



### Gearbox specifications

Ratio	[ ]	3.67	13.4	26.8	49.3	98.7	181	362	663	1330	2430
No. of gear stages		1	2	3	3	4	4	5	5	6	6
Direction of rotation		≠	=	≠	≠	=	=	≠	≠	=	=
1 Efficiency		0.9	0.8	0.7	0.7	0.65	0.65	0.6	0.6	0.55	0.55
2 Length = L (mm)		21.2	23.30	26	26	28.7	28.7	31.4	31.4	34.1	34.1
3 Mass (g) / view		10/B	10/A	11/B	11/B	12/A	12/A	13/B	13/B	13/A	13/A
4 Max. recom. dynamic output torque		mNm (oz-in)						30 (4.25) at 20 rpm		20 (2.83) at 150 rpm	
5 Bearing type		sleeve bearings									
6 Max. static torque		mNm (oz-in)						70 (9.87)			
7 Max. side load at 3 mm from mount. face		N (lb)						1.5 (0.34)			
8 Max. axial load		N (lb)						1 (0.225)			
9 Max. force for press-fit		N (lb)						5 (1.12)			
10 Average backlash at no-load		2°									
11 Average backlash at 12 mNm		3°									
12 Radial play		µm						≤ 30			
13 Axial play		µm						≤ 150			
14 Max. recom. input speed.		rpm									
15 Temperature range		°C (°F)						-20 ... +65 (-4...+150)			

Availability: see document at the end of the catalogue

### Motor specifications

Winding types	[ ]	-208	-205
Measured values			
1 Measuring voltage	V	2	3
2 No-load speed	rpm	8300	8000
3 Stall torque	mNm (oz-in)	0.52 (0.07)	0.35 (0.05)
4 Average no-load current	mA	8	6
Max. recommended values			
6 Max. continuous current	A	0.28	0.16
7 Max. continuous torque	mNm (oz-in)	0.59 (0.08)	0.50 (0.07)
Intrinsic parameters			
8 Torque constant	mNm/A (oz-in/A)	2.2 (0.31)	3.2 (0.46)
9 Terminal resistance	ohm	8.5	26
10 Motor regulation R/k <sup>2</sup>	10 <sup>3</sup> /Nms	1760	2540
11 Terminal inductance	mH	0.05	0.10
12 Rotor inertia	kgm <sup>2</sup> · 10 <sup>-7</sup>	0.04	0.03
Thermal parameters			
13 Mechanical time constant	ms	7	7
14 Thermal time constant rotor	s	3	3
15 Thermal resistance body-ambient	°C/W	60	60