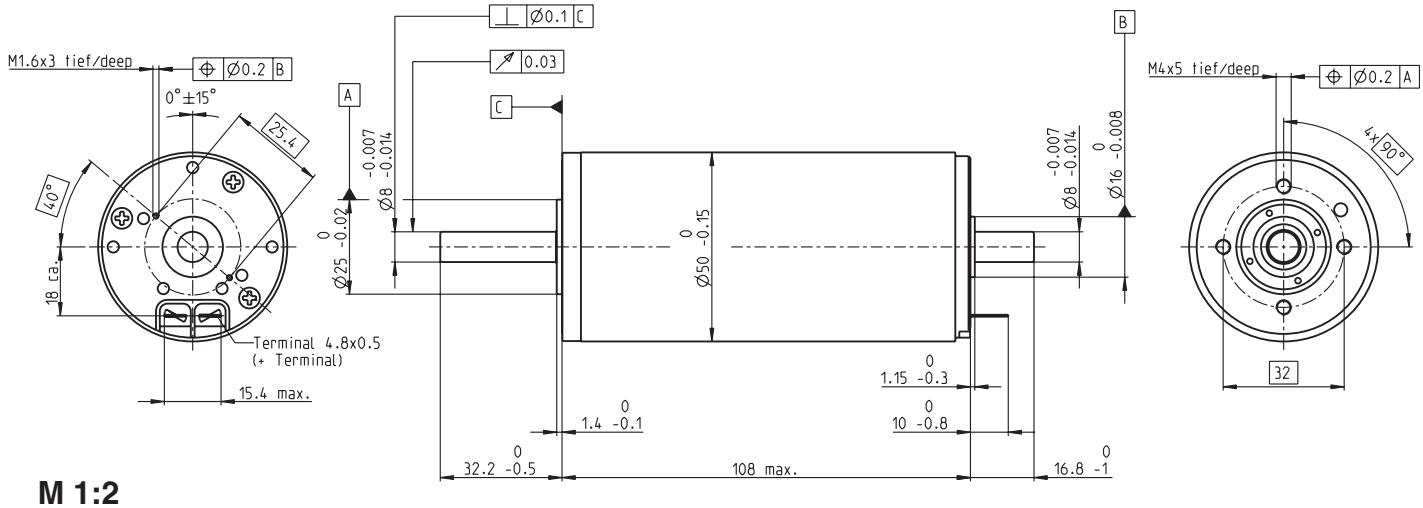
RE 50 ∅50 mm, Graphite Brushes, 200 Watt

NEW Industrial Version



M 1:2

Stock program
Standard program
Special program (on request)

Motor Data (provisional)			Order Number 370354	370355	370356	370357
	Values at nominal voltage					
1	Nominal voltage	V	24	36	48	70
2	No load speed	rpm	5780	5780	4870	2810
3	No load current	mA	225	150	87.4	28
4	Nominal speed	rpm	5540	5540	4610	2540
5	Nominal torque (max. continuous torque)	mNm	354	354	362	385
6	Nominal current (max. continuous current)	A	9.15	6.10	3.93	1.65
7	Stall torque	mNm	8420	8420	6960	4090
8	Starting current	A	212	142	73.9	17.2
9	Max. efficiency	%	94	94	93	92
	Characteristics					
10	Terminal resistance	Ω	0.113	0.254	0.649	4.070
11	Terminal inductance	mH	0.0937	0.211	0.528	3.370
12	Torque constant	mNm / A	39.6	59.4	94.1	238
13	Speed constant	rpm / V	241	161	101	40.2
14	Speed / torque gradient	rpm / mNm	0.687	0.687	0.700	0.687
15	Mechanical time constant	ms	4.20	4.20	4.24	4.20
16	Rotor inertia	gcm²	584	584	578	584

Specifications

Thermal data

17	Thermal resistance housing-ambient	3.81 K / W
18	Thermal resistance winding-housing	2.27 K / W
19	Thermal time constant winding	137 s
20	Thermal time constant motor	406 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 < 12.5 N	0.15 mm
	> 12.5 N	0.05 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

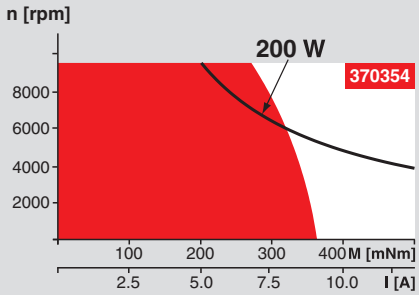
Other specifications

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).

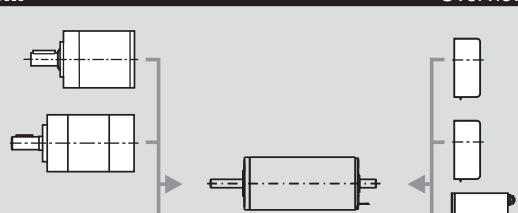
Assigned power rating

maxon Modular System

Overview on page 16 - 21

Planetary Gearhead
∅52 mm
4 - 30 Nm
Page 241

Planetary Gearhead
∅62 mm
8 - 50 Nm
Page 243



Encoder HEDS 5540
500 Imp.,
3 channels
Page 267

Encoder HEDL 5540
500 Imp.,
3 channels
Page 269

Industrial Version IP54
Encoder HEDL 9140
Page 272

Brake AB 44
Page 321

End cap
Page 322

Recommended Electronics:

ADS 50/5	Page 282
ADS 50/10	283
ADS_E 50/5	283
ADS_E 50/10	283
EPOS2 50/5	305
EPOS2 70/10	305
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