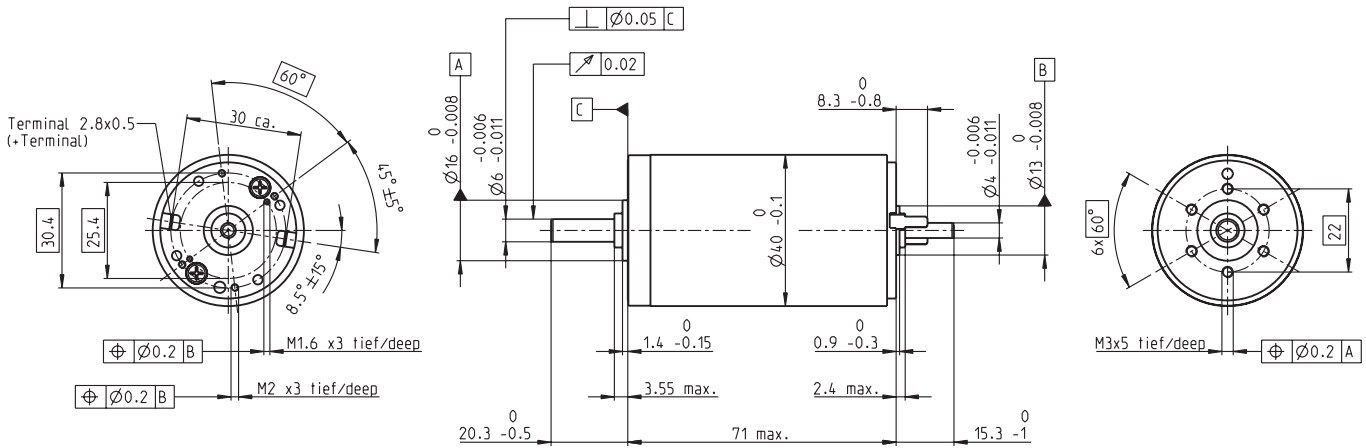


RE 40 Ø40 mm, Graphite Brushes, 150 Watt



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		148866	148867	148877	218008	218009	218010	218011	218012	218013	218014
Values at nominal voltage											
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
Characteristics											
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 ²	139	142	137	127	116	121	120	121	120	118

Specifications

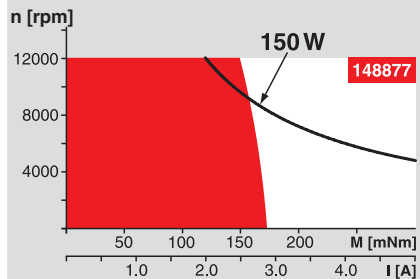
- Thermal data**
- 17 Thermal resistance housing-ambient 4.7 K/W
 - 18 Thermal resistance winding-housing 1.9 K/W
 - 19 Thermal time constant winding 41.5 s
 - 20 Thermal time constant motor 736 s
 - 21 Ambient temperature -30...+100°C
 - 22 Max. permissible winding temperature +155°C
- Mechanical data (ball bearings)**
- 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

- 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

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

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
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