

Gearmotors Compact

The inexpensive gear motor program

Properties of our standard version:

- Horizontal mounting position
- Standard oil lubrication (for helical & helical bevel gears)
- Synthetic grease (for worm gears)
- Normal ambient conditions

For detailed technical data like rated speed, rated torque, operating factor etc., please refer to our main catalogue.

Properties of our standard motors:

- With fan (three phase and capacitor motors)
- Non-ventilated (EC motors)
- No brake, no encoder, no electronic
- With leads, length 200 mm, with insulating tube, position on top
- 4 poles (three phase and capacitor motors) for helical gears and helical bevel gears
- 2 poles for worm gears
- Operating mode S1 (taking the service factor f_B into account)
- Non-coated
- Protection class: IP 40
- For capacitor motors: capacitor not included

Options:

- Brakes can be added
- Coated
- Capacitor enclosed loosely, not fixed

Please do not forget to indicate clearly any deviations from the standard model or the standard conditions in your order form.



Properties of our standard gears:

- With flange
- Shaft with feather key
- Helical bevel gear: bolt circle on both sides and thread on the front side
- K085: Solid shaft with feather key on the right side
- K105 and K125: Hollow shaft with feather key
- Worm gear with cast-on foot and solid shaft on both sides
- Standard rotating direction for the motor is anti-clockwise, e.g. for a 2-stage gear the gear output shaft rotates anti-clockwise, for a 3-stage gear it rotates clockwise.

Options:

- Helical gear: foot
- Helical bevel gear: foot plates, additional flange, torque support
- Worm gear: Shaft on one side with flange

Motor data

Type	P_n [W]	n_n [rpm]	M_n [Nm]	I_n [A]	$\cos \varphi_n$	I_A/I_n	M_A/M_n	M_K/M_n	J [Kgcm ²]	U [V]
------	--------------	----------------	---------------	--------------	------------------	-----------	-----------	-----------	---------------------------	----------

Three-phase motor

(230/400V)

203.60	20	1,200	0.168	0.27/0.16	0.60	1.53	1.81	1.83	0.18	-
211.55	40	1,300	0.290	0.48/0.28	0.60	1.89	2.97	2.97	0.61	-
235.40	60	1,390	0.400	0.51/0.30	0.59	2.40	2.34	2.43	1.00	-
235.55	90	1,350	0.649	0.58/0.34	0.65	2.71	2.22	2.22	1.40	-
263.45	120	1,365	0.840	0.87/0.50	0.66	2.80	2.00	2.30	2.60	-
263.60	180	1,380	1.250	1.18/0.68	0.63	3.20	2.20	2.40	3.30	-
203.50	30	2,700	0.130	0.30/0.17	0.65	2.40	3.00	3.10	0.18	-
211.55	80	2,700	0.280	0.61/0.35	0.63	2.74	3.30	3.30	0.57	-

Capacitor motor

(230V)

203.60	20	1,200	0.153	0.28	0.90	1.29	0.79	1.15	0.18	-
211.50	40	1,300	0.300	0.48	0.94	1.69	2.83	2.83	0.61	-
235.40	60	1,380	0.421	0.56	0.94	1.86	0.62	1.35	1.00	-
235.55	90	1,350	0.634	0.71	0.96	1.92	0.62	1.27	1.40	-
263.45	120	1,350	0.850	1.03	1.00	1.88	0.58	1.26	2.60	-
263.60	180	1,360	1.270	1.53	1.00	1.34	0.71	1.24	3.30	-
203.50	30	2,700	0.130	0.30	0.65	2.40	3.00	3.10	0.18	-
211.55	80	2,700	0.280	0.61	0.63	2.74	3.30	3.30	0.57	-

EC-motor

305.50	60	3,000	0.20	0.5	-	up to 3	up to 3	-	0.23	230
305.50	60	3,000	0.20	4.0	-	up to 3	up to 3	-	0.23	24
306.30	95	3,000	0.30	0.6	-	up to 3	up to 3	-	0.38	230
306.30	95	3,000	0.30	5.2	-	up to 3	up to 3	-	0.38	24
307.55	220	3,000	0.70	1.4	-	up to 3	up to 3	-	1.40	230

Legend for motor data

Contraction	Unit	Explanation
P_n	[W]	Output power
n_n	[rpm]	Nominal speed
M_n	[Nm]	Nominal torque
I_n	[A]	Nominal current
I_A / I_n		Ratio of starting to nominal current
M_A / M_n		Ratio of starting to nominal torque
M_K / M_n		Ratio of breakdown to nominal torque
J	[Kgcm ²]	Mass moment of inertia

■ Possible combinations

Helical gear with...

...three-phase / capacitor motor	203.60*	211.55	235.40	235.55	263.45	263.60
P_n	20 W	40 W	60 W	90 W	120 W	180 W
Gear type	Q065	Q075	Q085	Q085	Q105	Q105
	Q075	Q085	Q095	Q095	Q115	Q115
			Q105	Q105	Q125	Q125

* Type 203.60 only available as three phase motor

EC-motor	305.50	306.30	307.55
P_n	60 W	95 W	220 W
Gear type	Q065	Q075	Q085
	Q075	Q085	



Helical bevel gear with ...

... three-phase / capacitor motor	211.55	235.40	235.55	263.45	263.60
P_n	40 W	60 W	90 W	120 W	180 W
Gear type	K085	K085	K085	K105	K105
		K105	K105	K125	K125

EC-motor	306.30	307.55
P_n	95 W	220 W
Gear type	K085	K085
		K105

Worm gear with...

...three-phase / capacitor motor	203.50	211.55	235.55	263.45	263.60
P_n	30 W	80 W	90 W	120 W	180 W
Gear type	S031	S031	S131	S131	S131

EC-motor	305.50	306.30	307.55
P_n	60 W	95 W	220 W
Gear type	S031	S031	S131

■ Quality

Our aim is to manufacture goods of highest quality. For the gears of our Heidrive Program, the surface of the gearings is hardened according to a special method. Heidrive gears are geometrically optimized and rated for endurance strength. They dispose of a compact design, show a very low noise level, are maintenance-free and very robust.

Heidrive gears have been designed especially for the field of machine construction. The gears use anti-friction bearings. Optimized output shaft bearings allow high radial and axial forces. The light aluminium housing hardly experiences any corrosion. Due to their compact design, the gears are very resistant. In combination with compact motors (IP 40), Heidrive offers an interesting alternative to the profile motors in terms of price.

Technical data gears

Helical gear - Q-Series

- Torque up to 80 Nm
- Stages: 2 and 3 stages
- Sizes: 7
- Ratio: 3 : 1 to 180 : 1
- Degree of efficiency: up to 95 %
- Oil lubrication
- Options: with foot



Helical bevel gear - K-Series

- Torque up to 80 Nm
- Stages: 3 stages
- Sizes: 3
- Ratios: 7 : 1 to 170 : 1
- Degree of efficiency: up to 90 %
- Oil lubrication
- Options: flange, foot plates, torque support



Worm gears - S-Series

- Torque up to 20 Nm
- Stages: 1 stage
- Sizes: 1
- Ratios: 7 : 1 up 100 : 1
- Degree of efficiency: up to 77 %
- Grease lubrication
- Options: flange



Technical data subject to change ! Last changes: 01/2016