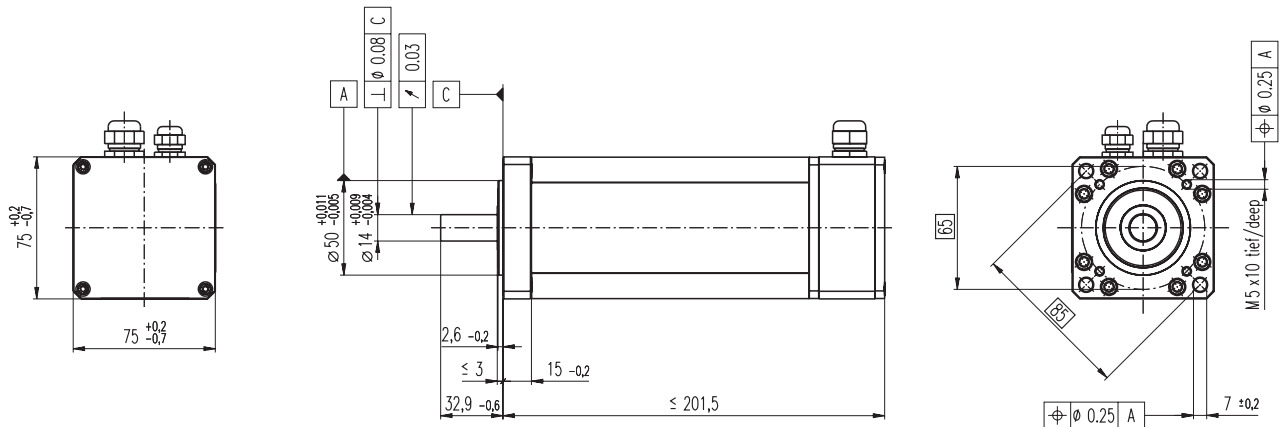


RE 75 □75 mm, Graphite Brushes, 250 Watt, IP54, SEV-approved



M 1:4

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

Order Number

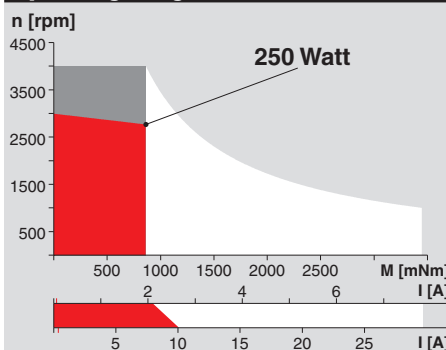
Motor Data		118854	118855	118856	118857	118858	118859	118860	118861	118862	118863	118864				
1	Assigned power rating	W	250	250	250	250	250	250	250	250	250	250				
2	Nominal voltage	Volt	24.0	30.0	48.0	60.0	72.0	80.0	96.0	120	140	160	180			
3	No load speed	rpm	3770	3470	3860	3870	3730	3840	3900	3900	3720	3860	3840			
4	Stall torque	Nm	13.9	13.9	15.5	15.5	14.8	14.9	16.0	15.9	14.6	15.2	14.9			
5	Speed / torque gradient	rpm / mNm	0.283	0.258	0.255	0.255	0.256	0.261	0.246	0.248	0.256	0.256	0.260			
6	No load current	mA	1440	1020	724	580	459	428	363	291	234	215	190			
7	Starting current	A	240	174	133	106	81.3	76.2	68.9	54.6	41.1	38.8	33.7			
8	Terminal resistance	Ohm	0.100	0.173	0.361	0.564	0.886	1.05	1.39	2.20	3.40	4.13	5.34			
9	Max. permissible speed	rpm	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000			
10	Max. continuous current	A	10.0	9.71	7.23	5.98	4.89	4.53	3.98	3.21	2.61	2.38	2.10			
11	Max. continuous torque	mNm	581	776	841	869	888	888	924	934	929	933	930			
12	Max. power output at nominal voltage	W	1290	1200	1520	1530	1420	1480	1610	1600	1410	1520	1490			
13	Max. efficiency	%	80	81	84	84	84	84	85	85	85	85	85			
14	Torque constant	mNm / A	58.1	79.9	116	145	182	196	233	291	356	392	443			
15	Speed constant	rpm / V	164	119	82.1	65.7	52.6	48.7	41.1	32.9	26.8	24.3	21.5			
16	Mechanical time constant	ms	4	4	4	4	4	4	4	4	4	4	4			
17	Rotor inertia	gcm ²	1400	1460	1420	1400	1380	1360	1420	1400	1360	1360	1340			
18	Terminal inductance	mH	0.04	0.08	0.16	0.25	0.39	0.46	0.64	1.01	1.51	1.83	2.34			
19	Thermal resistance housing-ambient	K / W	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3			
20	Thermal resistance rotor-housing	K / W	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6			
21	Thermal time constant winding	s	95	110	100	100	99	97	100	100	97	97	95			

Specifications

- Brush monitoring system, (optional)
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
- Motor connections
Ring terminals Ø 6 mm
Screw fitting for cable PG 13
Diameter of opening 8 - 15 mm
Recommended cable size 2 x 4 mm²
- Protection to IP54, SEV approved
- Axial play < 0.15 mm
- Ball bearing (fixed bearing on flange side)
- Max. ball bearing loads
axial (dynamic) 70 N
radial (15 mm from flange) 350 N
Force for press fits (static) 420 N
(static, shaft supported) 12 000 N
- Ambient temperature range -20 ... +100°C
- Max. rotor temperature +125°C
- Number of commutator segments 26
- Weight of motor 2800 g
- 2 pole permanent magnet
- Values listed in the table are nominal.

