

Worm geared motor

Type S131

Heidrive worm gears use ball-bearings and therefore allow the application of high axial and radial forces. The gears are filled with synthetic oil in a sealed unit which means they are maintenance-free. A hardened and ground steel worm can handle impact loads. Peak torque loads can be transferred provided the max. continuous torque rating is observed.

Our standard motors are equipped as follows:

- With fan (three phase and capacitor motors)
- Without fan (EC-motors)
- Without brake, without encoder, without electronics
- Protection class: IP40 or IP 54 (three phase and capacitor motors), IP54 (EC-motors)
- IP54: with terminal box, position on top
- IP40: with cable or leads; length 200 mm, position on top
- 4 poles (three phase and capacitor motor)
- For operating mode S1 (taking the service factor f_B into account)
- Without paint finish
- Capacitor motors supplied with unfitted capacitor
- Standard direction of rotation for the motor is anti-clockwise



Standard gears are equipped as follows:

- Standard lubrication synthetic oil
- Adapted to common ambient temperatures
- Tapped holes on both sides
- Distance between axes: 31 mm
- Ratio: 10 : 1 up to 60 : 1, other ratios on request
- Hollow shaft diameter 20 mm with feather key

Options:

- Brakes can be added
- Three-phase and capacitor motors also bipolar available
- Coated
- Capacitor enclosed loosely, not fixed
- Insertion shaft left, right or on both sides, diameter 14mm, length 30mm, feather key 5mm

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

Motor data

Type	P_n [W]	n_n [min ⁻¹]	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]
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EC-motor (IP54)

317.55	220	3000	0,70	1,4	-	bis 3	bis 3	-	1,4	230
318.60	440	3000	1,40	2,8	-	bis 3	bis 3	-	4,0	230

Three-phase motor (IP40/54) (230/400V)

235.55	90	1350	0,65	0,58/0,34	0,65	2,71	2,22	2,22	1,4	-
263.45	120	1350	0,85	0,87/0,50	0,66	2,80	2,00	2,30	2,6	-
263.60	180	1350	1,25	1,18/0,68	0,63	3,20	2,20	2,40	3,3	-

Capacitor motor (IP40/54) (230V)

235.55	90	1350	0,63	0,71	0,96	1,92	0,62	1,27	1,4	-
263.45	120	1350	0,85	1,03	1,00	1,88	0,58	1,26	2,6	-
263.60	180	1350	1,27	1,53	1,00	1,34	0,71	1,24	3,3	-

Legend for motor data

Contraction	Unit	Explanation
P_n	[W]	Output power
n_n	[min ⁻¹]	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

■ Gear data

Type	n_n [min ⁻¹]	M_n [Nm]	i	fB	M_{zul} [Nm]	Bestellnummer	Preiscode
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Worm gear unit S131 with EC-motor

Motor 317.55 220 W	300	5,5	10	3,66	20	S131-0100-E317-220-230-54-U	S131-1-E317-220
	150	9,5	20	2,10	20	S131-0200-E317-220-230-54-U	S131-1-E317-220
	100	12,8	30	1,56	20	S131-0300-E317-220-230-54-U	S131-1-E317-220
	75	14,8	40	1,35	20	S131-0400-E317-220-230-54-U	S131-1-E317-220
	60	15,8	50	1,27	20	S131-0500-E317-220-230-54-U	S131-1-E317-220
	50	16,4	60	1,22	20	S131-0600-E317-220-230-54-U	S131-1-E317-220
Motor 318.60 440 W	300	5,5	10	1,83	20	S131-0100-E318-440-230-54-U	S131-1-E318-440
	150	9,5	20	1,05	20	S131-0200-E318-440-230-54-U	S131-1-E318-440
	100	12,8	30	0,78	20	S131-0300-E318-440-230-54-U	S131-1-E318-440
	75	14,8	40	0,67	20	S131-0400-E318-440-230-54-U	S131-1-E318-440
	60	15,8	50	0,63	20	S131-0500-E318-440-230-54-U	S131-1-E318-440
	50	16,4	60	0,61	20	S131-0600-E318-440-230-54-U	S131-1-E318-440

Worm gear unit S131 with Three-phase motor

Please indicate the desired protection class (IP40 oder IP54) 

