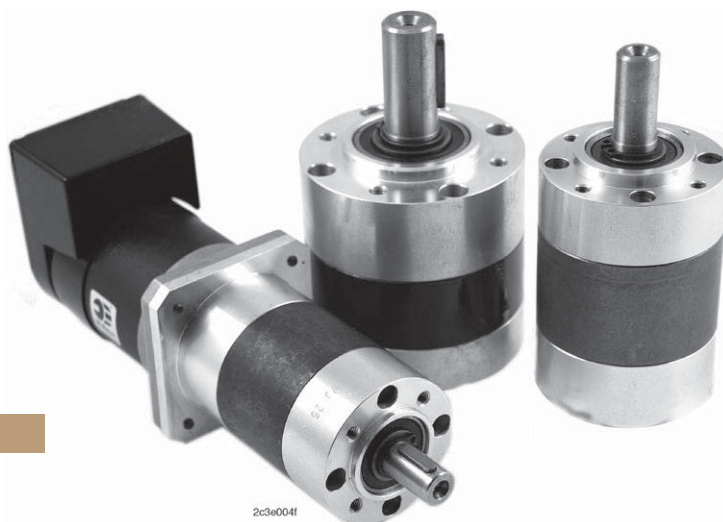


Planetary gearboxes

- Rated continuous torque from 3.0 to 120 Nm
- Low-noise gearing as standard
- Huge standard range of ratios
- Available in 5 Frame Sizes

These new high torque planetary gearboxes feature a low-noise design resulting from the combination of optimised module/tooth number, implementation of helical gears and the use of most advanced materials. Smooth running and high torque stability are guaranteed.



Torque

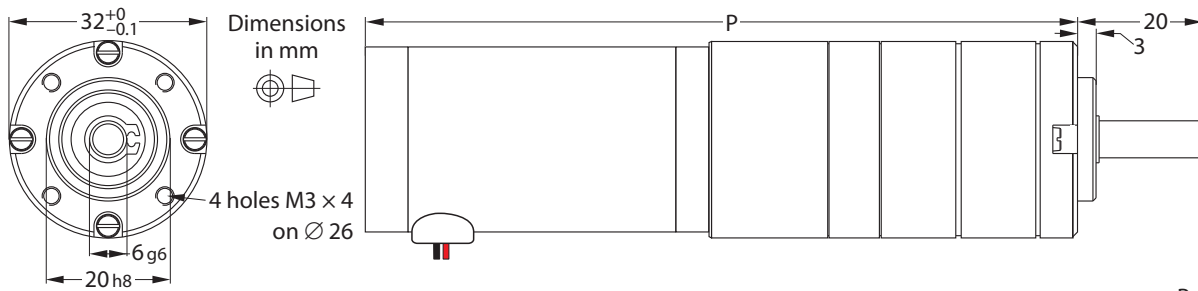
Gear	Stages	Max. backlash °	Weight kg	Torque, Nm
PM32LN	1	1.5	0.16	0.75
	2	1.55	0.21	2.25
	3	1.60	0.26	4.5
	4	1.65	0.31	4.5
PM42LN	1	1.3	0.4	3.0
	2	0.9	0.5	7.5
	3	1.0	0.6	15.0
	4	1.0	0.7	15.0
PM52LN	1	1.1	0.7	4.0
	2	0.7	0.9	12.0
	3	0.8	1.1	24.0
	4	0.8	1.3	24.0
PM72LN	1	0.9	1.4	14.0
	2	0.6	1.9	42.0
	3	0.7	2.4	84.0
	4	0.7	2.9	84.0
PM81LN	1	0.8	1.8	20.0
	2	0.6	2.5	60.0
	3	0.6	3.2	120.0
	4	0.7	3.9	120.0

