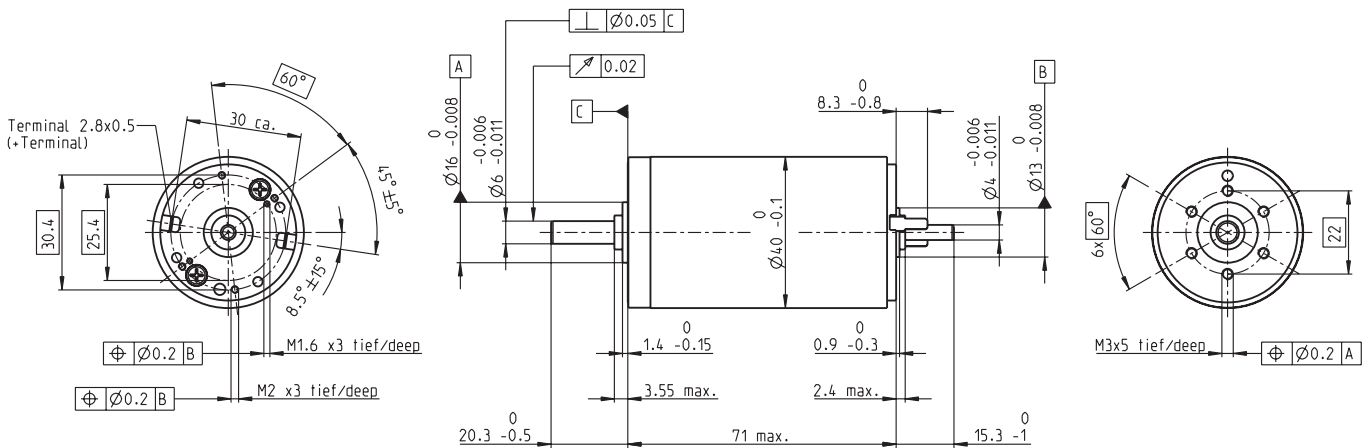


RE 40 Ø40 mm, Graphite Brushes, 150 Watt



M 1:2

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

Part Numbers

148866 **148867** **148877** 218008 218009 218010 218011 218012 218013 218014

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) 110 N
 - (static, shaft supported) 1200 N
 - 28 Max. radial load, 5 mm from flange 28 N

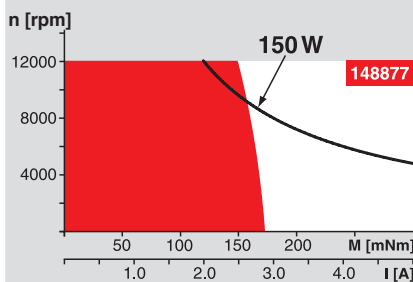
- Other specifications**
- 29 Number of pole pairs 1
 - 30 Number of commutator segments 13
 - 31 Weight of motor 480 g

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

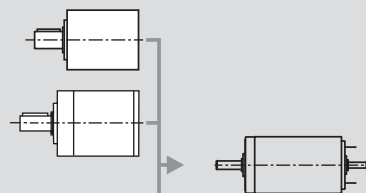
maxon Modular System

Planetary Gearhead

Ø42 mm
3 - 15 Nm
Page 283

Planetary Gearhead

Ø52 mm
4 - 30 Nm
Page 287



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
- Notes 22

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