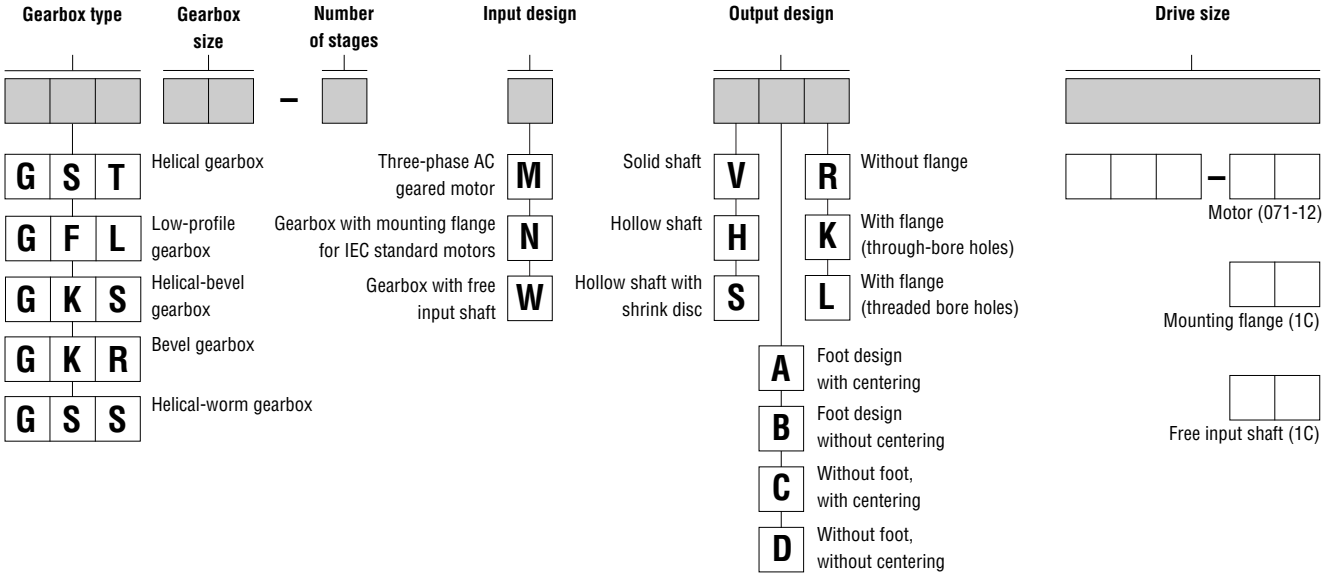
Type code



Gearbox type	Gearbox size							Number of stages
	04	05	06	07	09	11	14	
GST 	●	●	●	●	●			1
	●	●	●	●	●	●	●	2
		●	●	●	●	●	●	3
GFL 	●	●	●	●	●	●	●	2
		●	●	●	●	●	●	3
GKR 	●							2
GKS 	●	●	●	●	●	●	●	3
		●	●	●	●	●	●	4
GSS 	●	●	●	●				2
		●	●	●				3

Product key

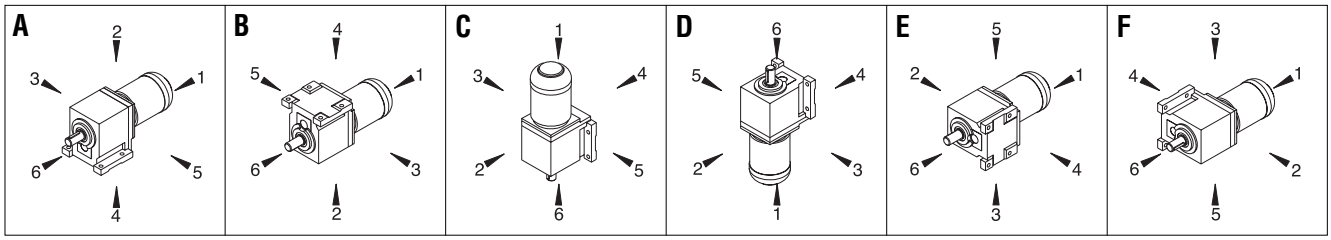
Type code



Mounting position (A-F) and position of the system components (1-6)

GST

Terminal box: 2, 3, 4, 5
Without terminal box: 0

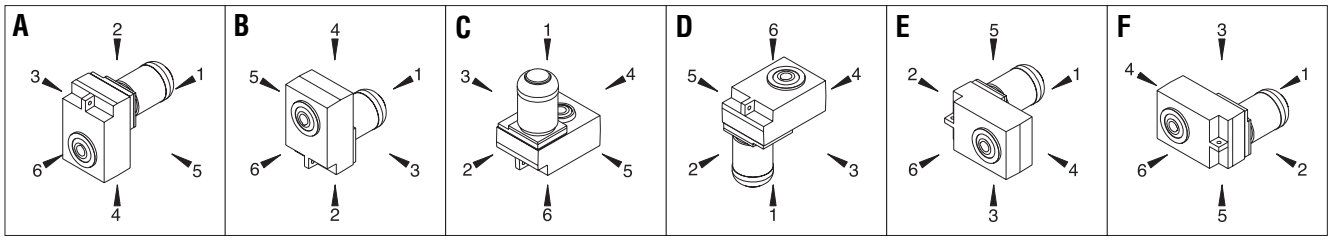


GFL

Solid shaft: 6
Hollow shaft: 0
Hollow shaft with shrink disc: 1, 6

Foot: 3, 4
Without foot: 0

Terminal box: 2, 3, 4, 5
Without terminal box: 0

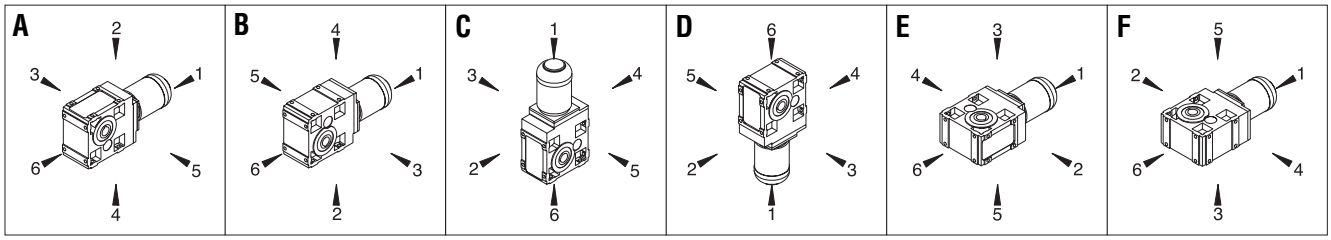


GKS / GSS

Solid shaft: 3, 5, 3+5
Hollow shaft: 0
Hollow shaft with shrink disc: 3, 5

Flange: 3, 5, 3+5
Without flange: 0

Terminal box: 2, 3, 4, 5
Without terminal box: 0

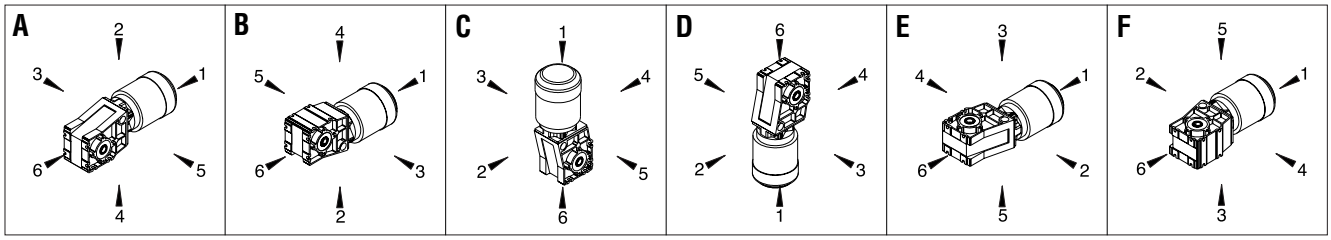


GKR

Solid shaft: 3, 5, 3+5
Hollow shaft: 0
Hollow shaft with shrink disc: 3, 5

Flange: 3, 5, 3+5
Without flange: 0

Terminal box: 2, 3, 4, 5
Without terminal box: 0

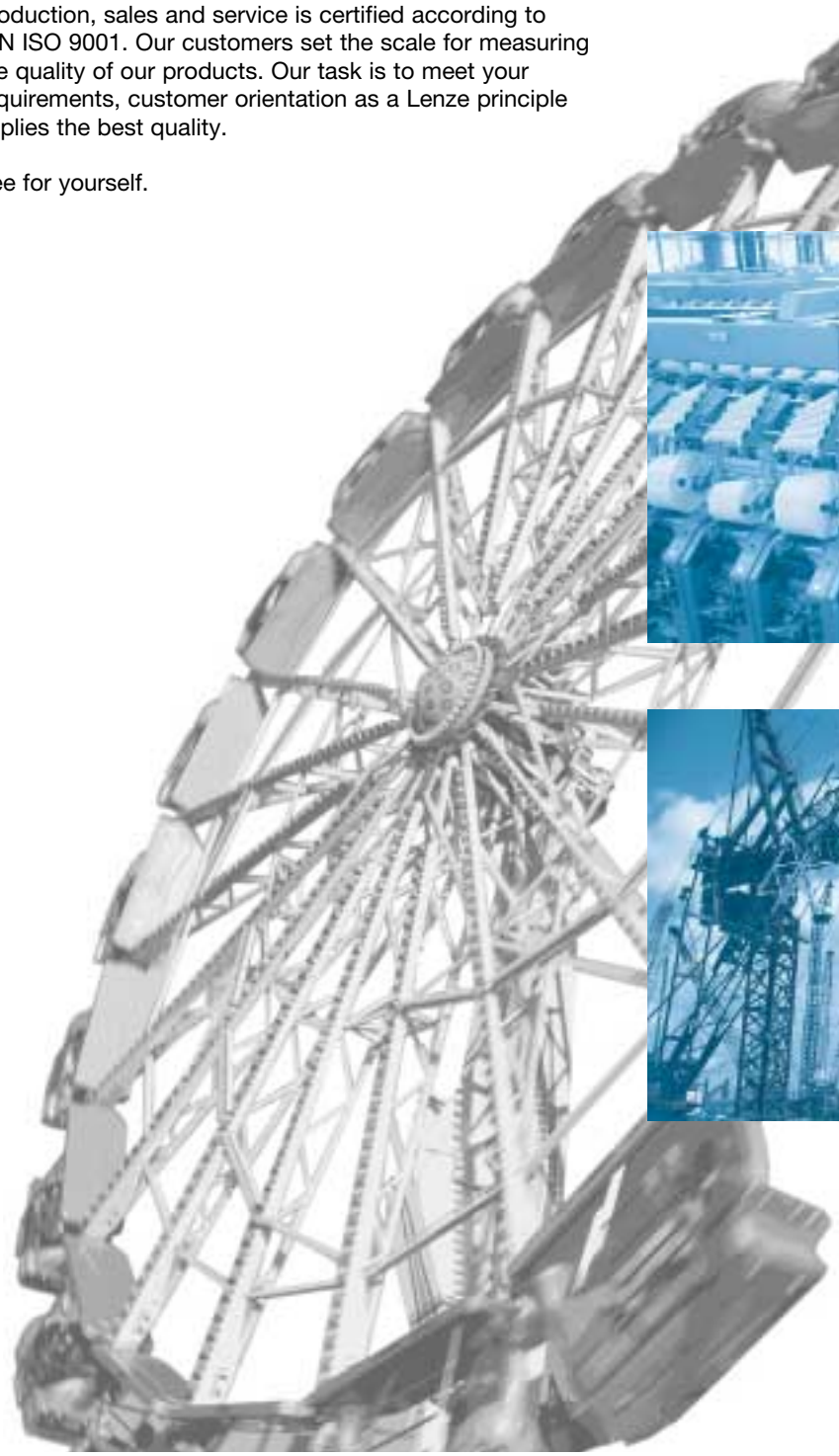


Contents

No matter which drive solution you imagine, we make your dreams come true.

Following our maxim of “one stop shopping” we offer you a complete programme of electronic and mechanical drive systems distinguished by reliable and powerful products. The range of our products includes frequency inverters, speed controllers, servo controllers, variable speed drives and gearboxes, clutches and brakes as well as motors. So Lenze is the competent partner for your applications – we offer single components and solutions for complete drive systems including planning, execution and commissioning. Furthermore, a worldwide service and distribution network ensures a qualified customer advisory service on the job and a fast and extensive after sales service. Our quality assurance system for development, production, sales and service is certified according to DIN ISO 9001. Our customers set the scale for measuring the quality of our products. Our task is to meet your requirements, customer orientation as a Lenze principle implies the best quality.

See for yourself.



G□□motion – The innovative geared motor programme with intelligent speed variation.

Lenze gearboxes of the new generation have been successfully used in industrial applications for many years. Our innovations permanently add market-oriented products to the gearbox programme. With various gearbox and motor options Lenze offers a complete and high-functional geared motor programme. The catalogue ***G□□motion, const*** informs about geared motors with constant output speed and forms the basis for the ***G□□motion*** programme. Drives from 0.12 to 45 kW can be selected from clearly structured selection tables.

G□□motion programme

G□□motion, const
Geared motors and gearboxes with constant output speeds
– Helical geared motors
– Low-profile geared motors
– (Helical)-bevel geared motors
– Helical-worm geared motors

News What is new?

– Torque increase
Low-profile gearbox sizes 09...14 2-stage
Low-profile gearbox sizes 05...07 3-stage
Helical-bevel gearbox sizes 09...14 3-stage
Helical-bevel gearbox sizes 05...07 4-stage

– Ratio extension i=5...8
Helical-worm gearbox sizes 04...07

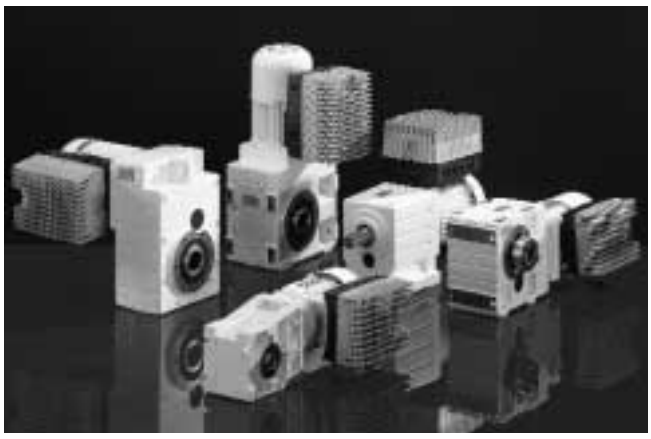
– Motor frame size 90
Helical gearbox size 04
Low-profile gearbox size 04

– Mounting flange 1D for standard motor 90 and 2D for standard motor 80
Helical gearbox size 04
Low-profile gearbox size 04

– Starting efficiency
Helical-worm gearbox

– Foot mounting in position 4
Low-profile gearbox sizes 04...14

– Information on gearbox ventilation



G□□motion, motec
Geared motors with integrated 8200 motec frequency inverter
– Helical geared motors
– Low-profile geared motors
– (Helical)-bevel geared motors
– Helical-worm geared motors

G□□motion, m-var
Geared motors with mechanical speed adjustment
– Planetary speed drives
– Variable speed belt drives
– Variable speed pulleys

List of abbreviations

Abbreviations used in this catalogue:

α		Angle of radial force
c		Capacity of gearboxes / geared motors
$\mathbf{d_w}$	[mm]	Effective diameter of transmission element
cos φ		Power factor of the motor
$\mathbf{cos\varphi_{rated}}$		Power factor of asynchronous motors
$\mathbf{F_a}$	[N]	Applied axial force
$\mathbf{F_{a\ perm}}$	[N]	Permissible axial force
$\mathbf{F_{a\ tab}}$	[N]	Table value of axial force
$\mathbf{f_{ch}}$	[kHz]	Chopper frequency
$\mathbf{f_d}$	[Hz]	Field frequency
$\mathbf{F_l}$		Mass acceleration factor
$\mathbf{f_{max}}$	[Hz]	Set maximum frequency
$\mathbf{f_{rated}}$	[Hz]	Rated frequency
$\mathbf{F_r}$	[N]	Applied radial force
$\mathbf{F_{r\ Tab}}$	[N]	Table value of radial force
$\mathbf{F_{r\ perm}}$	[N]	Permissible radial force
$\mathbf{f_w}$		Load position factor of applied radial force
$\mathbf{f_\alpha}$		Effective direction factor of applied radial force
$\mathbf{f_z}$		Additional radial force factor of transmission element
i		Ratio
φ		Ratio step
η		Mechanical efficiency
$\mathbf{I_0}$	[A]	Standstill continuous current
$\mathbf{I_A}$	[A]	Starting current
$\mathbf{I_{max}}$	[A]	Maximum output current
$\mathbf{I_{rated}}$	[A]	Rated current
$\mathbf{I_{mains}}$	[A]	Rated mains current
$\mathbf{J_{ext}}$	[kgm^2]	Moment of inertia of machine to be driven reduced to motor shaft
$\mathbf{J_{load}}$	[kgm^2]	Machine torque
$\mathbf{J_{mot}}$	[kgm^2]	Moment of inertia of motor
$\mathbf{J_A}$	[kgm^2]	Moment of inertia of drive reduced to input shaft
$\mathbf{J_B}$	[kgm2]	Moment of inertia of brake
k		Operating factor (according to DIN 3990)
L	[mH]	Inductance
m	[kg]	Mass
$\mathbf{M_0}$	[Nm]	Standstill continuous torque
$\mathbf{M_1}$	[Nm]	Input torque
$\mathbf{M_2}$	[Nm]	Output torque
$\mathbf{M_{rated}}$	[Nm]	Rated torque
$\mathbf{M_A}$	[Nm]	Starting torque of motor
$\mathbf{M_B}$	[Nm]	Holding torque of brake
$\mathbf{M_{con}}$	[Nm]	Continuous torque
$\mathbf{M_{stall}}$	[Nm]	Stall torque of motor
$\mathbf{M_l}$		Maximum torque factor
$\mathbf{M_{max}}$	[Nm]	Maximum torque
$\mathbf{M_{perm}}$	[Nm]	Permissible torque
$\mathbf{n_1}$	[min^{-1}]	Input speed
$\mathbf{n_2}$	[min^{-1}]	Output speed
$\mathbf{n_{rated}}$	[min^{-1}]	Rated speed
$\mathbf{n_{max}}$	[min^{-1}]	Maximum speed
$\mathbf{P_1}$	[kW]	Input power
$\mathbf{P_2}$	[kW]	Output power
$\mathbf{P_{rated}}$	[kW]	Rated power
$\mathbf{P_{loss}}$	[kW]	Power loss of inverter
R	[Ω]	Resistance
$\mathbf{S_{rated}}$	[kW]	Output power of inverter
$\mathbf{T_{amb}}$	[°C]	Ambient temperature during operation
$\mathbf{V_G}$	[V]	DC bus voltage
$\mathbf{V_{rated}}$	[V]	Rated voltage
$\mathbf{V_{mains}}$	[V]	Mains voltage

IP	International protection code
IEC	International Electrotechnical Commission
DIN	Deutsches Institut für Normung
VDE	Verband deutscher Elektrotechniker
USDA	United States Department of Agriculture
NEMA	National Electrical Manufacturers Association
AC	Alternating current
DC	Direct current
EMC	Electromagnetic compatibility
EN	European Standard
CE	Communauté Européene
IM	International Mounting Code

Lenze

Power, torque and speed
The powers, torques and speeds incidated in this catalog are rounded values and are valid for

- operating time/day = 8 h (100 % duty time)
- load class I with 10 switching operations/h
- mounting positions indicated in this catalog
- standard lubricants
- f_{mains} = 50 Hz constant
- T_{amb} = 20 °C for gearboxes
  40 °C for motors (to VDE 0530)
- installation height < = 1000 m a.m.s.l.

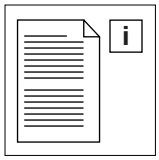
The rated power indicated for motors and geared motors is valid for duty type S1 to
VDE 0530 part 1 / DIN 57530 part 1.
The indicated values may change under other application conditions.
Please contact your nearest Lenze respresentative for information about operation under extreme application conditions.

Load capacity c of the gearboxes
Characteristic value for the load capacity of Lenze gearboxes and geared motors.

– c is the ratio between the permissible rated torque of the gearbox and the actual rated torque of the drive components (e.g. of the integrated Lenze motor).
– c must always be higher than the operating factor k calculated for your application.

Operating factor k (to DIN 3990)
Takes account of the influence of effective temporarily changing loads during the planned running time of gearboxes and geared motors.
k depends on

– the type of load
– the intensity of load
– temporal influences



Order information

We want to deliver quickly and correctly. For this, we need complete order information.
The following checklist and the chapter “How to order” will help you.

Checklist

For fast and correct delivery we need the following information:

- Your address and your order data.
- Our product key of the products listed in this catalog.
- Your delivery data, for instance delivery date and delivery address.

How to order

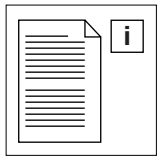
Please use the following step-by-step checklist to find out all information required for your order. Ordering of your tailor-made drive is then very easy:

- Copy the order form which you find on the last page of this catalog.
- Enter the order data.
- Send or fax the order form to your nearest Lenze branch office or representative.
  You will find a list of all Lenze branch offices and representatives on the last pages.

Delivery

- All components are carefully packed and checked before delivery.
- Orders are subject to the general terms of sale and delivery of Lenze GmbH & Co KG:

– Terms of delivery: Ex works according to your packing requirements, packing not included.



Step-by-step to your drive

➜ **Cross reference**
➪ Information

1. Select drive system
➜ Chapter **Selection**
➪ Gearbox size, ratio step, ratio
Example: GST 07-2
i = **56.250**

2. Select input design
➜ **Product key, selection table**
➪ Design, drive size
Example: M 090-12
(without options)

3. Select output design
➜ **Product key, system overview**
➪ Design, drive size
Example: Solid shaft: **V**
Housing with foot: **B**
Output without flange: **R**

4. Select position of system modules and mounting position
➜ Product key
Example:
Terminal box in position **5**
Mounting position **A**

5. Select colour
➜ **Example:**
Top coat RAL 9018

6. Options
➜ Options

☐ Pcs. Price per unit

i = **56.250**

X **GST**	**0**	**7** -	**1**	**M**	**V**	**A**	**R**
☐ **GFL**			**2**	**N**	**H**	**B**	**K**
☐ **GKS**			**3**	**W**	**S**	**C**	**L**
☐ **GSS**			**4**			**D**	

Motor frame size / Drive size: 0 9 0 - 1 2

Further order information for geared motors/gearboxes G□□

Dimensions — **H** Hollow shaft dH7 = ☐ mm — **K** **L** Flange a2 = ☐ mm

Position of system modules (enter 0 for positions not determined)

	Shaft					Flange				Terminal box				
	0	1	3	5	6	**0**	3	5	6	**0**	2	3	4	**5**

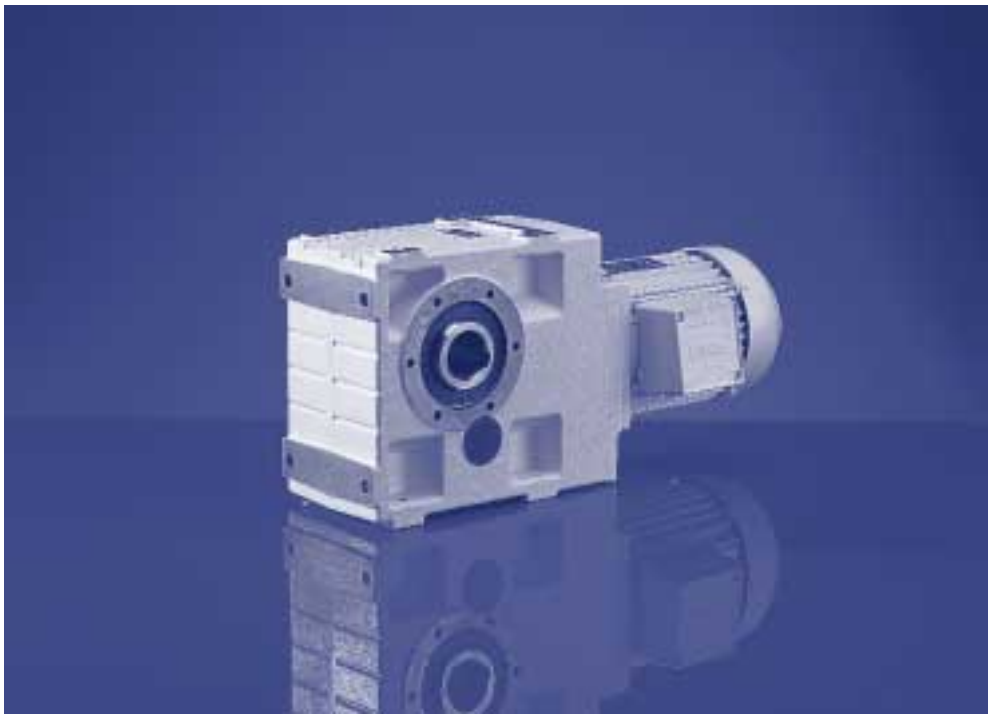
Mounting position

A	B	C	D	E	F

Colour — X Top coat RAL 9018 ☐ Primary coat grey

Options for geared motor / gearbox G□□

Options for motors



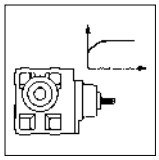
(Helical)-bevel gearboxes

Technical data

Selection tables

Dimensions

Weights



Technical data – (Helical)-bevel gearboxes

Permissible radial and axial forces at the output

Bevel gearboxes GKR□□

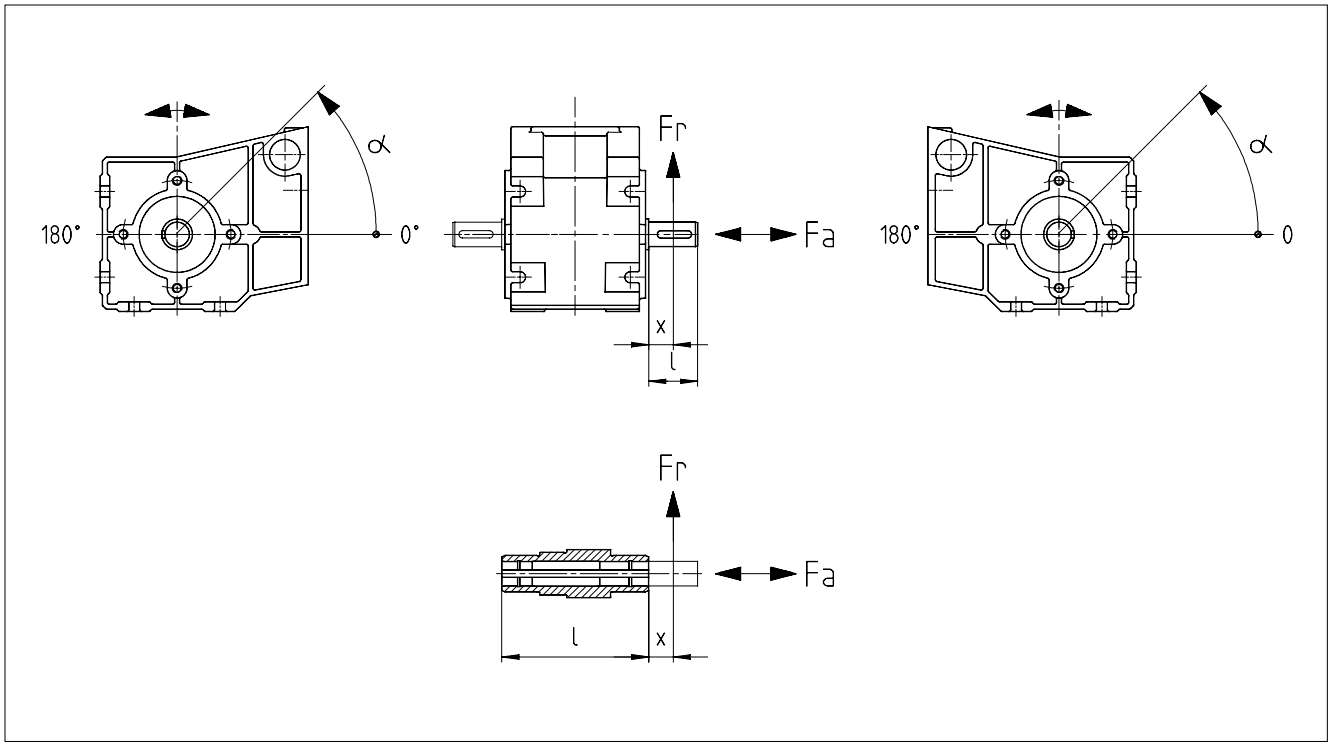
– Permissible radial force

$F_{r_{perm}} = f_w \cdot f_\alpha \cdot F_{r_{tab}} \leq f_w \cdot F_{r_{max}}$

– Permissible axial force

$F_{a_{perm}} = F_{a_{tab}}$ at $F_r = 0$

Contact Lenze if F_r **and** $F_a \neq 0$



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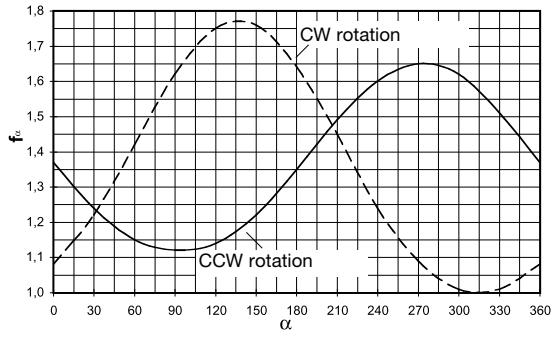
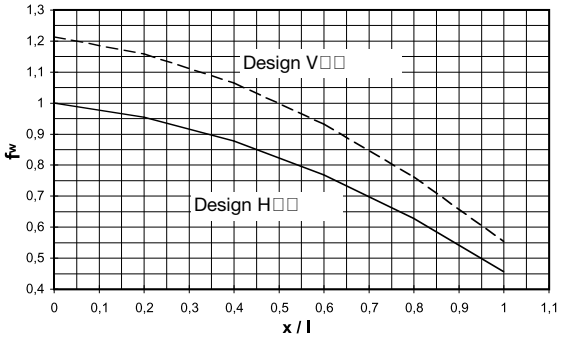
f_α	Effective direction factor at the output shaft



f_w	Additional load factor at the output shaft



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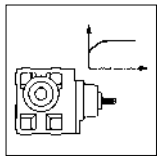


Bevel gearboxes GKR□□

GKR 04	H□□/S□□		V□□	
	Hollow shaft and hollow shaft with shrink disc F_r: acts on the hollow shaft (x = 0) $F_{a\ tab}$ only valid for F_r = 0		**Solid shaft** F_r acts on the midpoint of the shaft extension (x = l/2) $F_{a\ tab}$ only valid for F_r = 0	
n_2 [min^{-1}]	$F_{r\ tab}$ [N]	$F_{a\ tab}$ [N]	$F_{r\ tab}$ [N]	$F_{a\ tab}$ [N]
400	2550	1275	2100	1275
250	3000	1500	2500	1500
160	3300	1650	2700	1650
100	3600	1800	3000	1800
63	3600	1800	3000	1800
40	3600	1800	3000	1800
25	3600	1800	3000	1800
16	3600	1800	3000	1800
max.	3600	1800	3000	1800

Helical bevel gearbox GKS□□

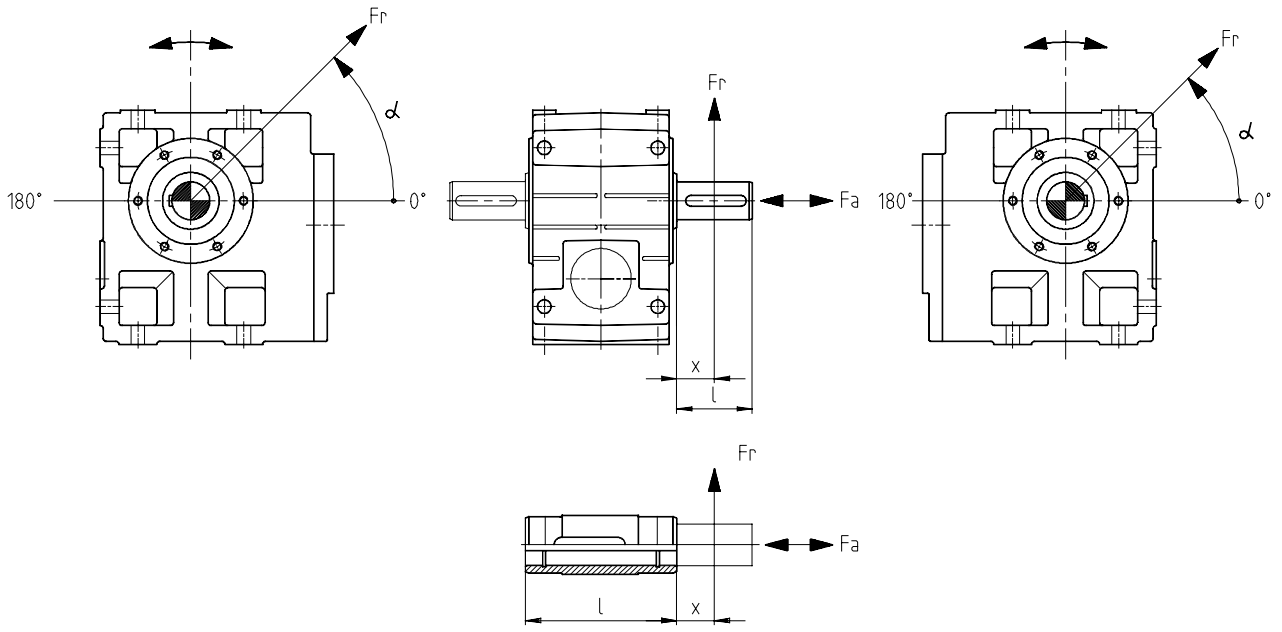
– Permissible radial force

$F_{r_{perm}} = f_w \cdot f_\alpha \cdot F_{r_{tab}} \leq f_w \cdot F_{r_{max}}$

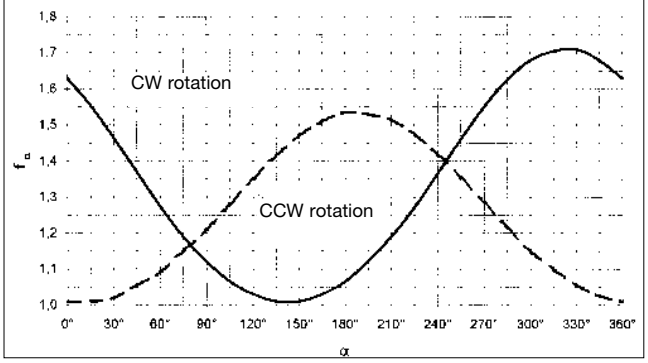
– Permissible axial force

$F_{a_{perm}} = F_{a_{tab}}$ at $F_r = 0$

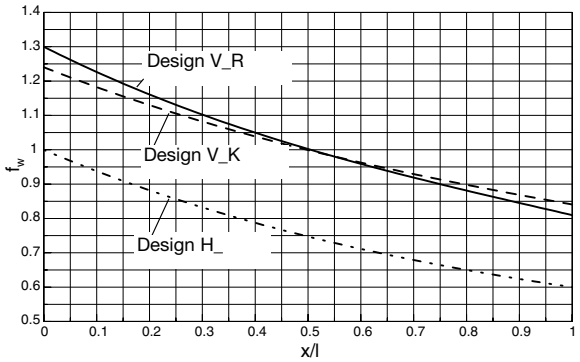
Contact Lenze if F_r **and** $F_a \neq 0$



f_α Effective direction factor at the output shaft



f_w Additional load factor at the output shaft



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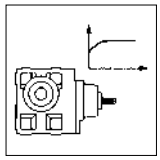


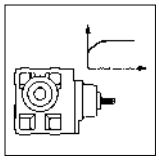
Helical-bevel gearbox GKS□□

VAK	**Solid shaft with flange** F_{rtab} acts on the middlepoint of the shaft extension (x = l/2) F_{atab} only valid for F_r =0													
n_2 [min^{-1}]	GKS 04		GKS 05		GKS 06		GKS 07		GKS 09		GKS 11		GKS 14	
	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]
400	3800	4200	4640	3630	6400	4660	7000	5700	9900	6000	14500	7000	20500	8400
250	4300	4400	5420	4440	7500	5880	8250	7000	10500	6600	16000	7500	23700	10000
160	4600	4400	6280	5420	8800	7320	9630	8500	12000	7600	17600	8500	27200	11500
100	4600	4400	7000	6600	9800	9230	11000	10400	14000	10000	21000	10500	31300	13000
63	4600	4400	7000	6600	10000	10000	13000	11500	15000	12000	24500	13000	35000	15000
40	4600	4400	7000	6600	10000	10000	14000	11500	15000	15000	28000	17500	41000	19000
25	4600	4400	7000	6600	10000	10000	14000	11500	15000	17000	30000	27000	43000	28000
≤ 16	4600	4400	7000	6600	10000	10000	14000	11500	15000	17000	30000	27000	43000	35000
$F_{r\,max}$	4600	-	7000	-	10000	-	14000	-	15000	-	30000	-	43000	-

V□R	**Solid shaft without flange** F_{rtab} acts on the middle of the shaft extension (x = l/2) F_{atab} only valid for F_r =0													
n_2 [min^{-1}]	GKS 04		GKS 05		GKS 06		GKS 07		GKS 09*		GKS 11*		GKS 14	
	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]
400	3000	4200	2800	3500	3700	4440	4000	4900	6200	6500	7100	7000	57900	35000
250	3400	5000	3200	4240	4300	5580	4900	6230	6400	7400	7500	8000	61000	35000
160	3600	5500	3600	5090	4900	6930	5800	7820	7100	8000	8200	9200	64100	35000
100	3600	5500	4100	6160	5300	8710	6600	9940	8400	10500	10000	12000	65000	35000
63	3600	5500	4900	6600	6200	10000	8000	12600	9500	13000	11200	14500	65000	35000
40	3600	5500	5800	6600	7900	10000	9600	14000	11800	17000	13000	18500	65000	35000
25	3600	5500	5800	6600	9000	10000	12000	14000	16000	21000	19000	27000	65000	35000
≤ 16	3600	5500	5800	6600	9000	10000	12000	14000	18000	21000	23000	27000	65000	35000
$F_{r\,max}$	3600	-	5800	-	9000	-	12000	-	18000	-	23000	-	65000	-

H□□ **S□□**	**Hollow shaft and hollow shaft with shrink disc** F_{rtab} acts on the face of the hollow shaft (x = 1/2) F_{atab} only valid for F_r =0													
n_2 [min^{-1}]	GKS 04		GKS 05		GKS 06		GKS 07		GKS 09		GKS 11		GKS 14	
	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]
400	3900	4200	3500	3500	4600	4440	5400	4900	7500	6500	9000	7000	15000	6000
250	4500	5000	4200	4240	5600	5580	6300	6230	8200	7400	10000	8000	15500	8000
160	5100	5500	4630	5090	6400	6930	7400	7820	9400	8000	11000	9200	16500	10000
100	5900	5500	5000	6160	7000	8710	8700	9940	10600	10500	14000	12000	17500	13000
63	6800	5500	6200	6600	8200	10000	10500	12600	12200	13000	16000	14500	18500	16000
40	7000	5500	7300	6600	10400	10000	12500	14000	15500	17000	18500	18500	21000	20000
25	7000	5500	7300	6600	12000	10000	15100	14000	21000	21000	25000	27000	28000	28000
≤ 16	7000	5500	7300	6600	12000	10000	16000	14000	24000	21000	30000	27000	40000	35000
$F_{r\,max}$	7000	-	7300	-	12000	-	16000	-	24000	-	30000	-	45000	-

* With design V□R a reinforced output bearing available on request



Technische Daten Kegel(stirn)radgetriebe

Permissible radial and axial forces at the input

Helical-bevel gearbox G□□

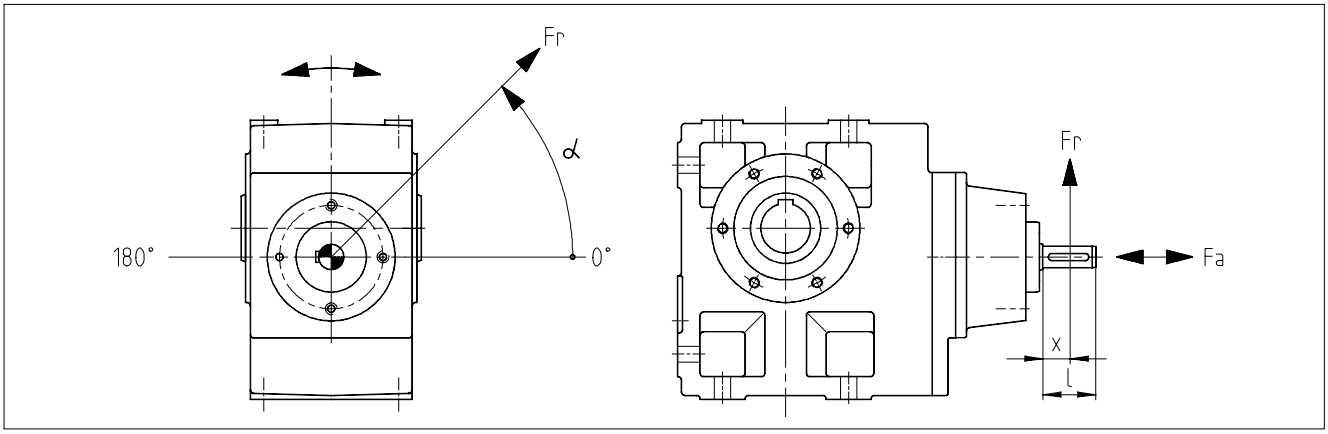
– Permissible radial force

$F_{r_{perm}} = f_w \cdot f_\alpha \cdot F_{r_{tab}} \leq f_w \cdot F_{r_{max}}$

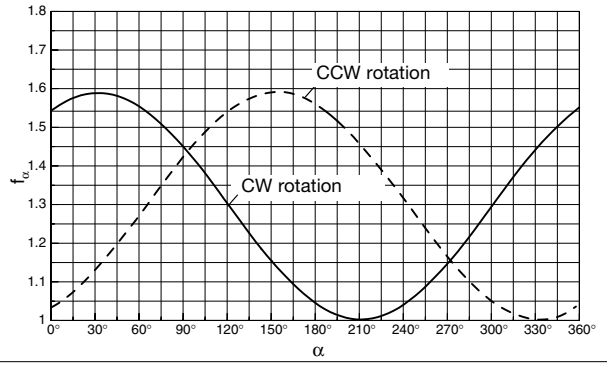
– Permissible axial force

$F_{a_{perm}} = F_{a_{tab}}$ at $F_r = 0$

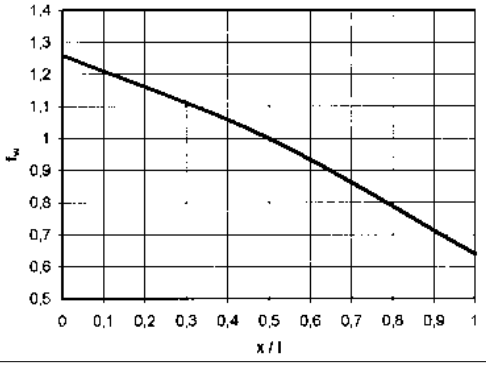
Please contact Lenze if F_r **and** $F_a \neq 0$



f_α Effective direction factor at the input shaft

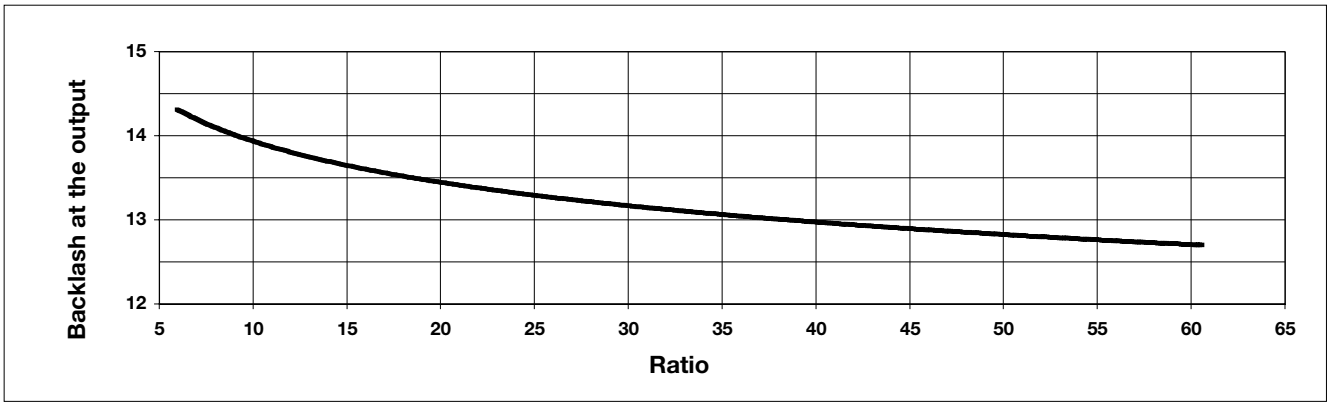


f_w Additional load factor at the input shaft

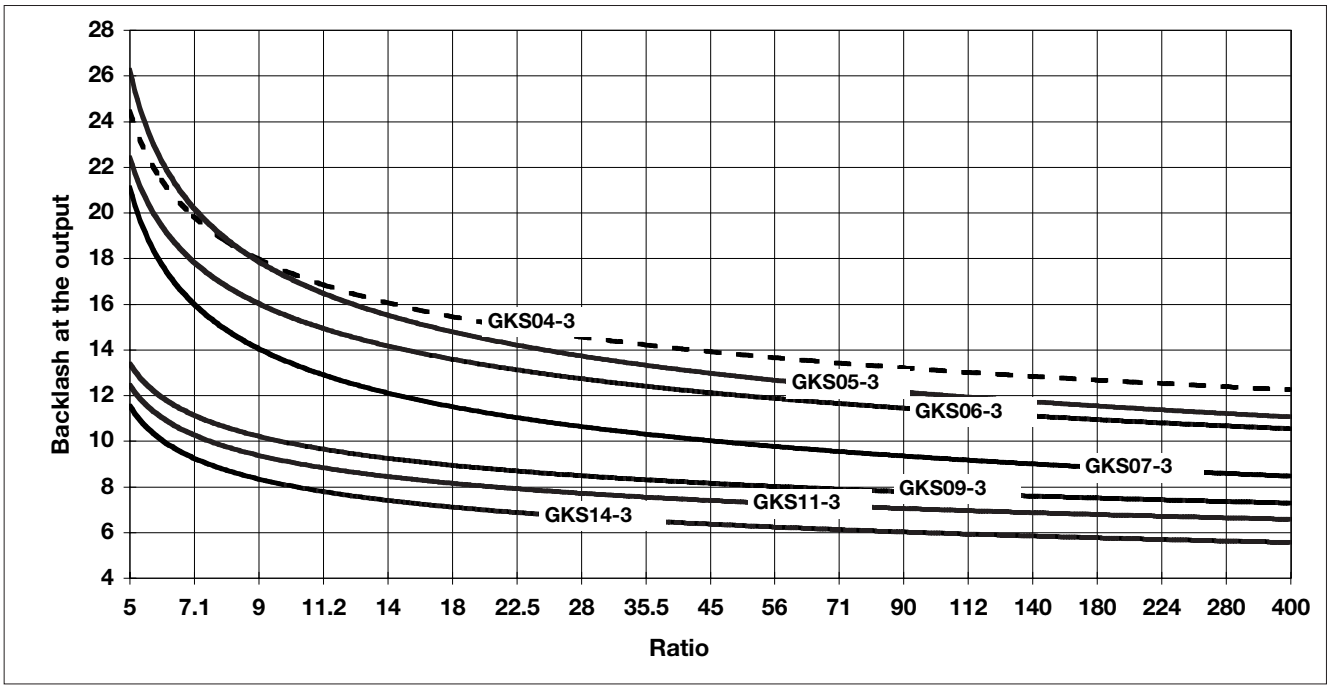


W	F_r acts on the middle of the shaft extension (x = l/2), F_{atab} only valid for F_r =0															
n_1 [min^{-1}]	Drive size 1A 1B		1C		1D		1E		1F		1G		1H		1K	
	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]	F_{rtab} [N]	F_{atab} [N]
700	830	1200	1150	1400	1470	1500	2140	1600	3200	2800	4000	4500	5000	6000	8500	10000
1400	570	770	780	900	1000	740	1400	800	2200	1700	3200	2000	4000	2500	7000	5300
2800	440	530	590	620	770	470	940	460	1700	1100	2300	1600	3000	2000	5000	350
F_{max}	1850	–	1650	–	3000	–	4900	–	5600	–	8000	–	10000	–	12000	–

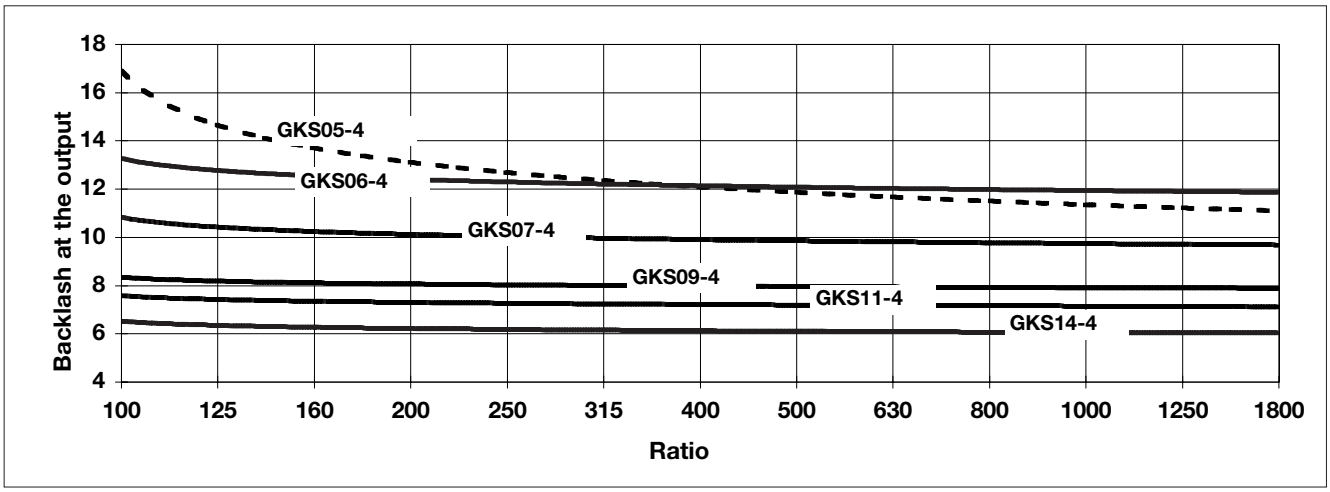
Bevel gearbox GKR 04-2

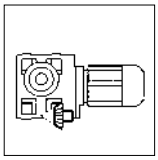


Helical-bevel gearbox GKS□□-3



Helical-bevel gearbox GKS□□-4



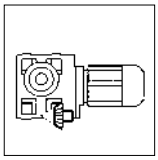


Selection tables – (Helical)-bevel gearboxes

Geared motors

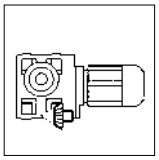
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
0.12 kW					**GKR □□ -2M**	**5-82**
n1=1390	121	9	5.3	11.449	GKR04 - 2M□□□ 063-12	
	110	10	4.9	12.698	GKR04 - 2M□□□ 063-12	
	95	11	4.9	14.603	GKR04 - 2M□□□ 063-12	
	71	15	5.4	19.556	GKR04 - 2M□□□ 063-12	
	62	18	5.1	22.489	GKR04 - 2M□□□ 063-12	
	55	20	4.5	25.185	GKR04 - 2M□□□ 063-12	
	48	23	4.0	28.963	GKR04 - 2M□□□ 063-12	
	44	25	3.6	31.919	GKR04 - 2M□□□ 063-12	
	38	29	3.1	36.707	GKR04 - 2M□□□ 063-12	
	35	31	2.9	40.000	GKR04 - 2M□□□ 063-12	
	30	36	2.5	46.000	GKR04 - 2M□□□ 063-12	
	26	41	1.7	52.698	GKR04 - 2M□□□ 063-12	
	23	48	1.7	60.603	GKR04 - 2M□□□ 063-12	
					GKS □□ -3M	**5-86**
	141	8	5.3	9.836	GKS04 - 3M□□□ 063-12	
	62	18	5.3	22.522	GKS04 - 3M□□□ 063-12	
	55	20	5.3	25.088	GKS04 - 3M□□□ 063-12	
	48	23	4.9	28.727	GKS04 - 3M□□□ 063-12	
	43	25	4.9	32.000	GKS04 - 3M□□□ 063-12	
	31	35	5.3	44.240	GKS04 - 3M□□□ 063-12	
	27	40	4.6	50.943	GKS04 - 3M□□□ 063-12	
	24	45	4.2	56.976	GKS04 - 3M□□□ 063-12	
	21	51	3.6	64.978	GKS04 - 3M□□□ 063-12	
	19	57	3.4	72.210	GKS04 - 3M□□□ 063-12	
	15	71	2.7	90.491	GKS04 - 3M□□□ 063-12	
	14	78	2.4	100.067	GKS04 - 3M□□□ 063-12	
	13	87	2.0	111.467	GKS04 - 3M□□□ 063-12	
	11	101	1.9	128.874	GKS04 - 3M□□□ 063-12	
	9.7	112	1.5	143.556	GKS04 - 3M□□□ 063-12	
	8.5	128	1.5	163.332	GKS04 - 3M□□□ 063-12	
	7.6	143	1.2	181.939	GKS04 - 3M□□□ 063-12	
	6.8	160	1.2	204.682	GKS04 - 3M□□□ 063-12	
	6.1	179	1.0	228.000	GKS04 - 3M□□□ 063-12	
	5.2	211	0.9	269.660	GKS04 - 3M□□□ 063-12	
					GKS □□ -4M	**5-94**
	4.4	244	2.9	316.800	GKS06 - 4M□□□ 063-12	
	3.8	281	1.2	364.467	GKS05 - 4M□□□ 063-12	
	3.9	278	1.9	361.429	GKS06 - 4M□□□ 063-12	
	3.4	316	1.0	410.667	GKS05 - 4M□□□ 063-12	
	3.4	314	2.2	408.000	GKS06 - 4M□□□ 063-12	
	3.0	361	0.9	469.389	GKS05 - 4M□□□ 063-12	
	3.0	353	1.5	458.067	GKS06 - 4M□□□ 063-12	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz			i	(Helical)-bevel geared motors	Dim. Page
	n_2 [min^{-1}]	M_2 [Nm]	c			
0.12 kW					**GKS □□ -4M**	5-94
n1=1390	2.7	398	1.8	517.091	GKS06 - 4M□□□ 063-12	
	2.5	428	1.3	555.927	GKS06 - 4M□□□ 063-12	
	2.2	493	1.4	640.800	GKS06 - 4M□□□ 063-12	
	2.0	536	1.0	696.668	GKS06 - 4M□□□ 063-12	
	1.7	625	1.1	812.137	GKS06 - 4M□□□ 063-12	
	1.5	704	0.9	914.907	GKS06 - 4M□□□ 063-12	
	1.4	783	0.9	1017.741	GKS06 - 4M□□□ 063-12	
0.18 kW					**GKR □□ -2M**	5-82
n1=2760	241	7	5.7	11.449	GKR04 - 2M□□□ 063-11	
	217	8	5.3	12.698	GKR04 - 2M□□□ 063-11	
	189	9	5.3	14.603	GKR04 - 2M□□□ 063-11	
	141	12	5.8	19.556	GKR04 - 2M□□□ 063-11	
n1=1400	122	13	3.5	11.449	GKR04 - 2M□□□ 063-32	
	110	15	3.3	12.698	GKR04 - 2M□□□ 063-32	
	96	17	3.3	14.603	GKR04 - 2M□□□ 063-32	
	72	23	3.6	19.556	GKR04 - 2M□□□ 063-32	
	62	26	3.4	22.489	GKR04 - 2M□□□ 063-32	
	56	29	3.0	25.185	GKR04 - 2M□□□ 063-32	
	48	34	2.7	28.963	GKR04 - 2M□□□ 063-32	
	44	37	2.4	31.919	GKR04 - 2M□□□ 063-32	
	38	43	2.1	36.707	GKR04 - 2M□□□ 063-32	
	35	47	1.9	40.000	GKR04 - 2M□□□ 063-32	
	30	54	1.7	46.000	GKR04 - 2M□□□ 063-32	
	27	62	1.1	52.698	GKR04 - 2M□□□ 063-32	
	23	71	1.1	60.603	GKR04 - 2M□□□ 063-32	
n1=870	22	75	1.2	40.000	GKR04 - 2M□□□ 071-13	
	19	86	1.0	46.000	GKR04 - 2M□□□ 071-13	
					GKS □□ -3M	5-86
n1=2760	281	6	5.7	9.836	GKS04 - 3M□□□ 063-11	
	123	13	5.7	22.522	GKS04 - 3M□□□ 063-11	
	110	15	5.7	25.088	GKS04 - 3M□□□ 063-11	
	96	17	5.3	28.727	GKS04 - 3M□□□ 063-11	
	86	19	5.3	32.000	GKS04 - 3M□□□ 063-11	
n1=1400	62	26	3.5	22.522	GKS04 - 3M□□□ 063-32	
	56	29	3.5	25.088	GKS04 - 3M□□□ 063-32	
	49	34	3.3	28.727	GKS04 - 3M□□□ 063-32	
	44	37	3.3	32.000	GKS04 - 3M□□□ 063-32	
	32	52	3.6	44.240	GKS04 - 3M□□□ 063-32	

Thermal limit rating not considered (see page 2-7)

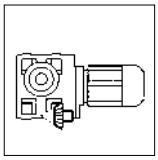


Selection tables – (Helical)-bevel gearboxes

Geared motors

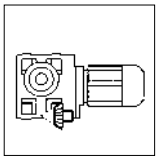
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
0.18 kW					**GKS □□ -3M**	5-86
n1=1400	28	59	3.1	50.943	GKS04 - 3M□□□ 063-32	
	25	66	2.8	56.976	GKS04 - 3M□□□ 063-32	
	22	76	2.4	64.978	GKS04 - 3M□□□ 063-32	
	19	84	2.3	72.210	GKS04 - 3M□□□ 063-32	
	16	106	1.8	90.491	GKS04 - 3M□□□ 063-32	
	14	117	1.6	100.067	GKS04 - 3M□□□ 063-32	
	13	130	1.3	111.467	GKS04 - 3M□□□ 063-32	
	11	150	1.2	128.874	GKS04 - 3M□□□ 063-32	
	9.8	167	1.0	143.556	GKS04 - 3M□□□ 063-32	
	8.6	191	1.0	163.332	GKS04 - 3M□□□ 063-32	
	7.7	212	0.8	181.939	GKS04 - 3M□□□ 063-32	
					GKS □□ -4M	5-94
	6.7	240	1.3	209.067	GKS05 - 4M□□□ 063-32	
	6.2	259	1.0	225.867	GKS05 - 4M□□□ 063-32	
	6.2	257	2.1	224.524	GKS06 - 4M□□□ 063-32	
	5.9	271	1.2	236.667	GKS05 - 4M□□□ 063-32	
	5.0	320	1.7	279.286	GKS06 - 4M□□□ 063-32	
	4.4	363	1.9	316.800	GKS06 - 4M□□□ 063-32	
	3.9	414	1.3	361.429	GKS06 - 4M□□□ 063-32	
	3.4	468	1.5	408.000	GKS06 - 4M□□□ 063-32	
	3.1	525	1.0	458.067	GKS06 - 4M□□□ 063-32	
	2.7	593	1.2	517.091	GKS06 - 4M□□□ 063-32	
	2.5	637	0.8	555.927	GKS06 - 4M□□□ 063-32	
	2.2	735	1.0	640.800	GKS06 - 4M□□□ 063-32	
n1=870	1.9	857	1.2	464.367	GKS07 - 4M□□□ 071-13	
	1.7	953	1.4	516.810	GKS07 - 4M□□□ 071-13	
	1.5	1040	1.0	563.573	GKS07 - 4M□□□ 071-13	
	1.4	1174	1.1	636.581	GKS07 - 4M□□□ 071-13	
	1.3	1262	0.8	683.972	GKS07 - 4M□□□ 071-13	
	1.1	1520	0.9	823.810	GKS07 - 4M□□□ 071-13	
	1.1	1508	2.0	817.551	GKS09 - 4M□□□ 071-13	
	0.9	1700	1.8	921.367	GKS09 - 4M□□□ 071-13	
	0.9	1830	1.7	992.209	GKS09 - 4M□□□ 071-13	
	0.8	2063	1.5	1118.204	GKS09 - 4M□□□ 071-13	
	0.7	2314	1.3	1254.197	GKS09 - 4M□□□ 071-13	
	0.6	2608	1.2	1413.461	GKS09 - 4M□□□ 071-13	
0.25 kW					**GKR □□ -2M**	5-82
n1=1400	270	8	5.8	5.185	GKR04 - 2M□□□ 071-12	
	235	10	5.8	5.963	GKR04 - 2M□□□ 071-12	
	197	12	5.8	7.111	GKR04 - 2M□□□ 071-12	
	171	13	5.8	8.178	GKR04 - 2M□□□ 071-12	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
0.25 kW					**GKR □□ -2M**	5-82
n1=1400	154	15	5.7	9.101	GKR04 - 2M□□□ 071-12	
	134	17	5.2	10.466	GKR04 - 2M□□□ 071-12	
	122	19	4.9	11.449	GKR04 - 2M□□□ 071-12	
	110	21	4.4	12.698	GKR04 - 2M□□□ 071-12	
	96	24	3.8	14.603	GKR04 - 2M□□□ 071-12	
	90	25	3.6	15.556	GKR04 - 2M□□□ 071-12	
	78	29	3.1	17.889	GKR04 - 2M□□□ 071-12	
	72	32	2.8	19.556	GKR04 - 2M□□□ 071-12	
	62	36	2.5	22.489	GKR04 - 2M□□□ 071-12	
	56	41	2.2	25.185	GKR04 - 2M□□□ 071-12	
	48	47	1.9	28.963	GKR04 - 2M□□□ 071-12	
	44	52	1.7	31.919	GKR04 - 2M□□□ 071-12	
	38	60	1.5	36.707	GKR04 - 2M□□□ 071-12	
	35	65	1.4	40.000	GKR04 - 2M□□□ 071-12	
	30	75	1.2	46.000	GKR04 - 2M□□□ 071-12	
n1=920	25	91	1.0	36.707	GKR04 - 2M□□□ 071-33	
	23	99	0.9	40.000	GKR04 - 2M□□□ 071-33	
					GKS □□ -3M	5-86
n1=2760	281	8	4.1	9.836	GKS04 - 3M□□□ 063-31	
n1=1400	273	8	5.8	5.123	GKS04 - 3M□□□ 071-12	
	199	11	5.8	7.025	GKS04 - 3M□□□ 071-12	
	171	13	5.8	8.167	GKS04 - 3M□□□ 071-12	
	156	15	6.7	8.991	GKS04 - 3M□□□ 071-12	
	142	16	6.6	9.836	GKS04 - 3M□□□ 071-12	
	119	19	5.8	11.730	GKS04 - 3M□□□ 071-12	
	107	21	5.8	13.067	GKS04 - 3M□□□ 071-12	
	98	23	6.7	14.333	GKS04 - 3M□□□ 071-12	
	87	26	5.8	16.087	GKS04 - 3M□□□ 071-12	
	78	29	5.7	17.920	GKS04 - 3M□□□ 071-12	
	68	33	5.5	20.588	GKS04 - 3M□□□ 071-12	
	62	37	5.0	22.522	GKS04 - 3M□□□ 071-12	
	56	41	4.1	25.088	GKS04 - 3M□□□ 071-12	
	49	47	3.9	28.727	GKS04 - 3M□□□ 071-12	
	44	52	3.2	32.000	GKS04 - 3M□□□ 071-12	
	40	57	3.2	35.191	GKS04 - 3M□□□ 071-12	
	36	64	2.7	39.200	GKS04 - 3M□□□ 071-12	
	32	72	2.6	44.240	GKS04 - 3M□□□ 071-12	
	28	83	2.2	50.943	GKS04 - 3M□□□ 071-12	
	25	92	2.0	56.976	GKS04 - 3M□□□ 071-12	
	22	105	1.7	64.978	GKS04 - 3M□□□ 071-12	
	21	108	3.1	66.592	GKS05 - 3M□□□ 071-12	

Thermal limit rating not considered (see page 2-7)

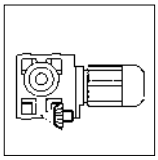


Selection tables – (Helical)-bevel gearboxes

Geared motors

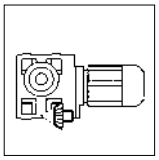
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
0.25 kW					**GKS □□ -3M**	**5-86**
n1=1400	19	117	1.6	72.210	GKS04 - 3M□□□ 071-12	
	19	122	2.6	75.033	GKS05 - 3M□□□ 071-12	
	18	129	1.4	79.598	GKS04 - 3M□□□ 071-12	
	17	134	2.5	82.833	GKS05 - 3M□□□ 071-12	
	16	147	1.3	90.491	GKS04 - 3M□□□ 071-12	
	15	151	2.1	93.333	GKS05 - 3M□□□ 071-12	
	14	162	1.1	100.067	GKS04 - 3M□□□ 071-12	
	13	174	1.9	107.196	GKS05 - 3M□□□ 071-12	
	13	181	0.9	111.467	GKS04 - 3M□□□ 071-12	
	12	196	1.6	120.784	GKS05 - 3M□□□ 071-12	
	11	209	0.9	128.874	GKS04 - 3M□□□ 071-12	
	11	211	1.6	130.097	GKS05 - 3M□□□ 071-12	
	11	206	3.1	127.392	GKS06 - 3M□□□ 071-12	
	9.6	237	1.3	146.588	GKS05 - 3M□□□ 071-12	
	9.8	232	3.0	142.941	GKS06 - 3M□□□ 071-12	
	8.4	269	1.2	166.276	GKS05 - 3M□□□ 071-12	
	8.7	261	2.4	161.029	GKS06 - 3M□□□ 071-12	
	7.5	304	1.0	187.353	GKS05 - 3M□□□ 071-12	
	7.4	308	2.3	190.080	GKS06 - 3M□□□ 071-12	
	6.6	342	0.9	211.200	GKS05 - 3M□□□ 071-12	
	6.5	347	1.8	214.133	GKS06 - 3M□□□ 071-12	
	6.1	374	1.9	230.688	GKS06 - 3M□□□ 071-12	
	5.4	421	1.5	259.880	GKS06 - 3M□□□ 071-12	
	4.8	472	1.5	291.600	GKS06 - 3M□□□ 071-12	
	4.3	532	1.2	328.500	GKS06 - 3M□□□ 071-12	
					GKS □□ -4M	**5-94**
	3.9	576	0.9	361.429	GKS06 - 4M□□□ 071-12	
	3.9	571	1.8	358.829	GKS07 - 4M□□□ 071-12	
	3.4	650	1.1	408.000	GKS06 - 4M□□□ 071-12	
	3.5	636	2.1	399.353	GKS07 - 4M□□□ 071-12	
	3.0	739	1.4	464.367	GKS07 - 4M□□□ 071-12	
	2.7	823	0.9	517.091	GKS06 - 4M□□□ 071-12	
	2.7	823	1.6	516.810	GKS07 - 4M□□□ 071-12	
	2.5	897	1.2	563.573	GKS07 - 4M□□□ 071-12	
	2.2	1014	1.3	636.581	GKS07 - 4M□□□ 071-12	
	2.1	1089	1.0	683.972	GKS07 - 4M□□□ 071-12	
	1.7	1312	1.0	823.810	GKS07 - 4M□□□ 071-12	
	1.7	1302	2.3	817.551	GKS09 - 4M□□□ 071-12	
	1.5	1478	0.8	928.237	GKS07 - 4M□□□ 071-12	
	1.5	1467	2.1	921.367	GKS09 - 4M□□□ 071-12	
	1.4	1592	0.8	999.806	GKS07 - 4M□□□ 071-12	
	1.4	1580	1.9	992.209	GKS09 - 4M□□□ 071-12	
	1.3	1780	1.7	1118.204	GKS09 - 4M□□□ 071-12	
	1.1	1997	1.5	1254.197	GKS09 - 4M□□□ 071-12	
	1.0	2251	1.4	1413.461	GKS09 - 4M□□□ 071-12	
n1=920	0.9	2404	1.3	992.209	GKS09 - 4M□□□ 071-33	
	0.8	2709	1.1	1118.204	GKS09 - 4M□□□ 071-33	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
0.25 kW					**GKS □□ -4M**	5-94
n1=920	0.7	3039	1.0	1254.197	GKS09 - 4M□□□ 071-33	
	0.7	3425	0.9	1413.461	GKS09 - 4M□□□ 071-33	
0.37 kW					**GKR □□ -2M**	5-82
n1=2840	548	6	6.4	5.185	GKR04 - 2M□□□ 071-11	
	476	7	6.4	5.963	GKR04 - 2M□□□ 071-11	
	399	8	6.4	7.111	GKR04 - 2M□□□ 071-11	
	347	10	6.4	8.178	GKR04 - 2M□□□ 071-11	
	312	11	6.3	9.101	GKR04 - 2M□□□ 071-11	
	271	12	5.8	10.466	GKR04 - 2M□□□ 071-11	
	248	14	5.4	11.449	GKR04 - 2M□□□ 071-11	
n1=1400	235	14	3.9	5.963	GKR04 - 2M□□□ 071-32	
	197	17	3.9	7.111	GKR04 - 2M□□□ 071-32	
	171	20	3.9	8.178	GKR04 - 2M□□□ 071-32	
	154	22	3.9	9.101	GKR04 - 2M□□□ 071-32	
	134	25	3.5	10.466	GKR04 - 2M□□□ 071-32	
	122	28	3.3	11.449	GKR04 - 2M□□□ 071-32	
	110	30	3.0	12.698	GKR04 - 2M□□□ 071-32	
	96	35	2.6	14.603	GKR04 - 2M□□□ 071-32	
	90	37	2.4	15.556	GKR04 - 2M□□□ 071-32	
	78	43	2.1	17.889	GKR04 - 2M□□□ 071-32	
	72	47	1.9	19.556	GKR04 - 2M□□□ 071-32	
	62	54	1.7	22.489	GKR04 - 2M□□□ 071-32	
	56	60	1.5	25.185	GKR04 - 2M□□□ 071-32	
	48	69	1.3	28.963	GKR04 - 2M□□□ 071-32	
	44	77	1.2	31.919	GKR04 - 2M□□□ 071-32	
	38	88	1.0	36.707	GKR04 - 2M□□□ 071-32	
	35	96	0.9	40.000	GKR04 - 2M□□□ 071-32	
	30	110	0.8	46.000	GKR04 - 2M□□□ 071-32	
					GKS □□ -3M	5-86
n1=2840	554	6	6.4	5.123	GKS04 - 3M□□□ 071-11	
	404	8	6.4	7.025	GKS04 - 3M□□□ 071-11	
	348	10	6.4	8.167	GKS04 - 3M□□□ 071-11	
	316	11	7.4	8.991	GKS04 - 3M□□□ 071-11	
	289	12	7.4	9.836	GKS04 - 3M□□□ 071-11	
	242	14	6.4	11.730	GKS04 - 3M□□□ 071-11	
	217	15	6.4	13.067	GKS04 - 3M□□□ 071-11	
n1=1400	199	17	3.9	7.025	GKS04 - 3M□□□ 071-32	
	171	20	3.9	8.167	GKS04 - 3M□□□ 071-32	
	156	22	4.5	8.991	GKS04 - 3M□□□ 071-32	
	142	24	4.5	9.836	GKS04 - 3M□□□ 071-32	

Thermal limit rating not considered (see page 2-7)