Gear reductions

1 stage	2 stages	3 stages		4 stages		
4:1 (3.65)	14:1 (13.53)	50:1 (50.16)	128:1 (127.74)	186:1 (185.88)	457:1 (456.56)	862:1 (862.27)
5:1 (4.59)	16:1 (15.65)	58:1 (58.01)	137:1 (136.99)	215:1 (214.96)	473:1 (473.40)	925:1 (924.65)
5:1 (5.36)	17:1 (17.01)	67:1 (67.08)	145:1 (145.36)	249:1 (248.59)	492:1 (491.89)	1046:1 (1046.08)
7:1 (6.55)	19:1 (18.92)	70:1 (70.13)	166:1 (166.40)	260:1 (259.91)	515:1 (515.24)	1123:1 (1123.21)
9:1 (8.63)	23:1 (22.96)	81:1 (81.11)	176:1 (175.75)	287:1 (287.49)	533:1 (533.08)	1200:1 (1200.07)
	25:1 (24.65)	91:1 (91.36)	192:1 (191.54)	301:1 (300.57)	547:1 (547.47)	1293:1 (1292.91)
	28:1 (27.76)	98:1 (98.07)	232:1 (231.59)	339:1 (338.56)	595:1 (594.98)	1563:1 (1563.24)
	28:1 (28.05)	101:1 (101.89)	302:1 (301.68)	348:1 (347.60)	623:1 (622.97)	2036:1 (2036.33)
	34:1 (33.92)	106:1 (105.65)	393:1 (392.68)	361:1 (361.17)	638:1 (638.40)	2653:1 (2652.59)
	45:1 (44.69)	115:1 (114.77)		365:1 (364.66)	679:1 (678.94)	
	58:1 (58.22)	123:1 (123.20)		392:1 (391.53)	713:1 (713.15)	
				420:1 (420.28)	775:1 (774.72)	
				425:1 (425.34)	832:1 (831.60)	

PM DC motors, \varnothing 30–88 mm, with gearboxes

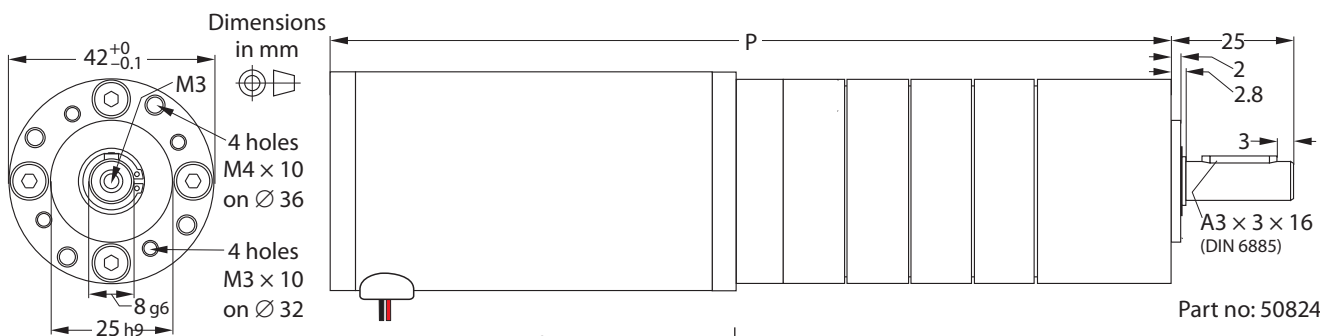
30ZYNmotors with gearbox PM32LN



Part no: 508232-*

Length (P), motor + gear	1 stage	2 stages	3 stages	4 stages
30ZYN002	97.5 ± 1 mm	107 ± 1 mm	116.5 ± 1 mm	126 ± 1 mm

