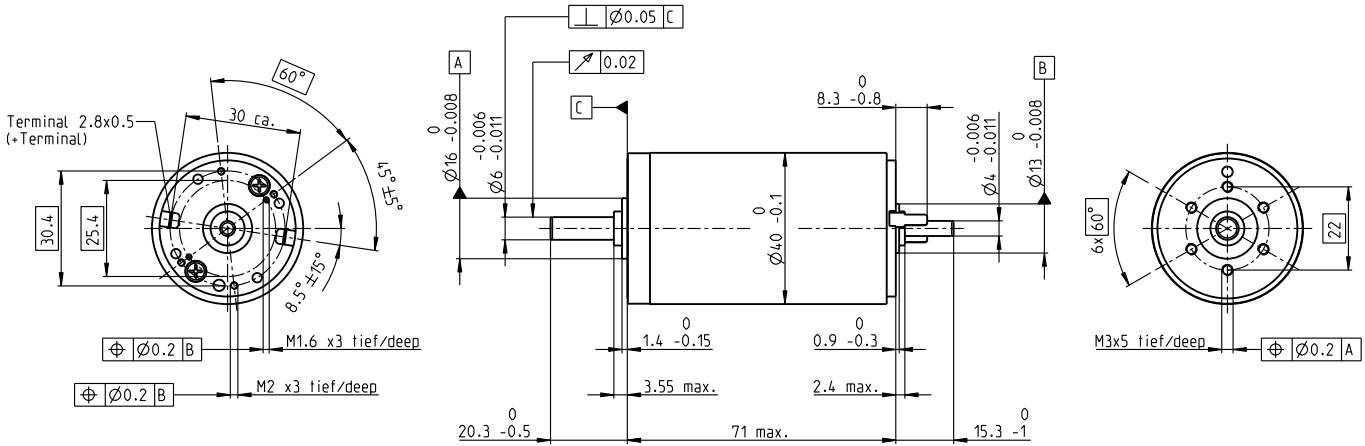


RE 40 Ø40 mm, Graphite Brushes, 150 Watt



M 1:2

Order Number

148866 148867 148877 218008 218009 218010 218011 218012 218013 218014

Motor Data

Values at nominal voltage											
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	122

Specifications

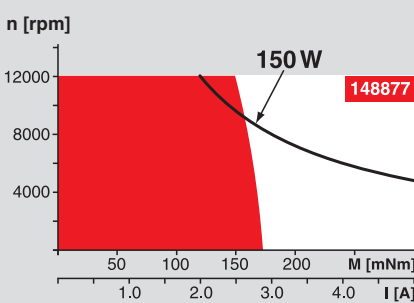
Thermal data	
17	Thermal resistance housing-ambient 4.65 K / W
18	Thermal resistance winding-housing 1.93 K / W
19	Thermal time constant winding 41.6 s
20	Thermal time constant motor 1120 s
21	Ambient temperature -30 ... +100°C
22	Max. permissible winding temperature +155°C
Mechanical data (ball bearings)	
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
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 49.

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

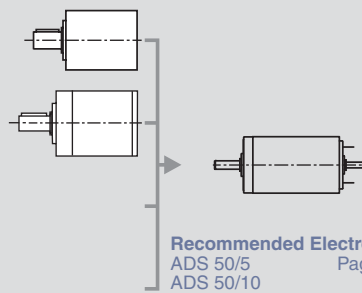
Overview on page 16 - 21

Planetary Gearhead

Ø42 mm
3 - 15 Nm
Page 237

Planetary Gearhead

Ø52 mm
4 - 30 Nm
Page 240



Recommended Electronics:

- ADS 50/5 Page 282
- ADS 50/10 283
- ADS_E 50/5 283
- ADS_E 50/10 283
- EPOS2 24/5 305
- EPOS2 50/5 305
- EPOS2 70/10 305
- EPOS2 P 24/5 308
- Notes 18

Encoder MR

256 - 1024 CPT,
3 channels
Page 263

Encoder HED_ 5540

500 CPT,
3 channels
Page 266 / 268

Brake AB 28

24 VDC
0.4 Nm
Page 318

Industrial Version

Encoder HEDL 9140
Page 271
Brake AB 28
Page 319