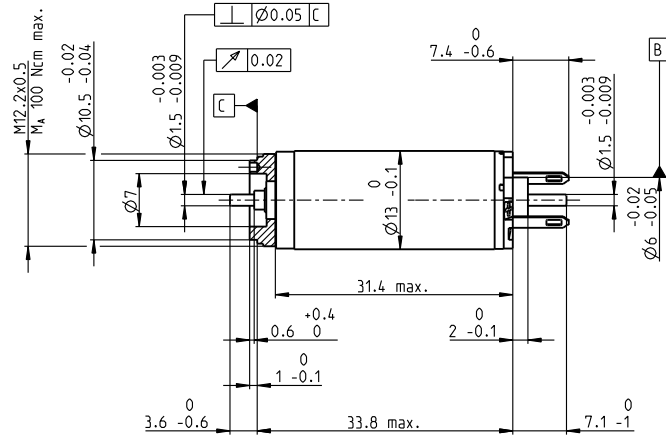
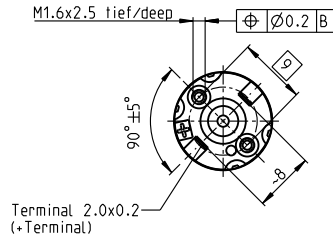


RE 13 Ø13 mm, Precious Metal Brushes, 2 Watt



M 1:1

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

Part Numbers

Motor Data	118506	118507	118508	118509	118510	118511	118512	118513	118514	118515	118516	118517	118518	118519	118520	
Values at nominal voltage																
1 Nominal voltage	V	1.5	1.5	1.8	2.4	3	3	3.6	4.2	4.8	6	7.2	9	10	12	15
2 No load speed	rpm	6570	6090	6380	7170	7100	6300	6800	6620	6490	6810	6590	6630	6840	7020	7150
3 No load current	mA	43.8	39.8	35.3	30.8	24.3	20.8	19.2	15.8	13.5	11.5	9.19	7.41	6.94	5.99	4.91
4 Nominal speed	rpm	5170	4320	4160	4400	3560	2550	3000	2880	2880	3130	2880	2940	3120	3330	3400
5 Nominal torque (max. continuous torque)	mNm	1.46	1.58	1.82	2.18	2.78	2.91	2.85	2.91	3.02	2.95	2.93	2.94	2.92	2.93	2.88
6 Nominal current (max. continuous current)	A	0.72	0.72	0.72	0.72	0.72	0.669	0.592	0.502	0.446	0.367	0.294	0.237	0.218	0.188	0.151
7 Stall torque	mNm	6.22	5.12	5.01	5.5	5.51	4.86	5.1	5.16	5.46	5.49	5.26	5.34	5.42	5.63	5.54
8 Stall current	A	2.89	2.21	1.89	1.75	1.39	1.09	1.03	0.866	0.786	0.665	0.514	0.419	0.395	0.351	0.282
9 Max. efficiency	%	77	75	75	76	76	75	75	75	76	76	75	76	76	76	76
Characteristics																
10 Terminal resistance	Ω	0.519	0.679	0.951	1.37	2.16	2.75	3.5	4.85	6.11	9.03	14	21.5	25.3	34.2	53.2
11 Terminal inductance	mH	0.021	0.025	0.032	0.046	0.073	0.092	0.114	0.164	0.223	0.316	0.486	0.75	0.871	1.19	1.79
12 Torque constant	mNm/A	2.15	2.31	2.65	3.14	3.97	4.46	4.96	5.95	6.94	8.27	10.2	12.7	13.7	16	19.7
13 Speed constant	rpm/V	4440	4130	3610	3040	2410	2140	1930	1600	1380	1160	932	750	696	595	485
14 Speed / torque gradient	rpm/mNm	1070	1210	1300	1330	1310	1320	1360	1310	1210	1260	1270	1260	1280	1270	1310
15 Mechanical time constant	ms	7.65	7.55	7.45	7.37	7.28	7.27	7.28	7.23	7.16	7.2	7.21	7.21	7.21	7.22	7.27
16 Rotor inertia	gcm ²	0.681	0.596	0.548	0.53	0.53	0.526	0.512	0.528	0.565	0.545	0.541	0.544	0.536	0.543	0.529

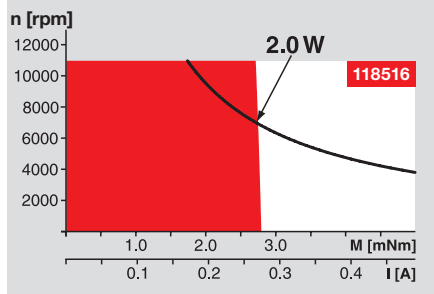
Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 33 K/W
 - 18 Thermal resistance winding-housing 7.0 K/W
 - 19 Thermal time constant winding 4.88 s
 - 20 Thermal time constant motor 229 s
 - 21 Ambient temperature -20...+65°C
 - 22 Max. winding temperature +85°C
- Mechanical data (sleeve bearings)**
- 23 Max. speed 11000 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) 15 N
 - 28 Max. radial load, 5 mm from flange 95 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 24 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
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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

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