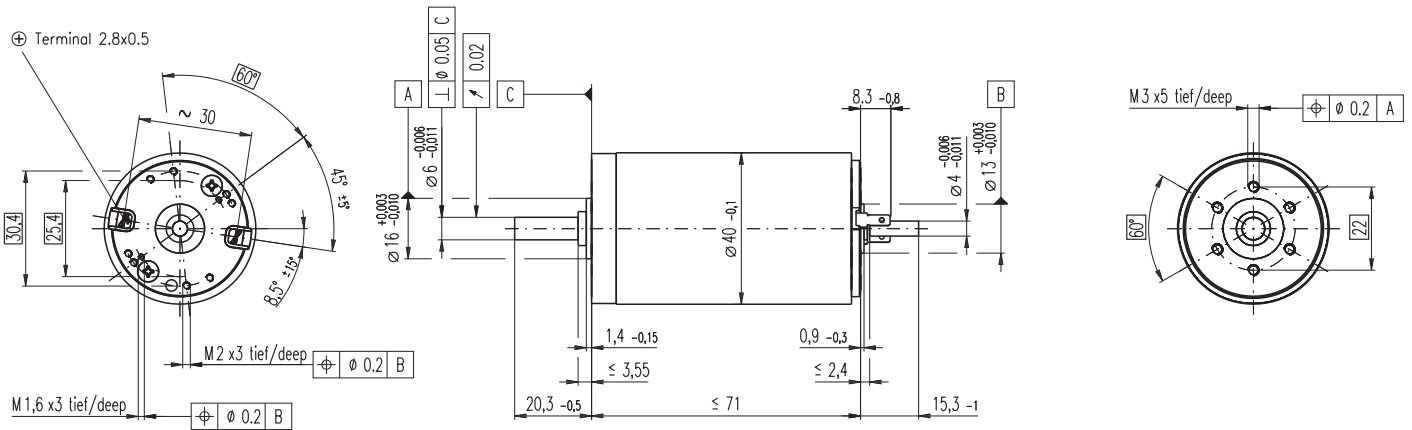


RE 40 Ø40 mm, Graphite Brushes, 150 Watt



M 1:2

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

Order Number

148866 148867 148877 218008 218009 218010 218011 218012 218013 218014

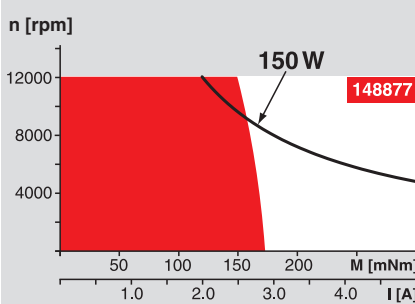
Motor Data

Values at nominal voltage		148866	148867	148877	218008	218009	218010	218011	218012	218013	218014
1	Nominal voltage	V	12.0	24.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0
2	No load speed	rpm	6920	7580	7580	6420	5560	3330	2690	2130	1420
3	No load current	mA	241	137	68.6	53.7	43.7	21.9	16.7	12.5	9.67
4	Nominal speed	rpm	6370	6930	7000	5810	4920	2700	2050	1500	1080
5	Nominal torque (max. continuous torque)	mNm	94.9	170	184	183	177	187	189	189	188
6	Nominal current (max. continuous current)	A	6.00	5.77	3.12	2.62	2.20	1.38	1.12	0.898	0.721
7	Stall torque	mNm	1680	2280	2500	1990	1580	995	796	641	512
8	Starting current	A	102	75.7	41.4	28.0	19.2	7.26	4.68	3.00	1.92
9	Max. efficiency	%	88	91	92	91	91	89	88	87	86
Characteristics											
10	Terminal resistance	Ω	0.117	0.317	1.16	1.72	2.50	6.61	10.2	16.0	24.9
11	Terminal inductance	mH	0.0245	0.0823	0.329	0.460	0.612	1.70	2.62	4.14	6.40
12	Torque constant	mNm / A	16.4	30.2	60.3	71.3	82.2	137	170	214	266
13	Speed constant	rpm / V	581	317	158	134	116	69.7	56.2	44.7	35.9
14	Speed / torque gradient	rpm / mNm	4.15	3.33	3.04	3.23	3.53	3.36	3.39	3.35	3.37
15	Mechanical time constant	ms	6.03	4.81	4.39	4.36	4.35	4.31	4.31	4.31	4.32
16	Rotor inertia	gcm ²	139	138	138	129	118	123	121	123	120

Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 4.65 K / W
 - 18 Thermal resistance winding-housing 1.93 K / W
 - 19 Thermal time constant winding 41.6 s
 - 20 Thermal time constant motor 1120 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 loading, 5 mm from flange 28 N

Operating Range



Comments

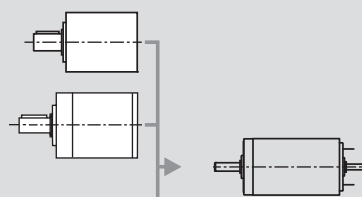
- Continuous operation**
In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.
- Short term operation**
The motor may be briefly overloaded (recurring).
- Assigned power rating**

Other specifications

- 29 Number of pole pairs 13
 - 30 Number of commutator segments 1
 - 31 Weight of motor 480 g
- Values listed in the table are nominal.
Explanation of the figures on page 49.
- Option**
Preloaded ball bearings

maxon Modular System

- Planetary Gearhead**
Ø42 mm
3 - 15 Nm
Page 240
- Planetary Gearhead**
Ø52 mm
4 - 30 Nm
Page 243



- Recommended Electronics:**
- ADS 50/5 Page 282
 - ADS 50/10 283
 - ADS_E 50/5 283
 - ADS_E 50/10 283
 - EPOS2 24/5 303
 - EPOS2 50/5 303
 - EPOS 70/10 303
 - EPOS P 24/5 306
 - Notes 18

Overview on page 16 - 21

- Encoder MR**
256 - 1024 CPT,
3 channels
Page 265
- Encoder HED_ 5540**
500 CPT,
3 channels
Page 268 / 270
- Brake AB 28**
Ø45 mm
24 VDC, 0.4 Nm
Page 316
- Industrial Version Encoder HEDL 9140**
Page 273
- Brake AB 28**
Page 317