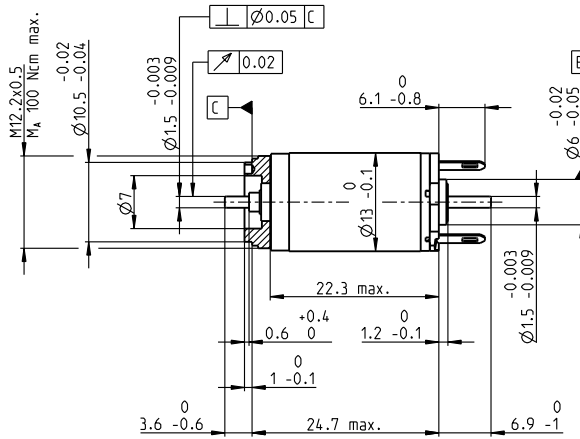
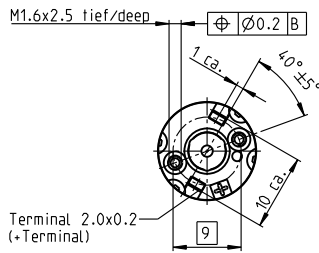


RE 13 Ø13 mm, Graphite Brushes, 1.5 Watt



M 1:1

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

Part Numbers

118570 118571 118572 118573 118574 118575 118576 118577 118578 118579 118580 118581

Motor Data														
Values at nominal voltage														
1 Nominal voltage	V	3	3.6	4.2	4.8	6	7.2	9	12	12	15	18	20	
2 No load speed	rpm	13200	13000	13300	12300	12700	12300	12300	13300	12300	13100	14000	13300	
3 No load current	mA	197	159	140	111	92.5	73.7	59.2	49.2	44.7	38.9	35.1	29.7	
4 Nominal speed	rpm	8520	7790	8260	7130	7480	7010	7000	8040	6940	7870	8890	8020	
5 Nominal torque (max. continuous torque)	mNm	1.06	1.23	1.27	1.28	1.25	1.26	1.25	1.21	1.22	1.21	1.2	1.19	
6 Nominal current (max. continuous current)	A	0.72	0.659	0.588	0.481	0.39	0.316	0.252	0.199	0.186	0.157	0.139	0.119	
7 Stall torque	mNm	3.19	3.3	3.56	3.26	3.25	3.16	3.12	3.28	3.01	3.23	3.51	3.22	
8 Stall current	A	1.67	1.41	1.32	0.989	0.814	0.639	0.506	0.429	0.368	0.335	0.321	0.254	
9 Max. efficiency	%	44	45	46	45	45	44	44	45	43	44	46	44	
Characteristics														
10 Terminal resistance	Ω	1.8	2.56	3.18	4.85	7.37	11.3	17.8	28	32.6	44.8	56.1	78.8	
11 Terminal inductance	mH	0.036	0.054	0.072	0.108	0.158	0.243	0.377	0.579	0.661	0.921	1.19	1.59	
12 Torque constant	mNm/A	1.91	2.35	2.69	3.3	4	4.95	6.17	7.64	8.17	9.64	10.9	12.7	
13 Speed constant	rpm/V	5000	4070	3550	2890	2390	1930	1550	1250	1170	990	872	753	
14 Speed / torque gradient	rpm/mNm	4700	4440	4190	4250	4410	4390	4460	4570	4660	4600	4470	4680	
15 Mechanical time constant	ms	14.2	14.1	14	14	14.1	14.2	14.2	14.3	14.3	14.3	14.2	14.4	
16 Rotor inertia	gcm ²	0.288	0.303	0.318	0.315	0.306	0.308	0.304	0.3	0.293	0.297	0.303	0.294	

Specifications

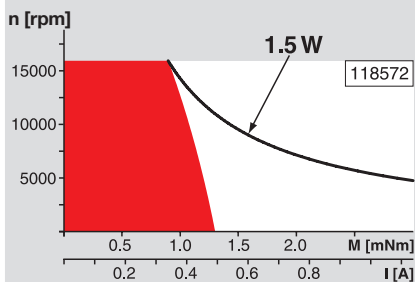
Thermal data	
17 Thermal resistance housing-ambient	46 K/W
18 Thermal resistance winding-housing	14 K/W
19 Thermal time constant winding	5.38 s
20 Thermal time constant motor	231 s
21 Ambient temperature	-20...+85°C
22 Max. winding temperature	+125°C

Mechanical data (sleeve bearings)	
23 Max. speed	16000 rpm
24 Axial play	0.05 - 0.15 mm
25 Radial play	0.014 mm
26 Max. axial load (dynamic)	0.8 N
27 Max. force for press fits (static) (static, shaft supported)	15 N
28 Max. radial load, 5 mm from flange	1.4 N

Other specifications	
29 Number of pole pairs	1
30 Number of commutator segments	7
31 Weight of motor	18 g

Values listed in the table are nominal.
Explanation of the figures on page 151.

Operating Range

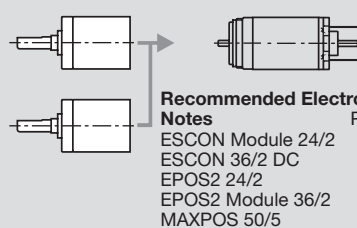


Comments

- 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**
Ø13 mm
0.05 - 0.15 Nm
Page 316
- Planetary Gearhead**
Ø13 mm
0.2 - 0.35 Nm
Page 317



- Recommended Electronics:**
Page 24
- ESCON Module 24/2 416
 - ESCON 36/2 DC 416
 - EPOS2 24/2 424
 - EPOS2 Module 36/2 424
 - MAXPOS 50/5 435

Overview on page 20-27

- Encoder MR**
16 CPT,
2 channels
Page 385
- Encoder MR**
64 - 256 CPT,
2 channels
Page 386/387
- Encoder MEnc**
Ø13 mm
16 CPT, 2 channels
Page 409