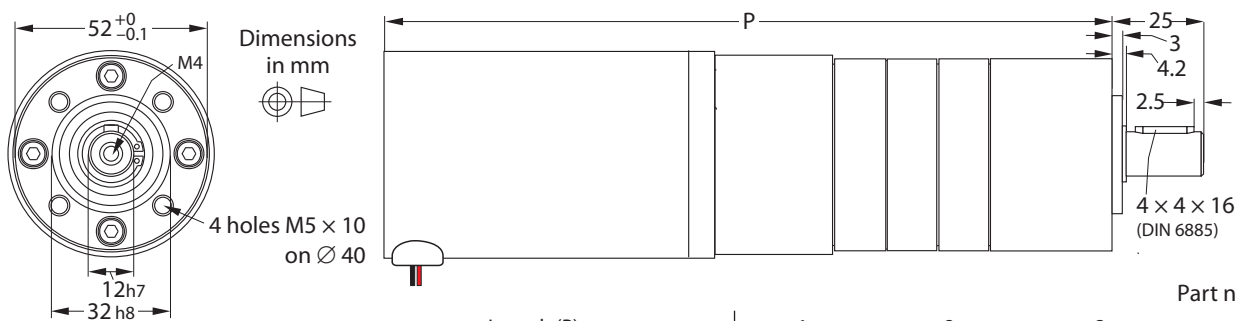
45ZYN motors with gearbox PM42LN



Part no: 508242-*

Length (P), motor + gear	1 stage	2 stages	3 stages	4 stages
45ZYN002	132.5 ± 1 mm	145.5 ± 1 mm	158.5 ± 1 mm	171.5 ± 1 mm
45ZYN003	142.5 ± 1 mm	155.5 ± 1 mm	168.5 ± 1 mm	181.5 ± 1 mm

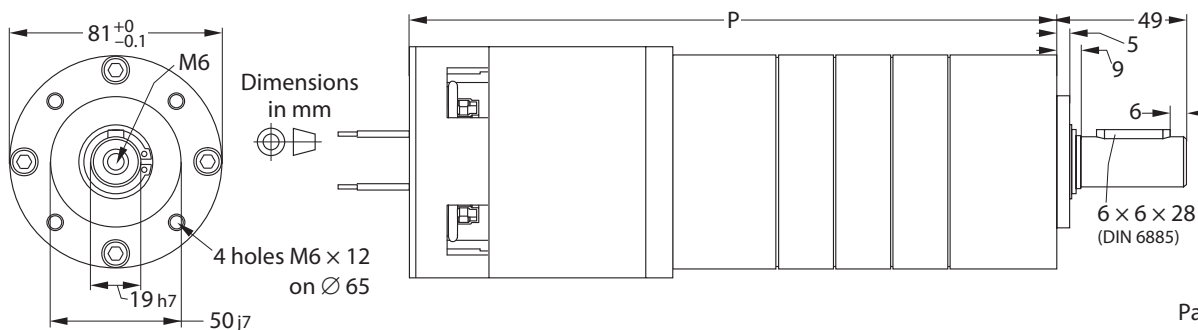
57ZYN motors with gearbox PM52LN



Part no: 508252-*

Length (P), motor + gear	1 stage	2 stages	3 stages	4 stages
57ZYN002	166 ± 1 mm	180 ± 1 mm	194.5 ± 1 mm	208.5 ± 1 mm
57ZYN003	171 ± 1 mm	185 ± 1 mm	199.5 ± 1 mm	213.5 ± 1 mm

88ZYN motors with gearbox PM81LN



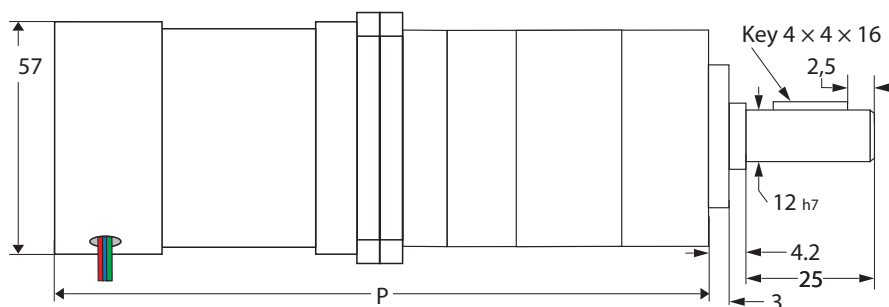
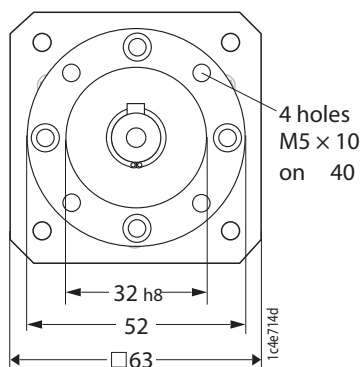
Part no: 508281-*

