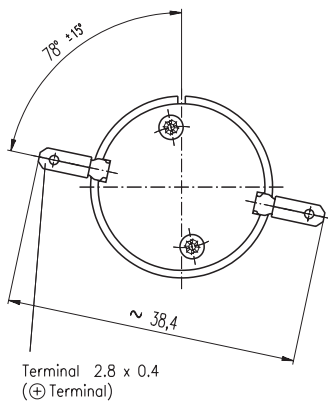
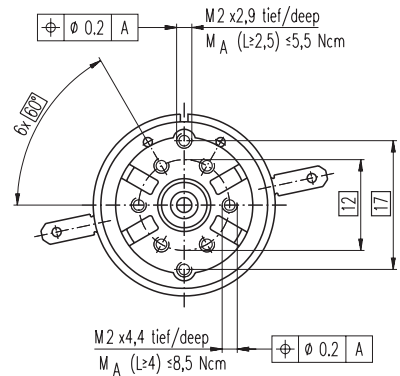
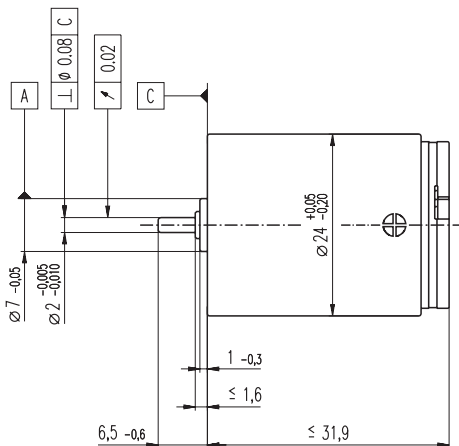


# RE-max 24 Ø24 mm, Graphite Brushes, 11 Watt



M 1:1



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

## Order Number

222036 **222037** 222038 222039 222040 222041 222042 **222043** 222044 222045 **222046** 222047

## Motor Data

Values at nominal voltage		222036	222037	222038	222039	222040	222041	222042	222043	222044	222045	222046	222047	
1	Nominal voltage	V	9.0	12.0	15.0	18.0	18.0	24.0	24.0	36.0	42.0	48.0	48.0	
2	No load speed	rpm	8190	7540	8290	8870	8000	9310	7540	9120	8600	7410	5250	4730
3	No load current	mA	45.6	31.0	27.7	25.0	22.1	19.8	15.5	12.9	10.3	7.60	5.15	4.59
4	Nominal speed	rpm	6640	5870	6650	7240	6330	7670	5850	7450	6920	5690	3470	2960
5	Nominal torque (max. continuous torque)	mNm	10.8	12.4	12.4	12.3	12.3	12.1	12.2	12.1	12.0	12.0	12.0	12.1
6	Nominal current (max. continuous current)	A	1.08	0.853	0.752	0.666	0.598	0.516	0.421	0.335	0.270	0.204	0.144	0.131
7	Stall torque	mNm	57.7	56.9	63.6	67.7	59.5	69.3	55.3	66.6	62.0	52.4	35.7	32.8
8	Starting current	A	5.55	3.78	3.71	3.52	2.79	2.83	1.83	1.78	1.34	0.855	0.414	0.343
9	Max. efficiency	%	83	83	83	84	83	84	83	84	83	82	79	78
Characteristics														
10	Terminal resistance	Ω	1.62	3.18	4.05	5.11	6.44	8.47	13.1	20.2	31.3	56.2	116	140
11	Terminal inductance	mH	0.0735	0.154	0.200	0.251	0.309	0.406	0.618	0.952	1.45	2.56	5.06	6.22
12	Torque constant	mNm / A	10.4	15.1	17.2	19.2	21.3	24.4	30.1	37.4	46.3	61.3	86.3	95.6
13	Speed constant	rpm / V	919	634	557	497	448	391	317	255	206	156	111	99.8
14	Speed / torque gradient	rpm / mNm	143	134	131	132	135	135	138	138	140	143	149	146
15	Mechanical time constant	ms	5.96	5.90	5.88	5.89	5.91	5.92	5.92	5.93	5.96	5.97	6.03	6.00
16	Rotor inertia	gcm <sup>2</sup>	3.97	4.22	4.28	4.26	4.17	4.17	4.11	4.11	4.07	4.00	3.88	3.92

## Specifications

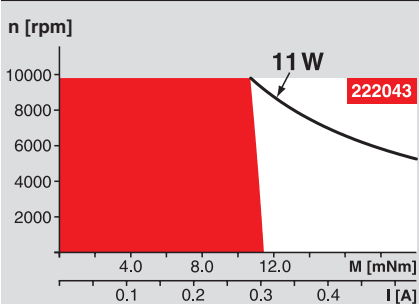
<b>Thermal data</b>		
17	Thermal resistance housing-ambient	24 K / W
18	Thermal resistance winding-housing	5.1 K / W
19	Thermal time constant winding	8.26 s
20	Thermal time constant motor	840 s
21	Ambient temperature	-30 ... +85°C
22	Max. permissible winding temperature	+125°C
<b>Mechanical data (sleeve bearings)</b>		
23	Max. permissible speed	9800 rpm
24	Axial play	0.05 - 0.15 mm
25	Radial play	0.012 mm
26	Max. axial load (dynamic)	1 N
27	Max. force for press fits (static)	80 N
28	Max. radial loading, 5 mm from flange	2.8 N
<b>Mechanical data (ball bearings)</b>		
23	Max. permissible speed	9800 rpm
24	Axial play	0.05 - 0.15 mm
25	Radial play	0.025 mm
26	Max. axial load (dynamic)	3.3 N
27	Max. force for press fits (static)	45 N
28	Max. radial loading, 5 mm from flange	12.3 N
<b>Other specifications</b>		
29	Number of pole pairs	1
30	Number of commutator segments	9
31	Weight of motor	70 g

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

## 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

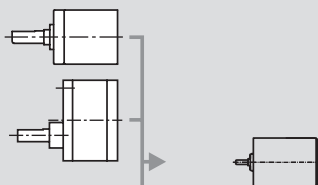
Overview on page 16 - 21

### Planetary Gearhead

Ø22 mm  
0.5 - 2.0 Nm  
Page 231

### Spur Gearhead

Ø38 mm  
0.1 - 0.6 Nm  
Page 243



### Recommended Electronics:

LSC 30/2 Page 276  
ADS 50/5 276  
ADS\_E 50/5 277  
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