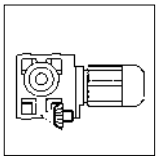


Selection tables – (Helical)-bevel gearboxes

Geared motors

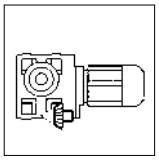
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
0.37 kW					**GKS □□ -3M**	**5-86**
n1=1400	119	28	3.9	11.730	GKS04 - 3M□□□ 071-32	
	107	31	3.9	13.067	GKS04 - 3M□□□ 071-32	
	98	34	4.5	14.333	GKS04 - 3M□□□ 071-32	
	87	39	3.9	16.087	GKS04 - 3M□□□ 071-32	
	78	43	3.9	17.920	GKS04 - 3M□□□ 071-32	
	68	49	3.7	20.588	GKS04 - 3M□□□ 071-32	
	62	54	3.4	22.522	GKS04 - 3M□□□ 071-32	
	56	60	2.8	25.088	GKS04 - 3M□□□ 071-32	
	49	69	2.7	28.727	GKS04 - 3M□□□ 071-32	
	44	77	2.2	32.000	GKS04 - 3M□□□ 071-32	
	40	84	2.2	35.191	GKS04 - 3M□□□ 071-32	
	36	94	1.8	39.200	GKS04 - 3M□□□ 071-32	
	32	106	1.7	44.240	GKS04 - 3M□□□ 071-32	
	30	113	2.7	47.059	GKS05 - 3M□□□ 071-32	
	28	122	1.5	50.943	GKS04 - 3M□□□ 071-32	
	25	137	1.4	56.976	GKS04 - 3M□□□ 071-32	
	22	156	1.2	64.978	GKS04 - 3M□□□ 071-32	
	21	160	2.1	66.592	GKS05 - 3M□□□ 071-32	
	19	173	1.1	72.210	GKS04 - 3M□□□ 071-32	
	19	180	1.7	75.033	GKS05 - 3M□□□ 071-32	
	18	191	1.0	79.598	GKS04 - 3M□□□ 071-32	
	17	199	1.7	82.833	GKS05 - 3M□□□ 071-32	
	16	217	0.9	90.491	GKS04 - 3M□□□ 071-32	
	15	224	1.4	93.333	GKS05 - 3M□□□ 071-32	
	15	223	3.1	93.176	GKS06 - 3M□□□ 071-32	
	13	257	1.3	107.196	GKS05 - 3M□□□ 071-32	
	13	252	2.5	104.967	GKS06 - 3M□□□ 071-32	
	12	290	1.1	120.784	GKS05 - 3M□□□ 071-32	
	12	271	2.6	113.082	GKS06 - 3M□□□ 071-32	
	11	312	1.1	130.097	GKS05 - 3M□□□ 071-32	
	11	305	2.1	127.392	GKS06 - 3M□□□ 071-32	
	9.6	351	0.9	146.588	GKS05 - 3M□□□ 071-32	
	9.8	343	2.1	142.941	GKS06 - 3M□□□ 071-32	
	8.4	399	0.8	166.276	GKS05 - 3M□□□ 071-32	
	8.7	386	1.6	161.029	GKS06 - 3M□□□ 071-32	
	7.4	456	1.5	190.080	GKS06 - 3M□□□ 071-32	
	6.5	513	1.2	214.133	GKS06 - 3M□□□ 071-32	
	6.1	553	1.3	230.688	GKS06 - 3M□□□ 071-32	
	5.4	623	1.0	259.880	GKS06 - 3M□□□ 071-32	
	4.8	699	1.0	291.600	GKS06 - 3M□□□ 071-32	
	4.3	788	0.8	328.500	GKS06 - 3M□□□ 071-32	
					GKS □□ -4M	**5-94**
	3.9	846	1.3	358.829	GKS07 - 4M□□□ 071-32	
	3.5	941	1.4	399.353	GKS07 - 4M□□□ 071-32	
	3.0	1094	1.0	464.367	GKS07 - 4M□□□ 071-32	
	2.7	1218	1.1	516.810	GKS07 - 4M□□□ 071-32	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
0.37 kW					**GKS □□ -4M**	5-94
n1=1400	2.2	1500	0.9	636.581	GKS07 - 4M□□□ 071-32	
	1.7	1927	1.6	817.551	GKS09 - 4M□□□ 071-32	
	1.5	2171	1.4	921.367	GKS09 - 4M□□□ 071-32	
	1.4	2338	1.3	992.209	GKS09 - 4M□□□ 071-32	
	1.3	2635	1.2	1118.204	GKS09 - 4M□□□ 071-32	
	1.1	2956	1.0	1254.197	GKS09 - 4M□□□ 071-32	
	1.0	3331	0.9	1413.461	GKS09 - 4M□□□ 071-32	
n1=900	0.9	3637	0.8	992.209	GKS09 - 4M□□□ 080-13	
	0.9	3632	1.7	990.879	GKS11 - 4M□□□ 080-13	
	0.8	4093	1.5	1116.484	GKS11 - 4M□□□ 080-13	
	0.7	4591	1.3	1252.516	GKS11 - 4M□□□ 080-13	
	0.6	5173	1.2	1411.286	GKS11 - 4M□□□ 080-13	
0.55 kW					**GKR □□ -2M**	5-82
n1=2840	548	9	4.3	5.185	GKR04 - 2M□□□ 071-31	
	476	11	4.3	5.963	GKR04 - 2M□□□ 071-31	
	399	13	4.3	7.111	GKR04 - 2M□□□ 071-31	
	347	14	4.3	8.178	GKR04 - 2M□□□ 071-31	
	312	16	4.3	9.101	GKR04 - 2M□□□ 071-31	
	271	18	3.9	10.466	GKR04 - 2M□□□ 071-31	
	248	20	3.6	11.449	GKR04 - 2M□□□ 071-31	
n1=1400	235	21	3.4	5.963	GKR04 - 2M□□□ 080-12	
	197	25	3.1	7.111	GKR04 - 2M□□□ 080-12	
	171	29	2.8	8.178	GKR04 - 2M□□□ 080-12	
	154	32	2.6	9.101	GKR04 - 2M□□□ 080-12	
	134	37	2.4	10.466	GKR04 - 2M□□□ 080-12	
	122	41	2.2	11.449	GKR04 - 2M□□□ 080-12	
	110	45	2.0	12.698	GKR04 - 2M□□□ 080-12	
	96	52	1.7	14.603	GKR04 - 2M□□□ 080-12	
	90	55	1.6	15.556	GKR04 - 2M□□□ 080-12	
	78	64	1.4	17.889	GKR04 - 2M□□□ 080-12	
	72	70	1.3	19.556	GKR04 - 2M□□□ 080-12	
	62	80	1.1	22.489	GKR04 - 2M□□□ 080-12	
	56	90	1.0	25.185	GKR04 - 2M□□□ 080-12	
	48	103	0.9	28.963	GKR04 - 2M□□□ 080-12	
n1=900	46	108	0.8	19.556	GKR04 - 2M□□□ 080-33	
					GKS □□ -3M	5-86
n1=2840	554	9	4.3	5.123	GKS04 - 3M□□□ 071-31	
	404	12	4.3	7.025	GKS04 - 3M□□□ 071-31	
	348	14	4.3	8.167	GKS04 - 3M□□□ 071-31	

Thermal limit rating not considered (see page 2-7)

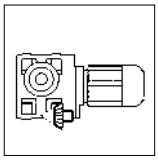


Selection tables – (Helical)-bevel gearboxes

Geared motors

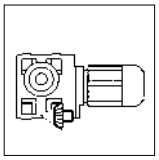
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
0.55 kW					**GKS □□ -3M**	**5-86**
n1=2840	316	16	5.0	8.991	GKS04 - 3M□□□ 071-31	
	289	17	5.0	9.836	GKS04 - 3M□□□ 071-31	
	242	21	4.3	11.730	GKS04 - 3M□□□ 071-31	
	217	23	4.3	13.067	GKS04 - 3M□□□ 071-31	
n1=1400	199	25	3.7	7.025	GKS04 - 3M□□□ 080-12	
	171	29	4.4	8.167	GKS04 - 3M□□□ 080-12	
	156	32	3.2	8.991	GKS04 - 3M□□□ 080-12	
	142	35	3.0	9.836	GKS04 - 3M□□□ 080-12	
	119	42	4.3	11.730	GKS04 - 3M□□□ 080-12	
	106	47	3.5	13.176	GKS05 - 3M□□□ 080-12	
	98	51	3.2	14.333	GKS04 - 3M□□□ 080-12	
	87	57	3.2	16.087	GKS04 - 3M□□□ 080-12	
	78	64	2.6	17.920	GKS04 - 3M□□□ 080-12	
	68	73	2.5	20.588	GKS04 - 3M□□□ 080-12	
	62	80	2.3	22.522	GKS04 - 3M□□□ 080-12	
	56	89	1.9	25.088	GKS04 - 3M□□□ 080-12	
	49	102	1.8	28.727	GKS04 - 3M□□□ 080-12	
	47	107	3.1	29.931	GKS05 - 3M□□□ 080-12	
	44	114	1.5	32.000	GKS04 - 3M□□□ 080-12	
	43	117	2.8	32.744	GKS05 - 3M□□□ 080-12	
	40	125	1.5	35.191	GKS04 - 3M□□□ 080-12	
	38	132	2.3	36.894	GKS05 - 3M□□□ 080-12	
	36	140	1.2	39.200	GKS04 - 3M□□□ 080-12	
	34	149	2.2	41.765	GKS05 - 3M□□□ 080-12	
	32	158	1.2	44.240	GKS04 - 3M□□□ 080-12	
	30	168	1.8	47.059	GKS05 - 3M□□□ 080-12	
	28	182	1.0	50.943	GKS04 - 3M□□□ 080-12	
	27	182	1.8	51.162	GKS05 - 3M□□□ 080-12	
	25	203	0.9	56.976	GKS04 - 3M□□□ 080-12	
	24	205	1.5	57.647	GKS05 - 3M□□□ 080-12	
	21	237	1.4	66.592	GKS05 - 3M□□□ 080-12	
	22	232	2.7	65.207	GKS06 - 3M□□□ 080-12	
	19	267	1.2	75.033	GKS05 - 3M□□□ 080-12	
	19	257	2.7	72.000	GKS06 - 3M□□□ 080-12	
	17	295	1.1	82.833	GKS05 - 3M□□□ 080-12	
	17	289	2.2	81.111	GKS06 - 3M□□□ 080-12	
	15	333	1.0	93.333	GKS05 - 3M□□□ 080-12	
	15	332	2.1	93.176	GKS06 - 3M□□□ 080-12	
	13	382	0.9	107.196	GKS05 - 3M□□□ 080-12	
	13	374	1.7	104.967	GKS06 - 3M□□□ 080-12	
	12	403	1.7	113.082	GKS06 - 3M□□□ 080-12	
	11	454	1.4	127.392	GKS06 - 3M□□□ 080-12	
	11	451	2.7	126.578	GKS07 - 3M□□□ 080-12	
	9.8	509	1.4	142.941	GKS06 - 3M□□□ 080-12	
	8.7	574	1.1	161.029	GKS06 - 3M□□□ 080-12	
	7.4	677	1.0	190.080	GKS06 - 3M□□□ 080-12	
	7.6	658	2.0	184.600	GKS07 - 3M□□□ 080-12	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
0.55 kW					**GKS □□ -3M**	5-86
n1=1400	6.5	763	0.8	214.133	GKS06 - 3M□□□ 080-12	
	6.7	741	1.6	208.000	GKS07 - 3M□□□ 080-12	
	6.1	822	0.9	230.688	GKS06 - 3M□□□ 080-12	
	6.3	798	1.7	224.037	GKS07 - 3M□□□ 080-12	
	5.6	900	1.4	252.436	GKS07 - 3M□□□ 080-12	
	4.9	1009	1.3	283.193	GKS07 - 3M□□□ 080-12	
	4.4	1137	1.1	319.091	GKS07 - 3M□□□ 080-12	
					GKS □□ -4M	5-94
	3.9	1257	0.8	358.829	GKS07 - 4M□□□ 080-12	
	3.8	1277	2.4	364.427	GKS09 - 4M□□□ 080-12	
	3.5	1399	0.9	399.353	GKS07 - 4M□□□ 080-12	
	3.5	1409	2.2	402.234	GKS09 - 4M□□□ 080-12	
	3.1	1588	1.9	453.311	GKS09 - 4M□□□ 080-12	
	2.7	1823	1.7	520.538	GKS09 - 4M□□□ 080-12	
	2.4	2055	1.5	586.638	GKS09 - 4M□□□ 080-12	
	2.2	2213	1.4	631.744	GKS09 - 4M□□□ 080-12	
	2.0	2494	1.2	711.965	GKS09 - 4M□□□ 080-12	
	1.7	2864	1.1	817.551	GKS09 - 4M□□□ 080-12	
	1.7	2860	2.1	816.455	GKS11 - 4M□□□ 080-12	
	1.5	3227	1.0	921.367	GKS09 - 4M□□□ 080-12	
	1.5	3222	1.9	919.949	GKS11 - 4M□□□ 080-12	
	1.4	3476	0.9	992.209	GKS09 - 4M□□□ 080-12	
	1.4	3471	1.7	990.879	GKS11 - 4M□□□ 080-12	
	1.3	3911	1.6	1116.484	GKS11 - 4M□□□ 080-12	
	1.1	4387	1.4	1252.516	GKS11 - 4M□□□ 080-12	
	1.0	4944	1.2	1411.286	GKS11 - 4M□□□ 080-12	
n1=900	0.9	5399	1.1	990.879	GKS11 - 4M□□□ 080-33	
	0.8	6084	1.0	1116.484	GKS11 - 4M□□□ 080-33	
	0.7	6825	0.9	1252.516	GKS11 - 4M□□□ 080-33	
0.75 kW					**GKR □□ -2M**	5-82
n1=2850	550	12	4.5	5.185	GKR04 - 2M□□□ 080-11	
	478	14	4.1	5.963	GKR04 - 2M□□□ 080-11	
	401	17	3.7	7.111	GKR04 - 2M□□□ 080-11	
	349	20	3.4	8.178	GKR04 - 2M□□□ 080-11	
	313	22	3.1	9.101	GKR04 - 2M□□□ 080-11	
	272	25	2.9	10.466	GKR04 - 2M□□□ 080-11	
	249	27	2.7	11.449	GKR04 - 2M□□□ 080-11	
n1=1380	231	29	2.5	5.963	GKR04 - 2M□□□ 080-32	
	194	35	2.2	7.111	GKR04 - 2M□□□ 080-32	
	169	40	2.0	8.178	GKR04 - 2M□□□ 080-32	
	152	45	1.9	9.101	GKR04 - 2M□□□ 080-32	

Thermal limit rating not considered (see page 2-7)

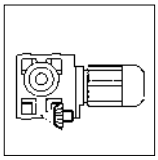


Selection tables – (Helical)-bevel gearboxes

Geared motors

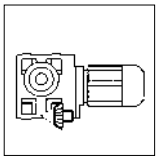
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
0.75 kW					**GKR □□ -2M**	**5-82**
n1=1380	132	52	1.7	10.466	GKR04 - 2M□□□ 080-32	
	121	56	1.6	11.449	GKR04 - 2M□□□ 080-32	
	109	63	1.4	12.698	GKR04 - 2M□□□ 080-32	
	95	72	1.3	14.603	GKR04 - 2M□□□ 080-32	
	89	77	1.2	15.556	GKR04 - 2M□□□ 080-32	
	77	88	1.0	17.889	GKR04 - 2M□□□ 080-32	
	71	96	0.9	19.556	GKR04 - 2M□□□ 080-32	
	61	111	0.8	22.489	GKR04 - 2M□□□ 080-32	
					GKS □□ -3M	**5-86**
n1=2850	556	12	5.3	5.123	GKS04 - 3M□□□ 080-11	
	406	17	4.5	7.025	GKS04 - 3M□□□ 080-11	
	349	20	5.3	8.167	GKS04 - 3M□□□ 080-11	
	317	22	3.9	8.991	GKS04 - 3M□□□ 080-11	
	290	24	3.7	9.836	GKS04 - 3M□□□ 080-11	
	243	28	5.2	11.730	GKS04 - 3M□□□ 080-11	
	216	32	4.3	13.176	GKS05 - 3M□□□ 080-11	
n1=1380	196	35	2.7	7.025	GKS04 - 3M□□□ 080-32	
	169	40	3.2	8.167	GKS04 - 3M□□□ 080-32	
	154	44	2.3	8.991	GKS04 - 3M□□□ 080-32	
	140	49	2.2	9.836	GKS04 - 3M□□□ 080-32	
	118	58	3.1	11.730	GKS04 - 3M□□□ 080-32	
	106	64	2.6	13.067	GKS04 - 3M□□□ 080-32	
	96	71	2.3	14.333	GKS04 - 3M□□□ 080-32	
	86	79	2.3	16.087	GKS04 - 3M□□□ 080-32	
	77	88	1.9	17.920	GKS04 - 3M□□□ 080-32	
	67	102	1.8	20.588	GKS04 - 3M□□□ 080-32	
	61	111	1.6	22.522	GKS04 - 3M□□□ 080-32	
	55	124	1.4	25.088	GKS04 - 3M□□□ 080-32	
	48 46	142 148	1.3 2.2	28.727 29.931	GKS04 - 3M□□□ 080-32 GKS05 - 3M□□□ 080-32	
	43 42	158 161	1.1 2.1	32.000 32.744	GKS04 - 3M□□□ 080-32 GKS05 - 3M□□□ 080-32	
	39 37	174 182	1.1 1.7	35.191 36.894	GKS04 - 3M□□□ 080-32 GKS05 - 3M□□□ 080-32	
	35 33	193 206	0.9 1.6	39.200 41.765	GKS04 - 3M□□□ 080-32 GKS05 - 3M□□□ 080-32	
	31 29	218 232	0.9 1.3	44.240 47.059	GKS04 - 3M□□□ 080-32 GKS05 - 3M□□□ 080-32	
	27	252	1.3	51.162	GKS05 - 3M□□□ 080-32	
	24 24	284 285	1.1 2.4	57.647 57.882	GKS05 - 3M□□□ 080-32 GKS06 - 3M□□□ 080-32	
	21 21	328 321	1.0 1.9	66.592 65.207	GKS05 - 3M□□□ 080-32 GKS06 - 3M□□□ 080-32	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
0.75 kW					**GKS □□ -3M**	5-86
n1=1380	18	370	0.8	75.033	GKS05 - 3M□□□ 080-32	
	19	355	2.0	72.000	GKS06 - 3M□□□ 080-32	
	17	408	0.8	82.833	GKS05 - 3M□□□ 080-32	
	17	400	1.6	81.111	GKS06 - 3M□□□ 080-32	
	15	459	1.5	93.176	GKS06 - 3M□□□ 080-32	
	15	456	2.8	92.563	GKS07 - 3M□□□ 080-32	
	13	517	1.2	104.967	GKS06 - 3M□□□ 080-32	
	13	514	2.4	104.296	GKS07 - 3M□□□ 080-32	
	12	558	1.3	113.082	GKS06 - 3M□□□ 080-32	
	12	554	2.4	112.338	GKS07 - 3M□□□ 080-32	
	11	628	1.0	127.392	GKS06 - 3M□□□ 080-32	
	11	624	2.0	126.578	GKS07 - 3M□□□ 080-32	
	9.7	705	1.0	142.941	GKS06 - 3M□□□ 080-32	
	7.5	910	1.5	184.600	GKS07 - 3M□□□ 080-32	
	6.6	1025	1.2	208.000	GKS07 - 3M□□□ 080-32	
	6.2	1104	1.2	224.037	GKS07 - 3M□□□ 080-32	
	5.5	1244	1.0	252.436	GKS07 - 3M□□□ 080-32	
	4.9	1396	1.0	283.193	GKS07 - 3M□□□ 080-32	
					GKS □□ -4M	5-94
	4.3	1556	0.9	321.049	GKS07 - 4M□□□ 080-32	
	4.3	1567	1.9	323.365	GKS09 - 4M□□□ 080-32	
	3.8	1766	1.7	364.427	GKS09 - 4M□□□ 080-32	
	3.4	1949	1.6	402.234	GKS09 - 4M□□□ 080-32	
	3.0	2197	1.4	453.311	GKS09 - 4M□□□ 080-32	
	2.7	2522	1.2	520.538	GKS09 - 4M□□□ 080-32	
	2.4	2843	1.1	586.638	GKS09 - 4M□□□ 080-32	
	2.2	3061	1.0	631.744	GKS09 - 4M□□□ 080-32	
	1.9	3450	0.9	711.965	GKS09 - 4M□□□ 080-32	
	1.7	3956	1.5	816.455	GKS11 - 4M□□□ 080-32	
	1.5	4458	1.4	919.949	GKS11 - 4M□□□ 080-32	
	1.4	4802	1.2	990.879	GKS11 - 4M□□□ 080-32	
	1.2	5410	1.1	1116.484	GKS11 - 4M□□□ 080-32	
	1.1	6070	1.0	1252.516	GKS11 - 4M□□□ 080-32	
	1.0	6839	0.9	1411.286	GKS11 - 4M□□□ 080-32	
1.1 kW					**GKR □□ -2M**	5-82
n1=2810	542	18	3.0	5.185	GKR04 - 2M□□□ 080-31	
	471	21	2.8	5.963	GKR04 - 2M□□□ 080-31	
	395	25	2.5	7.111	GKR04 - 2M□□□ 080-31	
	344	29	2.3	8.178	GKR04 - 2M□□□ 080-31	
	309	32	2.1	9.101	GKR04 - 2M□□□ 080-31	
	269	37	1.9	10.466	GKR04 - 2M□□□ 080-31	
	245	41	1.8	11.449	GKR04 - 2M□□□ 080-31	
	221	45	1.6	12.698	GKR04 - 2M□□□ 080-31	
	192	52	1.4	14.603	GKR04 - 2M□□□ 080-31	

Thermal limit rating not considered (see page 2-7)

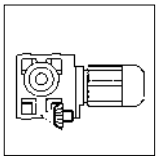


Selection tables – (Helical)-bevel gearboxes

Geared motors

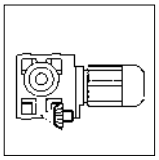
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
1.1 kW					**GKR □□ -2M**	5-82
n1=2810	181	55	1.3	15.556	GKR04 - 2M□□□ 080-31	
	157	64	1.2	17.889	GKR04 - 2M□□□ 080-31	
	144	69	1.1	19.556	GKR04 - 2M□□□ 080-31	
	125	80	0.9	22.489	GKR04 - 2M□□□ 080-31	
	112	89	0.9	25.185	GKR04 - 2M□□□ 080-31	
	97	103	0.8	28.963	GKR04 - 2M□□□ 080-31	
					GKS □□ -3M	5-86
	549	18	3.6	5.123	GKS04 - 3M□□□ 080-31	
	400	25	3.0	7.025	GKS04 - 3M□□□ 080-31	
	344	29	3.6	8.167	GKS04 - 3M□□□ 080-31	
	313	32	2.6	8.991	GKS04 - 3M□□□ 080-31	
	286	35	2.5	9.836	GKS04 - 3M□□□ 080-31	
	240	42	3.5	11.730	GKS04 - 3M□□□ 080-31	
	215	46	2.9	13.067	GKS04 - 3M□□□ 080-31	
n1=1410	201	50	1.9	7.025	GKS04 - 3M□□□ 090-12	
	206	49	3.0	6.863	GKS05 - 3M□□□ 090-12	
	173	58	2.2	8.167	GKS04 - 3M□□□ 090-12	
	157	64	1.6	8.991	GKS04 - 3M□□□ 090-12	
	150	67	2.5	9.412	GKS05 - 3M□□□ 090-12	
	143	70	1.5	9.836	GKS04 - 3M□□□ 090-12	
	133	75	3.0	10.569	GKS05 - 3M□□□ 090-12	
	120	83	2.2	11.730	GKS04 - 3M□□□ 090-12	
	121	83	3.0	11.667	GKS05 - 3M□□□ 090-12	
	108	93	1.8	13.067	GKS04 - 3M□□□ 090-12	
	98	101	1.6	14.333	GKS04 - 3M□□□ 090-12	
	97	103	2.5	14.494	GKS05 - 3M□□□ 090-12	
	88	114	1.6	16.087	GKS04 - 3M□□□ 090-12	
	88	113	2.5	16.000	GKS05 - 3M□□□ 090-12	
	79	127	1.3	17.920	GKS04 - 3M□□□ 090-12	
	83	121	2.6	17.054	GKS05 - 3M□□□ 090-12	
	69	146	1.3	20.588	GKS04 - 3M□□□ 090-12	
	73	136	2.2	19.216	GKS05 - 3M□□□ 090-12	
	63	159	1.1	22.522	GKS04 - 3M□□□ 090-12	
	60	166	2.0	23.388	GKS05 - 3M□□□ 090-12	
	54	187	1.6	26.353	GKS05 - 3M□□□ 090-12	
	56	178	0.9	25.088	GKS04 - 3M□□□ 090-12	
	49	203	0.9	28.727	GKS04 - 3M□□□ 090-12	
	47	212	1.6	29.931	GKS05 - 3M□□□ 090-12	
	43	232	1.4	32.744	GKS05 - 3M□□□ 090-12	
	44	227	2.7	32.063	GKS06 - 3M□□□ 090-12	
	38	261	1.2	36.894	GKS05 - 3M□□□ 090-12	
	39	257	2.7	36.303	GKS06 - 3M□□□ 090-12	
	34	296	1.1	41.765	GKS05 - 3M□□□ 090-12	
	30	333	0.9	47.059	GKS05 - 3M□□□ 090-12	
	32	315	2.2	44.471	GKS06 - 3M□□□ 090-12	
	28	362	0.9	51.162	GKS05 - 3M□□□ 090-12	
	27	376	1.9	53.074	GKS06 - 3M□□□ 090-12	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
1.1 kW					**GKS □□ -3M**	**5-86**
n1=1410	24	410	1.7	57.882	GKS06 - 3M□□□ 090-12	
	25	407	3.2	57.501	GKS07 - 3M□□□ 090-12	
	22	461	1.4	65.207	GKS06 - 3M□□□ 090-12	
	22	459	2.6	64.790	GKS07 - 3M□□□ 090-12	
	20	510	1.4	72.000	GKS06 - 3M□□□ 090-12	
	20	499	2.7	70.474	GKS07 - 3M□□□ 090-12	
	17	574	1.1	81.111	GKS06 - 3M□□□ 090-12	
	18	562	2.1	79.407	GKS07 - 3M□□□ 090-12	
	15	659	1.1	93.176	GKS06 - 3M□□□ 090-12	
	15	655	2.0	92.563	GKS07 - 3M□□□ 090-12	
	13	743	0.9	104.967	GKS06 - 3M□□□ 090-12	
	14	738	1.7	104.296	GKS07 - 3M□□□ 090-12	
	13	800	0.9	113.082	GKS06 - 3M□□□ 090-12	
	13	795	1.7	112.338	GKS07 - 3M□□□ 090-12	
	11	896	1.4	126.578	GKS07 - 3M□□□ 090-12	
	10	995	1.3	140.548	GKS07 - 3M□□□ 090-12	
	10	997	2.6	140.921	GKS09 - 3M□□□ 090-12	
	8.9	1121	1.1	158.364	GKS07 - 3M□□□ 090-12	
	8.9	1124	2.6	158.816	GKS09 - 3M□□□ 090-12	
	7.6	1306	1.0	184.600	GKS07 - 3M□□□ 090-12	
	7.8	1288	2.4	182.000	GKS09 - 3M□□□ 090-12	
	6.8	1472	0.8	208.000	GKS07 - 3M□□□ 090-12	
	6.9	1451	2.1	205.111	GKS09 - 3M□□□ 090-12	
	6.3	1585	0.8	224.037	GKS07 - 3M□□□ 090-12	
	6.4	1563	1.9	220.882	GKS09 - 3M□□□ 090-12	
	5.7	1762	1.8	248.930	GKS09 - 3M□□□ 090-12	
	5.1	1976	1.5	279.205	GKS09 - 3M□□□ 090-12	
	4.5	2227	1.4	314.659	GKS09 - 3M□□□ 090-12	
					GKS □□ -4M	**5-94**
	3.9	2535	1.2	364.427	GKS09 - 4M□□□ 090-12	
	3.9	2531	2.4	363.866	GKS11 - 4M□□□ 090-12	
	3.5	2798	1.1	402.234	GKS09 - 4M□□□ 090-12	
	3.6	2753	2.2	395.787	GKS11 - 4M□□□ 090-12	
	3.1	3153	1.0	453.311	GKS09 - 4M□□□ 090-12	
	3.2	3102	1.9	445.958	GKS11 - 4M□□□ 090-12	
	2.7	3621	0.8	520.538	GKS09 - 4M□□□ 090-12	
	2.8	3563	1.7	512.195	GKS11 - 4M□□□ 090-12	
	2.4	4015	1.5	577.122	GKS11 - 4M□□□ 090-12	
	2.3	4324	1.4	621.619	GKS11 - 4M□□□ 090-12	
	2.0	4872	1.3	700.416	GKS11 - 4M□□□ 090-12	
	1.7	5679	1.1	816.455	GKS11 - 4M□□□ 090-12	
	1.8	5606	2.1	805.901	GKS14 - 4M□□□ 090-12	
	1.5	6399	1.0	919.949	GKS11 - 4M□□□ 090-12	
	1.6	6316	1.8	908.058	GKS14 - 4M□□□ 090-12	
	1.4	6893	0.9	990.879	GKS11 - 4M□□□ 090-12	
	1.4	6804	1.7	978.071	GKS14 - 4M□□□ 090-12	
	1.3	7666	1.5	1102.052	GKS14 - 4M□□□ 090-12	
	1.1	8600	1.3	1236.326	GKS14 - 4M□□□ 090-12	
	1.0	9690	1.2	1393.043	GKS14 - 4M□□□ 090-12	

Thermal limit rating not considered (see page 2-7)

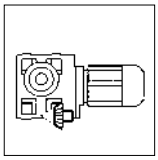


Selection tables – (Helical)-bevel gearboxes

Geared motors

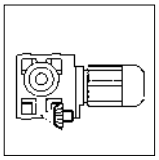
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
1.5 kW					**GKS □□ -3M**	**5-86**
n1=2840	554	25	2.7	5.123	GKS04 - 3M□□□ 090-11	
	404	34	2.2	7.025	GKS04 - 3M□□□ 090-11	
	348	39	2.7	8.167	GKS04 - 3M□□□ 090-11	
	316	43	1.9	8.991	GKS04 - 3M□□□ 090-11	
	302	45	3.0	9.412	GKS05 - 3M□□□ 090-11	
	289	47	1.8	9.836	GKS04 - 3M□□□ 090-11	
	242	56	2.6	11.730	GKS04 - 3M□□□ 090-11	
	217	63	2.1	13.067	GKS04 - 3M□□□ 090-11	
n1=1420	202	67	1.4	7.025	GKS04 - 3M□□□ 090-32	
	207	66	2.2	6.863	GKS05 - 3M□□□ 090-32	
	174	78	1.6	8.167	GKS04 - 3M□□□ 090-32	
	158	86	1.2	8.991	GKS04 - 3M□□□ 090-32	
	151	90	1.8	9.412	GKS05 - 3M□□□ 090-32	
	144	94	1.1	9.836	GKS04 - 3M□□□ 090-32	
	134	101	2.2	10.569	GKS05 - 3M□□□ 090-32	
	121	112	1.6	11.730	GKS04 - 3M□□□ 090-32	
	122	112	2.2	11.667	GKS05 - 3M□□□ 090-32	
	109	125	1.3	13.067	GKS04 - 3M□□□ 090-32	
	99	137	1.2	14.333	GKS04 - 3M□□□ 090-32	
	98	139	1.8	14.494	GKS05 - 3M□□□ 090-32	
	88	154	1.2	16.087	GKS04 - 3M□□□ 090-32	
	89	153	1.8	16.000	GKS05 - 3M□□□ 090-32	
	79	172	1.0	17.920	GKS04 - 3M□□□ 090-32	
	83	163	1.9	17.054	GKS05 - 3M□□□ 090-32	
	80	171	3.0	17.809	GKS06 - 3M□□□ 090-32	
	69	197	0.9	20.588	GKS04 - 3M□□□ 090-32	
	74	184	1.6	19.216	GKS05 - 3M□□□ 090-32	
	63	216	0.8	22.522	GKS04 - 3M□□□ 090-32	
	61	224	1.5	23.388	GKS05 - 3M□□□ 090-32	
	54	253	1.2	26.353	GKS05 - 3M□□□ 090-32	
	55	249	2.7	26.017	GKS06 - 3M□□□ 090-32	
	47	287	1.2	29.931	GKS05 - 3M□□□ 090-32	
	50	273	2.5	28.461	GKS06 - 3M□□□ 090-32	
	43	314	1.1	32.744	GKS05 - 3M□□□ 090-32	
	44	307	2.0	32.063	GKS06 - 3M□□□ 090-32	
	39	354	0.9	36.894	GKS05 - 3M□□□ 090-32	
	39	348	2.0	36.303	GKS06 - 3M□□□ 090-32	
	34	400	0.8	41.765	GKS05 - 3M□□□ 090-32	
	32	426	1.6	44.471	GKS06 - 3M□□□ 090-32	
	27	509	1.4	53.074	GKS06 - 3M□□□ 090-32	
	25	555	1.3	57.882	GKS06 - 3M□□□ 090-32	
	25	551	2.4	57.501	GKS07 - 3M□□□ 090-32	
	22	625	1.0	65.207	GKS06 - 3M□□□ 090-32	
	22	621	1.9	64.790	GKS07 - 3M□□□ 090-32	
	20	690	1.0	72.000	GKS06 - 3M□□□ 090-32	
	20	675	2.0	70.474	GKS07 - 3M□□□ 090-32	
	18	777	0.8	81.111	GKS06 - 3M□□□ 090-32	
	18	761	1.6	79.407	GKS07 - 3M□□□ 090-32	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
1.5 kW					**GKS □□ -3M**	5-86
n1=1420	15	887	1.5	92.563	GKS07 - 3M□□□ 090-32	
	16	880	2.9	91.860	GKS09 - 3M□□□ 090-32	
	14	999	1.2	104.296	GKS07 - 3M□□□ 090-32	
	14	992	2.9	103.524	GKS09 - 3M□□□ 090-32	
	13	1076	1.2	112.338	GKS07 - 3M□□□ 090-32	
	13	1068	2.5	111.484	GKS09 - 3M□□□ 090-32	
	11	1213	1.0	126.578	GKS07 - 3M□□□ 090-32	
	11	1204	2.5	125.641	GKS09 - 3M□□□ 090-32	
	10	1347	1.0	140.548	GKS07 - 3M□□□ 090-32	
	10	1350	2.0	140.921	GKS09 - 3M□□□ 090-32	
	9.0	1517	0.8	158.364	GKS07 - 3M□□□ 090-32	
	8.9	1522	2.0	158.816	GKS09 - 3M□□□ 090-32	
	7.8	1744	1.7	182.000	GKS09 - 3M□□□ 090-32	
	6.9	1965	1.6	205.111	GKS09 - 3M□□□ 090-32	
	6.4	2116	1.4	220.882	GKS09 - 3M□□□ 090-32	
	5.7	2385	1.3	248.930	GKS09 - 3M□□□ 090-32	
	5.1	2675	1.1	279.205	GKS09 - 3M□□□ 090-32	
	4.5	3015	1.0	314.659	GKS09 - 3M□□□ 090-32	
					GKS □□ -4M	5-94
	3.9	3432	0.9	364.427	GKS09 - 4M□□□ 090-32	
	3.9	3427	1.8	363.866	GKS11 - 4M□□□ 090-32	
	3.5	3789	0.8	402.234	GKS09 - 4M□□□ 090-32	
	3.6	3728	1.6	395.787	GKS11 - 4M□□□ 090-32	
	3.2	4200	1.4	445.958	GKS11 - 4M□□□ 090-32	
	2.8	4824	1.2	512.195	GKS11 - 4M□□□ 090-32	
	2.5	5436	1.1	577.122	GKS11 - 4M□□□ 090-32	
	2.3	5855	1.0	621.619	GKS11 - 4M□□□ 090-32	
	2.0	6597	0.9	700.416	GKS11 - 4M□□□ 090-32	
	1.8	7591	1.5	805.901	GKS14 - 4M□□□ 090-32	
	1.6	8553	1.4	908.058	GKS14 - 4M□□□ 090-32	
	1.5	9212	1.3	978.071	GKS14 - 4M□□□ 090-32	
	1.3	10380	1.1	1102.052	GKS14 - 4M□□□ 090-32	
	1.2	11645	1.0	1236.326	GKS14 - 4M□□□ 090-32	
	1.0	13121	0.9	1393.043	GKS14 - 4M□□□ 090-32	
2.2 kW					**GKS □□ -3M**	5-86
n1=2840	554	36	1.8	5.123	GKS04 - 3M□□□ 090-31	
	404	49	1.5	7.025	GKS04 - 3M□□□ 090-31	
	414	48	2.5	6.863	GKS05 - 3M□□□ 090-31	
	348	57	1.8	8.167	GKS04 - 3M□□□ 090-31	
	316	63	1.3	8.991	GKS04 - 3M□□□ 090-31	
	302	66	2.0	9.412	GKS05 - 3M□□□ 090-31	
	289	69	1.2	9.836	GKS04 - 3M□□□ 090-31	
	269	74	2.5	10.569	GKS05 - 3M□□□ 090-31	
	242	82	1.8	11.730	GKS04 - 3M□□□ 090-31	
	243	82	2.5	11.667	GKS05 - 3M□□□ 090-31	

Thermal limit rating not considered (see page 2-7)

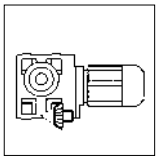


Selection tables – (Helical)-bevel gearboxes

Geared motors

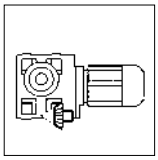
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
2.2 kW					**GKS □□ -3M**	**5-86**
n1=2840	217	92	1.5	13.067	GKS04 - 3M□□□ 090-31	
	198	101	1.3	14.333	GKS04 - 3M□□□ 090-31	
	196	102	2.0	14.494	GKS05 - 3M□□□ 090-31	
	177	113	1.3	16.087	GKS04 - 3M□□□ 090-31	
	178	112	2.0	16.000	GKS05 - 3M□□□ 090-31	
n1=1400	149	134	1.2	9.412	GKS05 - 3M□□□ 100-12	
	152	131	2.9	9.196	GKS06 - 3M□□□ 100-12	
	133	151	1.5	10.569	GKS05 - 3M□□□ 100-12	
	138	145	2.9	10.147	GKS06 - 3M□□□ 100-12	
	120	166	1.5	11.667	GKS05 - 3M□□□ 100-12	
	123	162	2.0	11.382	GKS06 - 3M□□□ 100-12	
	106	188	0.9	13.176	GKS05 - 3M□□□ 100-12	
	111	180	2.4	12.612	GKS06 - 3M□□□ 100-12	
	97	207	1.2	14.494	GKS05 - 3M□□□ 100-12	
	94	211	2.8	14.824	GKS06 - 3M□□□ 100-12	
	88	228	1.2	16.000	GKS05 - 3M□□□ 100-12	
	84	238	2.5	16.699	GKS06 - 3M□□□ 100-12	
	82	243	1.3	17.054	GKS05 - 3M□□□ 100-12	
	79	254	2.0	17.809	GKS06 - 3M□□□ 100-12	
	73	274	1.1	19.216	GKS05 - 3M□□□ 100-12	
	69	290	2.3	20.329	GKS06 - 3M□□□ 100-12	
	60	333	1.0	23.388	GKS05 - 3M□□□ 100-12	
	61	326	1.9	22.902	GKS06 - 3M□□□ 100-12	
	54	371	1.8	26.017	GKS06 - 3M□□□ 100-12	
	49	406	1.7	28.461	GKS06 - 3M□□□ 100-12	
	50	403	3.0	28.274	GKS07 - 3M□□□ 100-12	
	44	457	1.3	32.063	GKS06 - 3M□□□ 100-12	
	44	454	2.6	31.858	GKS07 - 3M□□□ 100-12	
	39	517	1.3	36.303	GKS06 - 3M□□□ 100-12	
	39	514	2.5	36.063	GKS07 - 3M□□□ 100-12	
	34	591	1.2	41.472	GKS06 - 3M□□□ 100-12	
	32	634	1.1	44.471	GKS06 - 3M□□□ 100-12	
	32	630	2.1	44.178	GKS07 - 3M□□□ 100-12	
	26	757	0.9	53.074	GKS06 - 3M□□□ 100-12	
	28	718	1.8	50.345	GKS07 - 3M□□□ 100-12	
	24	825	0.8	57.882	GKS06 - 3M□□□ 100-12	
	24	820	1.6	57.501	GKS07 - 3M□□□ 100-12	
	22	924	1.3	64.790	GKS07 - 3M□□□ 100-12	
	21	939	3.3	65.879	GKS09 - 3M□□□ 100-12	
	20	1005	1.3	70.474	GKS07 - 3M□□□ 100-12	
	20	1012	3.0	70.982	GKS09 - 3M□□□ 100-12	
	18	1132	1.1	79.407	GKS07 - 3M□□□ 100-12	
	18	1140	2.7	79.996	GKS09 - 3M□□□ 100-12	
	15	1319	1.0	92.563	GKS07 - 3M□□□ 100-12	
	15	1309	2.3	91.860	GKS09 - 3M□□□ 100-12	
	13	1487	0.8	104.296	GKS07 - 3M□□□ 100-12	
	14	1476	2.1	103.524	GKS09 - 3M□□□ 100-12	
	13	1601	0.8	112.338	GKS07 - 3M□□□ 100-12	
	13	1589	1.9	111.484	GKS09 - 3M□□□ 100-12	
	13	1587	2.8	111.335	GKS11 - 3M□□□ 100-12	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
2.2 kW					**GKS □□ -3M**	5-86
n1=1400	11	1791	1.7	125.641	GKS09 - 3M□□□ 100-12	
	11	1788	2.8	125.448	GKS11 - 3M□□□ 100-12	
	9.9	2009	1.5	140.921	GKS09 - 3M□□□ 100-12	
	10.0	2006	2.3	140.732	GKS11 - 3M□□□ 100-12	
	8.8	2264	1.4	158.816	GKS09 - 3M□□□ 100-12	
	8.8	2260	2.3	158.571	GKS11 - 3M□□□ 100-12	
	7.7	2594	1.2	182.000	GKS09 - 3M□□□ 100-12	
	7.5	2659	2.3	186.572	GKS11 - 3M□□□ 100-12	
	6.8	2924	1.1	205.111	GKS09 - 3M□□□ 100-12	
	6.7	2996	2.0	210.222	GKS11 - 3M□□□ 100-12	
	6.3	3148	1.0	220.882	GKS09 - 3M□□□ 100-12	
	6.2	3228	1.9	226.431	GKS11 - 3M□□□ 100-12	
	5.6	3548	0.9	248.930	GKS09 - 3M□□□ 100-12	
	5.5	3637	1.6	255.133	GKS11 - 3M□□□ 100-12	
	4.9	4080	1.5	286.219	GKS11 - 3M□□□ 100-12	
	4.3	4597	1.3	322.500	GKS11 - 3M□□□ 100-12	
					GKS □□ -4M	5-94
	3.9	5098	1.2	363.866	GKS11 - 4M□□□ 100-12	
	3.9	5079	2.3	362.512	GKS14 - 4M□□□ 100-12	
	3.5	5546	1.1	395.787	GKS11 - 4M□□□ 100-12	
	3.6	5474	2.1	390.672	GKS14 - 4M□□□ 100-12	
	3.1	6249	1.0	445.958	GKS11 - 4M□□□ 100-12	
	3.2	6168	1.9	440.193	GKS14 - 4M□□□ 100-12	
	2.7	7177	0.8	512.195	GKS11 - 4M□□□ 100-12	
	2.7	7190	1.6	513.121	GKS14 - 4M□□□ 100-12	
	2.4	8101	1.4	578.164	GKS14 - 4M□□□ 100-12	
	2.3	8726	1.3	622.742	GKS14 - 4M□□□ 100-12	
	2.0	9832	1.2	701.681	GKS14 - 4M□□□ 100-12	
	1.7	11292	1.0	805.901	GKS14 - 4M□□□ 100-12	
	1.5	12723	0.9	908.058	GKS14 - 4M□□□ 100-12	
	1.4	13704	0.8	978.071	GKS14 - 4M□□□ 100-12	
3 kW					**GKS □□ -3M**	5-86
n1=2850	440	62	3.4	6.485	GKS06 - 3M□□□ 100-31	
	415	66	1.8	6.863	GKS05 - 3M□□□ 100-31	
	303	90	1.5	9.412	GKS05 - 3M□□□ 100-31	
	270	101	1.8	10.569	GKS05 - 3M□□□ 100-31	
	244	111	1.8	11.667	GKS05 - 3M□□□ 100-31	
	250	109	2.5	11.382	GKS06 - 3M□□□ 100-31	
	216	126	1.1	13.176	GKS05 - 3M□□□ 100-31	
	226	120	2.9	12.612	GKS06 - 3M□□□ 100-31	
	197	138	1.5	14.494	GKS05 - 3M□□□ 100-31	
	178	153	1.5	16.000	GKS05 - 3M□□□ 100-31	
	171	159	3.1	16.699	GKS06 - 3M□□□ 100-31	
	167	163	1.6	17.054	GKS05 - 3M□□□ 100-31	
	160	170	2.5	17.809	GKS06 - 3M□□□ 100-31	

Thermal limit rating not considered (see page 2-7)

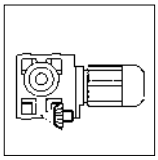


Selection tables – (Helical)-bevel gearboxes

Geared motors

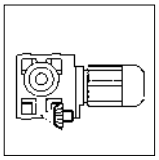
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
3 kW					**GKS □□ -3M**	**5-86**
n1=1400	149	183	0.9	9.412	GKS05 - 3M□□□ 100-32	
	152	179	2.1	9.196	GKS06 - 3M□□□ 100-32	
	133	205	1.1	10.569	GKS05 - 3M□□□ 100-32	
	138	197	2.1	10.147	GKS06 - 3M□□□ 100-32	
	120	227	1.1	11.667	GKS05 - 3M□□□ 100-32	
	123	221	1.5	11.382	GKS06 - 3M□□□ 100-32	
	123	221	2.8	11.378	GKS07 - 3M□□□ 100-32	
	111	245	1.7	12.612	GKS06 - 3M□□□ 100-32	
	97	282	0.9	14.494	GKS05 - 3M□□□ 100-32	
	94	288	2.1	14.824	GKS06 - 3M□□□ 100-32	
	88	311	0.9	16.000	GKS05 - 3M□□□ 100-32	
	84	325	1.9	16.699	GKS06 - 3M□□□ 100-32	
	82	332	1.0	17.054	GKS05 - 3M□□□ 100-32	
	79	346	1.5	17.809	GKS06 - 3M□□□ 100-32	
	81	336	3.0	17.270	GKS07 - 3M□□□ 100-32	
	69	395	1.7	20.329	GKS06 - 3M□□□ 100-32	
	61	445	1.4	22.902	GKS06 - 3M□□□ 100-32	
	54	506	1.3	26.017	GKS06 - 3M□□□ 100-32	
	56	491	2.4	25.244	GKS07 - 3M□□□ 100-32	
	49	553	1.2	28.461	GKS06 - 3M□□□ 100-32	
	50	550	2.2	28.274	GKS07 - 3M□□□ 100-32	
	44	623	1.0	32.063	GKS06 - 3M□□□ 100-32	
	44	619	1.9	31.858	GKS07 - 3M□□□ 100-32	
	39	706	1.0	36.303	GKS06 - 3M□□□ 100-32	
	39	701	1.8	36.063	GKS07 - 3M□□□ 100-32	
	34	806	0.9	41.472	GKS06 - 3M□□□ 100-32	
	32	859	1.5	44.178	GKS07 - 3M□□□ 100-32	
	28	979	1.3	50.345	GKS07 - 3M□□□ 100-32	
	24	1118	1.2	57.501	GKS07 - 3M□□□ 100-32	
	24	1136	2.7	58.456	GKS09 - 3M□□□ 100-32	
	22	1259	1.0	64.790	GKS07 - 3M□□□ 100-32	
	21	1281	2.4	65.879	GKS09 - 3M□□□ 100-32	
	20	1370	1.0	70.474	GKS07 - 3M□□□ 100-32	
	20	1380	2.2	70.982	GKS09 - 3M□□□ 100-32	
	18	1555	2.0	79.996	GKS09 - 3M□□□ 100-32	
	15	1786	1.7	91.860	GKS09 - 3M□□□ 100-32	
	15	1783	2.5	91.737	GKS11 - 3M□□□ 100-32	
	14	2012	1.5	103.524	GKS09 - 3M□□□ 100-32	
	14	2009	2.5	103.365	GKS11 - 3M□□□ 100-32	
	13	2167	1.4	111.484	GKS09 - 3M□□□ 100-32	
	13	2164	2.1	111.335	GKS11 - 3M□□□ 100-32	
	11	2442	1.3	125.641	GKS09 - 3M□□□ 100-32	
	11	2438	2.1	125.448	GKS11 - 3M□□□ 100-32	
	9.9	2739	1.1	140.921	GKS09 - 3M□□□ 100-32	
	10.0	2735	1.7	140.732	GKS11 - 3M□□□ 100-32	
	8.8	3087	1.0	158.816	GKS09 - 3M□□□ 100-32	
	8.8	3082	1.7	158.571	GKS11 - 3M□□□ 100-32	
	7.7	3538	0.9	182.000	GKS09 - 3M□□□ 100-32	
	7.5	3626	1.7	186.572	GKS11 - 3M□□□ 100-32	
	6.7	4086	1.4	210.222	GKS11 - 3M□□□ 100-32	
	6.2	4401	1.4	226.431	GKS11 - 3M□□□ 100-32	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz			i	(Helical)-bevel geared motors	Dim. Page
	n_2 [min^{-1}]	M_2 [Nm]	c			
3 kW					**GKS □□ -3M**	5-86
n1=1400	5.5	4959	1.2	255.133	GKS11 - 3M□□□ 100-32	
	4.9	5563	1.1	286.219	GKS11 - 3M□□□ 100-32	
	4.3	6268	0.9	322.500	GKS11 - 3M□□□ 100-32	
					GKS □□ -4M	5-94
	3.9	6952	0.9	363.866	GKS11 - 4M□□□ 100-32	
	3.9	6926	1.7	362.512	GKS14 - 4M□□□ 100-32	
	3.6	7464	1.5	390.672	GKS14 - 4M□□□ 100-32	
	3.2	8411	1.4	440.193	GKS14 - 4M□□□ 100-32	
	2.7	9804	1.2	513.121	GKS14 - 4M□□□ 100-32	
	2.4	11047	1.1	578.164	GKS14 - 4M□□□ 100-32	
	2.3	11898	1.0	622.742	GKS14 - 4M□□□ 100-32	
	2.0	13407	0.9	701.681	GKS14 - 4M□□□ 100-32	
4 kW					**GKS □□ -3M**	5-86
n1=2830	436	83	2.6	6.485	GKS06 - 3M□□□ 100-41	
	412	88	1.4	6.863	GKS05 - 3M□□□ 100-41	
	301	121	1.1	9.412	GKS05 - 3M□□□ 100-41	
	308	118	2.6	9.196	GKS06 - 3M□□□ 100-41	
	268	136	1.4	10.569	GKS05 - 3M□□□ 100-41	
	279	130	2.6	10.147	GKS06 - 3M□□□ 100-41	
	243	150	1.4	11.667	GKS05 - 3M□□□ 100-41	
	249	146	1.8	11.382	GKS06 - 3M□□□ 100-41	
	224	162	2.1	12.612	GKS06 - 3M□□□ 100-41	
	195	186	1.1	14.494	GKS05 - 3M□□□ 100-41	
	191	190	2.6	14.824	GKS06 - 3M□□□ 100-41	
	177	205	1.1	16.000	GKS05 - 3M□□□ 100-41	
	170	214	2.3	16.699	GKS06 - 3M□□□ 100-41	
	166	219	1.2	17.054	GKS05 - 3M□□□ 100-41	
	159	228	1.8	17.809	GKS06 - 3M□□□ 100-41	
n1=1430	156	233	1.6	9.196	GKS06 - 3M□□□ 112-22	
	156	233	3.1	9.171	GKS07 - 3M□□□ 112-22	
	141	258	1.6	10.147	GKS06 - 3M□□□ 112-22	
	141	257	3.1	10.124	GKS07 - 3M□□□ 112-22	
	126	289	1.2	11.382	GKS06 - 3M□□□ 112-22	
	126	289	2.1	11.378	GKS07 - 3M□□□ 112-22	
	113	320	1.3	12.612	GKS06 - 3M□□□ 112-22	
	113	323	2.6	12.711	GKS07 - 3M□□□ 112-22	
	97	376	1.6	14.824	GKS06 - 3M□□□ 112-22	
	97	376	2.8	14.798	GKS07 - 3M□□□ 112-22	
	86	424	1.4	16.699	GKS06 - 3M□□□ 112-22	
	86	423	2.5	16.674	GKS07 - 3M□□□ 112-22	
	80	452	1.2	17.809	GKS06 - 3M□□□ 112-22	
	83	438	2.3	17.270	GKS07 - 3M□□□ 112-22	
	70	516	1.3	20.329	GKS06 - 3M□□□ 112-22	
	70	520	2.1	20.511	GKS07 - 3M□□□ 112-22	
	62	581	1.0	22.902	GKS06 - 3M□□□ 112-22	
	62	586	2.0	23.111	GKS07 - 3M□□□ 112-22	

Thermal limit rating not considered (see page 2-7)

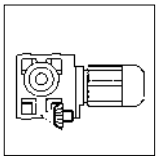


Selection tables – (Helical)-bevel gearboxes

Geared motors

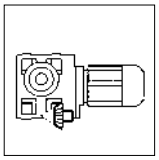
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
4 kW					**GKS □□ -3M**	**5-86**
n1=1430	55	660	1.0	26.017	GKS06 - 3M□□□ 112-22	
	57	641	1.8	25.244	GKS07 - 3M□□□ 112-22	
	50	722	0.9	28.461	GKS06 - 3M□□□ 112-22	
	51	717	1.7	28.274	GKS07 - 3M□□□ 112-22	
	45	808	1.5	31.858	GKS07 - 3M□□□ 112-22	
	40	915	1.4	36.063	GKS07 - 3M□□□ 112-22	
	35	1038	1.2	40.906	GKS07 - 3M□□□ 112-22	
	36	1006	3.0	39.662	GKS09 - 3M□□□ 112-22	
	32	1121	1.2	44.178	GKS07 - 3M□□□ 112-22	
	33	1095	2.8	43.146	GKS09 - 3M□□□ 112-22	
	28	1277	1.0	50.345	GKS07 - 3M□□□ 112-22	
	29	1234	2.5	48.625	GKS09 - 3M□□□ 112-22	
	25	1459	0.9	57.501	GKS07 - 3M□□□ 112-22	
	25	1483	2.0	58.456	GKS09 - 3M□□□ 112-22	
	22	1672	1.8	65.879	GKS09 - 3M□□□ 112-22	
	22	1649	3.2	64.995	GKS11 - 3M□□□ 112-22	
	20	1801	1.7	70.982	GKS09 - 3M□□□ 112-22	
	20	1799	2.7	70.887	GKS11 - 3M□□□ 112-22	
	18	2030	1.5	79.996	GKS09 - 3M□□□ 112-22	
	18	2027	2.7	79.873	GKS11 - 3M□□□ 112-22	
	16	2331	1.3	91.860	GKS09 - 3M□□□ 112-22	
	16	2328	2.2	91.737	GKS11 - 3M□□□ 112-22	
	14	2627	1.2	103.524	GKS09 - 3M□□□ 112-22	
	14	2623	2.2	103.365	GKS11 - 3M□□□ 112-22	
	13	2829	1.1	111.484	GKS09 - 3M□□□ 112-22	
	13	2825	1.8	111.335	GKS11 - 3M□□□ 112-22	
	13	2788	2.2	109.896	GKS14 - 3M□□□ 112-22	
	11	3188	1.0	125.641	GKS09 - 3M□□□ 112-22	
	11	3183	1.8	125.448	GKS11 - 3M□□□ 112-22	
	12	3142	2.2	123.826	GKS14 - 3M□□□ 112-22	
	10	3571	1.4	140.732	GKS11 - 3M□□□ 112-22	
	10	3525	1.8	138.913	GKS14 - 3M□□□ 112-22	
	9.0	4023	1.4	158.571	GKS11 - 3M□□□ 112-22	
	9.1	3971	1.8	156.522	GKS14 - 3M□□□ 112-22	
	7.7	4734	1.3	186.572	GKS11 - 3M□□□ 112-22	
	7.7	4734	2.5	186.572	GKS14 - 3M□□□ 112-22	
	6.8	5334	1.1	210.222	GKS11 - 3M□□□ 112-22	
	6.8	5334	2.2	210.222	GKS14 - 3M□□□ 112-22	
	6.3	5745	1.0	226.431	GKS11 - 3M□□□ 112-22	
	6.3	5745	2.0	226.431	GKS14 - 3M□□□ 112-22	
	5.6	6473	0.9	255.133	GKS11 - 3M□□□ 112-22	
	5.6	6473	1.8	255.133	GKS14 - 3M□□□ 112-22	
	5.0	7262	0.8	286.219	GKS11 - 3M□□□ 112-22	
	5.0	7262	1.6	286.219	GKS14 - 3M□□□ 112-22	
	4.4	8183	1.4	322.500	GKS14 - 3M□□□ 112-22	
					GKS □□ -4M	**5-94**
	3.9	9041	1.3	362.512	GKS14 - 4M□□□ 112-22	
	3.7	9744	1.2	390.672	GKS14 - 4M□□□ 112-22	
	3.3	10979	1.1	440.193	GKS14 - 4M□□□ 112-22	
	2.8	12798	0.9	513.121	GKS14 - 4M□□□ 112-22	
	2.5	14420	0.8	578.164	GKS14 - 4M□□□ 112-22	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
5.5 kW					**GKS □□ -3M**	5-86
n1=2890	446	112	1.9	6.485	GKS06 - 3M□□□ 112-31	
	350	143	3.1	8.254	GKS07 - 3M□□□ 112-31	
	314	159	1.9	9.196	GKS06 - 3M□□□ 112-31	
	285	175	1.9	10.147	GKS06 - 3M□□□ 112-31	
	254	197	1.4	11.382	GKS06 - 3M□□□ 112-31	
	254	196	2.5	11.378	GKS07 - 3M□□□ 112-31	
	229	218	1.6	12.612	GKS06 - 3M□□□ 112-31	
	227	219	3.1	12.711	GKS07 - 3M□□□ 112-31	
	195	256	1.9	14.824	GKS06 - 3M□□□ 112-31	
	173	288	1.7	16.699	GKS06 - 3M□□□ 112-31	
	173	288	3.0	16.674	GKS07 - 3M□□□ 112-31	
	162	307	1.4	17.809	GKS06 - 3M□□□ 112-31	
	167	298	2.7	17.270	GKS07 - 3M□□□ 112-31	
n1=1440	157	319	1.2	9.196	GKS06 - 3M□□□ 112-32	
	157	318	2.3	9.171	GKS07 - 3M□□□ 112-32	
	142	352	1.2	10.147	GKS06 - 3M□□□ 112-32	
	142	351	2.3	10.124	GKS07 - 3M□□□ 112-32	
	127	394	0.8	11.382	GKS06 - 3M□□□ 112-32	
	127	394	1.6	11.378	GKS07 - 3M□□□ 112-32	
	114	437	1.0	12.612	GKS06 - 3M□□□ 112-32	
	113	440	1.9	12.711	GKS07 - 3M□□□ 112-32	
	97	514	1.2	14.824	GKS06 - 3M□□□ 112-32	
	97	513	2.0	14.798	GKS07 - 3M□□□ 112-32	
	86	579	1.0	16.699	GKS06 - 3M□□□ 112-32	
	86	578	1.9	16.674	GKS07 - 3M□□□ 112-32	
	89	559	3.2	16.122	GKS09 - 3M□□□ 112-32	
	81	617	0.8	17.809	GKS06 - 3M□□□ 112-32	
	83	598	1.7	17.270	GKS07 - 3M□□□ 112-32	
	82	608	3.2	17.536	GKS09 - 3M□□□ 112-32	
	71	704	0.9	20.329	GKS06 - 3M□□□ 112-32	
	70	711	1.6	20.511	GKS07 - 3M□□□ 112-32	
	62	801	1.5	23.111	GKS07 - 3M□□□ 112-32	
	57	875	1.4	25.244	GKS07 - 3M□□□ 112-32	
	56	889	3.2	25.649	GKS09 - 3M□□□ 112-32	
	51	980	1.2	28.274	GKS07 - 3M□□□ 112-32	
	49	1013	2.9	29.228	GKS09 - 3M□□□ 112-32	
	45	1104	1.1	31.858	GKS07 - 3M□□□ 112-32	
	44	1141	2.6	32.940	GKS09 - 3M□□□ 112-32	
	40	1249	1.0	36.063	GKS07 - 3M□□□ 112-32	
	41	1219	2.5	35.193	GKS09 - 3M□□□ 112-32	
	35	1417	0.9	40.906	GKS07 - 3M□□□ 112-32	
	36	1374	2.2	39.662	GKS09 - 3M□□□ 112-32	
	33	1531	0.9	44.178	GKS07 - 3M□□□ 112-32	
	33	1495	2.0	43.146	GKS09 - 3M□□□ 112-32	
	30	1685	1.8	48.625	GKS09 - 3M□□□ 112-32	
	25	2025	1.5	58.456	GKS09 - 3M□□□ 112-32	
	25	1998	2.3	57.683	GKS11 - 3M□□□ 112-32	
	22	2282	1.3	65.879	GKS09 - 3M□□□ 112-32	
	22	2252	2.3	64.995	GKS11 - 3M□□□ 112-32	
	20	2459	1.2	70.982	GKS09 - 3M□□□ 112-32	
	20	2456	2.0	70.887	GKS11 - 3M□□□ 112-32	

Thermal limit rating not considered (see page 2-7)

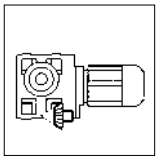


Selection tables – (Helical)-bevel gearboxes

Geared motors

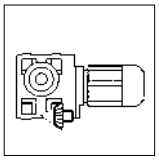
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
5.5 kW					**GKS □□ -3M**	5-86
n1=1440	18	2771	1.1	79.996	GKS09 - 3M□□□ 112-32	
	18	2767	2.0	79.873	GKS11 - 3M□□□ 112-32	
	16	3182	1.0	91.860	GKS09 - 3M□□□ 112-32	
	16	3178	1.6	91.737	GKS11 - 3M□□□ 112-32	
	16	3137	2.0	90.551	GKS14 - 3M□□□ 112-32	
	14	3587	0.9	103.524	GKS09 - 3M□□□ 112-32	
	14	3581	1.6	103.365	GKS11 - 3M□□□ 112-32	
	14	3535	2.0	102.029	GKS14 - 3M□□□ 112-32	
	13	3857	1.3	111.335	GKS11 - 3M□□□ 112-32	
	13	3807	1.6	109.896	GKS14 - 3M□□□ 112-32	
	12	4346	1.3	125.448	GKS11 - 3M□□□ 112-32	
	12	4290	1.6	123.826	GKS14 - 3M□□□ 112-32	
	10	4876	1.1	140.732	GKS11 - 3M□□□ 112-32	
	10	4813	1.3	138.913	GKS14 - 3M□□□ 112-32	
	9.1	5494	1.1	158.571	GKS11 - 3M□□□ 112-32	
	9.2	5423	1.3	156.522	GKS14 - 3M□□□ 112-32	
	7.7	6464	0.9	186.572	GKS11 - 3M□□□ 112-32	
	7.7	6464	1.8	186.572	GKS14 - 3M□□□ 112-32	
	6.9	7283	0.8	210.222	GKS11 - 3M□□□ 112-32	
	6.9	7283	1.6	210.222	GKS14 - 3M□□□ 112-32	
	6.4	7845	1.5	226.431	GKS14 - 3M□□□ 112-32	
	5.6	8839	1.3	255.133	GKS14 - 3M□□□ 112-32	
	5.0	9916	1.2	286.219	GKS14 - 3M□□□ 112-32	
	4.5	11173	1.0	322.500	GKS14 - 3M□□□ 112-32	
					GKS □□ -4M	5-94
	4.0	12346	0.9	362.512	GKS14 - 4M□□□ 112-32	
	3.7	13305	0.9	390.672	GKS14 - 4M□□□ 112-32	
7.5 kW					**GKS □□ -3M**	5-86
n1=2900	447	152	1.4	6.485	GKS06 - 3M□□□ 112-41	
	487	140	2.7	5.955	GKS07 - 3M□□□ 112-41	
	351	194	2.2	8.254	GKS07 - 3M□□□ 112-41	
	315	216	1.4	9.196	GKS06 - 3M□□□ 112-41	
	316	215	2.7	9.171	GKS07 - 3M□□□ 112-41	
	286	238	1.4	10.147	GKS06 - 3M□□□ 112-41	
	287	238	2.7	10.124	GKS07 - 3M□□□ 112-41	
	255	267	1.0	11.382	GKS06 - 3M□□□ 112-41	
	255	267	1.8	11.378	GKS07 - 3M□□□ 112-41	
	230	296	1.2	12.612	GKS06 - 3M□□□ 112-41	
	228	298	2.2	12.711	GKS07 - 3M□□□ 112-41	
	196	348	1.4	14.824	GKS06 - 3M□□□ 112-41	
	196	347	2.4	14.798	GKS07 - 3M□□□ 112-41	
n1=1460	177	385	1.4	8.254	GKS07 - 3M□□□ 132-22	
	159	427	1.7	9.171	GKS07 - 3M□□□ 132-22	
	144	472	1.7	10.124	GKS07 - 3M□□□ 132-22	
	128	530	1.2	11.378	GKS07 - 3M□□□ 132-22	
	115	592	1.4	12.711	GKS07 - 3M□□□ 132-22	
	119	572	2.8	12.283	GKS09 - 3M□□□ 132-22	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
7.5 kW					**GKS □□ -3M**	5-86
n1=1460	99	690	1.5	14.798	GKS07 - 3M□□□ 132-22	
	109	623	2.8	13.360	GKS09 - 3M□□□ 132-22	
	88	777	1.4	16.674	GKS07 - 3M□□□ 132-22	
	91	751	2.4	16.122	GKS09 - 3M□□□ 132-22	
	85	805	1.2	17.270	GKS07 - 3M□□□ 132-22	
	83	817	2.4	17.536	GKS09 - 3M□□□ 132-22	
	71	956	1.2	20.511	GKS07 - 3M□□□ 132-22	
	75	911	2.8	19.541	GKS09 - 3M□□□ 132-22	
	63	1077	1.1	23.111	GKS07 - 3M□□□ 132-22	
	66	1026	2.6	22.022	GKS09 - 3M□□□ 132-22	
	58	1176	1.0	25.244	GKS07 - 3M□□□ 132-22	
	57	1195	2.4	25.649	GKS09 - 3M□□□ 132-22	
	52	1317	0.9	28.274	GKS07 - 3M□□□ 132-22	
	50	1362	2.1	29.228	GKS09 - 3M□□□ 132-22	
	44	1535	1.9	32.940	GKS09 - 3M□□□ 132-22	
	42	1640	1.9	35.193	GKS09 - 3M□□□ 132-22	
	37	1848	1.6	39.662	GKS09 - 3M□□□ 132-22	
	36	1877	3.1	40.272	GKS11 - 3M□□□ 132-22	
	34	2010	1.5	43.146	GKS09 - 3M□□□ 132-22	
	33	2040	2.8	43.783	GKS11 - 3M□□□ 132-22	
	30	2266	1.3	48.625	GKS09 - 3M□□□ 132-22	
	30	2299	2.6	49.333	GKS11 - 3M□□□ 132-22	
	25	2724	1.1	58.456	GKS09 - 3M□□□ 132-22	
	25	2688	2.2	57.683	GKS11 - 3M□□□ 132-22	
	22	3070	1.0	65.879	GKS09 - 3M□□□ 132-22	
	23	3028	2.0	64.995	GKS11 - 3M□□□ 132-22	
	21	3307	0.9	70.982	GKS09 - 3M□□□ 132-22	
	21	3303	1.8	70.887	GKS11 - 3M□□□ 132-22	
	18	3727	0.8	79.996	GKS09 - 3M□□□ 132-22	
	18	3722	1.6	79.873	GKS11 - 3M□□□ 132-22	
	19	3620	3.2	77.681	GKS14 - 3M□□□ 132-22	
	16	4275	1.4	91.737	GKS11 - 3M□□□ 132-22	
	16	4219	2.7	90.551	GKS14 - 3M□□□ 132-22	
	14	4816	1.3	103.365	GKS11 - 3M□□□ 132-22	
	14	4754	2.5	102.029	GKS14 - 3M□□□ 132-22	
	13	5188	1.2	111.335	GKS11 - 3M□□□ 132-22	
	13	5121	2.3	109.896	GKS14 - 3M□□□ 132-22	
	12	5845	1.0	125.448	GKS11 - 3M□□□ 132-22	
	12	5770	2.0	123.826	GKS14 - 3M□□□ 132-22	
	11	6473	1.8	138.913	GKS14 - 3M□□□ 132-22	
	9.3	7293	1.6	156.522	GKS14 - 3M□□□ 132-22	
	7.8	8693	1.3	186.572	GKS14 - 3M□□□ 132-22	
	7.0	9795	1.2	210.222	GKS14 - 3M□□□ 132-22	
	6.5	10551	1.1	226.431	GKS14 - 3M□□□ 132-22	
	5.7	11888	1.0	255.133	GKS14 - 3M□□□ 132-22	
	5.1	13336	0.9	286.219	GKS14 - 3M□□□ 132-22	
9.2 kW					**GKS □□ -3M**	5-86
n1=2925	491	170	2.2	5.955	GKS07 - 3M□□□ 132-21	
	354	236	1.8	8.254	GKS07 - 3M□□□ 132-21	

Thermal limit rating not considered (see page 2-7)

