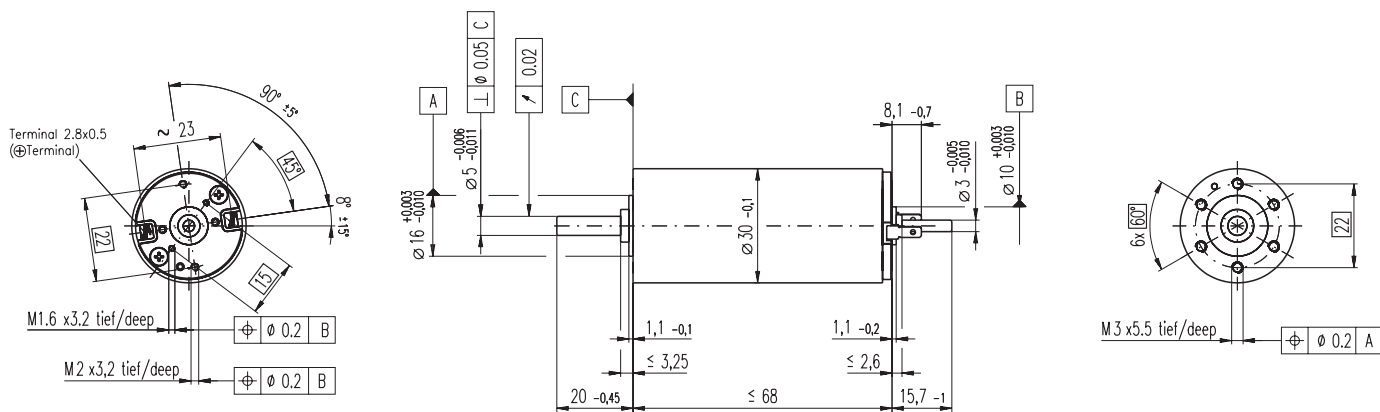


# RE 30 $\varnothing 30$ mm, Graphite Brushes, 60 Watt



M 1:2

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

according to dimensional drawing  
shaft length 15.7 shortened to 8.7 mm

Order Number					
310005	310006	310007	310008	310009	
268193	268213	268214	268215	268216	

Motor Data							
<b>Values at nominal voltage</b>							
1	Nominal voltage	V	12.0	18.0	24.0	36.0	48.0
2	No load speed	rpm	8170	8590	8810	8590	8490
3	No load current	mA	300	212	164	106	78.5
4	Nominal speed	rpm	7630	7900	8050	7810	7750
5	Nominal torque (max. continuous torque)	mNm	51.7	75.5	85.0	83.4	88.2
6	Nominal current (max. continuous current)	A	4.00	4.00	3.44	2.20	1.72
7	Stall torque	mNm	844	991	1020	936	1020
8	Starting current	A	60.5	49.8	39.3	23.5	19.0
9	Max. efficiency	%	86	87	87	87	88
<b>Characteristics</b>							
10	Terminal resistance	$\Omega$	0.198	0.362	0.611	1.53	2.52
11	Terminal inductance	mH	0.0345	0.0703	0.119	0.281	0.513
12	Torque constant	mNm / A	13.9	19.9	25.9	39.8	53.8
13	Speed constant	rpm / V	685	479	369	240	178
14	Speed / torque gradient	rpm / mNm	9.74	8.71	8.69	9.22	8.33
15	Mechanical time constant	ms	3.42	3.25	3.03	3.17	3.01
16	Rotor inertia	gcm <sup>2</sup>	33.5	35.7	33.3	32.9	34.5

Specifications	Operating Range	Comments
<b>Thermal data</b> 17 Thermal resistance housing-ambient 6.0 K / W 18 Thermal resistance winding-housing 1.7 K / W 19 Thermal time constant winding 16.2 s 20 Thermal time constant motor 714 s 21 Ambient temperature -30 ... +100°C 22 Max. permissible winding temperature +125°C  <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) 5.6 N 27 Max. force for press fits (static) 110 N (static, shaft supported) 1200 N 28 Max. radial loading, 5 mm from flange 28 N		<div style="background-color: red; width: 20px; height: 10px; display: inline-block; margin-right: 5px;"></div> <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.  <div style="background-color: white; border: 1px solid black; width: 20px; height: 10px; display: inline-block; margin-right: 5px;"></div> <b>Short term operation</b> The motor may be briefly overloaded (recurring).  — Assigned power rating

- Other specifications**
- 29 Number of pole pairs 1
  - 30 Number of commutator segments 13
  - 31 Weight of motor 238 g
- Values listed in the table are nominal.  
Explanation of the figures on page 49.
- ⚠ Tolerances may vary from the standard specification.
- Option**  
Preloaded ball bearings

**maxon Modular System**

**Planetary Gearhead**  
 $\varnothing 32$  mm  
0.75 - 4.5 Nm  
Page 239

**Planetary Gearhead**  
 $\varnothing 32$  mm  
1.0 - 6.0 Nm  
Page 240

Encoder MR  
256 - 1024 CPT  
3 channels  
Page 259

**Recommended Electronics:**

ADS 50/5	Page 276
ADS_E 50/5	277
EPOS 24/5	294
EPOS2 50/5	295
EPOS P 24/5	297
<b>Notes</b>	<b>18</b>