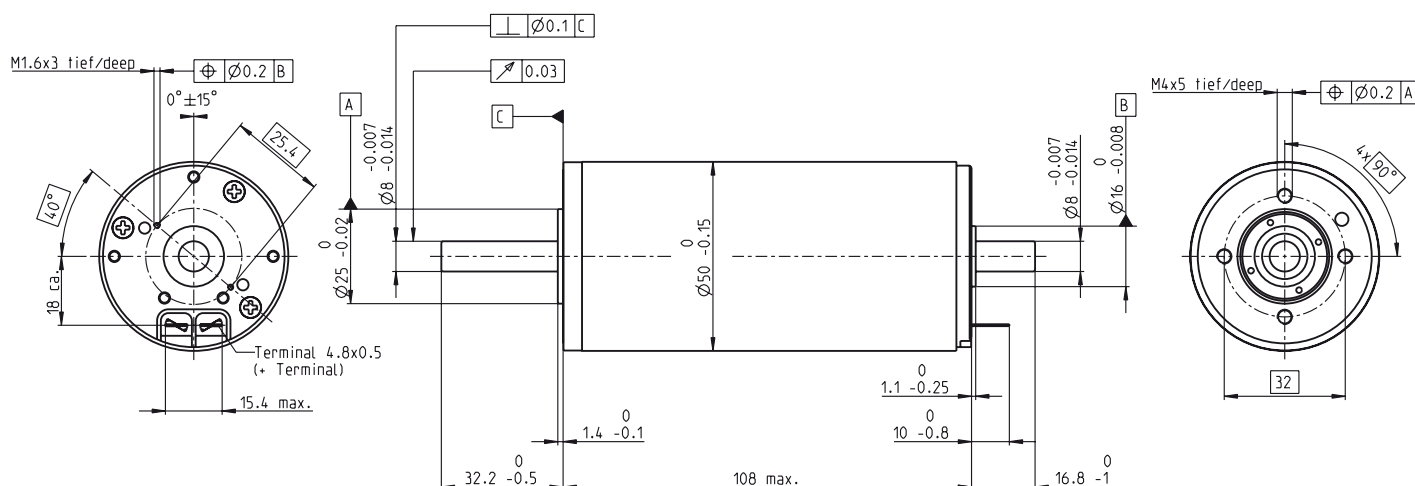


# RE 50 Ø50 mm, Graphite Brushes, 200 Watt



M 1:2

- Stock program
- Standard program
- Special program (on request)

## Article Numbers

370354 370355 370356 370357

## Motor Data

Values at nominal voltage			24	36	48	70
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	gcm <sup>2</sup>	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

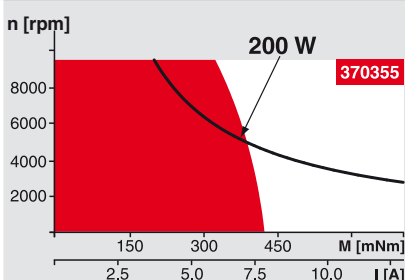
## Other specifications

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

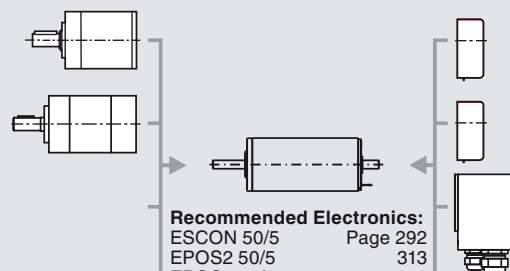
Overview on page 16 - 21

### Planetary Gearhead

Ø52 mm  
4 - 30 Nm  
Page 245

### Planetary Gearhead

Ø62 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
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### Encoder HEDS 5540

500 CPT,  
3 channels  
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### Encoder HEDL 5540

500 CPT,  
3 channels  
Page 279

### Industrial Version IP54

Encoder HEDL 9140  
Page 282

### Brake AB 44

Page 334

### End cap

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