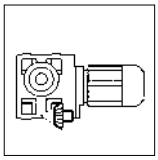


Selection tables – (Helical)-bevel gearboxes

Geared motors

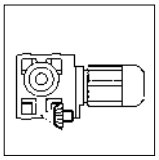
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
9.2 kW					**GKS □□ -3M**	**5-86**
n1=2925	319	262	2.2	9.171	GKS07 - 3M□□□ 132-21	
	289	289	2.2	10.124	GKS07 - 3M□□□ 132-21	
	257	325	1.5	11.378	GKS07 - 3M□□□ 132-21	
	230	363	1.8	12.711	GKS07 - 3M□□□ 132-21	
	198	422	2.0	14.798	GKS07 - 3M□□□ 132-21	
n1=1450	176	475	1.1	8.254	GKS07 - 3M□□□ 132-32	
	158	528	1.4	9.171	GKS07 - 3M□□□ 132-32	
	143	583	1.4	10.124	GKS07 - 3M□□□ 132-32	
	127	655	0.9	11.378	GKS07 - 3M□□□ 132-32	
	114	732	1.1	12.711	GKS07 - 3M□□□ 132-32	
	118	707	2.3	12.283	GKS09 - 3M□□□ 132-32	
	98	852	1.2	14.798	GKS07 - 3M□□□ 132-32	
	109	769	2.3	13.360	GKS09 - 3M□□□ 132-32	
	87	960	1.1	16.674	GKS07 - 3M□□□ 132-32	
	90	928	1.9	16.122	GKS09 - 3M□□□ 132-32	
	84	994	1.0	17.270	GKS07 - 3M□□□ 132-32	
	83	1009	1.9	17.536	GKS09 - 3M□□□ 132-32	
	71	1180	0.9	20.511	GKS07 - 3M□□□ 132-32	
	74	1125	2.3	19.541	GKS09 - 3M□□□ 132-32	
	63	1330	0.9	23.111	GKS07 - 3M□□□ 132-32	
	66	1267	2.1	22.022	GKS09 - 3M□□□ 132-32	
	57	1453	0.8	25.244	GKS07 - 3M□□□ 132-32	
	57	1476	1.9	25.649	GKS09 - 3M□□□ 132-32	
	50	1682	1.7	29.228	GKS09 - 3M□□□ 132-32	
	52	1613	3.2	28.021	GKS11 - 3M□□□ 132-32	
	44	1896	1.6	32.940	GKS09 - 3M□□□ 132-32	
	46	1817	3.0	31.573	GKS11 - 3M□□□ 132-32	
	41	2025	1.5	35.193	GKS09 - 3M□□□ 132-32	
	41	2057	2.8	35.741	GKS11 - 3M□□□ 132-32	
	37	2283	1.3	39.662	GKS09 - 3M□□□ 132-32	
	36	2318	2.5	40.272	GKS11 - 3M□□□ 132-32	
	34	2483	1.2	43.146	GKS09 - 3M□□□ 132-32	
	33	2520	2.3	43.783	GKS11 - 3M□□□ 132-32	
	30	2798	1.1	48.625	GKS09 - 3M□□□ 132-32	
	29	2839	2.1	49.333	GKS11 - 3M□□□ 132-32	
	25	3364	0.9	58.456	GKS09 - 3M□□□ 132-32	
	25	3320	1.8	57.683	GKS11 - 3M□□□ 132-32	
	22	3791	0.8	65.879	GKS09 - 3M□□□ 132-32	
	22	3741	1.6	64.995	GKS11 - 3M□□□ 132-32	
	23	3648	3.2	63.382	GKS14 - 3M□□□ 132-32	
	21	4080	1.5	70.887	GKS11 - 3M□□□ 132-32	
	21	3968	2.9	68.942	GKS14 - 3M□□□ 132-32	
	18	4597	1.3	79.873	GKS11 - 3M□□□ 132-32	
	19	4471	2.6	77.681	GKS14 - 3M□□□ 132-32	
	16	5280	1.1	91.737	GKS11 - 3M□□□ 132-32	
	16	5211	2.2	90.551	GKS14 - 3M□□□ 132-32	
	14	5949	1.0	103.365	GKS11 - 3M□□□ 132-32	
	14	5872	2.0	102.029	GKS14 - 3M□□□ 132-32	
	13	6407	0.9	111.335	GKS11 - 3M□□□ 132-32	
	13	6325	1.9	109.896	GKS14 - 3M□□□ 132-32	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
9.2 kW					**GKS □□ -3M**	**5-86**
n1=1450	12	7220	0.8	125.448	GKS11 - 3M□□□ 132-32	
	12	7126	1.6	123.826	GKS14 - 3M□□□ 132-32	
	10	7995	1.5	138.913	GKS14 - 3M□□□ 132-32	
	9.3	9008	1.3	156.522	GKS14 - 3M□□□ 132-32	
	7.8	10737	1.1	186.572	GKS14 - 3M□□□ 132-32	
	6.9	12099	1.0	210.222	GKS14 - 3M□□□ 132-32	
	6.4	13031	0.9	226.431	GKS14 - 3M□□□ 132-32	
					GKS □□ -4M	**5-94**
	6.1	13434	0.9	237.467	GKS14 - 4M□□□ 132-32	
11 kW					**GKS □□ -3M**	**5-86**
n1=1460	245	407	1.2	5.955	GKS07 - 3M□□□ 160-22	
	177	564	1.0	8.254	GKS07 - 3M□□□ 160-22	
	159	627	1.2	9.171	GKS07 - 3M□□□ 160-22	
	144	692	1.2	10.124	GKS07 - 3M□□□ 160-22	
	115	869	1.0	12.711	GKS07 - 3M□□□ 160-22	
	119	839	1.9	12.283	GKS09 - 3M□□□ 160-22	
	99	1011	1.0	14.798	GKS07 - 3M□□□ 160-22	
	109	913	1.9	13.360	GKS09 - 3M□□□ 160-22	
	88	1140	0.9	16.674	GKS07 - 3M□□□ 160-22	
	91	1102	1.6	16.122	GKS09 - 3M□□□ 160-22	
	92	1085	2.9	15.874	GKS11 - 3M□□□ 160-22	
	85	1180	0.9	17.270	GKS07 - 3M□□□ 160-22	
	83	1198	1.6	17.536	GKS09 - 3M□□□ 160-22	
	85	1180	2.9	17.265	GKS11 - 3M□□□ 160-22	
	75	1335	1.9	19.541	GKS09 - 3M□□□ 160-22	
	66	1505	1.8	22.022	GKS09 - 3M□□□ 160-22	
	66	1503	3.3	21.989	GKS11 - 3M□□□ 160-22	
	57	1753	1.6	25.649	GKS09 - 3M□□□ 160-22	
	57	1751	2.9	25.615	GKS11 - 3M□□□ 160-22	
	50	1997	1.5	29.228	GKS09 - 3M□□□ 160-22	
	52	1915	2.7	28.021	GKS11 - 3M□□□ 160-22	
	44	2251	1.3	32.940	GKS09 - 3M□□□ 160-22	
	46	2158	2.6	31.573	GKS11 - 3M□□□ 160-22	
	42	2405	1.3	35.193	GKS09 - 3M□□□ 160-22	
	41	2443	2.3	35.741	GKS11 - 3M□□□ 160-22	
	37	2711	1.1	39.662	GKS09 - 3M□□□ 160-22	
	36	2752	2.1	40.272	GKS11 - 3M□□□ 160-22	
	34	2949	1.0	43.146	GKS09 - 3M□□□ 160-22	
	33	2992	1.9	43.783	GKS11 - 3M□□□ 160-22	
	30	3323	0.9	48.625	GKS09 - 3M□□□ 160-22	
	30	3371	1.8	49.333	GKS11 - 3M□□□ 160-22	
	25	3942	1.5	57.683	GKS11 - 3M□□□ 160-22	
	26	3844	3.0	56.251	GKS14 - 3M□□□ 160-22	
	23	4442	1.4	64.995	GKS11 - 3M□□□ 160-22	
	23	4332	2.7	63.382	GKS14 - 3M□□□ 160-22	
	21	4844	1.2	70.887	GKS11 - 3M□□□ 160-22	
	21	4712	2.4	68.942	GKS14 - 3M□□□ 160-22	
	18	5459	1.1	79.873	GKS11 - 3M□□□ 160-22	
	19	5309	2.2	77.681	GKS14 - 3M□□□ 160-22	

Thermal limit rating not considered (see page 2-7)

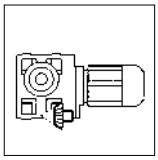


Selection tables – (Helical)-bevel gearboxes

Geared motors

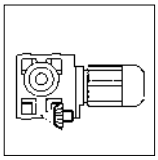
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
11 kW					**GKS □□ -3M**	5-86
n1=1460	16	6188	1.9	90.551	GKS14 - 3M□□□ 160-22	
	14	6973	1.7	102.029	GKS14 - 3M□□□ 160-22	
	13	7510	1.6	109.896	GKS14 - 3M□□□ 160-22	
	12	8462	1.4	123.826	GKS14 - 3M□□□ 160-22	
	7.8	12750	0.9	186.572	GKS14 - 3M□□□ 160-22	
	7.0	14367	0.8	210.222	GKS14 - 3M□□□ 160-22	
15 kW					**GKS □□ -3M**	5-86
n1=1460	245	555	0.9	5.955	GKS07 - 3M□□□ 160-32	
	159	855	0.9	9.171	GKS07 - 3M□□□ 160-32	
	144	943	0.9	10.124	GKS07 - 3M□□□ 160-32	
	119	1145	1.4	12.283	GKS09 - 3M□□□ 160-32	
	121	1127	2.5	12.094	GKS11 - 3M□□□ 160-32	
	109	1245	1.4	13.360	GKS09 - 3M□□□ 160-32	
	111	1226	2.5	13.154	GKS11 - 3M□□□ 160-32	
	91	1502	1.2	16.122	GKS09 - 3M□□□ 160-32	
	92	1479	2.1	15.874	GKS11 - 3M□□□ 160-32	
	83	1634	1.2	17.536	GKS09 - 3M□□□ 160-32	
	85	1609	2.1	17.265	GKS11 - 3M□□□ 160-32	
	75	1821	1.4	19.541	GKS09 - 3M□□□ 160-32	
	75	1819	2.5	19.515	GKS11 - 3M□□□ 160-32	
	66	2052	1.3	22.022	GKS09 - 3M□□□ 160-32	
	66	2049	2.4	21.989	GKS11 - 3M□□□ 160-32	
	57	2390	1.2	25.649	GKS09 - 3M□□□ 160-32	
	57	2387	2.1	25.615	GKS11 - 3M□□□ 160-32	
	50	2724	1.1	29.228	GKS09 - 3M□□□ 160-32	
	52	2611	2.0	28.021	GKS11 - 3M□□□ 160-32	
	44	3070	1.0	32.940	GKS09 - 3M□□□ 160-32	
	46	2942	1.9	31.573	GKS11 - 3M□□□ 160-32	
	42	3280	0.9	35.193	GKS09 - 3M□□□ 160-32	
	41	3331	1.7	35.741	GKS11 - 3M□□□ 160-32	
	42	3233	3.1	34.692	GKS14 - 3M□□□ 160-32	
	37	3696	0.8	39.662	GKS09 - 3M□□□ 160-32	
	36	3753	1.6	40.272	GKS11 - 3M□□□ 160-32	
	37	3643	3.0	39.089	GKS14 - 3M□□□ 160-32	
	33	4080	1.4	43.783	GKS11 - 3M□□□ 160-32	
	34	3964	2.7	42.531	GKS14 - 3M□□□ 160-32	
	30	4597	1.3	49.333	GKS11 - 3M□□□ 160-32	
	31	4466	2.5	47.923	GKS14 - 3M□□□ 160-32	
	25	5376	1.1	57.683	GKS11 - 3M□□□ 160-32	
	26	5242	2.2	56.251	GKS14 - 3M□□□ 160-32	
	23	6057	1.0	64.995	GKS11 - 3M□□□ 160-32	
	23	5907	1.9	63.382	GKS14 - 3M□□□ 160-32	
	21	6606	0.9	70.887	GKS11 - 3M□□□ 160-32	
	21	6425	1.8	68.942	GKS14 - 3M□□□ 160-32	
	18	7443	0.8	79.873	GKS11 - 3M□□□ 160-32	
	19	7239	1.6	77.681	GKS14 - 3M□□□ 160-32	
	16	8438	1.4	90.551	GKS14 - 3M□□□ 160-32	
	14	9508	1.2	102.029	GKS14 - 3M□□□ 160-32	
	13	10241	1.2	109.896	GKS14 - 3M□□□ 160-32	
	12	11539	1.0	123.826	GKS14 - 3M□□□ 160-32	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
15 kW					**GKS □□ -4M**	5-94
n1=1460	11	12334	0.9	134.640	GKS14 - 4M□□□ 160-32	
18.5 kW					**GKS □□ -3M**	5-86
n1=1440	117	1431	1.1	12.283	GKS09 - 3M□□□ 180-22
	119	1409	2.0	12.094	GKS11 - 3M□□□ 180-22
	108	1557	1.1	13.360	GKS09 - 3M□□□ 180-22
	110	1533	2.0	13.154	GKS11 - 3M□□□ 180-22
	89	1879	1.0	16.122	GKS09 - 3M□□□ 180-22
	91	1850	1.7	15.874	GKS11 - 3M□□□ 180-22
	87	1940	2.8	16.646	GKS14 - 3M□□□ 180-22
	82	2043	1.0	17.536	GKS09 - 3M□□□ 180-22
	83	2012	1.7	17.265	GKS11 - 3M□□□ 180-22
	79	2134	2.8	18.311	GKS14 - 3M□□□ 180-22
	74	2277	1.1	19.541	GKS09 - 3M□□□ 180-22
	74	2274	2.0	19.515	GKS11 - 3M□□□ 180-22
	65	2566	1.0	22.022	GKS09 - 3M□□□ 180-22
	66	2562	1.9	21.989	GKS11 - 3M□□□ 180-22
	56	2989	1.0	25.649	GKS09 - 3M□□□ 180-22
	56	2985	1.7	25.615	GKS11 - 3M□□□ 180-22
	58	2878	2.8	24.696	GKS14 - 3M□□□ 180-22
	49	3406	0.9	29.228	GKS09 - 3M□□□ 180-22
	51	3265	1.6	28.021	GKS11 - 3M□□□ 180-22
	53	3166	2.8	27.165	GKS14 - 3M□□□ 180-22
	46	3679	1.5	31.573	GKS11 - 3M□□□ 180-22
	47	3567	2.8	30.609	GKS14 - 3M□□□ 180-22
	40	4165	1.4	35.741	GKS11 - 3M□□□ 180-22
	42	4043	2.5	34.692	GKS14 - 3M□□□ 180-22
	36	4693	1.3	40.272	GKS11 - 3M□□□ 180-22
	37	4555	2.4	39.089	GKS14 - 3M□□□ 180-22
	33	5102	1.1	43.783	GKS11 - 3M□□□ 180-22
	34	4956	2.2	42.531	GKS14 - 3M□□□ 180-22
	29	5749	1.0	49.333	GKS11 - 3M□□□ 180-22
	30	5585	2.0	47.923	GKS14 - 3M□□□ 180-22
	25	6722	0.9	57.683	GKS11 - 3M□□□ 180-22
	26	6555	1.8	56.251	GKS14 - 3M□□□ 180-22
	23	7386	1.6	63.382	GKS14 - 3M□□□ 180-22
	21	8034	1.4	68.942	GKS14 - 3M□□□ 180-22
	19	9052	1.3	77.681	GKS14 - 3M□□□ 180-22
	16	10552	1.1	90.551	GKS14 - 3M□□□ 180-22
	14	11890	1.0	102.029	GKS14 - 3M□□□ 180-22
	13	12806	0.9	109.896	GKS14 - 3M□□□ 180-22
	12	14430	0.8	123.826	GKS14 - 3M□□□ 180-22
22 kW					**GKS □□ -3M**	5-86
n1=1465	119	1673	1.0	12.283	GKS09 - 3M□□□ 180-32
	121	1647	1.7	12.094	GKS11 - 3M□□□ 180-32
	110	1820	1.0	13.360	GKS09 - 3M□□□ 180-32
	111	1792	1.7	13.154	GKS11 - 3M□□□ 180-32
	91	2196	0.8	16.122	GKS09 - 3M□□□ 180-32
	92	2162	1.4	15.874	GKS11 - 3M□□□ 180-32
	88	2267	2.4	16.646	GKS14 - 3M□□□ 180-32

Thermal limit rating not considered (see page 2-7)

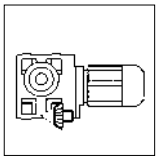


Selection tables – (Helical)-bevel gearboxes

Geared motors

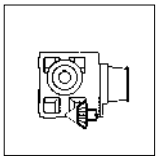
P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
22 kW					**GKS □□ -3M**	5-86
n1=1465	84	2389	0.8	17.536	GKS09 - 3M□□□ 180-32	
	85	2352	1.4	17.265	GKS11 - 3M□□□ 180-32	
	80	2494	2.4	18.311	GKS14 - 3M□□□ 180-32	
	75	2662	1.0	19.541	GKS09 - 3M□□□ 180-32	
	75	2658	1.7	19.515	GKS11 - 3M□□□ 180-32	
	67	3000	0.9	22.022	GKS09 - 3M□□□ 180-32	
	67	2995	1.6	21.989	GKS11 - 3M□□□ 180-32	
	57	3494	0.8	25.649	GKS09 - 3M□□□ 180-32	
	57	3489	1.4	25.615	GKS11 - 3M□□□ 180-32	
	59	3364	2.4	24.696	GKS14 - 3M□□□ 180-32	
	52	3817	1.4	28.021	GKS11 - 3M□□□ 180-32	
	54	3700	2.4	27.165	GKS14 - 3M□□□ 180-32	
	46	4301	1.3	31.573	GKS11 - 3M□□□ 180-32	
	48	4169	2.4	30.609	GKS14 - 3M□□□ 180-32	
	41	4868	1.2	35.741	GKS11 - 3M□□□ 180-32	
	42	4725	2.1	34.692	GKS14 - 3M□□□ 180-32	
	36	5486	1.1	40.272	GKS11 - 3M□□□ 180-32	
	38	5324	2.1	39.089	GKS14 - 3M□□□ 180-32	
	34	5964	1.0	43.783	GKS11 - 3M□□□ 180-32	
	34	5793	1.9	42.531	GKS14 - 3M□□□ 180-32	
	30	6720	0.9	49.333	GKS11 - 3M□□□ 180-32	
	31	6528	1.7	47.923	GKS14 - 3M□□□ 180-32	
	26	7662	1.5	56.251	GKS14 - 3M□□□ 180-32	
	23	8633	1.3	63.382	GKS14 - 3M□□□ 180-32	
	21	9391	1.2	68.942	GKS14 - 3M□□□ 180-32	
	19	10581	1.1	77.681	GKS14 - 3M□□□ 180-32	
	16	12334	0.9	90.551	GKS14 - 3M□□□ 180-32	
	14	13898	0.8	102.029	GKS14 - 3M□□□ 180-32	
30 kW					**GKS □□ -3M**	5-86
n1=1455	120	2262	1.2	12.094	GKS11 - 3M□□□ 200-32	
	117	2326	1.7	12.435	GKS14 - 3M□□□ 200-32	
	111	2460	1.2	13.154	GKS11 - 3M□□□ 200-32	
	108	2529	1.7	13.525	GKS14 - 3M□□□ 200-32	
	92	2969	1.0	15.874	GKS11 - 3M□□□ 200-32	
	87	3113	1.7	16.646	GKS14 - 3M□□□ 200-32	
	84	3229	1.0	17.265	GKS11 - 3M□□□ 200-32	
	80	3425	1.7	18.311	GKS14 - 3M□□□ 200-32	
	75	3650	1.2	19.515	GKS11 - 3M□□□ 200-32	
	73	3753	1.7	20.065	GKS14 - 3M□□□ 200-32	
	66	4112	1.2	21.989	GKS11 - 3M□□□ 200-32	
	64	4228	1.7	22.609	GKS14 - 3M□□□ 200-32	
	57	4791	1.0	25.615	GKS11 - 3M□□□ 200-32	
	59	4619	1.7	24.696	GKS14 - 3M□□□ 200-32	
	52	5241	1.0	28.021	GKS11 - 3M□□□ 200-32	
	54	5081	1.7	27.165	GKS14 - 3M□□□ 200-32	
	46	5905	0.9	31.573	GKS11 - 3M□□□ 200-32	
	48	5725	1.7	30.609	GKS14 - 3M□□□ 200-32	
	41	6684	0.9	35.741	GKS11 - 3M□□□ 200-32	
	42	6488	1.5	34.692	GKS14 - 3M□□□ 200-32	
	37	7311	1.5	39.089	GKS14 - 3M□□□ 200-32	
	34	7954	1.4	42.531	GKS14 - 3M□□□ 200-32	

Thermal limit rating not considered (see page 2-7)



P_1	50 Hz n_2 [min^{-1}]	50 Hz M_2 [Nm]	50 Hz c	i	(Helical)-bevel geared motors	Dim. Page
30 kW					**GKS □□ -3M**	5-86
n1=1455	30	8963	1.3	47.923	GKS14 - 3M□□□ 200-32	
	26	10520	1.1	56.251	GKS14 - 3M□□□ 200-32	
	23	11854	1.0	63.382	GKS14 - 3M□□□ 200-32	
37 kW					**GKS □□ -3M**	5-86
n1=1460	121	2780	1.0	12.094	GKS11 - 3M□□□ 225-12	
	117	2858	1.4	12.435	GKS14 - 3M□□□ 225-12	
	111	3024	1.0	13.154	GKS11 - 3M□□□ 225-12	
	108	3109	1.4	13.525	GKS14 - 3M□□□ 225-12	
	92	3649	0.9	15.874	GKS11 - 3M□□□ 225-12	
	88	3826	1.4	16.646	GKS14 - 3M□□□ 225-12	
	85	3969	0.9	17.265	GKS11 - 3M□□□ 225-12	
	80	4209	1.4	18.311	GKS14 - 3M□□□ 225-12	
	75	4486	1.0	19.515	GKS11 - 3M□□□ 225-12	
	73	4612	1.4	20.065	GKS14 - 3M□□□ 225-12	
	66	5055	1.0	21.989	GKS11 - 3M□□□ 225-12	
	65	5197	1.4	22.609	GKS14 - 3M□□□ 225-12	
	57	5888	0.9	25.615	GKS11 - 3M□□□ 225-12	
	59	5677	1.4	24.696	GKS14 - 3M□□□ 225-12	
	52	6441	0.8	28.021	GKS11 - 3M□□□ 225-12	
	54	6244	1.4	27.165	GKS14 - 3M□□□ 225-12	
	48	7036	1.4	30.609	GKS14 - 3M□□□ 225-12	
	42	7975	1.3	34.692	GKS14 - 3M□□□ 225-12	
	37	8985	1.2	39.089	GKS14 - 3M□□□ 225-12	
	34	9777	1.1	42.531	GKS14 - 3M□□□ 225-12	
	31	11016	1.0	47.923	GKS14 - 3M□□□ 225-12	
	26	12930	0.9	56.251	GKS14 - 3M□□□ 225-12	
45 kW					**GKS □□ -3M**	5-86
n1=1475	122	3347	0.8	12.094	GKS11 - 3M□□□ 225-22	
	119	3441	1.2	12.435	GKS14 - 3M□□□ 225-22	
	112	3640	0.8	13.154	GKS11 - 3M□□□ 225-22	
	109	3743	1.2	13.525	GKS14 - 3M□□□ 225-22	
	89	4606	1.2	16.646	GKS14 - 3M□□□ 225-22	
	81	5067	1.2	18.311	GKS14 - 3M□□□ 225-22	
	76	5400	0.8	19.515	GKS11 - 3M□□□ 225-22	
	74	5553	1.2	20.065	GKS14 - 3M□□□ 225-22	
	67	6085	0.8	21.989	GKS11 - 3M□□□ 225-22	
	65	6256	1.2	22.609	GKS14 - 3M□□□ 225-22	
	60	6834	1.2	24.696	GKS14 - 3M□□□ 225-22	
	54	7517	1.2	27.165	GKS14 - 3M□□□ 225-22	
	48	8470	1.2	30.609	GKS14 - 3M□□□ 225-22	
	43	9600	1.0	34.692	GKS14 - 3M□□□ 225-22	
	38	10817	1.0	39.089	GKS14 - 3M□□□ 225-22	
	35	11770	0.9	42.531	GKS14 - 3M□□□ 225-22	
	31	13262	0.9	47.923	GKS14 - 3M□□□ 225-22	

Thermal limit rating not considered (see page 2-7)



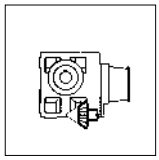
Selection tables – (Helical)-bevel gearboxes

Gearboxes with mounting flange for IEC standard motors

$M_{2perm} \leq 90$ Nm

GKR 04 - 2 N										Dimensions page 5-98
n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
IEC connection		63	71 63	80 71	63	71 63	80 71	63	71 63	80 71
For the geometrical assignment servo/DC motors see chapter 2										
Drive size		**1A**	**□B**	**□C**	**1A**	**□B**	**□C**	**1A**	**□B**	**□C**
i	P_{1perm} [kW] M_{2perm} [Nm]									
5.185	P_1 M_2		2.23 38	3.04 51		1.37 46	1.87 63		0.73 49	1.02 69
5.963	P_1 M_2		2.23 43	3.03 59		1.37 53	1.87 72		0.73 56	0.93 72
7.111	P_1 M_2		2.23 51	2.73 63		1.37 63	1.68 77		0.73 67	0.84 77
8.178	P_1 M_2		2.23 59	2.49 66		1.37 73	1.53 81		0.73 77	0.77 81
9.101	P_1 M_2		2.23 66	2.33 69		1.37 81	1.43 84		0.72 84	0.72 84
10.466	P_1 M_2		2.12 72	2.12 72		1.31 89	1.31 89		0.65 89	0.65 89
11.449	P_1 M_2	1.03 38	1.97 73	1.97 73	0.64 47	1.21 90	1.21 90	0.32 47	0.61 90	0.61 90
12.698	P_1 M_2	0.96 39	1.78 73	1.78 73	0.59 49	1.09 90	1.09 90	0.30 49	0.55 90	0.55 90
14.603	P_1 M_2	0.96 45	1.55 73	1.55 73	0.59 56	0.95 90	0.95 90	0.30 56	0.48 90	0.48 90
15.556	P_1 M_2		1.45 73	1.45 73		0.89 90	0.89 90		0.45 90	0.45 90
17.889	P_1 M_2		1.26 73	1.26 73		0.78 90	0.78 90		0.39 90	0.39 90
19.556	P_1 M_2	1.05 67	1.15 73	1.15 73	0.65 82	0.71 90	0.71 90	0.32 82	0.36 90	0.36 90
22.489	P_1 M_2	1.00 73	1.00 73	1.00 73	0.62 90	0.62 90	0.62 90	0.31 90	0.31 90	0.31 90
25.185	P_1 M_2	1.00 81	1.02 83	1.02 83	0.54 88	0.55 90	0.55 90	0.27 88	0.28 90	0.28 90
28.963	P_1 M_2	0.89 83	0.89 83	0.89 83	0.48 90	0.48 90	0.48 90	0.24 90	0.24 90	0.24 90
31.919	P_1 M_2	0.80 83	0.80 83		0.44 90	0.44 90		0.22 90	0.22 90	
36.707	P_1 M_2	0.70 83	0.70 83		0.38 90	0.38 90		0.19 90	0.19 90	
40.000	P1 M_2	0.64 83	0.64 83		0.35 90	0.35 90		0.17 90	0.17 90	
46.000	P_1 M_2	0.60 90	0.60 90		0.30 90	0.30 90		0.15 90	0.15 90	
52.698	P_1 M_2	0.40 69			0.20 69			0.10 69		
60.603	P_1 M_2	0.40 79			0.20 79			0.10 79		

Thermal limit rating not considered (see page 2-7)

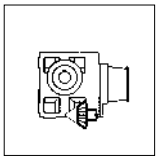


$M_{2perm} \leq 190$ Nm

GKS 04 - 3 N Dimensions page 5-102

n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
IEC connection		63	71 63	80 71	90 80	63	71 63	80 71	90 80	63	71 63	80 71	90 80
For the geometrical assignment servo/DC motors see chapter 2													
Drive size		**1A**	**□B**	**□C**	**□D**	**1A**	**□B**	**□C**	**□D**	**1A**	**□B**	**□C**	**□D**
i	P_{1perm} [kW] M_{2perm} [Nm]												
5.123	P_1 M_2		2.23 37	3.04 50	3.75 62		1.37 46	1.87 62	2.31 77		0.73 48	1.21 80	1.21 80
7.026	P_1 M_2		2.23 51	3.04 69	3.30 75		1.37 63	1.87 85	2.03 93		0.73 66	1.02 93	1.02 93
8.167	P_1 M_2		2.23 59	3.04 80	3.75 99		1.37 73	1.87 99	2.31 122		0.73 77	1.21 128	1.21 128
8.991	P_1 M_2		2.23 65	2.87 84	2.87 84		1.37 80	1.77 103	1.77 103		0.78 90	0.88 103	0.88 103
9.836	P_1 M_2		2.23 71	2.71 86	2.71 86		1.37 88	1.67 106	1.67 106		0.74 94	0.83 106	0.83 106
11.730	P_1 M_2		2.23 85	3.04 115	3.75 143		1.37 104	1.87 142	2.31 175		0.73 110	1.18 180	1.18 180
13.067	P_1 M_2		2.23 95	3.04 129	3.17 134		1.37 116	1.87 158	1.95 165		0.73 123	0.97 165	0.97 165
14.333	P_1 M_2		2.23 104	2.87 133	2.87 133		1.37 128	1.77 164	1.77 164		0.78 144	0.88 164	0.88 164
16.087	P_1 M_2		2.23 116	2.82 147	2.82 147		1.37 143	1.74 181	1.74 181		0.73 151	0.87 181	0.87 181
17.920	P_1 M_2		2.23 130	2.32 135	2.32 135		1.37 160	1.43 166	1.43 166		0.72 166	0.72 166	0.72 166
20.588	P_1 M_2		2.22 148	2.22 148	2.22 148		1.36 182	1.36 182	1.36 182		0.68 182	0.68 182	0.68 182
22.522	P_1 M_2		2.03 148	2.03 148	2.03 148		1.25 182	1.25 182	1.25 182		0.62 182	0.62 182	0.62 182
25.088	P_1 M_2		1.67 136	1.67 136	1.67 136		1.03 167	1.03 167	1.03 167		0.51 167	0.51 167	0.51 167
28.727	P_1 M_2		1.60 149	1.60 149	1.60 149		0.98 183	0.98 183	0.98 183		0.49 183	0.49 183	0.49 183
32.000	P_1 M_2		1.31 136	1.31 136	1.31 136		0.81 167	0.81 167	0.81 167		0.40 167	0.40 167	0.40 167
35.191	P_1 M_2		1.30 149	1.30 149	1.30 149		0.80 183	0.80 183	0.80 183		0.40 183	0.40 183	0.40 183
39.200	P_1 M_2		1.07 136	1.07 136	1.07 136		0.66 168	0.66 168	0.66 168		0.33 168	0.33 168	0.33 168
44.240	P_1 M_2	1.19 171	1.19 171	1.19 171		0.65 185	0.65 185	0.65 185		0.32 185	0.32 185	0.32 185	
50.943	P_1 M_2		1.02 168	1.02 168	1.02 168		0.55 182	0.55 182	0.55 182		0.28 182	0.28 182	0.28 182
56.976	P_1 M_2	0.94 173	0.94 173	0.94 173		0.51 187	0.51 187	0.51 187		0.25 187	0.25 187	0.25 187	
64.978	P_1 M_2		0.80 169	0.80 169	0.80 169		0.44 183	0.44 183	0.44 183		0.22 183	0.22 183	0.22 183
72.210	P_1 M_2	0.75 175	0.75 175			0.41 190	0.41 190			0.20 190	0.20 190		
79.599	P_1 M_2		0.66 169	0.66 169	0.66 169		0.36 183	0.36 183	0.36 183		0.18 183	0.18 183	0.18 183

Thermal limit rating not considered (see page 2-7)



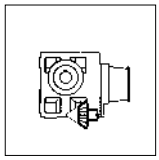
Selection tables – (Helical)-bevel gearboxes

Gearboxes with mounting flange for IEC standard motors

$M_{2perm} \leq 190$ Nm

GKS 04 - 3 N													Dimensions page 5-102
n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
IEC connection		63	71 63	80 71	90 80	63	71 63	80 71	90 80	63	71 63	80 71	90 80
For the geometrical assignment servo/DC motors see chapter 2													
Drive size		**1A**	**□B**	**□C**	**□D**	**1A**	**□B**	**□C**	**□D**	**1A**	**□B**	**□C**	**□D**
i	P_{1perm} [kW] M_{2perm} [Nm]												
90.491	P_1 M_2	0.60 175	0.60 175			0.32 190	0.32 190			0.16 190	0.16 190		
100.067	P_1 M_2	0.53 171	0.53 171	0.53 171		0.29 185	0.29 185	0.29 185		0.14 185	0.14 185	0.14 185	
111.467	P_1 M_2	0.47 170	0.47 170	0.47 170		0.24 170	0.24 170	0.24 170		0.12 170	0.12 170	0.12 170	
128.874	P_1 M_2	0.45 187	0.45 187	0.45 187		0.22 187	0.22 187	0.22 187		0.11 187	0.11 187	0.11 187	
143.556	P_1 M_2	0.37 172	0.37 172	0.37 172		0.19 172	0.19 172	0.19 172		0.09 172	0.09 172	0.09 172	
163.332	P_1 M_2	0.36 190	0.36 190			0.18 190	0.18 190			0.09 190	0.09 190		
181.939	P_1 M_2	0.30 174	0.30 174			0.15 174	0.15 174			0.07 174	0.07 174		
204.682	P_1 M_2	0.29 190	0.29 190			0.14 190	0.14 190			0.07 190	0.07 190		
228.000	P_1 M_2	0.24 177	0.24 177			0.12 177	0.12 177			0.06 177	0.06 177		
269.660	P_1 M_2	0.22 190				0.11 190				0.05 190			
300.381	P_1 M_2	0.18 178				0.09 178				0.05 178			

Thermal limit rating not considered (see page 2-7)

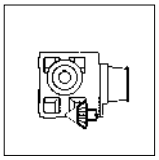


$M_{2perm} \leq 331$ Nm

GKS 05 - 3 N Dimensions page 5-102

n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
IEC connection		71	80 71	90 80	100/112 80/90	71	80 71	90 80	100/112 80/90	71	80 71	90 80	100/112 80/90
For the geometrical assignment servo/DC motors see chapter 2													
Drive size		**1B**	**□C**	**□D**	**□E**	**1B**	**□C**	**□D**	**□E**	**1B**	**□C**	**□D**	**□E**
i	P_{1perm} [kW] M_{2perm} [Nm]												
6.863	P_1 M_2			3.75 83	5.39 120			2.31 103	3.32 147			1.54 137	1.66 147
9.412	P_1 M_2			3.75 114	4.39 134			2.31 141	2.70 165			1.35 165	1.35 165
10.569	P_1 M_2			3.75 128	5.39 184			2.31 158	3.32 227			1.54 211	1.66 227
11.667	P_1 M_2			3.75 142	5.39 204			2.31 175	3.32 251			1.54 233	1.66 251
13.177	P_1 M_2	2.23 95	3.04 130	3.15 134	3.15 134	1.37 117	1.87 160	1.94 165	1.94 165	0.73 124	0.97 165	0.97 165	0.97 165
14.494	P_1 M_2			3.75 176	4.39 206			2.31 217	2.70 254			1.35 254	1.35 254
16.000	P_1 M_2			3.75 194	4.39 227			2.31 239	2.70 280			1.35 280	1.35 280
17.054	P_1 M_2			3.75 207	4.61 255			2.31 255	2.84 313			1.42 313	1.42 313
19.216	P_1 M_2			3.75 233	3.88 241			2.31 287	2.39 297			1.19 297	1.19 297
23.388	P_1 M_2			3.53 267	3.53 267			2.17 329	2.17 329			1.09 329	1.09 329
26.353	P_1 M_2			2.84 242	2.84 242			1.75 298	1.75 298			0.87 298	0.87 298
29.931	P_1 M_2		2.76 268	2.76 268	2.76 268		1.70 330	1.70 330	1.70 330		0.85 330	0.85 330	0.85 330
32.744	P_1 M_2	2.23 237	2.53 269	2.53 269	2.53 269	1.37 292	1.56 331	1.56 331	1.56 331	0.73 308	0.78 331	0.78 331	0.78 331
36.894	P_1 M_2	2.05 245	2.05 245	2.05 245	2.05 245	1.26 302	1.26 302	1.26 302	1.26 302	0.63 302	0.63 302	0.63 302	0.63 302
41.765	P_1 M_2	1.99 269	1.99 269	1.99 269	1.99 269	1.22 331	1.22 331	1.22 331	1.22 331	0.61 331	0.61 331	0.61 331	0.61 331
47.059	P_1 M_2	1.84 281	1.84 281	1.84 281	1.84 281	1.00 304	1.00 304	1.00 304	1.00 304	0.50 304	0.50 304	0.50 304	0.50 304
51.162	P_1 M_2		1.84 305	1.84 305	1.84 305		1.00 331	1.00 331	1.00 331		0.50 331	0.50 331	0.50 331
57.647	P_1 M_2		1.52 283	1.52 283	1.52 283		0.82 307	0.82 307	0.82 307		0.41 307	0.41 307	0.41 307
66.592	P_1 M_2	1.42 305	1.42 305	1.42 305		0.77 331	0.77 331	0.77 331		0.38 331	0.38 331	0.38 331	
75.033	P_1 M_2	1.18 286	1.18 286	1.18 286		0.64 310	0.64 310	0.64 310		0.32 310	0.32 310	0.32 310	
82.833	P_1 M_2	1.14 305	1.14 305	1.14 305		0.62 331	0.62 331	0.62 331		0.31 331	0.31 331	0.31 331	
93.333	P_1 M_2	0.96 291	0.96 291	0.96 291		0.52 315	0.52 315	0.52 315		0.26 315	0.26 315	0.26 315	
107.196	P_1 M_2	0.88 305	0.88 305			0.48 331	0.48 331			0.24 331	0.24 331		

Thermal limit rating not considered (see page 2-7)



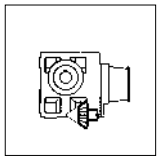
Selection tables – (Helical)-bevel gearboxes

Gearboxes with mounting flange for IEC standard motors

$M_{2perm} \leq 331$ Nm

GKS 05 - 3 N													Dimensions page 5-102
n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
IEC connection		71	80 71	90 80	100/112 80/90	71	80 71	90 80	100/112 80/90	71	80 71	90 80	100/112 80/90
For the geometrical assignment servo/DC motors see chapter 2													
Drive size		**1B**	**□C**	**□D**	**□E**	**1B**	**□C**	**□D**	**□E**	**1B**	**□C**	**□D**	**□E**
i	P_{1perm} [kW] M_{2perm} [Nm]												
120.784	P_1 M_2	0.81 315	0.81 315			0.40 315	0.40 315			0.20 315	0.20 315		
130.097	P_1 M_2	0.79 331	0.79 331			0.39 331	0.39 331			0.20 331	0.20 331		
146.588	P_1 M_2	0.66 315	0.66 315			0.33 315	0.33 315			0.17 315	0.17 315		
166.276	P_1 M_2	0.61 331				0.31 331				0.15 331			
187.353	P_1 M_2	0.52 315				0.26 315				0.13 315			
211.200	P_1 M_2	0.46 314	0.46 314			0.23 314	0.23 314			0.12 314	0.12 314		
227.484	P_1 M_2	0.38 278	0.38 278			0.19 278	0.19 278			0.09 278	0.09 278		
256.320	P_1 M_2	0.38 313	0.38 313			0.19 313	0.19 313			0.09 313	0.09 313		
290.745	P_1 M_2	0.29 277				0.15 277				0.07 277			
327.600	P_1 M_2	0.29 312				0.15 312				0.07 312			

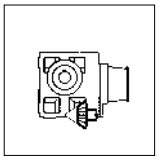
Thermal limit rating not considered (see page 2-7)



$M_{2\,perm} \leq 325$ Nm

GKS 05 - 4 N										Dimensions page 5-106
n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
IEC connection		63	71 63	80 71	63	71 63	80 71	63	71 63	80 71
For the geometrical assignment servo/DC motors see chapter 2										
Drive size		**1A**	**□B**	**□C**	**1A**	**□B**	**□C**	**1A**	**□B**	**□C**
i	P_{1perm} [kW] M_{2perm} [Nm]									
95.238	P_1 M_2	0.51 156	0.51 156	0.51 156	0.28 169	0.28 169	0.28 169	0.14 169	0.14 169	0.14 169
114.987	P_1 M_2	0.68 250	0.68 250	0.68 250	0.34 250	0.34 250	0.34 250	0.17 250	0.17 250	0.17 250
126.933	P_1 M_2	0.70 284	0.70 284	0.70 284	0.35 284	0.35 284	0.35 284	0.18 284	0.18 284	0.18 284
146.667	P_1 M_2	0.54 250	0.54 250	0.54 250	0.27 250	0.27 250	0.27 250	0.13 250	0.13 250	0.13 250
161.905	P_1 M_2	0.55 284	0.55 284	0.55 284	0.28 284	0.28 284	0.28 284	0.14 284	0.14 284	0.14 284
185.547	P_1 M_2	0.55 325	0.55 325	0.55 325	0.28 325	0.28 325	0.28 325	0.14 325	0.14 325	0.14 325
209.067	P_1 M_2	0.47 315	0.47 315	0.47 315	0.24 315	0.24 315	0.24 315	0.12 315	0.12 315	0.12 315
225.867	P_1 M_2	0.35 250	0.35 250	0.35 250	0.17 250	0.17 250	0.17 250	0.09 250	0.09 250	0.09 250
236.667	P_1 M_2	0.43 325	0.43 325	0.43 325	0.22 325	0.22 325	0.22 325	0.11 325	0.11 325	0.11 325
289.917	P_1 M_2		0.35 325	0.35 325		0.18 325	0.18 325		0.09 325	0.09 325
326.667	P_1 M_2		0.30 315	0.30 315		0.15 315	0.15 315		0.08 315	0.08 315
364.467	P_1 M_2	0.28 325	0.28 325	0.28 325	0.14 325	0.14 325	0.14 325	0.07 325	0.07 325	0.07 325
410.667	P_1 M_2	0.24 315	0.24 315	0.24 315	0.12 315	0.12 315	0.12 315	0.06 315	0.06 315	0.06 315
469.389	P_1 M_2	0.22 325	0.22 325	0.22 325	0.11 325	0.11 325	0.11 325	0.05 325	0.05 325	0.05 325
510.000	P_1 M_2	0.18 284	0.18 284		0.09 284	0.09 284		0.04 284	0.04 284	
528.889	P_1 M_2	0.19 315	0.19 315	0.19 315	0.09 315	0.09 315	0.09 315	0.05 315	0.05 315	0.05 315
594.894	P_1 M_2	0.17 325	0.17 325		0.09 325	0.09 325		0.04 325	0.04 325	
670.303	P_1 M_2	0.15 315	0.15 315		0.07 315	0.07 315		0.04 315	0.04 315	
820.760	P_1 M_2	0.12 325	0.12 325	0.12 325	0.06 325	0.06 325	0.06 325	0.03 325	0.03 325	0.03 325
924.800	P_1 M_2	0.11 315	0.11 315	0.11 315	0.05 315	0.05 315	0.05 315	0.03 315	0.03 315	0.03 315
1040.215	P_1 M_2	0.10 325	0.10 325		0.05 325	0.05 325		0.03 325	0.03 325	

Thermal limit rating not considered (see page 2-7)



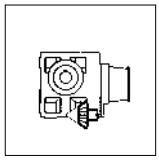
Selection tables – (Helical)-bevel gearboxes

Gearboxes with mounting flange for IEC standard motors

$M_{2\,perm} \leq 325$ Nm

GKS 05 - 4 N										Dimensions page 5-106
n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
IEC connection		63	71 63	80 71	63	71 63	80 71	63	71 63	80 71
For the geometrical assignment servo/DC motors see chapter 2										
Drive size		**1A**	**□B**	**□C**	**1A**	**□B**	**□C**	**1A**	**□B**	**□C**
i	P_{1perm} [kW] M_{2perm} [Nm]									
1172.073	P_1 M_2	0.08 315	0.08 315		0.04 315	0.04 315		0.02 315	0.02 315	
1303.560	P_1 M_2	0.08 325	0.08 325		0.04 325	0.04 325		0.02 325	0.02 325	
1468.800	P_1 M_2	0.07 315	0.07 315		0.03 315	0.03 315		0.02 315	0.02 315	
1717.389	P_1 M_2	0.06 325			0.03 325			0.02 325		
1935.086	P_1 M_2	0.05 315			0.03 315			0.01 315		

Thermal limit rating not considered (see page 2-7)



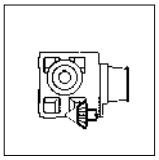
$M_{2perm} \leq 702$ Nm

GKS 06 - 3 N

Dimensions page 5-102

n_1		2800 min^{-1}					1400 min^{-1}					700 min^{-1}				
IEC connection		71	80 71	90 80	100/112 80/90	100/112 90	71	80 71	90 80	100/112 80/90	100/112 90	71	80 71	90 80	100/112 80/90	100/112 90
For the geometrical assignment servo/DC motors see chapter 2																
Drive size		**1B**	**□C**	**□D**	**□E**	**□F**	**1B**	**□C**	**□D**	**□E**	**□F**	**1B**	**□C**	**□D**	**□E**	**□F**
i	P_{1perm} [kW] M_{2perm} [Nm]															
6.485	P_1 M_2				10.2 214	10.2 214				6.26 263	6.26 263				3.13 263	3.13 263
9.196	P_1 M_2				10.2 303	10.2 303				6.26 373	6.26 373				3.13 373	3.13 373
10.147	P_1 M_2				10.2 334	10.2 334				6.26 412	6.26 412				3.13 412	3.13 412
11.382	P_1 M_2			3.75 138	7.30 269	7.30 269			2.31 170	4.49 331	4.49 331			1.54 227	2.25 331	2.25 331
12.612	P_1 M_2				8.47 346	8.47 346				5.21 426	5.21 426				2.61 426	2.61 426
14.824	P_1 M_2				10.2 488	10.2 488				6.25 600	6.25 600				3.13 600	3.13 600
16.699	P_1 M_2				9.07 491	9.07 491				5.58 604	5.58 604				2.79 604	2.79 604
17.809	P_1 M_2			3.75 216	7.30 421	7.30 421			2.31 266	4.49 518	4.49 518			1.54 355	2.25 518	2.25 518
20.329	P_1 M_2				8.20 540	8.20 540				5.05 665	5.05 665				2.53 665	2.53 665
22.902	P_1 M_2				6.63 492	6.63 492				4.08 606	4.08 606				2.04 606	2.04 606
26.017	P_1 M_2			3.75 316	6.54 551	6.54 551			2.31 389	4.03 679	4.03 679			1.54 519	2.01 679	2.01 679
28.461	P_1 M_2			3.75 346	6.01 554	6.01 554			2.31 426	3.70 682	3.70 682			1.54 568	1.85 682	1.85 682
32.063	P_1 M_2			3.75 390	4.77 495	4.77 495			2.31 480	2.94 610	2.94 610			1.47 610	1.47 610	1.47 610
36.303	P_1 M_2		3.04 357	3.75 441	4.73 556	4.73 556		1.87 440	2.31 543	2.91 685	2.91 685		1.25 586	1.46 685	1.46 685	1.46 685
41.472	P_1 M_2				4.17 560	4.17 560				2.56 689	2.56 689				1.28 689	1.28 689
44.471	P_1 M_2			4.26 614	4.41 636	4.41 636			2.31 665	2.39 689	2.39 689			1.20 689	1.20 689	1.20 689
53.074	P_1 M_2			3.73 641	3.73 641	3.73 641			2.02 695	2.02 695	2.02 695			1.01 695	1.01 695	1.01 695
57.882	P_1 M_2		3.42 641	3.42 641	3.42 641			1.85 695	1.85 695	1.85 695			0.93 695	0.93 695	0.93 695	
65.207	P_1 M_2		2.73 576	2.73 576	2.73 576			1.48 624	1.48 624	1.48 624			0.74 624	0.74 624	0.74 624	
72.000	P_1 M_2		2.78 648	2.78 648	2.78 648			1.51 702	1.51 702	1.51 702			0.75 702	0.75 702	0.75 702	
81.111	P_1 M_2		2.21 581	2.21 581	2.21 581			1.20 630	1.20 630	1.20 630			0.60 630	0.60 630	0.60 630	
93.177	P_1 M_2	1.63 491	2.15 648	2.15 648			0.88 532	1.16 702	1.16 702			0.44 532	0.58 702	0.58 702		
104.967	P_1 M_2	1.63 553	1.72 586	1.72 586			0.88 599	0.93 635	0.93 635			0.44 599	0.47 635	0.47 635		

Thermal limit rating not considered (see page 2-7)



Selection tables – (Helical)-bevel gearboxes

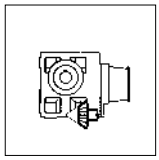
Gearboxes with mounting flange for IEC standard motors

$M_{2perm} \leq 702$ Nm

GKS 06 - 3 N Dimensions page 5-102

n_1		2800 min^{-1}					1400 min^{-1}					700 min^{-1}				
IEC connection		71	80 71	90 80	100/112 80/90	100/112 90	71	80 71	90 80	100/112 80/90	100/112 90	71	80 71	90 80	100/112 80/90	100/112 90
For the geometrical assignment servo/DC motors see chapter 2																
Drive size		**1B**	**□C**	**□D**	**□E**	**□F**	**1B**	**□C**	**□D**	**□E**	**□F**	**1B**	**□C**	**□D**	**□E**	**□F**
i	P_{1perm} [kW] M_{2perm} [Nm]															
113.082	P_1 M_2	1.47 539	1.92 702	1.92 702			0.74 539	0.96 702	0.96 702			0.37 539	0.48 702	0.48 702		
127.392	P_1 M_2	1.47 607	1.54 635	1.54 635			0.74 607	0.77 635	0.77 635			0.37 607	0.39 635	0.39 635		
142.941	P_1 M_2	1.18 546	1.52 702				0.59 546	0.76 702				0.30 546	0.38 702			
161.029	P_1 M_2	1.18 615	1.22 635				0.59 615	0.61 635				0.30 615	0.30 635			
190.080	P_1 M_2	1.14 702	1.14 702	1.14 702			0.57 702	0.57 702	0.57 702			0.29 702	0.29 702	0.29 702		
214.133	P_1 M_2	0.92 635	0.92 635	0.92 635			0.46 635	0.46 635	0.46 635			0.23 635	0.23 635	0.23 635		
230.688	P_1 M_2	0.94 702	0.94 702	0.94 702			0.47 702	0.47 702	0.47 702			0.24 702	0.24 702	0.24 702		
259.880	P_1 M_2	0.75 635	0.75 635	0.75 635			0.38 635	0.38 635	0.38 635			0.19 635	0.19 635	0.19 635		
291.600	P_1 M_2	0.74 702	0.74 702				0.37 702	0.37 702				0.19 702	0.19 702			
328.500	P_1 M_2	0.60 635	0.60 635				0.30 635	0.30 635				0.15 635	0.15 635			

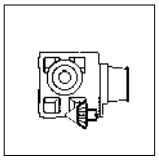
Thermal limit rating not considered (see page 2-7)



$M_{2\,perm} \leq 702$ Nm

GKS 06 - 4 N													Dimensions page 5-106
n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
IEC connection		63	71 63	80 71	90 80	63	71 63	80 71	90 80	63	71 63	80 71	90 80
For the geometrical assignment servo/DC motors see chapter 2													
Drive size		**1A**	**□B**	**□C**	**□D**	**1A**	**□B**	**□C**	**□D**	**1A**	**□B**	**□C**	**□D**
i	P_{1perm} [kW] M_{2perm} [Nm]												
103.721	P_1 M_2	1.09 360	1.91 632	1.91 632	1.91 632	0.59 390	1.04 685	1.04 685	1.04 685	0.30 390	0.52 685	0.52 685	0.52 685
113.205	P_1 M_2	1.18 425	1.49 537	1.49 537	1.49 537	0.59 425	0.75 537	0.75 537	0.75 537	0.30 425	0.37 537	0.37 537	0.37 537
127.059	P_1 M_2	1.18 478	1.70 689	1.70 689	1.70 689	0.59 478	0.85 689	0.85 689	0.85 689	0.30 478	0.43 689	0.43 689	0.43 689
140.816	P_1 M_2	1.18 529	1.20 537	1.20 537	1.20 537	0.59 529	0.60 537	0.60 537	0.60 537	0.30 529	0.30 537	0.30 537	0.30 537
155.647	P_1 M_2		1.39 689	1.39 689	1.39 689		0.70 689	0.70 689	0.70 689		0.35 689	0.35 689	0.35 689
174.336	P_1 M_2	0.97 537	0.97 537	0.97 537		0.48 537	0.48 537	0.48 537		0.24 537	0.24 537	0.24 537	
202.588	P_1 M_2		1.08 695	1.08 695	1.08 695		0.54 695	0.54 695	0.54 695		0.27 695	0.27 695	0.27 695
224.524	P_1 M_2	0.75 537	0.75 537	0.75 537		0.38 537	0.38 537	0.38 537		0.19 537	0.19 537	0.19 537	
252.000	P_1 M_2		0.88 702	0.88 702	0.88 702		0.44 702	0.44 702	0.44 702		0.22 702	0.22 702	0.22 702
279.286	P_1 M_2	0.60 537	0.60 537	0.60 537		0.30 537	0.30 537	0.30 537		0.15 537	0.15 537	0.15 537	
316.800	P_1 M_2	0.70 702	0.70 702	0.70 702		0.35 702	0.35 702	0.35 702		0.17 702	0.17 702	0.17 702	
361.429	P_1 M_2	0.47 537	0.47 537	0.47 537		0.23 537	0.23 537	0.23 537		0.12 537	0.12 537	0.12 537	
408.000	P_1 M_2	0.54 702	0.54 702	0.54 702		0.27 702	0.27 702	0.27 702		0.14 702	0.14 702	0.14 702	
458.067	P_1 M_2	0.37 537	0.37 537			0.18 537	0.18 537			0.09 537	0.09 537		
517.091	P_1 M_2	0.43 702	0.43 702			0.21 702	0.21 702			0.11 702	0.11 702		
555.927	P_1 M_2	0.30 537	0.30 537			0.15 537	0.15 537			0.08 537	0.08 537		
640.800	P_1 M_2	0.34 702	0.34 702	0.34 702		0.17 702	0.17 702	0.17 702		0.09 702	0.09 702	0.09 702	
696.668	P_1 M_2	0.24 537	0.24 537			0.12 537	0.12 537			0.06 537	0.06 537		
812.137	P_1 M_2	0.27 702	0.27 702			0.14 702	0.14 702			0.07 702	0.07 702		
914.907	P_1 M_2	0.22 635	0.22 635			0.11 635	0.11 635			0.05 635	0.05 635		
1017.741	P_1 M_2	0.22 702	0.22 702			0.11 702	0.11 702			0.05 702	0.05 702		

Thermal limit rating not considered (see page 2-7)



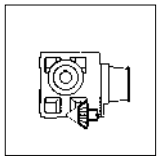
Selection tables – (Helical)-bevel gearboxes

Gearboxes with mounting flange for IEC standard motors

$M_{2perm} \leq 702$ Nm

GKS 06 - 4 N													Dimensions page 5-106
n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
IEC connection		63	71 63	80 71	90 80	63	71 63	80 71	90 80	63	71 63	80 71	90 80
For the geometrical assignment servo/DC motors see chapter 2													
Drive size		**1A**	**□B**	**□C**	**□D**	**1A**	**□B**	**□C**	**□D**	**1A**	**□B**	**□C**	**□D**
i	P_{1perm} [kW] M_{2perm} [Nm]												
1146.529	P_1 M_2	0.17 635	0.17 635			0.09 635	0.09 635			0.04 635	0.04 635		
1340.834	P_1 M_2	0.16 702				0.08 702				0.04 702			
1510.507	P_1 M_2	0.13 635				0.07 635				0.03 635			

Thermal limit rating not considered (see page 2-7)



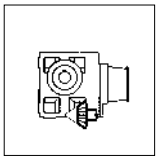
$M_{2\,perm} \leq 1330$ Nm

GKS 07 - 3 N

Dimensions page 5-102

n_1		2800 min^{-1}						1400 min^{-1}						700 min^{-1}					
IEC connection		80 71	90 80	100/112 80/90	100/112 90	132 100/112	160 132	80 71	90 80	100/112 80/90	100/112 90	132 100/112	160 132	80 71	90 80	100/112 80/90	100/112 90	132 100/112	160 132
For the geometrical assignment servo/DC motors see chapter 2																			
Drive size		**□C**	**□D**	**□E**	**□F**	**□G**	**□H**	**□C**	**□D**	**□E**	**□F**	**□G**	**□H**	**□C**	**□D**	**□E**	**□F**	**□G**	**□H**
i	P_{1perm} [kW] M_{2perm} [Nm]																		
5.955	P_1 M_2				10.7 207	19.8 382	19.8 382				6.60 255	12.2 470	12.2 470				4.40 339	6.10 470	6.10 470
8.254	P_1 M_2				10.7 287	16.4 439	16.4 439				6.60 353	10.1 540	10.1 540				4.40 470	5.05 540	5.05 540
9.171	P_1 M_2				10.7 318	19.8 588	19.8 588				6.60 392	12.2 725	12.2 725				4.40 523	6.10 725	6.10 725
10.124	P_1 M_2				10.7 351	19.8 650	19.8 650				6.60 433	12.2 800	12.2 800				4.40 577	6.10 800	6.10 800
11.378	P_1 M_2			10.7 395	10.7 395	13.5 498	13.5 498			6.60 486	6.60 486	8.32 613	8.32 613			4.16 613	4.16 613	4.16 613	4.16 613
12.711	P_1 M_2				10.7 441	16.4 676	16.4 676				6.60 543	10.1 832	10.1 832				4.40 724	5.05 832	5.05 832
14.799	P_1 M_2				10.7 514	17.6 845	17.6 845				6.60 633	10.9 1040	10.9 1040				4.40 843	5.42 1040	5.42 1040
16.674	P_1 M_2				10.7 579	16.1 870	16.1 870				6.60 713	9.91 1071	9.91 1071				4.40 950	4.96 1071	4.96 1071
17.270	P_1 M_2			10.7 600	10.7 600	14.5 811	14.5 811			6.60 738	6.60 738	8.92 998	8.92 998			4.40 984	4.40 984	4.46 998	4.46 998
20.511	P_1 M_2				10.7 712	13.6 902	13.6 902				6.60 877	8.35 1110	8.35 1110				4.18 1110	4.18 1110	4.18 1110
23.111	P_1 M_2				10.7 802	12.7 949	12.7 949				6.60 988	7.80 1168	7.80 1168				3.90 1168	3.90 1168	3.90 1168
25.244	P_1 M_2			10.7 876	10.7 876	11.7 956	11.7 956			6.60 1079	6.60 1079	7.20 1177	7.20 1177			3.60 1177	3.60 1177	3.60 1177	3.60 1177
28.274	P_1 M_2			10.7 976	10.7 976	10.7 976	10.7 976			6.56 1202	6.56 1202	6.56 1202	6.56 1202			3.28 1202	3.28 1202	3.28 1202	3.28 1202
31.858	P_1 M_2			9.22 952	9.22 952	9.22 952	9.22 952			5.68 1172	5.68 1172	5.68 1172	5.68 1172			2.84 1172	2.84 1172	2.84 1172	2.84 1172
36.064	P_1 M_2		3.75 438	8.97 1048	8.97 1048	8.97 1048			2.31 540	5.52 1290	5.52 1290	5.52 1290			1.54 719	2.76 1290	2.76 1290	2.76 1290	
40.906	P_1 M_2				7.91 1048	7.91 1048	7.91 1048				4.87 1290	4.87 1290	4.87 1290				2.43 1290	2.43 1290	2.43 1290
44.178	P_1 M_2			8.38 1200	8.38 1200	8.38 1200				4.54 1300	4.54 1300	4.54 1300				2.27 1300	2.27 1300	2.27 1300	
50.346	P_1 M_2			7.36 1200	7.36 1200	7.36 1200	7.36 1200			3.99 1300	3.99 1300	3.99 1300	3.99 1300			1.99 1300	1.99 1300	1.99 1300	1.99 1300
57.501	P_1 M_2		4.26 794	6.49 1209	6.49 1209				2.31 860	3.52 1310	3.52 1310				1.54 1147	1.76 1310	1.76 1310		
64.790	P_1 M_2		4.26 894	5.25 1103	5.25 1103				2.31 969	2.85 1195	2.85 1195				1.42 1195	1.42 1195	1.42 1195		
70.474	P_1 M_2		4.26 973	5.34 1218	5.34 1218				2.31 1054	2.89 1320	2.89 1320				1.43 1307	1.45 1320	1.45 1320		
79.407	P_1 M_2		4.26 1096	4.32 1112	4.32 1112				2.31 1188	2.34 1205	2.34 1205				1.17 1205	1.17 1205	1.17 1205		
92.563	P_1 M_2	3.11 932	4.09 1227	4.09 1227				1.69 1010	2.22 1330	2.22 1330				0.84 1010	1.11 1330	1.11 1330			

Thermal limit rating not considered (see page 2-7)



Selection tables – (Helical)-bevel gearboxes

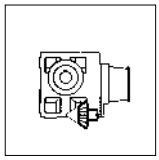
Gearboxes with mounting flange for IEC standard motors

$M_{2\,perm} \leq 1330$ Nm

GKS 07 - 3 N Dimensions page 5-102

n_1		2800 min^{-1}						1400 min^{-1}						700 min^{-1}					
IEC connection		80 71	90 80	100/112 80/90	100/112 90	132 100/112	160 132	80 71	90 80	100/112 80/90	100/112 90	132 100/112	160 132	80 71	90 80	100/112 80/90	100/112 90	132 100/112	160 132
For the geometrical assignment servo/DC motors see chapter 2																			
Drive size		**□C**	**□D**	**□E**	**□F**	**□G**	**□H**	**□C**	**□D**	**□E**	**□F**	**□G**	**□H**	**□C**	**□D**	**□E**	**□F**	**□G**	**□H**
i	P_{1perm} [kW] M_{2perm} [Nm]																		
104.296	P_1 M_2	3.11 1050	3.32 1121	3.32 1121				1.69 1138	1.80 1215	1.80 1215				0.84 1138	0.90 1215	0.90 1215			
112.338	P_1 M_2	2.81 1024	3.65 1330	3.65 1330				1.41 1024	1.83 1330	1.83 1330				0.70 1024	0.91 1330	0.91 1330			
126.578	P_1 M_2	2.81 1154	2.96 1215	2.96 1215				1.41 1154	1.48 1215	1.48 1215				0.70 1154	0.74 1215	0.74 1215			
140.548	P_1 M_2		2.92 1330	2.92 1330	2.92 1330				1.46 1330	1.46 1330	1.46 1330				0.73 1330	0.73 1330	0.73 1330		
158.364	P_1 M_2		2.37 1215	2.37 1215	2.37 1215				1.18 1215	1.18 1215	1.18 1215				0.59 1215	0.59 1215	0.59 1215		
184.600	P_1 M_2	2.22 1330	2.22 1330	2.22 1330				1.11 1330	1.11 1330	1.11 1330				0.56 1330	0.56 1330	0.56 1330			
208.000	P_1 M_2	1.80 1215	1.80 1215	1.80 1215				0.90 1215	0.90 1215	0.90 1215				0.45 1215	0.45 1215	0.45 1215			
224.037	P_1 M_2	1.83 1330	1.83 1330	1.83 1330				0.92 1330	0.92 1330	0.92 1330				0.46 1330	0.46 1330	0.46 1330			
252.436	P_1 M_2	1.49 1215	1.49 1215	1.49 1215				0.74 1215	0.74 1215	0.74 1215				0.37 1215	0.37 1215	0.37 1215			
283.193	P_1 M_2	1.45 1330	1.45 1330					0.73 1330	0.73 1330					0.36 1330	0.36 1330				
319.091	P_1 M_2	1.18 1215	1.18 1215					0.59 1215	0.59 1215					0.29 1215	0.29 1215				

Thermal limit rating not considered (see page 2-7)



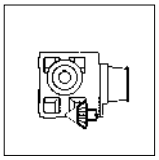
$M_{2\,perm} \leq 1330$ Nm

GKS 07 - 4 N

Dimensions page 5-106

n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
IEC connection		71	80 71	90 80	100/112 80/90	71	80 71	90 80	100/112 80/90	71	80 71	90 80	100/112 80/90
For the geometrical assignment servo/DC motors see chapter 2													
Drive size		**1B**	**□C**	**□D**	**□E**	**1B**	**□C**	**□D**	**□E**	**1B**	**□C**	**□D**	**□E**
i	P_{1perm} [kW] M_{2perm} [Nm]												
103.039	P_1 M_2	2.54 832	3.45 1132	3.63 1190	3.63 1190	1.37 902	1.87 1227	1.97 1290	1.97 1290	0.77 1014	0.98 1290	0.98 1290	0.98 1290
112.391	P_1 M_2	2.75 984	2.94 1053	2.94 1053	2.94 1053	1.37 984	1.47 1053	1.47 1053	1.47 1053	0.74 1053	0.74 1053	0.74 1053	0.74 1053
126.222	P_1 M_2	2.75 1105	3.23 1300	3.23 1300	3.23 1300	1.37 1105	1.62 1300	1.62 1300	1.62 1300	0.77 1242	0.81 1300	0.81 1300	0.81 1300
137.748	P_1 M_2	2.40 1053	2.40 1053	2.40 1053	2.40 1053	1.20 1053	1.20 1053	1.20 1053	1.20 1053	0.60 1053	0.60 1053	0.60 1053	0.60 1053
154.622	P_1 M_2		2.64 1300	2.64 1300	2.64 1300		1.32 1300	1.32 1300	1.32 1300		0.66 1300	0.66 1300	0.66 1300
179.201	P_1 M_2	1.85 1053	1.85 1053	1.85 1053		0.92 1053	0.92 1053	0.92 1053		0.46 1053	0.46 1053	0.46 1053	
201.254	P_1 M_2		2.04 1310	2.04 1310	2.04 1310		1.02 1310	1.02 1310	1.02 1310		0.51 1310	0.51 1310	0.51 1310
222.909	P_1 M_2	1.48 1053	1.48 1053	1.48 1053		0.74 1053	0.74 1053	0.74 1053		0.37 1053	0.37 1053	0.37 1053	
246.659	P_1 M_2		1.68 1320	1.68 1320	1.68 1320		0.84 1320	0.84 1320	0.84 1320		0.42 1320	0.42 1320	0.42 1320
273.199	P_1 M_2	1.21 1053	1.21 1053	1.21 1053		0.61 1053	0.61 1053	0.61 1053		0.30 1053	0.30 1053	0.30 1053	
321.049	P_1 M_2	1.29 1320	1.29 1320	1.29 1320		0.65 1320	0.65 1320	0.65 1320		0.32 1320	0.32 1320	0.32 1320	
358.829	P_1 M_2	0.92 1053	0.92 1053	0.92 1053		0.46 1053	0.46 1053	0.46 1053		0.23 1053	0.23 1053	0.23 1053	
399.353	P_1 M_2	1.04 1320	1.04 1320	1.04 1320		0.52 1320	0.52 1320	0.52 1320		0.26 1320	0.26 1320	0.26 1320	
464.367	P_1 M_2	0.71 1053	0.71 1053			0.36 1053	0.36 1053			0.18 1053	0.18 1053		
516.810	P_1 M_2	0.80 1320	0.80 1320			0.40 1320	0.40 1320			0.20 1320	0.20 1320		
563.573	P_1 M_2	0.59 1053	0.59 1053			0.29 1053	0.29 1053			0.15 1053	0.15 1053		
636.581	P_1 M_2	0.66 1330	0.66 1330	0.66 1330		0.33 1330	0.33 1330	0.33 1330		0.16 1330	0.16 1330	0.16 1330	
683.972	P_1 M_2	0.48 1053	0.48 1053			0.24 1053	0.24 1053			0.12 1053	0.12 1053		
823.810	P_1 M_2	0.51 1330	0.51 1330			0.25 1330	0.25 1330			0.13 1330	0.13 1330		
928.237	P_1 M_2	0.41 1215	0.41 1215			0.21 1215	0.21 1215			0.10 1215	0.10 1215		
999.806	P_1 M_2	0.42 1330	0.42 1330			0.21 1330	0.21 1330			0.10 1330	0.10 1330		
1126.542	P_1 M_2	0.34 1215	0.34 1215			0.17 1215	0.17 1215			0.09 1215	0.09 1215		
1277.842	P_1 M_2	0.33 1330				0.16 1330				0.08 1330			
1439.822	P_1 M_2	0.27 1215				0.13 1215				0.07 1215			

Thermal limit rating not considered (see page 2-7)



Selection tables – (Helical)-bevel gearboxes

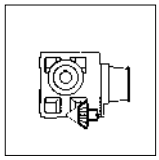
Gearboxes with mounting flange for IEC standard motors

$M_{2perm} \leq 3080$ Nm

GKS 09 - 3 N Dimensions page 5-102

n_1		2800 min^{-1}						1400 min^{-1}						700 min^{-1}					
IEC connection		80/90	100/112 80/90	100/112 90	132 100/112	160/180 132	200	80/90	100/112 80/90	100/112 90	132 100/112	160/180 132	200	80/90	100/112 80/90	100/112 90	132 100/112	160/180 132	200
For the geometrical assignment servo/DC motors see chapter 2																			
Drive size		**□D**	**□E**	**□F**	**□G**	**□H**	**1K**	**□D**	**□E**	**□F**	**□G**	**□H**	**1K**	**□D**	**□E**	**□F**	**□G**	**□H**	**1K**
i	P_{1perm} [kW] M_{2perm} [Nm]																		
12.283	P_1				28.6	33.0	33.0				17.6	20.3	20.3				10.2	10.2	10.2
	M_2				1137	1312	1312				1400	1615	1615				1615	1615	1615
13.360	P_1				28.6	33.0	33.0				17.6	20.3	20.3				10.2	10.2	10.2
	M_2				1237	1427	1427				1523	1757	1757				1757	1757	1757
16.122	P_1			10.7	28.0	28.0	28.0			6.60	17.2	17.2	17.2			4.40	8.62	8.62	8.62
	M_2			560	1462	1462	1462			689	1801	1801	1801			919	1801	1801	1801
17.536	P_1			10.7	28.0	28.0	28.0			6.60	17.2	17.2	17.2			4.40	8.62	8.62	8.62
	M_2			609	1591	1591	1591			750	1958	1958	1958			999	1958	1958	1958
19.541	P_1				28.6	33.0	33.0				17.6	20.3	20.3				10.2	10.2	10.2
	M_2				1809	2087	2087				2227	2570	2570				2570	2570	2570
22.022	P_1				28.6	30.4	30.4				17.6	18.7	18.7				9.36	9.36	9.36
	M_2				2039	2170	2170				2510	2672	2672				2672	2672	2672
25.649	P_1			10.7	28.0	28.0	28.0			6.60	17.2	17.2	17.2			4.40	8.61	8.61	8.61
	M_2			890	2325	2325	2325			1096	2862	2862	2862			1462	2862	2862	2862
29.228	P_1			10.7	25.0	25.0				6.60	15.4	15.4				4.40	7.69	7.69	
	M_2			1015	2367	2367				1249	2914	2914				1666	2914	2914	
32.940	P_1			10.7	22.7	22.7				6.60	14.0	14.0				4.40	6.99	6.99	
	M_2			1143	2424	2424				1408	2984	2984				1877	2984	2984	
35.193	P_1		10.7	10.7	21.6	21.6			6.60	6.60	13.3	13.3			4.40	4.40	6.64	6.64	
	M_2		1222	1222	2460	2460			1504	1504	3029	3029			2006	2006	3029	3029	
39.662	P_1		10.7	10.7	19.0	19.0			6.60	6.60	11.7	11.7			4.40	4.40	5.84	5.84	
	M_2		1377	1377	2438	2438			1695	1695	3002	3002			2260	2260	3002	3002	
43.146	P_1			12.2	20.0	20.0				6.60	10.8	10.8				4.40	5.41	5.41	
	M_2			1702	2790	2790				1844	3024	3024				2459	3024	3024	
48.625	P_1			12.2	17.7	17.7				6.60	9.58	9.58				4.40	4.79	4.79	
	M_2			1918	2784	2784				2078	3017	3017				2771	3017	3017	
58.456	P_1		12.2	12.2	14.8				6.60	6.60	8.00				3.53	3.75	4.00		
	M_2		2306	2306	2797				2499	2499	3031				2674	2838	3031		
65.879	P_1		12.2	12.2	13.2				6.60	6.60	7.14				3.53	3.57	3.57		
	M_2		2598	2598	2813				2816	2816	3048				3013	3048	3048		
70.982	P_1		11.2	11.9	12.2				6.06	6.42	6.59				3.03	3.21	3.30		
	M_2		2571	2726	2797				2786	2954	3031				2786	2954	3031		
79.996	P_1		10.9	10.9	10.9				5.93	5.93	5.93				2.96	2.96	2.96		
	M_2		2834	2834	2834				3071	3071	3071				3071	3071	3071		
91.860	P_1	4.26	8.98	9.40				2.31	4.86	5.09				1.44	2.43	2.55			
	M_2	1268	2671	2797				1374	2895	3031				1718	2895	3031			
103.524	P_1	4.26	8.47	8.47				2.31	4.59	4.59				1.44	2.30	2.30			
	M_2	1429	2842	2842				1549	3080	3080				1936	3080	3080			
111.484	P_1	4.62	8.12	8.39				2.31	4.06	4.20				1.21	2.03	2.10			
	M_2	1668	2934	3031				1668	2934	3031				1742	2934	3031			
125.641	P_1	4.62	7.57	7.57				2.31	3.78	3.78				1.21	1.89	1.89			
	M_2	1880	3080	3080				1880	3080	3080				1963	3080	3080			
140.921	P_1	3.87	6.51					1.93	3.26					0.97	1.63				
	M_2	1766	2973					1766	2973					1766	2973				

Thermal limit rating not considered (see page 2-7)