Motor 235.55 90 W	135	5,1	10	3,94	20	S131-0100-D235-090-230-...-4-L	S131-1-D235-090
	68	8,8	20	2,26	20	S131-0200-D235-090-230-...-4-L	S131-1-D235-090
	45	11,9	30	1,68	20	S131-0300-D235-090-230-...-4-L	S131-1-D235-090
	34	13,8	40	1,45	20	S131-0400-D235-090-230-...-4-L	S131-1-D235-090
	27	14,6	50	1,37	20	S131-0500-D235-090-230-...-4-L	S131-1-D235-090
	23	15,2	60	1,31	20	S131-0600-D235-090-230-...-4-L	S131-1-D235-090
Motor 263.45 120 W	137	6,6	10	3,05	20	S131-0100-D263-120-230-...-4-L	S131-1-D263-120
	68	11,4	20	1,75	20	S131-0200-D263-120-230-...-4-L	S131-1-D263-120
	46	15,4	30	1,30	20	S131-0300-D263-120-230-...-4-L	S131-1-D263-120
	34	17,8	40	1,12	20	S131-0400-D263-120-230-...-4-L	S131-1-D263-120
	27	18,9	50	1,06	20	S131-0500-D263-120-230-...-4-L	S131-1-D263-120
	23	19,7	60	1,02	20	S131-0600-D263-120-230-...-4-L	S131-1-D263-120
Motor 263.60 180 W	138	9,8	10	2,05	20	S131-0100-D263-180-230-...-4-L	S131-1-D263-180
	69	17,0	20	1,18	20	S131-0200-D263-180-230-...-4-L	S131-1-D263-180
	46	22,9	30	0,87	20	S131-0300-D263-180-230-...-4-L	S131-1-D263-180
	35	26,5	40	0,75	20	S131-0400-D263-180-230-...-4-L	S131-1-D263-180
	28	28,1	50	0,71	20	S131-0500-D263-180-230-...-4-L	S131-1-D263-180
	23	29,3	60	0,68	20	S131-0600-D263-180-230-...-4-L	S131-1-D263-180

■ Gear data

Type	n_n [min ⁻¹]	M_n [Nm]	i	fB	M_{zul} [Nm]	Bestellnummer	Preiscode
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Worm gear S131 with capacitor motor

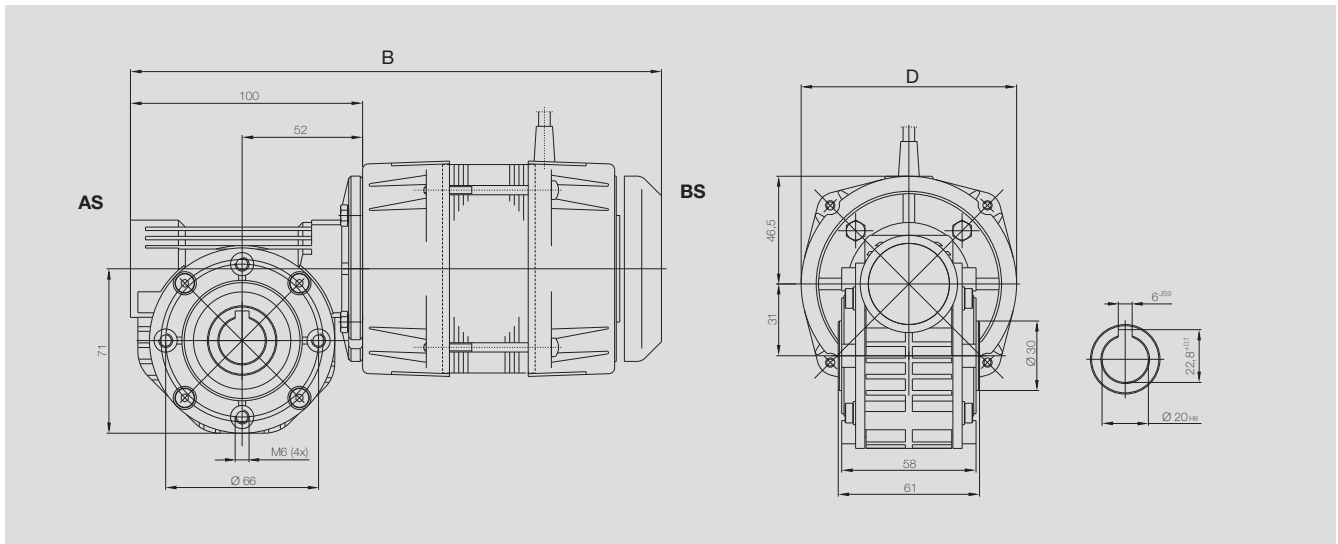
Please indicate the desired protection class (IP40 oder IP54) ↓

