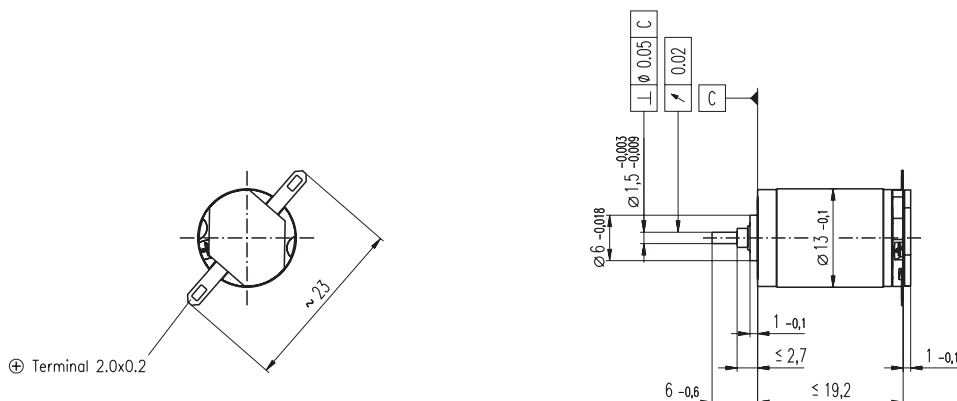


# RE 13 Ø13 mm, Precious Metal Brushes, 1.2 Watt, CE approved



M 1:1

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

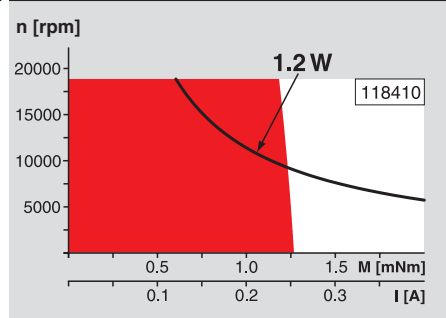
## Order Number

Motor Data	118401	118402	118403	118404	118405	118406	118407	118408	118409	118410	118411	118412	118413	118414	118415
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Values at nominal voltage		118401	118402	118403	118404	118405	118406	118407	118408	118409	118410	118411	118412	118413	118414	118415	
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	12.0	15.0
2	No load speed	rpm	11600	11300	11100	11000	11300	11600	12100	11500	11300	11000	11700	10600	11100	11200	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	8.31	6.20
4	Nominal speed	rpm	9580	8370	7540	6480	5890	6300	7020	6390	6100	5740	6510	5310	5700	5930	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	1.28	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	0.136	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	2.75	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	0.278	0.198
9	Max. efficiency	%	70	67	68	68	68	69	71	70	70	69	70	69	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	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
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<b>Thermal data</b>	
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 276 s
21	Ambient temperature -20 ... +65°C
22	Max. permissible winding temperature +85°C
<b>Mechanical data (sleeve bearings)</b>	
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
	(static, shaft supported) 170 N
28	Max. radial loading, 5 mm from flange 1.4 N
<b>Other specifications</b>	
29	Number of pole pairs 1
30	Number of commutator segments 7
31	Weight of motor 12 g



**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**

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

**Recommended Electronics:**  
LSC 30/2 Page 276  
Notes 18