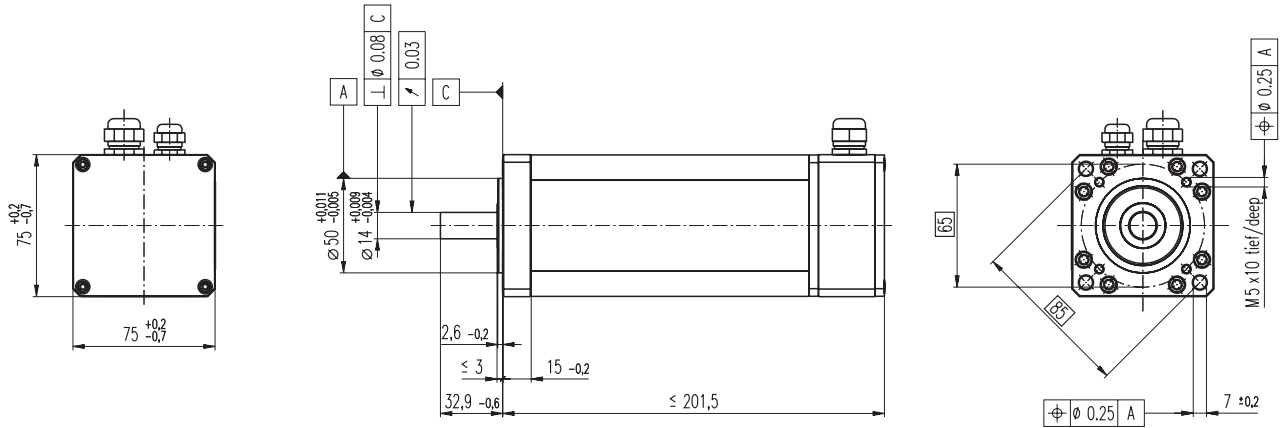


RE 75 □75 mm, Graphite Brushes, 250 Watt



M 1:4

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

Order Number

118819 118820 118821 118822 118823 118824 118825 118826 118827 118828 118829

Motor Data		118819	118820	118821	118822	118823	118824	118825	118826	118827	118828	118829
Values at nominal voltage												
1	Nominal voltage	V	12.0	24.0	36.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0
2	No load speed	rpm	1820	2760	2880	3100	2480	2300	1940	1550	1270	1150
3	No load current	mA	568	518	366	306	214	190	146	105	78.6	68.6
4	Nominal speed	rpm	1540	2510	2650	2870	2250	2060	1710	1320	1030	909
5	Nominal torque (max. continuous torque)	mNm	551	630	697	718	776	786	839	867	875	884
6	Nominal current (max. continuous current)	A	10.0	8.37	6.34	5.23	4.47	4.19	3.74	3.08	2.53	2.32
7	Stall torque	mNm	5960	10600	11300	12100	9630	8760	7810	6190	4900	4450
8	Starting current	A	103	133	97.0	83.6	53.0	44.6	33.6	21.3	13.8	11.3
9	Max. efficiency	%	75	83	85	86	86	85	85	85	84	84
Characteristics												
10	Terminal resistance	Ω	0.117	0.181	0.371	0.574	0.905	1.08	1.43	2.25	3.49	4.23
11	Terminal inductance	mH	0.0402	0.076	0.161	0.251	0.393	0.458	0.643	1.01	1.51	1.83
12	Torque constant	mNm / A	58.1	79.9	116	145	182	196	233	291	356	392
13	Speed constant	rpm / V	164	119	82.1	65.7	52.6	48.7	41.1	32.9	26.8	24.3
14	Speed / torque gradient	rpm / mNm	0.331	0.270	0.262	0.26	0.262	0.267	0.252	0.255	0.263	0.263
15	Mechanical time constant	ms	4.95	4.25	4.01	3.93	3.92	3.92	3.86	3.86	3.86	3.86
16	Rotor inertia	gcm ²	1430	1500	1460	1450	1430	1400	1460	1450	1400	1400

Specifications	Operating Range	Comments
Thermal data 17 Thermal resistance housing-ambient 1.3 K / W 18 Thermal resistance winding-housing 1.6 K / W 19 Thermal time constant winding 106 s 20 Thermal time constant motor 1820 s 21 Ambient temperature -30 ... +100°C 22 Max. permissible winding temperature +125°C Mechanical data (preloaded ball bearings) 23 Max. permissible speed 4000 rpm 24 Axial play at axial load < 18 N 0 mm 25 Radial play preloaded 26 Max. axial load (dynamic) 70 N 27 Max. force for press fits (static) (static, shaft supported) 420 N 28 Max. radial loading, 15 mm from flange 12000 N 350 N	Operating Range 	<p>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.</p> <p>Short term operation The motor may be briefly overloaded (recurring).</p> <p>— Assigned power rating</p>

Other specifications	maxon Modular System	Overview on page 16 - 21
29 Number of pole pairs 2 30 Number of commutator segments 26 31 Weight of motor 2800 g Connection Ring terminals ∅ 6 mm Screw fitting for cable PG 13 Diameter of opening ∅ 8 - 15 mm Recommended cable size 2 x 4 mm ² Values listed in the table are nominal. Explanation of the figures on page 49. Option Output shaft with feather key A5 (5 x 5 x 25 DIN 6885) Brush monitoring system Output signal that is free of potential, SPST, N.C. Contact load max. 3 Watt Switching voltage max. 150 VDC Switching current max. 0.25 ADC Screw fitting for cable PG 7 Diameter of opening ∅ 5 - 7 mm	Planetary Gearhead ∅81 mm 20 - 120 Nm Page 250 	Encoder HEDS 5540 500 CPT, 3 channels Page 263 Encoder HEDL 5540 500 CPT, 3 channels Page 265 Brake AB 75 □75 mm 24 VDC, 1.4 Nm Page 311