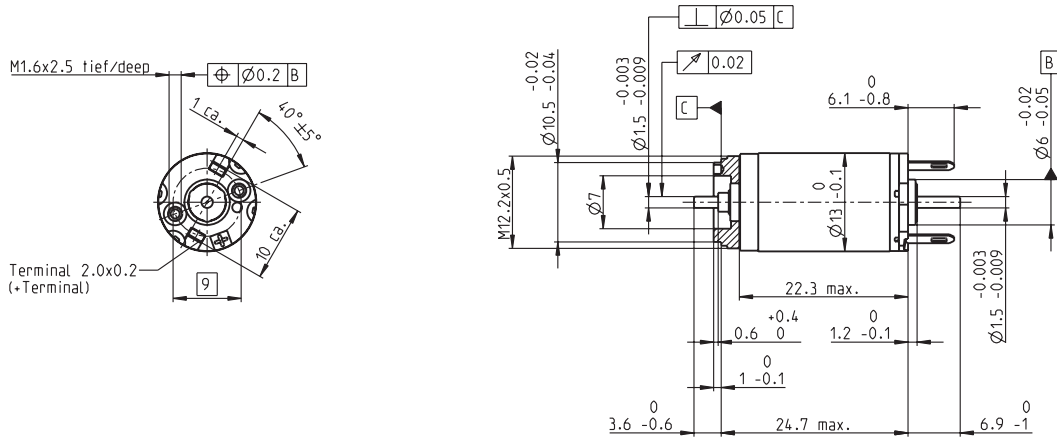


RE 13 Ø13 mm, Graphite Brushes, 1.5 Watt



M 1:1

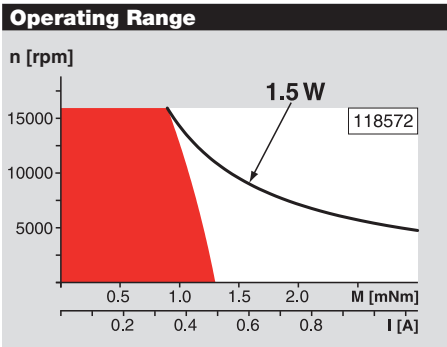
- Stock program
- Standard program
- Special program (on request)

Order Number

118567	118568	118569	118570	118571	118572	118573	118574	118575	118576	118577	118578	118579	118580	118581
--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

Motor Data																	
Values at nominal voltage																	
1	Nominal voltage	V	1.2	1.5	2.4	3.0	3.6	4.2	4.8	6.0	7.2	9.0	12.0	12.0	15.0	18.0	20.0
2	No load speed	rpm	12800	12900	13600	13200	13000	13300	12300	12700	12300	12300	13300	12400	13200	14000	13300
3	No load current	mA	472	388	257	196	158	139	110	92.2	73.5	59.0	49.1	44.6	38.8	35.1	29.6
4	Nominal speed	rpm	11900	11200	10300	8420	7770	8270	7180	7550	7100	7110	8150	7060	7990	9010	8150
5	Nominal torque (max. continuous torque)	mNm	0.205	0.337	0.724	1.06	1.24	1.28	1.30	1.27	1.29	1.28	1.23	1.25	1.23	1.23	1.22
6	Nominal current (max. continuous current)	A	0.720	0.720	0.720	0.720	0.660	0.591	0.486	0.394	0.321	0.256	0.202	0.189	0.160	0.142	0.121
7	Stall torque	mNm	3.13	2.85	3.21	3.17	3.32	3.61	3.34	3.35	3.27	3.24	3.41	3.13	3.36	3.65	3.35
8	Starting current	A	4.00	2.97	2.17	1.65	1.41	1.34	1.01	0.836	0.658	0.524	0.445	0.382	0.347	0.333	0.264
9	Max. efficiency	%	43	41	44	44	45	47	46	45	45	45	45	44	45	47	45
Characteristics																	
10	Terminal resistance	Ω	0.300	0.504	1.11	1.81	2.55	3.14	4.76	7.18	10.9	17.2	27.0	31.4	43.2	54.0	75.8
11	Terminal inductance	mH	0.0061	0.0091	0.0216	0.0362	0.0545	0.0719	0.108	0.158	0.243	0.377	0.579	0.661	0.921	1.19	1.59
12	Torque constant	mNm / A	0.783	0.958	1.48	1.92	2.35	2.70	3.31	4.00	4.96	6.18	7.66	8.18	9.66	11.0	12.7
13	Speed constant	rpm / V	12200	9970	6450	4990	4060	3540	2890	2380	1920	1540	1250	1170	988	871	751
14	Speed / torque gradient	rpm / mNm	4670	5250	4820	4720	4400	4120	4150	4270	4240	4300	4390	4480	4420	4290	4480
15	Mechanical time constant	ms	17.4	15.9	14.5	14.2	13.9	13.7	13.6	13.6	13.6	13.6	13.7	13.7	13.7	13.5	13.7
16	Rotor inertia	gcm ²	0.356	0.290	0.288	0.287	0.301	0.317	0.313	0.305	0.306	0.303	0.298	0.292	0.295	0.302	0.292

Specifications		
Thermal data		
17	Thermal resistance housing-ambient	46 K / W
18	Thermal resistance winding-housing	14 K / W
19	Thermal time constant winding	5.35 s
20	Thermal time constant motor	345 s
21	Ambient temperature	-20 ... +85°C
22	Max. permissible winding temperature	+125°C
Mechanical data (sleeve bearings)		
23	Max. permissible 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 loading, 5 mm from flange	140 N
		1.4 N



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**

Other specifications		
29	Number of pole pairs	1
30	Number of commutator segments	7
31	Weight of motor	15 g

Values listed in the table are nominal.
Explanation of the figures on page 49.

maxon Modular System

Planetary Gearhead
Ø13 mm
0.05 - 0.15 Nm
Page 208

Planetary Gearhead
Ø13 mm
0.2 - 0.35 Nm
Page 209

Overview on page 16 - 21

Encoder MR
16 Imp.,
2 channels
Page 255

Encoder MR
64 - 256 Imp.,
2 channels
Page 256 / 257

Encoder MENC
Ø13 mm
16 Imp., 2 channels
Page 274

Recommended Electronics:
LSC 30/2 Page 282
EPOS2 Module 36/2 304
Notes 18