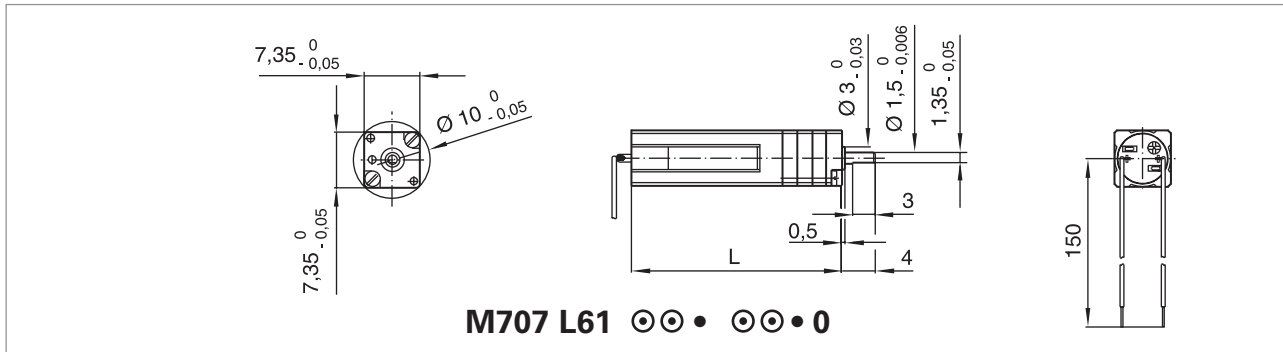


M707L61

Gearmotor with Spur Gears

0.012 Nm



Gearhead 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		=	=	≠	≠	=	=	≠	≠	=	=	≠	≠
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
L (mm) Length		23.8	23.8	25.8	25.8	27.8	27.8	29.8	29.8	31.8	31.8	33.8	33.8
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
Max. recom. dynamic output torque		mNm (oz-in)						12 (1.7) at 20 rpm					
		mNm (oz-in)						8 (1.1) at 150 rpm					
Bearing type		sleeve bearings											
Max. static torque		mNm (oz-in)						50 (7.08)					
Max. side load at 3 mm from mount. face		N (lb)						1 (0.225)					
Max. axial load		N (lb)						1 (0.225)					
Max. force for press-fit		N (lb)						5 (1.12)					
Average backlash at no-load		2°											
Average backlash at 12mNm		3°											
Radial Play		μm						≤30					
Axial Play		μm						≤100					
Max. recom input speed		rpm						7500					
Temperature range		°C (°F)						-30 ... +65 (-22...+150)					

Motor Specifications

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