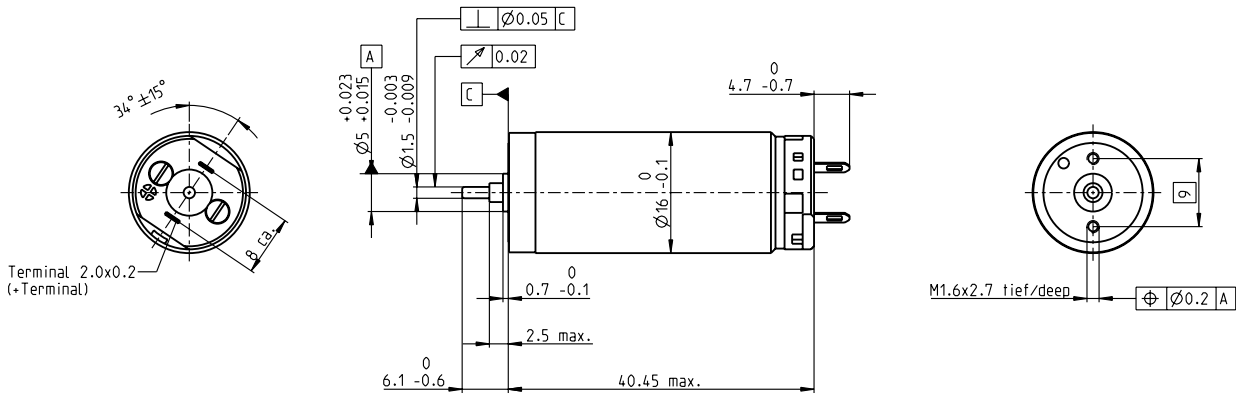


# RE 16 Ø16 mm, Precious Metal Brushes CLL, 3.2 Watt



M 1:1

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

## Part Numbers

### Motor Data

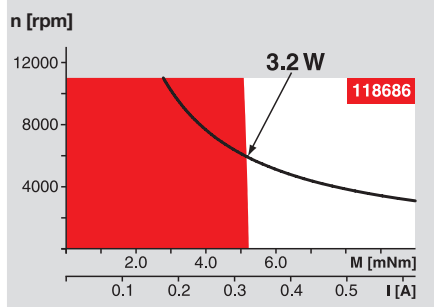
Values at nominal voltage	118678	118679	118680	118681	118682	118683	118684	118685	118686	118687	118688	118689	118690	118691	118692	
1 Nominal voltage	V	1.8	2.4	3	3.2	4.5	4.8	7.2	9	12	12	15	18	24	30	48
2 No load speed	rpm	4990	6360	6890	6270	6740	5700	6890	6740	7130	5990	6010	5900	7250	6460	5500
3 No load current	mA	23.5	25.4	23	18.6	14.8	10.8	9.57	7.4	6.05	4.63	3.72	3.02	3.11	2.08	1.02
4 Nominal speed	rpm	4320	5510	5820	4930	5050	3630	4810	4630	5030	3830	3840	3730	5070	4220	3180
5 Nominal torque (max. continuous torque)	mNm	2.39	2.5	2.89	3.41	4.48	5.61	5.54	5.48	5.48	5.38	5.36	5.33	5.29	5.18	5.01
6 Nominal current (max. continuous current)	A	0.72	0.72	0.72	0.72	0.72	0.711	0.566	0.438	0.348	0.287	0.229	0.187	0.171	0.119	0.0614
7 Stall torque	mNm	15.5	16.9	17.3	15.2	17.4	15.2	18.1	17.4	18.6	14.9	14.9	14.5	17.6	15	11.9
8 Stall current	A	4.53	4.71	4.19	3.13	2.74	1.9	1.82	1.37	1.16	0.784	0.628	0.5	0.561	0.341	0.144
9 Max. efficiency	%	86	86	86	85	86	86	86	86	86	86	85	85	86	85	84
<b>Characteristics</b>																
10 Terminal resistance	Ω	0.397	0.51	0.715	1.02	1.64	2.53	3.95	6.56	10.3	15.3	23.9	36	42.8	88	333
11 Terminal inductance	mH	0.021	0.023	0.03	0.042	0.071	0.113	0.174	0.284	0.452	0.639	0.993	1.48	1.75	3.44	12.1
12 Torque constant	mNm/A	3.43	3.58	4.13	4.84	6.34	7.99	9.92	12.7	16	19	23.7	28.9	31.4	44.1	82.7
13 Speed constant	rpm/V	2790	2660	2310	1970	1510	1190	962	753	597	502	403	330	304	217	115
14 Speed / torque gradient	rpm/mNm	323	379	400	415	391	378	383	389	386	404	406	410	414	432	465
15 Mechanical time constant	ms	5.84	5.71	5.56	5.46	5.36	5.31	5.29	5.29	5.27	5.29	5.3	5.31	5.31	5.36	5.42
16 Rotor inertia	gcm <sup>2</sup>	1.73	1.44	1.33	1.26	1.31	1.34	1.32	1.3	1.3	1.25	1.25	1.24	1.23	1.18	1.11

### Specifications

<b>Thermal data</b>	
17 Thermal resistance housing-ambient	30 K/W
18 Thermal resistance winding-housing	8.5 K/W
19 Thermal time constant winding	10.6 s
20 Thermal time constant motor	436 s
21 Ambient temperature	-20...+65°C
22 Max. winding temperature	+85°C
<b>Mechanical data (sleeve bearings)</b>	
23 Max. speed	11000 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. radial load, 5 mm from flange	1.5 N
<b>Other specifications</b>	
29 Number of pole pairs	1
30 Number of commutator segments	7
31 Weight of motor	38 g
CLL = Capacitor Long Life	

Values listed in the table are nominal.  
Explanation of the figures on page 151.

### 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 20-27

<p><b>Planetary Gearhead</b> Ø16 mm 0.1 - 0.3 Nm Page 323</p> <p><b>Planetary Gearhead</b> Ø16 mm 0.2 - 0.6 Nm Page 324</p> <p><b>Spindle Drive</b> Ø16 mm Page 365-367</p>		<p><b>Recommended Electronics:</b> Notes <span style="float: right;">Page 24</span></p> <p>ESCON Module 24/2 <span style="float: right;">416</span></p> <p>ESCON 36/2 DC <span style="float: right;">416</span></p> <p>ESCON Module 50/5 <span style="float: right;">417</span></p> <p>ESCON 50/5 <span style="float: right;">418</span></p>
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