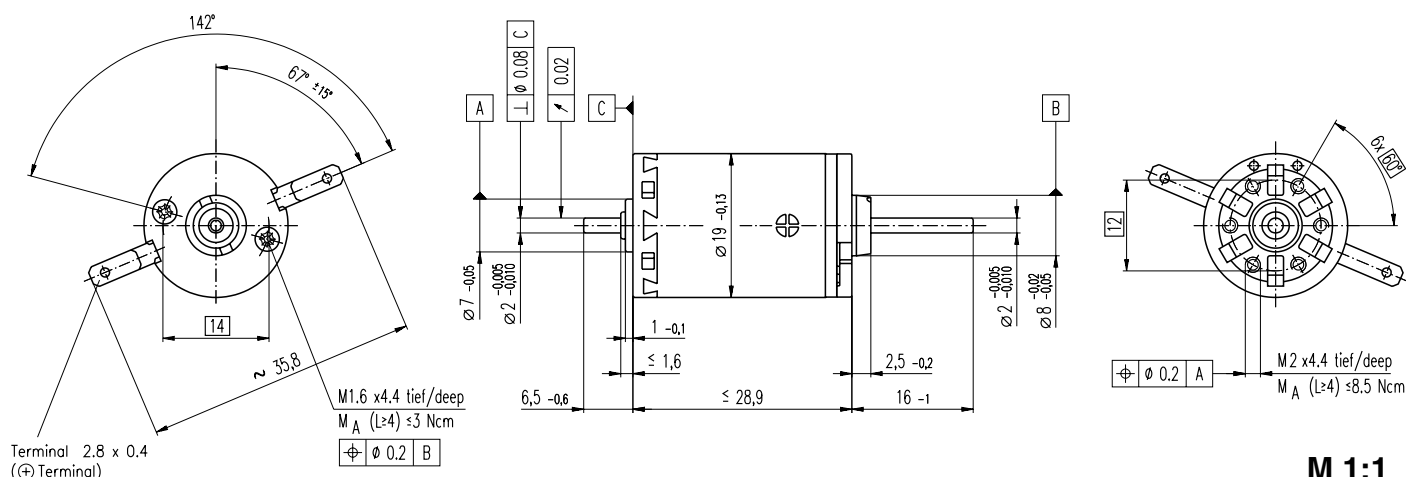


A-max 19 Ø19 mm, Precious Metal Brushes CLL, 1.5 Watt, CE approved



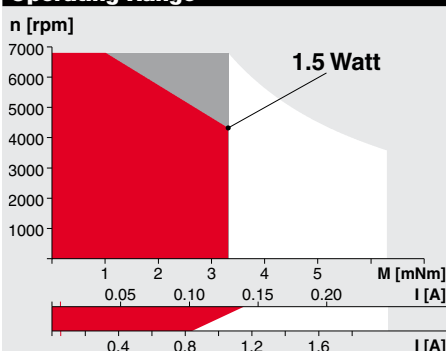
- Stock program
- Standard program
- Special program (on request!)

Order Number

		110090	110091	110092	110093	110094	110095	110096	110097	110098					
Motor Data															
1	Assigned power rating	W	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5					
2	Nominal voltage	Volt	1.2	2.4	3.0	4.8	6.0	7.2	9.0	12.0	18.0				
3	No load speed	rpm	6360	7150	6220	6180	6080	6120	6120	6140	6590				
4	Stall torque	mNm	6.49	6.52	6.12	6.01	6.01	5.80	5.78	5.71	5.84				
5	Speed / torque gradient	rpm / mNm	1000	1120	1040	1060	1040	1080	1090	1100	1160				
6	No load current	mA	88	52	34	21	17	14	11	8	6				
7	Starting current	mA	3690	2090	1360	832	655	530	423	314	230				
8	Terminal resistance	Ohm	0.325	1.15	2.20	5.77	9.17	13.6	21.3	38.2	78.2				
9	Max. permissible speed	rpm	6800	6800	6800	6800	6800	6800	6800	6800	6800				
10	Max. continuous current	mA	840	840	835	515	409	336	268	200	140				
11	Max. continuous torque	mNm	1.48	2.62	3.75	3.72	3.75	3.67	3.67	3.64	3.55				
12	Max. power output at nominal voltage	mW	1070	1200	981	957	942	914	912	903	992				
13	Max. efficiency	%	72	72	72	71	71	71	71	71	71				
14	Torque constant	mNm / A	1.76	3.12	4.49	7.23	9.18	10.9	13.7	18.2	25.4				
15	Speed constant	rpm / V	5430	3060	2130	1320	1040	873	699	526	376				
16	Mechanical time constant	ms	26	23	23	23	22	22	22	22	23				
17	Rotor inertia	gcm ²	2.45	1.99	2.09	2.04	2.06	1.98	1.97	1.94	1.86				
18	Terminal inductance	mH	0.02	0.06	0.12	0.32	0.51	0.72	1.13	1.99	3.89				
19	Thermal resistance housing-ambient	K / W	21	21	21	21	21	21	21	21	21				
20	Thermal resistance rotor-housing	K / W	11	11	11	11	11	11	11	11	11				
21	Thermal time constant winding	s	13	10	11	11	11	10	10	10	10				

Specifications

- Axial play 0.05 - 0.15 mm
- Max. **sleeve bearing** loads
 - axial (dynamic) 1.0 N
 - radial (5 mm from flange) 2.7 N
 - Force for press fits (static) 80 N
 - (static, shaft supported) 480 N
- Max. **ball bearing** loads
 - axial (dynamic) 3.3 N
 - radial (5 mm from flange) 11.9 N
 - Force for press fits (static) 45 N
 - (static, shaft supported) 480 N
- Radial play **sleeve bearing** 0.012 mm
- Radial play **ball bearing** 0.025 mm
- Ambient temperature range -30 ... +85°C
- Max. rotor temperature +85°C
- Number of commutator segments 9
- Weight of motor 34 g
- Values listed in the table are nominal.
For applicable tolerances see page 43.
For additional details please use the maxon
selection program on the enclosed CD-Rom.
- CLL = Capacitor Long Life



Comments

Details on page 49

Recommended operating range

Continuous operation

Continuous operation
In observation of above listed thermal resistances (lines 19 and 20) the maximum permissible rotor temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit

Short term operation

The motor may be briefly overloaded (recurring).

110098 Motor with high resistance winding

— **110091** Motor with low resistance winding

maxon Modular System

Overview on page 17 - 21

Planetary Gearhead

Ø19 mm

0.1 - 0.3 Nm

Details page 187

Planetary Gearhead

Ø22 mm

0.5 - 2.0 Nm

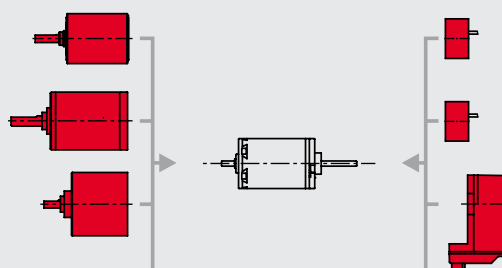
Details page 190

Spur Gearhead

Ø24 mm

0.1 Nm

Details page 192



Recommended Electronics:	
LSC 30/2	page 231
MIP 10	245
Notes	17

MIP 10

Notes

Digital MR Encoder

32 CPT,

2 / 3 channels

Details page 210

Digital MR Encoder

128 / 256 / 512 CPT,

2 / 3 channels

Details page 211

Digital Encoder

22 mm

100 CPT, 2 channels

Details page 215