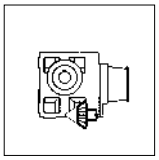


$M_{2\,perm} \leq 3080$ Nm

GKS 09 - 3 N Dimensions page 5-102

n_1		2800 min^{-1}						1400 min^{-1}						700 min^{-1}					
IEC connection		80/90	100/112 80/90	100/112 90	132 100/112	160/180 132	200	80/90	100/112 80/90	100/112 90	132 100/112	160/180 132	200	80/90	100/112 80/90	100/112 90	132 100/112	160/180 132	200
For the geometrical assignment servo/DC motors see chapter 2																			
Drive size		**□D**	**□E**	**□F**	**□G**	**□H**	**1K**	**□D**	**□E**	**□F**	**□G**	**□H**	**1K**	**□D**	**□E**	**□F**	**□G**	**□H**	**1K**
i	P_{1perm} [kW] M_{2perm} [Nm]																		
158.816	P_1 M_2	3.87 1990	5.99 3080					1.93 1990	2.99 3080					0.97 1990	1.50 3080				
182.000	P_1 M_2	4.62 2723	5.14 3031	5.14 3031				2.31 2723	2.57 3031	2.57 3031				1.29 3031	1.29 3031	1.29 3031			
205.111	P_1 M_2	4.62 3069	4.64 3080	4.64 3080				2.31 3069	2.32 3080	2.32 3080				1.16 3080	1.16 3080	1.16 3080			
220.882	P_1 M_2	4.24 3031	4.24 3031	4.24 3031				2.12 3031	2.12 3031	2.12 3031				1.06 3031	1.06 3031	1.06 3031			
248.930	P_1 M_2	3.82 3080	3.82 3080	3.82 3080				1.91 3080	1.91 3080	1.91 3080				0.96 3080	0.96 3080	0.96 3080			
279.205	P_1 M_2	3.35 3031	3.35 3031					1.68 3031	1.68 3031					0.84 3031	0.84 3031				
314.659	P_1 M_2	3.02 3080	3.02 3080					1.51 3080	1.51 3080					0.76 3080	0.76 3080				

Thermal limit rating not considered (see page 2-7)



Selection tables – (Helical)-bevel gearboxes

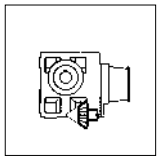
Gearboxes with mounting flange for IEC standard motors

$M_{2perm} \leq 3080$ Nm

GKS 09 - 4 N Dimensions page 5-106

n_1		2800 min^{-1}					1400 min^{-1}					700 min^{-1}				
IEC connection		71	80 71	90 80	100/112 80/90	100/112 90	71	80 71	90 80	100/112 80/90	100/112 90	71	80 71	90 80	100/112 80/90	100/112 90
For the geometrical assignment servo/DC motors see chapter 2																
Drive size		**1B**	**□C**	**□D**	**□E**	**□F**	**1B**	**□C**	**□D**	**□E**	**□F**	**1B**	**□C**	**□D**	**□E**	**□F**
i	P_{1perm} [kW] M_{2perm} [Nm]															
100.551	P_1 M_2		3.45 1105	4.26 1364	8.73 2795	8.73 2795		1.87 1197	2.31 1479	4.73 3029	4.73 3029		1.25 1596	1.54 1972	2.37 3029	2.37 3029
113.320	P_1 M_2		3.74 1349	4.62 1666	8.32 3002	8.32 3002		1.87 1349	2.31 1666	4.16 3002	4.16 3002		1.25 1799	1.54 2222	2.08 3002	2.08 3002
123.275	P_1 M_2		3.74 1468	4.62 1813	7.70 3024	7.70 3024		1.87 1468	2.31 1813	3.85 3024	3.85 3024		1.25 1957	1.54 2417	1.93 3024	1.93 3024
138.929	P_1 M_2		3.74 1654	4.62 2043	6.82 3017	6.82 3017		1.87 1654	2.31 2043	3.41 3017	3.41 3017		1.25 2205	1.54 2724	1.71 3017	1.71 3017
151.012	P_1 M_2			4.62 2221	6.29 3024	6.29 3024			2.31 2221	3.14 3024	3.14 3024			1.54 2961	1.57 3024	1.57 3024
170.188	P_1 M_2			4.62 2503	5.57 3017	5.57 3017			2.31 2503	2.78 3017	2.78 3017			1.39 3017	1.39 3017	1.39 3017
204.596	P_1 M_2			4.62 3009	4.65 3031	4.65 3031			2.31 3009	2.33 3031	2.33 3031			1.16 3031	1.16 3031	1.16 3031
230.577	P_1 M_2			4.15 3048	4.15 3048	4.15 3048			2.08 3048	2.08 3048	2.08 3048			1.04 3048	1.04 3048	1.04 3048
248.439	P_1 M_2			3.83 3031	3.83 3031	3.83 3031			1.92 3031	1.92 3031	1.92 3031			0.96 3031	0.96 3031	0.96 3031
279.986	P_1 M_2			3.44 3071	3.44 3071	3.44 3071			1.72 3071	1.72 3071	1.72 3071			0.86 3071	0.86 3071	0.86 3071
323.365	P_1 M_2		2.94 3031	2.94 3031	2.94 3031			1.47 3031	1.47 3031	1.47 3031			0.74 3031	0.74 3031	0.74 3031	
364.427	P_1 M_2		2.65 3071	2.65 3071	2.65 3071			1.32 3071	1.32 3071	1.32 3071			0.66 3071	0.66 3071	0.66 3071	
402.234	P_1 M_2		2.37 3031	2.37 3031	2.37 3031			1.18 3031	1.18 3031	1.18 3031			0.59 3031	0.59 3031	0.59 3031	
453.311	P_1 M_2		2.13 3071	2.13 3071	2.13 3071			1.06 3071	1.06 3071	1.06 3071			0.53 3071	0.53 3071	0.53 3071	
520.538	P_1 M_2		1.83 3031	1.83 3031	1.83 3031			0.91 3031	0.91 3031	0.91 3031			0.46 3031	0.46 3031	0.46 3031	
586.638	P_1 M_2		1.65 3080	1.65 3080	1.65 3080			0.82 3080	0.82 3080	0.82 3080			0.41 3080	0.41 3080	0.41 3080	
631.744	P_1 M_2		1.51 3031	1.51 3031	1.51 3031			0.75 3031	0.75 3031	0.75 3031			0.38 3031	0.38 3031	0.38 3031	
711.965	P_1 M_2		1.36 3080	1.36 3080	1.36 3080			0.68 3080	0.68 3080	0.68 3080			0.34 3080	0.34 3080	0.34 3080	
817.551	P_1 M_2	1.16 3031	1.16 3031	1.16 3031			0.58 3031	0.58 3031	0.58 3031			0.29 3031	0.29 3031	0.29 3031		
921.367	P_1 M_2	1.05 3080	1.05 3080	1.05 3080			0.53 3080	0.53 3080	0.53 3080			0.26 3080	0.26 3080	0.26 3080		
992.209	P_1 M_2	0.96 3031	0.96 3031	0.96 3031			0.48 3031	0.48 3031	0.48 3031			0.24 3031	0.24 3031	0.24 3031		
1118.204	P_1 M_2	0.87 3080	0.87 3080	0.87 3080			0.43 3080	0.43 3080	0.43 3080			0.22 3080	0.22 3080	0.22 3080		
1254.197	P_1 M_2	0.76 3031	0.76 3031				0.38 3031	0.38 3031				0.19 3031	0.19 3031			
1413.461	P_1 M_2	0.68 3080	0.68 3080				0.34 3080	0.34 3080				0.17 3080	0.17 3080			

Thermal limit rating not considered (see page 2-7)

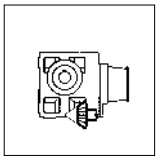


$M_{2perm} \leq 6072$ Nm

GKS 11 - 3 N Dimensions page 5-102

n_1		2800 min^{-1}					1400 min^{-1}					700 min^{-1}				
IEC connection		80/90/100 112	112 90/100	132 100/112	160/180 132	200/225	80/90/100 112	112 90/100	132 100/112	160/180 132	200/225	80/90/100 112	112 90/100	132 100/112	160/180 132	200/225
For the geometrical assignment servo/DC motors see chapter 2																
Drive size		**□E**	**□F**	**□G**	**□H**	**□K**	**□E**	**□F**	**□G**	**□H**	**□K**	**□E**	**□F**	**□G**	**□H**	**□K**
i	P_{1perm} [kW] M_{2perm} [Nm]															
12.094	P_1 M_2				57.4 2250	57.4 2250				35.4 2770	35.4 2770				17.7 2770	17.7 2770
13.154	P_1 M_2				57.4 2447	57.4 2447				35.4 3013	35.4 3013				17.7 3013	17.7 3013
15.874	P_1 M_2				48.8 2509	48.8 2509				30.0 3089	30.0 3089				15.0 3089	15.0 3089
17.265	P_1 M_2				48.8 2729	48.8 2729				30.0 3360	30.0 3360				15.0 3360	15.0 3360
19.515	P_1 M_2				57.4 3630	57.4 3630				35.4 4470	35.4 4470				17.7 4470	17.7 4470
21.989	P_1 M_2				55.7 3967	55.7 3967				34.3 4884	34.3 4884				17.1 4884	17.1 4884
25.615	P_1 M_2				48.8 4049	48.8 4049				30.0 4985	30.0 4985				15.0 4985	15.0 4985
28.021	P_1 M_2			28.6 2594	46.2 4193	46.2 4193			17.6 3194	28.4 5163	28.4 5163			11.7 4259	14.2 5163	14.2 5163
31.573	P_1 M_2			28.6 2923	43.8 4484	43.8 4484			17.6 3599	27.0 5521	27.0 5521			11.7 4798	13.5 5521	13.5 5521
35.741	P_1 M_2		10.7 1241	28.6 3309	39.7 4593	39.7 4593		6.60 1528	17.6 4074	24.4 5655	24.4 5655		4.40 2037	11.7 5432	12.2 5655	12.2 5655
40.272	P_1 M_2		10.7 1398	28.6 3728	36.5 4767	36.5 4767		6.60 1721	17.6 4590	22.5 5869	22.5 5869		4.40 2295	11.3 5869	11.3 5869	11.3 5869
43.783	P_1 M_2			32.5 4605	37.7 5352	37.7 5352			17.6 4991	20.4 5800	20.4 5800			10.2 5800	10.2 5800	10.2 5800
49.333	P_1 M_2			32.5 5189	34.2 5466	34.2 5466			17.6 5623	18.5 5923	18.5 5923			9.27 5923	9.27 5923	9.27 5923
57.683	P_1 M_2		12.2 2275	29.5 5511	29.5 5511			6.60 2466	16.0 5972	16.0 5972			4.40 3287	7.99 5972	7.99 5972	
64.995	P_1 M_2		12.2 2564	26.3 5529	26.3 5529			6.60 2778	14.2 5992	14.2 5992			4.40 3704	7.11 5992	7.11 5992	
70.887	P_1 M_2		12.2 2796	24.0 5512	24.0 5512			6.60 3030	13.0 5973	13.0 5973			3.92 3600	6.50 5973	6.50 5973	
79.873	P_1 M_2		12.2 3150	21.5 5566	21.5 5566			6.60 3414	11.7 6032	11.7 6032			3.92 4057	5.83 6032	5.83 6032	
91.737	P_1 M_2	10.9 3239	11.6 3454	18.6 5513			5.91 3510	6.30 3743	10.1 5975			2.95 3510	3.15 3743	5.03 5975		
103.365	P_1 M_2	10.9 3649	11.6 3892	16.7 5603			5.91 3955	6.30 4218	9.07 6072			2.95 3955	3.15 4218	4.53 6072		
111.335	P_1 M_2	9.87 3559	10.5 3793	16.6 5975			4.93 3559	5.26 3793	8.28 5975			2.47 3559	2.63 3793	4.14 5975		
125.448	P_1 M_2	9.87 4010	10.5 4274	14.9 6072			4.93 4010	5.26 4274	7.47 6072			2.47 4010	2.63 4274	3.74 6072		
140.732	P_1 M_2	7.92 3609	8.43 3845				3.96 3609	4.22 3845				1.98 3609	2.11 3845			
158.571	P_1 M_2	7.92 4067	8.43 4332				3.96 4067	4.22 4332				1.98 4067	2.11 4332			

Thermal limit rating not considered (see page 2-7)



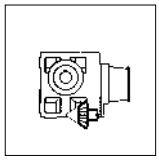
Selection tables – (Helical)-bevel gearboxes

Gearboxes with mounting flange for IEC standard motors

$M_{2\,perm} \leq 6072$ Nm

GKS 11 - 3 N												Dimensions page 5-102				
n_1		2800 min^{-1}					1400 min^{-1}					700 min^{-1}				
IEC connection		80/90/100 112	112 90/100	132 100/112	160/180 132	200/225	80/90/100 112	112 90/100	132 100/112	160/180 132	200/225	80/90/100 112	112 90/100	132 100/112	160/180 132	200/225
For the geometrical assignment servo/DC motors see chapter 2																
Drive size		**□E**	**□F**	**□G**	**□H**	**□K**	**□E**	**□F**	**□G**	**□H**	**□K**	**□E**	**□F**	**□G**	**□H**	**□K**
i	P_{1perm} [kW] M_{2perm} [Nm]															
186.572	P_1	9.89	9.89	9.89			4.94	4.94	4.94			2.47	2.47	2.47		
	M_2	5975	5975	5975			5975	5975	5975			5975	5975	5975		
210.222	P_1	8.65	8.65	8.65			4.33	4.33	4.33			2.16	2.16	2.16		
	M_2	5892	5892	5892			5892	5892	5892			5892	5892	5892		
226.431	P_1	8.15	8.15	8.15			4.07	4.07	4.07			2.04	2.04	2.04		
	M_2	5975	5975	5975			5975	5975	5975			5975	5975	5975		
255.133	P_1	7.13	7.13	7.13			3.56	3.56	3.56			1.78	1.78	1.78		
	M_2	5892	5892	5892			5892	5892	5892			5892	5892	5892		
286.219	P_1	6.44	6.44				3.22	3.22				1.61	1.61			
	M_2	5975	5975				5975	5975				5975	5975			
322.500	P_1	5.64	5.64				2.82	2.82				1.41	1.41			
	M_2	5892	5892				5892	5892				5892	5892			

Thermal limit rating not considered (see page 2-7)



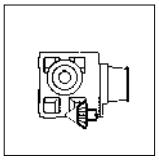
$M_{2perm} \leq 6072$ Nm

GKS 11 - 4 N

Dimensions page 5-106

n_1		2800 min^{-1}					1400 min^{-1}					700 min^{-1}				
IEC connection		80 71	90 80	100/112 80/90	100/112 90	132 100/112	80 71	90 80	100/112 80/90	100/112 90	132 100/112	80 71	90 80	100/112 80/90	100/112 90	132 100/112
For the geometrical assignment servo/DC motors see chapter 2																
Drive size		**□C**	**□D**	**□E**	**□F**	**□G**	**□C**	**□D**	**□E**	**□F**	**□G**	**□C**	**□D**	**□E**	**□F**	**□G**
i	P_{1perm} [kW] M_{2perm} [Nm]															
102.119	P_1 M_2		4.26 1386	12.2 3959	12.2 3959	16.1 5218		2.31 1502	6.60 4291	6.60 4291	8.69 5655		1.54 2002	3.97 5160	4.15 5400	4.35 5655
115.063	P_1 M_2		4.62 1692	13.2 4835	13.2 4835	16.0 5869		2.31 1692	6.60 4835	6.60 4835	8.01 5869		1.54 2256	3.97 5814	4.00 5869	4.00 5869
125.095	P_1 M_2		4.62 1840	13.2 5256	13.2 5256	14.6 5800		2.31 1840	6.60 5256	6.60 5256	7.28 5800		1.54 2453	3.64 5800	3.64 5800	3.64 5800
140.952	P_1 M_2		4.62 2073	13.2 5922	13.2 5922	13.2 5923		2.31 2073	6.60 5922	6.60 5922	6.60 5923		1.54 2764	3.30 5923	3.30 5923	3.30 5923
153.242	P_1 M_2			11.9 5800	11.9 5800	11.9 5800			5.94 5800	5.94 5800	5.94 5800			2.97 5800	2.97 5800	2.97 5800
172.667	P_1 M_2			10.8 5923	10.8 5923	10.8 5923			5.39 5923	5.39 5923	5.39 5923			2.69 5923	2.69 5923	2.69 5923
201.890	P_1 M_2			9.29 5972	9.29 5972	9.29 5972			4.64 5972	4.64 5972	4.64 5972			2.32 5972	2.32 5972	2.32 5972
227.481	P_1 M_2			8.27 5992	8.27 5992	8.27 5992			4.14 5992	4.14 5992	4.14 5992			2.07 5992	2.07 5992	2.07 5992
248.106	P_1 M_2			7.56 5973	7.56 5973	7.56 5973			3.78 5973	3.78 5973	3.78 5973			1.89 5973	1.89 5973	1.89 5973
279.556	P_1 M_2			6.78 6032	6.78 6032	6.78 6032			3.39 6032	3.39 6032	3.39 6032			1.69 6032	1.69 6032	1.69 6032
322.931	P_1 M_2		4.62 4749	5.81 5973	5.81 5973			2.31 4749	2.90 5973	2.90 5973			1.45 5973	1.45 5973	1.45 5973	
363.866	P_1 M_2		4.62 5351	5.21 6032	5.21 6032			2.31 5351	2.60 6032	2.60 6032			1.30 6032	1.30 6032	1.30 6032	
395.787	P_1 M_2		4.62 5820	4.74 5973	4.74 5973			2.31 5820	2.37 5973	2.37 5973			1.19 5973	1.19 5973	1.19 5973	
445.958	P_1 M_2		4.25 6032	4.25 6032	4.25 6032			2.12 6032	2.12 6032	2.12 6032			1.06 6032	1.06 6032	1.06 6032	
512.195	P_1 M_2		3.66 5975	3.66 5975	3.66 5975			1.83 5975	1.83 5975	1.83 5975			0.92 5975	0.92 5975	0.92 5975	
577.122	P_1 M_2		3.30 6072	3.30 6072	3.30 6072			1.65 6072	1.65 6072	1.65 6072			0.83 6072	0.83 6072	0.83 6072	
621.619	P_1 M_2		3.02 5975	3.02 5975	3.02 5975			1.51 5975	1.51 5975	1.51 5975			0.76 5975	0.76 5975	0.76 5975	
700.416	P_1 M_2		2.72 6072	2.72 6072	2.72 6072			1.36 6072	1.36 6072	1.36 6072			0.68 6072	0.68 6072	0.68 6072	
816.455	P_1 M_2	2.30 5975	2.30 5975	2.30 5975			1.15 5975	1.15 5975	1.15 5975			0.57 5975	0.57 5975	0.57 5975		
919.949	P_1 M_2	2.07 6072	2.07 6072	2.07 6072			1.04 6072	1.04 6072	1.04 6072			0.52 6072	0.52 6072	0.52 6072		
990.879	P_1 M_2	1.89 5975	1.89 5975	1.89 5975			0.95 5975	0.95 5975	0.95 5975			0.47 5975	0.47 5975	0.47 5975		
1116.484	P_1 M_2	1.71 6072	1.71 6072	1.71 6072			0.85 6072	0.85 6072	0.85 6072			0.43 6072	0.43 6072	0.43 6072		
1252.516	P_1 M_2	1.50 5975	1.50 5975				0.75 5975	0.75 5975				0.37 5975	0.37 5975			
1411.286	P_1 M_2	1.35 6072	1.35 6072				0.68 6072	0.68 6072				0.34 6072	0.34 6072			

Thermal limit rating not considered (see page 2-7)



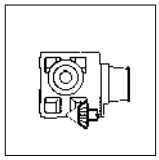
Selection tables – (Helical)-bevel gearboxes

Gearboxes with mounting flange for IEC standard motors

$M_{2perm} \leq 11790$ Nm

GKS 14 - 3 N										Dimensions page 5-102
n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
IEC connection		100/112/132	160/180 132	200/225	100/112/132	160/180 132	200/225	100/112/132	160/180 132	200/225
For the geometrical assignment servo/DC motors see chapter 2										
Drive size		**□G**	**□H**	**□K**	**□G**	**□H**	**□K**	**□G**	**□H**	**□K**
i	P_{1perm} [kW] M_{2perm} [Nm]									
12.435	P_1 M_2			93.8 3777			57.7 4651			31.0 4994
13.525	P_1 M_2			93.8 4108			57.7 5058			31.0 5432
16.646	P_1 M_2		80.4 4334	89.0 4797		49.5 5336	54.8 5906		27.4 5906	27.4 5906
18.311	P_1 M_2		80.4 4767	83.9 4978		49.5 5870	51.7 6130		25.8 6130	25.8 6130
20.065	P_1 M_2			93.8 6095			57.7 7505			31.0 8059
22.609	P_1 M_2			93.8 6868			57.7 8456			31.0 9073
24.696	P_1 M_2		80.4 6430	89.0 7117		49.5 7917	54.8 8763		27.4 8763	27.4 8763
27.165	P_1 M_2		80.4 7073	83.9 7386		49.5 8709	51.7 9094		25.8 9094	25.8 9094
30.609	P_1 M_2		80.4 7969	83.0 8229		49.5 9812	51.1 10132		25.5 10132	25.5 10132
34.692	P_1 M_2		72.1 8099	72.1 8099		44.4 9973	44.4 9973		22.2 9973	22.2 9973
39.089	P_1 M_2		70.2 8883	70.2 8883		43.2 10937	43.2 10937		21.6 10937	21.6 10937
42.531	P_1 M_2		71.9 9908	71.9 9908		39.0 10737	39.0 10737		19.5 10737	19.5 10737
47.923	P_1 M_2		66.9 10391	66.9 10391		36.3 11261	36.3 11261		18.1 11261	18.1 11261
56.251	P_1 M_2	32.5 5916	58.3 10632	58.3 10632	17.6 6412	31.6 11522	31.6 11522	10.8 7860	15.8 11522	15.8 11522
63.382	P_1 M_2	32.5 6666	51.6 10591	51.6 10591	17.6 7224	28.0 11477	28.0 11477	10.8 8856	14.0 11477	14.0 11477
68.942	P_1 M_2	32.5 7251	47.3 10569		17.6 7858	25.6 11454		9.26 8271	12.8 11454	
77.681	P_1 M_2	32.5 8170	42.2 10630		17.6 8854	22.9 11520		9.26 9319	11.4 11520	
90.551	P_1 M_2	26.8 7863	36.1 10601		14.5 8521	19.6 11488		7.26 8521	9.79 11488	
102.029	P_1 M_2	26.8 8860	32.5 10740		14.5 9601	17.6 11639		7.26 9601	8.80 11639	
109.896	P_1 M_2	22.4 7973	30.6 10879		12.1 8640	16.6 11790		6.07 8640	8.28 11790	
123.826	P_1 M_2	24.3 9735	29.0 11639		12.1 9735	14.5 11639		6.07 9735	7.25 11639	
138.913	P_1 M_2	19.5 8765			9.74 8765			4.87 8765		
156.522	P_1 M_2	19.5 9876			9.74 9876			4.87 9876		

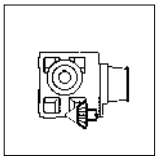
Thermal limit rating not considered (see page 2-7)



$M_{2\,perm} \leq 11790$ Nm

GKS 14 - 3 N										Dimensions page 5-102
n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
IEC connection		100/112/132	160/180 132	200/225	100/112/132	160/180 132	200/225	100/112/132	160/180 132	200/225
For the geometrical assignment servo/DC motors see chapter 2										
Drive size		**□G**	**□H**	**□K**	**□G**	**□H**	**□K**	**□G**	**□H**	**□K**
i	P_{1perm} [kW] M_{2perm} [Nm]									
186.572	P_1 M_2	19.2 11609	19.2 11609		9.60 11609	9.60 11609		4.80 11609	4.80 11609	
210.222	P_1 M_2	17.0 11555	17.0 11555		8.48 11555	8.48 11555		4.24 11555	4.24 11555	
226.431	P_1 M_2	15.8 11609	15.8 11609		7.91 11609	7.91 11609		3.96 11609	3.96 11609	
255.133	P_1 M_2	14.0 11555	14.0 11555		6.99 11555	6.99 11555		3.50 11555	3.50 11555	
286.219	P_1 M_2	12.5 11609			6.26 11609			3.13 11609		
322.500	P_1 M_2	11.1 11555			5.53 11555			2.77 11555		

Thermal limit rating not considered (see page 2-7)



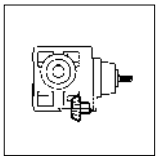
Selection tables – (Helical)-bevel gearboxes

Gearboxes with mounting flange for IEC standard motors

$M_{2perm} \leq 11639$ Nm

GKS 14 - 4 N																	Dimensions page 5-106
n_1		2800 min^{-1}					1400 min^{-1}					700 min^{-1}					
IEC connection		80/90	100/112 80/90	100/112 90	132 100/112	160/180 132	80/90	100/112 80/90	100/112 90	132 100/112	160/180 132	80/90	100/112 80/90	100/112 90	132 100/112	160/180 132	
For the geometrical assignment servo/DC motors see chapter 2																	
Drive size		**□D**	**□E**	**□F**	**□G**	**□H**	**□D**	**□E**	**□F**	**□G**	**□H**	**□D**	**□E**	**□F**	**□G**	**□H**	
i	P_{1perm} [kW] M_{2perm} [Nm]																
97.467	P_1		12.2	12.2	29.7	29.7		6.60	6.60	16.1	16.1		4.40	4.40	8.03	8.03	
	M_2		3779	3779	9202	9202		4095	4095	9973	9973		5460	5460	9973	9973	
109.822	P_1		12.2	12.2	28.9	28.9		6.60	6.60	15.6	15.6		4.40	4.40	7.82	7.82	
	M_2		4258	4258	10093	10093		4614	4614	10937	10937		6153	6153	10937	10937	
119.493	P_1		13.2	13.2	28.2	28.2		6.60	6.60	14.1	14.1		4.40	4.40	7.05	7.05	
	M_2		5021	5021	10737	10737		5021	5021	10737	10737		6694	6694	10737	10737	
134.640	P_1		13.2	13.2	26.3	26.3		6.60	6.60	13.1	13.1		4.40	4.40	6.57	6.57	
	M_2		5657	5657	11261	11261		5657	5657	11261	11261		7543	7543	11261	11261	
158.039	P_1		13.2	13.2	22.9	22.9		6.60	6.60	11.5	11.5		4.40	4.40	5.72	5.72	
	M_2		6640	6640	11522	11522		6640	6640	11522	11522		8854	8854	11522	11522	
178.072	P_1		13.2	13.2	20.2	20.2		6.60	6.60	10.1	10.1		4.40	4.40	5.06	5.06	
	M_2		7482	7482	11477	11477		7482	7482	11477	11477		9976	9976	11477	11477	
193.754	P_1			13.2	18.7	18.7			6.60	9.34	9.34			4.40	4.67	4.67	
	M_2			8141	11522	11522			8141	11522	11522			10855	11522	11522	
218.315	P_1			13.2	16.5	16.5			6.60	8.25	8.25			4.13	4.13	4.13	
	M_2			9173	11477	11477			9173	11477	11477			11477	11477	11477	
237.467	P_1			13.2	15.2	15.2			6.60	7.57	7.57			3.79	3.79	3.79	
	M_2			9978	11454	11454			9978	11454	11454			11454	11454	11454	
267.568	P_1			13.2	13.5	13.5			6.60	6.76	6.76			3.38	3.38	3.38	
	M_2			11242	11520	11520			11242	11520	11520			11520	11520	11520	
321.729	P_1		11.2	11.2	11.2			5.59	5.59	5.59			2.80	2.80	2.80		
	M_2		11454	11454	11454			11454	11454	11454			11454	11454	11454		
362.512	P_1		9.98	9.98	9.98			4.99	4.99	4.99			2.50	2.50	2.50		
	M_2		11520	11520	11520			11520	11520	11520			11520	11520	11520		
390.672	P_1		9.21	9.21	9.21			4.60	4.60	4.60			2.30	2.30	2.30		
	M_2		11454	11454	11454			11454	11454	11454			11454	11454	11454		
440.193	P_1		8.22	8.22	8.22			4.11	4.11	4.11			2.05	2.05	2.05		
	M_2		11520	11520	11520			11520	11520	11520			11520	11520	11520		
513.121	P_1		7.03	7.03	7.03			3.52	3.52	3.52			1.76	1.76	1.76		
	M_2		11488	11488	11488			11488	11488	11488			11488	11488	11488		
578.164	P_1		6.32	6.32	6.32			3.16	3.16	3.16			1.58	1.58	1.58		
	M_2		11639	11639	11639			11639	11639	11639			11639	11639	11639		
622.742	P_1		5.79	5.79	5.79			2.90	2.90	2.90			1.45	1.45	1.45		
	M_2		11488	11488	11488			11488	11488	11488			11488	11488	11488		
701.681	P_1		5.21	5.21	5.21			2.60	2.60	2.60			1.30	1.30	1.30		
	M_2		11639	11639	11639			11639	11639	11639			11639	11639	11639		
805.901	P_1	4.48	4.48	4.48			2.24	2.24	2.24			1.12	1.12	1.12			
	M_2	11488	11488	11488			11488	11488	11488			11488	11488	11488			
908.058	P_1	4.03	4.03	4.03			2.01	2.01	2.01			1.01	1.01	1.01			
	M_2	11639	11639	11639			11639	11639	11639			11639	11639	11639			
978.071	P_1	3.69	3.69	3.69			1.84	1.84	1.84			0.92	0.92	0.92			
	M_2	11488	11488	11488			11488	11488	11488			11488	11488	11488			
1102.052	P_1	3.32	3.32	3.32			1.66	1.66	1.66			0.83	0.83	0.83			
	M_2	11639	11639	11639			11639	11639	11639			11639	11639	11639			
1236.326	P_1	2.92	2.92				1.46	1.46				0.73	0.73				
	M_2	11488	11488				11488	11488				11488	11488				
1393.043	P_1	2.62	2.62				1.31	1.31				0.66	0.66				
	M_2	11639	11639				11639	11639				11639	11639				

Thermal limit rating not considered (see page 2-7)

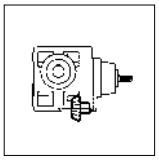


$M_{2perm} \leq 190$ Nm

GKS 04 - 3 W Dimensions page 5-110

n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
Drive size		1A	1B	1C	1A	1B	1C	1A	1B	1C
i	P_{1perm} [kW] M_{2perm} [Nm]									
5.123	P_1 M_2		2.36 39	3.88 64		1.45 48	2.39 79		0.73 48	1.20 79
7.026	P_1 M_2		2.36 54	3.30 75		1.45 66	2.03 93		0.73 66	1.02 93
8.167	P_1 M_2		2.36 62	3.88 103		1.45 77	2.39 126		0.73 77	1.20 126
8.991	P_1 M_2		2.71 79	2.87 84		1.67 97	1.77 103		0.83 97	0.88 103
9.836	P_1 M_2		2.68 85	2.71 86		1.65 105	1.67 106		0.83 105	0.83 106
11.730	P_1 M_2		2.36 90	3.85 146		1.45 110	2.37 180		0.73 110	1.18 180
13.067	P_1 M_2		2.36 100	3.17 134		1.45 123	1.95 165		0.73 123	0.97 165
14.333	P_1 M_2		2.71 126	2.87 133		1.67 155	1.77 164		0.83 155	0.88 164
16.087	P_1 M_2		2.36 123	2.82 147		1.45 151	1.74 181		0.73 151	0.87 181
17.920	P_1 M_2		2.32 135	2.32 135		1.43 166	1.43 166		0.72 166	0.72 166
20.588	P_1 M_2		2.22 148	2.22 148		1.36 182	1.36 182		0.68 182	0.68 182
22.522	P_1 M_2		2.03 148	2.03 148		1.25 182	1.25 182		0.62 182	0.62 182
25.088	P_1 M_2		1.67 136	1.67 136		1.03 167	1.03 167		0.51 167	0.51 167
28.727	P_1 M_2		1.60 149	1.60 149		0.98 183	0.98 183		0.49 183	0.49 183
32.000	P_1 M_2		1.31 136	1.31 136		0.81 167	0.81 167		0.40 167	0.40 167
35.191	P_1 M_2		1.30 149	1.30 149		0.80 183	0.80 183		0.40 183	0.40 183
39.200	P_1 M_2		1.07 136	1.07 136		0.66 168	0.66 168		0.33 168	0.33 168
44.240	P_1 M_2	1.05 150	1.05 150	1.05 150	0.65 185	0.65 185	0.65 185	0.32 185	0.32 185	0.32 185
50.943	P_1 M_2		0.90 148	0.90 148		0.55 182	0.55 182		0.28 182	0.28 182
56.976	P_1 M_2	0.82 152	0.82 152	0.82 152	0.51 187	0.51 187	0.51 187	0.25 187	0.25 187	0.25 187
64.978	P_1 M_2		0.71 149	0.71 149		0.44 183	0.44 183		0.22 183	0.22 183
72.210	P_1 M_2	0.66 154	0.66 154		0.41 190	0.41 190		0.20 190	0.20 190	
79.599	P_1 M_2		0.58 149	0.58 149		0.36 183	0.36 183		0.18 183	0.18 183
90.491	P_1 M_2	0.53 154	0.53 154		0.32 190	0.32 190		0.16 190	0.16 190	
100.067	P_1 M_2	0.46 150	0.46 150	0.46 150	0.29 185	0.29 185	0.29 185	0.14 185	0.14 185	0.14 185
111.467	P_1 M_2	0.38 138	0.38 138	0.38 138	0.24 170	0.24 170	0.24 170	0.12 170	0.12 170	0.12 170

Thermal limit rating not considered (see page 2-7)



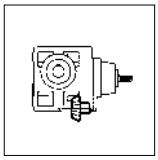
Selection tables – (Helical)-bevel gearboxes

Gearboxes with free input shaft

$M_{2perm} \leq 190$ Nm

GKS 04 - 3 W										Dimensions page 5-110
n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
Drive size		1A	1B	1C	1A	1B	1C	1A	1B	1C
i	P_{1perm} [kW] M_{2perm} [Nm]									
128.874	P_1 M_2	0.36 152	0.36 152	0.36 152	0.22 187	0.22 187	0.22 187	0.11 187	0.11 187	0.11 187
143.556	P_1 M_2	0.30 140	0.30 140	0.30 140	0.19 172	0.19 172	0.19 172	0.09 172	0.09 172	0.09 172
163.332	P_1 M_2	0.29 154	0.29 154		0.18 190	0.18 190		0.09 190	0.09 190	
181.939	P_1 M_2	0.24 141	0.24 141		0.15 174	0.15 174		0.07 174	0.07 174	
204.682	P_1 M_2	0.23 154	0.23 154		0.14 190	0.14 190		0.07 190	0.07 190	
228.000	P_1 M_2	0.20 144	0.20 144		0.12 177	0.12 177		0.06 177	0.06 177	
269.660	P_1 M_2	0.18 154			0.11 190			0.05 190		
300.381	P_1 M_2	0.15 145			0.09 178			0.05 178		

Thermal limit rating not considered (see page 2-7)



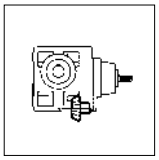
$M_{2perm} \leq 331$ Nm

GKS 05 - 3 W

Dimensions page 5-110

n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
Drive size		1B	1C	1D	1B	1C	1D	1B	1C	1D
i	P_{1perm} [kW] M_{2perm} [Nm]									
6.863	P_1 M_2			5.39 120			3.32 147			1.66 147
9.412	P_1 M_2			4.39 134			2.70 165			1.35 165
10.569	P_1 M_2			5.39 184			3.32 227			1.66 227
11.667	P_1 M_2			5.39 204			3.32 251			1.66 251
13.177	P_1 M_2	2.36 101	3.15 134	3.15 134	1.45 124	1.94 165	1.94 165	0.73 124	0.97 165	0.97 165
14.494	P_1 M_2			4.39 206			2.70 254			1.35 254
16.000	P_1 M_2			4.39 227			2.70 280			1.35 280
17.054	P_1 M_2			4.61 255			2.84 313			1.42 313
19.216	P_1 M_2			3.88 241			2.39 297			1.19 297
23.388	P_1 M_2			3.53 267			2.17 329			1.09 329
26.353	P_1 M_2			2.84 242			1.75 298			0.87 298
29.931	P_1 M_2		2.76 268	2.76 268		1.70 330	1.70 330		0.85 330	0.85 330
32.744	P_1 M_2	2.36 250	2.53 269	2.53 269	1.45 308	1.56 331	1.56 331	0.73 308	0.78 331	0.78 331
36.894	P_1 M_2	2.05 245	2.05 245	2.05 245	1.26 302	1.26 302	1.26 302	0.63 302	0.63 302	0.63 302
41.765	P_1 M_2	1.99 269	1.99 269	1.99 269	1.22 331	1.22 331	1.22 331	0.61 331	0.61 331	0.61 331
47.059	P_1 M_2	1.62 247	1.62 247	1.62 247	1.00 304	1.00 304	1.00 304	0.50 304	0.50 304	0.50 304
51.162	P_1 M_2		1.62 269	1.62 269		1.00 331	1.00 331		0.50 331	0.50 331
57.647	P_1 M_2		1.34 249	1.34 249		0.82 307	0.82 307		0.41 307	0.41 307
66.592	P_1 M_2	1.25 269	1.25 269	1.25 269	0.77 331	0.77 331	0.77 331	0.38 331	0.38 331	0.38 331
75.033	P_1 M_2	1.04 252	1.04 252	1.04 252	0.64 310	0.64 310	0.64 310	0.32 310	0.32 310	0.32 310
82.833	P_1 M_2	1.00 269	1.00 269	1.00 269	0.62 331	0.62 331	0.62 331	0.31 331	0.31 331	0.31 331
93.333	P_1 M_2	0.85 256	0.85 256	0.85 256	0.52 315	0.52 315	0.52 315	0.26 315	0.26 315	0.26 315
107.196	P_1 M_2	0.77 269	0.77 269		0.48 331	0.48 331		0.24 331	0.24 331	
120.784	P_1 M_2	0.65 256	0.65 256		0.40 315	0.40 315		0.20 315	0.20 315	
130.097	P_1 M_2	0.64 269	0.64 269		0.39 331	0.39 331		0.20 331	0.20 331	
146.588	P_1 M_2	0.54 256	0.54 256		0.33 315	0.33 315		0.17 315	0.17 315	

Thermal limit rating not considered (see page 2-7)



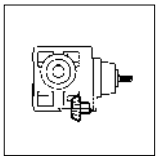
Selection tables – (Helical)-bevel gearboxes

Gearboxes with free input shaft

$M_{2perm} \leq 331$ Nm

GKS 05 - 3 W										Dimensions page 5-110
n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
Drive size		1B	1C	1D	1B	1C	1D	1B	1C	1D
i	P_{1perm} [kW] M_{2perm} [Nm]									
166.276	P_1 M_2	0.50 269			0.31 331			0.15 331		
187.353	P_1 M_2	0.42 256			0.26 315			0.13 315		
211.200	P_1 M_2	0.37 255	0.37 255		0.23 314	0.23 314		0.12 314	0.12 314	
227.484	P_1 M_2	0.31 226	0.31 226		0.19 278	0.19 278		0.09 278	0.09 278	
256.320	P_1 M_2	0.31 254	0.31 254		0.19 313	0.19 313		0.09 313	0.09 313	
290.745	P_1 M_2	0.24 225			0.15 277			0.07 277		
327.600	P_1 M_2	0.24 253			0.15 312			0.07 312		

Thermal limit rating not considered (see page 2-7)



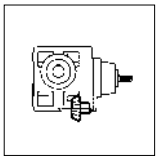
$M_{2perm} \leq 325$ Nm

GKS 05 - 4 W

Dimensions page 5-111

n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
Drive size		1A	1B	1C	1A	1B	1C	1A	1B	1C
i	P_{1perm} [kW] M_{2perm} [Nm]									
95.238	P_1 M_2	0.45 137	0.45 137	0.45 137	0.28 169	0.28 169	0.28 169	0.14 169	0.14 169	0.14 169
114.987	P_1 M_2	0.55 203	0.55 203	0.55 203	0.34 250	0.34 250	0.34 250	0.17 250	0.17 250	0.17 250
126.933	P_1 M_2	0.57 230	0.57 230	0.57 230	0.35 284	0.35 284	0.35 284	0.18 284	0.18 284	0.18 284
146.667	P_1 M_2	0.44 203	0.44 203	0.44 203	0.27 250	0.27 250	0.27 250	0.13 250	0.13 250	0.13 250
161.905	P_1 M_2	0.45 230	0.45 230	0.45 230	0.28 284	0.28 284	0.28 284	0.14 284	0.14 284	0.14 284
185.547	P_1 M_2	0.45 264	0.45 264	0.45 264	0.28 325	0.28 325	0.28 325	0.14 325	0.14 325	0.14 325
209.067	P_1 M_2	0.38 256	0.38 256	0.38 256	0.24 315	0.24 315	0.24 315	0.12 315	0.12 315	0.12 315
225.867	P_1 M_2	0.28 203	0.28 203	0.28 203	0.17 250	0.17 250	0.17 250	0.09 250	0.09 250	0.09 250
236.667	P_1 M_2	0.35 264	0.35 264	0.35 264	0.22 325	0.22 325	0.22 325	0.11 325	0.11 325	0.11 325
289.917	P_1 M_2		0.29 264	0.29 264		0.18 325	0.18 325		0.09 325	0.09 325
326.667	P_1 M_2		0.25 256	0.25 256		0.15 315	0.15 315		0.08 315	0.08 315
364.467	P_1 M_2	0.23 264	0.23 264	0.23 264	0.14 325	0.14 325	0.14 325	0.07 325	0.07 325	0.07 325
410.667	P_1 M_2	0.20 256	0.20 256	0.20 256	0.12 315	0.12 315	0.12 315	0.06 315	0.06 315	0.06 315
469.389	P_1 M_2	0.18 264	0.18 264	0.18 264	0.11 325	0.11 325	0.11 325	0.05 325	0.05 325	0.05 325
510.000	P_1 M_2	0.14 230	0.14 230		0.09 284	0.09 284		0.04 284	0.04 284	
528.889	P_1 M_2	0.15 256	0.15 256	0.15 256	0.09 315	0.09 315	0.09 315	0.05 315	0.05 315	0.05 315
594.894	P_1 M_2	0.14 264	0.14 264		0.09 325	0.09 325		0.04 325	0.04 325	
670.303	P_1 M_2	0.12 256	0.12 256		0.07 315	0.07 315		0.04 315	0.04 315	
820.760	P_1 M_2	0.10 264	0.10 264	0.10 264	0.06 325	0.06 325	0.06 325	0.03 325	0.03 325	0.03 325
924.800	P_1 M_2	0.09 256	0.09 256	0.09 256	0.05 315	0.05 315	0.05 315	0.03 315	0.03 315	0.03 315
1040.215	P_1 M_2	0.08 264	0.08 264		0.05 325	0.05 325		0.03 325	0.03 325	
1172.073	P_1 M_2	0.07 256	0.07 256		0.04 315	0.04 315		0.02 315	0.02 315	
1303.560	P_1 M_2	0.06 264	0.06 264		0.04 325	0.04 325		0.02 325	0.02 325	
1468.800	P_1 M_2	0.06 256	0.06 256		0.03 315	0.03 315		0.02 315	0.02 315	
1717.389	P_1 M_2	0.05 264			0.03 325			0.02 325		
1935.086	P_1 M_2	0.04 256			0.03 315			0.01 315		

Thermal limit rating not considered (see page 2-7)



Selection tables – (Helical)-bevel gearboxes

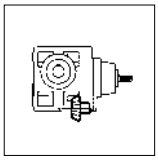
Gearboxes with free input shaft

$M_{2perm} \leq 702$ Nm

GKS 06 - 3 W Dimensions page 5-110

n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
Drive size		1C	1D	1E	1F	1C	1D	1E	1F	1C	1D	1E	1F
i	P_{1perm} [kW] M_{2perm} [Nm]												
6.485	P_1 M_2			10.2 214	10.2 214			6.26 263	6.26 263			3.13 263	3.13 263
9.196	P_1 M_2			10.2 303	10.2 303			6.26 373	6.26 373			3.13 373	3.13 373
10.147	P_1 M_2			10.2 334	10.2 334			6.26 412	6.26 412			3.13 412	3.13 412
11.382	P_1 M_2		7.30 269	7.30 269	7.30 269		4.49 331	4.49 331	4.49 331		2.25 331	2.25 331	2.25 331
12.612	P_1 M_2			8.47 346	8.47 346			5.21 426	5.21 426			2.61 426	2.61 426
14.824	P_1 M_2			10.2 488	10.2 488			6.25 600	6.25 600			3.13 600	3.13 600
16.699	P_1 M_2			9.07 491	9.07 491			5.58 604	5.58 604			2.79 604	2.79 604
17.809	P_1 M_2		7.30 421	7.30 421	7.30 421		4.49 518	4.49 518	4.49 518		2.25 518	2.25 518	2.25 518
20.329	P_1 M_2			8.20 540	8.20 540			5.05 665	5.05 665			2.53 665	2.53 665
22.902	P_1 M_2			6.63 492	6.63 492			4.08 606	4.08 606			2.04 606	2.04 606
26.017	P_1 M_2		6.54 551	6.54 551	6.54 551		4.03 679	4.03 679	4.03 679		2.01 679	2.01 679	2.01 679
28.461	P_1 M_2		6.01 554	6.01 554	6.01 554		3.70 682	3.70 682	3.70 682		1.85 682	1.85 682	1.85 682
32.063	P_1 M_2		4.77 495	4.77 495	4.77 495		2.94 610	2.94 610	2.94 610		1.47 610	1.47 610	1.47 610
36.303	P_1 M_2	4.01 471	4.73 556	4.73 556	4.73 556	2.47 580	2.91 685	2.91 685	2.91 685	1.23 580	1.46 685	1.46 685	1.46 685
41.472	P_1 M_2			4.17 560	4.17 560			2.56 689	2.56 689			1.28 689	1.28 689
44.471	P_1 M_2		3.88 560	3.88 560	3.88 560		2.39 689	2.39 689	2.39 689		1.20 689	1.20 689	1.20 689
53.074	P_1 M_2		3.28 564	3.28 564	3.28 564		2.02 695	2.02 695	2.02 695		1.01 695	1.01 695	1.01 695
57.882	P_1 M_2	2.77 519	3.01 564	3.01 564		1.71 639	1.85 695	1.85 695		0.85 639	0.93 695	0.93 695	
65.207	P_1 M_2	2.40 507	2.40 507	2.40 507		1.48 624	1.48 624	1.48 624		0.74 624	0.74 624	0.74 624	
72.000	P_1 M_2	2.32 540	2.44 570	2.44 570		1.43 665	1.51 702	1.51 702		0.71 665	0.75 702	0.75 702	
81.111	P_1 M_2	1.95 512	1.95 512	1.95 512		1.20 630	1.20 630	1.20 630		0.60 630	0.60 630	0.60 630	
93.177	P_1 M_2	1.79 540	1.89 570			1.10 664	1.16 702			0.55 664	0.58 702		
104.967	P_1 M_2	1.52 516	1.52 516			0.93 635	0.93 635			0.47 635	0.47 635		
113.082	P_1 M_2	1.55 568	1.56 570			0.96 700	0.96 702			0.48 700	0.48 702		
127.392	P_1 M_2	1.25 516	1.25 516			0.77 635	0.77 635			0.39 635	0.39 635		
142.941	P_1 M_2	1.23 570				0.76 702				0.38 702			

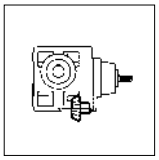
Thermal limit rating not considered (see page 2-7)



$M_{2\,perm} \leq 702$ Nm

GKS 06 - 3 W													Dimensions page 5-110
n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
Drive size		1C	1D	1E	1F	1C	1D	1E	1F	1C	1D	1E	1F
i	P_{1perm} [kW] M_{2perm} [Nm]												
161.029	P_1 M_2	0.99 516				0.61 635				0.30 635			
190.080	P_1 M_2	0.93 570	0.93 570			0.57 702	0.57 702			0.29 702	0.29 702		
214.133	P_1 M_2	0.74 516	0.74 516			0.46 635	0.46 635			0.23 635	0.23 635		
230.688	P_1 M_2	0.76 570	0.76 570			0.47 702	0.47 702			0.24 702	0.24 702		
259.880	P_1 M_2	0.61 516	0.61 516			0.38 635	0.38 635			0.19 635	0.19 635		
291.600	P_1 M_2	0.60 570				0.37 702				0.19 702			
328.500	P_1 M_2	0.49 516				0.30 635				0.15 635			

Thermal limit rating not considered (see page 2-7)



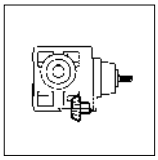
Selection tables – (Helical)-bevel gearboxes

Gearboxes with free input shaft

$M_{2perm} \leq 702$ Nm

GKS 06 - 4 W										Dimensions page 5-111
n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
Drive size		1A	1B	1C	1A	1B	1C	1A	1B	1C
i	P_{1perm} [kW] M_{2perm} [Nm]									
103.721	P_1 M_2	0.96 317	1.68 556	1.68 556	0.59 390	1.04 685	1.04 685	0.30 390	0.52 685	0.52 685
113.205	P_1 M_2	0.96 346	1.21 436	1.21 436	0.59 425	0.75 537	0.75 537	0.30 425	0.37 537	0.37 537
127.059	P_1 M_2	0.96 388	1.38 560	1.38 560	0.59 478	0.85 689	0.85 689	0.30 478	0.43 689	0.43 689
140.816	P_1 M_2	0.96 430	0.97 436	0.97 436	0.59 529	0.60 537	0.60 537	0.30 529	0.30 537	0.30 537
155.647	P_1 M_2		1.13 560	1.13 560		0.70 689	0.70 689		0.35 689	0.35 689
174.336	P_1 M_2	0.79 436	0.79 436	0.79 436	0.48 537	0.48 537	0.48 537	0.24 537	0.24 537	0.24 537
202.588	P_1 M_2		0.88 564	0.88 564		0.54 695	0.54 695		0.27 695	0.27 695
224.524	P_1 M_2	0.61 436	0.61 436	0.61 436	0.38 537	0.38 537	0.38 537	0.19 537	0.19 537	0.19 537
252.000	P_1 M_2		0.71 570	0.71 570		0.44 702	0.44 702		0.22 702	0.22 702
279.286	P_1 M_2	0.49 436	0.49 436	0.49 436	0.30 537	0.30 537	0.30 537	0.15 537	0.15 537	0.15 537
316.800	P_1 M_2	0.57 570	0.57 570	0.57 570	0.35 702	0.35 702	0.35 702	0.17 702	0.17 702	0.17 702
361.429	P_1 M_2	0.38 436	0.38 436	0.38 436	0.23 537	0.23 537	0.23 537	0.12 537	0.12 537	0.12 537
408.000	P_1 M_2	0.44 570	0.44 570	0.44 570	0.27 702	0.27 702	0.27 702	0.14 702	0.14 702	0.14 702
458.067	P_1 M_2	0.30 436	0.30 436		0.18 537	0.18 537		0.09 537	0.09 537	
517.091	P_1 M_2	0.35 570	0.35 570		0.21 702	0.21 702		0.11 702	0.11 702	
555.927	P_1 M_2	0.25 436	0.25 436		0.15 537	0.15 537		0.08 537	0.08 537	
640.800	P_1 M_2	0.28 570	0.28 570	0.28 570	0.17 702	0.17 702	0.17 702	0.09 702	0.09 702	0.09 702
696.668	P_1 M_2	0.20 436	0.20 436		0.12 537	0.12 537		0.06 537	0.06 537	
812.137	P_1 M_2	0.22 570	0.22 570		0.14 702	0.14 702		0.07 702	0.07 702	
914.907	P_1 M_2	0.18 516	0.18 516		0.11 635	0.11 635		0.05 635	0.05 635	
1017.741	P_1 M_2	0.18 570	0.18 570		0.11 702	0.11 702		0.05 702	0.05 702	
1146.529	P_1 M_2	0.14 516	0.14 516		0.09 635	0.09 635		0.04 635	0.04 635	
1340.834	P_1 M_2	0.13 570			0.08 702			0.04 702		
1510.507	P_1 M_2	0.11 516			0.07 635			0.03 635		

Thermal limit rating not considered (see page 2-7)



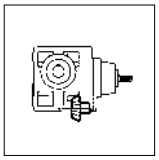
$M_{2\,perm} \leq 1330$ Nm

GKS 07 - 3 W

Dimensions page 5-110

n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
Drive size		1D	1E	1F	1G	1D	1E	1F	1G	1D	1E	1F	1G
i	P_{1perm} [kW] M_{2perm} [Nm]												
5.955	P_1 M_2			19.8 382	19.8 382			12.2 470	12.2 470			6.10 470	6.10 470
8.254	P_1 M_2			16.4 439	16.4 439			10.1 540	10.1 540			5.05 540	5.05 540
9.171	P_1 M_2			19.8 588	19.8 588			12.2 725	12.2 725			6.10 725	6.10 725
10.124	P_1 M_2			19.8 650	19.8 650			12.2 800	12.2 800			6.10 800	6.10 800
11.378	P_1 M_2		13.5 498	13.5 498	13.5 498		8.32 613	8.32 613	8.32 613		4.16 613	4.16 613	4.16 613
12.711	P_1 M_2			16.4 676	16.4 676			10.1 832	10.1 832			5.05 832	5.05 832
14.799	P_1 M_2			17.6 845	17.6 845			10.9 1040	10.9 1040			5.42 1040	5.42 1040
16.674	P_1 M_2			16.1 870	16.1 870			9.91 1071	9.91 1071			4.96 1071	4.96 1071
17.270	P_1 M_2		14.5 811	14.5 811	14.5 811		8.92 998	8.92 998	8.92 998		4.46 998	4.46 998	4.46 998
20.511	P_1 M_2			13.6 902	13.6 902			8.35 1110	8.35 1110			4.18 1110	4.18 1110
23.111	P_1 M_2			12.7 949	12.7 949			7.80 1168	7.80 1168			3.90 1168	3.90 1168
25.244	P_1 M_2		11.7 956	11.7 956	11.7 956		7.20 1177	7.20 1177	7.20 1177		3.60 1177	3.60 1177	3.60 1177
28.274	P_1 M_2		10.7 976	10.7 976	10.7 976		6.56 1202	6.56 1202	6.56 1202		3.28 1202	3.28 1202	3.28 1202
31.858	P_1 M_2		9.22 952	9.22 952	9.22 952		5.68 1172	5.68 1172	5.68 1172		2.84 1172	2.84 1172	2.84 1172
36.064	P_1 M_2	7.37 861	8.97 1048	8.97 1048	8.97 1048	4.54 1061	5.52 1290	5.52 1290	5.52 1290	2.27 1061	2.76 1290	2.76 1290	2.76 1290
40.906	P_1 M_2			7.91 1048	7.91 1048			4.87 1290	4.87 1290			2.43 1290	2.43 1290
44.178	P_1 M_2		7.38 1056	7.38 1056	7.38 1056		4.54 1300	4.54 1300	4.54 1300		2.27 1300	2.27 1300	2.27 1300
50.346	P_1 M_2		6.47 1056	6.47 1056	6.47 1056		3.99 1300	3.99 1300	3.99 1300		1.99 1300	1.99 1300	1.99 1300
57.501	P_1 M_2	5.17 963	5.71 1064	5.71 1064		3.18 1186	3.52 1310	3.52 1310		1.59 1186	1.76 1310	1.76 1310	
64.790	P_1 M_2	4.62 971	4.62 971	4.62 971		2.85 1195	2.85 1195	2.85 1195		1.42 1195	1.42 1195	1.42 1195	
70.474	P_1 M_2	4.46 1017	4.70 1072	4.70 1072		2.74 1252	2.89 1320	2.89 1320		1.37 1252	1.45 1320	1.45 1320	
79.407	P_1 M_2	3.80 979	3.80 979	3.80 979		2.34 1205	2.34 1205	2.34 1205		1.17 1205	1.17 1205	1.17 1205	
92.563	P_1 M_2	3.51 1052	3.60 1080			2.16 1295	2.22 1330			1.08 1295	1.11 1330		
104.296	P_1 M_2	2.92 987	2.92 987			1.80 1215	1.80 1215			0.90 1215	0.90 1215		
112.338	P_1 M_2	2.94 1068	2.97 1080			1.81 1315	1.83 1330			0.90 1315	0.91 1330		
126.578	P_1 M_2	2.41 987	2.41 987			1.48 1215	1.48 1215			0.74 1215	0.74 1215		

Thermal limit rating not considered (see page 2-7)



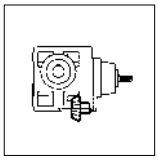
Selection tables – (Helical)-bevel gearboxes

Gearboxes with free input shaft

$M_{2perm} \leq 1330$ Nm

GKS 07 - 3 W													Dimensions page 5-110
n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
Drive size		1D	1E	1F	1G	1D	1E	1F	1G	1D	1E	1F	1G
i	P_{1perm} [kW] M_{2perm} [Nm]												
140.548	P_1 M_2	2.37 1080	2.37 1080	2.37 1080		1.46 1330	1.46 1330	1.46 1330		0.73 1330	0.73 1330	0.73 1330	
158.364	P_1 M_2	1.92 987	1.92 987	1.92 987		1.18 1215	1.18 1215	1.18 1215		0.59 1215	0.59 1215	0.59 1215	
184.600	P_1 M_2	1.81 1080	1.81 1080			1.11 1330	1.11 1330			0.56 1330	0.56 1330		
208.000	P_1 M_2	1.46 987	1.46 987			0.90 1215	0.90 1215			0.45 1215	0.45 1215		
224.037	P_1 M_2	1.49 1080	1.49 1080			0.92 1330	0.92 1330			0.46 1330	0.46 1330		
252.436	P_1 M_2	1.21 987	1.21 987			0.74 1215	0.74 1215			0.37 1215	0.37 1215		
283.193	P_1 M_2	1.18 1080				0.73 1330				0.36 1330			
319.091	P_1 M_2	0.96 987				0.59 1215				0.29 1215			

Thermal limit rating not considered (see page 2-7)



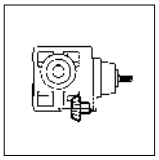
$M_{2\,perm} \leq 1330$ Nm

GKS 07 - 4 W

Dimensions page 5-111

n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
Drive size		1B	1C	1D	1B	1C	1D	1B	1C	1D
i	P_{1perm} [kW] M_{2perm} [Nm]									
103.039	P_1 M_2	2.31 758	3.19 1048	3.19 1048	1.42 933	1.97 1290	1.97 1290	0.71 933	0.98 1290	0.98 1290
112.391	P_1 M_2	2.31 827	2.39 855	2.39 855	1.42 1018	1.47 1053	1.47 1053	0.71 1018	0.74 1053	0.74 1053
126.222	P_1 M_2	2.31 928	2.63 1056	2.63 1056	1.42 1143	1.62 1300	1.62 1300	0.71 1143	0.81 1300	0.81 1300
137.748	P_1 M_2	1.95 855	1.95 855	1.95 855	1.20 1053	1.20 1053	1.20 1053	0.60 1053	0.60 1053	0.60 1053
154.622	P_1 M_2		2.14 1056	2.14 1056		1.32 1300	1.32 1300		0.66 1300	0.66 1300
179.201	P_1 M_2	1.50 855	1.50 855	1.50 855	0.92 1053	0.92 1053	0.92 1053	0.46 1053	0.46 1053	0.46 1053
201.254	P_1 M_2		1.66 1064	1.66 1064		1.02 1310	1.02 1310		0.51 1310	0.51 1310
222.909	P_1 M_2	1.21 855	1.21 855	1.21 855	0.74 1053	0.74 1053	0.74 1053	0.37 1053	0.37 1053	0.37 1053
246.659	P_1 M_2		1.37 1072	1.37 1072		0.84 1320	0.84 1320		0.42 1320	0.42 1320
273.199	P_1 M_2	0.98 855	0.98 855	0.98 855	0.61 1053	0.61 1053	0.61 1053	0.30 1053	0.30 1053	0.30 1053
321.049	P_1 M_2	1.05 1072	1.05 1072	1.05 1072	0.65 1320	0.65 1320	0.65 1320	0.32 1320	0.32 1320	0.32 1320
358.829	P_1 M_2	0.75 855	0.75 855	0.75 855	0.46 1053	0.46 1053	0.46 1053	0.23 1053	0.23 1053	0.23 1053
399.353	P_1 M_2	0.84 1072	0.84 1072	0.84 1072	0.52 1320	0.52 1320	0.52 1320	0.26 1320	0.26 1320	0.26 1320
464.367	P_1 M_2	0.58 855	0.58 855		0.36 1053	0.36 1053		0.18 1053	0.18 1053	
516.810	P_1 M_2	0.65 1072	0.65 1072		0.40 1320	0.40 1320		0.20 1320	0.20 1320	
563.573	P_1 M_2	0.48 855	0.48 855		0.29 1053	0.29 1053		0.15 1053	0.15 1053	
636.581	P_1 M_2	0.53 1080	0.53 1080	0.53 1080	0.33 1330	0.33 1330	0.33 1330	0.16 1330	0.16 1330	0.16 1330
683.972	P_1 M_2	0.39 855	0.39 855		0.24 1053	0.24 1053		0.12 1053	0.12 1053	
823.810	P_1 M_2	0.41 1080	0.41 1080		0.25 1330	0.25 1330		0.13 1330	0.13 1330	
928.237	P_1 M_2	0.33 987	0.33 987		0.21 1215	0.21 1215		0.10 1215	0.10 1215	
999.806	P_1 M_2	0.34 1080	0.34 1080		0.21 1330	0.21 1330		0.10 1330	0.10 1330	
1126.542	P_1 M_2	0.28 987	0.28 987		0.17 1215	0.17 1215		0.09 1215	0.09 1215	
1277.842	P_1 M_2	0.27 1080			0.16 1330			0.08 1330		
1439.822	P_1 M_2	0.22 987			0.13 1215			0.07 1215		

Thermal limit rating not considered (see page 2-7)



Selection tables – (Helical)-bevel gearboxes

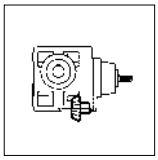
Gearboxes with free input shaft

$M_{2perm} \leq 3080$ Nm

GKS 09 - 3 W Dimensions page 5-110

n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
Drive size		1E	1F	1G	1H	1E	1F	1G	1H	1E	1F	1G	1H
i	P_{1perm} [kW] M_{2perm} [Nm]												
12.283	P_1 M_2			33.0 1312	33.0 1312			20.3 1615	20.3 1615			10.2 1615	10.2 1615
13.360	P_1 M_2			33.0 1427	33.0 1427			20.3 1757	20.3 1757			10.2 1757	10.2 1757
16.122	P_1 M_2		28.0 1462	28.0 1462	28.0 1462		17.2 1801	17.2 1801	17.2 1801		8.62 1801	8.62 1801	8.62 1801
17.536	P_1 M_2		28.0 1591	28.0 1591	28.0 1591		17.2 1958	17.2 1958	17.2 1958		8.62 1958	8.62 1958	8.62 1958
19.541	P_1 M_2			33.0 2087	33.0 2087			20.3 2570	20.3 2570			10.2 2570	10.2 2570
22.022	P_1 M_2			30.4 2170	30.4 2170			18.7 2672	18.7 2672			9.36 2672	9.36 2672
25.649	P_1 M_2		28.0 2325	28.0 2325	28.0 2325		17.2 2862	17.2 2862	17.2 2862		8.61 2862	8.61 2862	8.61 2862
29.228	P_1 M_2		25.0 2367	25.0 2367	25.0 2367		15.4 2914	15.4 2914	15.4 2914		7.69 2914	7.69 2914	7.69 2914
32.940	P_1 M_2		22.7 2424	22.7 2424	22.7 2424		14.0 2984	14.0 2984	14.0 2984		6.99 2984	6.99 2984	6.99 2984
35.193	P_1 M_2	14.9 1697	21.6 2460	21.6 2460	21.6 2460	9.16 2089	13.3 3029	13.3 3029	13.3 3029	4.58 2089	6.64 3029	6.64 3029	6.64 3029
39.662	P_1 M_2	14.9 1912	19.0 2438	19.0 2438	19.0 2438	9.16 2355	11.7 3002	11.7 3002	11.7 3002	4.58 2355	5.84 3002	5.84 3002	5.84 3002
43.146	P_1 M_2		17.6 2456	17.6 2456	17.6 2456		10.8 3024	10.8 3024	10.8 3024		5.41 3024	5.41 3024	5.41 3024
48.625	P_1 M_2		15.6 2450	15.6 2450	15.6 2450		9.58 3017	9.58 3017	9.58 3017		4.79 3017	4.79 3017	4.79 3017
58.456	P_1 M_2	10.1 1913	13.0 2462	13.0 2462		6.22 2355	8.00 3031	8.00 3031		3.11 2355	4.00 3031	4.00 3031	
65.879	P_1 M_2	10.1 2155	11.6 2475	11.6 2475		6.22 2654	7.14 3048	7.14 3048		3.11 2654	3.57 3048	3.57 3048	
70.982	P_1 M_2	8.64 1986	10.7 2462	10.7 2462		5.32 2445	6.59 3031	6.59 3031		2.66 2445	3.30 3031	3.30 3031	
79.996	P_1 M_2	8.64 2238	9.62 2494	9.62 2494		5.32 2756	5.93 3071	5.93 3071		2.66 2756	2.96 3071	2.96 3071	
91.860	P_1 M_2	6.94 2064	8.27 2462			4.27 2542	5.09 3031			2.14 2542	2.55 3031		
103.524	P_1 M_2	6.94 2326	7.46 2501			4.27 2864	4.59 3080			2.14 2864	2.30 3080		
111.484	P_1 M_2	5.83 2105	6.82 2462			3.59 2591	4.20 3031			1.79 2591	2.10 3031		
125.641	P_1 M_2	5.83 2372	6.15 2501			3.59 2920	3.78 3080			1.79 2920	1.89 3080		
140.921	P_1 M_2	4.70 2146				2.89 2642				1.45 2642			
158.816	P_1 M_2	4.70 2418				2.89 2978				1.45 2978			
182.000	P_1 M_2	4.18 2462	4.18 2462			2.57 3031	2.57 3031			1.29 3031	1.29 3031		
205.111	P_1 M_2	3.76 2501	3.76 2501			2.32 3080	2.32 3080			1.16 3080	1.16 3080		
220.882	P_1 M_2	3.44 2462	3.44 2462			2.12 3031	2.12 3031			1.06 3031	1.06 3031		

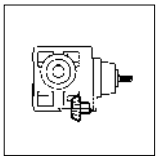
Thermal limit rating not considered (see page 2-7)



$M_{2\,perm} \leq 3080$ Nm

GKS 09 - 3 W													Dimensions page 5-110
n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
Drive size		1E	1F	1G	1H	1E	1F	1G	1H	1E	1F	1G	1H
i	P_{1perm} [kW] M_{2perm} [Nm]												
248.930	P_1 M_2	3.10 2501	3.10 2501			1.91 3080	1.91 3080			0.96 3080	0.96 3080		
279.205	P_1 M_2	2.72 2462				1.68 3031				0.84 3031			
314.659	P_1 M_2	2.45 2501				1.51 3080				0.76 3080			

Thermal limit rating not considered (see page 2-7)



Selection tables – (Helical)-bevel gearboxes

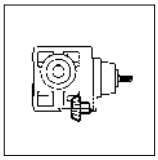
Gearboxes with free input shaft

$M_{2perm} \leq 3080$ Nm

GKS 09 - 4 W Dimensions page 5-111

n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
Drive size		1C	1D	1E	1F	1C	1D	1E	1F	1C	1D	1E	1F
i	P_{1perm} [kW] M_{2perm} [Nm]												
100.551	P_1 M_2	4.01 1284	6.18 1979	7.68 2460	7.68 2460	2.47 1580	3.80 2436	4.73 3029	4.73 3029	1.23 1580	1.90 2436	2.37 3029	2.37 3029
113.320	P_1 M_2	4.01 1447	6.18 2230	6.76 2438	6.76 2438	2.47 1781	3.80 2746	4.16 3002	4.16 3002	1.23 1781	1.90 2746	2.08 3002	2.08 3002
123.275	P_1 M_2	4.01 1574	6.18 2426	6.26 2456	6.26 2456	2.47 1938	3.80 2987	3.85 3024	3.85 3024	1.23 1938	1.90 2987	1.93 3024	1.93 3024
138.929	P_1 M_2	4.01 1774	5.54 2450	5.54 2450	5.54 2450	2.47 2184	3.41 3017	3.41 3017	3.41 3017	1.23 2184	1.71 3017	1.71 3017	1.71 3017
151.012	P_1 M_2		5.11 2456	5.11 2456	5.11 2456		3.14 3024	3.14 3024	3.14 3024		1.57 3024	1.57 3024	1.57 3024
170.188	P_1 M_2		4.52 2450	4.52 2450	4.52 2450		2.78 3017	2.78 3017	2.78 3017		1.39 3017	1.39 3017	1.39 3017
204.596	P_1 M_2		3.78 2462	3.78 2462	3.78 2462		2.33 3031	2.33 3031	2.33 3031		1.16 3031	1.16 3031	1.16 3031
230.577	P_1 M_2		3.37 2475	3.37 2475	3.37 2475		2.08 3048	2.08 3048	2.08 3048		1.04 3048	1.04 3048	1.04 3048
248.439	P_1 M_2		3.11 2462	3.11 2462	3.11 2462		1.92 3031	1.92 3031	1.92 3031		0.96 3031	0.96 3031	0.96 3031
279.986	P_1 M_2		2.80 2494	2.80 2494	2.80 2494		1.72 3071	1.72 3071	1.72 3071		0.86 3071	0.86 3071	0.86 3071
323.365	P_1 M_2	2.39 2462	2.39 2462	2.39 2462		1.47 3031	1.47 3031	1.47 3031		0.74 3031	0.74 3031	0.74 3031	
364.427	P_1 M_2	2.15 2494	2.15 2494	2.15 2494		1.32 3071	1.32 3071	1.32 3071		0.66 3071	0.66 3071	0.66 3071	
402.234	P_1 M_2	1.92 2462	1.92 2462	1.92 2462		1.18 3031	1.18 3031	1.18 3031		0.59 3031	0.59 3031	0.59 3031	
453.311	P_1 M_2	1.73 2494	1.73 2494	1.73 2494		1.06 3071	1.06 3071	1.06 3071		0.53 3071	0.53 3071	0.53 3071	
520.538	P_1 M_2	1.49 2462	1.49 2462	1.49 2462		0.91 3031	0.91 3031	0.91 3031		0.46 3031	0.46 3031	0.46 3031	
586.638	P_1 M_2	1.34 2501	1.34 2501	1.34 2501		0.82 3080	0.82 3080	0.82 3080		0.41 3080	0.41 3080	0.41 3080	
631.744	P_1 M_2	1.22 2462	1.22 2462	1.22 2462		0.75 3031	0.75 3031	0.75 3031		0.38 3031	0.38 3031	0.38 3031	
711.965	P_1 M_2	1.10 2501	1.10 2501	1.10 2501		0.68 3080	0.68 3080	0.68 3080		0.34 3080	0.34 3080	0.34 3080	
817.551	P_1 M_2	0.95 2462	0.95 2462			0.58 3031	0.58 3031			0.29 3031	0.29 3031		
921.367	P_1 M_2	0.85 2501	0.85 2501			0.53 3080	0.53 3080			0.26 3080	0.26 3080		
992.209	P_1 M_2	0.78 2462	0.78 2462			0.48 3031	0.48 3031			0.24 3031	0.24 3031		
1118.204	P_1 M_2	0.70 2501	0.70 2501			0.43 3080	0.43 3080			0.22 3080	0.22 3080		
1254.197	P_1 M_2	0.62 2462				0.38 3031				0.19 3031			
1413.461	P_1 M_2	0.56 2501				0.34 3080				0.17 3080			

Thermal limit rating not considered (see page 2-7)

