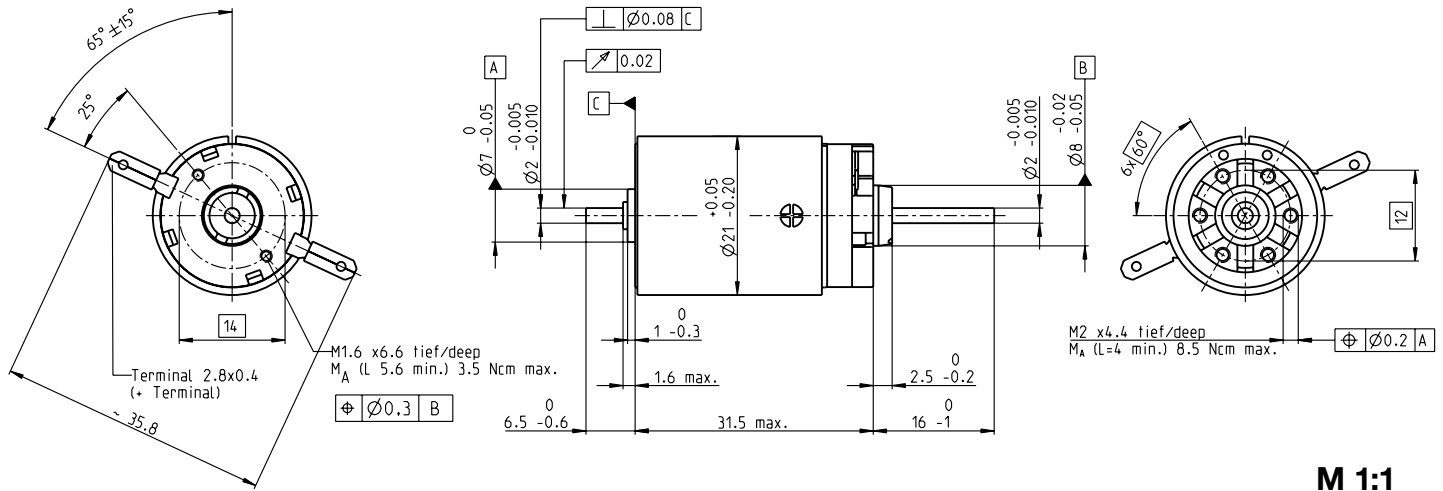


RE-max 21 Ø21 mm, Graphite Brushes, 6 Watt



M 1:1

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

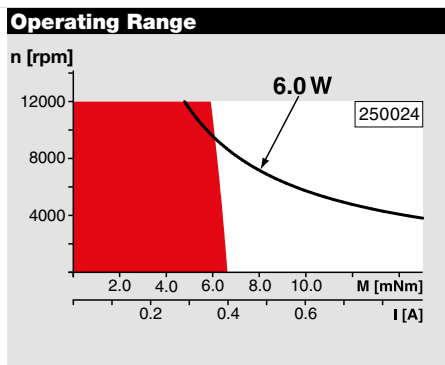
Part Numbers

250020	250021	250022	250023	250024	250025	250026	250027	250028
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Motor Data											
Values at nominal voltage											
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		6.69	6.77	6.59	6.62	6.6	6.66	6.68	6.88	6.77
16 Rotor inertia	gcm ²		2.54	2.07	2.18	2.14	2.16	2.09	2.09	2.06	1.99

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	502 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) (static, shaft supported)	80 N / 420 N
28 Max. radial load, 5 mm from flange	2.7 N



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

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) (static, shaft supported)	45 N / 420 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 64.

Option

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

maxon Modular System

Planetary Gearhead
Ø22 mm
0.5 - 1.0 Nm
Page 325

Planetary Gearhead
Ø22 mm
0.5 - 2.0 Nm
Page 327

Spur Gearhead
Ø38 mm
0.1 - 0.6 Nm
Page 344

Spindle Drive
Ø22 mm
Page 364/365

Encoder MR
32 CPT,
2 / 3 channels
Page 401

Encoder MR
128 / 256 / 512 CPT,
2 / 3 channels
Page 403

Recommended Electronics:
Notes Page 30

ESCON Module 24/2	426
ESCON 36/2 DC	426
ESCON Module 50/5	427
ESCON 50/5	428
EPOS2 24/2	434
EPOS2 Module 36/2	434
EPOS2 50/5	435
EPOS4 Mod./CB 24/1.5	441
EPOS4 Module/CB 50/5	442
MAXPOS 50/5	447