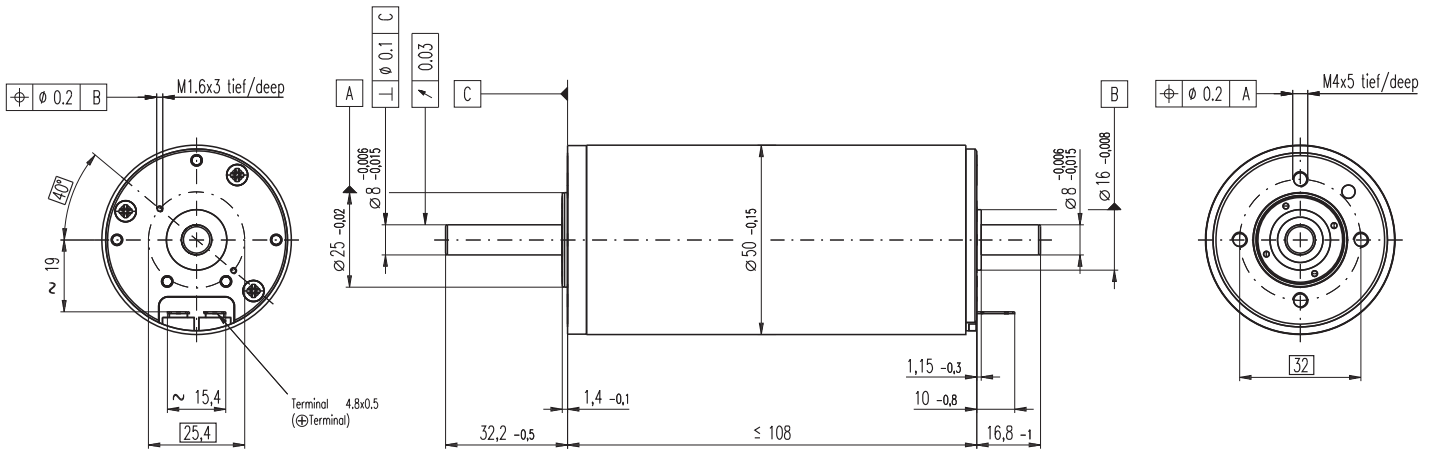


# RE 50 Ø50 mm, Graphite Brushes, 200 Watt

**NEW**

maxon DC motor



M 1:2

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

## Order Number

370354 | 370355 | 370356 | 370357

### Motor Data (provisional)

		370354	370355	370356	370357	
<b>Values at nominal voltage</b>						
1	Nominal voltage	V	24	36	48	70
2	No load speed	rpm	5778	5778	4865	2806
3	No load current	mA	248	166	100	35
4	Nominal speed	rpm	5538	5538	4615	2545
5	Nominal torque (max. continuous torque)	mNm	349	349	356	380
6	Nominal current (max. continuous current)	A	9.04	6.03	3.88	1.63
7	Stall torque	mNm	8416	8416	6956	4091
8	Starting current	A	212	142	74	17
9	Max. efficiency	%	93	93	93	91
<b>Characteristics</b>						
10	Terminal resistance	Ω	0.113	0.254	0.649	4.068
11	Terminal inductance	mH	0.094	0.211	0.528	3.371
12	Torque constant	mNm / A	39.6	59.4	94.1	238
13	Speed constant	rpm / V	241	161	102	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	gcm <sup>2</sup>	584	584	578	584

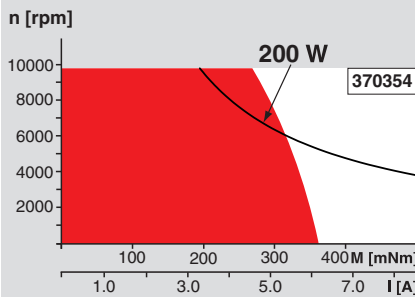
### Specifications

- 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 9800 rpm
  - 24 Axial play at axial load < 12 N 0 mm
  - > 12 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.

### 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

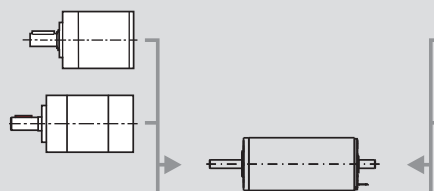
Overview on page 16 - 21

#### Planetary Gearhead

Ø52 mm  
4 - 30 Nm  
Page 243

#### Planetary Gearhead

Ø62 mm  
8 - 50 Nm  
Page 245



**Encoder HED\_ 5540**  
500 CPT,  
3 channels  
Page 269 / 271

#### Recommended Electronics:

- ADS 50/5 Page 282
- ADS 50/10 283
- ADS\_E 50/5 283
- ADS\_E 50/10 283
- EPOS2 50/5 303
- EPOS 70/10 303
- Notes 18