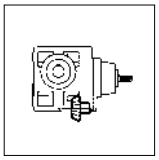


$M_{2perm} \leq 6072$ Nm

GKS 11 - 3 W Dimensions page 5-110

n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
Drive size		1F	1G	1H	1K	1F	1G	1H	1K	1F	1G	1H	1K
i	P_{1perm} [kW] M_{2perm} [Nm]												
12.094	P_1 M_2			57.4 2250	57.4 2250			35.4 2770	35.4 2770			17.7 2770	17.7 2770
13.154	P_1 M_2			57.4 2447	57.4 2447			35.4 3013	35.4 3013			17.7 3013	17.7 3013
15.874	P_1 M_2			48.8 2509	48.8 2509			30.0 3089	30.0 3089			15.0 3089	15.0 3089
17.265	P_1 M_2			48.8 2729	48.8 2729			30.0 3360	30.0 3360			15.0 3360	15.0 3360
19.515	P_1 M_2			57.4 3630	57.4 3630			35.4 4470	35.4 4470			17.7 4470	17.7 4470
21.989	P_1 M_2			55.7 3967	55.7 3967			34.3 4884	34.3 4884			17.1 4884	17.1 4884
25.615	P_1 M_2			48.8 4049	48.8 4049			30.0 4985	30.0 4985			15.0 4985	15.0 4985
28.021	P_1 M_2		46.2 4193	46.2 4193	46.2 4193		28.4 5163	28.4 5163	28.4 5163		14.2 5163	14.2 5163	14.2 5163
31.573	P_1 M_2		43.8 4484	43.8 4484	43.8 4484		27.0 5521	27.0 5521	27.0 5521		13.5 5521	13.5 5521	13.5 5521
35.741	P_1 M_2	27.3 3160	39.7 4593	39.7 4593	39.7 4593	16.8 3890	24.4 5655	24.4 5655	24.4 5655	8.40 3890	12.2 5655	12.2 5655	12.2 5655
40.272	P_1 M_2	27.3 3560	36.5 4767	36.5 4767	36.5 4767	16.8 4383	22.5 5869	22.5 5869	22.5 5869	8.40 4383	11.3 5869	11.3 5869	11.3 5869
43.783	P_1 M_2		33.2 4711	33.2 4711	33.2 4711		20.4 5800	20.4 5800	20.4 5800		10.2 5800	10.2 5800	10.2 5800
49.333	P_1 M_2		30.1 4810	30.1 4810	30.1 4810		18.5 5923	18.5 5923	18.5 5923		9.27 5923	9.27 5923	9.27 5923
57.683	P_1 M_2	19.0 3548	26.0 4850	26.0 4850		11.7 4369	16.0 5972	16.0 5972		5.85 4369	7.99 5972	7.99 5972	
64.995	P_1 M_2	19.0 3998	23.1 4866	23.1 4866		11.7 4923	14.2 5992	14.2 5992		5.85 4923	7.11 5992	7.11 5992	
70.887	P_1 M_2	15.9 3645	21.1 4851	21.1 4851		9.77 4488	13.0 5973	13.0 5973		4.89 4488	6.50 5973	6.50 5973	
79.873	P_1 M_2	15.9 4107	18.9 4899	18.9 4899		9.77 5057	11.7 6032	11.7 6032		4.89 5057	5.83 6032	5.83 6032	
91.737	P_1 M_2	12.8 3790	16.3 4853			7.85 4666	10.1 5975			3.93 4666	5.03 5975		
103.365	P_1 M_2	12.8 4270	14.7 4931			7.85 5258	9.07 6072			3.93 5258	4.53 6072		
111.335	P_1 M_2	10.7 3840	13.5 4853			6.55 4728	8.28 5975			3.28 4728	4.14 5975		
125.448	P_1 M_2	10.7 4327	12.1 4931			6.55 5328	7.47 6072			3.28 5328	3.74 6072		
140.732	P_1 M_2	8.54 3893				5.26 4794				2.63 4794			
158.571	P_1 M_2	8.54 4387				5.26 5401				2.63 5401			
186.572	P_1 M_2	8.03 4853	8.03 4853			4.94 5975	4.94 5975			2.47 5975	2.47 5975		
210.222	P_1 M_2	7.03 4785	7.03 4785			4.33 5892	4.33 5892			2.16 5892	2.16 5892		
226.431	P_1 M_2	6.62 4853	6.62 4853			4.07 5975	4.07 5975			2.04 5975	2.04 5975		

Thermal limit rating not considered (see page 2-7)



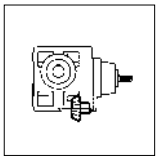
Selection tables – (Helical)-bevel gearboxes

Gearboxes with free input shaft

$M_{2perm} \leq 6072$ Nm

GKS 11 - 3 W													Dimensions page 5-110
n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
Drive size		1F	1G	1H	1K	1F	1G	1H	1K	1F	1G	1H	1K
i	P_{1perm} [kW] M_{2perm} [Nm]												
255.133	P_1 M_2	5.79 4785	5.79 4785			3.56 5892	3.56 5892			1.78 5892	1.78 5892		
286.219	P_1 M_2	5.23 4853				3.22 5975				1.61 5975			
322.500	P_1 M_2	4.58 4785				2.82 5892				1.41 5892			

Thermal limit rating not considered (see page 2-7)



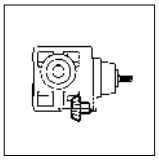
$M_{2perm} \leq 6072$ Nm

GKS 11 - 4 W

Dimensions page 5-111

n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
Drive size		1D	1E	1F	1G	1D	1E	1F	1G	1D	1E	1F	1G
i	P_{1perm} [kW] M_{2perm} [Nm]												
102.119	P_1 M_2	7.37 2398	12.0 3897	14.1 4593	14.1 4593	4.54 2952	7.38 4798	8.69 5655	8.69 5655	2.27 2952	3.69 4798	4.35 5655	4.35 5655
115.063	P_1 M_2	7.37 2701	12.0 4391	13.0 4767	13.0 4767	4.54 3326	7.38 5406	8.01 5869	8.01 5869	2.27 3326	3.69 5406	4.00 5869	4.00 5869
125.095	P_1 M_2	7.37 2937	11.8 4711	11.8 4711	11.8 4711	4.54 3616	7.28 5800	7.28 5800	7.28 5800	2.27 3616	3.64 5800	3.64 5800	3.64 5800
140.952	P_1 M_2	7.37 3309	10.7 4810	10.7 4810	10.7 4810	4.54 4075	6.60 5923	6.60 5923	6.60 5923	2.27 4075	3.30 5923	3.30 5923	3.30 5923
153.242	P_1 M_2		9.65 4711	9.65 4711	9.65 4711		5.94 5800	5.94 5800	5.94 5800		2.97 5800	2.97 5800	2.97 5800
172.667	P_1 M_2		8.75 4810	8.75 4810	8.75 4810		5.39 5923	5.39 5923	5.39 5923		2.69 5923	2.69 5923	2.69 5923
201.890	P_1 M_2		7.54 4850	7.54 4850	7.54 4850		4.64 5972	4.64 5972	4.64 5972		2.32 5972	2.32 5972	2.32 5972
227.481	P_1 M_2		6.72 4866	6.72 4866	6.72 4866		4.14 5992	4.14 5992	4.14 5992		2.07 5992	2.07 5992	2.07 5992
248.106	P_1 M_2		6.14 4851	6.14 4851	6.14 4851		3.78 5973	3.78 5973	3.78 5973		1.89 5973	1.89 5973	1.89 5973
279.556	P_1 M_2		5.50 4899	5.50 4899	5.50 4899		3.39 6032	3.39 6032	3.39 6032		1.69 6032	1.69 6032	1.69 6032
322.931	P_1 M_2	4.72 4851	4.72 4851	4.72 4851		2.90 5973	2.90 5973	2.90 5973		1.45 5973	1.45 5973	1.45 5973	
363.866	P_1 M_2	4.23 4899	4.23 4899	4.23 4899		2.60 6032	2.60 6032	2.60 6032		1.30 6032	1.30 6032	1.30 6032	
395.787	P_1 M_2	3.85 4851	3.85 4851	3.85 4851		2.37 5973	2.37 5973	2.37 5973		1.19 5973	1.19 5973	1.19 5973	
445.958	P_1 M_2	3.45 4899	3.45 4899	3.45 4899		2.12 6032	2.12 6032	2.12 6032		1.06 6032	1.06 6032	1.06 6032	
512.195	P_1 M_2	2.98 4853	2.98 4853	2.98 4853		1.83 5975	1.83 5975	1.83 5975		0.92 5975	0.92 5975	0.92 5975	
577.122	P_1 M_2	2.68 4931	2.68 4931	2.68 4931		1.65 6072	1.65 6072	1.65 6072		0.83 6072	0.83 6072	0.83 6072	
621.619	P_1 M_2	2.45 4853	2.45 4853	2.45 4853		1.51 5975	1.51 5975	1.51 5975		0.76 5975	0.76 5975	0.76 5975	
700.416	P_1 M_2	2.21 4931	2.21 4931	2.21 4931		1.36 6072	1.36 6072	1.36 6072		0.68 6072	0.68 6072	0.68 6072	
816.455	P_1 M_2	1.87 4853	1.87 4853			1.15 5975	1.15 5975			0.57 5975	0.57 5975		
919.949	P_1 M_2	1.68 4931	1.68 4931			1.04 6072	1.04 6072			0.52 6072	0.52 6072		
990.879	P_1 M_2	1.54 4853	1.54 4853			0.95 5975	0.95 5975			0.47 5975	0.47 5975		
1116.484	P_1 M_2	1.39 4931	1.39 4931			0.85 6072	0.85 6072			0.43 6072	0.43 6072		
1252.516	P_1 M_2	1.22 4853				0.75 5975				0.37 5975			
1411.286	P_1 M_2	1.10 4931				0.68 6072				0.34 6072			

Thermal limit rating not considered (see page 2-7)



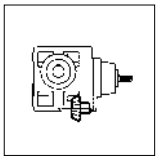
Selection tables – (Helical)-bevel gearboxes

Gearboxes with free input shaft

$M_{2perm} \leq 11790$ Nm

GKS 14 - 3 W										Dimensions page 5-110
n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
Drive size		1G	1H	1K	1G	1H	1K	1G	1H	1K
i	P_{1perm} [kW] M_{2perm} [Nm]									
12.435	P_1 M_2			100.7 4056			62.0 4994			31.0 4994
13.525	P_1 M_2			100.7 4412			62.0 5432			31.0 5432
16.646	P_1 M_2		89.0 4797	89.0 4797		54.8 5906	54.8 5906		27.4 5906	27.4 5906
18.311	P_1 M_2		83.9 4978	83.9 4978		51.7 6130	51.7 6130		25.8 6130	25.8 6130
20.065	P_1 M_2			100.7 6545			62.0 8059			31.0 8059
22.609	P_1 M_2			100.6 7369			61.9 9073			31.0 9073
24.696	P_1 M_2		89.0 7117	89.0 7117		54.8 8763	54.8 8763		27.4 8763	27.4 8763
27.165	P_1 M_2		83.9 7386	83.9 7386		51.7 9094	51.7 9094		25.8 9094	25.8 9094
30.609	P_1 M_2		83.0 8229	83.0 8229		51.1 10132	51.1 10132		25.5 10132	25.5 10132
34.692	P_1 M_2		72.1 8099	72.1 8099		44.4 9973	44.4 9973		22.2 9973	22.2 9973
39.089	P_1 M_2		70.2 8883	70.2 8883		43.2 10937	43.2 10937		21.6 10937	21.6 10937
42.531	P_1 M_2		63.3 8720	63.3 8720		39.0 10737	39.0 10737		19.5 10737	19.5 10737
47.923	P_1 M_2		58.9 9146	58.9 9146		36.3 11261	36.3 11261		18.1 11261	18.1 11261
56.251	P_1 M_2	38.1 6934	51.4 9358	51.4 9358	23.4 8538	31.6 11522	31.6 11522	11.7 8538	15.8 11522	15.8 11522
63.382	P_1 M_2	38.1 7813	45.4 9321	45.4 9321	23.4 9621	28.0 11477	28.0 11477	11.7 9621	14.0 11477	14.0 11477
68.942	P_1 M_2	32.6 7270	41.7 9303		20.0 8952	25.6 11454		10.0 8952	12.8 11454	
77.681	P_1 M_2	32.6 8192	37.2 9356		20.0 10087	22.9 11520		10.0 10087	11.4 11520	
90.551	P_1 M_2	25.7 7526	31.8 9330		15.8 9267	19.6 11488		7.90 9267	9.79 11488	
102.029	P_1 M_2	25.7 8480	28.6 9453		15.8 10441	17.6 11639		7.90 10441	8.80 11639	
109.896	P_1 M_2	21.5 7656	26.9 9575		13.2 9427	16.6 11790		6.62 9427	8.28 11790	
123.826	P_1 M_2	21.5 8627	23.6 9453		13.2 10622	14.5 11639		6.62 10622	7.25 11639	
138.913	P_1 M_2	17.3 7793			10.7 9595			5.33 9595		
156.522	P_1 M_2	17.3 8781			10.7 10812			5.33 10812		
186.572	P_1 M_2	15.6 9429	15.6 9429		9.60 11609	9.60 11609		4.80 11609	4.80 11609	
210.222	P_1 M_2	13.8 9385	13.8 9385		8.48 11555	8.48 11555		4.24 11555	4.24 11555	
226.431	P_1 M_2	12.9 9429	12.9 9429		7.91 11609	7.91 11609		3.96 11609	3.96 11609	

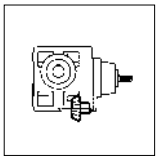
Thermal limit rating not considered (see page 2-7)



$M_{2\,perm} \leq 11790$ Nm

GKS 14 - 3 W										Dimensions page 5-110
n_1		2800 min^{-1}			1400 min^{-1}			700 min^{-1}		
Drive size		1G	1H	1K	1G	1H	1K	1G	1H	1K
i	P_{1perm} [kW] M_{2perm} [Nm]									
255.133	P_1 M_2	11.4 9385	11.4 9385		6.99 11555	6.99 11555		3.50 11555	3.50 11555	
286.219	P_1 M_2	10.2 9429			6.26 11609			3.13 11609		
322.500	P_1 M_2	8.98 9385			5.53 11555			2.77 11555		

Thermal limit rating not considered (see page 2-7)



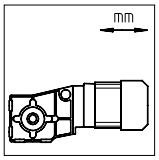
Selection tables – (Helical)-bevel gearboxes

Gearboxes with free input shaft

$M_{2perm} \leq 11639$ Nm

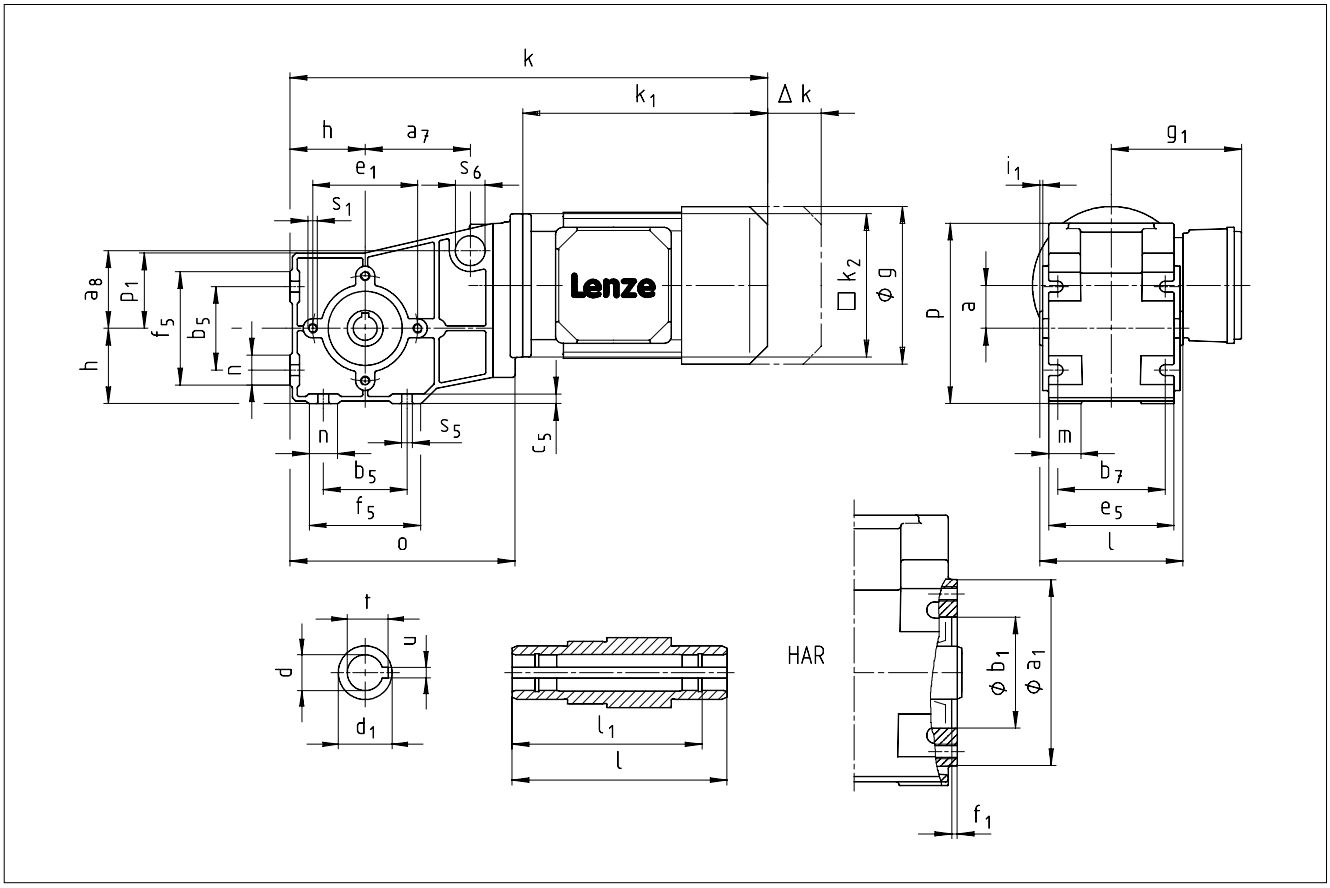
GKS 14 - 4 W													Dimensions page 5-111
n_1		2800 min^{-1}				1400 min^{-1}				700 min^{-1}			
Drive size		1E	1F	1G	1H	1E	1F	1G	1H	1E	1F	1G	1H
i	P_{1perm} [kW] M_{2perm} [Nm]												
97.467	P_1 M_2	14.9 4619	22.5 6982	26.1 8099	26.1 8099	9.16 5688	13.9 8597	16.1 9973	16.1 9973	4.58 5688	6.93 8597	8.03 9973	8.03 9973
109.822	P_1 M_2	14.9 5205	22.5 7868	25.4 8883	25.4 8883	9.16 6409	13.9 9687	15.6 10937	15.6 10937	4.58 6409	6.93 9687	7.82 10937	7.82 10937
119.493	P_1 M_2	14.9 5663	22.5 8560	22.9 8720	22.9 8720	9.16 6973	13.9 10540	14.1 10737	14.1 10737	4.58 6973	6.93 10540	7.05 10737	7.05 10737
134.640	P_1 M_2	14.9 6381	21.3 9146	21.3 9146	21.3 9146	9.16 7857	13.1 11261	13.1 11261	13.1 11261	4.58 7857	6.57 11261	6.57 11261	6.57 11261
158.039	P_1 M_2	14.9 7490	18.6 9358	18.6 9358	18.6 9358	9.16 9223	11.5 11522	11.5 11522	11.5 11522	4.58 9223	5.72 11522	5.72 11522	5.72 11522
178.072	P_1 M_2	14.9 8440	16.4 9321	16.4 9321	16.4 9321	9.16 10392	10.1 11477	10.1 11477	10.1 11477	4.58 10392	5.06 11477	5.06 11477	5.06 11477
193.754	P_1 M_2		15.2 9358	15.2 9358	15.2 9358		9.34 11522	9.34 11522	9.34 11522		4.67 11522	4.67 11522	4.67 11522
218.315	P_1 M_2		13.4 9321	13.4 9321	13.4 9321		8.25 11477	8.25 11477	8.25 11477		4.13 11477	4.13 11477	4.13 11477
237.467	P_1 M_2		12.3 9303	12.3 9303	12.3 9303		7.57 11454	7.57 11454	7.57 11454		3.79 11454	3.79 11454	3.79 11454
267.568	P_1 M_2		11.0 9356	11.0 9356	11.0 9356		6.76 11520	6.76 11520	6.76 11520		3.38 11520	3.38 11520	3.38 11520
321.729	P_1 M_2	9.08 9303	9.08 9303	9.08 9303		5.59 11454	5.59 11454	5.59 11454		2.80 11454	2.80 11454	2.80 11454	
362.512	P_1 M_2	8.10 9356	8.10 9356	8.10 9356		4.99 11520	4.99 11520	4.99 11520		2.50 11520	2.50 11520	2.50 11520	
390.672	P_1 M_2	7.48 9303	7.48 9303	7.48 9303		4.60 11454	4.60 11454	4.60 11454		2.30 11454	2.30 11454	2.30 11454	
440.193	P_1 M_2	6.67 9356	6.67 9356	6.67 9356		4.11 11520	4.11 11520	4.11 11520		2.05 11520	2.05 11520	2.05 11520	
513.121	P_1 M_2	5.71 9330	5.71 9330	5.71 9330		3.52 11488	3.52 11488	3.52 11488		1.76 11488	1.76 11488	1.76 11488	
578.164	P_1 M_2	5.13 9453	5.13 9453	5.13 9453		3.16 11639	3.16 11639	3.16 11639		1.58 11639	1.58 11639	1.58 11639	
622.742	P_1 M_2	4.71 9330	4.71 9330	4.71 9330		2.90 11488	2.90 11488	2.90 11488		1.45 11488	1.45 11488	1.45 11488	
701.681	P_1 M_2	4.23 9453	4.23 9453	4.23 9453		2.60 11639	2.60 11639	2.60 11639		1.30 11639	1.30 11639	1.30 11639	
805.901	P_1 M_2	3.64 9330	3.64 9330			2.24 11488	2.24 11488			1.12 11488	1.12 11488		
908.058	P_1 M_2	3.27 9453	3.27 9453			2.01 11639	2.01 11639			1.01 11639	1.01 11639		
978.071	P_1 M_2	3.00 9330	3.00 9330			1.84 11488	1.84 11488			0.92 11488	0.92 11488		
1102.052	P_1 M_2	2.69 9453	2.69 9453			1.66 11639	1.66 11639			0.83 11639	0.83 11639		
1236.326	P_1 M_2	2.37 9330				1.46 11488				0.73 11488			
1393.043	P_1 M_2	2.13 9453				1.31 11639				0.66 11639			

Thermal limit rating not considered (see page 2-7)



Dimensions – (Helical)-bevel gearboxes

Geared motors



Geared motor **GKR □□ - 2 M H□R**			Motor frame size		
			063 -1□ | -3□	**071** -1□/-3□	**080** -1□/-3□
Motor	**g**		129	142	156
	g_1	Without options	105	130	130
		Brake motor	105	131	131
	k_1		193 | 204	176	225
	k_2		100	145	145
	Δk **	Brake	56	66	68
		Separate fan	71	80	94
		Separate fan + brake	118	134	150

Gearbox size	Gearbox						Total length			
	l*	**p***	**p_1**	**a**	**h**	**o**	**k**			
04	120	151	63	36	63	189	363	404	376	435

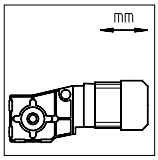
Gearbox size	Hollow shaft						Pitch circle					
	d H7	**l**	**d_1**	**l_1**	**u** JS9	**t**[1] +0.1	**a_1**	**b_1** J7	**e_1**	**f_1**	**i_1**	**s_1**
04	20 25	120	30 35	106	6 8	22.8 27.0	104	62	88	3	2.5	M8x16

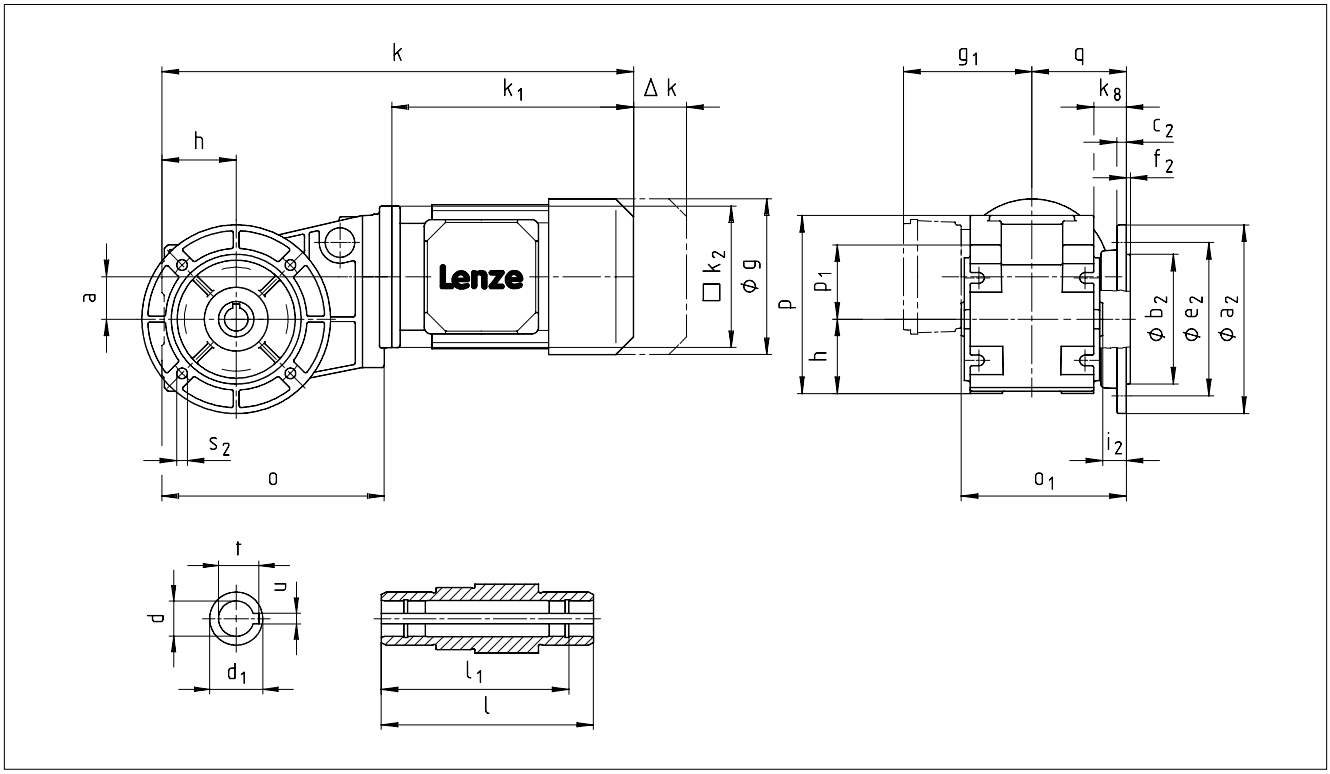
Gearbox size	Foot								Torque plate		
	b_5	**b_7**	**c_5**	**e_5**	**f_5**	**n**	**m**	**s_5**	**a_7**	**a_8**	**s_6**
04	70	90	8	105	95	25	28	9	88	65	25 x 17

Dimensions in [mm]

* Observe k_2 ** Further attachments in chapter 7

[1] If the hollow shaft diameter is d=25 mm use a flat key to DIN 6885/3





Geared motor **GKR □□ - 2 M HAK**			Motor frame size			
			063		**071**	**080**
			-1□	-3□	-1□/-3□	-1□/-3□
Motor	**g**		129		142	156
	g_1	Without options	105		130	130
		Brake motor	105		131	131
	k_1		193	204	176	225
	k_2		100		145	145
	Δk **	Brake	56		66	68
		Separate fan	71		80	94
		Separate fan + brake	118		134	150

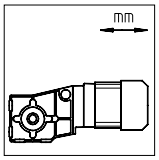
Gearbox size	Gearbox								Total length			
	o_1*	**p***	**p_1**	**a**	**h**	**k_8**	**o**	**q**	**k**			
04	140	151	63	36	63	28	189	80	363	404	376	435

Gearbox size	Hollow shaft						Output flange						
	d H7	**l**	**d_1**	**l_1**	**u** JS9	**t**[1] +0,1	**a_2**	**b_2** j7	**c_2**	**e_2**	**f_2**	**i_2**	**s_2** 4x90°
04	20 25	120	30 35	106	6 8	22,8 27	120 160	80 110	8,0	100 130	3 3,5	20	7 9

Dimensions in [mm]

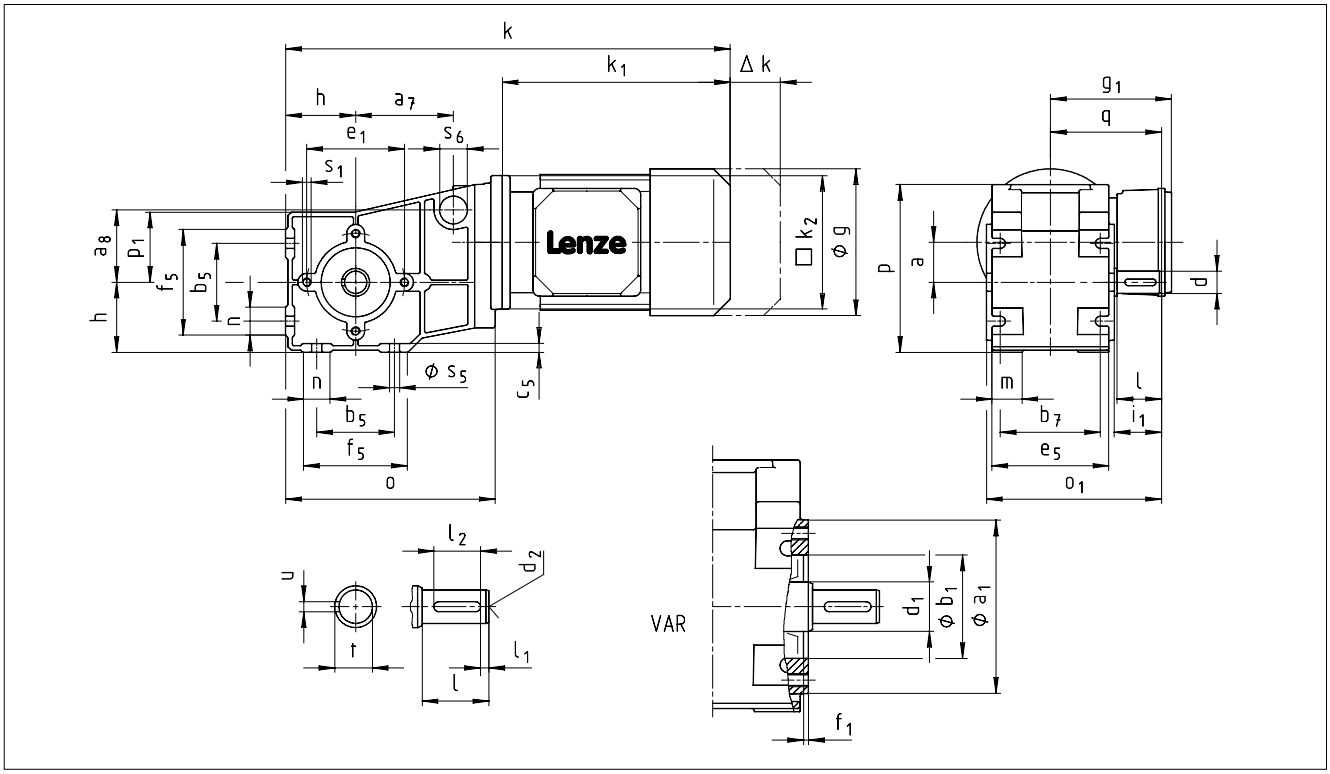
* Observe k_2 ** Further attachments in chapter 7

[1] If the hollow shaft diameter is d=25 mm use a flat key to DIN 6885/3



Dimensions – (Helical)-bevel gearboxes

Geared motors



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Geared motor **GKR □□ - 2 M V□R**			Motor frame size					
			063			**071**	**080**	
			-1□		-3□	-1□/-3□	-1□/-3□	
Motor	**g**		129			142	156	
	g_1	Without options	105			130	130	
		Brake motor	105			131	131	
	k_1		193		204	176	225	
	k_2		100			145	145	
	Δk **	Brake	56			66	68	
		Separate fan	71			80	94	
		Separate fan + brake	118			134	150	

Gearbox size	Gearbox							Total length			
	o_1*	**p***	**p_1**	**a**	**h**	**o**	**q**	**k**			
04	158	151	63	36	63	189	100	363	404	376	435

Gearbox size	Hollow shaft								Pitch circle					
	d k6	**l**	**d_1**	**l_1**	**l_2**	**d_2**	**u**	**t**	**a_1**	**b_1** J7	**e_1**	**f_1**	**i_1**	**s_1**
04	20	40	30	5	28	M6	6	22.5	104	62	88	3	42.5	M8x16

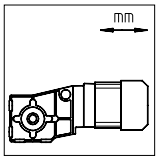
Gearbox size	Foot								Torque plate		
	b_5	**b_7**	**c_5**	**e_5**	**f_5**	**n**	**m**	**s_5**	**a_7**	**a_8**	**s_6**
04	70	90	8	105	95	25	28	9	88	65	25 x 17

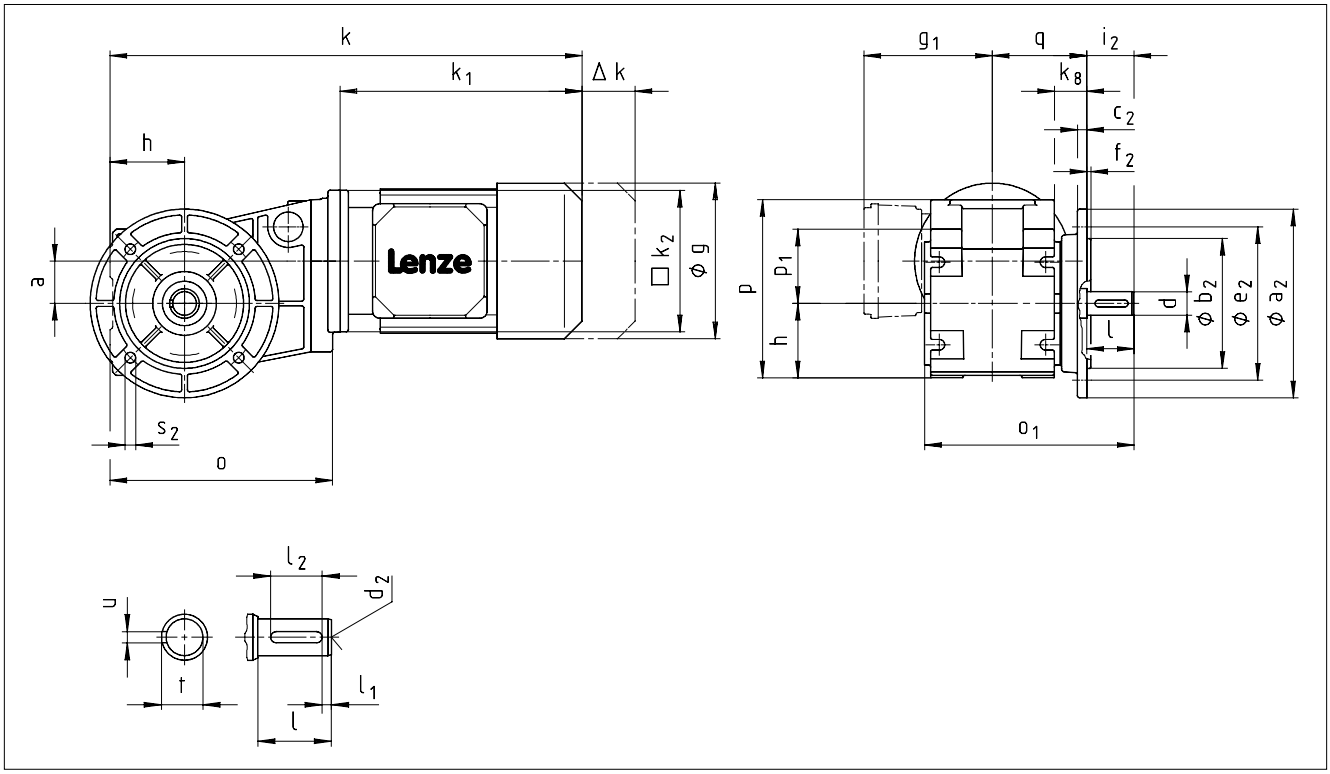
Dimensions in [mm]

* Observe k_2

** Further attachments in chapter 7

Lenze





Geared motor **GKR □□ - 2 M VAK**			Motor frame size			
			063		**071**	**080**
			-1□	-3□	-1□/-3□	-1□/-3□
Motor	**g**		129		142	156
	g_1	Without options	105		130	130
		Brake motor	105		131	131
	k_1		193	204	176	225
	k_2		100		145	145
	Δk **	Brake	56		66	68
		Separate fan	71		80	94
		Separate fan + brake	118		134	150

Gearbox size	Gearbox								Total length			
	o_1*	**p***	**p_1**	**a**	**h**	**o**	**q**	**k_8**	**k**			
04	178	151	63	36	63	189	80.5	28	363	404	376	435

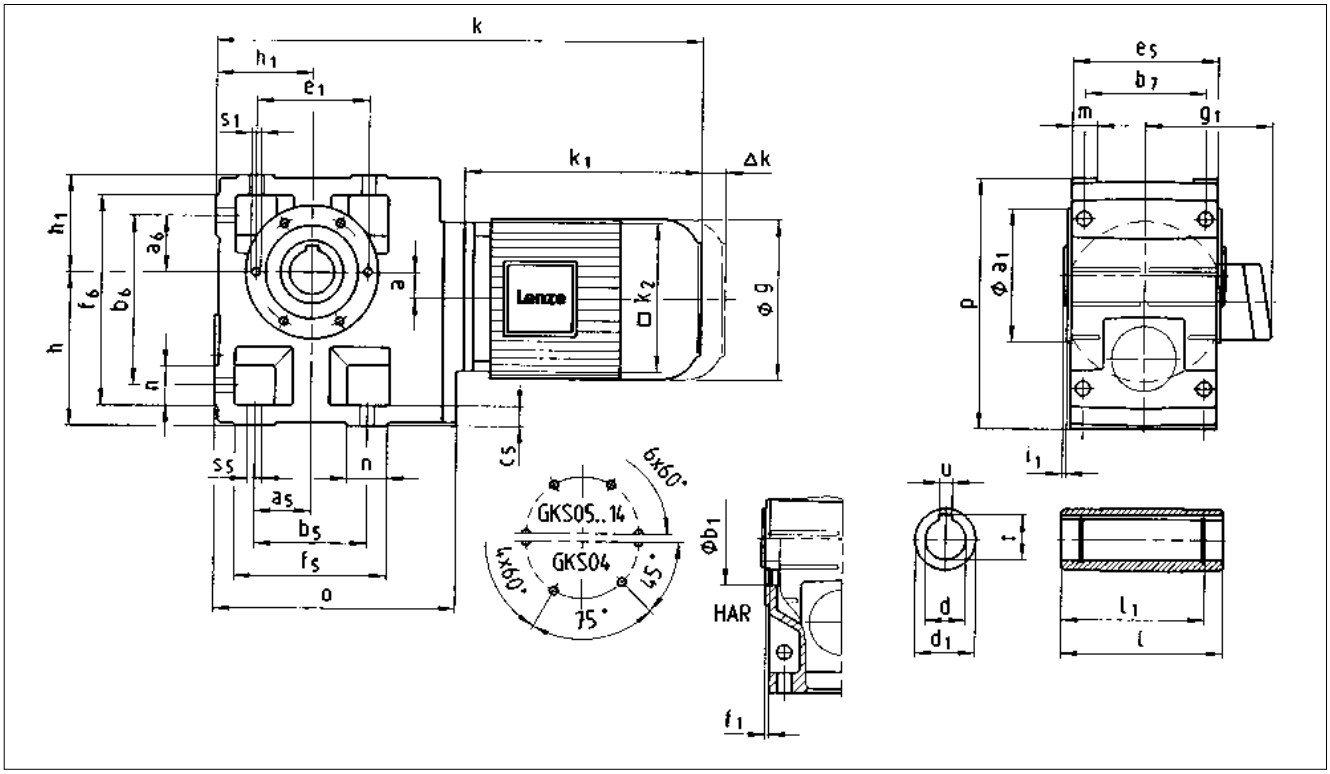
Gearbox size	Solid shaft						
	d k6	**l**	**l_1**	**l_2**	**d_2**	**u**	**t**
04	20	40	5	28	M6	6	22.5

Gearbox size	Output flange						
	a_2	**b_2** j7	**c_2**	**e_2**	**f_2**	**i_2**	**s_2** 4x90°
04	120 160	80 110	8	100 130	3 3.5	40	7 9

Dimensions in [mm]

* Observe k_2

** Further attachments in chapter 7



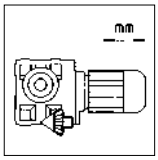
5

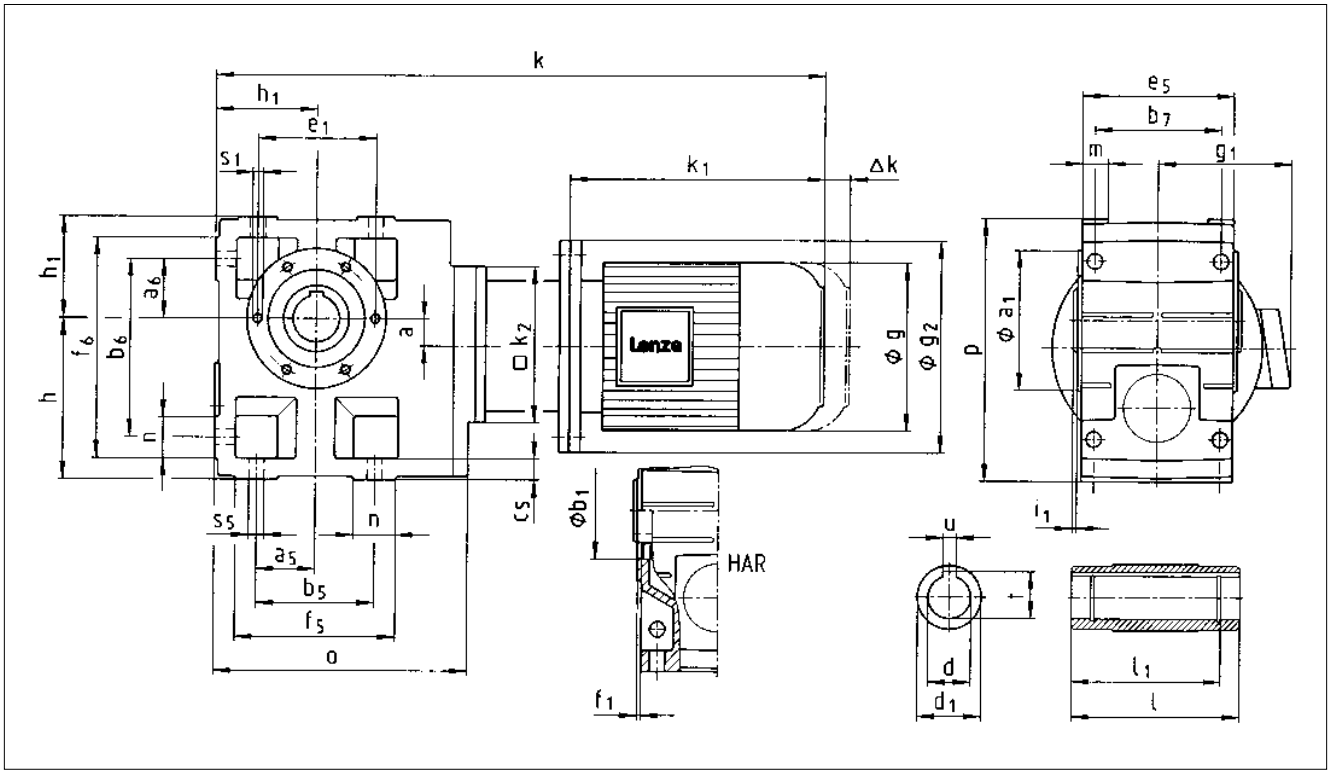
Geared motor **GKS □□ - 3 M H□R**			Motor frame size																			
			063		**071**	**080**	**090**	**100**		**112**			**132**		**160**	
			-1□	-3□	-1□/-3□	-1□/-3□	-1□/-3□	-12/-31	-32/-41	-22/-31	-32	-41	-2□/-3□		-22	-32
Motor	**g**		129		142	156	178	194		222			262		310	
	g_1	Without options	105		130	130	141	154		167			202		215	
		Brake motor	105		131	131	142	160		167			202		215	
	k_1		193	204	176	225	242	280	310	323	343	323	409		458	502
	k_2		100		145	145	180	180		222			265		300	
	Δk **	Brake	56		66	68	74	94		101			127		113	
		Separate fan	71		80	94	101	97		95			104		113	
		Separate fan + brake	118		134	150	164	169		183			218		225	

Gearbox size	Gearbox						Total length															
	o	**l***	**p***	**h***	**h_1**	**a**	**k**															
04	203	115	171	100	71	20	379	390	392	441	469											
05	232	140	205	125	80	23			412	461	489	527	557									
06	291	160	250	150	100	28			468	517	545	583	613	631	651	631						
07	354	200	310	190	120	34				573	601	639	669	687	707	687	782		835	879		
09	429	240	386	236	150	41					672	710	740	758	778	758	853		906	950		
11	527	290	485	300	185	54						801	831	849	869	849	944		997	1041		
14	636	350	605	375	230	67								948	968	948	1043		1096	1140		

Gearbox size	Hollow shaft						Pitch circle						Foot										
	d H7	**l**	**d_1**	**l_1**	**u** JS9	**t** +0.2	**a_1**	**b_1** H7	**e_1**	**f_1**	**i_1**	**s_1**	**a_5**	**a_6**	**b_5**	**b_6**	**b_7**	**c_5**	**e_5**	**f_5**	**f_6**	**n**	**m**	**s_5**
04	25 30	115	45	100	8 8	28.3 33.3	105	75	90	3	2.5	M6x12	45	45	110	119	85	14	105	132	141	22	21	9
05	30 35	140	50	124	8 10	33.3 38.3	118	80	100	4	4	M8x15	47.5	47.5	115	140	105	17	127	144	169	29	21	11
06	40 45	160	65	140	12 14	43.3 48.8	140	100	120	4	5	M10x16	60	60	155	170	120	20	145	191	206	36	23	14
07	50 55	200	75	175	14 16	53.8 59.3	165	115	140	5	5	M12x18	70	70	190	210	150	25	180	235	255	45	28	18
09	60 70	240	95	210	18 20	64.4 74.9	205	145	175	6	5	M16x24	90	90	240	266	185	30	222	300	326	30	37	22
11	70 80	290	105	250	20 22	74.9 85.4	240	170	205	6	6	M20x32	105	105	290	325	225	40	270	363	398	73	43	26
14	100	350	135	305	28	106.4	290	210	250	6	7	M24x35	135	135	360	415	275	50	328	442	497	82	52	33

Dimensions in [mm] * Observe dimension k_2, with gearbox size 04 and motor frame size 090 dimension $k_2/2 > h-a$ ** Further attachments in chapter 7





Geared motor **GKS □□ - 3 M H□R**			Motor frame size			
			180		**200**	**225**
			-22	-32	-32	-12 / -22
Motor	**g**		350		388	433
	g_1	Without options	270		291	319
		Brake motor	270		309	327
	g_2		350		400	450
	k_1		567	605	661	693
	k_2		300		300	300
	Δk	Brake	145		175	200
		Separate fan	299		387	388
		Separate fan + brake	424		507	518

Gearbox size	Gearbox						Total length			
	o	**l***	**p***	**h**	**h_1**	**a**	**k**			
09	429	240	386	236	150	41	1234	1272	1353	
11	527	290	485	300	185	54	1325	1363	1444	1506
14	636	350	605	375	230	67	1424	1462	1543	1605

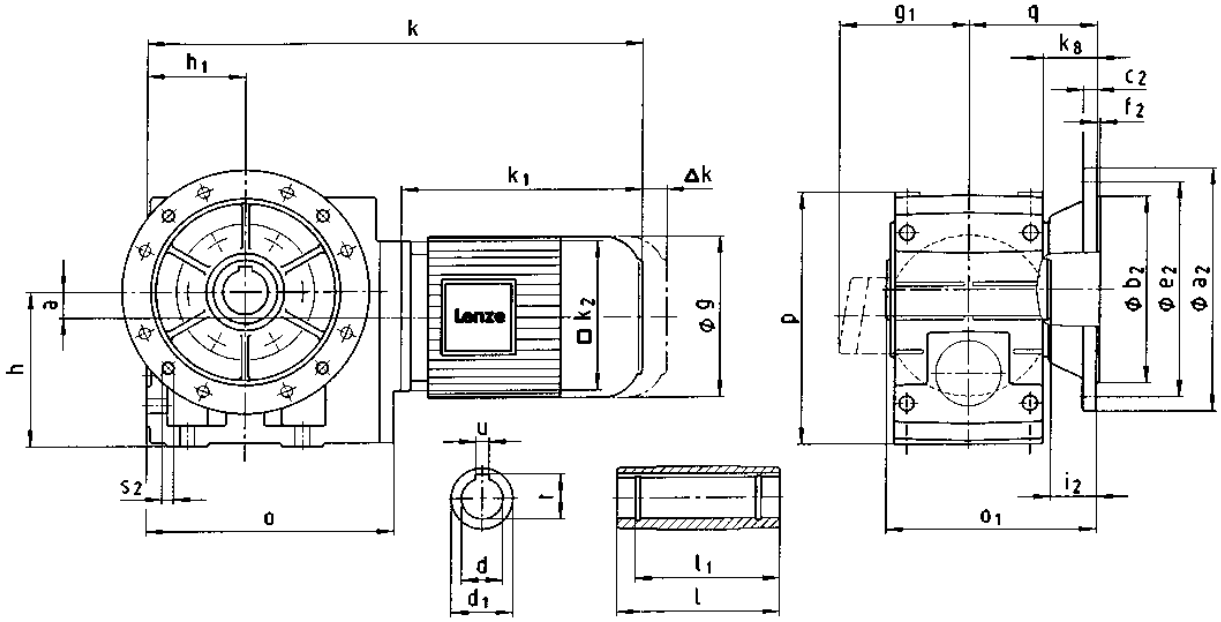
Gearbox size	Hollow shaft						Pitch circle						Foot										
	d H7	**l**	**d_1**	**l_1**	**u** JS9	**t** +0.2	**a_1**	**b_1** H7	**e_1**	**f_1**	**i_1**	**s_1**	**a_5**	**a_6**	**b_5**	**b_6**	**b_7**	**c_5**	**e_5**	**f_5**	**f_6**	**n**	**m**	**s_5**
09	60 70	240	95	210	18 20	64.4 74.9	205	145	175	6	5	M16x24	90	90	240	266	185	30	222	300	326	30	37	22
11	70 80	290	105	250	20 22	74.9 85.4	240	170	205	6	6	M20x32	105	105	290	325	225	40	270	363	398	73	43	26
14	100	350	135	305	28	106.4	290	210	250	6	7	M24x35	135	135	360	415	275	50	328	442	497	82	52	33

Dimensions in [mm]

* Observe k_2

Dimensions – (Helical)-bevel gearboxes

Geared motors



5

Geared motor

GKS □□ - 3 M HAK

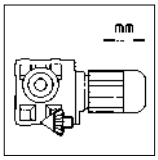
			Motor frame size																	
			063		071	080	090	100		112			132		160	
			-1□	-3□	-1□/-3□	-1□/-3□	-1□/-3□	-12/-31	-32/-41	-22/-31	-32	-41	-2□/-3□		-22	-32
Motor	**g**		129		142	156	178	194		222			262		310	
	g_1	Without options	105		130	130	141	154		167			202		215	
		Brake motor	105		131	131	142	160		167			202		125	
	k_1		193	204	176	225	242	280	310	323	343	323	409		458	502
	k_2		100		145	145	180	180		222			265		300	
	Δk **	Brake	56		66	68	74	94		101			127		113	
		Separate fan	71		80	94	101	97		95			104		113	
		Separate fan + brake	118		134	150	164	169		183			218		225	

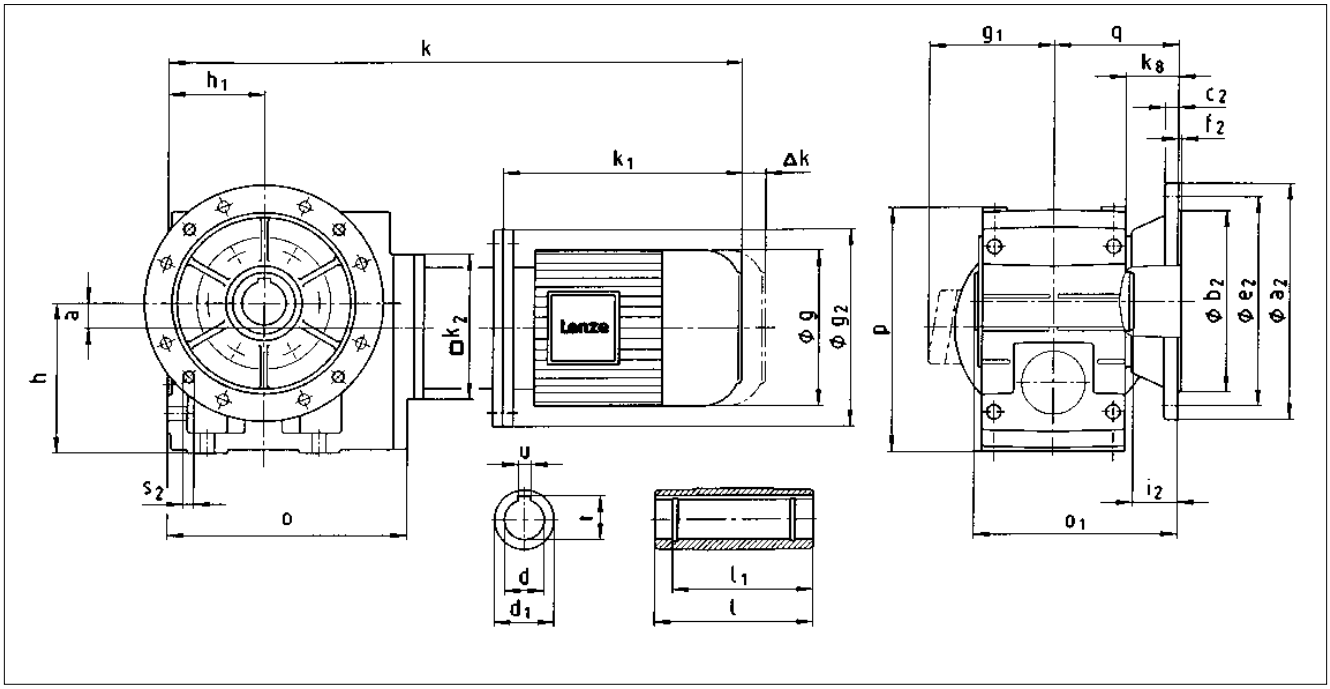
Gearbox size	Gearbox								Total length k											
	o	o_1*	p*	h*	h_1	a	k_8	q												
04	203	148	171	100	71	20	38	90.5	379	390	392	441	469							
05	232	173	205	125	80	23	40	103			412	461	489	527	557					
06	291	201	250	150	100	28	49	121			468	517	545	583	613	631	651	631		
07	354	255	310	190	120	34	65	155				573	601	639	669	687	707	687	782	835	979
09	429	300	386	236	150	41	69	180					672	710	740	758	778	758	853	906	950
11	527	350	485	300	185	54	70	205						801	831	849	869	849	944	997	1041
14	636	410	605	375	230	67	71	235								948	968	948	1043	1096	1140

Gearbox size	Hollow shaft						Output flange						
	d H7	**l**	d_1	l_1	**u** JS9	**t** +0.2	a_2	b_2 j7	c_2	e_2	f_2	i_2	s_2
04	25 30	115	45	100	8 8	28.3 33.3	160	110	10	130	3.5	33	4 x 9
05	30 35	140	50	124	8 10	33.3 38.3	200	130	12	165	3.5	33	4 x 11
06	40 45	160	65	140	12 14	43.3 48.8	200 250	130 180	12 14.5	165 215	3.5 4	42 41	4 x 11 4 x 14
07	50 55	200	75	175	14 16	53.8 59.3	250 300	180 230	14.5 16.5	215 265	4	55	4 x 14
09	60 70	240	95	210	18 20	64.4 74.9	350	250	18	300	4	60	4 x 18
11	70 80	290	105	250	20 22	74.9 85.4	400 450	300 350	20 22	350 400	5	60	4 x 18 8 x 18
14	100	350	135	305	28	106.4	450	350	22	400	5	60	8 x 18

Dimensions in [mm] * Observe dimension k_2, with gearbox size 04 and motor frame size 090 dimension $k_2/2 > h-a$ ** Further attachments in chapter 7

Lenze





Geared motor **GKS □□ - 3 M HAK**			Motor frame size			
			180		**200**	**225**
			-22	-32	-32	-12 / -22
Motor	**g**		350		388	433
	g_1	Without options	270		291	319
		Brake motor	270		309	327
	g_2		350		400	450
	k_1		567	605	661	693
	k_2		300		300	300
	Δk	Brake	145		175	200
		Separate fan	299		387	388
		Separate fan + brake	424		507	518

Gearbox size	Gearbox								Total length			
	o	**o_1***	**p***	**h**	**h_1**	**a**	**k_8**	**q**	**k**			
09	429	300	386	236	150	41	69	180	1234	1272	1353	
11	527	350	485	300	185	54	70	205	1325	1363	1444	1506
14	636	410	605	375	230	67	71	235	1424	1462	1543	1605

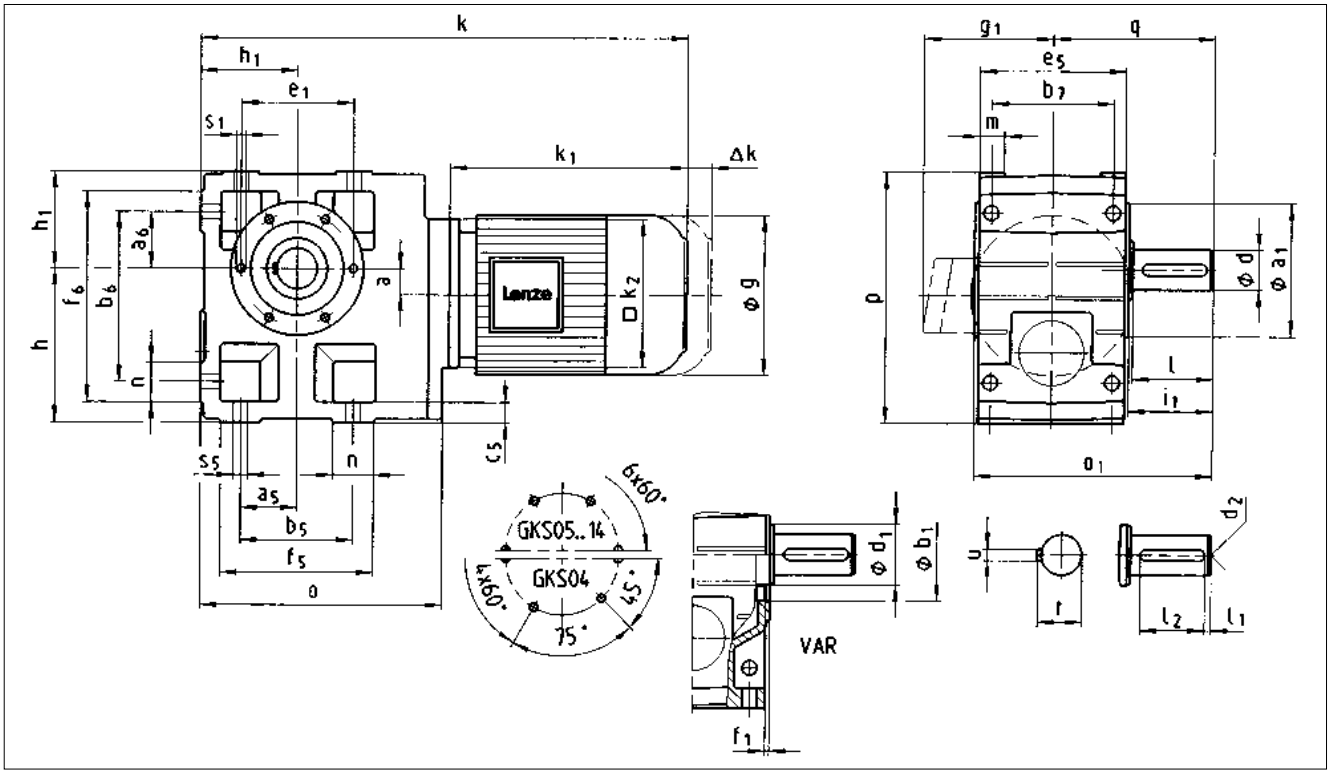
Gearbox size	Hollow shaft						Output flange						
	d H7	**l**	**d_1**	**l_1**	**u** JS9	**t** +0.2	**a_2**	**b_2** j7	**c_2**	**e_2**	**f_2**	**i_2**	**s_2**
09	60 70	240	95	210	18 20	64.4 74.9	350	250	18	300	4	60	4x18
11	70 80	290	105	250	20 22	74.9 85.4	400 450	300 350	20 22	350 400	5	60	4x18 8x18
14	100	350	135	305	28	106.4	450	350	22	400	5	60	8x18

Dimensions in [mm]

* Observe k_2

Dimensions – (Helical)-bevel gearboxes

Geared motors



5

Geared motor **GKS □□ - 3 M V□R**			Motor frame size																				
			063		**071**	**080**	**090**	**100**		**112**			**132**		**160**								
			-1□	-3□	-1□/-3□	-1□/-3□	-1□/-3□	-12/-31	-32/-41	-22/-31	-32	-41	-2□/-3□		-22	-32							
Motor	**g**		129		142	156	178	194		222			262		310								
	g_1	Without options	105		130	130	141	154		167			202		215								
		Brake motor	105		131	131	142	160		167			202		215								
	k_1		193	204	176	225	242	280	310	323	343	323	409		458	502							
	k_2		100		145	145	180	180		222			265		300								
	Δk **	Brake	56		66	68	74	94		101			127		113								
		Separate fan	71		80	94	101	97		95			104		113								
		Separate fan + brake	118		134	150	164	169		183			218		225								

Gearbox size	Gearbox							Total length															
	o	**o_1***	**p***	**h***	**h_1**	**a**	**q**	**k**															
04	203	163	171	100	71	20	107.5	379	390	392	441	469											
05	232	197	205	125	80	23	130			412	461	489	527	557									
06	291	236	250	150	100	28	160			468	517	545	583	613	631	651	631						
07	354	296	310	190	120	34	200				573	601	639	669	687	707	687	782	835	879			
09	429	356	386	236	150	41	240					672	710	740	758	778	758	853	906	950			
11	527	445	485	300	185	54	305						801	831	849	869	849	944	997	1041			
14	636	544	605	375	230	67	375								948	968	948	1043	1096	1140			

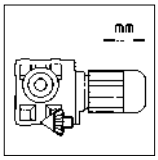
Gearbox size	Solid shaft								Pitch circle						Foot											
	d	**l**	**d_1**	**l_1**	**l_2**	**d_2**	**u**	**t**	**a_1**	**b_1** H7	**e_1**	**f_1**	**i_1**	**s_1**	**a_5**	**a_6**	**b_5**	**b_6**	**b_7**	**c_5**	**e_5**	**f_5**	**f_6**	**n**	**m**	**s_5**
04	25	50	45	4	40	M10	8	28	105	75	90	3	52.5	M6x12	45	45	110	119	85	14	105	132	141	22	21	9
05	30	60	50	6	45	M10	8	33	118	80	100	4	64	M8x15	47.5	47.5	115	140	105	17	127	144	169	29	21	11
06	40	80	65	7	63	M16	12	43	140	100	120	4	85	M10x16	60	60	155	170	120	20	145	191	206	36	23	14
07	50	100	75	8	80	M16	14	53.5	165	115	140	5	105	M12x18	70	70	190	210	150	25	180	235	255	45	28	18
09	60	120	95	8	100	M20	18	64	205	145	175	6	125	M16x24	90	90	240	266	185	30	222	300	326	60	37	22
11	80	160	105	15	125	M20	22	74	240	170	205	6	166	M20x32	105	105	290	325	225	40	270	363	398	73	43	26
14	100	200	135	18	160	M24	28	106	290	210	250	6	207	M24x35	135	135	360	415	275	50	328	442	497	82	52	33

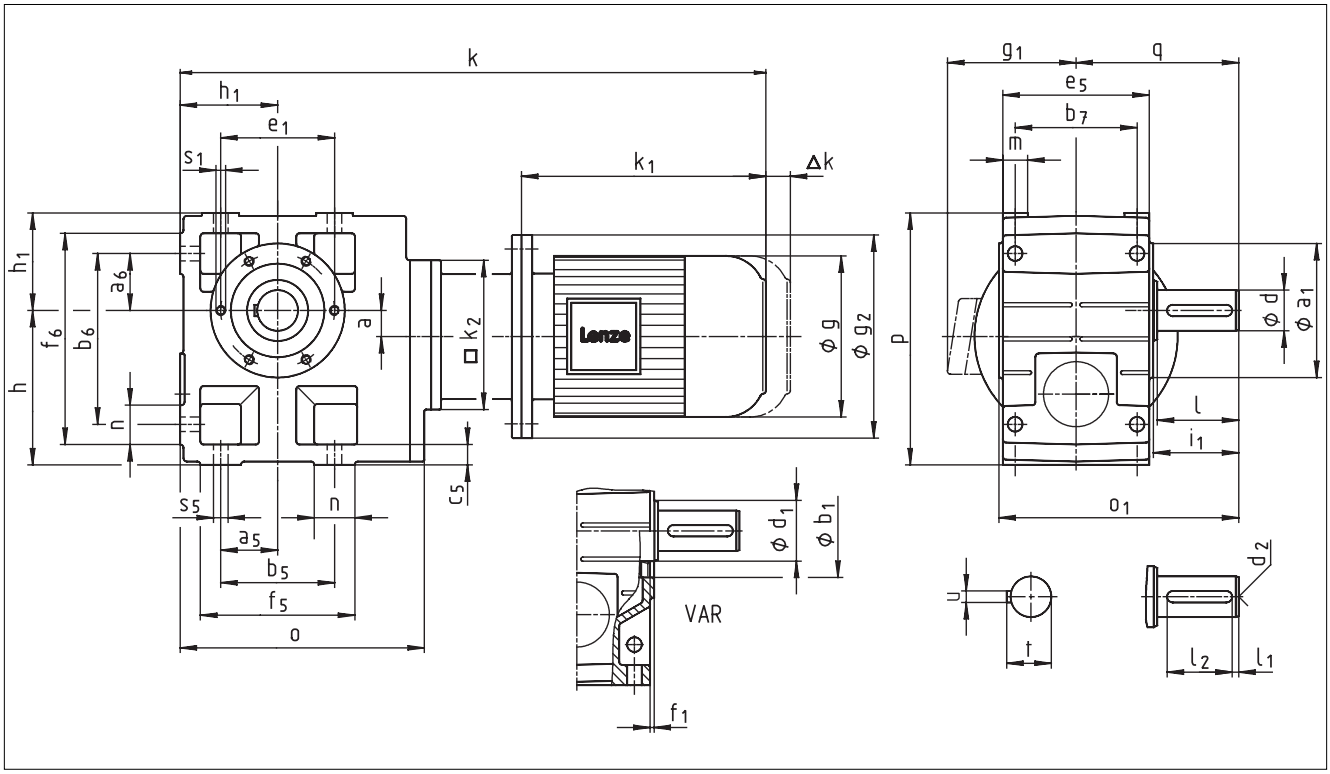
Dimensions in [mm] d ≤ 50 mm: k6 d > 50 mm: m6

* Observe dimension k_2, with gearbox size 04 and motor frame size 090 dimension $k_2/2 > h-a$

** Further attachments in chapter 7

Lenze





Geared motor **GKS □□ - 3 M V□R**			Motor frame size			
			180		**200**	**225**
			-22	-32	-32	-12 / -22
Motor	**g**		350		388	433
	g_1	Without options	270		291	319
		Brake motor	270		309	327
	g_2		350		400	450
	k_1		567	605	661	693
	k_2		300		300	300
	Δk	Brake	145		175	200
		Separate fan	299		387	388
		Separate fan + brake	424		507	518

Gearbox size	Gearbox							Total length			
	o*	**o_1***	**p***	**h**	**h_1**	**a**	**q**	**k**			
09	429	356	386	236	150	41	240	1234	1272	1353	
11	527	445	485	300	185	54	305	1325	1363	1444	1506
14	636	544	605	375	230	67	375	1424	1462	1543	1605

Gearbox size	Solid shaft								Pitch circle					
	d	**l**	**d_1**	**l_1**	**l_2**	**d_2**	**u**	**t**	**a_1**	**b_1** H7	**e_1**	**f_1**	**i_1**	**s_1**
09	60	120	95	8	100	M20	18	64	205	145	175	6	125	M16x24
11	80	160	105	15	125	M20	22	85	240	170	205	6	166	M20x32
14	100	200	135	18	160	M24	28	106	290	210	250	6	207	M24x35

Gearbox size	Foot											
	a_5	**a_6**	**b_5**	**b_6**	**b_7**	**c_5**	**e_5**	**f_5**	**f_6**	**n**	**m**	**s_5**
09	90	90	240	266	185	30	222	300	326	60	37	22
11	105	105	290	325	225	40	270	363	398	73	43	26
14	135	135	360	415	275	50	328	442	497	82	52	33

Dimensions in [mm]

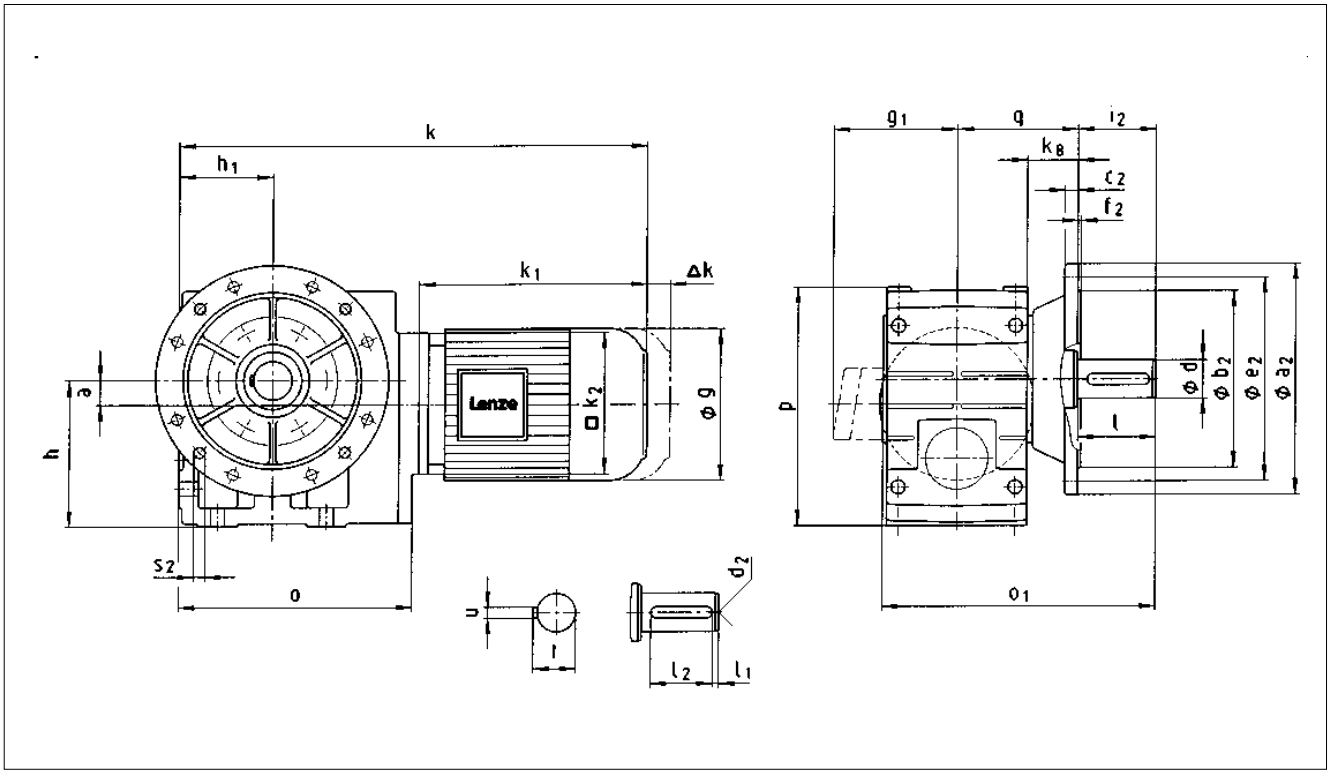
d ≤ 50 mm: k6

d > 50 mm: m6

* Observe k_2

Dimensions – (Helical)-bevel gearboxes

Geared motors



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Geared motor **GKS □□ - 3 M VAK**			Motor frame size																	
			063		071	080	090	100		112			132		160	
			-1□	-3□	-1□/-3□	-1□/-3□	-1□/-3□	-12/-31	-32/-41	-22/-31	-32	-41	-2□/-3□		-22	-32
Motor	**g**		129		142	156	178	194		222			262		310	
	g_1	Without options	105		130	130	141	154		167			202		215	
		Brake motor	105		131	131	142	160		167			202		215	
	k_1		193	204	176	225	242	280	310	323	343	323	409		458	502
	k_2		100		145	145	180	180		222			265		300	
	Δk **	Brake	56		66	68	74	94		101			127		113	
		Separate fan	71		80	94	101	97		95			104		113	
		Separate fan + brake	118		134	150	164	169		183			218		225	

