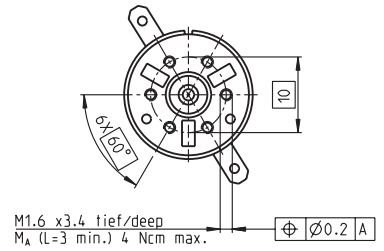
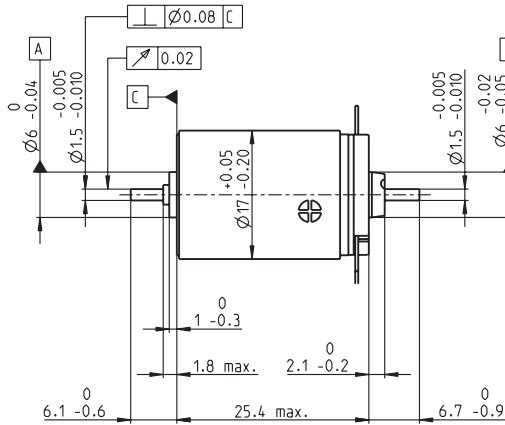
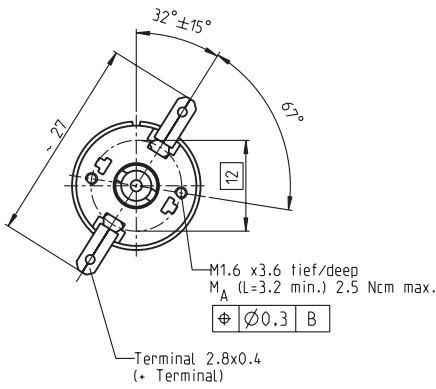


# RE-max 17 Ø17 mm, Precious Metal Brushes CLL, 2.5 Watt



M 1:1

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

## Part Numbers

Motor Data	215988	215989	215990	215991	215992	215993	215994	215995	215996	215997	
<b>Values at nominal voltage</b>											
1 Nominal voltage	V	2	3	7.2	9	12	15	18	21	24	36
2 No load speed	rpm	7500	6410	6330	6410	6410	6870	7350	7140	7230	7140
3 No load current	mA	42.9	23.3	9.56	7.77	5.83	5.1	4.64	3.83	3.41	2.24
4 Nominal speed	rpm	6740	4570	3820	3880	3860	4340	4800	4580	4630	4480
5 Nominal torque (max. continuous torque)	mNm	1.41	2.56	3.69	3.66	3.63	3.64	3.61	3.59	3.53	3.45
6 Nominal current (max. continuous current)	A	0.6	0.6	0.352	0.283	0.211	0.181	0.16	0.133	0.116	0.0745
7 Stall torque	mNm	12.3	8.71	9.32	9.31	9.19	9.95	10.5	10.1	9.88	9.34
8 Starting current	A	4.88	1.97	0.868	0.702	0.52	0.482	0.453	0.362	0.315	0.196
9 Max. efficiency	%	82	80	80	80	80	81	81	81	81	80
<b>Characteristics</b>											
10 Terminal resistance	Ω	0.41	1.52	8.3	12.8	23.1	31.1	39.7	57.9	76.2	183
11 Terminal inductance	mH	0.0114	0.0348	0.205	0.313	0.557	0.758	0.955	1.37	1.75	4.03
12 Torque constant	mNm/A	2.53	4.42	10.7	13.3	17.7	20.6	23.2	27.8	31.4	47.6
13 Speed constant	rpm/V	3780	2160	889	720	540	463	412	344	304	201
14 Speed / torque gradient	rpm/mNm	613	744	687	696	705	698	707	716	739	773
15 Mechanical time constant	ms	6.8	6.38	6.23	6.25	6.25	6.26	6.29	6.27	6.3	6.4
16 Rotor inertia	gcm <sup>2</sup>	1.06	0.818	0.866	0.857	0.847	0.857	0.85	0.836	0.814	0.791

### Specifications

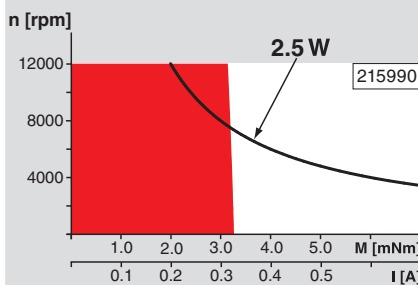
<b>Thermal data</b>	
17 Thermal resistance housing-ambient	35 K/W
18 Thermal resistance winding-housing	12 K/W
19 Thermal time constant winding	9.65 s
20 Thermal time constant motor	343 s
21 Ambient temperature	-30...+65°C
22 Max. permissible winding temperature	+85°C
<b>Mechanical data (sleeve bearings)</b>	
23 Max. permissible speed	12000 rpm
24 Axial play	0.05 - 0.15 mm
25 Radial play	0.012 mm
26 Max. axial load (dynamic)	0.8 N
27 Max. force for press fits (static) (static, shaft supported)	35 N / 200 N
28 Max. radial load, 5 mm from flange	1.4 N
<b>Mechanical data (ball bearings)</b>	
23 Max. permissible speed	12000 rpm
24 Axial play	0.05 - 0.15 mm
25 Radial play	0.025 mm
26 Max. axial load (dynamic)	2.2 N
27 Max. force for press fits (static) (static, shaft supported)	30 N / 280 N
28 Max. radial load, 5 mm from flange	7.8 N
<b>Other specifications</b>	
29 Number of pole pairs	1
30 Number of commutator segments	7
31 Weight of motor	27 g
CLL = Capacitor Long Life	

Values listed in the table are nominal.  
Explanation of the figures on page 79.

**Option**

- Ball bearings in place of sleeve bearings
- Pigtails in place of terminals
- Without CLL

### Operating Range

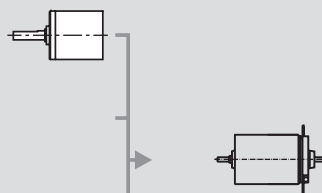


### Comments

- 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

**Planetary Gearhead**  
Ø16 mm  
0.1 - 0.3 Nm  
Page 254



### Overview on page 20-25

**Encoder MR**  
32 CPT,  
2 / 3 channels  
Page 316

**Encoder MR**  
128 / 256 / 512 CPT,  
2 / 3 channels  
Page 317

- Recommended Electronics:**
- ESCON 36/2 DC Page 342
  - ESCON Module 50/5 343
  - ESCON 50/5 344
  - EPOS2 24/2 350
  - EPOS2 Module 36/2 350
  - EPOS3 70/10 EtherCAT 357
  - MAXPOS 50/5 360
  - Notes** 22