- Option: Output shaft with feather key A 5 (5 x 5 x 25 DIN 6885) available on request

Operating Range

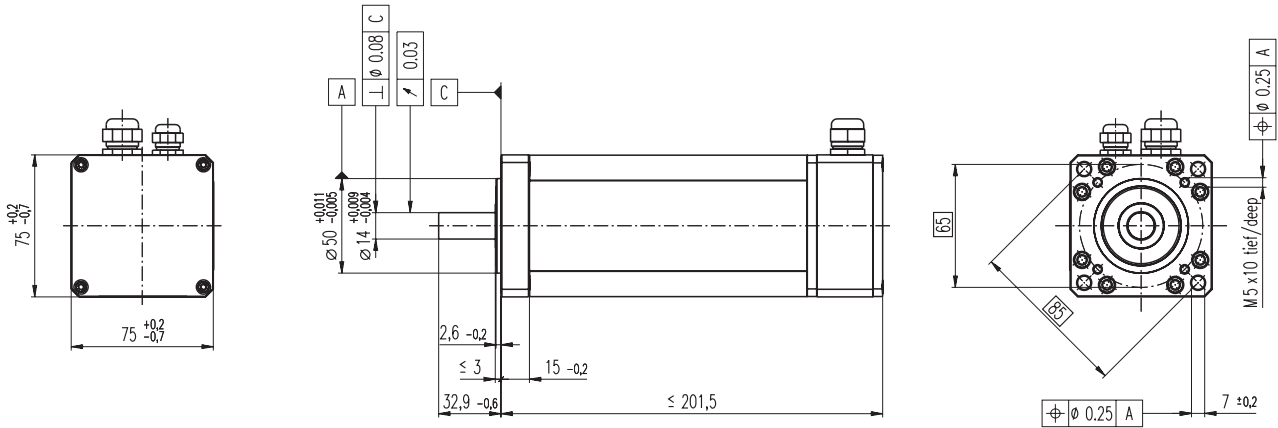


Comments

- **Recommended operating range**
 - **Continuous operation**
In observation of above listed thermal resistances (lines 19 and 20) the maximum permissible rotor temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.
 - **Short term operation**
The motor may be briefly overloaded (recurring).
- 118864 Motor with high resistance winding
118854 Motor with low resistance winding

Recommended Electronics:
 ADS 50/10 page 253
 ADS_E 50/10 254
Notes 17

RE 75 □75 mm, Graphite Brushes, 250 Watt



M 1:4

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

Order Number

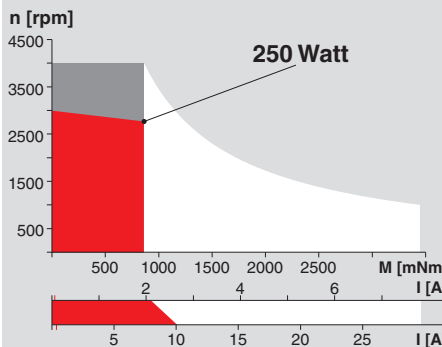
		118819	118820	118821	118822	118823	118824	118825	118826	118827	118828	118829				
Motor Data																
1	Assigned power rating	W	250	250	250	250	250	250	250	250	250	250				
2	Nominal voltage	Volt	12.0	24.0	36.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0				
3	No load speed	rpm	1850	2770	2890	3100	2480	2300	1940	1550	1270	1150	1020			
4	Stall torque	Nm	6.27	10.9	11.4	12.3	9.72	8.83	7.87	6.23	4.93	4.48	3.91			
5	Speed / torque gradient	rpm / mNm	0.314	0.263	0.259	0.257	0.260	0.264	0.250	0.253	0.261	0.261	0.265			
6	No load current	mA	571	520	367	306	214	190	147	105	79	69	58			
7	Starting current	A	108	136	98.4	84.5	53.5	45.0	33.9	21.4	13.8	11.4	8.82			
8	Terminal resistance	Ohm	0.111	0.176	0.366	0.568	0.897	1.07	1.42	2.24	3.47	4.21	5.44			
9	Max. permissible speed	rpm	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000			
10	Max. continuous current	A	10.00	9.70	7.23	5.98	4.89	4.53	3.98	3.21	2.61	2.38	2.10			
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12	Max. power output at nominal voltage	W	273	748	838	973	618	521	393	249	161	133	103			
13	Max. efficiency	%	77	84	85	86	86	86	86	85	84	84	83			
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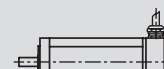
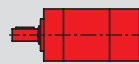
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- 118829 Motor with high resistance winding
118819 Motor with low resistance winding

Details on page 49

maxon Modular System

Planetary Gearhead
∅81 mm
20 - 120 Nm
Details page 224



Recommended Electronics:
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EPOS 70/10 263
MIP 50, MIP 100 265
Notes 17

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Digital Encoder
HP HEDS 5540
500 CPT, 3 channels
Details page 236
Digital Encoder
HP HEDL 5540
500 CPT, 3 channels
Details page 238
Brake
□75 mm
24 VDC, 1.4 Nm
Details page 272