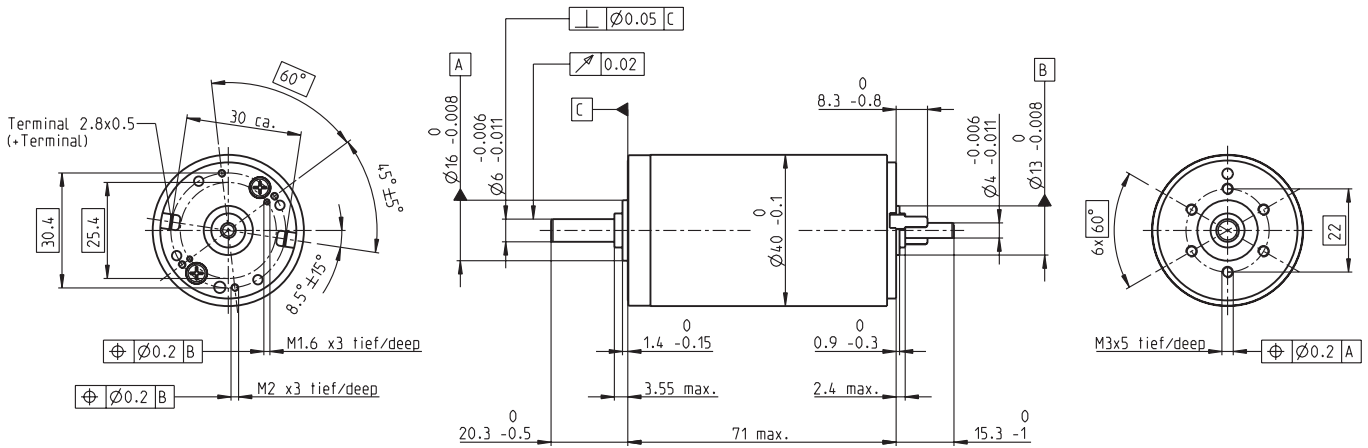


# RE 40 Ø40 mm, Graphite Brushes, 150 Watt



M 1:2

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

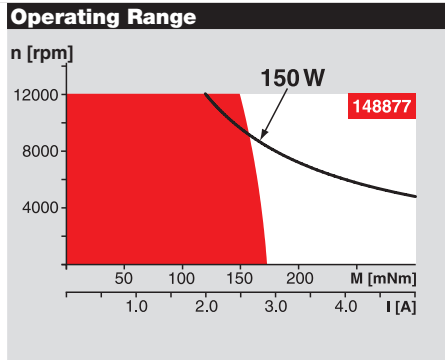
## Part Numbers

148866	148867	148877	218008	218009	218010	218011	218012	218013	218014
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Motor Data											
<b>Values at nominal voltage</b>											
1 Nominal voltage	V	12	24	48	48	48	48	48	48	48	48
2 No load speed	rpm	6920	7580	7590	6420	5560	3330	2690	2130	1720	1420
3 No load current	mA	241	137	68.6	53.6	43.7	21.9	16.6	12.5	9.66	7.76
4 Nominal speed	rpm	6380	6940	7000	5810	4930	2710	2060	1510	1080	781
5 Nominal torque (max. continuous torque)	mNm	94.9	177	187	186	180	189	190	192	192	190
6 Nominal current (max. continuous current)	A	6	6	3.17	2.66	2.23	1.4	1.13	0.909	0.73	0.6
7 Stall torque	mNm	1720	2420	2560	2040	1620	1020	814	655	523	424
8 Starting current	A	105	80.2	42.4	28.6	19.7	7.43	4.79	3.06	1.97	1.32
9 Max. efficiency	%	87	91	92	91	91	89	89	88	87	85
<b>Characteristics</b>											
10 Terminal resistance	Ω	0.115	0.299	1.13	1.68	2.44	6.46	10	15.7	24.4	36.3
11 Terminal inductance	mH	0.0245	0.0823	0.329	0.46	0.612	1.7	2.62	4.14	6.4	9.31
12 Torque constant	mNm/A	16.4	30.2	60.3	71.3	82.2	137	170	214	266	321
13 Speed constant	rpm/V	581	317	158	134	116	69.7	56.2	44.7	35.9	29.8
14 Speed / torque gradient	rpm/mNm	4.05	3.14	2.97	3.16	3.45	3.29	3.31	3.27	3.29	3.37
15 Mechanical time constant	ms	5.89	4.67	4.28	4.2	4.19	4.16	4.15	4.15	4.15	4.16
16 Rotor inertia	gcm <sup>2</sup>	139	142	137	127	116	121	120	121	120	118

### Specifications

<b>Thermal data</b>	
17 Thermal resistance housing-ambient	4.7 K/W
18 Thermal resistance winding-housing	1.9 K/W
19 Thermal time constant winding	41.5 s
20 Thermal time constant motor	736 s
21 Ambient temperature	-30...+100°C
22 Max. permissible winding temperature	+155°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) (static, shaft supported)	110 N
28 Max. radial load, 5 mm from flange	1200 N
	28 N



### 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**

### Other specifications

29 Number of pole pairs	1
30 Number of commutator segments	13
31 Weight of motor	480 g

Values listed in the table are nominal.  
Explanation of the figures on page 79.

**Option**  
Preloaded ball bearings

### maxon Modular System

**Planetary Gearhead**  
Ø42 mm  
3 - 15 Nm  
Page 283

**Planetary Gearhead**  
Ø52 mm  
4 - 30 Nm  
Page 287

Overview on page 20–25

**Encoder MR**  
256 - 1024 CPT,  
3 channels  
Page 320

**Encoder HED\_ 5540**  
500 CPT,  
3 channels  
Page 325/327

**Brake AB 28**  
24 VDC  
0.4 Nm  
Page 372

**Industrial Version**  
**Encoder HEDL 9140**  
Page 331

**Brake AB 28**  
Page 373

**End cap**  
Page 377

**Recommended Electronics:**

ESCON Mod. 50/5	Page 343
ESCON 50/5	344
ESCON 70/10	344
EPOS2 24/5	351
EPOS2 50/5	351
EPOS2 70/10	351
EPOS2 P 24/5	354
EPOS3 70/10 EtherCAT	357
MAXPOS 50/5	360
<b>Notes</b>	<b>22</b>