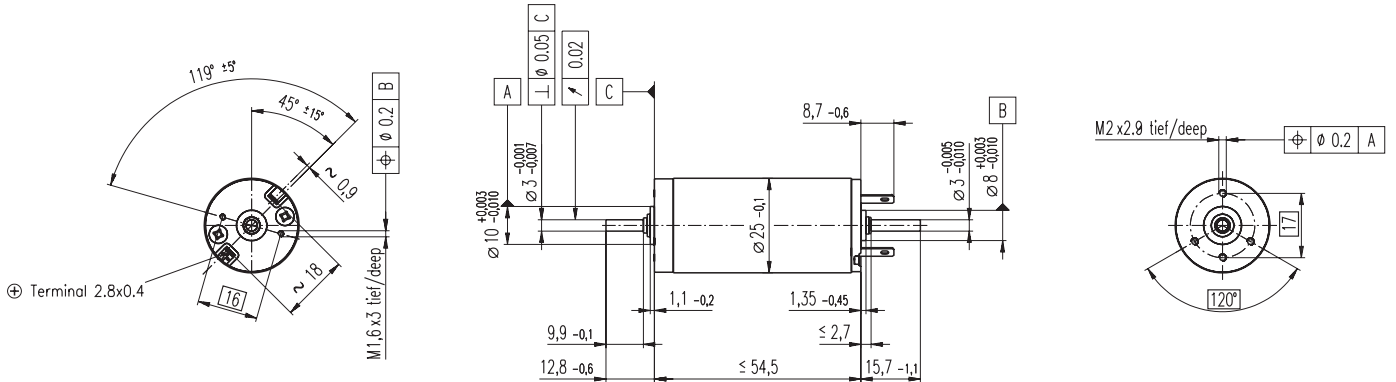


RE 25 \varnothing 25 mm, Precious Metal Brushes CLL, 10 Watt, $\text{C}\epsilon$ approved



M 1:2

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

Order Number

118740 118741 **118742** 118743 118744 118745 **118746** 118747 118748

Motor Data		118740	118741	118742	118743	118744	118745	118746	118747	118748
Values at nominal voltage										
1 Nominal voltage	V	4.5	8.0	9.0	12.0	15.0	18.0	24.0	32.0	48.0
2 No load speed	rpm	5350	5310	5230	4850	4980	4780	5190	5510	5070
3 No load current	mA	79.6	44.3	38.6	26.2	21.7	17.2	14.3	11.6	6.95
4 Nominal speed	rpm	4910	4510	4230	3820	3940	3740	4150	4470	4030
5 Nominal torque (max. continuous torque)	mNm	11.4	20.9	24.0	29.1	28.8	28.9	28.8	28.6	28.7
6 Nominal current (max. continuous current)	A	1.50	1.50	1.50	1.26	1.03	0.823	0.668	0.529	0.325
7 Stall torque	mNm	138	139	126	137	138	133	144	152	140
8 Starting current	A	17.2	9.73	7.72	5.82	4.83	3.72	3.28	2.76	1.56
9 Max. efficiency	%	87	87	86	87	87	87	87	88	87
Characteristics										
10 Terminal resistance	Ω	0.261	0.822	1.17	2.06	3.10	4.84	7.31	11.6	30.9
11 Terminal inductance	mH	0.0275	0.0882	0.115	0.238	0.353	0.551	0.832	1.31	3.48
12 Torque constant	mNm / A	8.00	14.3	16.4	23.5	28.6	35.8	44.0	55.2	90.0
13 Speed constant	rpm / V	1190	667	584	406	333	267	217	173	106
14 Speed / torque gradient	rpm / mNm	39.0	38.3	41.6	35.6	36.1	36.0	36.1	36.3	36.4
15 Mechanical time constant	ms	4.74	4.15	4.12	4.00	3.98	3.97	3.97	3.97	3.97
16 Rotor inertia	gcm ²	11.6	10.3	9.45	10.7	10.5	10.5	10.5	10.4	10.4

Specifications

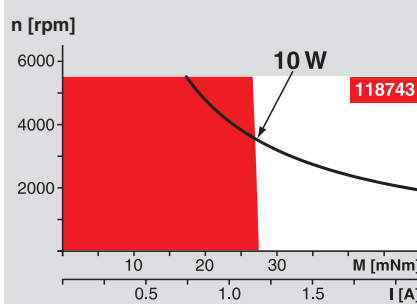
- Thermal data**
- 17 Thermal resistance housing-ambient 14 K / W
 - 18 Thermal resistance winding-housing 3.1 K / W
 - 19 Thermal time constant winding 12.4 s
 - 20 Thermal time constant motor 910 s
 - 21 Ambient temperature -20 ... +85°C
 - 22 Max. permissible winding temperature +100°C
- Mechanical data (ball bearings)**
- 23 Max. permissible speed 5500 rpm
 - 24 Axial play 0.05 - 0.15 mm
 - 25 Radial play 0.025 mm
 - 26 Max. axial load (dynamic) 3.2 N
 - 27 Max. force for press fits (static) 64 N
 - 27 Max. force for press fits (static) (static, shaft supported) 270 N
 - 28 Max. radial loading, 5 mm from flange 16 N

- Other specifications**
- 29 Number of pole pairs 1
 - 30 Number of commutator segments 11
 - 31 Weight of motor 130 g
- CLL = Capacitor Long Life

Values listed in the table are nominal.
Explanation of the figures on page 47.

- Option**
- Preloaded ball bearings

Operating Range



Comments

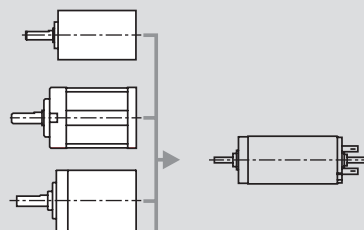
Continuous operation
In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.

Short term operation
The motor may be briefly overloaded (recurring).

— Assigned power rating

maxon Modular System

- Planetary Gearhead**
 \varnothing 26 mm
0.5 - 2.0 Nm
Page 226
- Planetary Gearhead**
 \varnothing 32 mm
0.4 - 2.0 Nm
Page 228
- Planetary Gearhead**
 \varnothing 32 mm
0.75 - 6.0 Nm
Page 229 / 231



- Recommended Electronics:**
- LSC 30/2 Page 268
 - ADS 50/5 268
 - ADS_E 50/5 269
 - EPOS 24/5 286
 - EPOS P 24/5 287
 - MIP 10 289
 - Notes 18

Overview on page 16 - 21

- Encoder MR**
128 - 1000 CPT,
3 channels
Page 250
- Encoder Enc**
22 mm
100 CPT, 2 channels
Page 252
- Encoder HED_5540**
500 CPT,
3 channels
Page 254 / 256
- DC-Tacho DCT**
 \varnothing 22 mm
0.52 V
Page 263