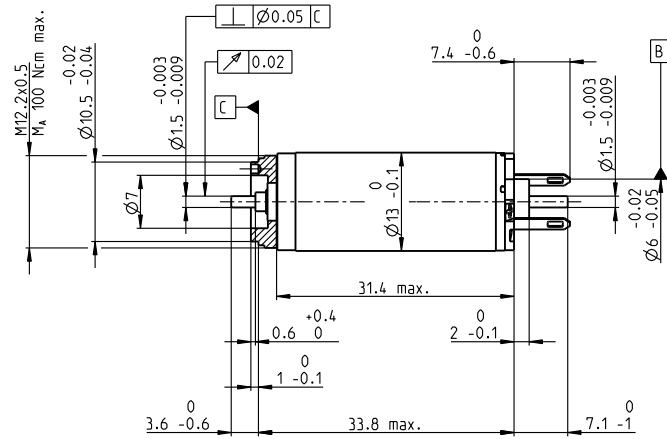
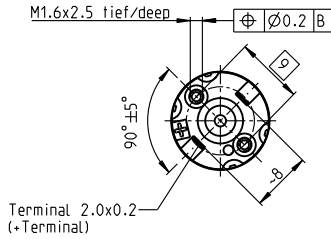


RE 13 \varnothing 13 mm, precious metal brushes, 2 watt

RE



M 1:1

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

Part Numbers

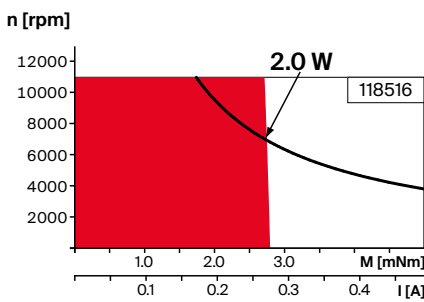
Motor Data	118506	118507	118508	118509	118510	118511	118512	118513	118514	118515	118516	118517	118518	118519	118520
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Motor Data	118506	118507	118508	118509	118510	118511	118512	118513	118514	118515	118516	118517	118518	118519	118520	
Values at nominal voltage																
1 Nominal voltage	V	1.5	1.5	1.8	2.4	3	3	3.6	4.2	4.8	6	7.2	9	10	12	15
2 No load speed	rpm	6570	6090	6380	7170	7100	6300	6800	6620	6490	6810	6590	6630	6840	7020	7150
3 No load current	mA	43.8	39.8	35.3	30.8	24.3	20.8	19.2	15.8	13.5	11.5	9.19	7.41	6.94	5.99	4.91
4 Nominal speed	rpm	5170	4320	4160	4400	3560	2550	3000	2880	2880	3130	2880	2940	3120	3330	3400
5 Nominal torque	mNm	1.46	1.58	1.82	2.18	2.78	2.91	2.85	2.91	3.02	2.95	2.93	2.94	2.92	2.93	2.88
6 Nominal current (max. continuous current)	A	0.72	0.72	0.72	0.72	0.72	0.669	0.592	0.502	0.446	0.367	0.294	0.237	0.218	0.188	0.151
7 Stall torque	mNm	6.22	5.12	5.01	5.5	5.51	4.86	5.1	5.16	5.46	5.49	5.26	5.34	5.42	5.63	5.54
8 Stall current	A	2.89	2.21	1.89	1.75	1.39	1.09	1.03	0.866	0.786	0.665	0.514	0.419	0.395	0.351	0.282
9 Max. efficiency	%	77	75	75	76	76	75	75	75	76	76	75	76	76	76	76
Characteristics																
10 Terminal resistance	Ω	0.519	0.679	0.951	1.37	2.16	2.75	3.5	4.85	6.11	9.03	14	21.5	25.3	34.2	53.2
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	1070	1210	1300	1330	1310	1320	1360	1310	1210	1260	1270	1260	1280	1270	1310
15 Mechanical time constant	ms	765	755	745	737	728	727	728	723	716	72	721	721	721	722	727
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 Operating Range Comments

- 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 229 s
 - 21 Ambient temperature -20...+65°C
 - 22 Max. winding temperature +85°C

- Mechanical data (sleeve bearings)**
- 23 Max. speed 11 000 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) 15 N
 - (static, shaft supported) 95 N
 - 28 Max. radial load, 5 mm from flange 1.4 N



- 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**

Other specifications Modular System Details on catalog page 44

- 29 Number of pole pairs 1
- 30 Number of commutator segments 7
- 31 Weight of motor 24 g

- Gear**
- 399_GP 13 K
 - 400_GP 13 A

- Sensor**
- 472_ENX 13 GAMA
 - 504_Encoder MR 16 CPT
 - 505_Encoder MR 64-256 CPT
 - 506_Encoder MR 64-256 CPT

- Motor Control**
- 532_ESCON Module 24/2
 - 532_ESCON 36/2 DC
 - 541_EPOS4 Micro 24/5
 - 542_EPOS4 Module 24/1.5
 - 543_EPOS4 Compact 24/5 3-axes
 - 544_EPOS4 Compact 24/1.5

Values listed in the table are nominal.
Explanation of the figures on page 90.