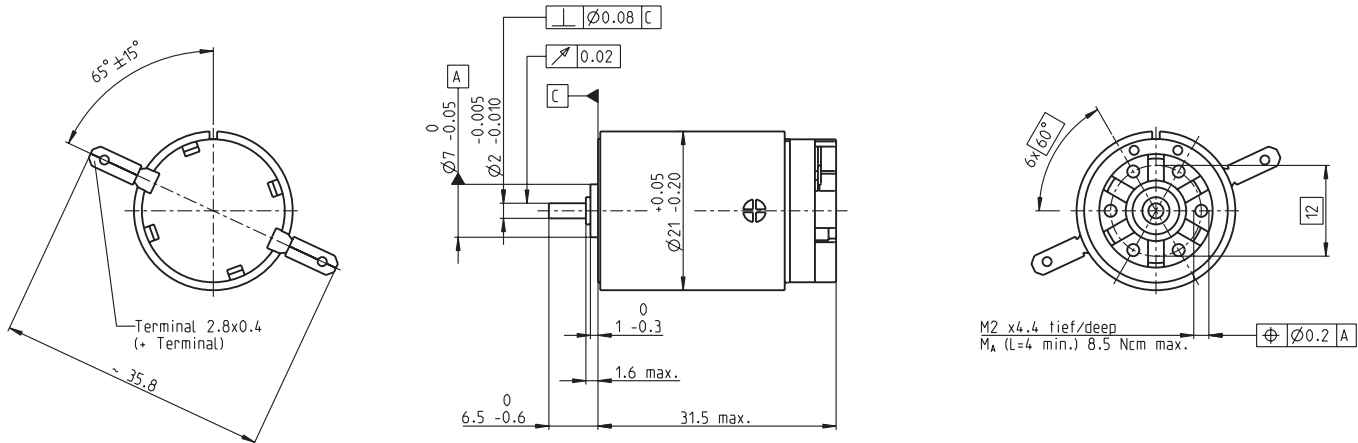


RE-max 21 Ø21 mm, Graphite Brushes, 6 Watt



M 1:1

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

Part Numbers

250000 250001 **250002** 250003 250004 250005 250006 250007 250008

Motor Data

Values at nominal voltage			4	6	9	15	18	21	24	36	48						
1	Nominal voltage	V	4	6	9	15	18	21	24	36	48						
2	No load speed	rpm	11200	9440	9880	10200	9680	9470	8650	9780	9320						
3	No load current	mA	150	81	56.9	35.7	27.7	23.2	18.2	14	9.95						
4	Nominal speed	rpm	10700	8230	8230	8140	7580	7320	6480	7580	7090						
5	Nominal torque (max. continuous torque)	mNm	1.91	3.81	5.69	7.13	7.23	7.09	7.14	6.9	6.86						
6	Nominal current (max. continuous current)	A	0.72	0.72	0.72	0.552	0.44	0.362	0.292	0.213	0.151						
7	Stall torque	mNm	45.4	30.9	34.8	35.2	33.7	31.6	28.8	31.1	29.1						
8	Stall current	A	13.6	5.19	4.07	2.56	1.93	1.52	1.11	0.9	0.602						
9	Max. efficiency	%	79	76	78	78	78	77	76	77	76						
Characteristics																	
10	Terminal resistance	Ω	0.295	1.16	2.21	5.86	9.32	13.8	21.7	40	79.7						
11	Terminal inductance	mH	0.013	0.041	0.085	0.22	0.354	0.503	0.786	1.39	2.71						
12	Torque constant	mNm/A	3.35	5.95	8.55	13.8	17.5	20.8	26	34.6	48.3						
13	Speed constant	rpm/V	2850	1600	1120	694	546	459	367	276	198						
14	Speed / torque gradient	rpm/mNm	252	312	289	295	291	305	305	319	326						
15	Mechanical time constant	ms	6.77	6.87	6.68	6.72	6.7	6.76	6.78	6.98	6.88						
16	Rotor inertia	gcm ²	2.57	2.1	2.21	2.17	2.2	2.12	2.12	2.09	2.02						

Specifications

Thermal data	
17 Thermal resistance housing-ambient	28 K/W
18 Thermal resistance winding-housing	8.0 K/W
19 Thermal time constant winding	8.75 s
20 Thermal time constant motor	501 s
21 Ambient temperature	-30...+85°C
22 Max. winding temperature	+125°C
Mechanical data (sleeve bearings)	
23 Max. speed	12000 rpm
24 Axial play	0.05 - 0.15 mm
25 Radial play	0.012 mm
26 Max. axial load (dynamic)	1 N
27 Max. force for press fits (static)	80 N
28 Max. radial load, 5 mm from flange	2.7 N

Mechanical data (ball bearings)	
23 Max. speed	12000 rpm
24 Axial play	0.05 - 0.15 mm
25 Radial play	0.025 mm
26 Max. axial load (dynamic)	3.3 N
27 Max. force for press fits (static)	45 N
28 Max. radial load, 5 mm from flange	11.9 N

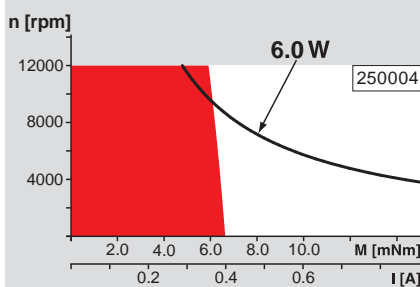
Other specifications	
29 Number of pole pairs	1
30 Number of commutator segments	9
31 Weight of motor	42 g

Values listed in the table are nominal.
Explanation of the figures on page 107.

Option

Ball bearings in place of sleeve bearings
Pigtails in place of terminals

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 20–25

Planetary Gearhead

Ø22 mm

0.5 - 1.0 Nm

Page 293

Planetary Gearhead

Ø22 mm

0.5 - 2.0 Nm

Page 295

Spur Gearhead

Ø38 mm

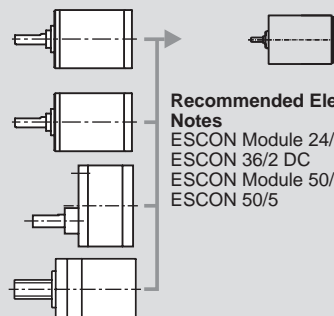
0.1 - 0.6 Nm

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Spindle Drive

Ø22 mm

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Recommended Electronics:

Notes Page 22

ESCON Module 24/2 378

ESCON 36/2 DC 378

ESCON Module 50/5 379

ESCON 50/5 380