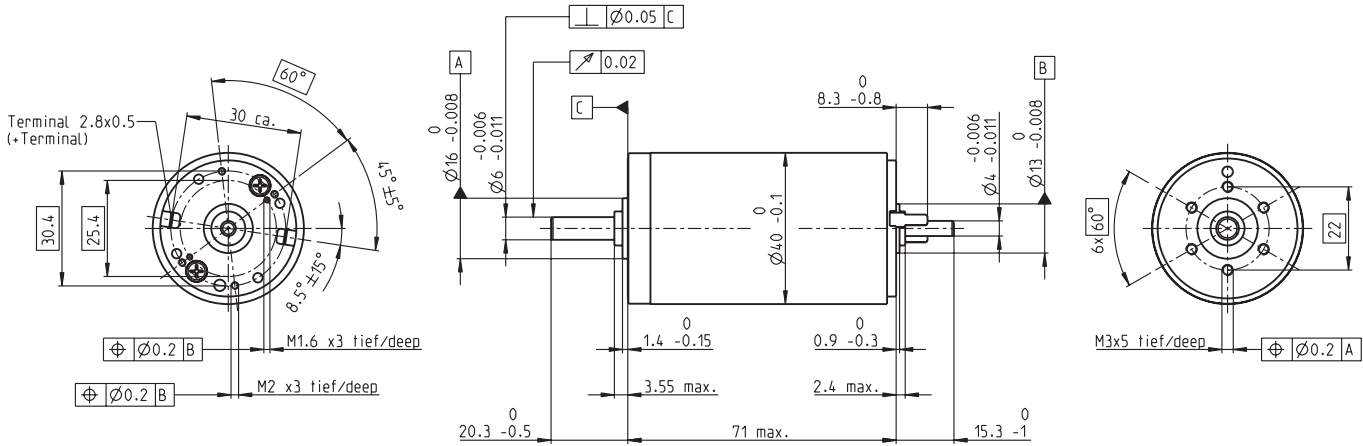


RE 40 Ø40 mm, Graphite Brushes, 150 Watt



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										
Values at nominal voltage										
1 Nominal voltage	V	12	24	48	48	48	48	48	48	48
2 No load speed	rpm	7500	7580	7590	4680	4050	2430	1960	1550	1030
3 No load current	mA	250	137	68.6	47.2	38.8	20.1	15.5	11.8	7.45
4 Nominal speed	rpm	6370	6930	7000	5810	4920	2700	2050	1500	774
5 Nominal torque (max. continuous torque)	mNm	94.9	170	187	183	177	187	187	189	188
6 Nominal current (max. continuous current)	A	6	5.77	3.17	2.62	2.2	1.38	1.12	0.898	0.721
7 Stall torque	mNm	1680	2280	2560	1990	1580	995	796	641	512
8 Stall current	A	102	75.7	42.4	28	19.2	7.26	4.68	3	1.92
9 Max. efficiency	%	88	91	92	91	91	89	88	88	86
Characteristics										
10 Terminal resistance	Ω	0.117	0.316	1.13	1.72	2.24	6.61	10.2	16	24.9
11 Terminal inductance	mH	0.025	0.082	0.329	0.46	0.612	1.7	2.62	4.14	9.31
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	4.67	4.28	4.2	4.19	4.16	4.15	4.15	4.16
16 Rotor inertia	gcm ²	140	139	139	130	118	123	122	124	120

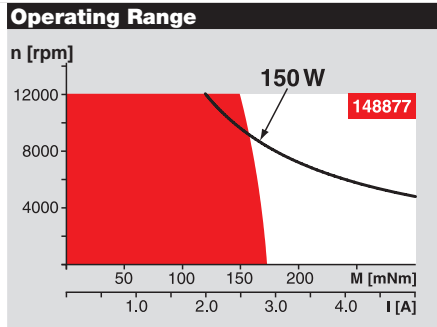
Specifications

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. 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) (static, shaft supported)	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 107.

Option
Preloaded ball bearings



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 314

Planetary Gearhead
Ø52 mm
4 - 30 Nm
Page 318

Recommended Electronics:

ESCON Mod. 50/5	Page 22
ESCON 50/5	379
ESCON 70/10	380
EPOS2 24/5	380
EPOS2 50/5	387
EPOS2 70/10	387
EPOS2 P 24/5	387
EPOS3 70/10 EtherCAT	390
MAXPOS 50/5	393
	396

Encoder MR
256 - 1024 CPT,
3 channels
Page 356

Encoder HED_ 5540
500 CPT,
3 channels
Page 362/365

Brake AB 28
24 VDC
0.4 Nm
Page 408

Industrial Version
Encoder HEDL 9140
Page 368
Brake AB 28
Page 409
End cap
Page 413