Motor 235.55 90 W	135	4,9	10	4,07	20	S131-0100-K235-090-230...-4K-L	S131-1-K235-090
	68	8,6	20	2,33	20	S131-0200-K235-090-230...-4K-L	S131-1-K235-090
	45	11,5	30	1,73	20	S131-0300-K235-090-230...-4K-L	S131-1-K235-090
	34	13,4	40	1,50	20	S131-0400-K235-090-230...-4K-L	S131-1-K235-090
	27	14,2	50	1,41	20	S131-0500-K235-090-230...-4K-L	S131-1-K235-090
	23	14,7	60	1,36	20	S131-0600-K235-090-230...-4K-L	S131-1-K235-090
Motor 263.45 120 W	137	6,6	10	3,02	20	S131-0100-K263-120-230...-4K-L	S131-1-K263-120
	68	11,6	20	1,73	20	S131-0200-K263-120-230...-4K-L	S131-1-K263-120
	46	15,6	30	1,29	20	S131-0300-K263-120-230...-4K-L	S131-1-K263-120
	34	18,0	40	1,11	20	S131-0400-K263-120-230...-4K-L	S131-1-K263-120
	27	19,1	50	1,05	20	S131-0500-K263-120-230...-4K-L	S131-1-K263-120
	23	19,9	60	1,01	20	S131-0600-K263-120-230...-4K-L	S131-1-K263-120
Motor 263.60 180 W	138	9,9	10	2,02	20	S131-0100-K263-180-230...-4K-L	S131-1-K263-180
	69	17,3	20	1,16	20	S131-0200-K263-180-230...-4K-L	S131-1-K263-180
	46	23,2	30	0,86	20	S131-0300-K263-180-230...-4K-L	S131-1-K263-180
	35	26,9	40	0,74	20	S131-0400-K263-180-230...-4K-L	S131-1-K263-180
	28	28,6	50	0,70	20	S131-0500-K263-180-230...-4K-L	S131-1-K263-180
	23	29,7	60	0,67	20	S131-0600-K263-180-230...-4K-L	S131-1-K263-180

Legend for gear data

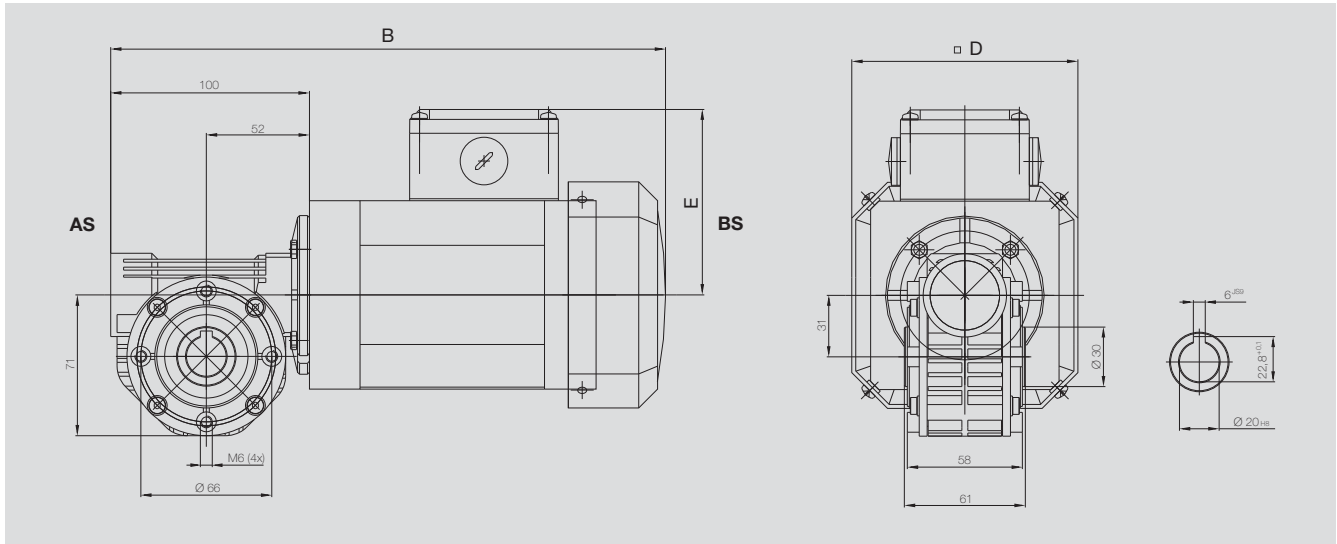
Contraction	Unit	Explanation
n_n	[min ⁻¹]	Nominal speed
M_n	[Nm]	Nominal torque
i		Gear unit ratio
fB		Operating factor
M_{zul}	[Nm]	Allowable moment

■ Dimensions with motor IP 40



Motor type	Three-phase / Capacitor motor		
	235.55	263.45	263.60
P_n	90 W	120 W	180 W
B [mm]	216,5	235	250
D [mm]	80	93	93

■ Dimensions with motor IP 54



Motor type	Three-phase / Capacitor motor			EC-Motor	
	235.55	263.45	263.60	317.55	318.60
P _n	90 W	120 W	180 W	220 W	440 W
B [mm]	280	279,5	294,5	245	254
D [mm]	114	130	130	114	130
E [mm]	93,5	98,5	98,5	93,5	98,5

Technical data subject to change ! Last changes: 04/2014