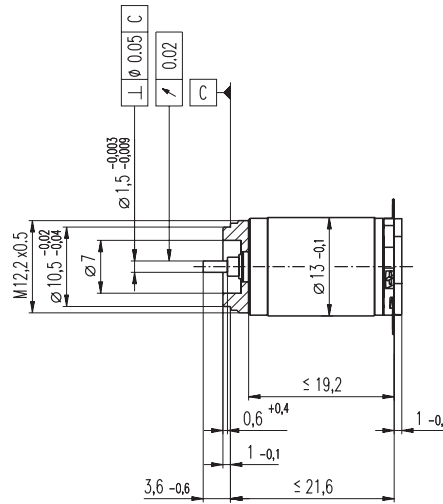
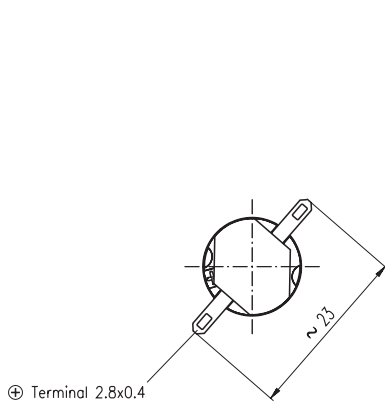


RE 13 $\varnothing 13$ mm, Precious Metal Brushes, 1.2 Watt, $\text{C}\epsilon$ approved



M 1:1

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

Order Number

118416	118417	118418	118419	118420	118421	118422	118423	118424	118425	118426	118427	118428	118429	118430
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Motor Data		118416	118417	118418	118419	118420	118421	118422	118423	118424	118425	118426	118427	118428	118429	118430
Values at nominal voltage																
1	Nominal voltage	V	1.0	1.2	1.5	1.8	2.4	3.0	3.6	4.2	5.0	6.0	8.0	9.0	10.0	15.0
2	No load speed	rpm	11600	11300	11100	11000	11300	11600	12100	11500	11300	11000	11700	10600	11100	10700
3	No load current	mA	104	84.0	65.6	53.8	42.0	34.5	30.6	24.5	20.1	16.0	13.2	10.3	9.76	6.20
4	Nominal speed	rpm	9580	8370	7540	6480	5890	6300	7020	6390	6100	5740	6510	5310	5700	5300
5	Nominal torque (max. continuous torque)	mNm	0.500	0.631	0.826	1.02	1.24	1.28	1.32	1.32	1.30	1.31	1.29	1.28	1.27	1.27
6	Nominal current (max. continuous current)	A	0.720	0.720	0.720	0.720	0.669	0.563	0.505	0.410	0.334	0.270	0.215	0.172	0.159	0.103
7	Stall torque	mNm	2.95	2.48	2.61	2.54	2.64	2.87	3.20	3.02	2.87	2.80	2.95	2.62	2.67	2.58
8	Starting current	A	3.68	2.53	2.10	1.68	1.35	1.19	1.16	0.890	0.701	0.551	0.467	0.334	0.319	0.198
9	Max. efficiency	%	70	67	68	68	68	69	71	70	70	69	70	69	69	68
Characteristics																
10	Terminal resistance	Ω	0.272	0.474	0.716	1.07	1.78	2.51	3.11	4.72	7.14	10.9	17.1	26.9	31.4	75.8
11	Terminal inductance	mH	0.0061	0.0091	0.0147	0.0216	0.0362	0.0545	0.0719	0.108	0.158	0.243	0.377	0.579	0.661	1.59
12	Torque constant	mNm / A	0.802	0.980	1.25	1.51	1.96	2.41	2.76	3.39	4.10	5.08	6.33	7.84	8.38	13.0
13	Speed constant	rpm / V	11900	9740	7650	6300	4870	3970	3460	2820	2330	1880	1510	1220	1140	734
14	Speed / torque gradient	rpm / mNm	4040	4710	4390	4470	4420	4140	3890	3930	4060	4030	4090	4180	4270	4270
15	Mechanical time constant	ms	15.1	14.3	13.7	13.5	13.3	13.1	12.9	12.9	12.9	12.9	13.0	13.1	13.0	13.1
16	Rotor inertia	gcm ²	0.356	0.290	0.298	0.288	0.287	0.301	0.317	0.313	0.305	0.306	0.303	0.298	0.292	0.292

Specifications

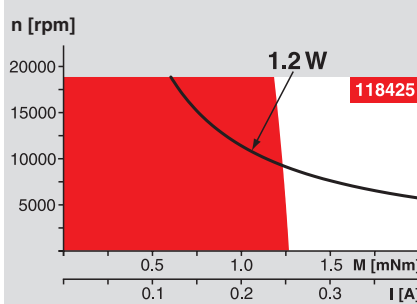
- Thermal data**
- 17 Thermal resistance housing-ambient 46 K / W
 - 18 Thermal resistance winding-housing 14 K / W
 - 19 Thermal time constant winding 5.14 s
 - 20 Thermal time constant motor 345 s
 - 21 Ambient temperature -20 ... +65°C
 - 22 Max. permissible winding temperature +85°C
- Mechanical data (sleeve bearings)**
- 23 Max. permissible 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. force for press fits (static, shaft supported) 170 N
 - 29 Max. radial loading, 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 15 g

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

Operating Range



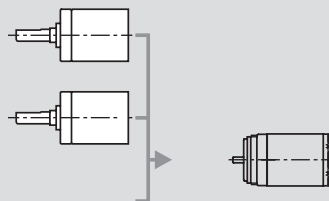
Comments

- 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 16 - 21

- 1 **Planetary Gearhead**
 $\varnothing 13$ mm
0.05 - 0.15 Nm
Page 217
- 7 **Planetary Gearhead**
 $\varnothing 13$ mm
0.2 - 0.35 Nm
Page 218



Recommended Electronics:
LSC 30/2 Page 276
Notes 18