Gearbox size	Gearbox								Total length											
	o	**o_1***	**p***	**h***	**h_1**	**a**	**k_8**	**q**	**k**											
04	203	196	171	100	71	20	38	90.5	379	390	392	441	469							
05	232	230	205	125	80	23	40	103			412	461	489	527	557					
06	291	277	250	150	100	28	49	121			468	517	545	583	613	631	651	631		
07	354	351	310	190	120	34	65	155				573	601	639	669	687	707	687	782	835	879
09	429	416	386	236	150	41	69	180					672	710	740	758	778	758	853	906	950
11	527	505	485	300	185	54	70	205						801	831	849	869	849	944	997	1041
14	636	604	605	375	230	67	71	235								948	968	948	1043	1096	1140

Gearbox size	Solid shaft							Output flange						
	d	**l**	**l_1**	**l_2**	**d_2**	**u**	**t**	**a_2**	**b_2** j7	**c_2**	**e_2**	**f_2**	**i_2**	**s_2**
04	25	50	4	40	M10	8	28	160	110	10	130	3.5	50	4 x 9
05	30	60	6	45	M10	8	33	200	130	12	165	3.5	60	4 x 11
06	40	80	7	63	M16	12	43	250	180	14.5	215	4	80	4 x 14
07	50	100	8	80	M16	14	53.5	250 300	180 230	14.5 16.5	215 265	4	100	4 x 14
09	60	120	8	100	M20	18	64	350	250	18	300	4	120	4 x 18
11	80	160	15	125	M20	22	85	400 450	300 350	20 22	350 400	5	160	4 x 18 8 x 18
14	100	200	18	160	M24	28	106	450	350	22	400	5	200	8 x 18

Dimensions in [mm]

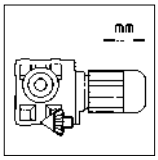
d ≤ 50 mm: k6

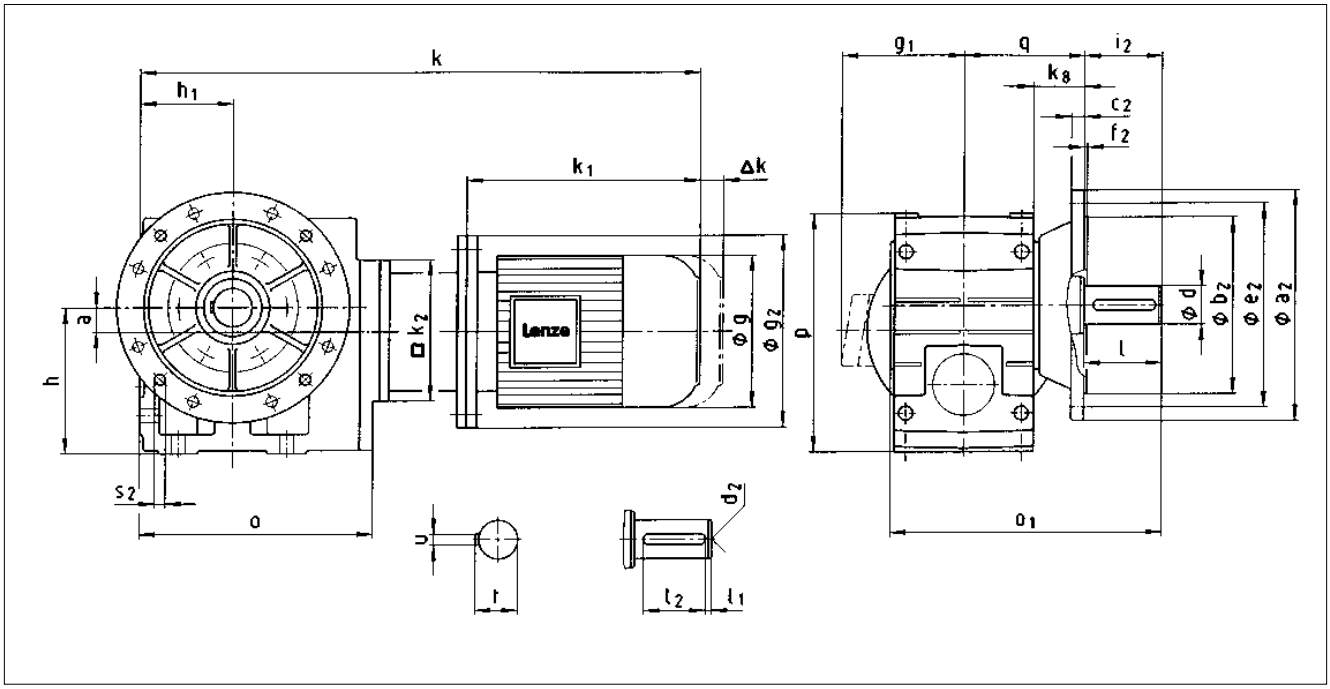
d > 50 mm: m6

* Observe dimension k_2, with gearbox size 04 and motor frame size 090 dimension $k_2/2 > h-a$

** Further attachments in chapter 7

Lenze





Geared motor **GKS □□ - 3 M VAK**			Motor frame size			
			180		**200**	**225**
			-22	-32	-32	-12 / -22
Motor	**g**		350		388	433
	g_1	Without options	270		291	319
		Brake motor	270		309	327
	g_2		350		400	450
	k_1		567	605	661	693
	k_2		300		300	300
	Δk	Brake	145		175	200
		Separate fan	299		387	388
		Separate fan + brake	424		507	518

Gearbox size	Gearbox								Total length			
	o	**o_1***	**p***	**h**	**h_1**	**a**	**k_8**	**q**	**k**			
09	429	416	386	236	150	41	69	180	1234	1272	1353	
11	527	505	485	300	185	54	70	205	1325	1363	1444	1506
14	636	604	605	375	230	67	71	235	1424	1462	1543	1605

Gearbox size	Solid shaft							Output flange						
	d	**l**	**l_1**	**l_2**	**d_2**	**u**	**t**	**a_2**	**b_2** j7	**c_2**	**e_2**	**f_2**	**i_2**	**s_2**
09	60	120	8	100	M20	18	64	350	250	18	300	4	120	4x18
11	80	160	15	125	M20	22	85	400 450	300 350	20 22	350 400	5	160	4x18 8x18
14	100	200	18	160	M24	28	106	450	350	22	400	5	200	8x18

Dimensions in [mm]

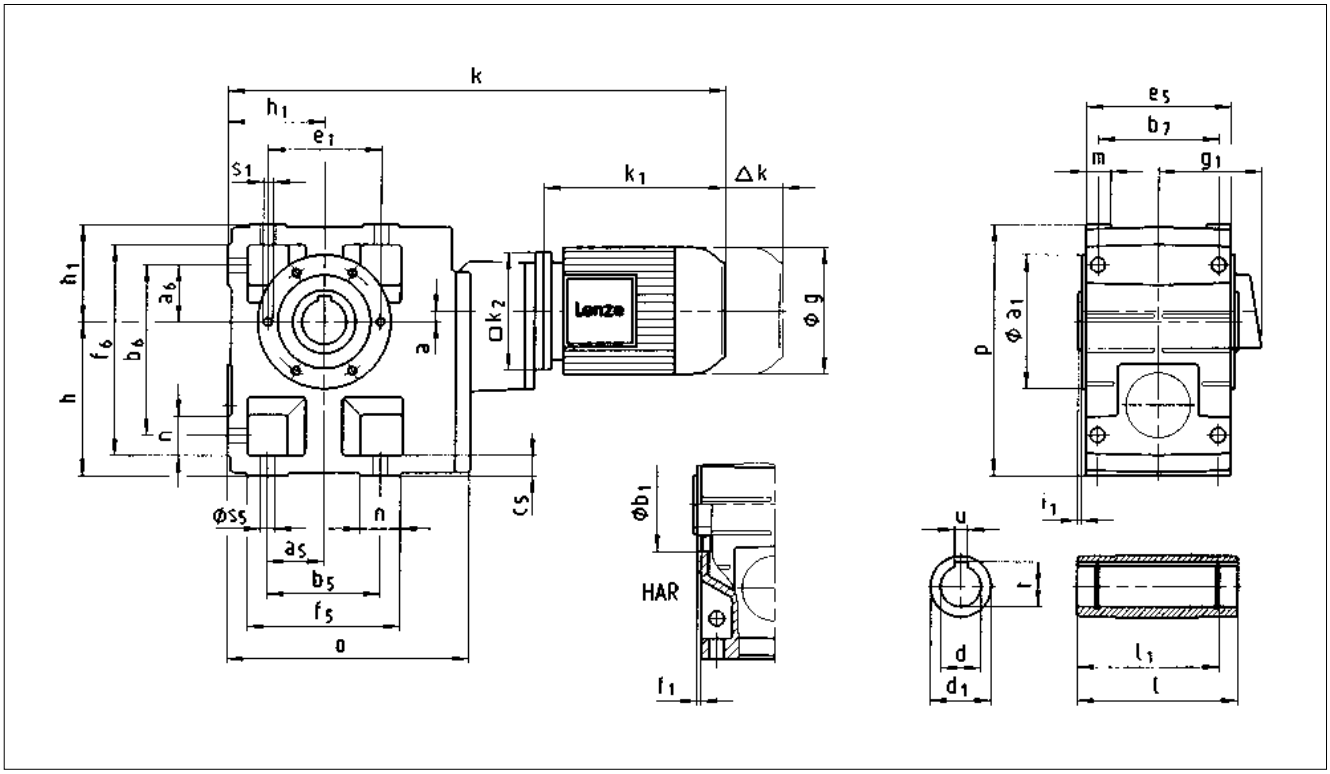
d ≤ 50 mm: k6

d > 50 mm: m6

* Observe k_2

Dimensions – (Helical)-bevel gearboxes

Geared motors



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Geared motor **GKS □□ - 4 M H□R**			Motor frame size																			
			063		**071**	**080**	**090**	**100**		**112**			**132**		**160**	
			-1□	-3□	-1□/-3□	-1□/-3□	-1□/-3□	-12/-31	-32/-41	-22/-31	-32	-41	-2□/-3□		-22	-32
Motor	**g**		129		142	156	178	194		222			262		310	
	g_1	Without options	105		130	130	141	154		167			202		215	
		Brake motor	105		131	131	142	160		167			202		215	
	k_1		193	204	176	225	242	280	310	323	343	323	409		458	502
	k_2		100		145	145	180	180		222			265		300	
	Δk**	Brake	56		66	68	74	94		101			127		113	
		Separate fan	71		80	94	101	97		95			104		113	
		Separate fan + brake	118		134	150	164	169		183			218		225	

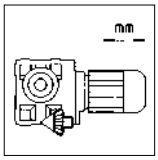
Gearbox size	Gearbox						Total length													
	o	**l***	**p***	**h**	**h_1**	**a**	**k**													
05	226	140	205	125	80	13	476	487	489	538	565									
06	288	160	250	150	100	8	549	560	562	611	638									
07	351	200	310	190	120	11			629	678	705	743	773							
09	426	240	386	236	150	15			718	767	794	832	862	881	901	881				
11	523	290	485	300	185	16				877	904	942	972	991	1011	991	1085			
14	632	350	605	375	230	22					1037	1075	1105	1124	1144	1124	1218	1272	1316	

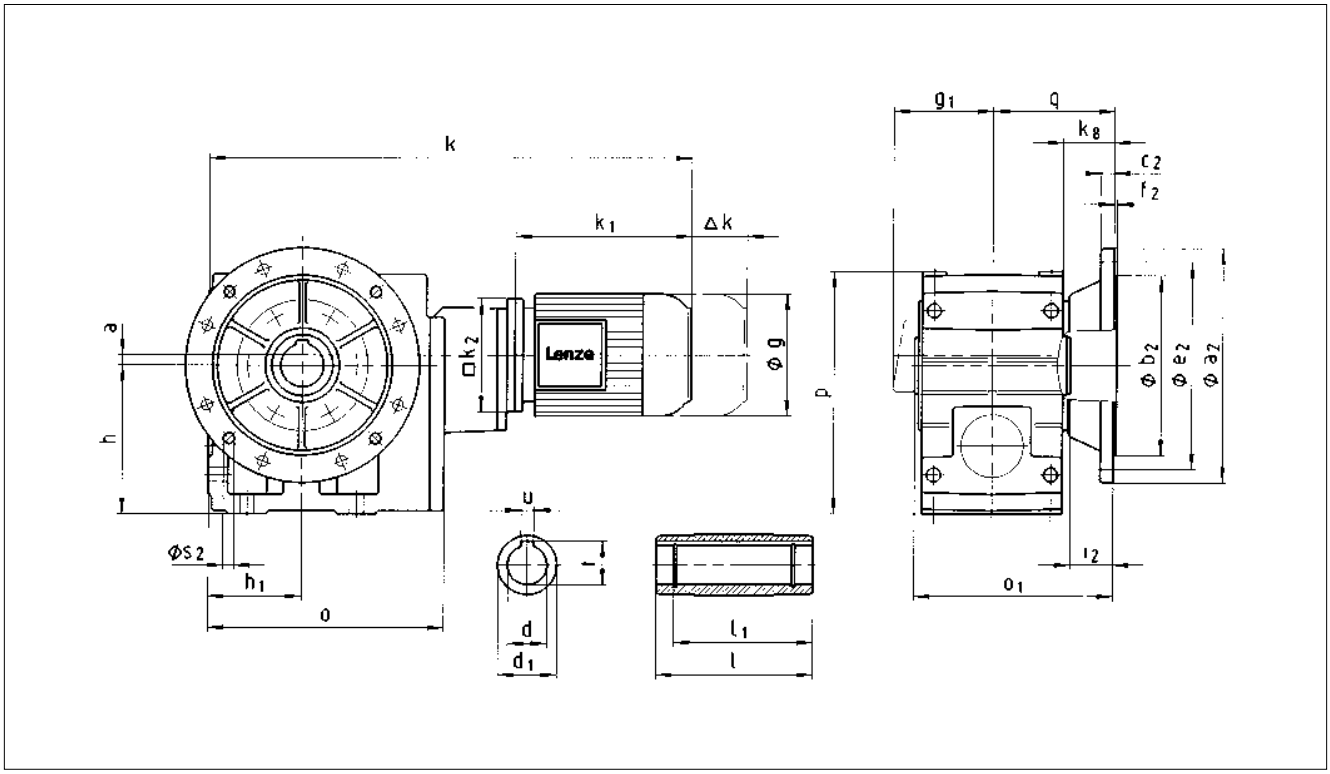
Gearbox size	Hollow shaft						Pitch circle						Foot										
	d H7	**l**	**d_1**	**l_1**	**u** JS9	**t** +0.2	**a_1**	**b_1** H7	**e_1**	**f_1**	**i_1**	**s_1** 6x60°	**a_5**	**a_6**	**b_5**	**b_6**	**b_7**	**c_5**	**e_5**	**f_5**	**f_6**	**n**	**m**	**s_5**
05	30 35	140	50	124	8 10	33.3 38.3	118	80	100	4	4	M8x15	47.5	47.5	115	140	105	17	127	144	169	29	21	11
06	40 45	160	65	140	12 14	43.3 48.8	140	100	120	4	5	M10x16	60	60	155	170	120	20	145	191	206	36	23	14
07	50 55	200	75	175	14 16	53.8 59.3	165	115	140	5	5	M12x18	70	70	190	210	150	25	180	235	255	45	28	18
09	60 70	240	95	210	18 20	64.4 74.9	205	145	175	6	5	M16x24	90	90	240	266	185	30	222	300	326	60	37	22
11	70 80	290	105	250	20 22	74.9 85.4	240	170	205	6	6	M20x32	105	105	290	325	225	40	270	363	398	73	43	26
14	100	350	135	305	28	106.4	290	210	250	6	7	M24x35	135	135	360	415	275	50	328	442	497	82	52	33

Dimensions in [mm]

* Observe k_2

**Further attachments in chapter 7





Geared motor **GKS □□ - 4 M HAK**			Motor frame size																	
			063		**071**	**080**	**090**	**100**		**112**				**132**	**160**	
			-1□	-3□	-1□/-3□	-1□/-3□	-1□/-3□	-12/-31	-32/-41	-22/-31	-32	-41	-2□/-3□	-22	-32
Motor	**g**		129		142	156	178	194		222			262	310	
	g_1	Without options	105		130	130	141	154		167			202	215	
		Brake motor	105		131	131	142	160		167			202	215	
	k_1		193	204	176	225	242	280	310	323	343	323	409	458	502
	k_2		100		145	145	180	180		222			265	300	
	Δk**	Brake	56		66	68	74	94		101			127	113	
		Separate fan	71		80	94	101	97		95			104	113	
		Separate fan + brake	118		134	150	164	169		183			218	225	

Gearbox size	Gearbox								Total length **k**											
	o	**o_1***	**p***	**h**	**h_1**	**a**	**k_8**	**q**												
05	226	173	205	125	80	13	40	103	476	487	489	538	565							
06	288	201	250	150	100	8	49	121	549	560	562	611	638							
07	351	255	310	190	120	11	65	155			629	678	705	743	773					
09	426	300	386	236	150	15	69	180			718	767	794	832	862	881	901	881		
11	523	350	485	300	185	16	70	205				877	904	942	972	991	1011	991	1085	
14	632	410	605	375	230	22	71	235					1037	1075	1105	1124	1144	1124	1218	1272	1316

Gearbox size	Hollow shaft						Output flange						
	d H7	**l**	**d_1**	**l_1**	**u** JS9	**t**	**a_2**	**b_2** j7	**c_2**	**e_2**	**f_2**	**i_2**	**s_2**
05	30 35	140	50	124	8 10	33.3 38.8	200	130	12	165	3.5	33	4x11
06	40 45	160	65	140	12 14	43.3 48.8	200 250	130 180	12 14.5	165 215	3.5 4	42 41	4x11 4x14
07	50 55	200	75	175	14 16	53.8 59.3	250 300	180 230	14.5 16.5	215 265	4	55	4x14
09	60 70	240	95	210	18 20	64.4 74.9	350	250	18	300	4	60	4x18
11	70 80	290	105	250	20 22	74.9 85.4	400 450	300 350	20 22	350 400	5	60	4x18 8x18
14	100	350	135	305	28	106.4	450	350	22	400	5	60	8x18

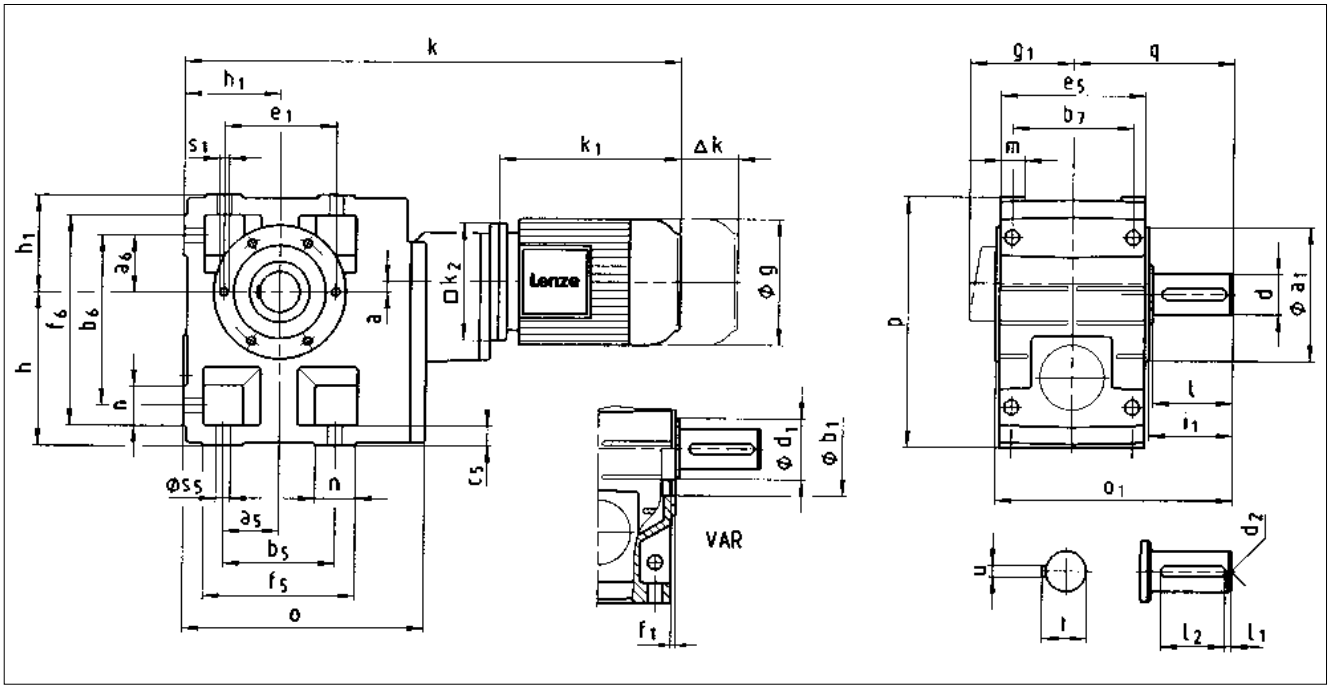
Dimensions in [mm]

* Observe k_2

** Further attachments in chapter 7

Dimensions – (Helical)-bevel gearboxes

Geared motors



Geared motor **GKS □□ - 4 M V□R**			Motor frame size																	
			063		**071**	**080**	**090**	**100**		**112**			**132**	**160**	
			-1□	-3□	-1□/-3□	-1□/-3□	-1□/-3□	-12/-31	-32/-41	-22/-31	-32	-41	-2□/-3□	-22	-32
Motor	**g**		129		142	156	178	194		222			262	310	
	g_1	Without options	105		130	130	141	154		167			202	215	
		Brake motor	105		131	131	142	160		167			202	215	
	k_1		193	204	176	225	242	280	310	323	343	323	409	458	502
	k_2		100		145	145	180	180		222			265	300	
	Δk **	Brake	56		66	68	74	94		101			127	113	
		Separate fan	71		80	94	101	97		95			104	113	
		Separate fan + brake	118		134	150	164	169		183			218	225	

Gearbox size	Gearbox							Total length												
	o	**o_1***	**p***	**h**	**h_1**	**a**	**q**	**k**												
05	226	197	205	125	80	13	130	476	487	489	538	565								
06	288	236	250	150	100	8	160	549	560	562	611	638								
07	351	296	310	190	120	11	200			629	678	705	743	773						
09	426	356	386	236	150	15	240			718	767	794	832	862	881	901	881			
11	523	445	485	300	185	16	305				877	904	942	972	991	1011	991	1085		
14	632	544	605	375	230	22	375					1037	1075	1105	1124	1144	1124	1218	1272	1316

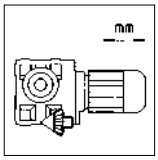
Gearbox size	Solid shaft								Pitch circle					
	d	**l**	**d_1**	**l_1**	**l_2**	**d_2**	**u**	**t**	**a_1**	**b_1** H7	**e_1**	**f_1**	**i_1**	**s_1** 6x60°
05	30	60	50	6	45	M10	8	33	118	80	100	4	64	M8x15
06	40	80	65	7	63	M16	12	43	140	100	120	4	85	M10x16
07	50	100	75	8	80	M16	14	53.5	165	115	140	5	105	M12x18
09	60	120	95	8	100	M20	18	64	205	145	175	6	125	M16x24
11	80	160	105	15	125	M20	22	85	240	170	205	6	166	M20x32
14	100	200	135	18	160	M24	28	106	290	210	250	6	207	M24x35

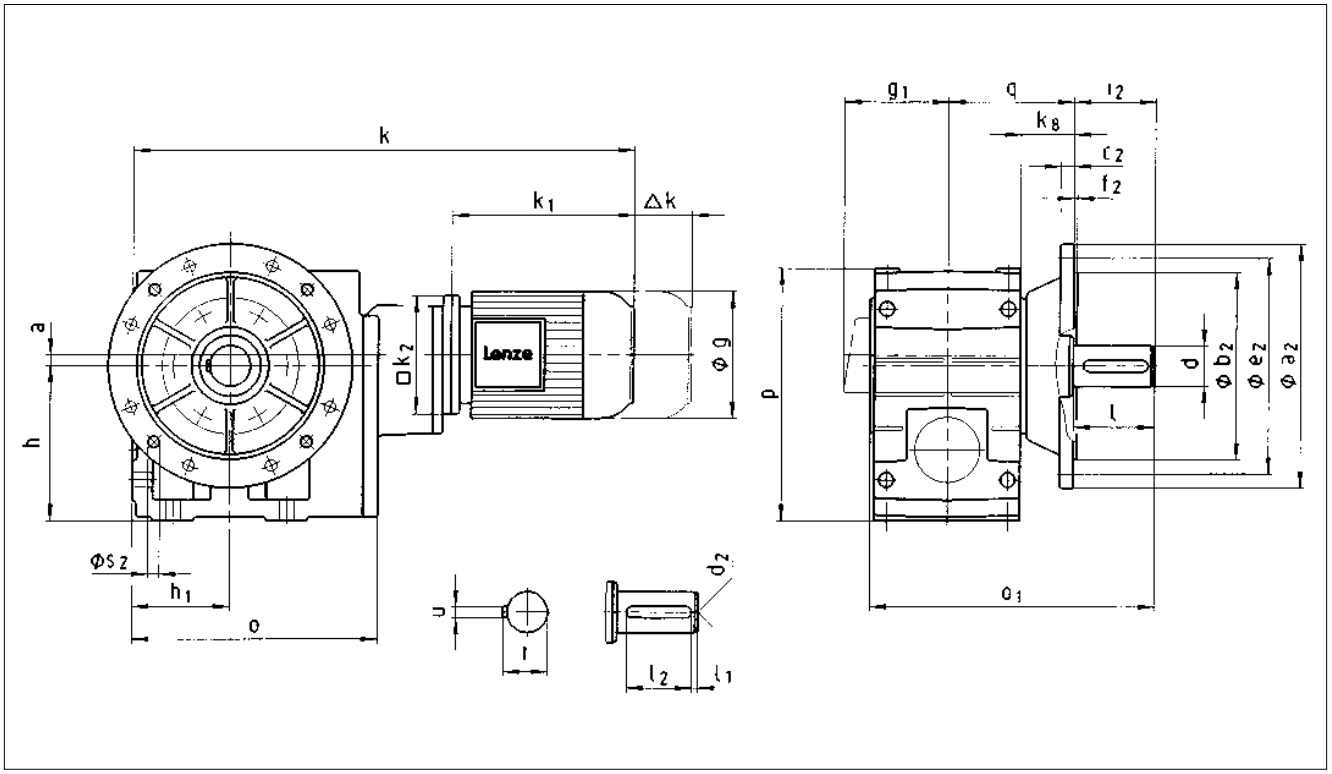
Gearbox size	Foot											
	a_5	**a_6**	**b_5**	**b_6**	**b_7**	**c_5**	**e_5**	**f_5**	**f_6**	**n**	**m**	**s_5**
05	47.5	47.5	115	140	105	17	127	144	169	29	21	11
06	60	60	155	170	120	20	145	191	206	36	23	14
07	70	70	190	210	150	25	180	235	255	45	28	18
09	90	90	240	266	185	30	222	300	326	60	37	22
11	105	105	290	325	225	40	270	363	398	73	43	26
14	135	135	360	415	275	50	328	442	497	82	52	33

Dimensions in [mm] d ≤ 50 mm: k6 Observe k_2

d > 50 mm: m6 ** Further attachments in chapter 7

Lenze





Geared motor **GKS □□ - 4 M VAK**			Motor frame size																	
			063		**071**	**080**	**090**	**100**		**112**					**132**	**160**	
			-1□	-3□	-1□/-3□	-1□/-3□	-1□/-3□	-12/-31	-32/-41	-22/-31	-32	-41	-2□/-3□	-22	-32
Motor	**g**		129		142	156	178	194		222			262	310	
	g_1	Without options	105		130	130	141	154		167			202	215	
		Brake motor	105		131	131	142	160		167			202	215	
	k_1		193	204	176	225	242	280	310	323	343	323	409	458	502
	k_2		100		145	145	180	180		222			265	300	
	Δk **	Brake	56		66	68	74	94		101			127	113	
		Separate fan	71		80	94	101	97		95			104	113	
		Separate fan + brake	118		134	150	164	169		183			218	225	

Gearbox size	Gearbox								Total length											
	o*	**o_1***	**p***	**h**	**h_1**	**a**	**k_8**	**q**	**k**											
05	226	230	205	125	80	13	40	103	476	487	489	538	565							
06	288	277	250	150	100	8	49	121	549	560	562	611	638							
07	351	351	310	190	120	11	65	155			629	678	705	743	773					
09	426	416	386	236	150	15	69	180			718	767	794	832	862	881	901	881		
11	523	505	485	300	185	16	70	205				877	904	942	972	991	1011	991	1085	
14	632	604	605	375	230	22	71	235					1037	1075	1105	1124	1144	1124	1218	1272	1316

Gearbox size	Solid shaft							Output flange						
	d	**l**	**l_1**	**l_2**	**d_2**	**u**	**t**	**a_2**	**b_2** j7	**c_2**	**e_2**	**f_2**	**i_2**	**s_2**
05	30	60	6	45	M10	8	33	200	130	12	165	3.5	60	4x11
06	40	80	7	63	M16	12	43	250	180	14.5	215	4	80	4x14
07	50	100	8	80	M16	14	53.5	250 300	180 230	14.5 16.5	215 265	4	100	4x14
09	60	120	8	100	M20	18	64	350	250	18	300	4	120	4x18
11	80	160	15	125	M20	22	85	400 450	300 350	20 22	350 400	5	160	4x18 8x18
14	100	200	18	160	M24	28	106	450	350	22	400	5	200	8x18

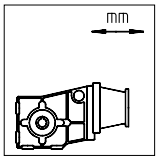
Dimensions in [mm]

d ≤ 50 mm: k6

d > 50 mm: m6

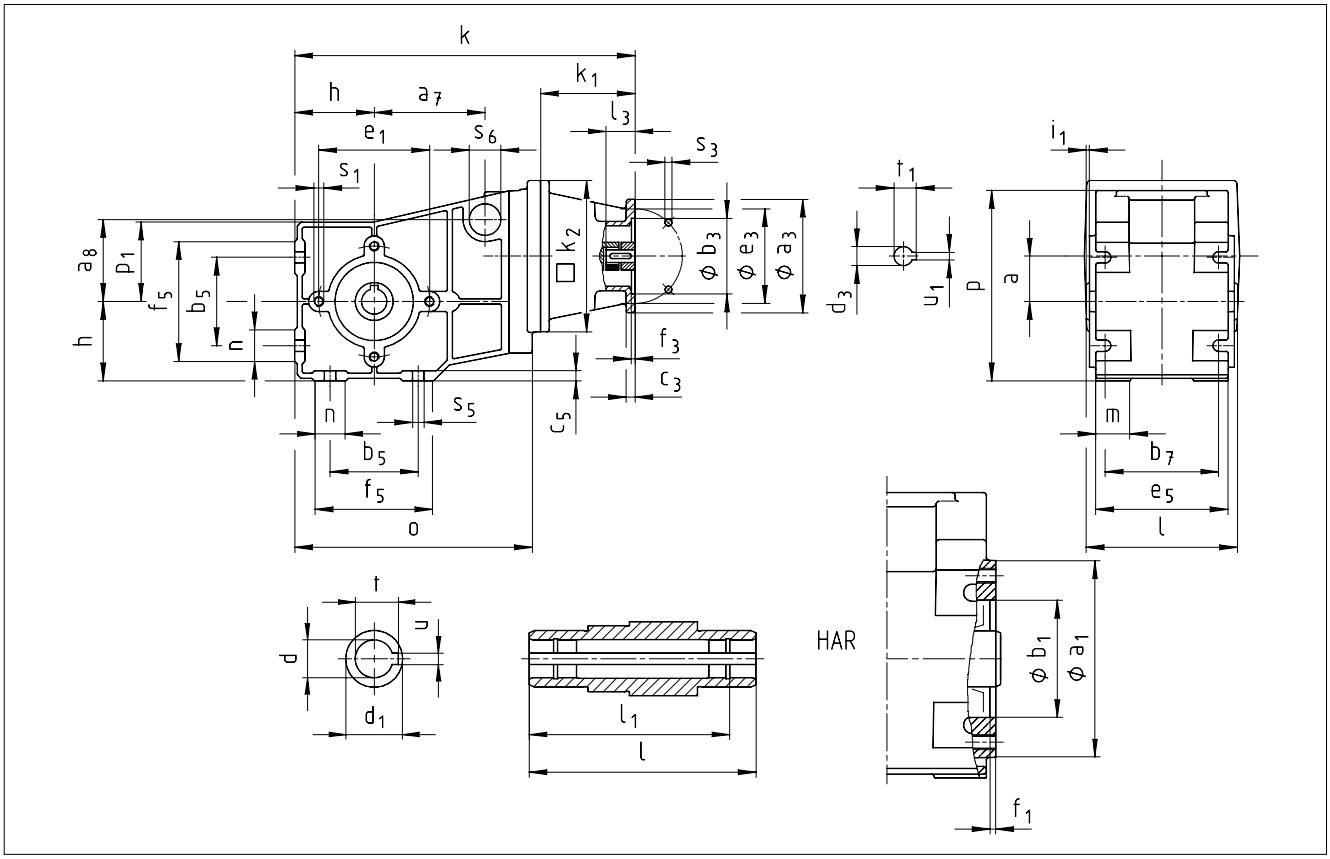
* Observe k_2

** Further attachments in chapter 7



Dimensions – (Helical)-bevel gearboxes

Gearbox with mounting flange for IEC standard motors



5

Gearbox GKR□□ - 2N H□R			Drive size						
	corresponds to IEC motor		1A 63	1B 71	2B 63	1C 80	2C	3C 71	4C 71
	Housing	k_1	75	77	75	91	91	91	91
		k_2	120	145	120	145	145	145	145
	Flange	a_3	90	105	90	160	160	105	120
		b_3 H8	60	70	60	110	110	70	80
		c_3	7	8	7	10	10	8	8
		e_3	75	85	75	130	130	85	100
		f_3	3	3	3	4	4	3	3.5
		s_3 4x	5.5	6.6	5.5	9	9	6.6	6.6
	Required	d_3	11	14	11	19	14	14	14
	motor shaft	l_3 min	23	30	23	25	25	25	25
		max	23	30	23	40	40	40	40
		u_1	4	5	4	6	5	5	5
		t_1	12.5	16	12.5	21.5	16	16	16

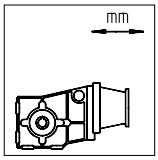
Gearbox size	Gearbox						Total length					
	l	p	p_1	a	h	o	k					
04	120	151	63	36	63	189	271	278	271	292		

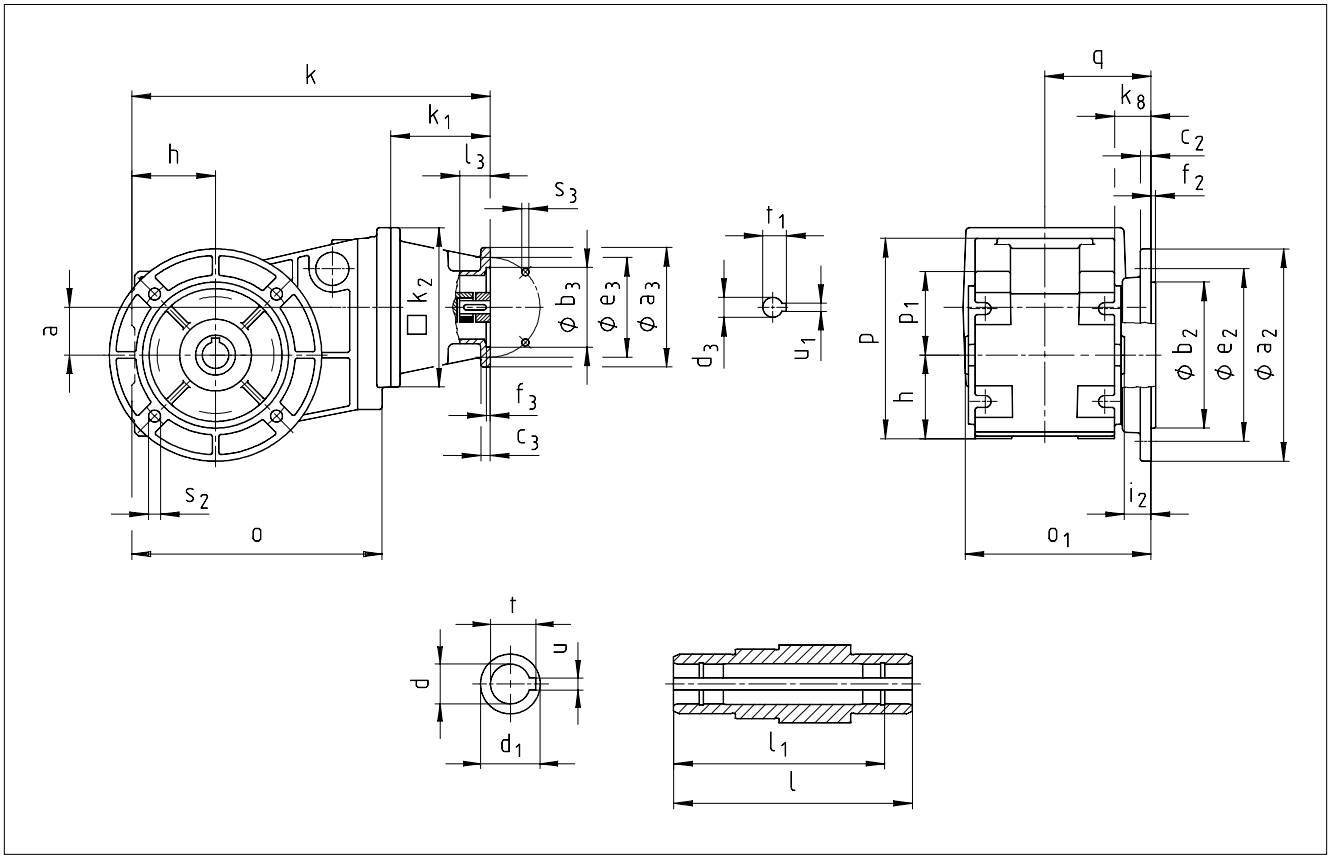
Gearbox size	Hollow shaft						Pitch circle					
	d H7	l	d_1	l_1	u JS9	t[1] +0.1	a_1	b_1 J7	e_1	f_1	i_1	s_1
04	20 25	120	30 35	106	6 8	22.8 27.0	104	62	88	3	2.5	M8 x 16

Gearbox size	Foot								Torque plate		
	b_5	b_7	c_5	e_5	f_5	n	m	s_5	a_7	a_8	s_6
04	70	90	8	105	95	25	28	9	88	65	25 x 17

Dimensions in [mm] [1] If the hollow shaft diameter is d=25 mm use a flat key to DIN 6885/3

Lenze



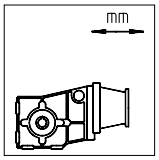


Gearbox			Drive size						
GKR□□ - 2N HAK	corresponds to IEC motor		**1A** 63	**1B** 71	**2B** 63	**1C** 80	**2C**	**3C** 71	**4C** 71
	Housing	k_1	75	77	75	91	91	91	91
		k_2	120	145	120	145	145	145	145
	Flange	a_3	90	105	90	160	160	105	120
		b_3 H8	60	70	60	110	110	70	80
		c_3	7	8	7	10	10	8	8
		e_3	75	85	75	130	130	85	100
		f_3	3	3	3	4	4	3	3.5
		s_3 4x	5.5	6.6	5.5	9	9	6.6	6.6
	Required	d_3	11	14	11	19	14	14	14
	motor shaft	l_3 min	23	30	23	25	25	25	25
		max	23	30	23	40	40	40	40
		u_1	4	5	4	6	5	5	5
		t_1	12.5	16	12.5	21.5	16	16	16

Gearbox size	Gearbox								Total length				
	o_1	p	p_1	a	h	k8	o	q	k				
04	140	151	63	36	63	28	189	80	271	278	271	292	

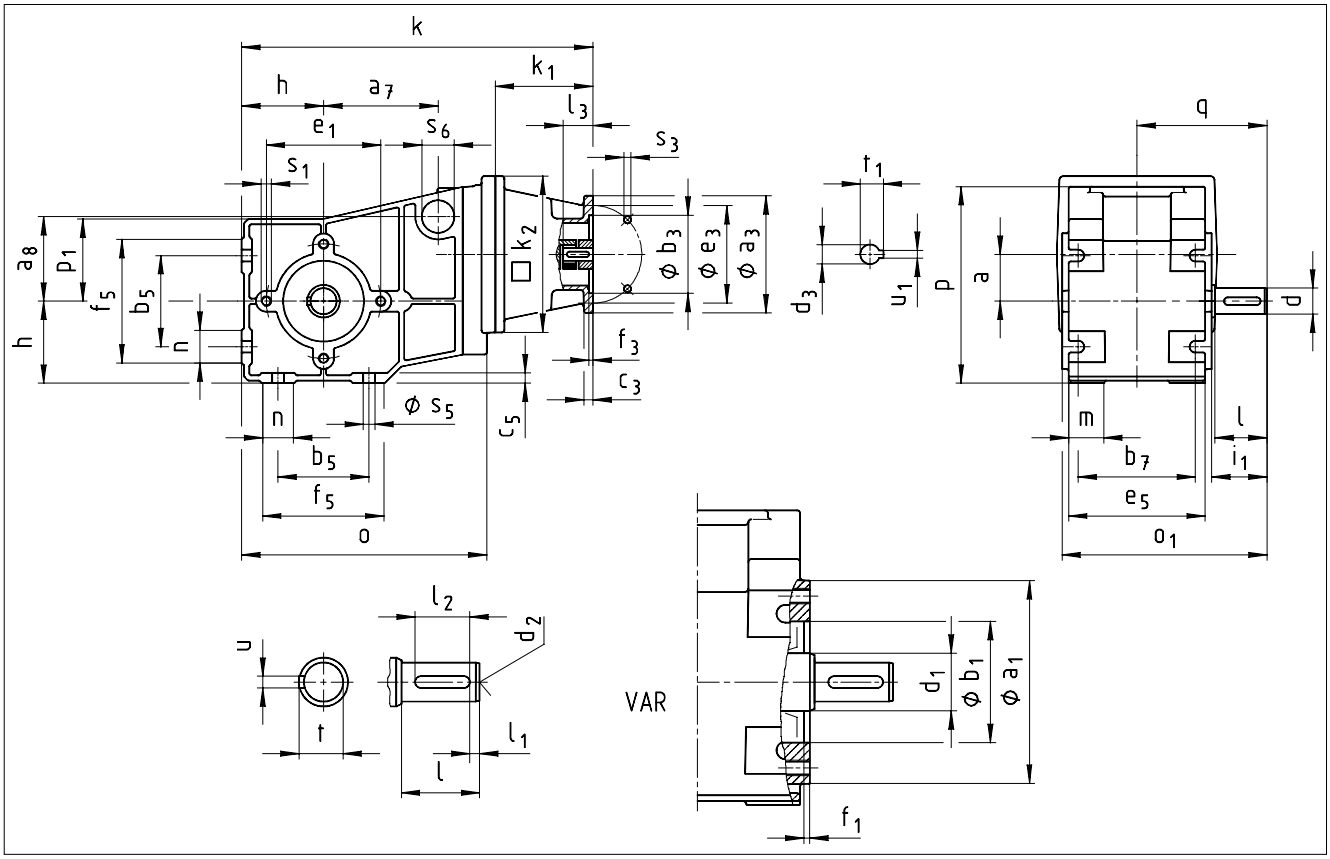
Gearbox size	Hollow shaft						Output flange						
	d H7	**l**	d_1	l_1	**u** JS9	**t**[1] +0.1	a_2	b_2 j7	c_2	e_2	f_2	i_2	s_2 4 x 90°
04	20 25	120	30 35	106	6 8	22.8 27	120 160	80 110	8.0	100 130	3 3.5	20	7 9

Dimensions in [mm] [1] If the hollow shaft diameter is d=25 mm use a flat key to DIN 6885/3



Dimensions – (Helical)-bevel gearboxes

Gearbox with mounting flange for IEC standard motors



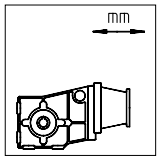
Gearbox GKR□□ - 2N V□R			Drive size						
	corresponds to IEC motor		1A 63	1B 71	2B 63	1C 80	2C	3C 71	4C 71
	Housing	k_1	75	77	75	91	91	91	91
		k_2	120	145	120	145	145	145	145
	Flange	a_3	90	105	90	160	160	105	120
		b_3 H8	60	70	60	110	110	70	80
		c_3	7	8	7	10	10	8	8
		e_3	75	85	75	130	130	85	100
		f_3	3	3	3	4	4	3	3.5
		s_3 4x	5.5	6.6	5.5	9	9	6.6	6.6
	Required	d_3	11	14	11	19	14	14	14
	motor shaft	l_3 min	23	30	23	25	25	25	25
		max	23	30	23	40	40	40	40
		u_1	4	5	4	6	5	5	5
		t_1	12.5	16	12.5	21.5	16	16	16

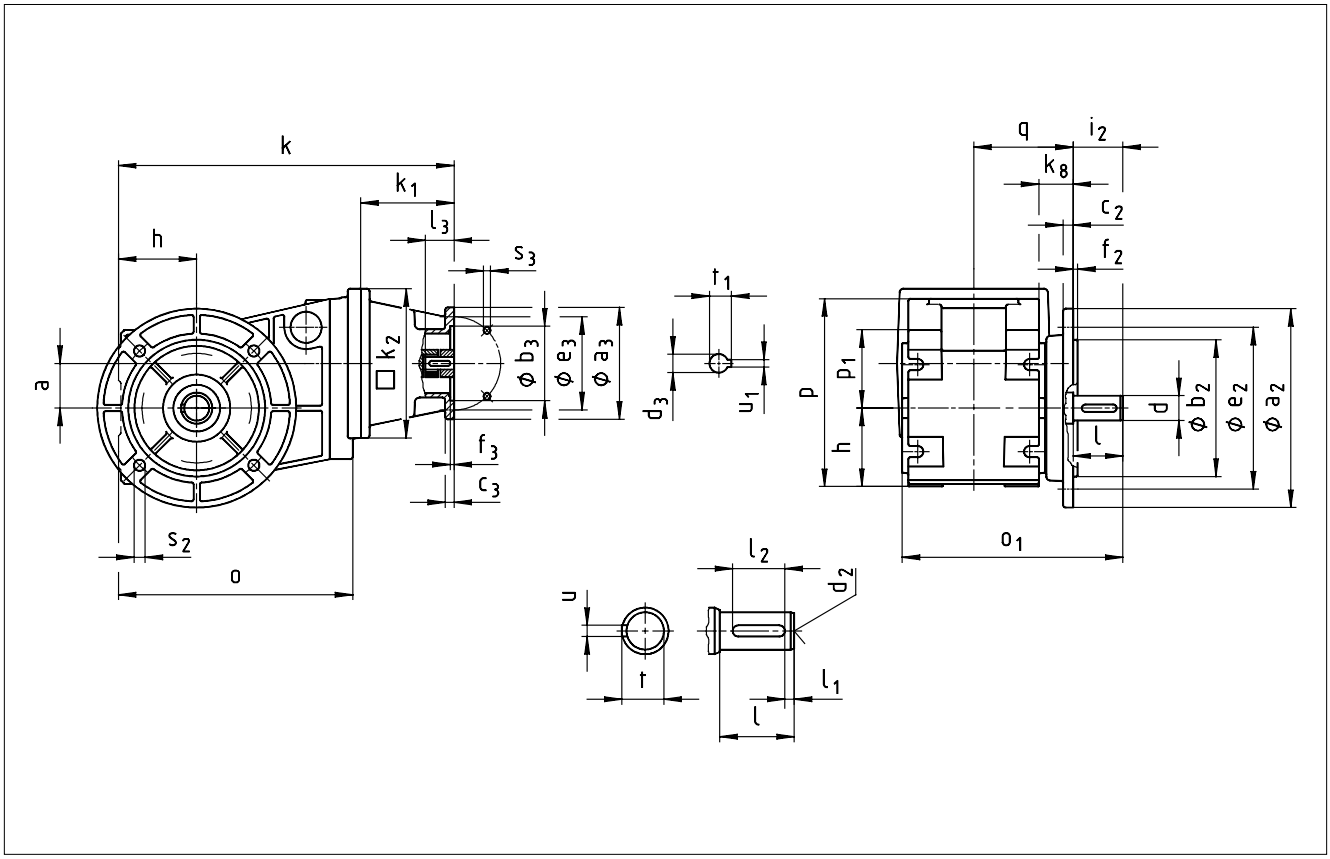
Gearbox size	Gearbox							Total length						
	o_1	p	p_1	a	h	o	q	k						
04	158	151	63	36	63	189	100	271	278	271	292			

Gearbox size	Solid shaft								Pitch circle					
	d k6	l	d_1	l_1	l_2	d_2	u	t	a_1	b_1 J7	e_1	f_1	i_1	s_1
04	20	40	30	5	28	M6	6	22.5	104	62	88	3	42.5	M8 x 16

Gearbox size	Foot								Torque plate		
	b_5	b_7	c_5	e_5	f_5	n	m	s_5	a_7	a_8	s_6
04	70	90	8	105	95	25	28	9	88	65	25 x 17

Dimensions in [mm]





5

Gearbox GKR□□ - 2N VAK			Drive size 1A	1B	2B	1C	2C	3C	4C
	corresponds to IEC motor		63	71	63	80		71	71
	Housing	k_1	75	77	75	91	91	91	91
		k_2	120	145	120	145	145	145	145
	Flange	a_3	90	105	90	160	160	105	120
		b_3 H8	60	70	60	110	110	70	80
		c_3	7	8	7	10	10	8	8
		e_3	75	85	75	130	130	85	100
		f_3	3	3	3	4	4	3	3.5
		s_3 4x	5.5	6.6	5.5	9	9	6.6	6.6
	Required	d_3	11	14	11	19	14	14	14
	motor shaft	l_3 min	23	30	23	25	25	25	25
		max	23	30	23	40	40	40	40
		u_1	4	5	4	6	5	5	5
		t_1	12.5	16	12.5	21.5	16	16	16

Gearbox size	Gearbox o_1	p	p_1	a	h	o	q	k8	Total length k			
04	178	151	63	36	63	189	80.5	28	271	278	271	292

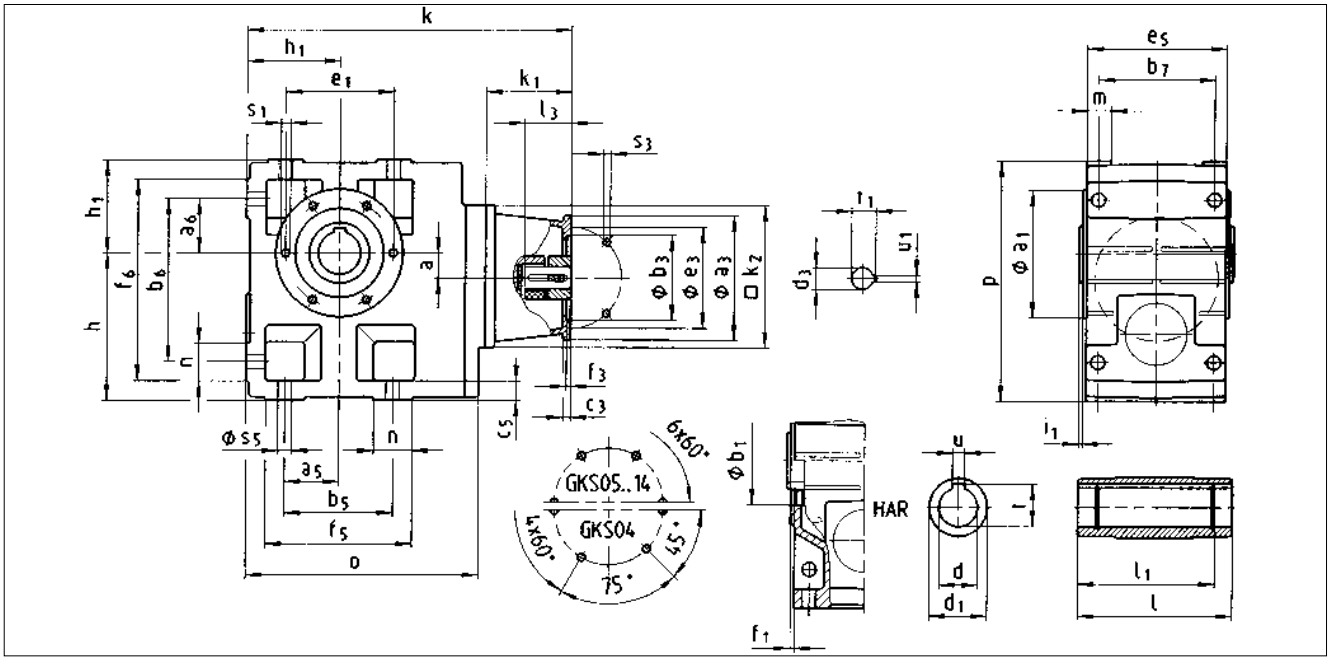
Garbox size	Solid shaft d k6	l	l_1	l_2	d_2	u	t
04	20	40	5	28	M6	6	22.5

Garbox size	Output flange a_2	b_2 j7	c_2	e_2	f_2	i_2	s_2 4 x 90°
04	120 160	80 110	8	100 130	3 3.5	40	7 9

Dimensions in [mm]

Dimensions – (Helical)-bevel gearboxes

Gearbox with mounting flange for IEC standard motors



Gearbox GKS □□ - 3N H□R (corresponds to IEC motor)			Drive size																			
			1A	1B	2B	1C	2C	3C	4C	1D	2D	1E	2E	3E	1F	2F	1G	2G	1H	2H	3H	1K	2K
			63	71	63	80		71	71	90	80	100 112	90	80	100 112	90	132	100 112	160	180	132	200	225
	Housing	k_1	75	77	75	91				115		110			139		180	160	218	218	188	243	273
		k_2	120	145	120	145				180		180			180		265		300			300	
	Flange	a_3	90	105	90	160	160	105	120	160		160			160		300	250	350	350	300	400	450
		b_3 H8	60	70	60	110	110	70	80	110		110			110		230	180	250	250	230	300	350
		c_3	7	8	7	10	10	8	8	10		10			10		18		20	20	18	20	
		e_3	75	85	75	130	130	85	100	130		130			130		265	215	300	300	265	350	400
		f_3	3	3		4	4	3	3.5	4		4			4		4.5		6	6	4.5	6	
		s_3 4 x	5.5	6.6	5.5	9	9	6.6	6.6	9		9			9		13.5		17.5	17.5	13.5	17.5	
		s_3 8 x																					17.5
	Required motor shaft	d_3	11	14	11	19	14	14	14	24	19	28	24	19	28	24	38	28	42	48	38	55	60
		l_3 min	23	30	23	25				50	40	30			30		80	60	110	110	80	110	140
		l_3 max	23	30	23	40				50	50	60			60		80	60	110	110	80	110	140
		u_1	4	5	4	6	5	5	5	8	6	8	8	6	8	8	10	8	12	14	10	16	18
		t_1	12.5	16	12.5	21.5	16	16	16	27	21.5	31	27	21.5	31	27	41	31	45	51.5	41	59	64

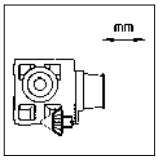
Gearbox size	Gearbox o	l*	p*	h*	h_1	a	Total length k															
04	203	115	171	100	71	20	287	294	287	308		342										
05	232	140	205	125	80	23		314		328		362	357									
06	291	160	250	150	100	28		370		384		418	413		442							
07	354	200	310	190	120	34				440		474	469		498		553	533	596		566	
09	429	240	386	236	150	41						545	540		569		624	604	667	667	637	692
11	527	290	485	300	185	54							631		660		715	695	758	758	728	783	813
14	636	350	605	375	230	67											814	794	857	857	827	882	912

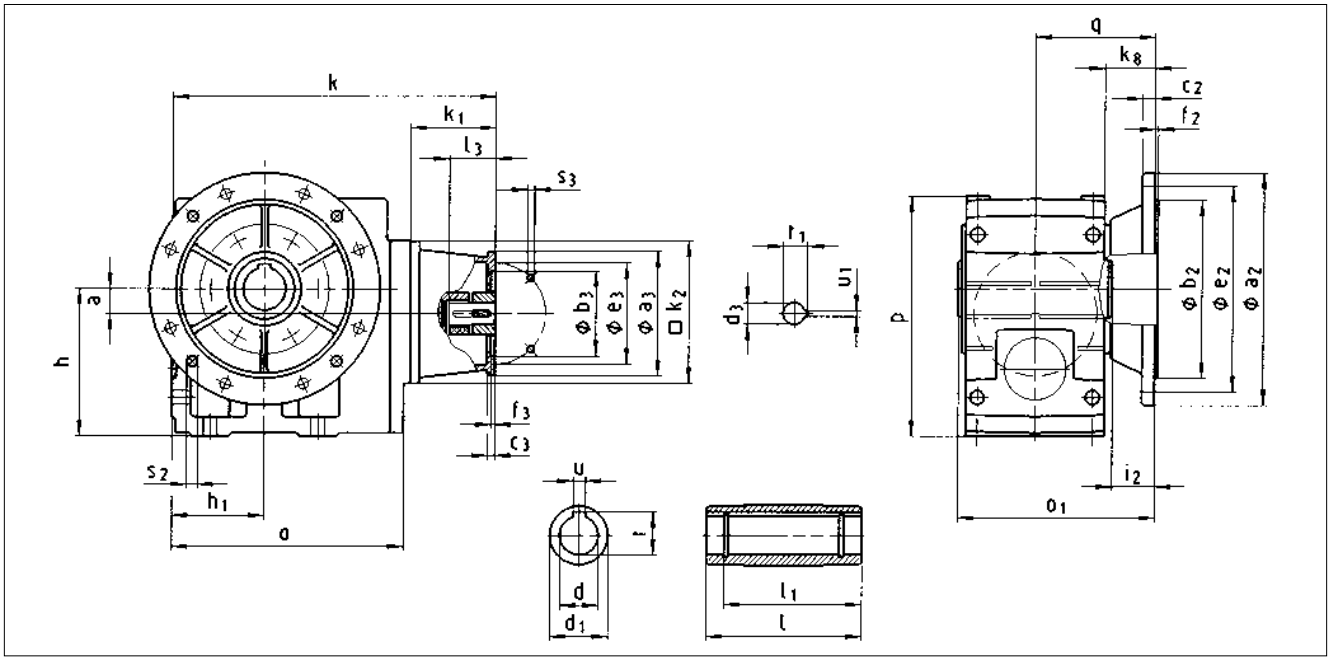
Gearbox size	Hollow shaft d H7	l	d_1	l_1	u JS9	t +0.2	Pitch circle a_1	b_1 H7	e_1	f_1	i_1	s_1	Foot a_5	a_6	b_5	b_6	b_7	c_5	e_5	f_5	f_6	n	m	s_5
04	25 30	115	45	100	8 8	28.3 33.3	105	75	90	3	2.5	M6x12	45	45	110	119	85	14	105	132	141	22	21	9
05	30 35	140	50	124	8 10	33.3 33.3	118	80	100	4	4	M8x15	47.5	47.5	115	140	105	17	127	144	169	29	21	11
06	40 45	160	65	140	12 14	43.3 48.8	140	100	120	4	5	M10x16	60	60	155	170	120	20	145	191	206	36	23	14
07	50 55	200	75	175	14 16	53.8 59.3	165	115	140	5	5	M12x18	70	70	190	210	150	25	180	235	255	45	28	18
09	60 70	240	95	210	18 20	64.4 74.9	205	145	175	6	5	M16x24	90	90	240	266	185	30	222	300	326	60	37	22
11	70 80	290	105	250	20 22	74.9 85.4	240	170	205	6	6	M20x32	105	105	290	325	225	40	270	363	398	73	43	26
14	100	350	135	305	28	106.4	290	210	250	6	7	M24x35	135	135	360	415	275	50	328	442	497	82	52	33

Dimensions in [mm]

* Observe dimension k_2, with gearbox size 04 and motor frame size 090 dimension $k_2/2 > h-a$

Lenze





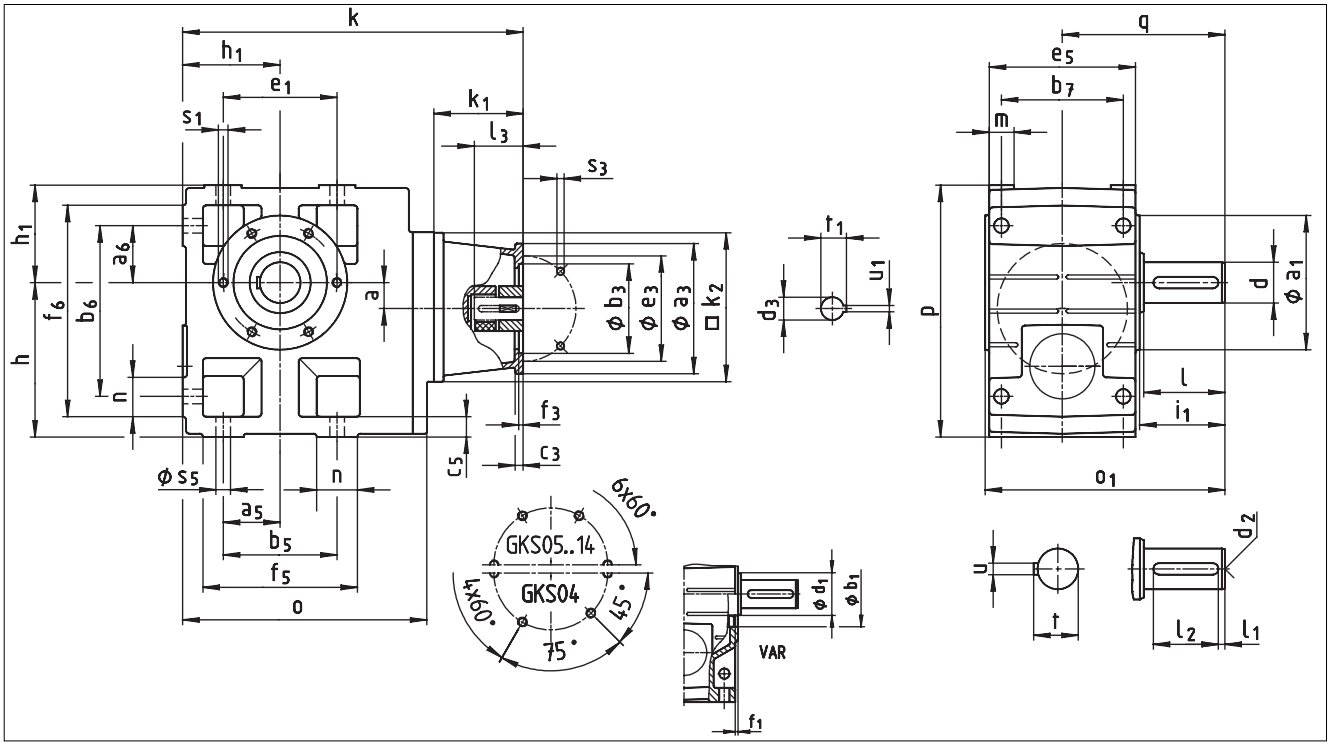
Gearbox			Drive size																			
GKS □□ - 3 N HAK corresponds to IEC motor			**1A** 63	**1B** 71	**2B** 63	**1C** 80	**2C**	**3C** 71	**4C** 71	**1D** 90	**2D** 80	**1E** 100 112	**2E** 90	**3E** 80	**1F** 100 112	**2F** 90	**1G** 132	**2G** 100 112	**1H** 160	**2H** 180	**3H** 132	**1K** 200	**2K** 225
	Housing	k_1	75	77	75	91				115		110			139		180	160	218	218	188	243	273
		k_2	120	145	120	145				180		180			180		265		300			300	
	Flange	a_3	90	105	90	160	160	105	120	160		160			160		300	250	350	350	300	400	450
		b_3 H8	60	70	60	110	110	70	80	110		110			110		230	180	250	250	230	300	350
		c_3	7	8	7	10	10	8	8	10		10			10		18		20	20	18	20	
		e_3	75	85	75	130	130	85	100	130		130			130		265	215	300	300	265	350	400
		f_3	3	3		4	4	3	3.5	4		4			4		4.5		6	6	4.5	6	
		s_3 4 x	5.5	6.6	5.5	9	9	6.6	6.6	9		9			9		13.5		17.5	17.5	13.5	17.5	
		s_3 8 x																					17.5
	Required motor shaft	d_3	11	14	11	19	14	14	14	24	19	28	24	19	28	24	38	28	42	48	38	55	60
		l_3 min	23	30	23	25				50	40	30			30		80	60	110	110	80	110	140
		l_3 max	23	30	23	40				50	50	60			60		80	60	110	110	80	110	140
		u_1	4	5	4	6	5	5	5	8	6	8	8	6	8	8	10	8	12	14	10	16	18
		t_1	12.5	16	12.5	21.5	16	16	16	27	21.5	31	27	21.5	31	27	41	31	45	51.5	41	59	64

Gearbox size	Gearbox o	o_1*	p*	h*	h_1	a	k_8	q	Total length															
04	203	148	171	100	71	20	38	90.5	287	294	287	308		342										
05	232	173	205	125	80	23	40	103		314		328		362	357									
06	291	201	250	150	100	28	49	121		370		384		418	413	442								
07	354	255	310	190	120	34	65	155				440		474	469	498	553	533	596		566			
09	429	300	386	236	150	41	69	180						545	540	569	624	604	667	667	637	692		
11	527	350	485	300	185	54	70	205							631	660	715	695	758	758	728	783	813	
14	636	410	605	375	230	67	71	235									814	794	857	857	827	882	912	

Gearbox size	Hollow shaft d H7	l	d_1	l_1	u JS9	t +0.2	Output flange a_2	b_2 j7	c_2	e_2	f_2	i_2	s_2
04	25 30	115	45	100	8 8	28.3 38.3	160	110	10	130	3.5	33	4 x 9
05	30 35	140	50	124	8 10	33.3 33.3	200	130	12	165	3.5	33	4 x 11
06	40 45	160	65	140	12 14	43.3 48.8	200 250	130 180	12 14.5	165 215	3.5 4	42 41	4 x 11 4 x 14
07	50 55	200	75	175	14 16	53.8 59.3	250 300	180 230	14.5 16.5	215 265	4	55	4 x 14
09	60 70	240	95	210	18 20	64.4 74.9	350	250	18	300	4	60	4 x 18
11	70 80	290	105	250	20 22	74.9 85.4	400 450	300 350	20 22	350 400	5	60	4 x 18 8 x 18
14	100	350	135	305	28	106.4	450	350	22	400	5	60	8 x 18

Dimensions – (Helical)-bevel gearboxes

Gearbox with mounting flange for IEC standard motors



Gearbox **GKS □□ - 3N V□R** corresponds to IEC motor			Drive size																			
			1A	**1B**	**2B**	**1C**	**2C**	**3C**	**4C**	**1D**	**2D**	**1E**	**2E**	**3E**	**1F**	**2F**	**1G**	**2G**	**1H**	**2H**	**3H**	**1K**	**2K**
			63	71	63	80		71	71	90	80	100 112	90	80	100 112	90	132	100 112	160	180	132	200	225
	Housing	k_1	75	77	75	91				115		110			139		180	160	218	218	188	243	273
		k_2	120	145	120	145				180		180			180		265		300			300	
	Flange	a_3	90	105	90	160	160	105	120	160		160			160		300	250	350	350	300	400	450
		b_3 H8	60	70	60	110	110	70	80	110		110			110		230	180	250	250	230	300	350
		c_3	7	8	7	10	10	8	8	10		10			10		18		20	20	18	20	
		e_3	75	85	75	130	130	85	100	130		130			130		265	215	300	300	265	350	400
		f_3	3	3		4	4	3	3.5	4		4			4		4.5		6	6	4.5	6	
		s_3 4 x 8 x	5.5	6.6	5.5	9	9	6.6	6.6	9		9			9		13.5		17.5	17.5	13.5	17.5	17.5
	Required motor shaft	d_3	11	14	11	19	14	14	14	24	19	28	24	19	28	24	38	28	42	48	38	55	60
		l_3 min max	23 23	30 30	23 23	25 40				50 50	40 50	30 60			30 60		80 80	60 60	110 110	110 110	80 80	110 110	140 140
		u_1	4	5	4	6	5	5	5	8	6	8	8	6	8	8	10	8	12	14	10	16	18
		t_1	12.5	16	12.5	21.5	16	16	16	27	21.5	31	27	21.5	31	27	41	31	45	51.5	41	59	64

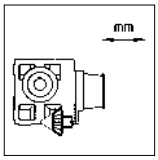
Gearbox size	Gearbox							Total length
	o	**o_1***	**p***	**h***	**h_1**	**a**	**q**	**k**
04	203	163	171	100	71	20	107.5	287 294 287 308 342
05	232	197	205	125	80	23	130	314 328 362 357
06	291	236	250	150	100	28	160	370 384 418 413 442
07	354	296	310	190	120	34	200	440 474 469 498 553 533 596 566
09	429	356	386	236	150	41	240	545 540 569 624 604 667 667 637 692
11	527	445	485	300	185	54	305	631 660 715 695 758 758 728 783 813
14	636	544	605	375	230	67	375	814 794 857 857 827 882 912

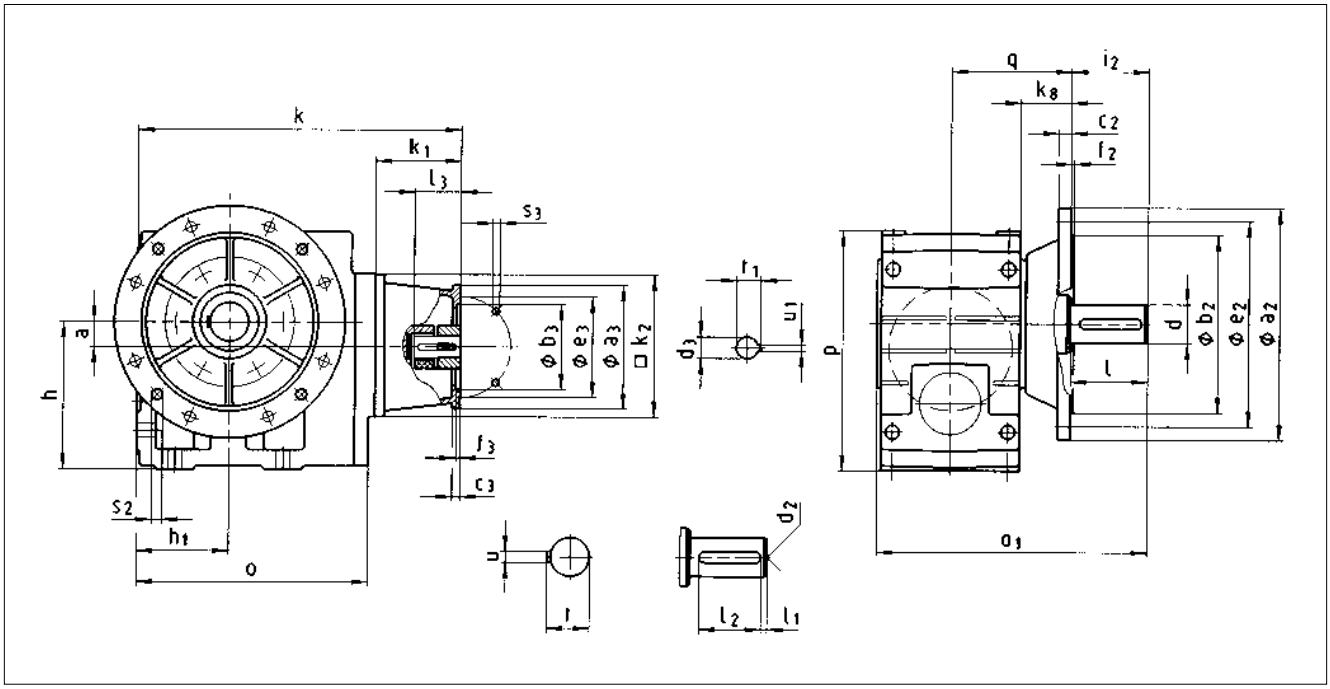
Gearbox size	Solid shaft								Pitch circle						Foot										
	d	**l**	**d_1**	**l_1**	**l_2**	**d_2**	**u**	**t**	**a_1**	**b_1** H7	**e_1**	**f_1**	**i_1**	**s_1**	**a_5**	**a_6**	**b_5**	**b_6**	**b_7**	**c_5**	**e_5**	**f_5**	**f_6**	**n**	**m**	**s_5**
04	25	50	45	4	40	M10	8	28	105	75	90	3	52.5	M6x12	45	45	110	119	85	14	105	132	141	22	21	9
05	30	60	50	6	45	M10	8	33	118	80	100	4	64	M8x15	47.5	47.5	115	140	105	17	127	144	169	29	21	11
06	40	80	65	7	63	M16	12	43	140	100	120	4	85	M10x16	60	60	155	170	120	20	145	191	206	36	23	14
07	50	100	75	8	80	M16	14	53.5	165	115	140	5	105	M12x18	70	70	190	210	150	25	180	235	255	45	28	18
09	60	120	95	8	100	M20	18	64	205	145	175	6	125	M16x24	90	90	240	266	185	30	222	300	326	60	37	22
11	80	160	105	15	125	M20	22	85	240	170	205	6	166	M20x32	105	105	290	325	225	40	270	363	398	73	43	26
14	100	200	135	18	160	M24	28	106	290	210	250	6	207	M24x35	135	135	360	415	275	50	328	442	497	82	52	33

