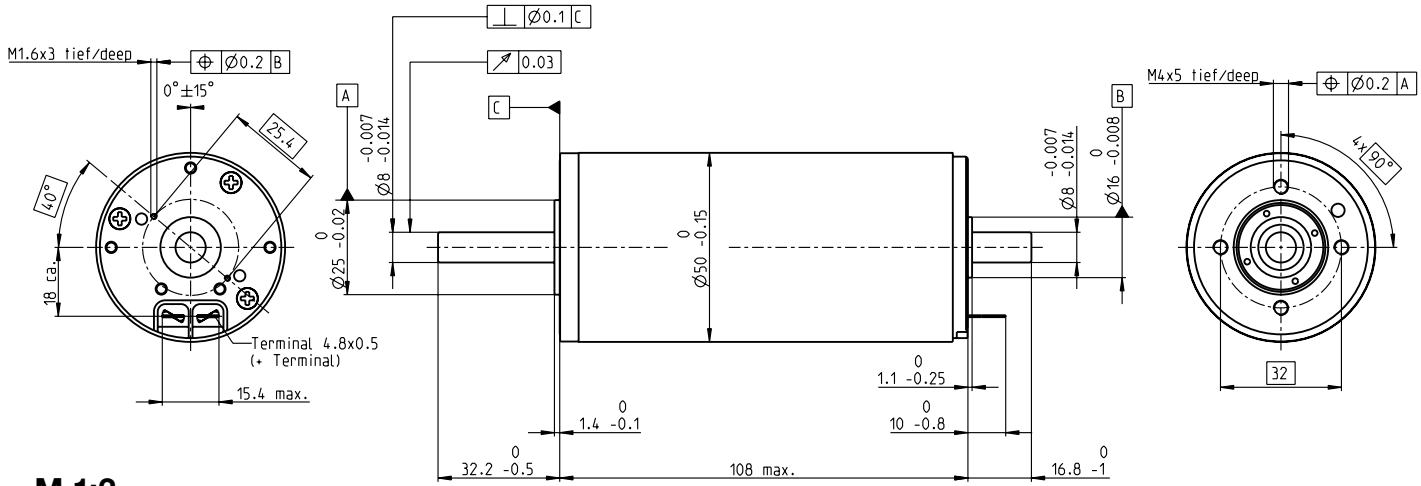


# RE 50 Ø50 mm, Graphite Brushes, 200 Watt



M 1:2

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

Part Numbers				
370354	370355	370356	370357	
389089	389090	389091	389092	

Industrial Version IP54\*

Motor Data					
<b>Values at nominal voltage</b>					
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 Stall current	A	232	148	78.9	17.9
9 Max. efficiency	%	94	94	94	92
<b>Characteristics</b>					
10 Terminal resistance	Ω	0.103	0.244	0.608	3.9
11 Terminal inductance	mH	0.072	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. winding temperature	+125°C

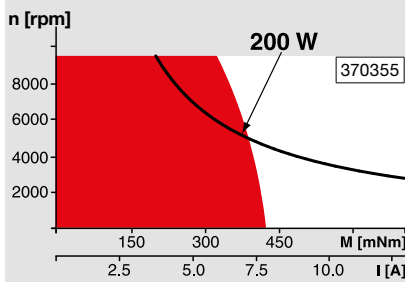
Mechanical data (preloaded ball bearings)	
23 Max. speed	9500 rpm
24 Axial play at axial load < 11.5 N	0 mm
> 11.5 N	0.1 mm
25 Radial play	preloaded
26 Max. axial load (dynamic)	30 N
27 Max. force for press fits (static) (static, shaft supported)	150 N 6000 N
28 Max. radial load, 15 mm from flange	110 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 64.

\* Industrial version with radial shaft seal ring (resulting in increased no load current). IP54 protection only if mounted on brush side, in compliance with maxon modular system.

## 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 28–36

<p><b>Planetary Gearhead</b> Ø52 mm 4 - 30 Nm Page 350</p> <p><b>Planetary Gearhead</b> Ø62 mm 8 - 50 Nm Page 352</p>		<p><b>Recommended Electronics:</b> Notes Page 30</p> <ul style="list-style-type: none"> <li>ESCON Mod. 50/5 427</li> <li>ESCON 50/5 428</li> <li>ESCON 70/10 428</li> <li>EPOS2 50/5 435</li> <li>EPOS2 70/10 435</li> <li>EPOS4 Module/CB 50/5 442</li> <li>EPOS4 Module 50/8 443</li> <li>EPOS4 Comp. 50/8 CAN 443</li> <li>EPOS4 Module 50/15 444</li> <li>EPOS4 Comp. 50/15 CAN 444</li> <li>MAXPOS 50/5 447</li> </ul>	<p><b>Encoder HEDS 5540</b> 500 CPT, 3 channels Page 414</p> <p><b>Encoder HEDL 5540</b> 500 CPT, 3 channels Page 416</p> <p><b>Industrial Version IP54*</b> <b>Encoder HEDL 9140</b> Page 420</p> <p><b>Brake AB 44</b> Page 462</p> <p><b>End cap</b> Page 463</p>
---	--	---	--