Length (P), motor + gear	1 stage	2 stages	3 stages	4 stages
88ZYN002	210 ± 1 mm	232 ± 1 mm	253.5 ± 1 mm	275.5 ± 1 mm

* reduction ratio. See table page 21.

Brushless motors, $\varnothing 57$ – $\square 86$ mm, with gearboxes

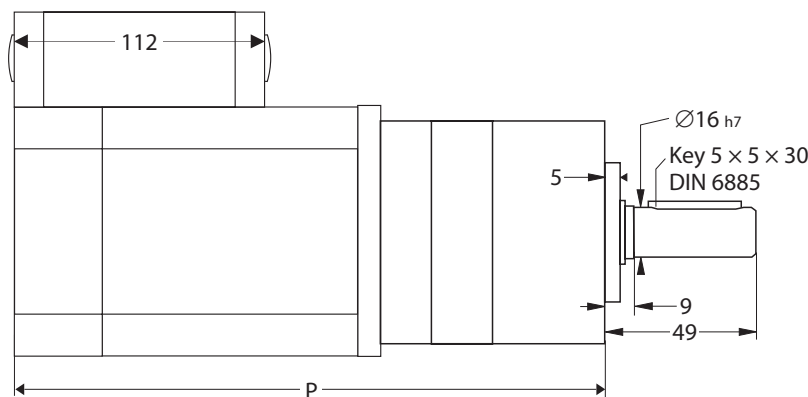
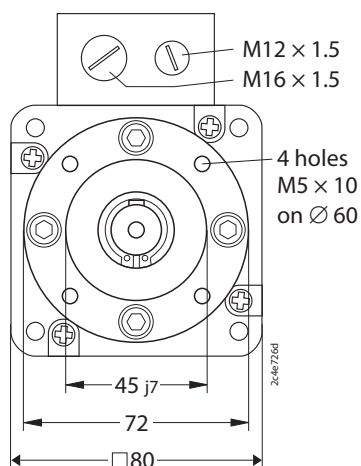
57ZWX motors with gearbox PM52LN



Part no: 508352-*

Length (P), motor + gear	1 stage	2 stages	3 stages	4 stages
57ZWX01	147 ±1 mm	161 ±1 mm	175 ±1 mm	189 ±1 mm
57ZWX02	167 ±1 mm	181 ±1 mm	195 ±1 mm	209 ±1 mm
57ZWX03	187 ±1 mm	201 ±1 mm	215 ±1 mm	229 ±1 mm

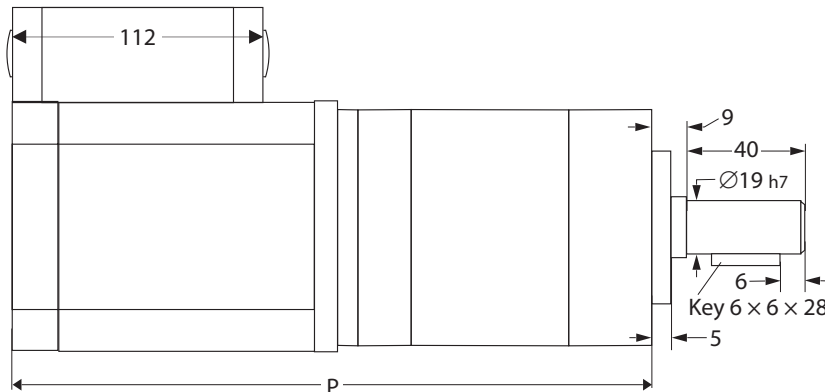
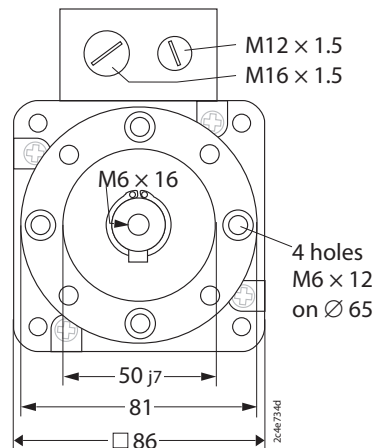
80ZWX motors with gearbox PM72LN



