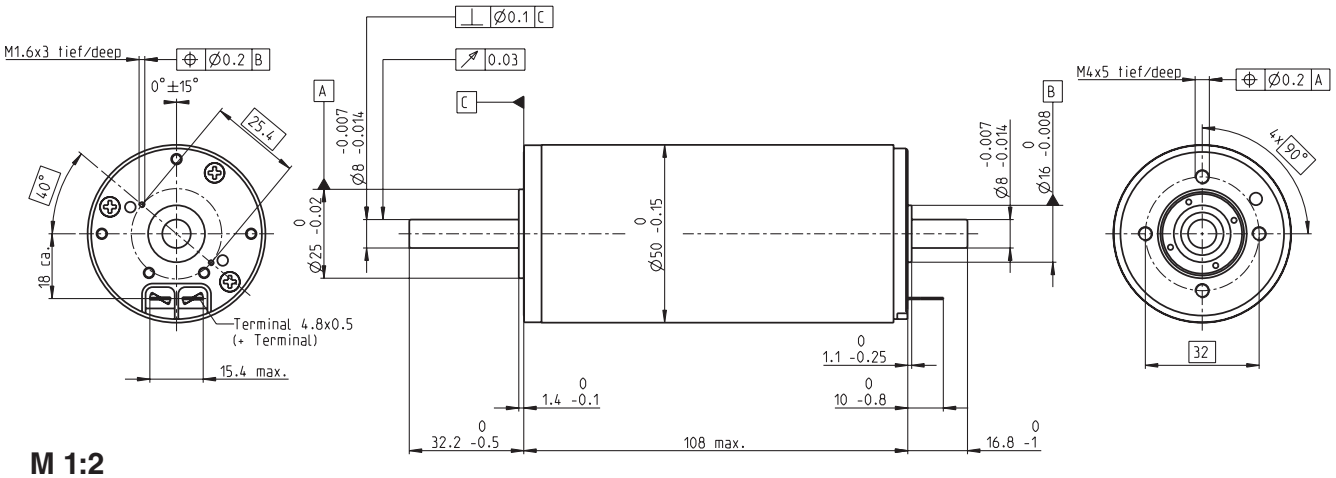
RE 50 ∅50 mm, Graphite Brushes, 200 Watt



M 1:2

Stock program
Standard program
Special program (on request)

Article Numbers

	370354	370355	370356	370357
Motor Data				
Values at nominal voltage				
1 Nominal voltage V	24	36	48	70
2 No load speed rpm	5950	5680	4900	2760
3 No load current mA	236	147	88.4	27.4
4 Nominal speed rpm	5680	5420	4620	2470
5 Nominal torque (max. continuous torque) mNm	405	418	420	452
6 Nominal current (max. continuous current) A	10.8	7.07	4.58	1.89
7 Stall torque mNm	8920	8920	7370	4340
8 Starting current A	232	148	78.9	17.9
9 Max. efficiency %	94	94	94	92
Characteristics				
10 Terminal resistance Ω	0.103	0.244	0.608	3.9
11 Terminal inductance mH	0.0717	0.177	0.423	2.83
12 Torque constant mNm/A	38.5	60.4	93.4	242
13 Speed constant rpm/V	248	158	102	39.5
14 Speed / torque gradient rpm/mNm	0.668	0.638	0.666	0.638
15 Mechanical time constant ms	3.75	3.74	3.78	3.74
16 Rotor inertia gcm²	536	560	542	560

Specifications

Thermal data

17	Thermal resistance housing-ambient	3.8 K/W
18	Thermal resistance winding-housing	1.2 K/W
19	Thermal time constant winding	71.7 s
20	Thermal time constant motor	1370 s
21	Ambient temperature	-30…+100°C
22	Max. permissible winding temperature	+125°C

Mechanical data (preloaded ball bearings)

23	Max. permissible speed		9500 rpm
24	Axial play at axial load	< 11.5 N	0 mm
		> 11.5 N	0.1 mm
25	Radial play		0.03 mm
26	Max. axial load (dynamic)		30 N
27	Max. force for press fits (static)		150 N
	(static, shaft supported)		6000 N
28	Max. radial loading, 15 mm from flange		110 N

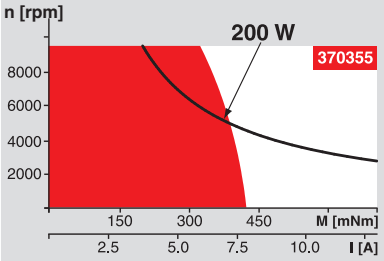
Other specifications

29	Number of pole pairs	1
30	Number of commutator segments	15
31	Weight of motor	1100 g

Values listed in the table are nominal.
Explanation of the figures on page 49.

Industrial version with radial shaft seal ring (resulting in increased no-load current)

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).

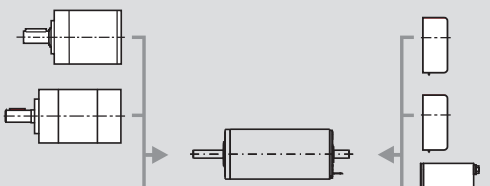
Assigned power rating

maxon Modular System

Overview on page 16 - 21

Planetary Gearhead
∅52 mm
4 - 30 Nm
Page 245

Planetary Gearhead
∅62 mm
8 - 50 Nm
Page 247



Recommended Electronics:

ESCON 50/5	Page 292
EPOS2 50/5	313
EPOS2 70/10	313
EPOS3 70/10 EtherCAT	319
ADS 50/10	373
ADS_E 50/10	373
Notes	**18**

Encoder HEDS 5540
500 CPT,
3 channels
Page 277

Encoder HEDL 5540
500 CPT,
3 channels
Page 279

Industrial Version IP54

Encoder HEDL 9140
Page 282

Brake AB 44
Page 334

End cap
Page 335