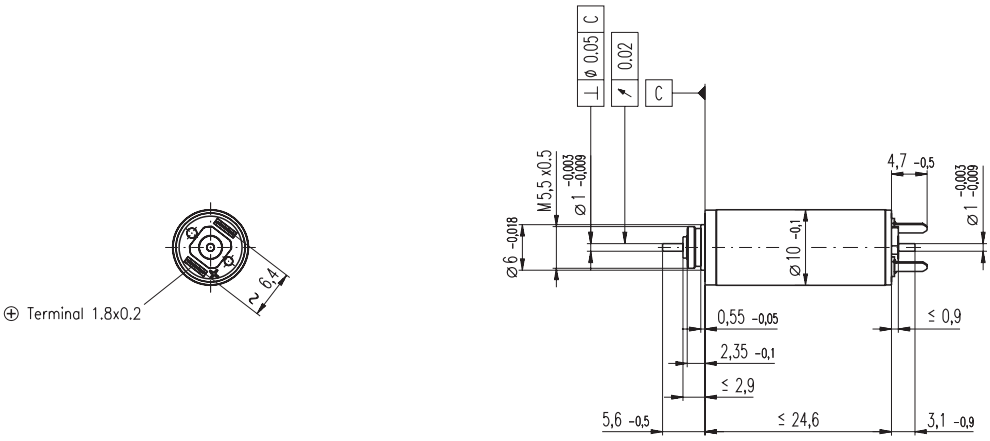
RE 10 ∅10 mm, Precious Metal Brushes, 1.5 Watt, CE approved



M 1:1

Stock program
Standard program
Special program (on request)

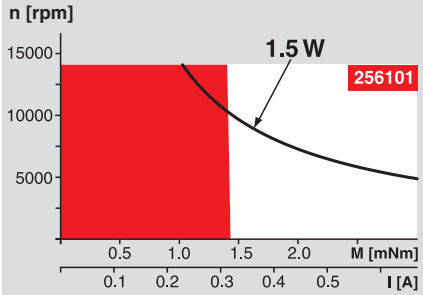
			Order Number								
			256096	256097	256099	256100	256101	256102	256103	256104	256105
Motor Data											
	Values at nominal voltage										
1	Nominal voltage	V	2.4	2.4	4.5	4.5	6.0	7.2	9.0	10.0	12.0
2	No load speed	rpm	10400	8550	12800	10600	12400	11900	12200	12300	12500
3	No load current	mA	21.7	17.0	15.1	11.8	10.8	8.55	7.06	6.45	5.50
4	Nominal speed	rpm	4100	2180	6500	4190	6140	5890	6070	6240	6500
5	Nominal torque (max. continuous torque)	mNm	1.49	1.48	1.48	1.47	1.50	1.56	1.53	1.53	1.54
6	Nominal current (max. continuous current)	A	0.707	0.579	0.460	0.378	0.338	0.281	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	Starting current	A	1.15	0.771	0.919	0.619	0.660	0.549	0.444	0.412	0.360
9	Max. efficiency	%	75	73	76	75	76	77	77	77	77
	Characteristics										
10	Terminal resistance	Ω	2.08	3.11	4.90	7.27	9.09	13.1	20.3	24.3	33.3
11	Terminal inductance	mH	0.0173	0.0253	0.0402	0.0586	0.0766	0.120	0.178	0.215	0.299
12	Torque constant	mNm / A	2.16	2.62	3.30	3.99	4.56	5.70	6.95	7.63	9.00
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	4.60	4.58	4.57	4.57	4.55	4.54	4.56	4.54	4.53
16	Rotor inertia	gcm²	0.103	0.101	0.102	0.0998	0.104	0.112	0.109	0.109	0.110

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	2.21 s
20	Thermal time constant motor	188 s
21	Ambient temperature	-20 ... +65°C
22	Max. permissible winding temperature	+85°C
	Mechanical data (sleeve bearings)	
23	Max. permissible 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 loading, 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 47.

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).

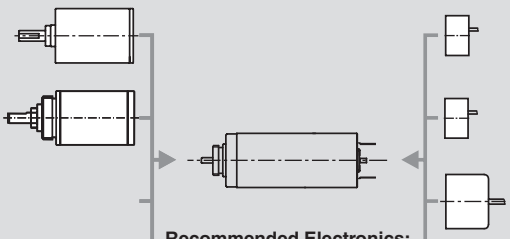
Assigned power rating

maxon Modular System

Overview on page 16 - 21

Planetary Gearhead
∅10 mm
0.005 - 0.1 Nm
Page 206

Planetary Gearhead
∅10 mm
0.01 - 0.15 Nm
Page 207



Encoder MR
16 CPT,
2 channels
Page 244

Encoder MR
64 / 128 / 256 CPT,
2 channels
Page 245

Encoder MEnc
∅10 mm
12 CPT, 2 channels
Page 261

Recommended Electronics:

LSC 30/2	Page 268
EPOS 24/1	286
MIP 10	289
Notes	**18**