Part no: 508372-*

Length (P), motor + gear	1 stage	2 stages	3 stages	4 stages
80ZWX02	234 ±1 mm	259 ±1 mm	279 ±1 mm	298 ±1 mm
80ZWX03	259 ±1 mm	279 ±1 mm	299 ±1 mm	318 ±1 mm

86ZWX motors with gearbox PM81LN



Part no: 508381-*

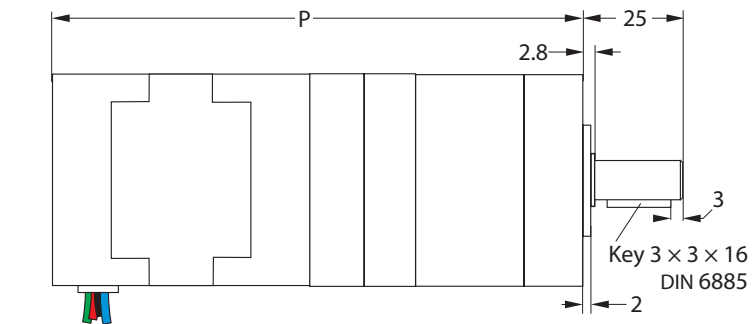
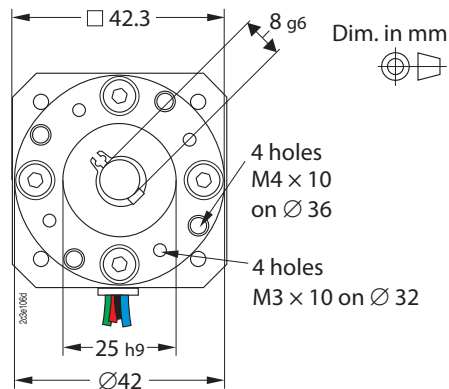
Length (P), motor + gear	1 stage	2 stages	3 stages	4 stages
86ZWX01	221 ±1 mm	243 ±1 mm	264 ±1 mm	286 ±1 mm
86ZWX02	246 ±1 mm	268 ±1 mm	289 ±1 mm	311 ±1 mm
86ZWX03	271 ±1 mm	292 ±1 mm	314 ±1 mm	336 ±1 mm

Dimensions in mm

* reduction ratio. See table page 21.

Stepper motors, NEMA 17–34, with gearboxes

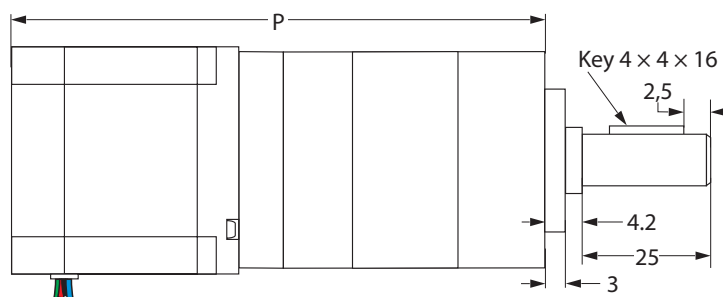
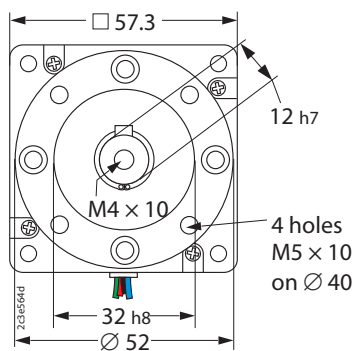
NEMA 17 motors with gearboxes PM42LN



