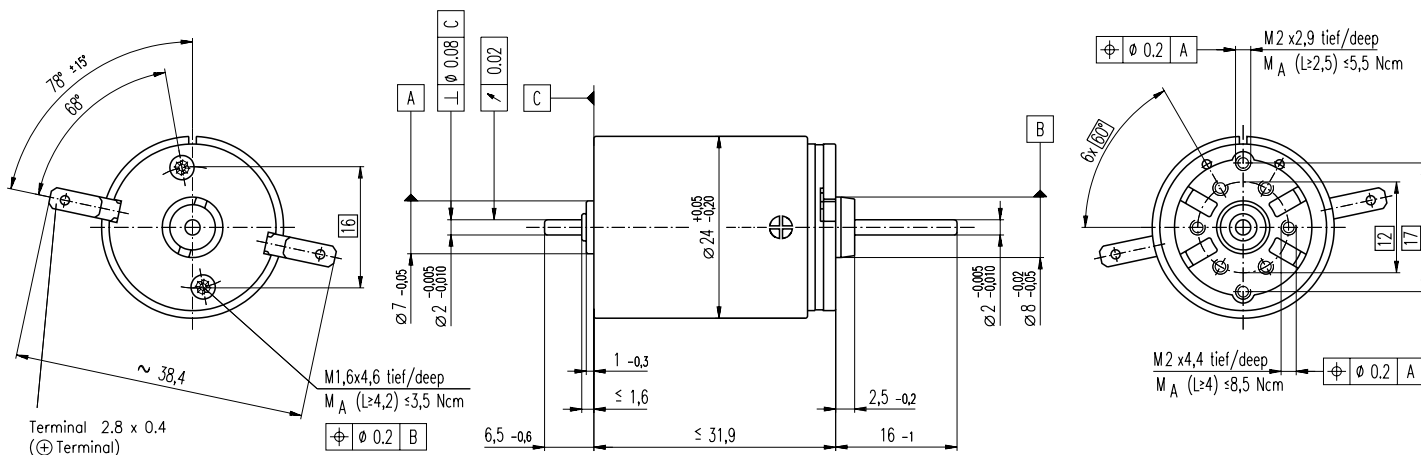


RE-max 24 Ø24 mm, Graphite Brushes, 11 Watt



M 1:1

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

Order Number

222048	222049	222050	222051	222052	222053	222054	222055	222056	222057	222058	222059
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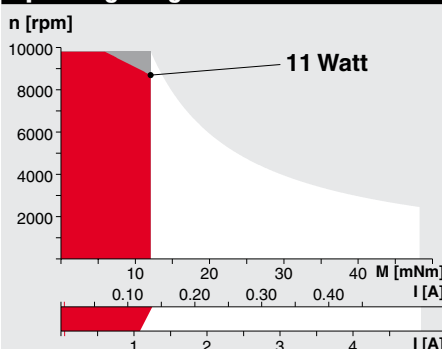
Motor Data (provisional)

		222048	222049	222050	222051	222052	222053	222054	222055	222056	222057	222058	222059
1 Assigned power rating	W	11	11	11	11	11	11	11	11	11	11	11	11
2 Nominal voltage	Volt	9	12	15	18	18	24	24	36	42	48	48	48
3 No load speed	rpm	8620	7970	8780	9410	8490	9890	8010	9700	9150	7880	5580	5030
4 Stall torque	mNm	39.6	43.6	50.2	54.7	48.8	57.9	47	57.5	54	46	31.6	29
5 Speed / torque gradient	rpm / mNm	222	186	177	174	176	173	173	170	171	173	179	176
6 No load current	mA	50	34	30	27	24	22	17	14	11	8	6	5
7 Starting current	mA	4070	3080	3120	3030	2440	2530	1660	1640	1250	800	390	323
8 Terminal resistance	Ohm	2.21	3.9	4.81	5.93	7.37	9.5	14.5	22	33.7	60	123	149
9 Max. permissible speed	rpm	9800	9800	9800	9800	9800	9800	9800	9800	9800	9800	9800	9800
10 Max. continuous current	mA	1080	836	752	677	609	536	436	354	286	215	150	136
11 Max. continuous torque	mNm	10.5	11.8	12.1	12.2	12.2	12.3	12.3	12.4	12.4	12.3	12.1	12.2
12 Max. power output at nominal voltage	mW	8410	8720	11100	13100	10600	14700	9660	14400	12800	9390	4550	3760
13 Max. efficiency	%	77	79	80	81	80	82	80	82	82	81	78	77
14 Torque constant	mNm / A	9.75	14.1	16.1	18	20	22.9	28.3	35.1	43.4	57.5	80.9	89.7
15 Speed constant	rpm / V	979	675	593	529	478	417	338	272	220	166	118	106
16 Mechanical time constant	ms	9	8	8	8	7	7	7	7	7	7	7	7
17 Rotor inertia	gcm ²	3.85	4.08	4.13	4.11	4.01	4	3.94	3.93	3.88	3.81	3.67	3.72
18 Terminal inductance	mH	0.11	0.22	0.29	0.36	0.45	0.59	0.89	1.37	2.1	3.69	7.3	8.98
19 Thermal resistance housing-ambient	K / W	20	20	20	20	20	20	20	20	20	20	20	20
20 Thermal resistance rotor-housing	K / W	6	6	6	6	6	6	6	6	6	6	6	6
21 Thermal time constant winding	s	9	10	10	10	9	9	9	9	9	9	9	9

Specifications

- Axial play 0.05 - 0.15 mm
- Max. **sleeve bearing** loads
 - axial (dynamic) 1.0 N
 - radial (5 mm from flange) 2.8 N
 - Force for press fits (static) 80 N
 - (static, shaft supported) 440 N
- Max. **ball bearing** loads
 - axial (dynamic) 3.3 N
 - radial (5 mm from flange) 12.3 N
 - Force for press fits (static) 45 N
 - (static, shaft supported) 440 N
- Radial play **sleeve bearing** 0.012 mm
- Radial play **ball bearing** 0.025 mm
- Ambient temperature range -30 ... +85°C
- Max. rotor temperature +125°C
- Number of commutator segments 9
- Weight of motor 71 g
- Values listed in the table are nominal. For applicable tolerances see page 43. For additional details please use the maxon selection program on the enclosed CD-Rom.

Operating Range



Comments

- Recommended operating range**
- Continuous operation**
In observation of above listed thermal resistances (lines 19 and 20) the maximum permissible rotor temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit
- Short term operation**
The motor may be briefly overloaded (recurring).
- 222057** Motor with high resistance winding
- 222048** Motor with low resistance winding

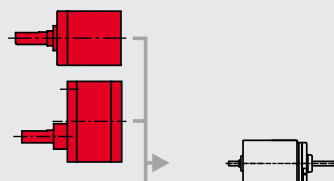
maxon Modular System

Planetary Gearhead

Ø22 mm
0.5 - 2.0 Nm
Details page 191

Spur Gearhead

Ø38 mm
0.1 - 0.6 Nm
Details page 200



Recommended Electronics:

- LSC 30/2 page 231
- ADS 50/5 233
- ADS_E 50/5 234
- MIP 10 245
- Notes 17

Overview on page 17 - 21

Digital MR Encoder

32 CPT,
2 / 3 channels
Details page 210

Digital MR Encoder

128 / 256 / 512 CPT,
2 / 3 channels
Details page 211

- Options: Ball bearings in place of sleeve bearings and pigtails in place of terminals.