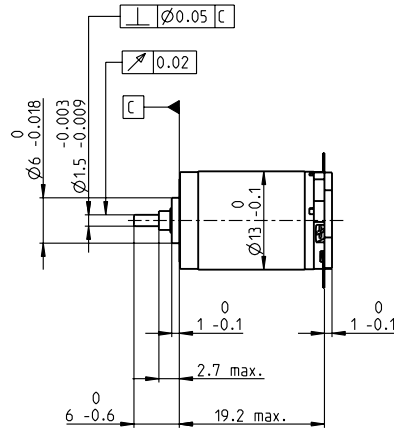
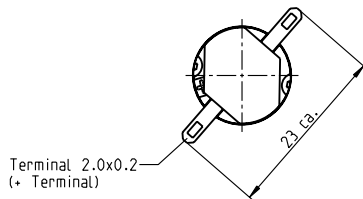


RE 13 Ø13 mm, Precious Metal Brushes, 1.2 Watt



M 1:1

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

Part Numbers

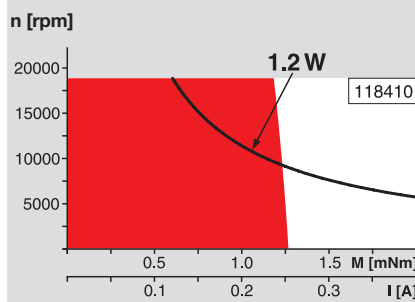
Motor Data

	118401	118402	118403	118404	118405	118406	118407	118408	118409	118410	118411	118412	118413	118414	118415	
Values at nominal voltage																
1 Nominal voltage	V	1	1.2	1.5	1.8	2.4	3	3.6	4.2	5	6	8	9	10	12	15
2 No load speed	rpm	11600	11300	11100	11000	11300	11600	12100	11500	11300	10900	11700	10600	11000	11200	10700
3 No load current	mA	104	84.1	65.7	53.8	42	34.5	30.6	24.5	20.1	16	13.2	10.3	9.75	8.31	6.21
4 Nominal speed	rpm	9930	8600	7670	6520	5860	6250	6960	6310	6010	5650	6400	5210	5590	5820	5300
5 Nominal torque (max. continuous torque)	mNm	0.499	0.63	0.825	1.02	1.24	1.27	1.31	1.3	1.28	1.28	1.27	1.26	1.24	1.25	1.27
6 Nominal current (max. continuous current)	A	0.72	0.72	0.72	0.72	0.666	0.557	0.499	0.405	0.329	0.266	0.211	0.169	0.156	0.133	0.103
7 Stall torque	mNm	2.86	2.4	2.52	2.45	2.54	2.76	3.08	2.9	2.76	2.69	2.84	2.52	2.57	2.65	2.57
8 Stall current	A	3.56	2.45	2.02	1.62	1.3	1.15	1.11	0.857	0.674	0.53	0.449	0.321	0.307	0.268	0.198
9 Max. efficiency	%	69	67	68	67	68	69	70	70	69	69	69	68	68	68	68
Characteristics																
10 Terminal resistance	Ω	0.281	0.491	0.742	1.11	1.85	2.61	3.23	4.9	7.42	11.3	17.8	28	32.6	44.9	78.8
11 Terminal inductance	mH	0.006	0.009	0.015	0.022	0.036	0.054	0.072	0.108	0.158	0.243	0.377	0.579	0.661	0.921	1.6
12 Torque constant	mNm/A	0.802	0.98	1.25	1.51	1.96	2.41	2.76	3.39	4.1	5.08	6.32	7.84	8.37	9.89	13
13 Speed constant	rpm/V	11900	9740	7660	6310	4870	3970	3460	2820	2330	1880	1510	1220	1140	966	734
14 Speed / torque gradient	rpm/mNm	4170	4880	4560	4640	4600	4310	4040	4090	4220	4190	4250	4350	4440	4380	4280
15 Mechanical time constant	ms	15.6	14.9	14.3	14.1	13.9	13.7	13.5	13.5	13.5	13.5	13.6	13.7	13.6	13.6	13.2
16 Rotor inertia	gcm ²	0.358	0.291	0.299	0.29	0.288	0.303	0.318	0.315	0.306	0.308	0.304	0.3	0.293	0.297	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	5.18 s
20 Thermal time constant motor	76.1 s
21 Ambient temperature	-20...+65°C
22 Max. winding temperature	+85°C
Mechanical data (sleeve bearings)	
23 Max. speed	19000 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	1.4 N
Other specifications	
29 Number of pole pairs	1
30 Number of commutator segments	7
31 Weight of motor	12 g

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

Overview on page 20–27

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

Recommended Electronics:
Notes Page 24
ESCON Module 24/2 416
ESCON 36/2 DC 416