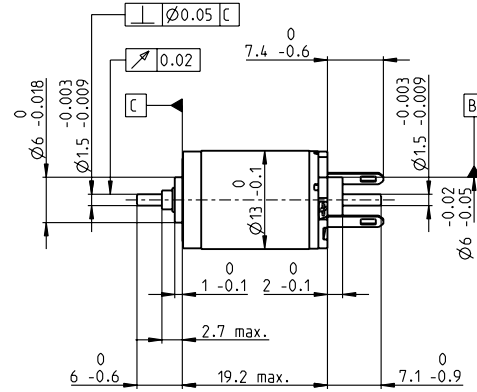
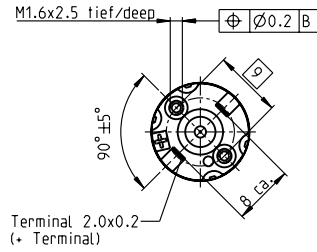


# RE 13 $\varnothing$ 13 mm, precious metal brushes, 0.75 watt

RE



M 1:1

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

## Part Numbers

Motor Data	118431	118432	118433	118434	118435	118436	118437	118438	118439	118440	118441	118442	118443	118444	118445
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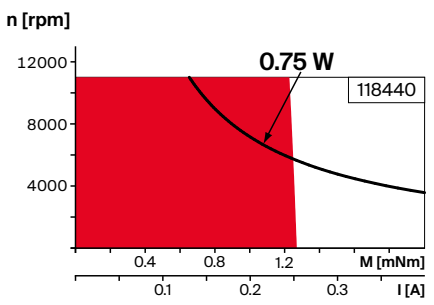
Values at nominal voltage																
1 Nominal voltage	V	0.6	0.72	0.9	1.2	1.5	1.8	1.8	2.4	3	3.6	4.8	6	6	7.2	10
2 No load speed	rpm	6900	6710	6590	7250	6990	6850	5950	6490	6700	6480	6950	7000	6530	6650	7030
3 No load current	mA	88.2	71.7	56.1	473	36.2	29.4	24.7	20.6	171	13.7	11.2	9.06	8.33	7.09	5.46
4 Nominal speed	rpm	5170	3920	3070	2740	1430	1430	682	1350	1300	1090	1520	1510	990	1140	1480
5 Nominal torque	mNm	0.511	0.643	0.837	1.03	1.26	1.3	1.34	1.28	1.3	1.3	1.29	1.28	1.26	1.27	1.26
6 Nominal current (max. continuous current)	A	0.72	0.72	0.72	0.72	0.671	0.562	0.504	0.396	0.331	0.268	0.213	0.17	0.158	0.134	0.101
7 Stall torque	mNm	1.71	1.44	1.51	1.63	1.59	1.66	1.54	1.66	1.66	1.61	1.7	1.68	1.54	1.59	1.65
8 Stall current	A	2.14	1.47	1.21	1.08	0.812	0.69	0.557	0.489	0.404	0.318	0.269	0.214	0.184	0.161	0.127
9 Max. efficiency	%	64	61	62	63	63	63	63	64	64	63	64	64	62	63	63
Characteristics																
10 Terminal resistance	$\Omega$	0.281	0.491	0.742	1.11	1.85	2.61	3.23	4.9	7.42	11.3	17.8	28	32.6	44.9	78.8
11 Terminal inductance	mH	0.006	0.009	0.015	0.022	0.036	0.054	0.072	0.108	0.158	0.243	0.377	0.579	0.661	0.921	1.59
12 Torque constant	mNm/A	0.802	0.98	1.25	1.51	1.96	2.41	2.76	3.39	4.1	5.08	6.32	7.84	8.37	9.89	13
13 Speed constant	rpm/V	11900	9740	7660	6310	4870	3970	3460	2820	2330	1880	1510	1220	1140	966	734
14 Speed / torque gradient	rpm/mNm	4170	4880	4560	4640	4600	4310	4040	4090	4220	4190	4250	4350	4440	4380	4450
15 Mechanical time constant	ms	15.6	14.9	14.3	14.1	13.9	13.7	13.5	13.5	13.5	13.5	13.6	13.7	13.6	13.6	13.7
16 Rotor inertia	gcm <sup>2</sup>	0.358	0.291	0.299	0.29	0.288	0.303	0.318	0.315	0.306	0.308	0.304	0.3	0.293	0.297	0.294

## Specifications      Operating Range      Comments

- Thermal data**
- 17 Thermal resistance housing-ambient 46 K/W
  - 18 Thermal resistance winding-housing 14 K/W
  - 19 Thermal time constant winding 5.18 s
  - 20 Thermal time constant motor 76.1 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) 170 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 12 g



- **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**

## Modular System      Details on catalog page 44

<b>Sensor</b>	<b>Motor Control</b>
472_ENX 13 GAMA	532_ESCON Module 24/2
504_Encoder MR 16 CPT	532_ESCON 36/2 DC
505_Encoder MR 64-256 CPT	541_EPOS4 Micro 24/5
506_Encoder MR 64-256 CPT	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.