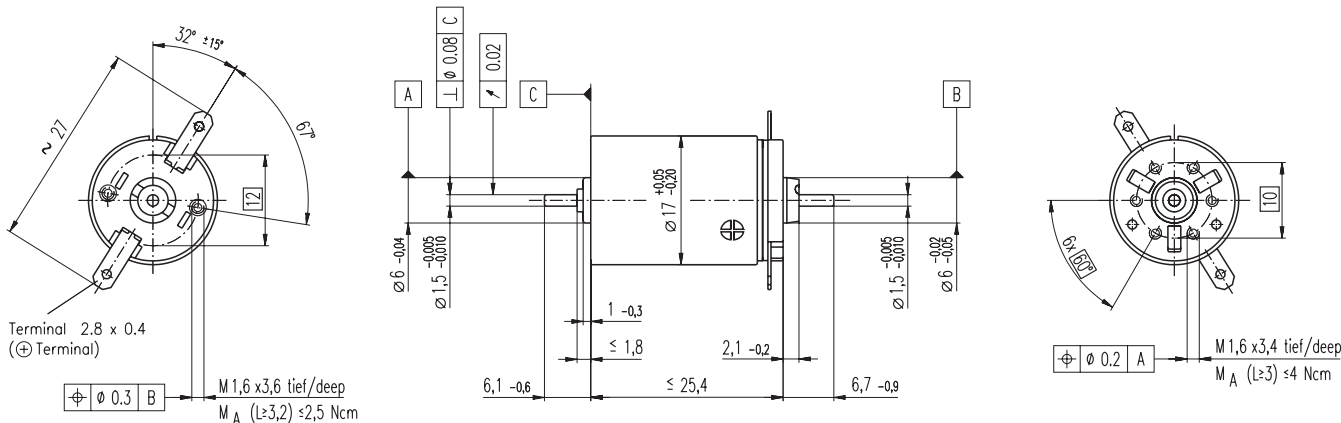


# RE-max 17 $\varnothing 17$ mm, Precious Metal Brushes CLL, 2.5 Watt



M 1:1

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

## Order Number

215988 215989 **215990** 215991 215992 215993 215994 215995 **215996** 215997

## Motor Data

Values at nominal voltage		215988	215989	<b>215990</b>	215991	215992	215993	215994	215995	<b>215996</b>	215997	
1	Nominal voltage	V	2.0	3.0	7.2	9.0	12.0	15.0	18.0	21.0	24.0	36.0
2	No load speed	rpm	8100	6920	6840	6920	6920	7420	7940	7720	7810	7720
3	No load current	mA	47.6	25.8	10.6	8.60	6.45	5.65	5.15	4.25	3.78	2.48
4	Nominal speed	rpm	7170	4870	4130	4190	4180	4690	5200	4950	5010	4850
5	Nominal torque (max. continuous torque)	mNm	1.29	2.36	3.39	3.36	3.34	3.35	3.32	3.31	3.25	3.18
6	Nominal current (max. continuous current)	A	0.600	0.600	0.351	0.282	0.210	0.181	0.160	0.132	0.115	0.0745
7	Stall torque	mNm	11.4	8.05	8.61	8.60	8.50	9.20	9.70	9.31	9.13	8.63
8	Starting current	A	4.88	1.97	0.868	0.702	0.520	0.482	0.453	0.362	0.315	0.196
9	Max. efficiency	%	81	79	79	79	79	80	80	80	80	79
<b>Characteristics</b>												
10	Terminal resistance	$\Omega$	0.410	1.52	8.30	12.8	23.1	31.1	39.7	57.9	76.2	183
11	Terminal inductance	mH	0.0114	0.0349	0.206	0.314	0.558	0.759	0.956	1.38	1.75	4.04
12	Torque constant	mNm / A	2.34	4.09	9.92	12.3	16.3	19.1	21.4	25.7	29.0	44.0
13	Speed constant	rpm / V	4090	2340	962	779	584	501	446	372	329	217
14	Speed / torque gradient	rpm / mNm	718	871	804	815	825	817	828	839	865	906
15	Mechanical time constant	ms	7.91	7.43	7.26	7.27	7.28	7.29	7.33	7.30	7.33	7.46
16	Rotor inertia	gcm <sup>2</sup>	1.05	0.814	0.862	0.852	0.842	0.852	0.846	0.832	0.809	0.786

## Specifications

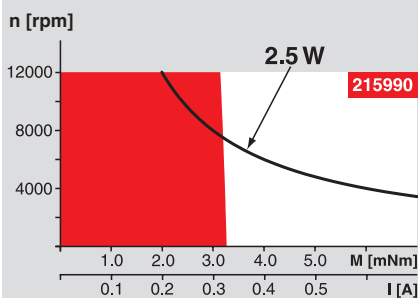
<b>Thermal data</b>	
17	Thermal resistance housing-ambient 35 K / W
18	Thermal resistance winding-housing 12 K / W
19	Thermal time constant winding 7.7 s
20	Thermal time constant motor 472 s
21	Ambient temperature -30 ... +65°C
22	Max. permissible winding temperature +85°C
<b>Mechanical data (sleeve 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 / 280 N
28	Max. radial loading, 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 loading, 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 49.

## 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.

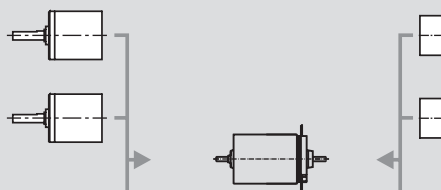
**Short term operation**  
The motor may be briefly overloaded (recurring).

— Assigned power rating

## maxon Modular System

**Planetary Gearhead**  
 $\varnothing 16$  mm  
0.06 - 0.18 Nm  
Page 223

**Planetary Gearhead**  
 $\varnothing 16$  mm  
0.1 - 0.3 Nm  
Page 224



**Recommended Electronics:**  
LSC 30/2 Page 276  
EPOS 24/1 294  
**Notes 18**

## Overview on page 16 - 21

**Encoder MR**  
32 CPT,  
2 / 3 channels  
Page 255

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