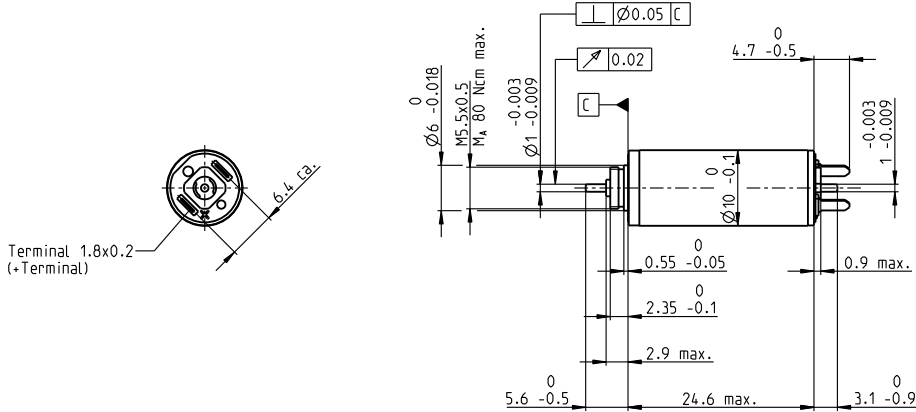


# RE 10 Ø10 mm, Precious Metal Brushes, 1.5 Watt



M 1:1

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

## Part Numbers

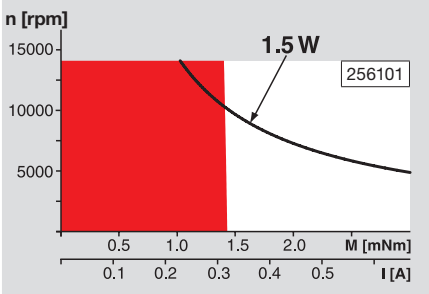
256096 | 256097 | 256099 | 256100 | 256101 | 256102 | 256103 | 256104 | 256105

Motor Data											
Values at nominal voltage											
		2.4	2.4	4.5	4.5	6	7.2	9	10	12	
1	Nominal voltage	V	2.4	2.4	4.5	4.5	6	7.2	9	10	12
2	No load speed	rpm	10400	8560	12800	10600	12400	11900	12200	12300	12500
3	No load current	mA	21.7	17	15.1	11.8	10.8	8.55	7.06	6.45	5.5
4	Nominal speed	rpm	4170	2230	6530	4210	6160	5900	6080	6250	6510
5	Nominal torque (max. continuous torque)	mNm	1.51	1.49	1.48	1.47	1.5	1.56	1.53	1.54	1.55
6	Nominal current (max. continuous current)	A	0.715	0.583	0.462	0.379	0.339	0.282	0.226	0.207	0.176
7	Stall torque	mNm	2.49	2.02	3.04	2.47	3.01	3.13	3.08	3.14	3.24
8	Stall current	A	1.15	0.771	0.919	0.619	0.66	0.549	0.444	0.412	0.36
9	Max. efficiency	%	75	73	76	75	76	77	77	77	77
Characteristics											
10	Terminal resistance	Ω	2.08	3.11	4.9	7.27	9.09	13.1	20.3	24.3	33.3
11	Terminal inductance	mH	0.017	0.025	0.04	0.059	0.077	0.12	0.178	0.215	0.299
12	Torque constant	mNm/A	2.16	2.62	3.3	3.99	4.56	5.7	6.95	7.63	9
13	Speed constant	rpm/V	4410	3640	2890	2400	2100	1680	1370	1250	1060
14	Speed / torque gradient	rpm/mNm	4240	4330	4280	4370	4180	3860	4010	3980	3930
15	Mechanical time constant	ms	4.62	4.61	4.6	4.59	4.58	4.56	4.59	4.56	4.56
16	Rotor inertia	gcm <sup>2</sup>	0.104	0.102	0.102	0.1	0.105	0.113	0.109	0.11	0.111

## Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient: 37.5 K/W
  - 18 Thermal resistance winding-housing: 9.0 K/W
  - 19 Thermal time constant winding: 2.22 s
  - 20 Thermal time constant motor: 135 s
  - 21 Ambient temperature: -20...+65°C
  - 22 Max. winding temperature: +85°C
- Mechanical data (sleeve bearings)**
- 23 Max. speed: 14000 rpm
  - 24 Axial play: 0.05 - 0.15 mm
  - 25 Radial play: 0.012 mm
  - 26 Max. axial load (dynamic): 0.15 N
  - 27 Max. force for press fits (static): 15 N
  - 28 Max. radial load, 4 mm from flange: 0.4 N
- Other specifications**
- 29 Number of pole pairs: 1
  - 30 Number of commutator segments: 7
  - 31 Weight of motor: 10 g
- Values listed in the table are nominal.  
Explanation of the figures on page 151.

## 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

**Planetary Gearhead**  
Ø10 mm  
0.005 - 0.1 Nm  
Page 313

**Planetary Gearhead**  
Ø10 mm  
0.01 - 0.15 Nm  
Page 314

**Recommended Electronics:**  
Page 24

ESCON Module 24/2: 416

ESCON 36/2 DC: 416

EPOS2 24/2: 424

EPOS2 Module 36/2: 424

**Encoder MR**  
16 CPT,  
2 channels  
Page 385

**Encoder MR**  
64 - 256 CPT,  
2 channels  
Page 386

**Encoder MEnc**  
Ø10 mm  
12 CPT, 2 channels  
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Overview on page 20–27