Dimensions in [mm] d ≤ 50 mm: k6 d > 50 mm: m6

* Observe dimension k_2, with gearbox size 04 and motor frame size 090 dimension $k_2/2 > h-a$

Lenze





Gearbox			Drive size																				
GKS □□ - 3 N VAK corresponds to IEC motor			**1A** 63	**1B** 71	**2B** 63	**1C** 80	**2C**	**3C** 71	**4C** 71	**1D** 90	**2D** 80	**1E** 100 112	**2E** 90	**3E** 80	**1F** 100 112	**2F** 90	**1G** 132	**2G** 100 112	**1H** 160	**2H** 180	**3H** 132	**1K** 200	**2K** 225
	Housing	k_1	75	77	75	91				115		110			139		180	160	218	218	188	243	273
		k_2	120	145	120	145				180		180			180		265		300			300	
	Flange	a_3	90	105	90	160	160	105	120	160		160			160		300	250	350	350	300	400	450
		b_3 H8	60	70	60	110	110	70	80	110		110			110		230	180	250	250	230	300	350
		c_3	7	8	7	10	10	8	8	10		10			10		18		20	20	18	20	
		e_3	75	85	75	130	130	85	100	130		130			130		265	215	300	300	265	350	400
		f_3	3	3		4	4	3	3.5	4		4			4		4.5		6	6	4.5	6	
		s_3 4 x	5.5	6.6	5.5	9	9	6.6	6.6	9		9			9		13.5		17.5	17.5	13.5	17.5	
		s_3 8 x																					17.5
	Required motor shaft	d_3	11	14	11	19	14	14	14	24	19	28	24	19	28	24	38	28	42	48	38	55	60
		l_3 min	23	30	23	25				50	40	30			30		80	60	110	110	80	110	140
		l_3 max	23	30	23	40				50	40	60			60		80	60	110	110	80	110	140
		u_1	4	5	4	6	5	5	5	8	6	8	8	6	8	8	10	8	12	14	10	16	18
		t_1	12.5	16	12.5	21.5	16	16	16	27	21.5	31	27	21.5	31	27	41	31	45	51.5	41	59	64

Gearbox size	Gearbox o	o_1*	p*	h*	h_1	a	k_8	q	Total length
04	203	169	171	100	71	20	38	90.5	287 294 287 308 342
05	232	230	205	125	80	23	40	103	314 328 362 357
06	291	277	250	150	100	28	49	121	370 384 418 413 442
07	354	351	310	190	120	34	65	155	440 474 469 498 553 533 596 566
09	429	416	386	236	150	41	69	180	545 540 569 624 604 667 667 637 692
11	527	505	485	300	185	54	70	205	631 660 715 695 758 758 728 783 813
14	636	604	605	375	230	67	71	235	814 794 857 857 827 882 912

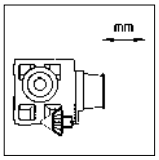
Gearbox size	Solid shaft d	l	l_1	l_2	d_2	u	t	Output flange a_2	b_2 j7	c_2	e_2	f_2	i_2	s_2
04	25	50	4	40	M10	8	28	160	110	10	130	3.5	50	4x9
05	30	60	6	45	M10	8	33	200	130	12	165	3.5	60	4x11
06	40	80	7	63	M16	12	43	250	180	14.5	215	4	80	4x14
07	50	100	8	80	M16	14	53.5	250 300	180 230	14.5 16.5	215 265	4	100	4x14
09	60	120	8	100	M20	18	64	350	250	18	300	4	120	4x18
11	80	160	15	125	M20	22	85	400 450	300 350	20 22	350 400	5	160	4x18 8x18
14	100	200	18	160	M24	28	106	450	350	22	400	5	200	8x18

Dimensions in [mm]

d ≤ 50 mm: k6

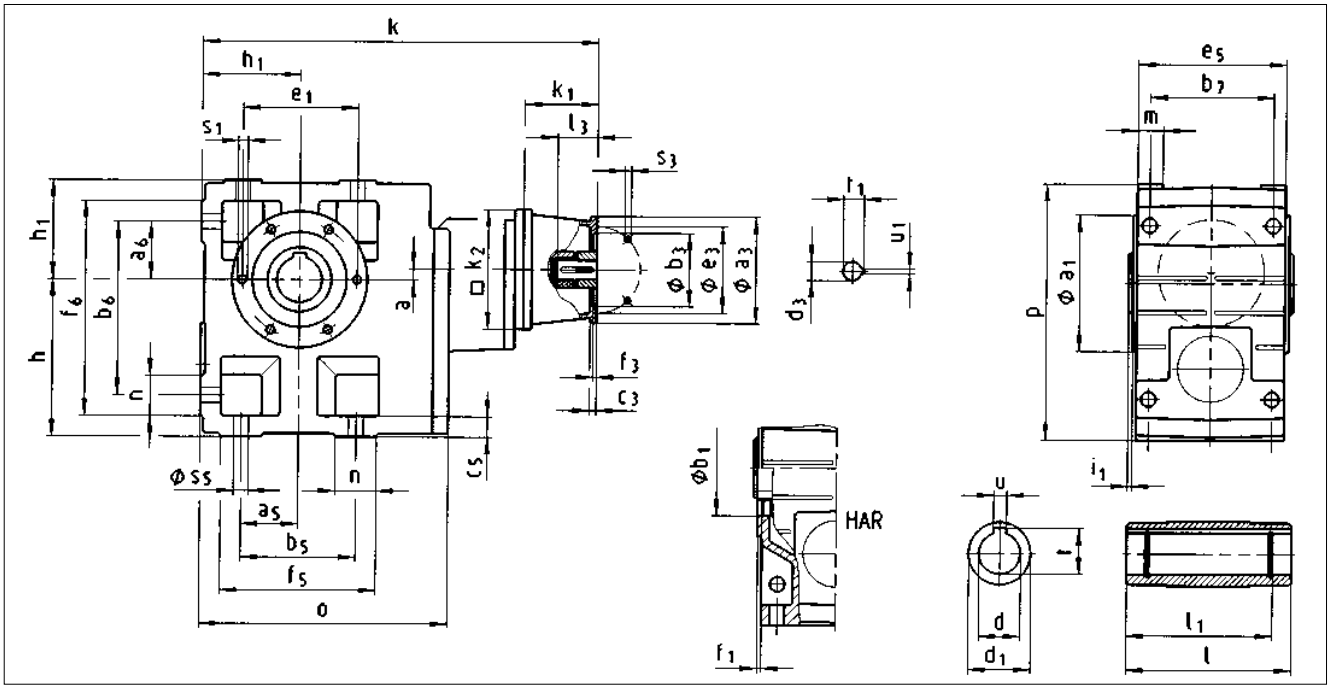
d > 50 mm: m6

* Observe dimension k_2, with gearbox size 04 and motor frame size 090 dimension $k_2/2 > h-a$



Dimensions – (Helical)-bevel gearboxes

Gearbox with mounting flange for IEC standard motors



Gearbox GKS □□ - 4N H□R (corresponds to IEC motor)			Drive size																		
			1A	1B	2B	1C	2C	3C	4C	1D	2D	1E	2E	3E	1F	2F	1G	2G	1H	2H	3H
			63	71	63	80		71	71	90	80	100 112	90	80	110 112	90	132	100 112	160	180	132
	Housing	k_1	75	77	75	91				115		110			139		180	160	218	218	188
		k_2	120	145	120	145				180		180			180		265		300		
	Flange	a_3	90	105	90	160	160	105	120	160		160			160		300	250	350	350	300
		b_3 H8	60	70	60	110	110	70	80	110		110			110		230	180	250	250	230
		c_3	7	8	7	10	10	8	8	10		10			10		18		20	20	18
		e_3	75	85	75	130	130	85	100	130		130			130		265	215	300	300	265
		f_3	3	3		4	4	3	3.5	4		4			4		4.5		6	6	4.5
		s_3 4 x	5.5	6.6	5.5	9	9	6.6	6.6	9		9			9		13.5		17.5	17.5	13.5
	Required motor shaft	d_3	11	14	11	19	14	14	14	24	19	28	24	19	28	24	38	28	42	48	38
		l_3 min	23	30	23	25				50	40	30			30		80	60	110	110	80
		l_3 max	23	30	23	40				50	50	60			60		80	60	110	110	80
		u_1	4	5	4	6	5	5	5	8	6	8	8	6	8	8	10	8	12	14	10
		t_1	12.5	16	12.5	21.5	16	16	16	27	21.5	31	27	21.5	31	27	41	31	45	51.5	41

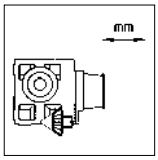
Gearbox size	Gearbox						Total length k												
	o	l*	p*	h	h_1	a													
05	226	140	205	125	80	13	383	390	383	404	438								
06	288	160	250	150	100	8	456	463	456	477	511								
07	351	200	310	190	120	11		530		544	578	573							
09	426	240	386	236	150	15		619		633	667	662	691						
11	523	290	485	300	185	16				743	777	772	801	856	836				
14	632	350	605	375	230	22					910	905	934	989	969	1032	1032	1002	

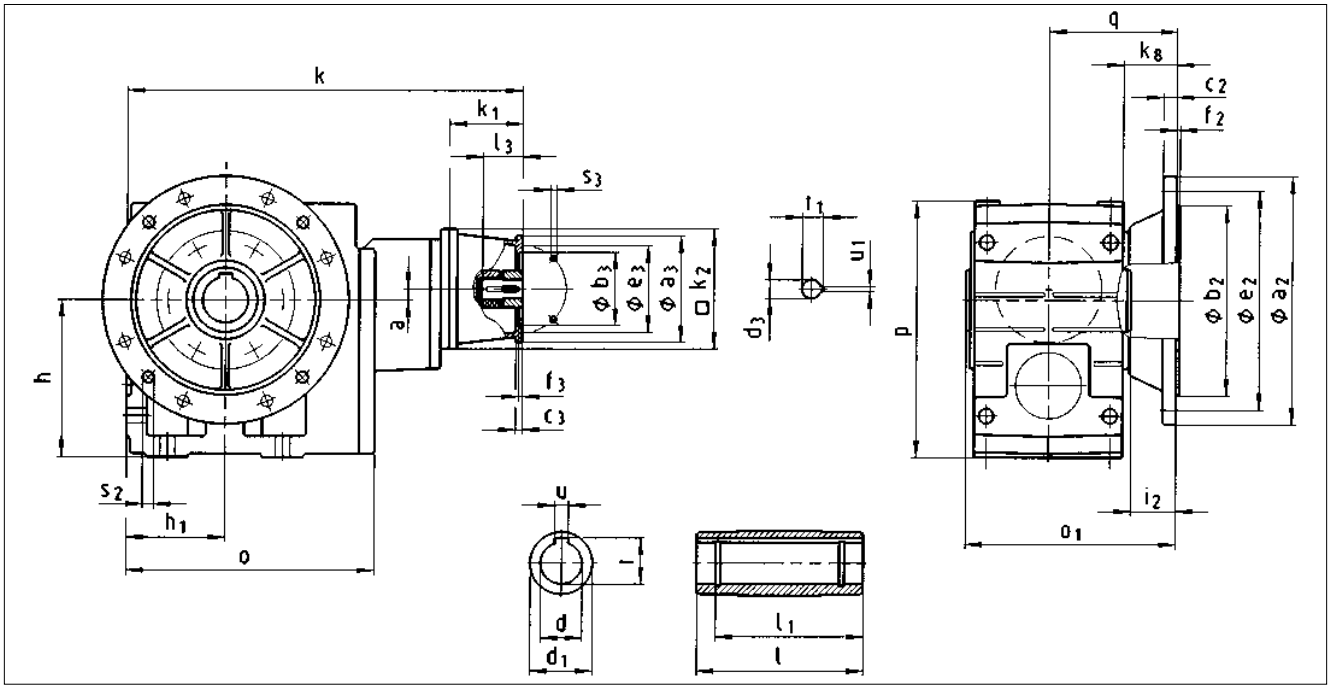
Gearbox size	Hollow shaft						Pitch circle						Foot											
	d H7	l	d_1	l_1	u JS9	t +0.2	a_1	b_1 H7	e_1	f_1	i_1	s_1 6x60°	a_5	a_6	b_5	b_6	b_7	c_5	e_5	f_5	f_6	n	m	s_5
05	30 35	140	50	124	8 10	33.3 38.8	118	80	100	4	4	M8x15	47.5	47.5	115	140	105	17	127	144	169	29	21	11
06	40 45	160	65	140	12 14	43.3 48.8	140	100	120	4	5	M10x16	60	60	155	170	120	20	145	191	206	36	23	14
07	50 55	200	75	175	14 16	53.8 59.3	165	115	140	5	5	M12x18	70	70	190	210	150	25	180	235	255	45	28	18
09	60 70	240	95	210	18 20	64.4 74.9	205	145	175	6	5	M16x24	90	90	240	266	185	30	222	300	326	30	37	22
11	70 80	290	105	250	20 22	74.9 85.4	240	170	205	6	6	M20x32	105	105	290	325	225	40	270	363	398	73	43	26
14	100	350	135	305	28	106.4	290	210	250	6	7	M24x35	135	135	360	415	275	50	328	442	497	82	52	33

Dimensions in [mm]

* Observe k_2

Lenze





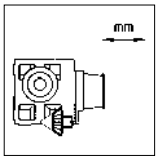
Gearbox GKS □□ - 4 N HAK (corresponds to IEC motor)			Drive size																	
			1A	1B	2B	1C	2C	3C	4C	1D	2D	1E	2E	3E	1F	2F	1G	2G	1H	2H	3H
			63	71	63	80		71	71	90	80	100 112	90	80	110 112	90	132	100 112	160	180	132
	Housing	k_1	75	77	75	91				115		110			139		180	160	218	218	188
		k_2	120	145	120	145				180		180			180		265		300		
	Flange	a_3	90	105	90	160	160	105	120	160		160			160		300	250	350	350	300
		b_3 H8	60	70	60	110	110	70	80	110		110			110		230	180	250	250	230
		c_3	7	8	7	10	10	8	8	10		10			10		18		20	20	18
		e_3	75	85	75	130	130	85	100	130		130			130		265	215	300	300	265
		f_3	3	3		4	4	3	3.5	4		4			4		4.5		6	6	4.5
		s_3 4 x	5.5	6.6	5.5	9	9	6.6	6.6	9		9			9		13.5		17.5	17.5	13.5
	Required motor shaft	d_3	11	14	11	19	14	14	14	24	19	28	24	19	28	24	38	28	42	48	38
		l_3 min	23	30	23	25				50	40	30			30		80	60	110	110	80
		l_3 max	23	30	23	40				50	40	60			60		80	60	110	110	80
		u_1	4	5	4	6	5	5	5	8	6	8	8	6	8	8	10	8	12	14	10
		t_1	12.5	16	12.5	21.5	16	16	16	27	21.5	31	27	21.5	31	27	41	31	45	51.5	41

Gearbox size	Gearbox								Total length k											
	o	o_1*	p*	h	h_1	a	k_8	q												
05	226	173	205	125	80	13	40	103	383	390	383	404	438							
06	288	201	250	150	100	8	49	121	456	463	456	477	511							
07	351	255	310	190	120	11	65	155		530		544	578	573						
09	426	300	386	236	150	15	69	180		619		633	667	662	691					
11	523	350	485	300	185	16	70	205				743	777	772	801	856	836			
14	632	410	605	375	230	22	71	235					910	905	934	989	969	1032	1032	1002

Gearbox size	Hollow shaft						Output flange						
	d H7	l	d_1	l_1	u JS9	t +0.2	a_2	b_2 j7	c_2	e_2	f_2	i_2	s_2
05	30 35	140	50	124	8 10	33.3 38.8	200	130	12	165	3.5	33	4 x 11
06	40 45	160	65	140	12 14	43.3 48.8	200 250	130 180	12 14.5	165 215	3.5 4	42 41	4 x 11 4 x 14
07	50 55	200	75	175	14 16	53.8 59.3	250 300	180 230	14.5 16.5	215 265	4	55	4 x 14
09	60 70	240	95	210	18 20	64.4 74.9	350	250	18	300	4	60	4 x 18
11	70 80	290	105	250	20 22	74.9 85.4	400 450	300 350	20 22	350 400	5	60	4 x 18 8 x 18
14	100	350	135	305	28	106.4	450	350	22	400	5	60	8 x 18

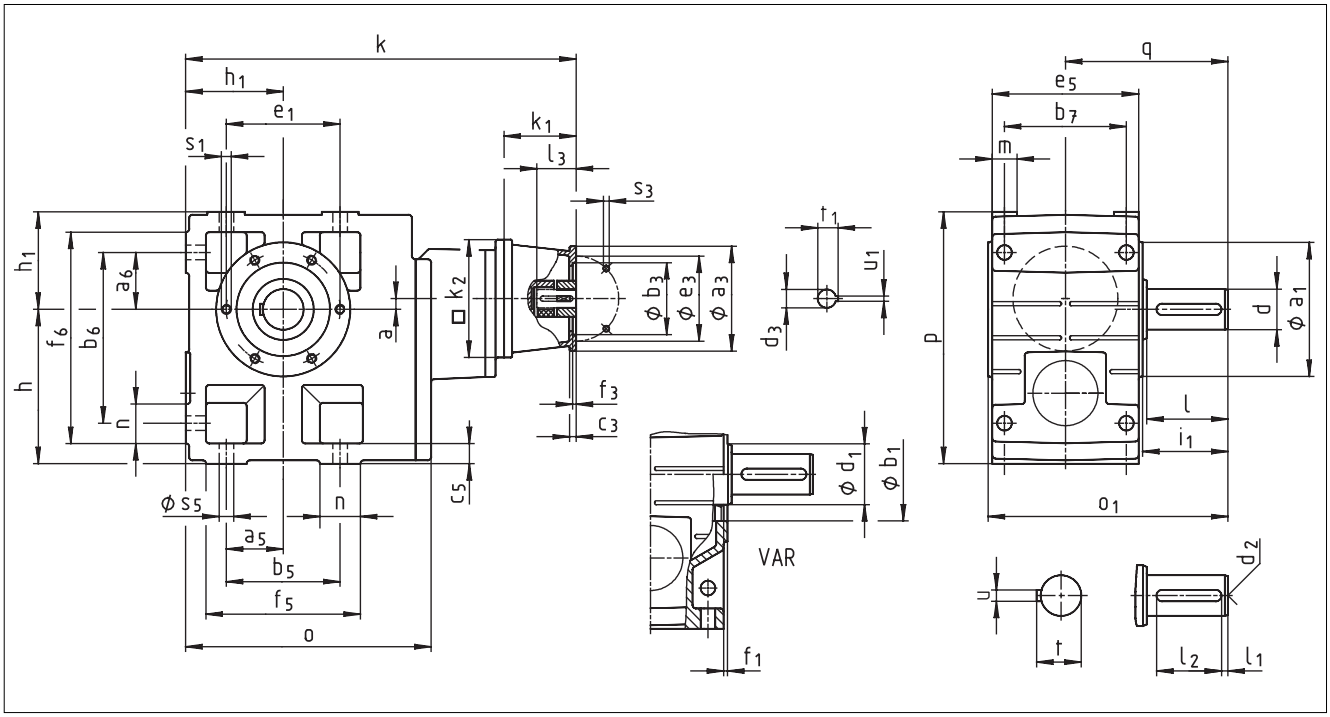
Dimensions in [mm]

* Observe k_2



Dimensions – (Helical)-bevel gearboxes

Gearbox with mounting flange for IEC standard motors



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Gearbox GKS □□ - 4N V□R (corresponds to IEC motor)			Drive size																		
			1A	1B	2B	1C	2C	3C	4C	1D	2D	1E	2E	3E	1F	2F	1G	2G	1H	2H	3H
			63	71	63	80		71	71	90	80	100 112	90	80	110 112	90	132	100 112	160	180	132
	Housing	k_1	75	77	75	91				115		110			139		180	160	218	218	188
		k_2	120	145	120	145				180		180			180		265		300		
	Flange	a_3	90	105	90	160	160	105	120	160		160			160		300	250	350	350	300
		b_3 H8	60	70	60	110	110	70	80	110		110			110		230	180	250	250	230
		c_3	7	8	7	10	10	8	8	10		10			10		18		20	20	18
		e_3	75	85	75	130	130	85	100	130		130			130		265	215	300	300	265
		f_3	3	3		4	4	3	3.5	4		4			4		4.5		6	6	4.5
		s_3 4 x	5.5	6.6	5.5	9	9	6.6	6.6	9		9			9		13.5		17.5	17.5	13.5
	Required motor shaft	d_3	11	14	11	19	14	14	14	24	19	28	24	19	28	24	38	28	42	48	38
		l_3 min	23	30	23	25				50	40	30			30		80	60	110	110	80
		l_3 max	23	30	23	40				50	40	60			60		80	60	110	110	80
		u_1	4	5	4	6	5	5	5	8	6	8	8	6	8	8	10	8	12	14	10
		t_1	12.5	16	12.5	21.5	16	16	16	27	21.5	31	27	21.5	31	27	41	31	45	51.5	41

Gearbox size	Gearbox							Total length k												
	o	o_1*	p*	h	h_1	a	q													
05	226	197	205	125	80	13	130	383	390	383	404	438								
06	288	236	250	150	100	8	160	456	463	456	477	511								
07	351	296	310	190	120	11	200		530		544	578	573							
09	426	356	386	236	150	15	240		619		633	667	662	691						
11	523	445	485	300	185	16	305				743	777	772	801	856	836				
14	632	544	605	375	230	22	375					910	905	934	989	969	1032	1032	1002	

Gearbox size	Solid shaft								Pitch circle						Foot											
	d	l	d_1	l_1	l_2	d_2	u	t	a_1	b_1 H7	e_1	f_1	i_1	s_1 6x60°	a_5	a_6	b_5	b_6	b_7	c_5	e_5	f_5	f_6	n	m	s_5
05	30	60	50	6	45	M10	8	33	118	80	100	4	64	M8x15	47.5	47.5	115	140	105	17	127	144	169	29	21	11
06	40	80	65	7	63	M16	12	43	140	100	120	4	85	M10x16	60	60	155	170	120	20	145	191	206	36	23	14
07	50	100	75	8	80	M16	14	53.5	165	115	140	5	105	M12x18	70	70	190	210	150	25	180	235	255	45	28	18
09	60	120	95	8	100	M20	18	64	205	145	175	6	125	M16x24	90	90	240	266	185	30	222	300	326	30	37	22
11	80	160	105	15	125	M20	22	74	240	170	205	6	166	M20x32	105	105	290	325	225	40	270	363	398	73	43	26
14	100	200	135	18	160	M24	28	106	290	210	250	6	207	M24x35	135	135	360	415	275	50	328	442	497	82	52	33

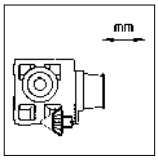
Dimensions in [mm]

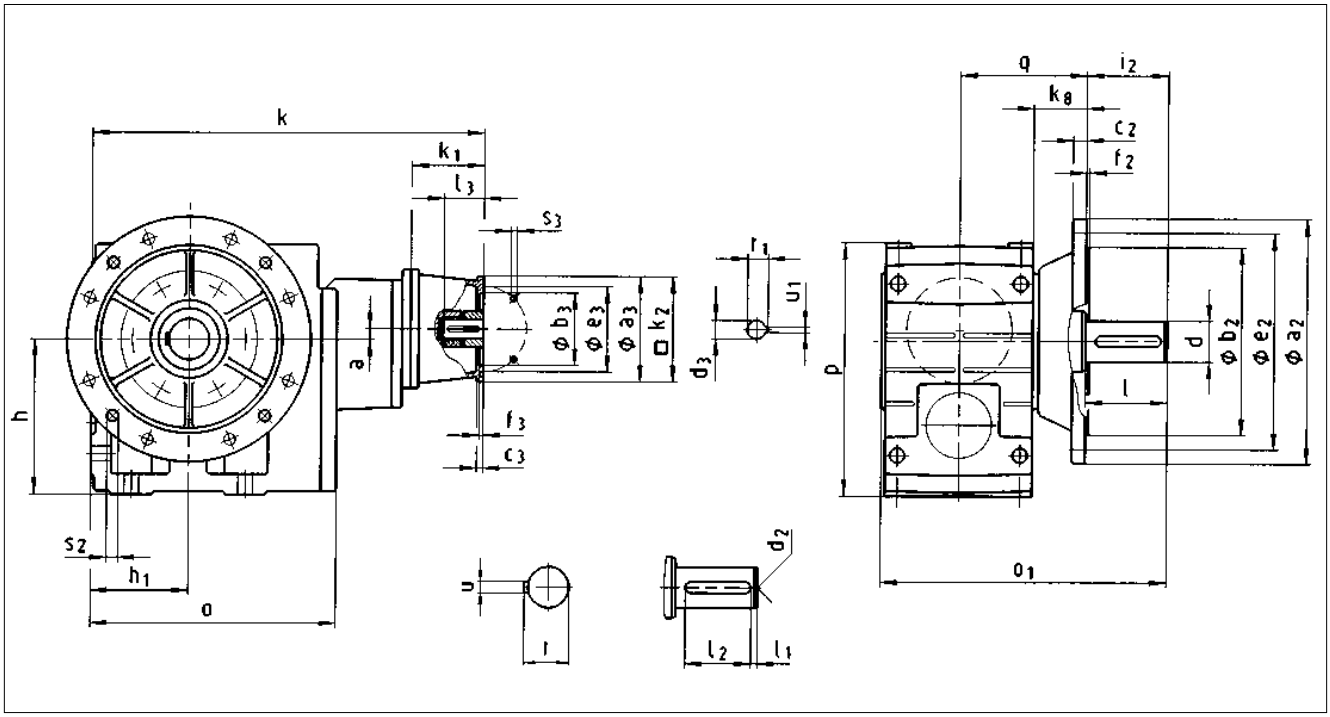
d ≤ 50 mm: k6

d > 50 mm: m6

* Observe k_2

Lenze





Gearbox GKS □□ - 4 N VAK corresponds to IEC motor			Drive size																	
			1A	1B	2B	1C	2C	3C	4C	1D	2D	1E	2E	3E	1F	2F	1G	2G	1H	2H	3H
			63	71	63	80		71	71	90	80	100 112	90	80	110 112	90	132	100 112	160	180	132
	Housing	k_1	75	77	75	91				115		110			139		180	160	218	218	188
		k_2	120	145	120	145				180		180			180		265		300		
	Flange	a_3	90	105	90	160	160	105	120	160		160			160		300	250	350	350	300
		b_3 H8	60	70	60	110	110	70	80	110		110			110		230	180	250	250	230
		c_3	7	8	7	10	10	8	8	10		10			10		18		20	20	18
		e_3	75	85	75	130	130	85	100	130		130			130		265	215	300	300	265
		f_3	3	3		4	4	3	3.5	4		4			4		4.5		6	6	4.5
		s_3 4 x	5.5	6.6	5.5	9	9	6.6	6.6	9		9			9		13.5		17.5	17.5	13.5
	Required motor shaft	d_3	11	14	11	19	14	14	14	24	19	28	24	19	28	24	38	28	42	48	38
		l_3 min	23	30	23	25				50	40	30			30		80	60	110	110	80
		l_3 max	23	30	23	40				50	40	60			60		80	60	110	110	80
		u_1	4	5	4	6	5	5	5	8	6	8	8	6	8	8	10	8	12	14	10
		t_1	12.5	16	12.5	21.5	16	16	16	27	21.5	31	27	21.5	31	27	41	31	45	51.5	41

Gearbox size	Gearbox								Total length k											
	o	o_1*	p*	h	h_1	a	k_8	q												
05	226	230	205	125	80	13	40	103	383	390	383	404	438							
06	288	277	250	150	100	8	49	121	456	463	456	477	511							
07	351	351	310	190	120	11	65	155		530		544	578	573						
09	426	416	386	236	150	15	69	180		619		633	667	662	691					
11	523	505	485	300	185	16	70	205				743	777	772	801	856	836			
14	632	604	605	375	230	22	71	235					910	905	934	989	969	1032	1032	1002

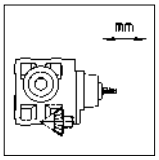
Gearbox size	Solid shaft							Output flange					
	d	l	l_1	l_2	d_2	u	t	a_2	b_2 j7	c_2	e_2	f_2	i_2	s_2
05	30	60	6	45	M10	8	33	200	130	12	165	3.5	60	4x11
06	40	80	7	63	M16	12	43	250	180	14.5	215	4	80	4x14
07	50	100	8	80	M16	14	53.5	250 300	180 230	14.5 16.5	215 265	4	100	4x14
09	60	120	8	100	M20	18	64	350	250	18	300	4	120	4x18
11	80	160	15	125	M20	22	85	400 450	300 350	20 22	350 400	5	160	4x18 8x18
14	100	200	18	160	M24	28	106	450	350	22	400	5	200	8x18

Dimensions in [mm]

d ≤ 50 mm: k6

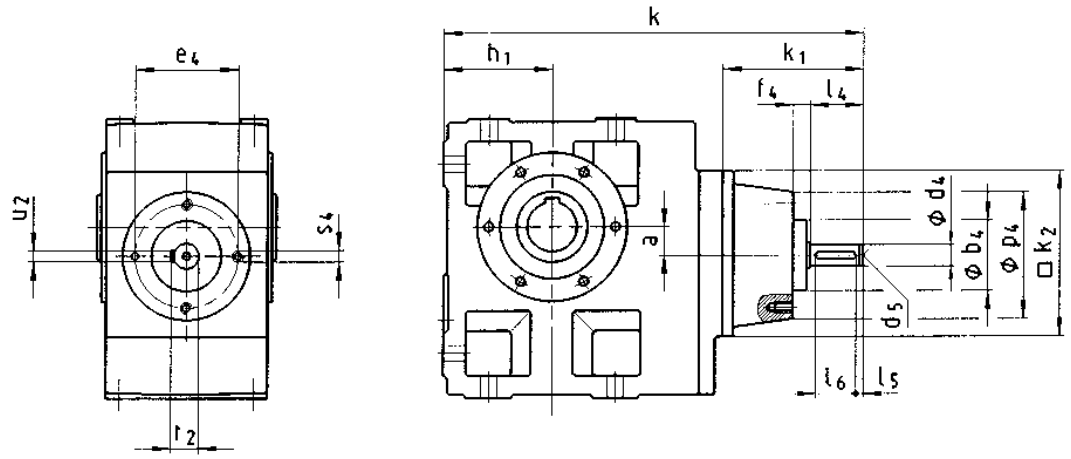
d > 50 mm: m6

* Observe k_2



Dimensions – (Helical)-bevel gearboxes

Gearbox with free input shaft

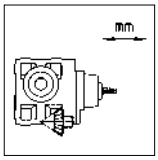


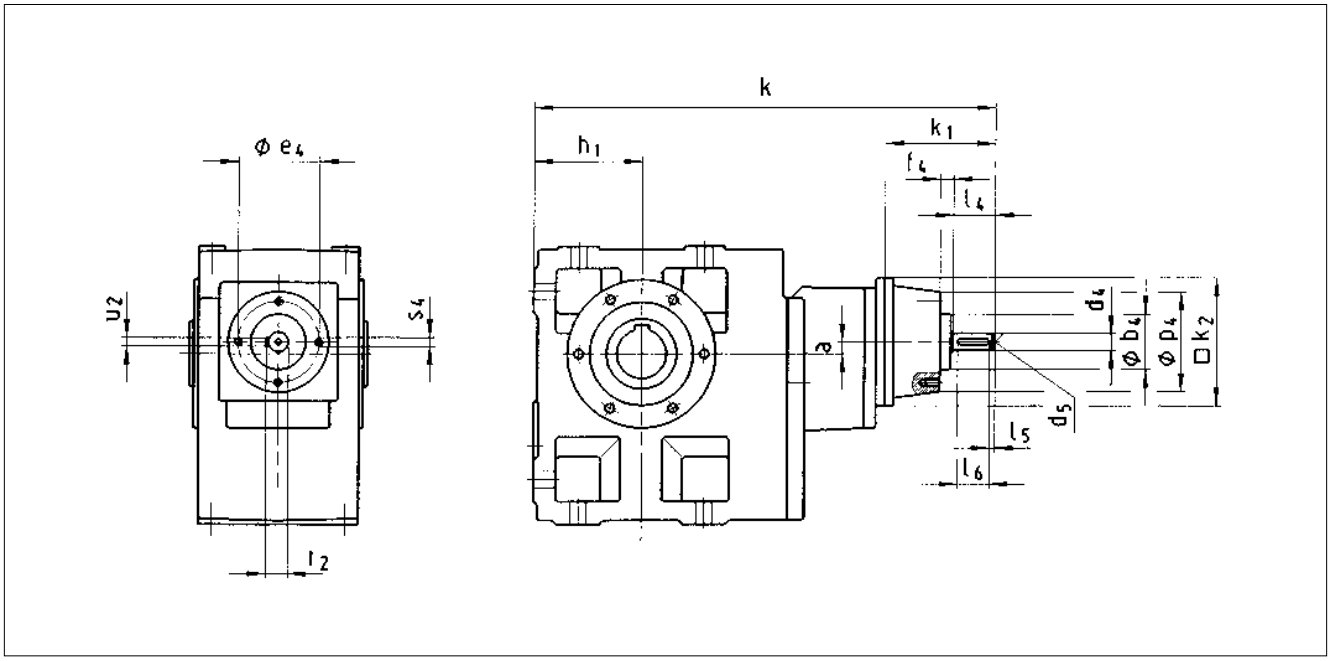
Gearbox GKS□□ - 3 W □□□				Drive size 1A	1B	1C	1D	1E	1F	1G	1H	1K
	Housing	k_1		100	100	102	130	160	175	175	182	220
		k_2		115	115	145	145	180	222	222	300	300
	Pitch circle with centering	p_4		80	86	90	120	142	178	216	262	262
		b_4	js 8	52	52	52	65	78	98	125	155	155
		e_4		67	67	67	90	115	145	175	210	210
		f_4		12	12	12	12	22	23	23	23	32
		s_4	4 x 8 x	M6x12	M6x12	M6x12	M8x16	M10x20	M12x24	M16x30	M20x36	M20x36
	Free input shaft	d_4	k6	14	14	14	19	24	28	38	42	48
		l_4		35	35	40	50	60	80	100	110	110
		l_5		4.5	4.5	4	4	6	7	8	8	8
		l_6		25	25	32	40	45	63	80	90	90
		d_5		M6	M6	M6	M6	M8	M10	M12	M16	M16
		u_2		5	5	5	6	8	8	10	12	14
		t_2		16	16	16	21.5	27	31	41	45	51.5

Gearbox size	Gearbox*		Total length k								
	h_1	a									
04	71	20	287	287	319						
05	80	23		314	339	367					
06	100	28			395	423	463	484			
07	120	34				479	519	540	540		
09	150	41					590	611	611	631	
11	185	54						702	702	722	760
14	230	67							801	821	859

Dimensions in [mm]

*** For further dimensions see Dimensions – (Helical)-bevel geared motors**



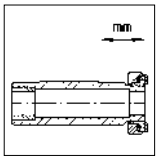


Gearbox GKS□□ - 4 W □□□				Drive size 1A	1B	1C	1D	1E	1F	1G	1H
	Housing	k_1		100	100	102	130	160	175	175	182
		k_2		115	115	145	145	180	222	222	300
	Pitch circle with centering	p_4		80	86	90	120	142	178	216	262
		b_4	js 8	52	52	52	65	78	98	125	155
		e_4		67	67	67	90	115	145	175	210
		f_4		12	12	12	12	22	23	23	23
		s_4	4 x 8 x	M6x12	M6x12	M6x12	M8x16	M10x20	M12x24	M16x30	M20x36
	Free input shaft	d_4	k6	14	14	14	19	24	28	38	42
		l_4		35	35	40	50	60	80	100	110
		l_5		4.5	4.5	4	4	6	7	8	8
		l_6		25	25	32	40	45	63	80	90
		d_5		M6	M6	M6	M6	M8	M10	M12	M16
		u_2		5	5	5	6	8	8	10	12
		t_2		16	16	16	21.5	27	31	41	45

Gearbox size	Gearbox*		Total length k							
	h_1	a								
05	80	13	383	383	415					
06	100	8	456	456	488					
07	120	11		530	555	583				
09	150	15			644	672	712	733		
11	185	16				782	822	843	843	
14	230	22					955	976	976	996

Dimensions in [mm]

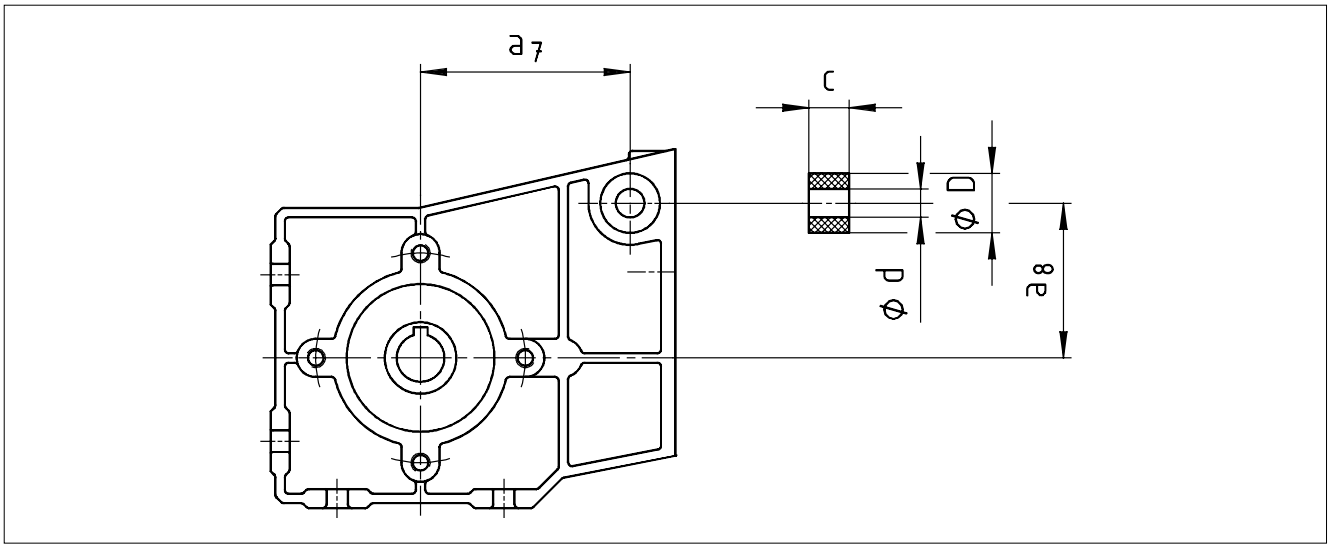
*** For further dimensions see Dimensions – (Helical)-bevel geared motors**



Dimensions – (Helical)-bevel gearboxes

Rubber buffer for torque plate

Bevel gearbox GKR □□

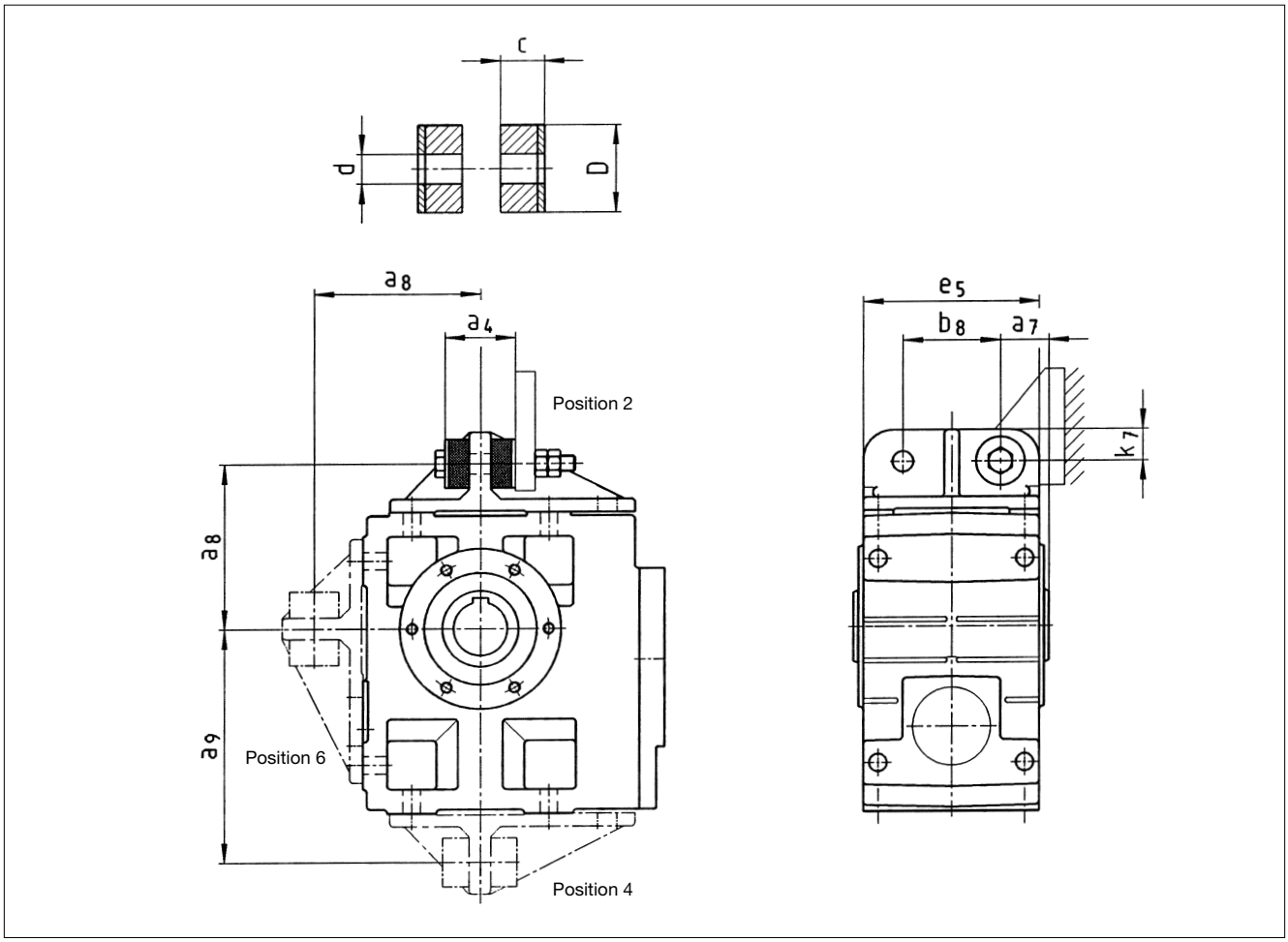


Gearbox size	d	D	c
04	10	25	13

5

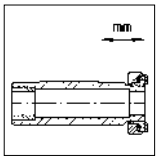
Lenze

Helical-bevel gearbox GKS □□



Gearbox size	a_4	a_7	a_8	a_9	b_8	c	d	D	e_5	k_7
04	41	27.5	106	135	60	14.5	11	30	100	20
05	45	35	115	160	70	15	13	40	127	25
06	72	40	145	195	80	27	17	50	145	30
07	78	50	170	240	100	28	21	60	180	35
09	86	60	214	300	120	29	26	72	222	46
11	94	72.5	260	375	145	30	33	92	270	55
14	100	85	320	465	180	30	39	110	328	70

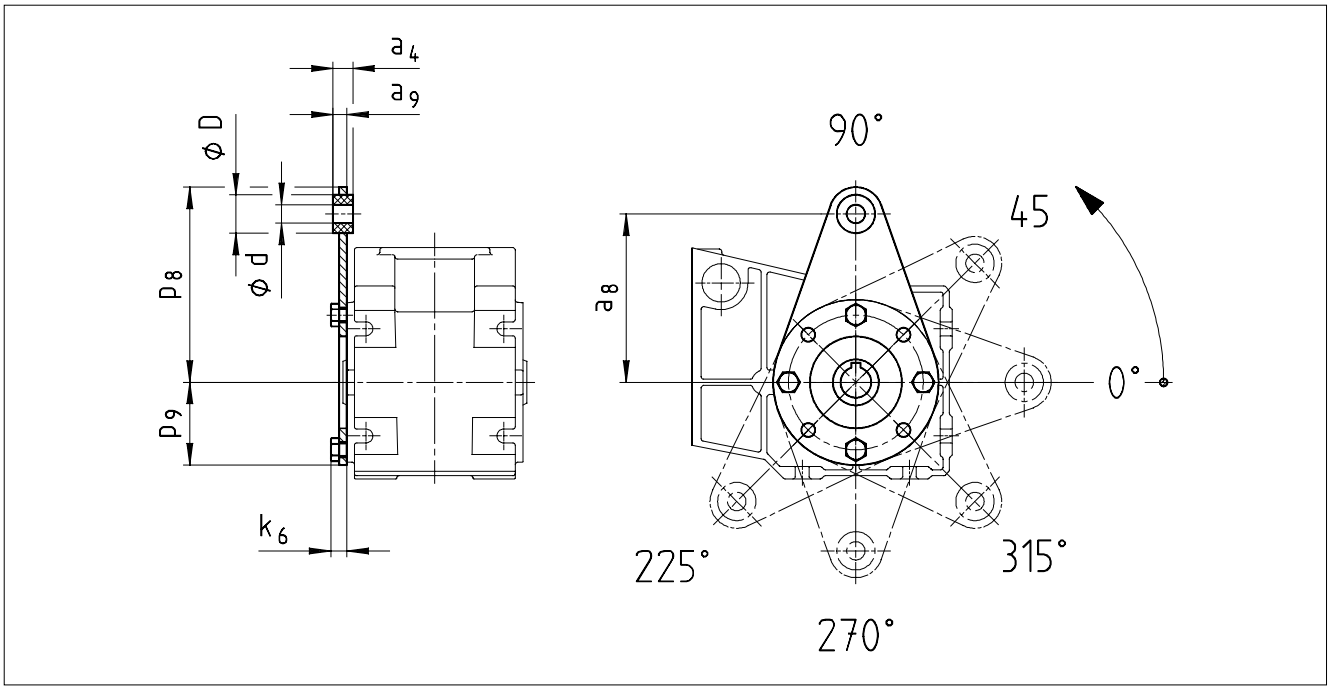
Dimensions in [mm]



Dimensions – (Helical)-bevel gearboxes

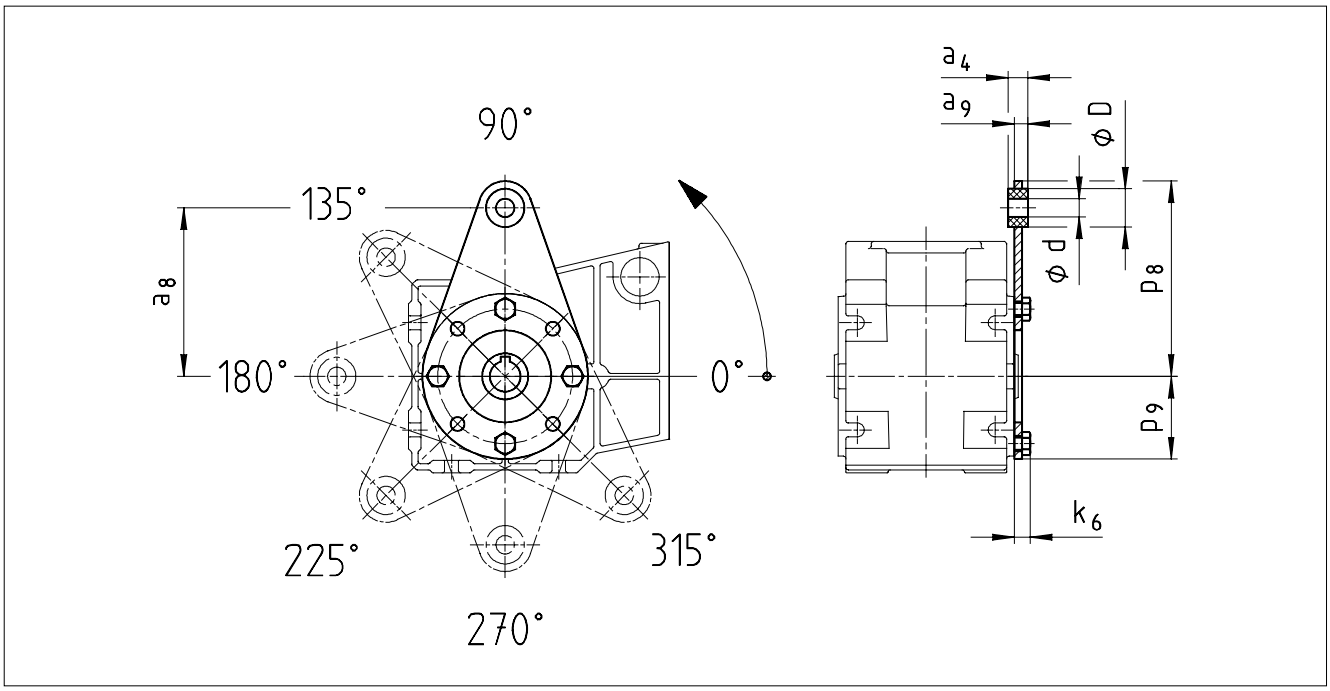
Torque plate at pitch circle

In position 3 at bevel gearbox GKR □□



5

In position 5 at bevel gearbox GKR □□

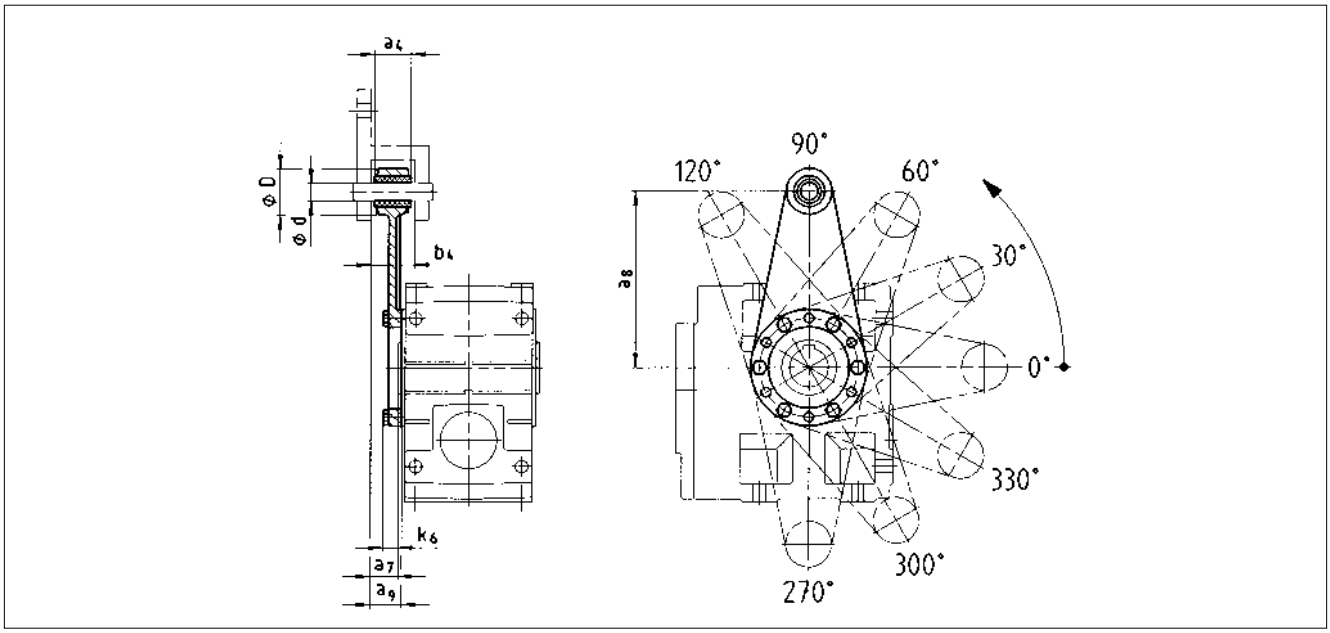


Gearbox size	Torque plate							
	a_4	a_8	a_9	d	D	k_6	p_8	p_9
04	13	110	9	10	25	11	128	52

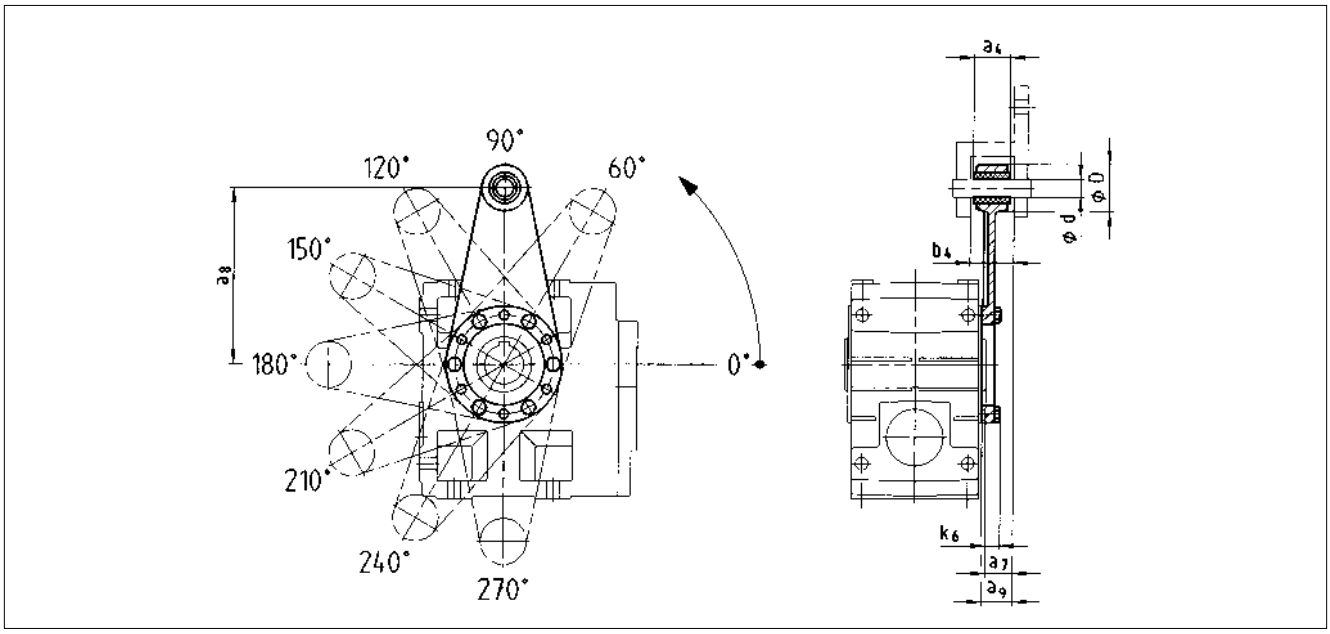
Dimensions in [mm]

Lenze

In position 3 at helical-bevel gearbox GKS □□

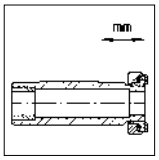


In position 5 at helical-bevel gearbox GKS □□



Gearbox size	Assembly space		Torque plate					
	a_7	b_4	a_4	a_8	a_9	d	D	k_6
04	24	34.5	30	130	26.5	12	35	16
05	23.5	38.5	34	160	27.5	16	45	15
06	28	44.5	40	200	33	20	50	18
07	32.5	50.5	46	250	37.5	25	65	21

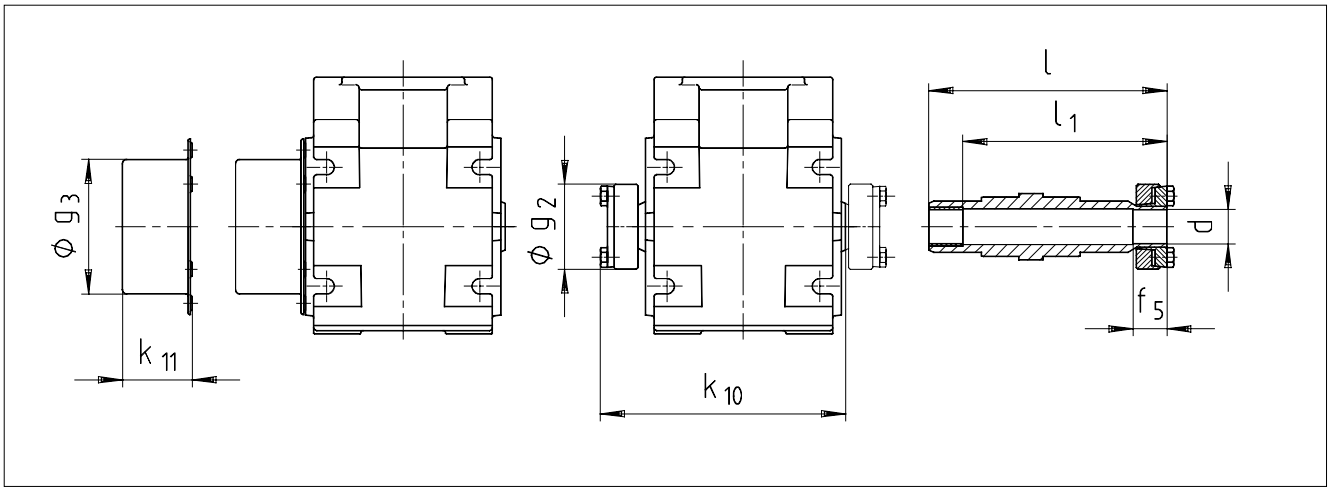
Dimensions in [mm]



Dimensions – (Helical)-bevel gearboxes

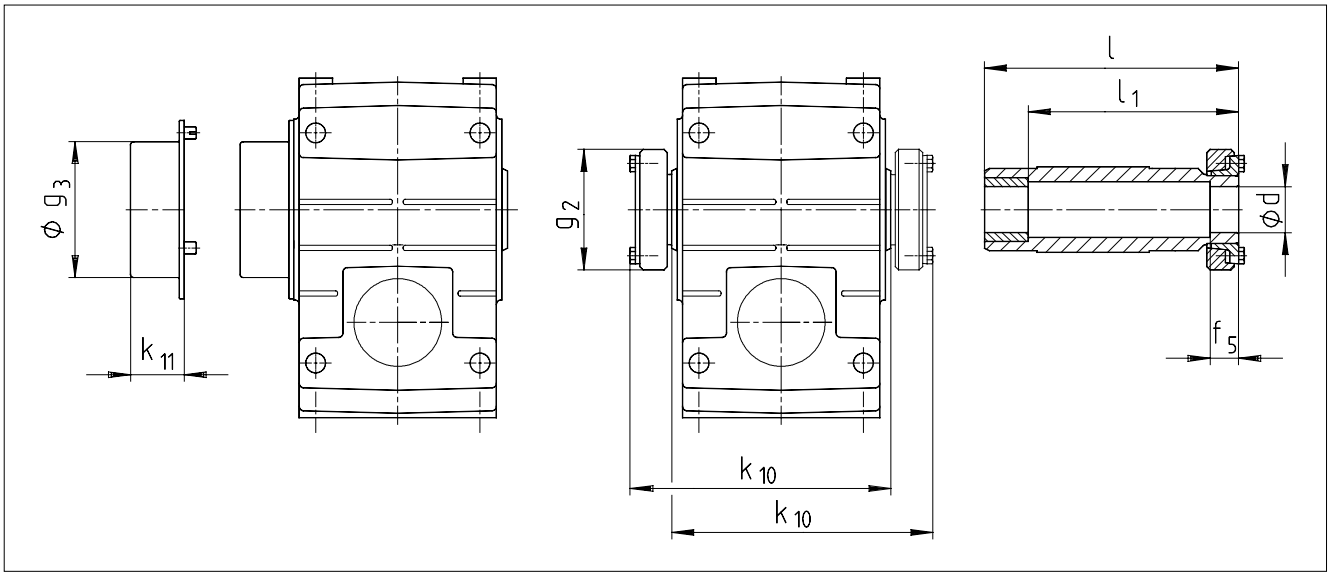
Hollow shaft with shrink disc

Bevel gearbox GKR □□



Gearbox size	Machine shaft *		Hollow shaft			Gearbox		Cover	
	d	Fit	l	l_1	f_5	g_2	k_{10}	g_3	k_{11}
04	20	h6	140	120	20	50	144	79	41

Helical-bevel gearbox GKS □□

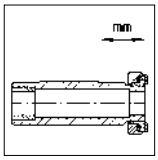


Gearbox size	Machine shaft *		Hollow shaft			Gearbox		Protection cover	
	d	Fit	l	l_1	f_5	g_2	k_{10}	g_3	k_{11}
04	25 30	h6	142	122	26	72	146	79	41
05	35	h6	168	148	28	80	171	90	43
06	40	h6	194	164	30	90	197	100	49
07	50	h6	232	192	26	110	234	124	49
09	65	h6	278	228	30	141	281	159	52
11	80	h6	338	238	42	170	344	191	65
14	100	h6	407	307	55	215	415	253	78

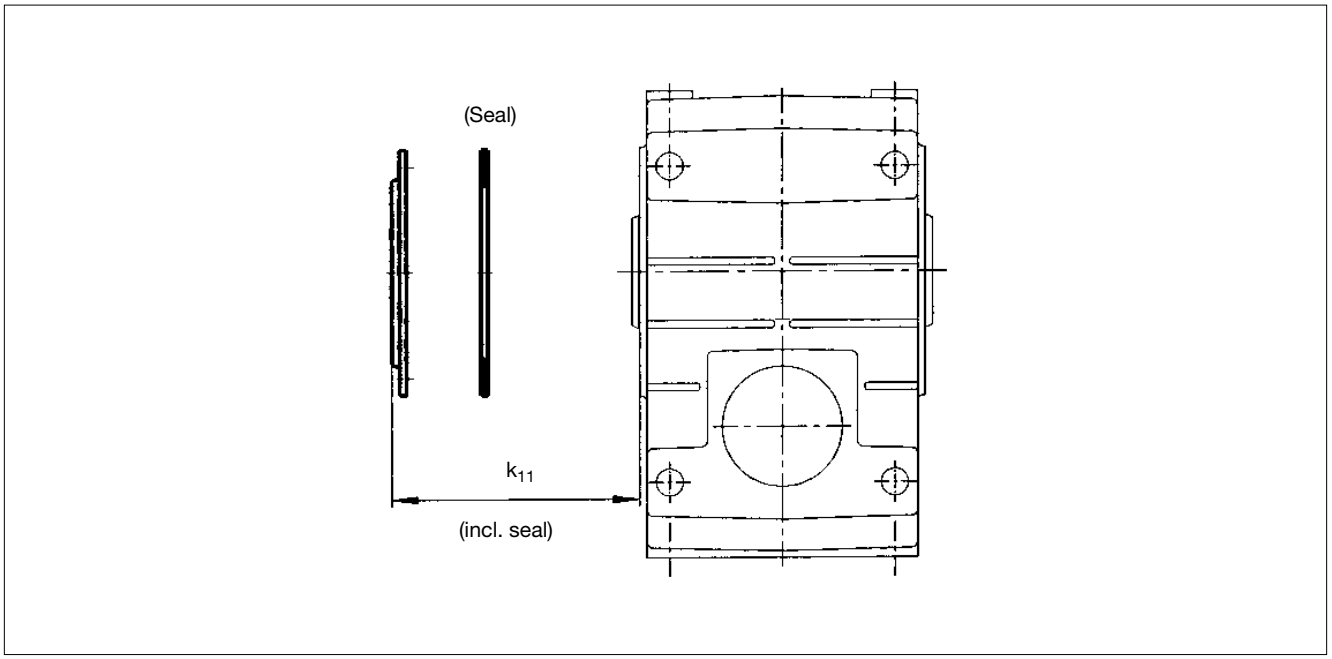
* Ensure sufficient shaft material strength when using the shrink disc design. When you use common steel (e.g. C45, 42CrMo4) the torques listed in the selection tables can be transmitted without any restrictions. For the use of materials of less strength, please contact Lenze.

