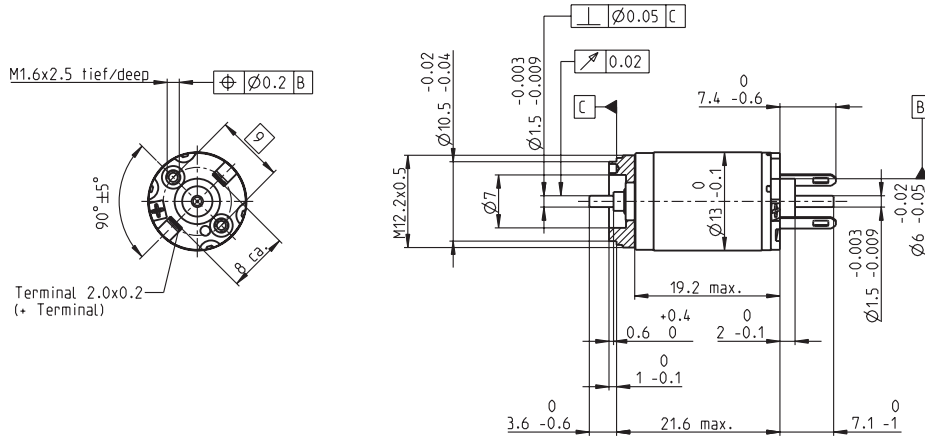


# RE 13 Ø13 mm, Precious Metal Brushes, 0.75 Watt, CE approved



## M 1:1

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

### Order Number

<b>118446</b>	<b>118447</b>	<b>118448</b>	<b>118449</b>	<b>118450</b>	<b>118451</b>	<b>118452</b>	<b>118453</b>	<b>118454</b>	<b>118455</b>	<b>118456</b>	<b>118457</b>	<b>118458</b>	<b>118459</b>	<b>118460</b>
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Motor Data																	
Values at nominal voltage																	
1	Nominal voltage	V	0.6	0.7	0.9	1.2	1.5	1.8	1.8	2.4	3.0	3.6	4.8	6.0	6.0	7.2	10.0
2	No load speed	rpm	6860	6490	6580	7240	6990	6850	5960	6490	6700	6490	6950	7010	6540	6660	7040
3	No load current	mA	88.1	71.1	56.1	47.3	36.2	29.4	24.7	20.6	17.1	13.7	11.2	9.06	8.34	7.09	5.47
4	Nominal speed	rpm	4810	3500	2940	2690	1460	1490	2980	1560	1390	1500	1620	1620	1430	3330	1590
5	Nominal torque (max. continuous torque)	mNm	0.512	0.644	0.838	1.03	1.27	1.31	0.774	1.27	1.32	1.25	1.32	1.30	1.21	0.799	1.29
6	Nominal current (max. continuous current)	A	0.720	0.720	0.720	0.720	0.674	0.568	0.302	0.391	0.337	0.257	0.217	0.173	0.151	0.087	0.103
7	Stall torque	mNm	1.77	1.45	1.57	1.69	1.65	1.72	1.60	1.72	1.68	1.77	1.75	1.60	1.65	1.72	
8	Starting current	A	2.21	1.48	1.26	1.12	0.843	0.717	0.579	0.509	0.420	0.331	0.280	0.223	0.191	0.167	0.132
9	Max. efficiency	%	64	61	63	64	63	64	63	64	64	64	64	64	63	63	64
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	43.1	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	0.921	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	9.89	13.0
13	Speed constant	rpm / V	11900	9740	7650	6300	4870	3970	3460	2820	2330	1880	1510	1220	1140	965	734
14	Speed / torque gradient	rpm / mNm	4040	4710	4390	4470	4420	4140	3890	3930	4060	4030	4090	4180	4270	4210	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	13.0	13.1
16	Rotor inertia	gcm <sup>2</sup>	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	0.295	0.292

Specifications	Operating Range	Comments
<p><b>Thermal data</b></p> <p>17 Thermal resistance housing-ambient 46 K / W</p> <p>18 Thermal resistance winding-housing 14 K / W</p> <p>19 Thermal time constant winding 5.14 s</p> <p>20 Thermal time constant motor 345 s</p> <p>21 Ambient temperature -20 ... +65°C</p> <p>22 Max. permissible winding temperature +85°C</p> <p><b>Mechanical data (sleeve bearings)</b></p> <p>23 Max. permissible speed 11000 rpm</p> <p>24 Axial play 0.05 - 0.15 mm</p> <p>25 Radial play 0.014 mm</p> <p>26 Max. axial load (dynamic) 0.8 N</p> <p>27 Max. force for press fits (static) 15 N (static, shaft supported) 170 N</p> <p>28 Max. radial loading, 5 mm from flange 1.4 N</p> <p><b>Other specifications</b></p> <p>29 Number of pole pairs 1</p> <p>30 Number of commutator segments 7</p> <p>31 Weight of motor 15 g</p> <p>Values listed in the table are nominal. Explanation of the figures on page 49.</p>	<p><b>n [rpm]</b></p> <p><b>M [mNm]</b></p> <p><b>I [A]</b></p>	<p><b>Continuous operation</b> 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.</p> <p><b>Short term operation</b> The motor may be briefly overloaded (recurring).</p> <p><b>Assigned power rating</b></p>

maxon Modular System	Overview on page 16 - 21
<p><b>Planetary Gearhead</b> Ø13 mm 0.05 - 0.15 Nm Page 208</p> <p><b>Planetary Gearhead</b> Ø13 mm 0.2 - 0.35 Nm Page 209</p>	<p><b>Encoder MR</b> 16 Imp., 2 channels Page 255</p> <p><b>Encoder MR</b> 64 - 256 Imp., 2 channels Page 256 / 257</p> <p><b>Encoder MENC</b> Ø13 mm 16 Imp., 2 channels Page 274</p> <p><b>Recommended Electronics:</b> LSC 30/2 Page 282 EPOS2 Module 36/2 Page 304 Notes Page 18</p>