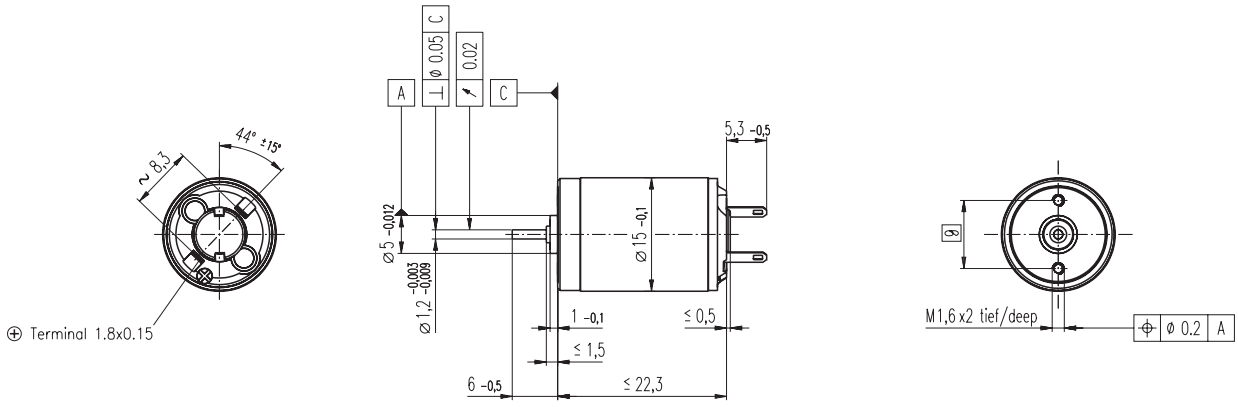
RE 15 ∅15 mm, Precious Metal Brushes CLL, 1.6 Watt, CE approved



M 1:1

Stock program
Standard program
Special program (on request!)

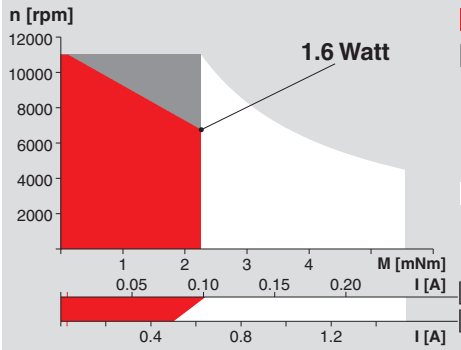
			Order Number							
			118643	118644	118645	118646	118647	118648	118649	118650
Motor Data										
1	Assigned power rating	W	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
2	Nominal voltage	Volt	3.0	4.5	6.0	7.2	9.0	12.0	15.0	24.0
3	No load speed	rpm	7770	7450	7980	7740	7710	8370	8110	9890
4	Stall torque	mNm	4.03	3.92	4.17	4.06	4.02	4.22	4.16	4.98
5	Speed / torque gradient	rpm / mNm	1970	1950	1960	1950	1970	2030	2000	2030
6	No load current	mA	27	17	14	11	9	7	6	5
7	Starting current	mA	1120	697	596	469	370	316	241	220
8	Terminal resistance	Ohm	2.67	6.46	10.1	15.3	24.4	38.0	62.2	109
9	Max. permissible speed	rpm	11000	11000	11000	11000	11000	11000	11000	11000
10	Max. continuous current	mA	500	418	334	271	215	172	135	101
11	Max. continuous torque	mNm	1.80	2.35	2.34	2.35	2.34	2.30	2.32	2.30
12	Max. power output at nominal voltage	mW	806	750	857	809	796	909	868	1270
13	Max. efficiency	%	72	71	72	72	72	72	72	74
14	Torque constant	mNm / A	3.60	5.62	7.01	8.67	10.9	13.4	17.2	22.7
15	Speed constant	rpm / V	2660	1700	1360	1100	878	714	554	421
16	Mechanical time constant	ms	10	10	10	10	10	10	10	10
17	Rotor inertia	gcm²	0.501	0.501	0.498	0.499	0.495	0.481	0.487	0.480
18	Terminal inductance	mH	0.05	0.12	0.19	0.29	0.46	0.69	1.15	1.99
19	Thermal resistance housing-ambient	K / W	35	35	35	35	35	35	35	35
20	Thermal resistance rotor-housing	K / W	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
21	Thermal time constant winding	s	4	4	4	4	4	4	4	4

Specifications

- Axial play 0.05 - 0.15 mm
- Max. **sleeve bearing** loads
  axial (dynamic) 0.2 N
  radial (5 mm from flange) 0.5 N
  Force for press fits (static) 20 N
- Radial play **sleeve bearing** 0.014 mm
- Ambient temperature range -20 ... +65°C
- Max. rotor temperature +85°C
- Number of commutator segments 5
- Weight of motor 20 g
- 2 pole permanent magnet
- 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

Operating Range

Comments Details on page 49



Recommended operating range

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).

118650 Motor with high resistance winding
118643 Motor with low resistance winding

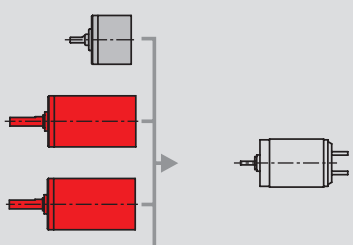
maxon Modular System

Overview on page 17 - 21

Spur Gearhead
∅16 mm
0.015 - 0.04 Nm
Details page 197

Planetary Gearhead
∅16 mm
0.1 - 0.3 Nm
Details page 200

Planetary Gearhead
∅16 mm
0.06 - 0.18 Nm
Details page 201



Recommended Electronics:
LSC 30/2 page 251
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