



scale 1:1
dimensions in mm

M707 L 61 - [] - [] • 0

Gearbox specifications

Ratio	[]	7.07	10.7	19.6	29.8	54.6	82.7	152	230	421	638	1170	1770
No. of gear stages		2	2	3	3	4	4	5	5	6	6	7	7
Direction of rotation		=	=	≠	≠	=	=	≠	≠	=	=	≠	≠
1 Efficiency		0.8	0.8	0.75	0.75	0.65	0.65	0.6	0.6	0.55	0.55	0.5	0.5
2 Length = L (mm)		23.8	23.8	25.8	25.8	27.8	27.8	29.8	29.8	31.8	31.8	33.8	33.8
3 Mass (g)		4.3	4.3	4.4	4.4	4.6	4.6	4.7	4.7	4.9	4.9	5.0	5.0
4 Max. recom. dynamic output torque		mNm (oz-in)						12 (1.7) at 20 rpm					
		mNm (oz-in)						8 (1.1) at 150 rpm					
5 Bearing type								sleeve bearings					
6 Max. static torque		mNm (oz-in)						50 (7.08)					
7 Max. side load at 3 mm from mount. face		N (lb)						1 (0.225)					
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						≤ 100					
14 Max. recom. input speed.		rpm						7500					
15 Temperature range		°C (°F)						-30 ... +65 (-22...+150)					

Availability: see document at the end of the catalogue

Motor specifications

Winding types	[]	-207	-205	-204
Measured values				
1 Measuring voltage	V	2	3.5	4.5
2 No-load speed	rpm	10400	11400	11700
3 Stall torque	mNm (oz-in)	0.31 (0.04)	0.37 (0.05)	0.23 (0.03)
4 Average no-load current	mA	12	8	6
5 Typical starting voltage	V	0.2	0.3	0.5
Max. recommended values				
6 Max. continuous current	A	0.28	0.18	0.11
7 Max. continuous torque	mNm (oz-in)	0.46 (0.07)	0.48 (0.07)	0.36 (0.05)
Intrinsic parameters				
8 Torque constant	mNm/A (oz-in/A)	1.7 (0.24)	2.8 (0.39)	3.3 (0.47)
9 Terminal resistance	ohm	11	26	65
10 Motor regulation R/k ²	10 ³ /Nms	3700	3400	5800
11 Terminal inductance	mH	0.03	0.10	0.11
12 Rotor inertia	kgm ² · 10 ⁻⁷	0.022	0.030	0.016
Thermal parameters				
13 Mechanical time constant	ms	8	10	9
14 Thermal time constant rotor	s	3	3	3
15 Thermal resistance body-ambient	°C/W	70	70	70