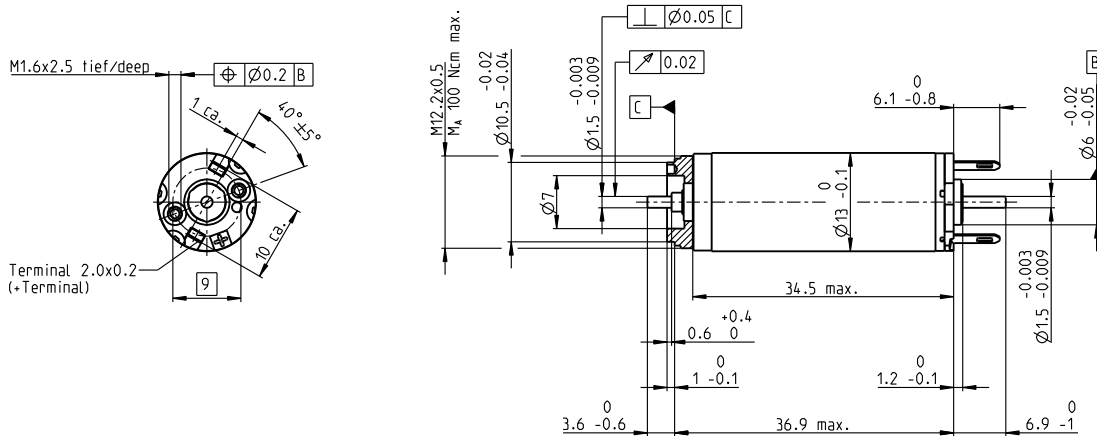


RE 13 Ø13 mm, Graphite Brushes, 3 Watt



M 1:1

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

Part Numbers

118628	118629	118630	118631	118632	118633	118634	118635	118636	118637	118638	118639	118640	118641	118642
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Motor Data																
Values at nominal voltage																
1 Nominal voltage	V	3	3.6	3.6	4.8	6	6	7.2	9	10	12	15	18	21	24	30
2 No load speed	rpm	12000	13600	11900	13600	13600	12100	13100	13800	13200	13300	13400	13000	14100	13800	14000
3 No load current	mA	168	164	136	121	95.5	81	75.3	64	53.9	45.4	36.8	29.2	28	23.8	19.5
4 Nominal speed	rpm	9520	10800	8780	10100	10300	8660	9790	10600	10100	10200	10400	9910	11100	10800	11000
5 Nominal torque (max. continuous torque)	mNm	1.22	1.32	1.58	1.92	2.05	2.17	2.12	2.17	2.32	2.3	2.31	2.36	2.29	2.33	2.28
6 Nominal current (max. continuous current)	A	0.72	0.72	0.72	0.72	0.602	0.558	0.495	0.422	0.383	0.319	0.259	0.212	0.192	0.167	0.134
7 Stall torque	mNm	7.44	8.13	7.11	8.58	9.25	8.35	9.03	10.1	10.5	10.4	10.5	10.4	11.1	11	10.9
8 Stall current	A	3.46	3.51	2.69	2.73	2.33	1.87	1.82	1.69	1.52	1.25	1.03	0.814	0.809	0.688	0.556
9 Max. efficiency	%	50	53	53	57	60	60	61	63	64	65	65	66	66	66	66
Characteristics																
10 Terminal resistance	Ω	0.867	1.02	1.34	1.76	2.57	3.21	3.96	5.32	6.6	9.56	14.6	22.1	26	34.9	54
11 Terminal inductance	mH	0.021	0.025	0.032	0.046	0.073	0.092	0.114	0.164	0.223	0.316	0.486	0.75	0.871	1.19	1.79
12 Torque constant	mNm/A	2.15	2.31	2.65	3.14	3.97	4.46	4.96	5.95	6.94	8.27	10.2	12.7	13.7	16	19.7
13 Speed constant	rpm/V	4440	4130	3610	3040	2410	2140	1930	1600	1380	1160	932	750	696	595	485
14 Speed / torque gradient	rpm/mNm	1790	1830	1830	1700	1560	1540	1430	1310	1340	1330	1300	1320	1320	1300	1330
15 Mechanical time constant	ms	12.8	11.4	10.5	9.44	8.68	8.46	8.23	7.93	7.74	7.62	7.51	7.42	7.39	7.37	7.38
16 Rotor inertia	gcm ²	0.681	0.596	0.548	0.53	0.53	0.526	0.512	0.528	0.565	0.545	0.541	0.544	0.536	0.543	0.529

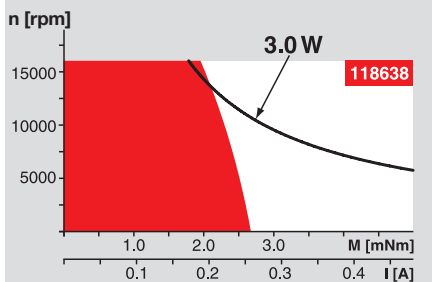
Specifications

Thermal data	
17 Thermal resistance housing-ambient	33 K/W
18 Thermal resistance winding-housing	7.0 K/W
19 Thermal time constant winding	4.88 s
20 Thermal time constant motor	259 s
21 Ambient temperature	-20...+65°C
22 Max. winding temperature	+85°C
Mechanical data (sleeve bearings)	
23 Max. speed	16000 rpm
24 Axial play	0.05 - 0.15 mm
25 Radial play	0.014 mm
26 Max. axial load (dynamic)	0.8 N
27 Max. force for press fits (static) (static, shaft supported)	15 N
28 Max. radial load, 5 mm from flange	1.4 N

Other specifications	
29 Number of pole pairs	1
30 Number of commutator segments	7
31 Weight of motor	27 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

<p>Planetary Gearhead Ø13 mm 0.05 - 0.15 Nm Page 316</p> <p>Planetary Gearhead Ø13 mm 0.2 - 0.35 Nm Page 317</p>	<p>Recommended Electronics: Notes Page 24</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>ESCON Module 24/2</td> <td style="text-align: right;">416</td> </tr> <tr> <td>ESCON 36/2 DC</td> <td style="text-align: right;">416</td> </tr> <tr> <td>ESCON Module 50/5</td> <td style="text-align: right;">417</td> </tr> <tr> <td>ESCON 50/5</td> <td style="text-align: right;">418</td> </tr> <tr> <td>EPOS2 24/2</td> <td style="text-align: right;">424</td> </tr> <tr> <td>EPOS2 Module 36/2</td> <td style="text-align: right;">424</td> </tr> <tr> <td>MAXPOS 50/5</td> <td style="text-align: right;">435</td> </tr> </table>	ESCON Module 24/2	416	ESCON 36/2 DC	416	ESCON Module 50/5	417	ESCON 50/5	418	EPOS2 24/2	424	EPOS2 Module 36/2	424	MAXPOS 50/5	435	<p style="text-align: center;">Overview on page 20-27</p> <p>Encoder MR 16 CPT, 2 channels Page 385</p> <p>Encoder MR 64 - 256 CPT, 2 channels Page 386/387</p> <p>Encoder MEenc Ø13 mm 16 CPT, 2 channels Page 409</p>
ESCON Module 24/2	416															
ESCON 36/2 DC	416															
ESCON Module 50/5	417															
ESCON 50/5	418															
EPOS2 24/2	424															
EPOS2 Module 36/2	424															
MAXPOS 50/5	435															