Part no: 508542-*

Length (P), motor + gear	1 stage	2 stages	3 stages	4 stages
17H130	102.7 ± 1 mm	115.8 ± 1 mm	128.9 ± 1 mm	142.0 ± 1 mm
17H150	108.7 ± 1 mm	121.8 ± 1 mm	134.9 ± 1 mm	148.0 ± 1 mm
17H185	116.7 ± 1 mm	129.8 ± 1 mm	142.9 ± 1 mm	156.0 ± 1 mm

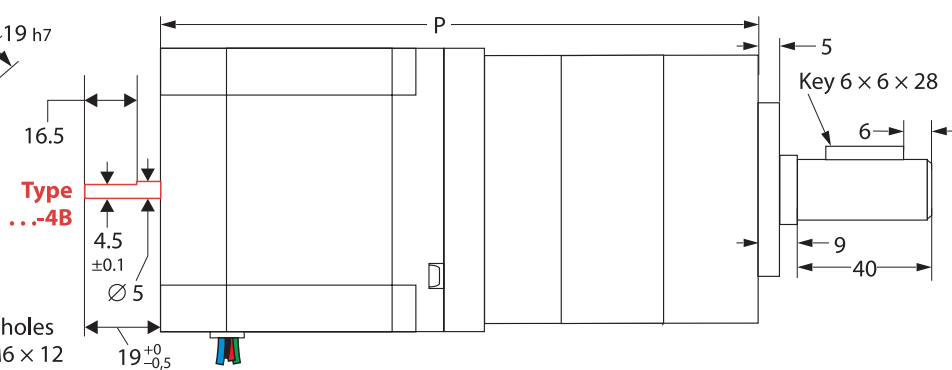
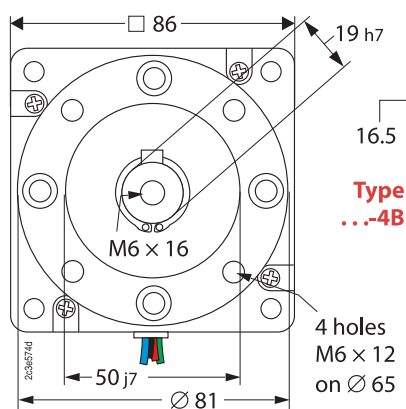
NEMA 23 motors with gearboxes PM52LN



Part no: 508552-*

Length (P), motor + gear	1 stage	2 stages	3 stages	4 stages
23H160	119.8 ± 1 mm	134.0 ± 1 mm	148.2 ± 1 mm	162.4 ± 1 mm
23H200	128.8 ± 1 mm	143.0 ± 1 mm	157.2 ± 1 mm	171.4 ± 1 mm
23H225	135.8 ± 1 mm	150.0 ± 1 mm	164.2 ± 1 mm	178.4 ± 1 mm
23H300	153.8 ± 1 mm	168.0 ± 1 mm	182.2 ± 1 mm	196.4 ± 1 mm

NEMA 34 motors with gearboxes PM81LN



Part no: 508581-*

Length (P), motor + gear	1 stage	2 stages	3 stages	4 stages
34H060	169.8 ± 1 mm	191.6 ± 1 mm	213.2 ± 1 mm	234.9 ± 1 mm
34H080	189.8 ± 1 mm	211.5 ± 1 mm	233.2 ± 1 mm	254.9 ± 1 mm
34H120	229.8 ± 1 mm	251.5 ± 1 mm	273.2 ± 1 mm	294.9 ± 1 mm

* reduction ratio. See table page 21.