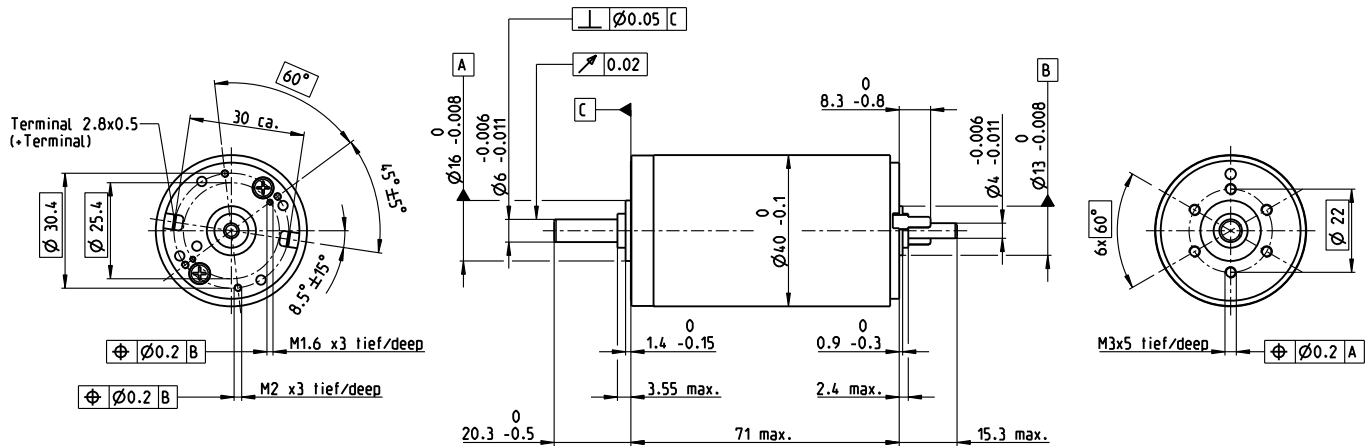


RE 40 Ø40 mm, Graphite Brushes, 150 Watt

RE



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

Values at nominal voltage											
1	Nominal voltage	V	12	24	48	48	48	48	48	48	48
2	No load speed	rpm	6920	7580	7590	6420	5560	3330	2690	2130	1420
3	No load current	mA	241	137	68.6	53.7	43.7	21.9	16.6	12.5	9.66
4	Nominal speed	rpm	6380	6940	7000	5810	4930	2710	2060	1510	1080
5	Nominal torque (max. continuous torque)	mNm	94.9	177	187	186	180	189	190	192	192
6	Nominal current (max. continuous current)	A	6	6	3.17	2.66	2.23	1.4	1.13	0.909	0.73
7	Stall torque	mNm	1720	2420	2560	2040	1620	1020	814	655	523
8	Stall current	A	105	80.2	42.4	28.6	19.7	7.43	4.79	3.06	1.97
9	Max. efficiency	%	88	91	92	91	91	89	89	88	86
Characteristics											
10	Terminal resistance	Ω	0.115	0.299	1.13	1.68	2.44	6.46	10	15.7	24.4
11	Terminal inductance	mH	0.024	0.082	0.33	0.46	0.613	1.7	2.62	4.14	6.41
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	4.05	3.14	2.97	3.16	3.45	3.29	3.31	3.27	3.29
15	Mechanical time constant	ms	5.89	4.67	4.28	4.2	4.19	4.16	4.15	4.15	4.16
16	Rotor inertia	gcm ²	139	142	137	127	116	121	120	121	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	809 s
21	Ambient temperature	-30...+100°C
22	Max. winding temperature	+155°C

Mechanical data (ball bearings)

23	Max. 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
28	Max. radial load, 5 mm from flange	1200 N
		28 N

Other specifications

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

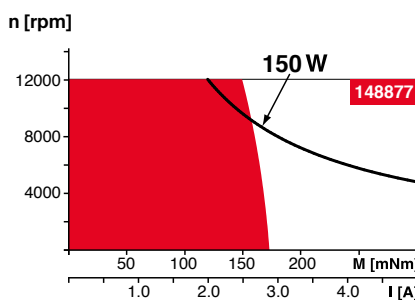
Values listed in the table are nominal.
Explanation of the figures on page 72.

Option

Preloaded ball bearings

- * Industrial version with radial shaft seal ring (resulting in increased no load current).
- IP54 protection only if mounted on brush side, in compliance with maxon modular system.

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

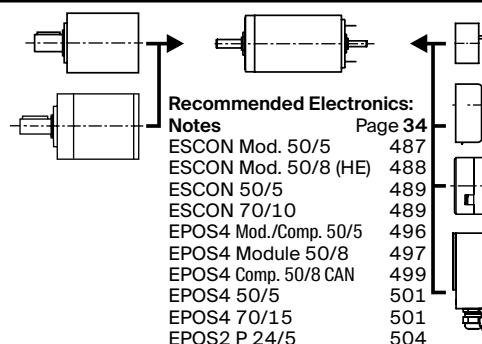
Details on catalog page 34

Planetary Gearhead

Ø42 mm
3 - 15 Nm
Page 396

Planetary Gearhead

Ø52 mm
4 - 30 Nm
Page 401



Encoder MR

256 - 1024 CPT,
3 channels
Page 464

Encoder HEDL_5540

500 CPT,
3 channels
Page 471/474

Brake AB 28

24 VDC
0.4 Nm
Page 519

Industrial Version IP54*

Encoder HEDL 9140

Page 478

Brake AB 28

Page 520

End cap

Page 525