Dimensions in [mm]

Lenze

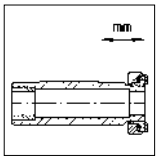


Helical-bevel gearboxes GKS □□



Gearbox size	Protection cover k_{11}
04	9
05	10
06	11
07	11
09	54
11	67
14	80

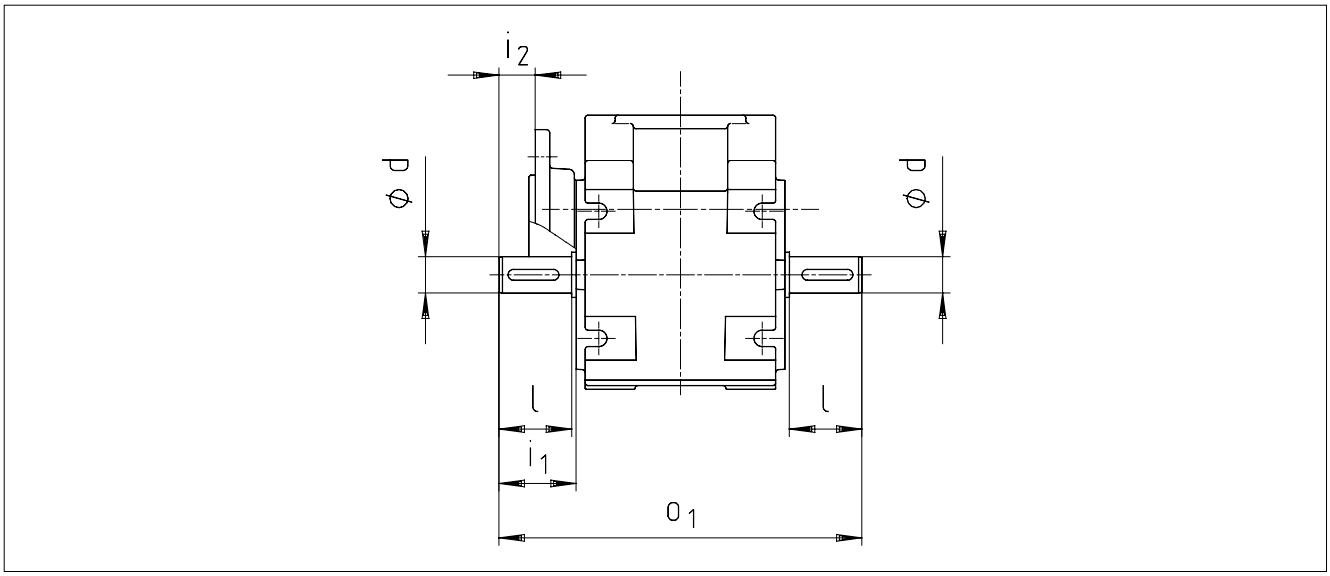
Dimensions in [mm]



Dimensions – (Helical)-bevel gearboxes

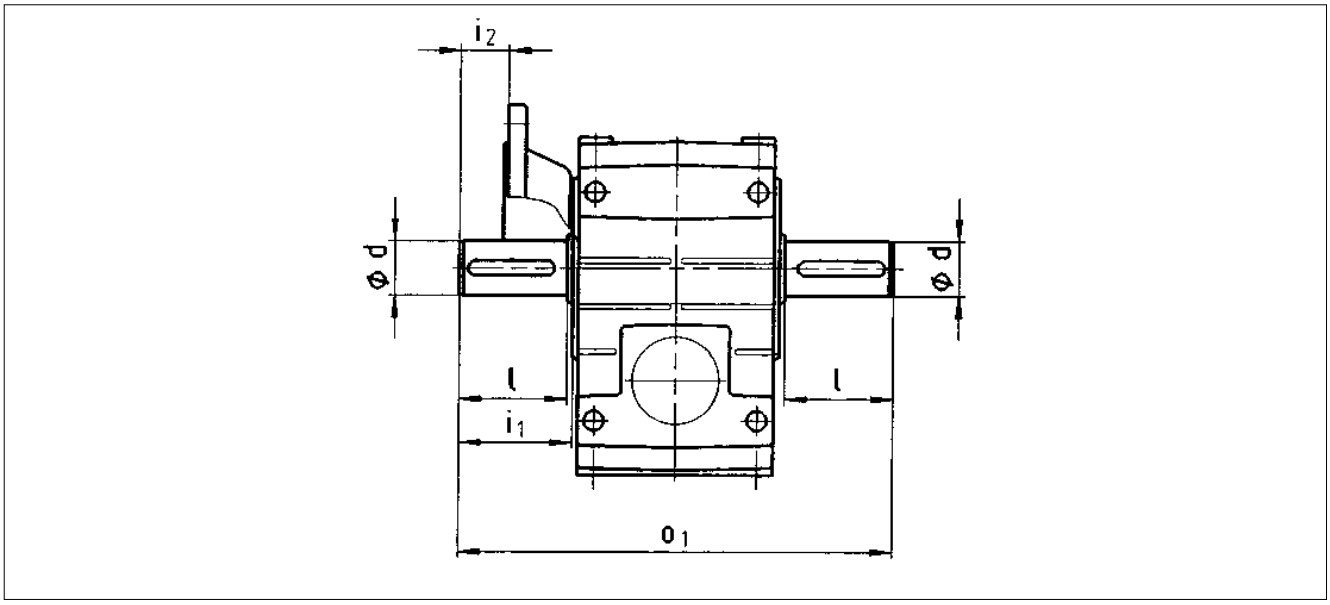
Gearboxes with 2nd output shaft end

Bevel gearbox GKR □□



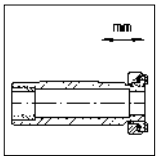
Gearbox size	d	l	i_1	i_2	o_1
04	20	40	42.5	19.5	200

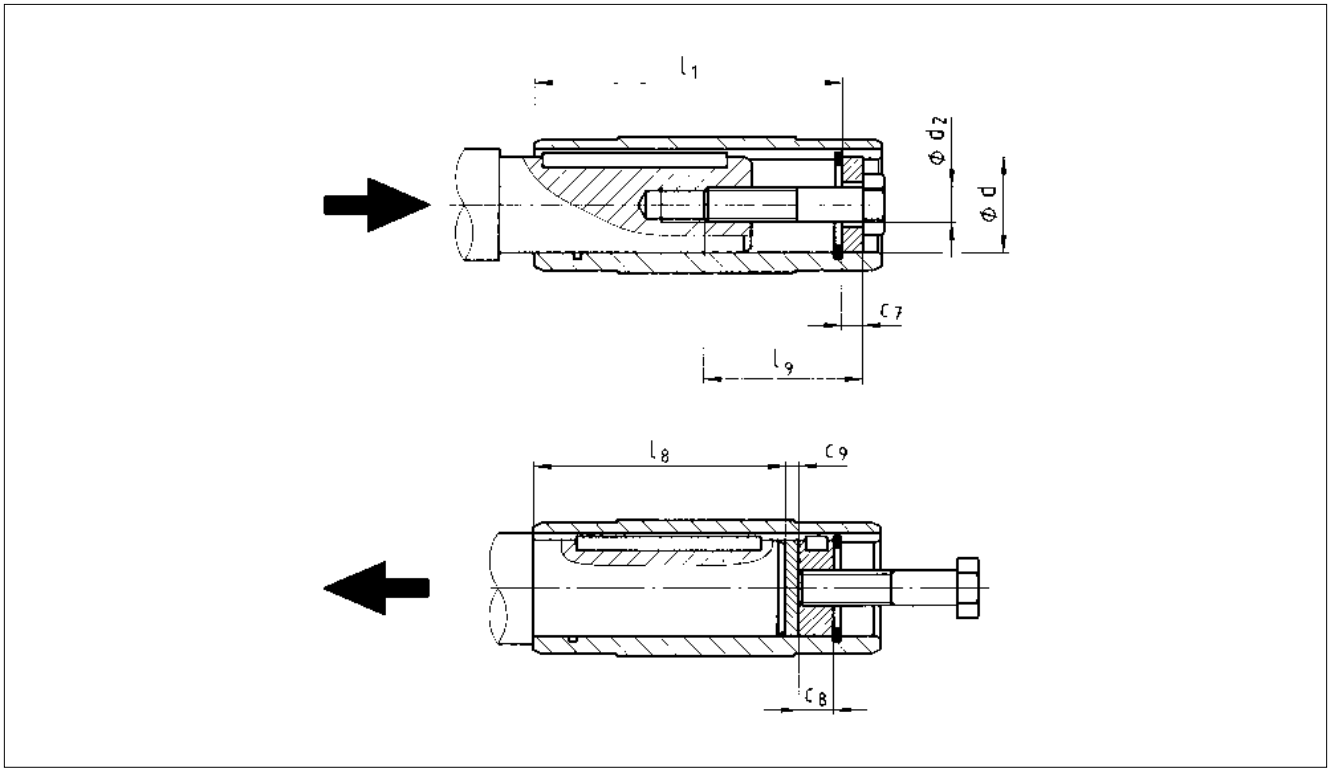
Helical-bevel gearbox GKS □□



Gearbox size	d	l	i_1	i_2	o_1
04	25	50	52.5	17	215
05	30	60	64	27	260
06	40	80	85	39	320
07	50	100	105	45	400
09	60	120	125	60	480
11	80	160	166	100	610
14	100	200	207	140	750

Dimensions in [mm]





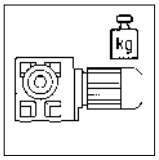
Bevel gearbox GKR □□

Gearbox slize	Hollow shaft (design **H**)			Mounting kit for hollow shaft retention (auxiliary tool mounting)			Auxiliary tool Disassembly		Machine shaft
	l	**l_1**	**d** H7	**d_2**	**l_9**	**c_7**	**c_8**	**c_9**	**max l_8**
04	120	106	20 25	M6 M10	40	4 5	6 10	3	95 92

Helical-bevel gearbox GKS □□

Gearbox size	Hollow shaft (design **H**)			Mounting kit for hollow shaft retention (auxiliary tool mounting)			Auxiliary tool Disassembly		Machine shaft
	l	**l_1**	**d** H7	**d_2**	**l_9**	**c_7**	**c_8**	**c_9**	**max l_8**
04	115	100	25 30	M10 M10	40	5 6	10	3	85
05	140	124	30 35	M10 M12	40 50	6 7	10 12	3	107
06	160	140	40 45	M16	60	8 9	16	4	118
07	200	175	50 55	M16 M20	60 80	10 11	16 20	5	148
09	240	210	60 70	M20	80	13 14	20	5	182
11	290	250	70 80	M20	80	14 16	20	6	221
14	350	305	100	M24	100	20	24	8	270

Dimensions in [mm]



(Helical)-bevel gearboxes

Weights

Bevel gearbox GKR □□-2

Gearbox size	Geared motors GKR□□-2M **H□R** with motor frame size					
	063		071		080	
	-1□	-3□	-1□	-3□	-1□	-3□
04	8.4	9.0	11	11	15	16

Gearbox size	Gearbox with mounting flange for IEC standard motors GKR□□-2N **H□R** with drive size		
	1A	□B	□C
04	7.8	8.4	12

Additional weights GKR □□

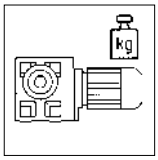
Gearbox size	Solid shaft **V□□**	2n input shaft end **V□□**	Hollow shaft with shrink disc **S□□**	Flange **□□K**	Torque plate Pitch circle
04	0.3	0.1	0.3	0.5	0.4

Helical-bevel gearbox GKS □□-3

Gearbox size	Geared motors GKS□□-3M **H□R** with motor frame size																				
	063		071		080		090		100		112		132		160		180		200	225	
	-1□	-3□	-1□	-3□	-1□	-3□	-1□	-3□	-12/-31	-32/41	-22/-31	-32/-41	-2□	-3□	-22	-32	-22	-32	-32	-12	-22
04	15	16	18	18	21	22	27	30													
05			28	28	31	32	37	40	43	47											
06			42	42	45	46	51	54	57	61	74	80									
07					71	72	77	80	83	87	99	105	129	129	171	191					
09							125	128	131	135	147	153	178	178	220	240	319	346	420		
11									231	235	246	252	276	276	318	338	417	444	518	570	640
14											417	423	444	444	486	506	585	612	685	737	807

Gearbox size	Gearbox with mounting flange for IEC motors GKS□□-3N **H□R** with drive size													Gearbox with free input shaft GKS□□-3W **H□R** with drive size							
	1A	□B	□C	□D	□E	□F	1G	2G	1H	2H	3H	1K	2K	1A	1B	1C	1D	1E	1F	1G	1H	1K
04	15	16	18	21										13	14	16						
05		25	28	31	33										24	25	27					
06		39	42	45	48	49										39	42	45	53			
07			68	71	73	75	98	95	106		102						67	71	79	84		
09				119	122	123	147	144	155	159	151	175						118	127	133	148	
11					221	222	245	242	253	257	249	273	280						226	231	246	261
14							413	410	421	425	417	440	447							399	414	428

Weights in [kg] with the oil filling for mounting position A, all indications as approx. values



Helical-bevel gearbox GKS □□-4

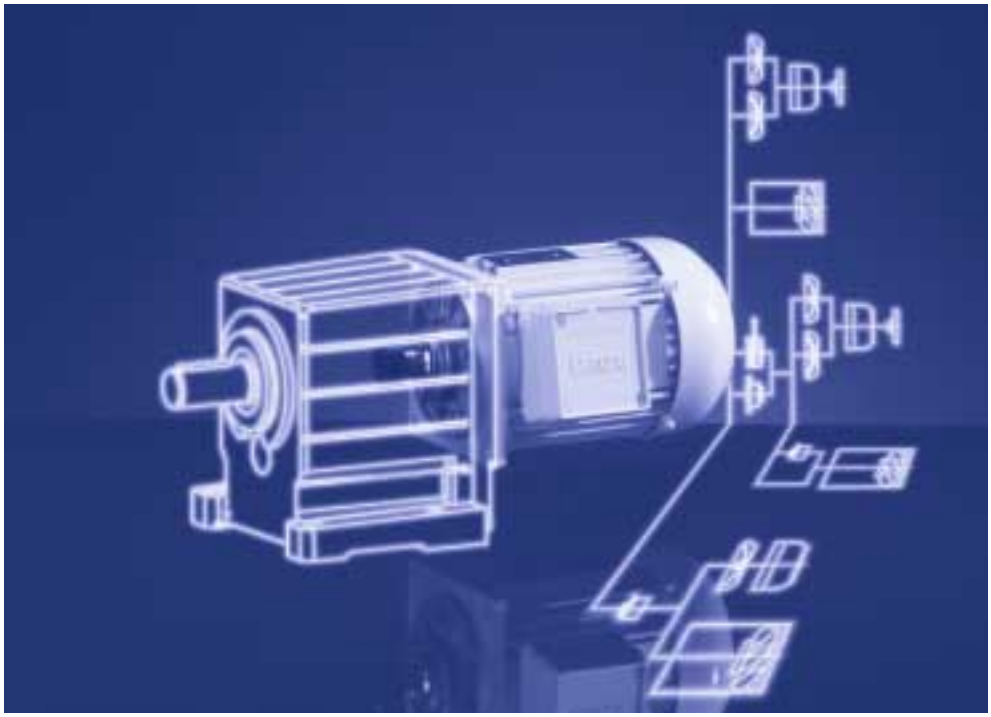
Gearbox size	Geared motors GKS□□-4M **H□R** with motor frame size															
	063		071		080		090		100		112		132		160	
	-1□	-3□	-1□	-3□	-1□	-3□	-1□	-3□	-12/-31	-32/41	-22/-31	-32/-41	-2□	-3□	-22	-32
05	26	27	29	29	32	33	37	40								
06	43	44	46	46	49	50	54	57								
07			76	76	79	80	85	88	91	95						
09			129	129	132	133	138	141	144	148	161	167				
11					240	241	246	249	252	256	268	274	298	298		
14							431	434	437	441	453	459	484	484	526	546

Gearbox size	Gearbox with mounting flange for IEC motors GKS□□-4N **H□R** with drive size											Gearbox with free input shaft GKS□□-4W **H□R** with drive size							
	1A	**□B**	**□C**	**□D**	**□E**	**□F**	**1G**	**2G**	**1H**	**2H**	**3H**	**1A**	**1B**	**1C**	**1D**	**1E**	**1F**	**1G**	**1H**
05	25	26	29	32								24	24	26					
06	42	43	46	49								41	41	43					
07		73	76	79	81								72	73	75				
09		126	129	132	135	136								126	129	132	141		
11			237	240	242	244	267	264							236	240	248	253	
14				425	428	429	453	450	461	465	457					424	433	439	454

Additional weights

Gearbox size	Solid shaft **V□□**	2nd input shaft end **V□□**	Hollow shaft with shrink disc **S□□**	Flange **□□K**	Torque plate Housing foot	Torque plate Pitch circle
04	0.6	0.2	0.6	2.5	1.3	0.9
05	1	0.3	0.8	4	2.2	1.3
06	2.5	0.8	1	7	3.7	2.1
07	5	1.5	1.5	11	6.6	3.7
09	8	2.7	3	16	13	
11	16	6.3	5	24	23	
14	33	12	11	33	44	

Weights in [kg] with the oil filling for mounting position A, all indications as approx. values



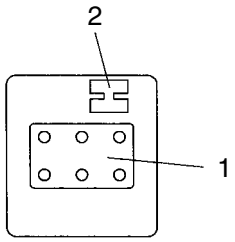
Motor options

Drive selection

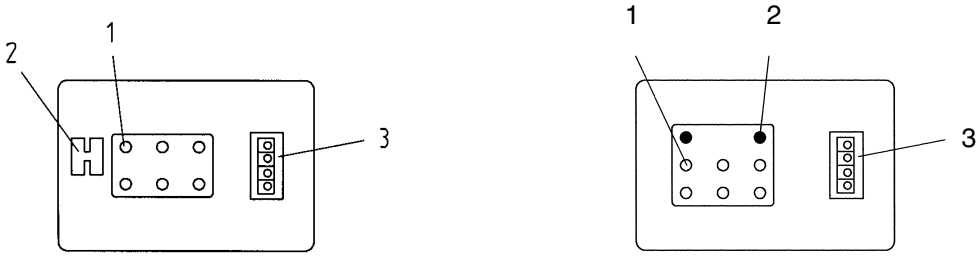
Dimensions

Position	Name
1	Motor terminal board
2	Temperature sensor connection
3	Rectifier / clamp (24 V DC) for spring-operated brake
4	Terminal strip: Speed / position encoder connection

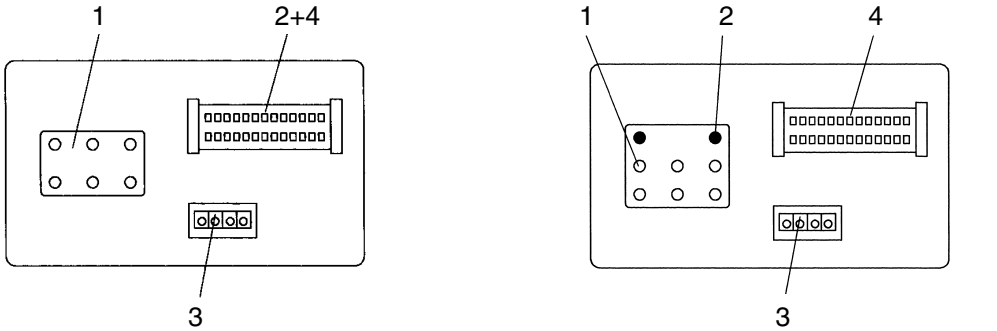
Motor terminal box KK1

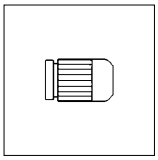


Motor terminal box KK2



Motor terminal box KK3





Terminal assignment

Clamp (pos. 3)

Meaning	Name
Brake DC excited +	1
Brake DC excited -	2

Rectifier (pos. 3)

Meaning	Name	Addition
Brake AC excited	~	**Bridge rectifier/half wave rectifier** Connection to L1 mains
	~	**Bridge rectifier** Connection to N mains
	~	**Half wave rectifier** Connection to L2 or L3 mains
	+	Connection to brake
	–	Connection to brake

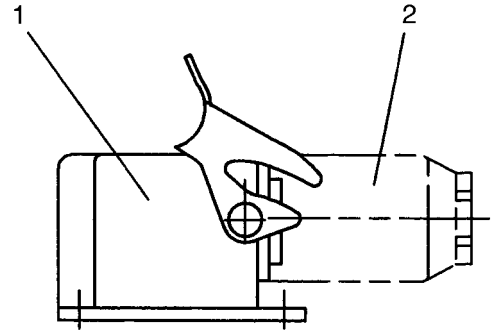
Terminal strip (pos. 4)

	Meaning	Addition	Connection cross-section	Name
1	Thermal contact (NC contact) TKO			**S1**
2	Thermal contact (NC contact) TKO			**S2**
1	PTC thermistor			**P1**
2	PTC thermistor			**P2**
1	KTY thermistor			**T1**
2	KTY thermistor			**T2**
3	Resolver Ref +		0.14 mm²	**B1**
4	Resolver Ref –		0.14 mm²	**B2**
5				**B3**
6	Resolver cos +		0.14 mm²	**B4**
7	Resolver cos –		0.14 mm²	**B5**
8	Resolver sin +		0.14 mm²	**B6**
9	Resolver sin –		0.14 mm²	**B7**
3	Increm. encoder supply +	Supply	0.14 mm²	**B1**
4	Increm. encoder supply –	GND (ground)	0.14 mm²	**B2**
5	Increm. encoder output channel A		0.14 mm²	**B3**
6	Increm. encoder output channel $\overline{A}$	inverse	0.14 mm²	**B4**
7	Increm. encoder output channel B		0.14 mm²	**B5**
8	Increm. encoder output channel $\overline{B}$	inverse	0.14 mm²	**B6**
9	Increm. encoder output channel C	Zero track	0.14 mm²	**B7**
10	Increm. encoder output channel $\overline{C}$	inverse	0.14 mm²	**B8**
11	Mass/sensor –		0.14 mm²	**B9**
12	Shield		0.14 mm²	**B10**
13	Sensor +		0.14 mm²	**B11**

Plug-in connector HAN

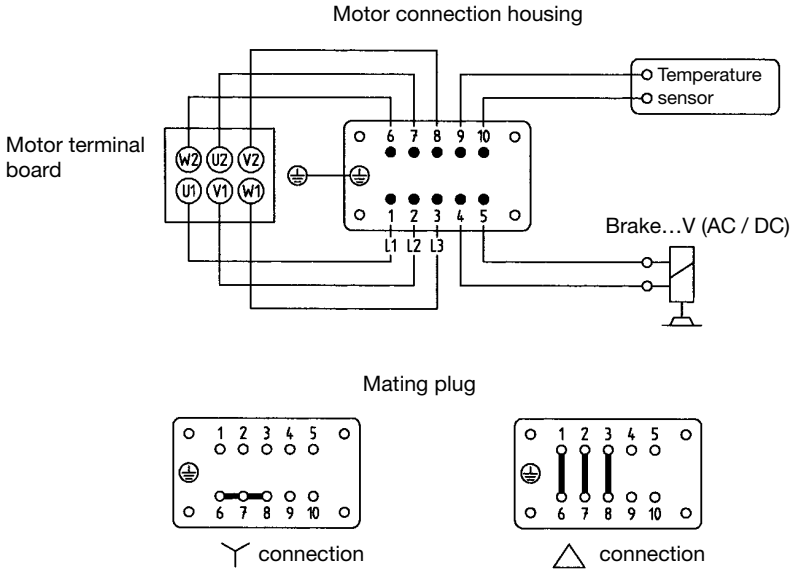
General data

Design	Plug-in connector to industry standard with quick lock. Motor connection (Y/Δ) is determined in the mating connector (not part of delivery package).
Enclosure when locked	IP 65
No. of contacts	10 + PE
Permissible rated current	16 A
Permissible rated voltage	500 V (AC)

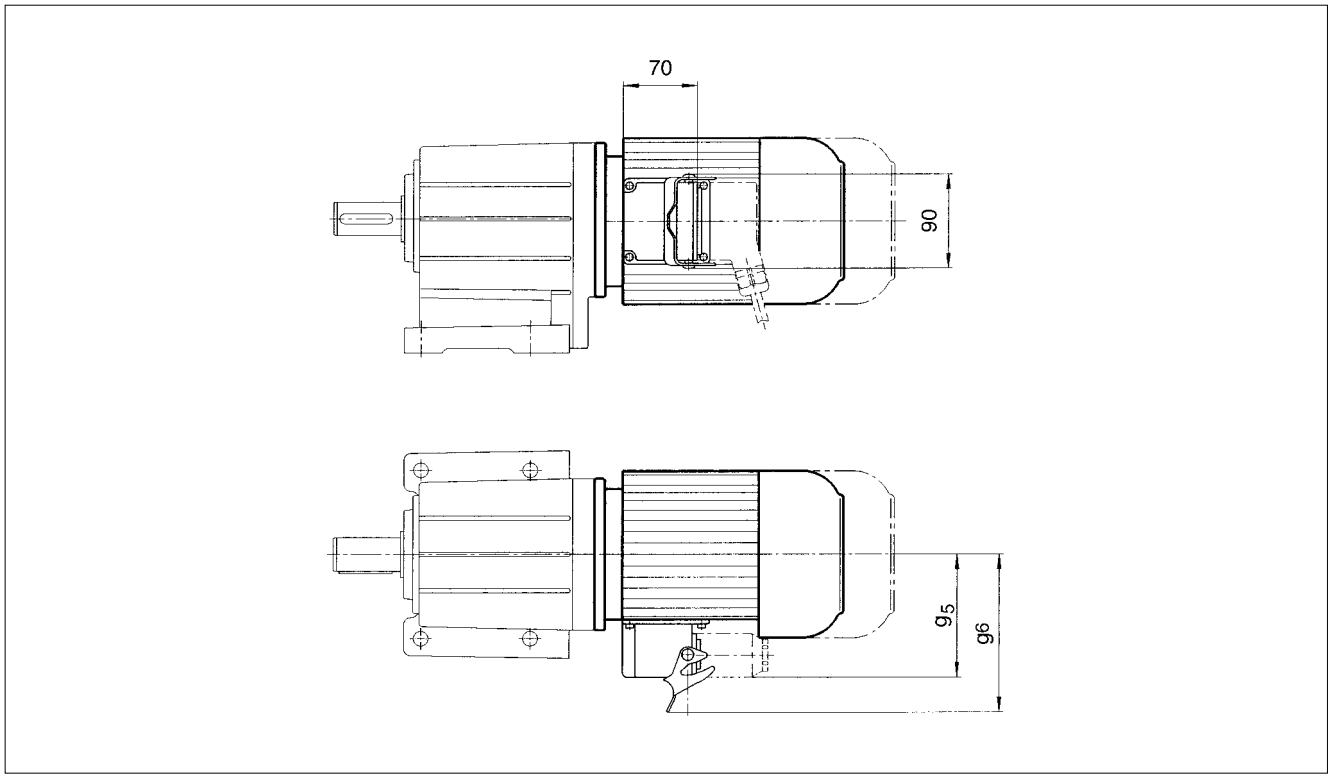


Position	Name
1	Motor connection housing HAN
2	Mating connector (not part of delivery package)

Pin assignment



Plug-in connector HAN



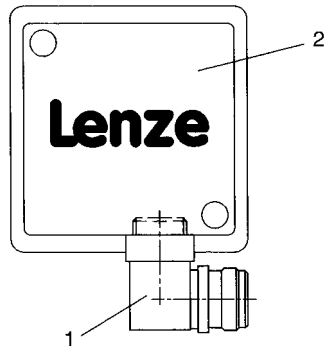
Motor frame size	g5	g6
71	128	165
80	128	165
90	140	176
100	152	188
112	165	201

Dimensions in [mm]

Plug-in connector ICN

General data

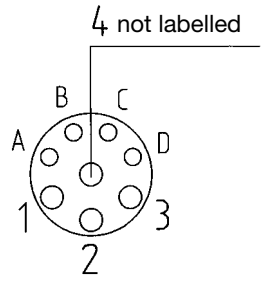
Design	Plug-in connector to industry standard with screw connection. The motor connection is determined in the terminal box and must be checked before commissioning. (The mating plug is not included in the delivery package.)	
Enclosure	IP65	
No. of contacts	Power: 3 + PE	Signal: 3 + PE
Permissible rated current	20 A	9A
Permissible rated voltage	630 V (AC)	



Position	Name
1	Plug-in connector
2	Motor terminal box

Mating plug is not included in the delivery package

Pin assignment



Caution: Before motor commissioning, check the motor connection (Y or Δ)!

Pin No.	Connection	Connection Name	Recommended lead colour	Motor frame size	Recommended connection cross-section
1	Phase	U	brown	071....112	1.5 mm^2
2	Protective earth conductor	PE	green-yellow		
3	Phase	W	black		
4	Phase	V	blue		
A	Temperature sensor	Th	white		0.75 mm^2
B	Temperature sensor	Th	white		
C	Brake	Br	blue		
D	Brake	Br	black		

The temperature sensors are integrated into the windings.
The use of an additional motor circuit breaker is recommended for mains operation.

Thermal contacts

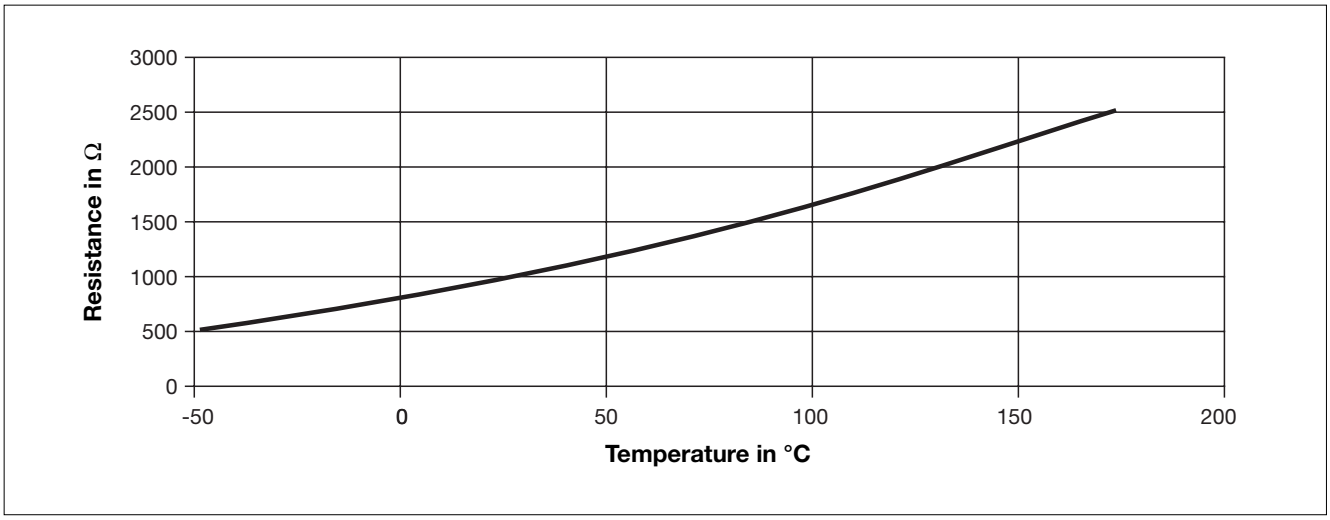
Motor type	Function	Tripping temperature [°C]	Reset temperature [°C]	Current loading capacity [A]	Permissible voltage loading capacity [V] AC
All	NC contact	150 ± 5	90-135	2.5	250

PTC thermistor

Motor type	Function	Tripping temperature [°C]	Resistance at 155 °C [Ω]	Resistance at -20...+140° [Ω]	Standards
All	Abrupt resistance change	150 ± 5	550	30...250	DIN 44080 VDE 0660 Teil 303

Continuous temperature sensor KTY

Motor type	Function	Resistance at (see characteristic) 175 °C [Ω]	150 °C [Ω]	25 °C [Ω]	Permissible current loading capacity at 175 °C [mA]	25 °C [mA]
All	Continuous resistance change	2535	2225	1000	2.0	10



Separate fan

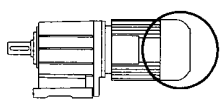
Geared motors and geared brake motors can be equipped with an axial separate fan. They are installed in an extended motor fan cover with separate terminal box.

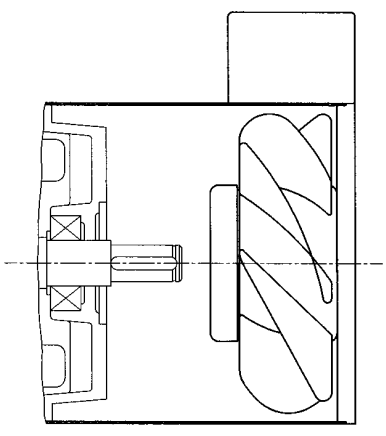
General data

	Motor frame size	
	063...160	180...225
Design	1~ or 3~	3~
Type of protection	IP 55	IP 54
Thermal class	F	F
Control mode	S1	S1

Rated data

Motor frame size	Design	Connection	V_r [V]	f_r [Hz]	I_r [A]	P_r [W]	Weight m [kg]
63	1~ 3~		210-240 360-420	50 / 60	0.12 0.07	19 19	1.6
71	1~ 3~		210-240 360-420	50 / 60	0.12 0.07	19 19	1.6
80	1~ 3~		210-240 360-420	50 / 60	0.32 0.16	46 41	2.3
90	1~ 3~ 3~	 Y Δ	210-240 360-530 210-305	50 / 60	0.22 0.08 0.14	50 31 31	3.1
100	1~ 3~ 3~	 Y Δ	210-240 360-530 210-305	50 / 60	0.16 0.08 0.14	30 34 34	3.5
112	1~ 3~ 3~	 Y Δ	210-240 360-530 210-305	50 / 60	0.30 0.14 0.24	80 61 61	3.9
132	1~ 3~ 3~	 Y Δ	210-240 360-530 210-305	50 / 60	0.55 0.26 0.45	125 132 132	5.3
160	1~ 3~ 3~	 Y Δ	210-240 360-530 210-305	50 / 60	0.71 0.40 0.70	160 218 218	6
180	3~ 3~	Y Δ	220-240 380-415	50 / 60	1.10 0.65	530 530	7
200	3~ 3~	Y Δ	220-240 380-415	50 / 60	1.50 0.87	590 590	10
225	3~ 3~	Y Δ	220-240 380-415	50 / 60	1.90 1.10	780 780	12





Spring-operated brakes

Brake motors are equipped with Lenze spring-operated brakes. The rectifier required for mains operation is integrated in the terminal box. It is part of the delivery package. A principle drawing of the brake is on page 7-10.
The brakes are fail safe (normally-on principle).

The indicated brake torques are valid for quasi-static and low-wear operation of the brake used as holding brake. The air gap is factory set and can be readjusted if wear occurs.

General data

Design	Single-disc spring-operated brakes
Torque generation	Brake torque is generated when no voltage is applied
Enclosure	IP 54
Thermal class	F
Friction surfaces	asbestos-free
Option	• Manual release (see notes on page 7-22) • Low noise

Rated data

Size	$P_{20°}$ [W]	M_B [Nm]	J_B [10^{-3} kgcm^2]	m [kg]	Connection voltage	Assigned brake voltage
06	20	4	0.015	0.9		
08	25	8	0.061	1.5		
10	30	16	0.20	2.6	24 V DC	→ 24 V DC
12	40	32	0.45	4.2	220...240 V AC	→ 205 V DC
14	50	60	0.63	5.8	380...420 V AC	→ 180 V DC
16	55	80	1.5	8.7		
18	85	150	2.9	12.6		
20	100	260	7.3	19.5		
25	110	400	20.0	31.0		

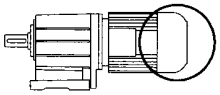
Possible combinations

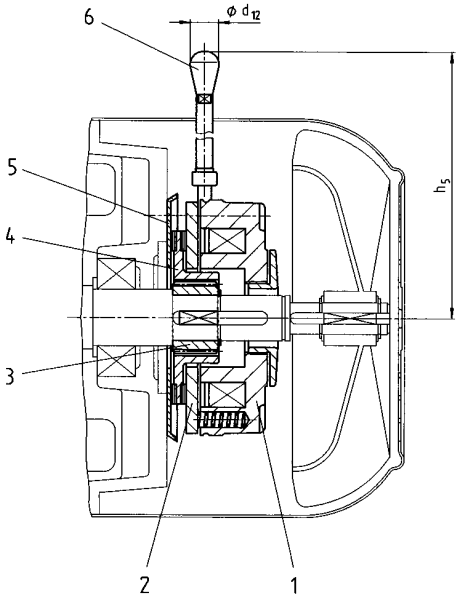
	Brake								
Size	**06**	**08**	**10**	**12**	**14**	**16**	**18**	**20**	**25**
Motor frame size									
063	●								
071	●								
080		● [1]							
090		● [3]	●						
100			●	● [2]					
112				●	● [2]				
132					●	●			
160-22						●	●		
160-32							●		
180							●	●	
200								●	●
225									●

[1] With hand wheel or B-side shaft end only without adjuster nut.
[2] With resolver or pulse encoder only without adjuster nut.
[3] Low-noise design not possible.

Spring-operated brake

Position	Name
1	Stator
2	Armature plate
3	Hub
4	Rotor
5	Friction plate
6	Manual release (option)



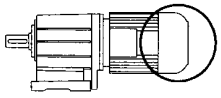


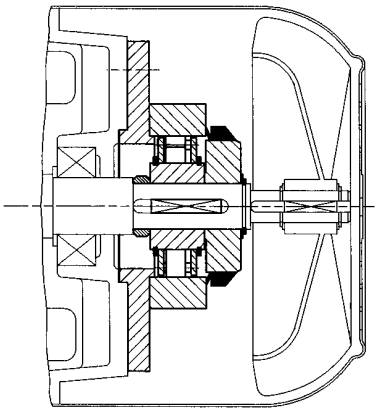
Spring-operated brake size	d12	h5
06	13	109
08	13	118
10	13	134
12	13	164
14	24	196
16	24	240
18	24	347
20	24	418
25	24	504

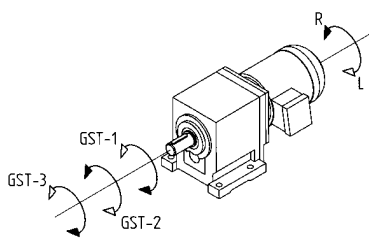
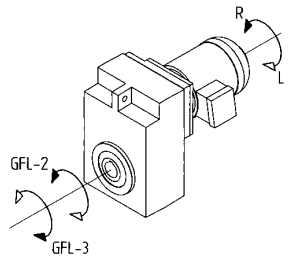
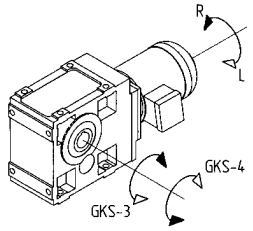
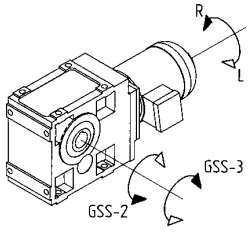
Backstop

Design	Clamp, lifted by centrifugal force
Function principle	Mechanically inhibited against direction of rotation during operation
Enclosure	IP 55
Technical notes	– Operation below lifting speed is only permitted for a short time – Indicate in your order the direction of rotation of the motor shaft with view on the fan cover – Motor start in inhibited direction not permitted!

Motor frame size	Backstop		
	Inhibit torque static [Nm]	Lifting speed clamp [1/min]	m [kg]
063	24	900	0.7
071	24	900	0.7
080	72	900	1.9
090	156	700	2.4
100	156	700	2.4
112	156	700	2.4
132	300	850	2.9





Direction of rotation			
GST	GFL	GKS	GSS
			

Incremental encoder

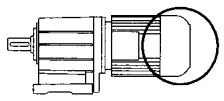
Digital detection of the actual value, directly evaluable at the 9300 servo. Zero pulse for reference when separating the positions.

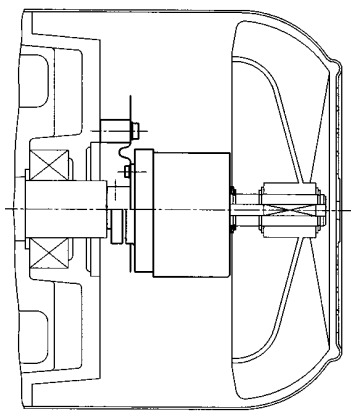
Type	ITD 21 TTL	ITD 21 HTL
Design	Hollow shaft incremental encoder	
Type of protection	IP54	
Voltage level	TTL	HTL
No. of pulses	2048 or 512 pulses/revolution	
Tracks	2 tracks, 2 inverse tracks and zero pulse	
Supply voltage	5 V DC ± 5%	8 ...30 V DC
Frequency limit	300 kHz	160 kHz
Temperature range	-20... +70 °C	

Resolver

Stator supplied resolver with 2 stator windings turned by 90° and a rotor winding with transformer winding.

Type	TS 2651
Design	Brush-less hollow-shaft resolver with bearing
Type of protection	IP 54
Input voltage	10 V amplitude
Input frequency	4 kHz
Stator/rotor ratio	0.3 ± 5 %
Rotor impedance Zro	51 Ω + j90 Ω
Stator impedance Zs0	102 Ω + j150 Ω
Impedance Zrs	44 Ω + j76 Ω
Insulation resistance	> 10 MΩ at 500 V DC
No. of pole pairs	1
Maximum phase error	± 10 angular minutes
Temperature range	-10 °C...+150 °C

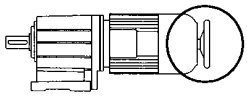


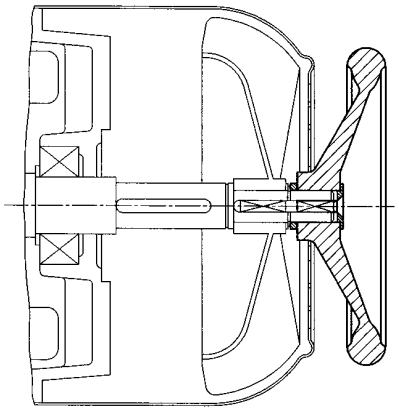


Hand wheel

Design	Light metal hand wheel, smooth surface
Function	Manual operation: • Emergency operation • Setting-up operation of machines / systems
Technical note	The increased mass inertia is to be observed for planning! For repeated switching, especially for changes of the direction of rotation: Please contact Lenze

Motor frame size	Hand wheel		
	Diameter d	Additional mass inertia	
	[mm]	[10^{-3} kgm^2]	[kg]
071	160	1.6	0.6
080	160	1.6	0.6
090	160	1.6	0.6
100	160	1.6	0.6
112	160	1.6	0.6
132	250	13.9	1.8

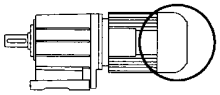


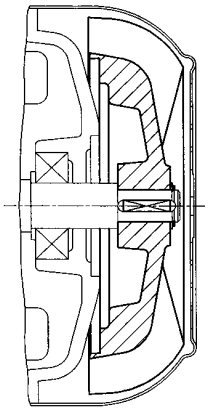


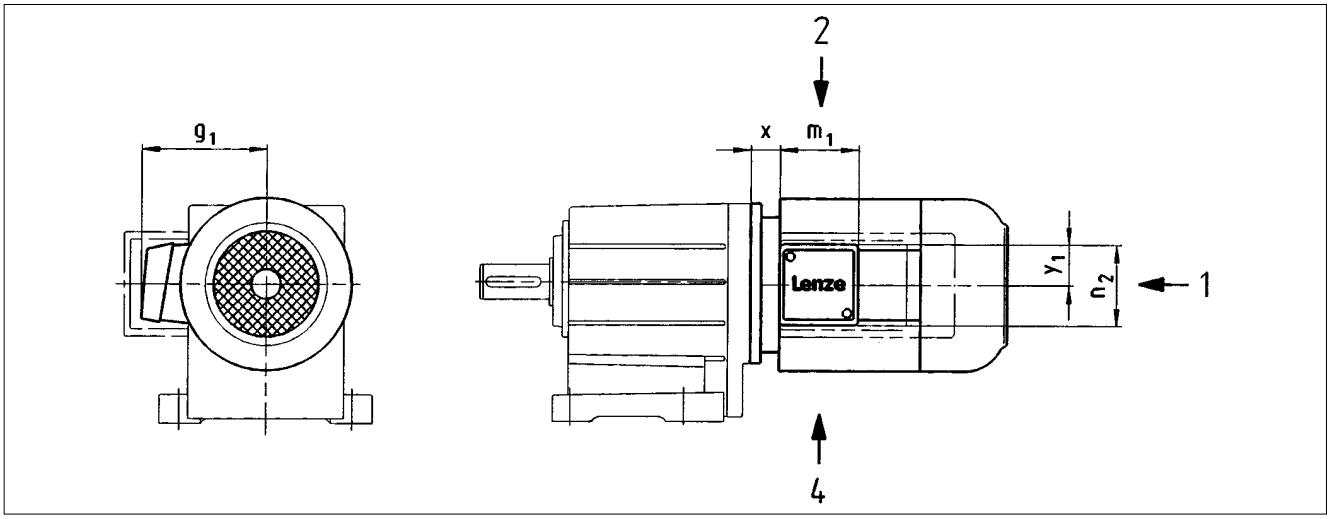
Increased inertia

Design	Cast iron integral fan
Function principle	Increased motor inertia for smooth start and stop
Technical note	The increased motor inertia must be observed for planning! For repeated switchings, especially for changes of direction of rotation: Please contact Lenze

Motor frame size	Additional inertia [10^{-3} kgm^2]	m [kg]
071	1.8	0.9
080	2.4	1.4
090	5.5	1.9
100	7.7	2.5
112	15.3	3.8
132	35.6	6.0







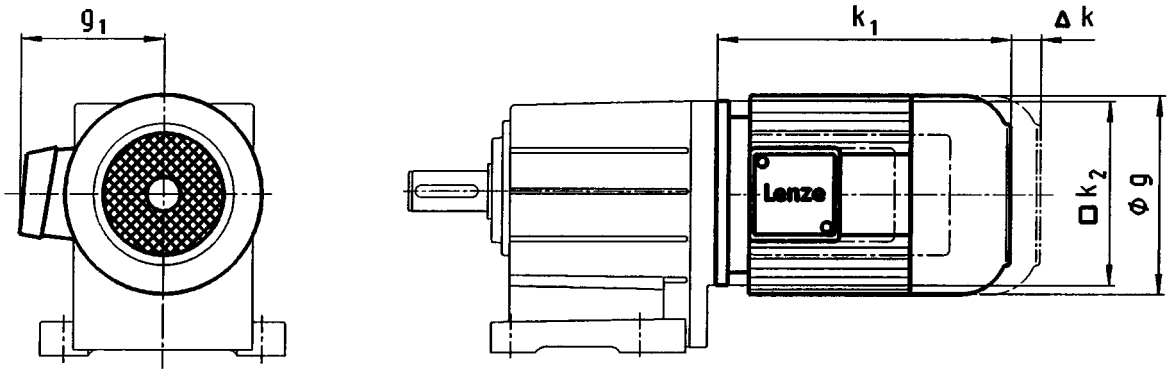
Motor frame size		063	071	080	090	100	112	132	160
Terminal box KK1	g_1	105	130	130	141	154	167	202	215
	m_1	97	88	88	88	88	88	118	226
	n_2	97	96	96	92	92	98	131	127
	x	32	26	27	32	30	39	43	36
	y_1	48.5	56	56	46	46	95	63.5	
Cable glands	**Position 1**								4x M12x1.5
	Position 2								2x M16x1.5 1x M20x1.5 1x M50x1.5
	Position 4	1x M20x1.5 1x M25x1.5	2x M20x1.5	2x M20x1.5	2x M20x1.5	2x M20x1.5	2x M20x1.5	2x M25x1.5	2x M16x1.5 1x M20x1.5 1x M50x1.5
Terminal box KK2	g_1	105	131	131	140	151	169	204	215
	m_1	97	145	145	145	145	145	118	226
	n_2	97	98	98	97	97	98	131	127
	x	32	18	18	24	21	31	43	36
	y_1	48.5	59	59	48,5	48,5	68	95	63.5
Cable glands	**Position 1**	2x M12x1.5						1x M16x1.5	4x M12x1.5
	Position 2								2x M16x1.5 1x M20x1.5 1x M50x1.5
	Position 4	1x M20x1.5 1x M25x1.5	1x M12x1.5 1x M16x1.5 2x M20x1.5	1x M12x1.5 1x M16x1.5 2x M20x1.5	1x M12x1.5 1x M16x1.5 2x M20x1.5	1x M12x1.5 1x M16x1.5 2x M20x1.5	1x M12x1.5 1x M16x1.5 2x M20x1.5	2x M25x1.5	2x M16x1.5 1x M20x1.5 1x M50x1.5
Terminal box KK3	g_1	120	145	145	152	163	183	221	215
	m_1	200	200	200	200	200	200	200	226
	n_2	120	121	121	120	120	119	125	127
	x	27	17	17	23	20	30	47	36
	y_1	60	72	72	60	60	83	100	63.5
Cable glands	**Position 1**	4x M12x1.5	4x M12x1.5	4x M12x1.5	4x M12x1.5	4x M12x1.5	4x M12x1.5	4x M12x1.5	4x M12x1.5
	Position 2	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	2x M16x1.5 1x M20x1.5 1x M50x1.5
	Position 4	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	1x M16x1.5 2x M20x1.5 1x M25x1.5	2x M16x1.5 1x M20x1.5 1x M50x1.5

Dimensions in mm

Position of the cable glands refers to terminal box in position 5.

Dimensions – Motor options

Geared motor with integral fan



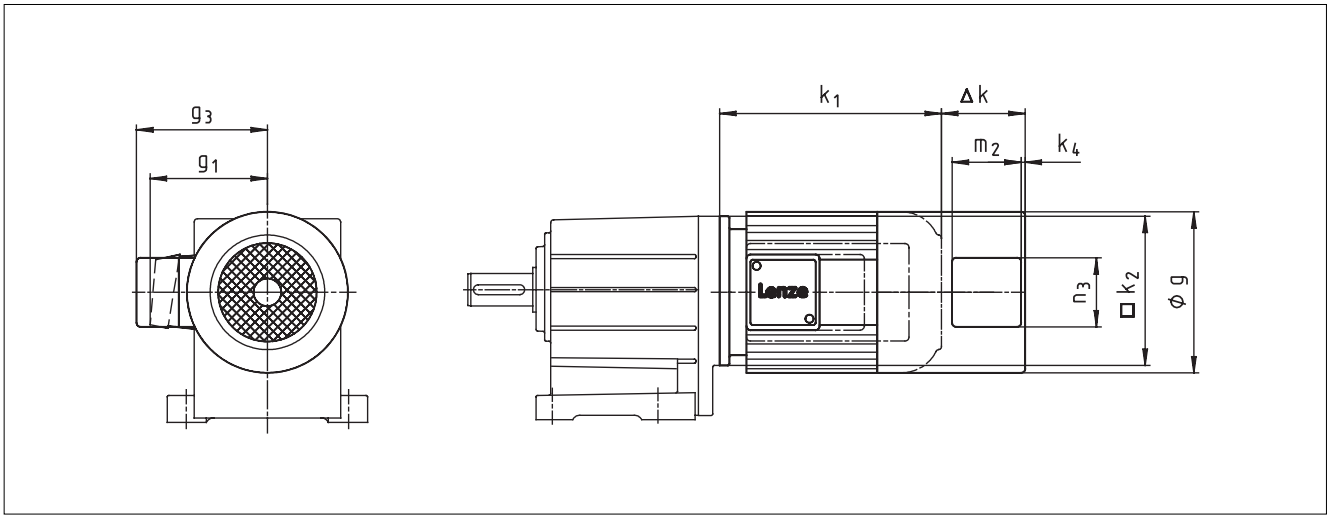
Motor frame size			063		071	080	090	100				112			132	160	
			-1□	-3□	-1□/-3□	-1□/-3□	-1□/-3□	-12	-31	-32	-41	-22/-31	-32	-41	-2□/-3□	-22	-32
Motor	**g**		129		142	156	178	194				222			262	310	
	g1	**KK1**	104		130	130	141	154				167			202	215	
		KK2	104		131	131	140	151				169			204	215	
		KK3	120		145	145	152	163				183			221	215	
	k1[1]		193	204	176	225	242	280	280	310	310	323	343	323	409	458	502
	k2		100		145	145	180	180				222			265	300	

Attachments	**Motor terminal box**	**Δ k**								
Fan	KK1	0	0	0	0	0	0	0	0
Cast iron fan	KK1	-	0	0	0	94[2]	0	0	-
Brake + fan	KK2	56	66	68	74	94	101	127	113
Brake + cast iron fan	KK2	-	66	68	74	94	101	127	-
Speed/pos. encoder + fan	KK3	56	66	68	87	100	99	108	105
Backstop + fan	KK1	56	66	68	74	94	101	127	-
Backstop + cast iron fan	KK1	-	66	68	74	94	101	127	-

Dimensions in [mm]

[1] Dimensions without options

[2] Terminal box KK2



Motor fan size			063	071	080	090	100	112	132	160
			-1□ | -3□	-1□/-3□	-1□/-3□	-1□/-3□	-12 | -31 | -32 | -41	-22/-31 | -32 | -41	-2□/-3□	-22 | -32
Motor	**g**		129	142	156	178	194	222	262	310
	g1	**KK1**	104	130	130	141	154	167	202	215
		KK2	104	131	131	140	151	169	204	215
		KK3	120	145	145	152	163	183	221	215
	g3		110	120	127	151	159	173	193	217
	k1[1)]		193 | 204	176	225	242	280 | 280 | 310 | 310	323 | 343 | 323	409	458 | 502
	k2		100	145	145	180	180	222	265	300
	k4		5	5	5	5	5	5	5	5
	m2		70	70	70	85	85	85	85	85
	n3		70	70	70	85	85	85	85	85
Cable glands	**Pos. 4**		M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5

Attachments	**Motor terminal box**	**Δ k**							
Separate fan	KK1	71	80	94	101	97	95	104	113
Speed/pos. encoder + separate fan	KK3	71	134	94	101	97	183	218	225
Brake + fan	KK2	118	134	150	164	169	183	218	225
Brake + speed/ pos. encoder + separate fan	KK3	118	134	150	164	169	183	218	225
Backstop + separate fan	KK1	118	134	150	164	169	183	218	-

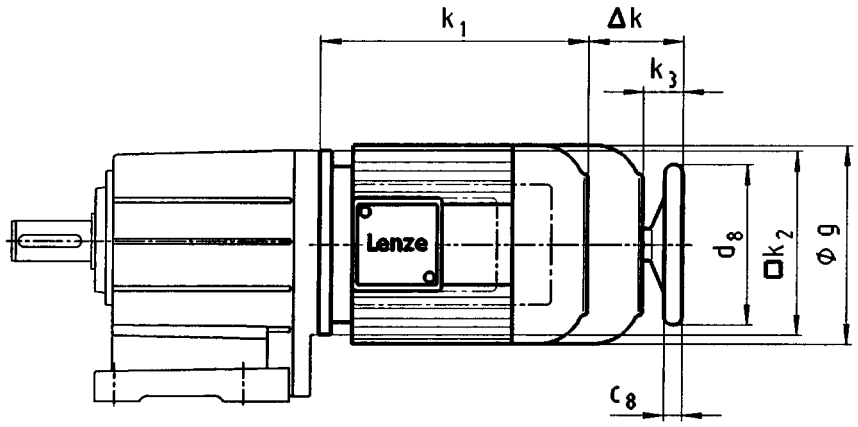
Dimensions in [mm]

[1)] Dimensions without options

Postion of the cable glands refers to terminal box in position 5.

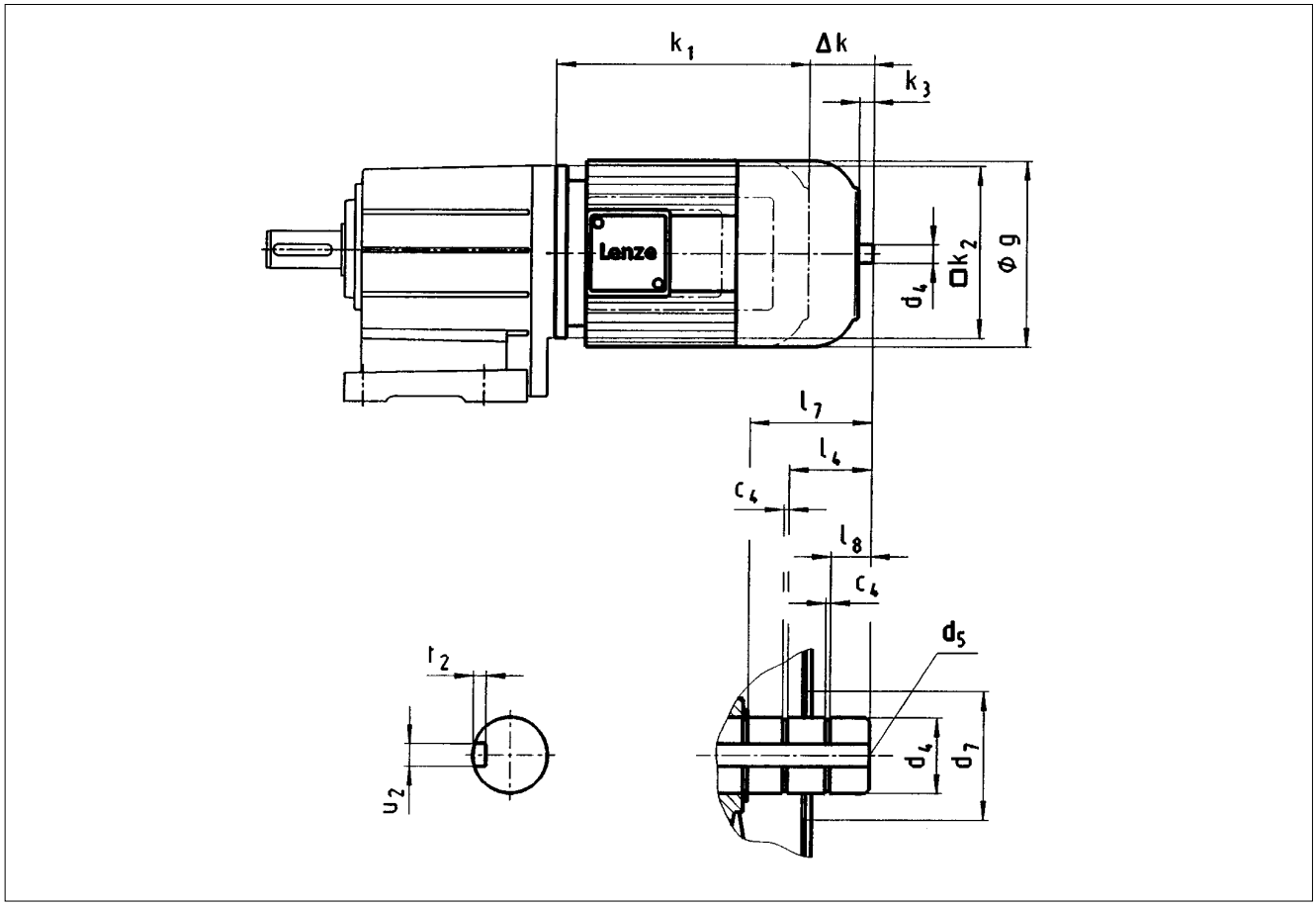
Dimensions – Motor options

Geared motor with hand wheel



Motor frame size		071	080	090	100				112			132
		-1□/-3□	-1□/-3□	-1□/-3□	-12	-31	-32	-41	-22/-31	-32	-41	-2□/-3□
Motor	**g**	142	156	178	194				222			262
	k1	176	225	242	280	280	310	310	323	343	323	409
	k2	145	145	180	180				222			265
	k3	35	33	32	40				39			50
	Δk	85	86	87	108				116			144
Hand wheel	**d8**	160	160	160	160				160			250
	c8	18	18	18	18				18			26

Dimensions in [mm]



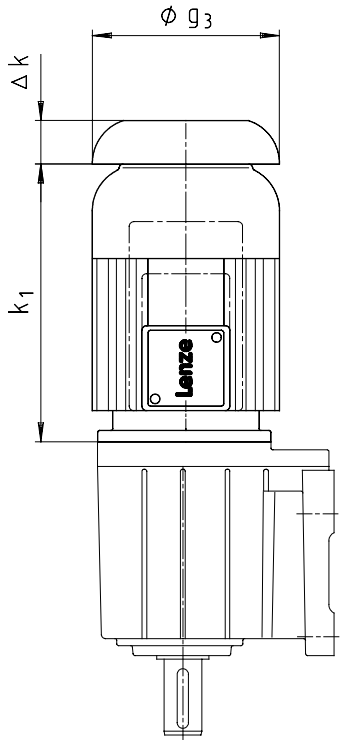
Motor frame size		071	080	090	100				112			132
		-1□/-3□	-1□/-3□	-1□/-3□	-12	-31	-32	-41	-22/-31	-32	-41	-2□/-3□
Motor	**g**	142	156	178	194				222			262
	k1	176	225	242	280	280	310	310	323	343	323	409
	k2	145	145	180	180				222			265
	k3	12	10	9	17				16			24
	Δk	62	63	64	85				93			118
Shaft end	**c4**	1.1	1.1	1.1	1.3				1.3			1.6
	d4	14 h6	14 h6	14 h6	20 j6				20 j6			30 j6
	d5	M5	M5	M5	M6				M6			M10
	d7[1)]	32	32	32	32				32			46
	l4	-	-	-	17				17			24
	l7	19	19	19	32.5				30.5			46
	l8	3	4.5	5	10.5				7.6			12.5
	u2	5	5	5	6				6			8
	t2	3	3	3	3.5				3.5			4

Dimensions in [mm]

[1)] The opening of the fan cover must be protected against contact during operation.

Dimensions – Motor options

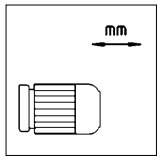
Geared motor with protection cover

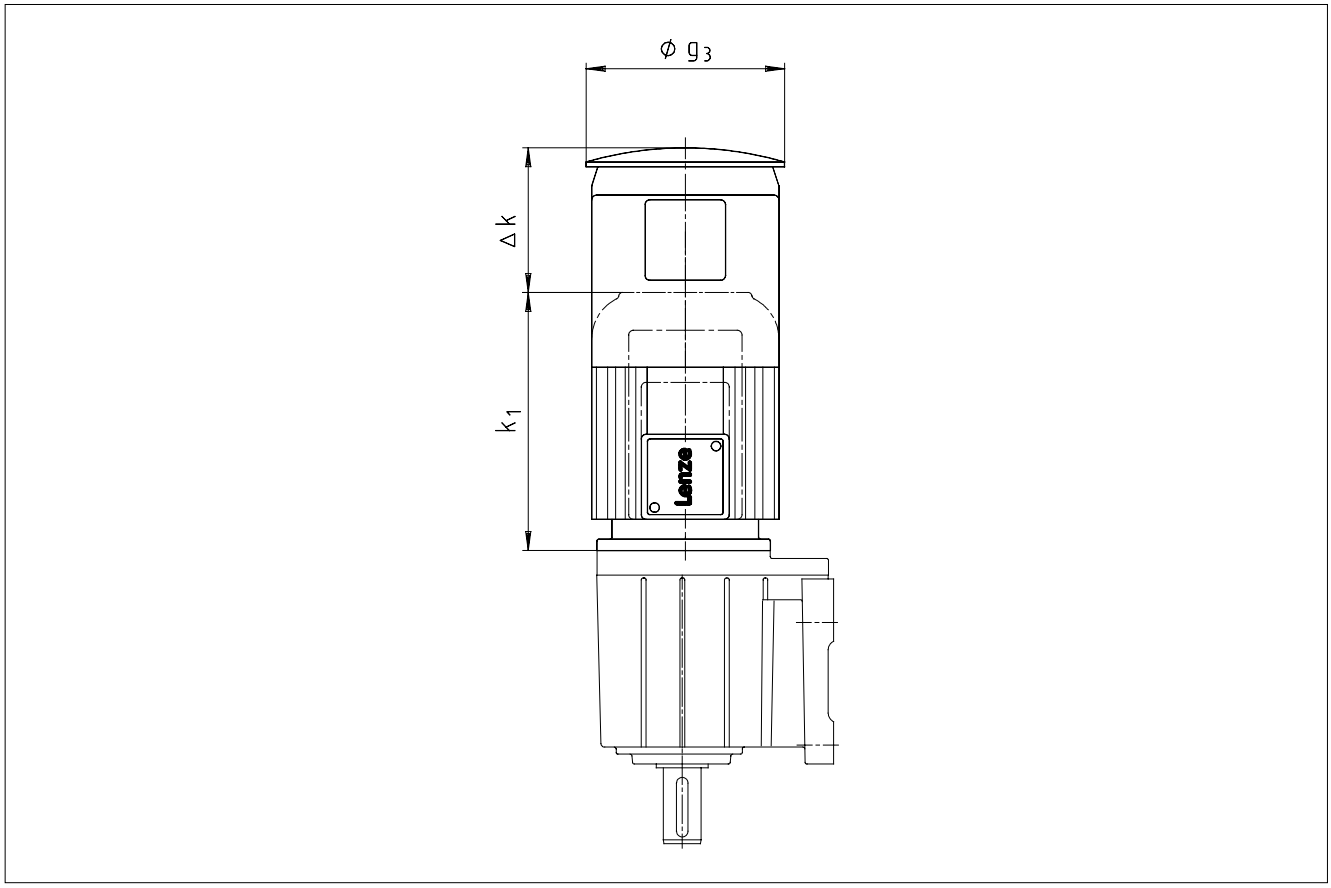


Motor frame size		071	080	090	100				112			132	160	
		-1□/-3□	-1□/-3□	-1□/-3□	-12	-31	-32	-41	-22/-31	-32	-41	-2□/-3□	-22	-22
Motor	g_3	142	156	178	194				222			262	310	
	k1[1)]	176	225	242	280	280	310	310	323	343	323	409	458	502
Attachments		**Δ k**												
Fan		13	17	16	18				18			21	25	
Cast iron fan		13	17	16	112				18			21	-	
Brake + fan		79	85	90	112				119			148	138	
Brake + cast iron fan		79	85	90	112				119			148	-	
Speed/pos. encoder + fan		79	85	103	118				117			129	130	
Backstop + fan		79	85	90	112				119			148	-	
Backstop + cast iron fan		79	85	90	112				119			148	-	

Dimensions in [mm]

[1)] Dimensions without options





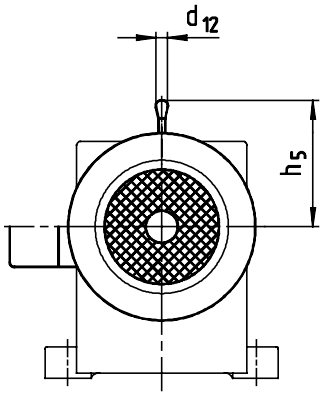
Motor frame size		063		071	080	090	100				112			132	160	
		-1□	-3□	-1□/-3□	-1□/-3□	-1□/-3□	-12	-31	-32	-41	-22/-31	-32	-41	-1□/-3□	-22	-32
Motor	**g_3**	133		150	170	188	210				249			300	338	
	k1[1)]	193	204	176	225	242	280	280	310	310	323	343	323	409	458	502
Attachments		**Δ k**														
Separate fan		121		130	144	156	147				150			159	173	
Speed/pos. encoder + Separate fan		168		184	144	156	147				238			273	285	
Brake + separate fan		168		184	200	219	219				238			273	285	
Brake + speed/ pos. encoder + separate fan		168		184	200	219	219				238			273	285	
Backstop + separate fan		168		184	200	219	219				238			273	-	

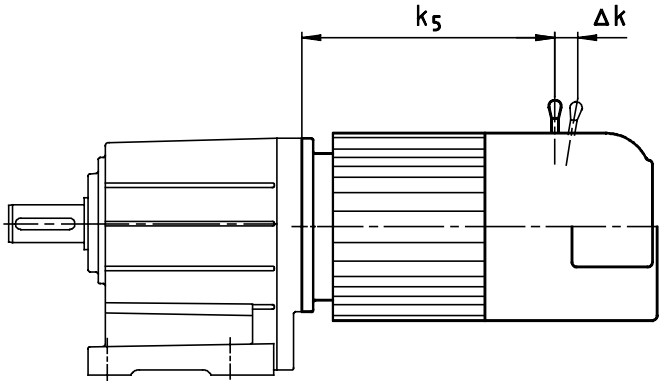
Dimensions in [mm]

1) Dimensions without options

Dimensions – Motor options

Geared brake motor with manual release lever





Motor frame size				063		071	080	090	100		112			132	160	
				-1□	-3□	-1□/-3□	-1□/-3□	-1□/-3□	-12/-31	-32/-41	-22/-31	-32	-41	-2□/-3□	-22	-32
Brake size	**d12**	**h5**	**Δ k**	**k5**												
06	13	109	23	169	181	170										
08	13	118	21				212	224								
10	13	134	21					235	268	298						
12	13	164	29						270	300	303	323	303			
14	24	196	31								307	327	307	393		
16	24	240	42											396	420	
18	24	347	55												423	467

Dimensions in [mm]

Caution: Manual release lever and motor terminal box KK2 in same position only possible with = motor frame size 080!
Manual release lever and motor terminal box KK3 in same position only possible with = motor frame size 100!

Fax order form

to Lenze subsidiary

Fax No. _____

Sender

_____
Company

_____
Address

_____

_____
Date Signature

Customer No.

_____
Order No.

_____
Name of the person placing the order

_____
Department

_____
Telephone

Delivery address (if different from recipient's address)

_____
Address

_____

Invoice address (if different from recipient)

_____
Address

_____

Delivery desired by _____

Delivery notes _____

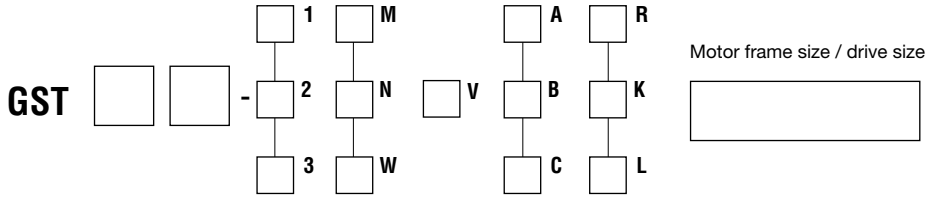
_____

Customer No.

Order No.

Pcs. i =

Price per item



Further order information

Dimensions
K L
Flange a2 = mm

Position of the system modules
(use 0 for undefined positions)
Terminal box
0 2 3 4 5

Mounting position
A B C D E F

Colour
Finishing coat RAL 9018 Primary coat grey

Options

Special lubricant
CLP-HC 320 CLP-H1 220

Special coat
RAL

Output shaft bearing
Reinforced bearing

Shaft seals
Viton

Design N: Mounting flange
Clamp hub Clamping ring hub

Ventilation
Vent element for sizes 05...07
Compensator for mounting position C for sizes 09...14

For order information on motor options see page 8-6

Σ

Fax order form

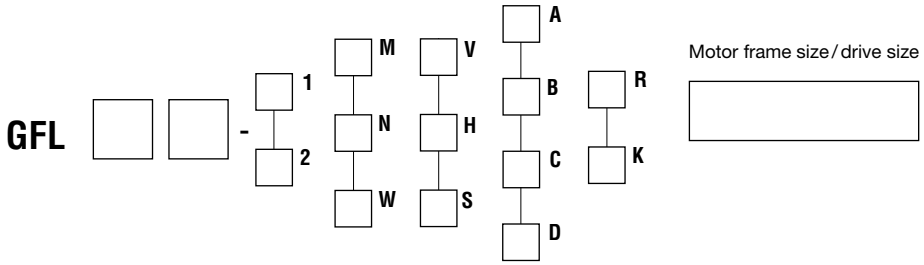
Low-profile geared motors · Low profile gearboxes

Customer No.

Order No.

Pcs. i =

Price per item



Motor frame size / drive size

Further order information

Dimensions

H S Hollow shaft dH7 = mm

K Flange a2 = mm

Position of the system modules
(use 0 for undefined positions)

Shaft 0 6 1

Foot 0 3 4

Terminal box 0 2 3 4 5

Mounting positions

A B C D E F

Colour

Finishing coat RAL 9018

Primary coat grey

Options

Special lubricant

CLP-HC 320

CLP-H1 220

Special coat

RAL

Shaft seal

Viton

Design N: Mounting flange

Clamp hub

Clamping ring hub

Accessories

Rubber buffer set for torque plate

Protection cover for shrink disc

Mounting kit for hollow shaft retention

Vent

Vent elements for sizes 05...07

Compensator for mounting position C for sizes 09...14

For more order information on motor options see page 8-6

Σ

Customer No.

Order No.

Pcs. i =

Price per item

GKR 04-2 M (N) V (H) (S) A (B) R (K)

Motor frame size / drive size

Further order information

Dimensions

H S Hollow shaft dH7 = mm

K Flange a2 = mm

Position of the system modules
(use 0 for undefined positions)

Shaft: 0 3 5 3+5

Flange: 0 3 5 3+5

Terminal box: 0 2 3 4 5

Mounting position

A B C D E F

Colour

Standard coats

Geared motor: **Uncoated (aluminium housings)** | Finishing coat RAL 9018 | Primary coat grey

Gearbox with mounting flange: **Finishing coat RAL 9018** | Primary coat grey

Options

Special lubricant: CLP-HC 320 | CLP-H1 220

Special coat: RAL

Shaft seals: Viton

Design N: mounting flange: Clamp hub | Clamping ring hub

Accessories: Rubber buffer set for torque plat

Torque plate pitch circle

2nd output shaft end

Protection cover for shrink disc

Mounting kit for hollow shaft retention

For more order information on motor options see page 8-6

Σ

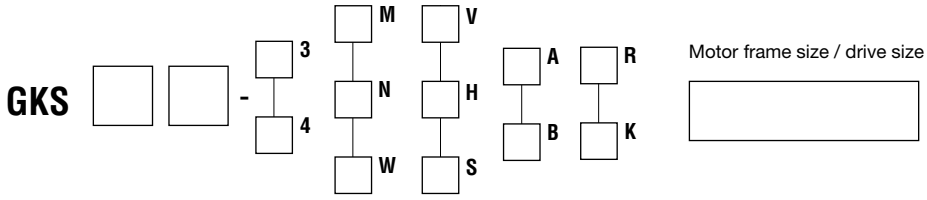
Fax order form

Helical-bevel geared motors · Helical bevel gearboxes

Customer No.

Order No.

Pcs. i = Price per item



Further order information

Dimensions
H S Hollow shaft dH7 = mm K Flange a2 = mm

Position of system components (use 0 for undefined positions)
Shaft: 0 3 5 3+5 Flange: 0 3 5 3+5 Terminal box: 0 2 3 4 5

Mounting position
A B C D E F

Colour
☐ Finishing coat RAL 9018 ☐ Primary coat grey

Options

Special lubricant
☐ CLP-HC 320 ☐ CLP-H1 220

Special coat
RAL

Shaft seals
☐ Viton

Design N: mounting flange
☐ Clamp hub ☐ Clamping ring hub

Accessories
☐ Torque plate at housing foot
☐ Torque plate pitch circle
☐ 2nd output shaft end
☐ Protection cover for shrink disc
☐ Hollow shaft protection cover – jet proof
☐ Mounting kit for hollow shaft retention

Vent
☐ Vent elements for sizes 05...07 ☐ Compensator for mounting position C for sizes 09...14

For order information on motor options see page Seite 8-6

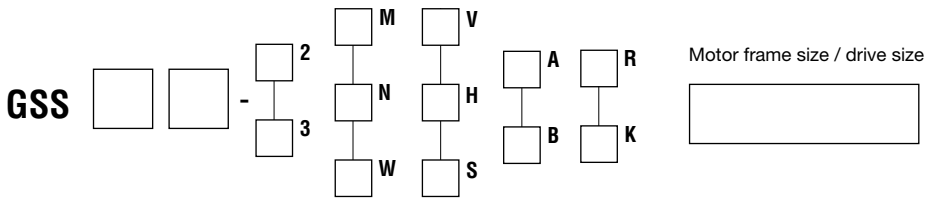
Σ

Customer No.

Order No.

Pcs. i =

Price per items



Motor frame size / drive size

Further order information

Dimensions

H S Hollow shaft dH7 = mm

K Flange a2 = mm

Position of the system components (use 0 for undefined positions)

Shaft: 0 3 5 3+5

Flange: 0 3 5 3+5

Terminal box: 0 2 3 4 5

Mounting position

A B C D E F

Colour

Finishing coat RAL 9018

Primary coat grey

Options

Special lubricant

CLP-HC 320

CLP-H1 220

Special coat

RAL

Shaft seals

Viton

Design N: mounting flange

Clamp hub

Clamping ring hub

Accessories

Torque plate at housing foot

Torque plate pitch circle

2nd output shaft end

Protection cover for shrink disc

Hollow shaft protection cover - jet proof

Mounting kit for hollow shaft retention

Vent

Vent elements for sizes 05...07

For order information on motor options see page 8-6

Σ

Fax order form

Motor options

Customer No. ☐☐☐☐☐☐ Order No. _____

	Combination	Price per item		
		Option 1	Option 2	Option 3
	Separate fan			
	Brake + Internal fan			
	Brake + Separate fan			
	Brake + Rotational mass			
	Brake + Internal fan + Hand wheel			
	Brake + Internal fan + 2nd shaft end			
	Brake + Speed/pos. encoder + Separate fan			
	Speed/pos. encoder + Internal fan			
	Speed/pos. encoder + Separate fan			
	Backstop + Internal fan			
	Backstop + Internal fan + Hand wheel			
	Backstop + Internal fan + 2nd shaft end			
	Backstop + Separate fan			
	Backstop + Rotational mass			
	Backstop + Rotational mass + Hand wheel			
	Backstop + Rotational mass + 2nd shaft end			
	Internal fan + Hand whee			
	Internal fan + 2nd shaft end			
	Rotational mass (Internal fan)			
	Rotational mass + Hand wheel (Internal fan)			
	Rotational mass + 2nd shaft end (Internal fan)			

Separate fan ☐ **1~** ☐ **3~**

Spring-operated brake

Brake size ☐ Connection voltage ☐ V (AC/DC)

Brake options ☐ Manual release with lever in position 2 ☐ 3 ☐ 4 ☐ 5

☐ Low-noise design

Backstop ☐ Direction of rotation **CW** (when looking at the fan cover) ☐ Direction of rotation **CCW** (when looking at the fan cover)

Speed/position encoder

☐ Resolver

☐ Incremental encoder **HTL** ☐ 512 pulses ☐ 2048 pulses

☐ Incremental encoder **TTL** ☐ 512 pulses ☐ 2048 pulses

Motor protection ☐ PTC ☐ KTY _____

Motor connection
(Motor without additional options)

☐ Plug-in connector HAN _____

☐ Plug-in connector ICN in position 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 _____

More options

☐ Y/Δ ;400/230 V (only for motor frame sizes 112-32 bis 132-32 in 87 Hz operation) _____

☐ Condensate drain hole _____

☐ Protection cover _____

☐ CSA/UL _____

Σ _____

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