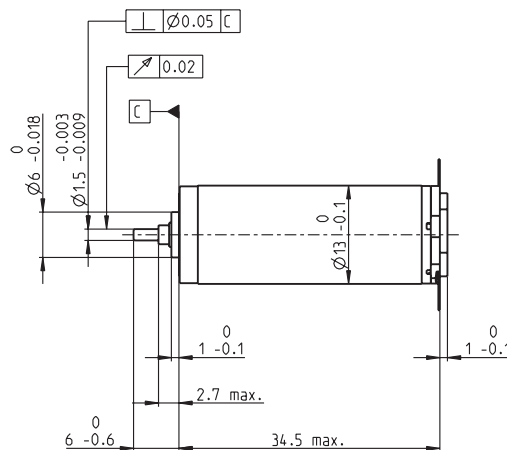
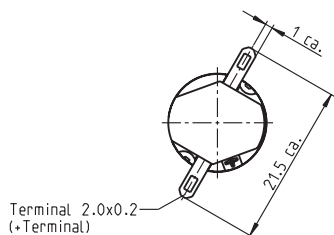


# RE 13 $\varnothing$ 13 mm, Graphite Brushes, 3 Watt



M 1:1

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

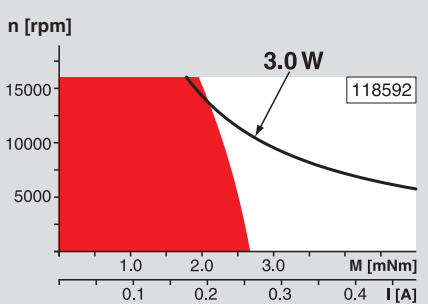
**Order Number**

118582	118583	118584	118585	118586	118587	118588	118589	118590	118591	118592	118593	118594	118595	118596
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Motor Data																	
Values at nominal voltage																	
1	Nominal voltage	V	3.0	3.6	3.6	4.8	6.0	6.0	7.2	9.0	10.0	12.0	15.0	18.0	21.0	24.0	30.0
2	No load speed	rpm	12700	14100	12300	13800	13700	12100	13100	13700	13100	13100	13300	12800	13900	13600	13800
3	No load current	mA	168	163	135	119	93.9	79.5	73.8	62.6	52.7	44.4	35.9	28.5	27.3	23.2	19.0
4	Nominal speed	rpm	11300	12500	10200	11300	10700	9030	10000	10700	10200	10200	10300	9820	10900	10600	10900
5	Nominal torque (max. continuous torque)	mNm	1.22	1.33	1.60	1.95	2.35	2.44	2.35	2.37	2.51	2.45	2.44	2.47	2.39	2.42	2.37
6	Nominal current (max. continuous current)	A	0.720	0.720	0.720	0.720	0.668	0.608	0.532	0.448	0.403	0.331	0.266	0.217	0.196	0.169	0.135
7	Stall torque	mNm	12.1	12.0	9.90	11.0	11.1	9.79	10.3	11.2	11.5	11.1	11.1	10.9	11.6	11.5	11.3
8	Starting current	A	5.51	5.11	3.67	3.43	2.74	2.15	2.04	1.84	1.63	1.32	1.07	0.837	0.828	0.701	0.563
9	Max. efficiency	%	68	68	66	67	67	66	66	67	68	67	67	67	68	68	67
Characteristics																	
10	Terminal resistance	$\Omega$	0.544	0.705	0.980	1.40	2.19	2.79	3.53	4.88	6.14	9.07	14.1	21.5	25.4	34.2	53.3
11	Terminal inductance	mH	0.0213	0.0247	0.0323	0.0456	0.0727	0.092	0.114	0.164	0.223	0.316	0.485	0.749	0.870	1.19	1.79
12	Torque constant	mNm / A	2.19	2.36	2.70	3.20	4.04	4.55	5.05	6.06	7.07	8.42	10.4	13.0	14.0	16.3	20.0
13	Speed constant	rpm / V	4360	4050	3540	2980	2360	2100	1890	1570	1350	1130	914	736	683	584	476
14	Speed / torque gradient	rpm / mNm	1080	1210	1290	1310	1280	1290	1320	1270	1170	1220	1230	1220	1240	1220	1270
15	Mechanical time constant	ms	7.69	7.51	7.36	7.21	7.08	7.04	7.04	6.97	6.90	6.92	6.93	6.91	6.92	6.93	6.97
16	Rotor inertia	gcm <sup>2</sup>	0.677	0.592	0.545	0.527	0.527	0.523	0.509	0.525	0.562	0.541	0.537	0.541	0.533	0.540	0.526

**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 4.85 s
  - 20 Thermal time constant motor 380 s
  - 21 Ambient temperature -20 ... +65°C
  - 22 Max. permissible winding temperature +85°C
- Mechanical data (sleeve bearings)**
- 23 Max. permissible 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) 15 N
  - 28 Max. radial loading, 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**

**maxon Modular System**      Overview on page 16 - 21

- Other specifications**
- 29 Number of pole pairs 1
  - 30 Number of commutator segments 7
  - 31 Weight of motor 23 g

Values listed in the table are nominal.  
Explanation of the figures on page 49.

**Recommended Electronics:**  
LSC 30/2      Page 282  
**Notes**      **18**