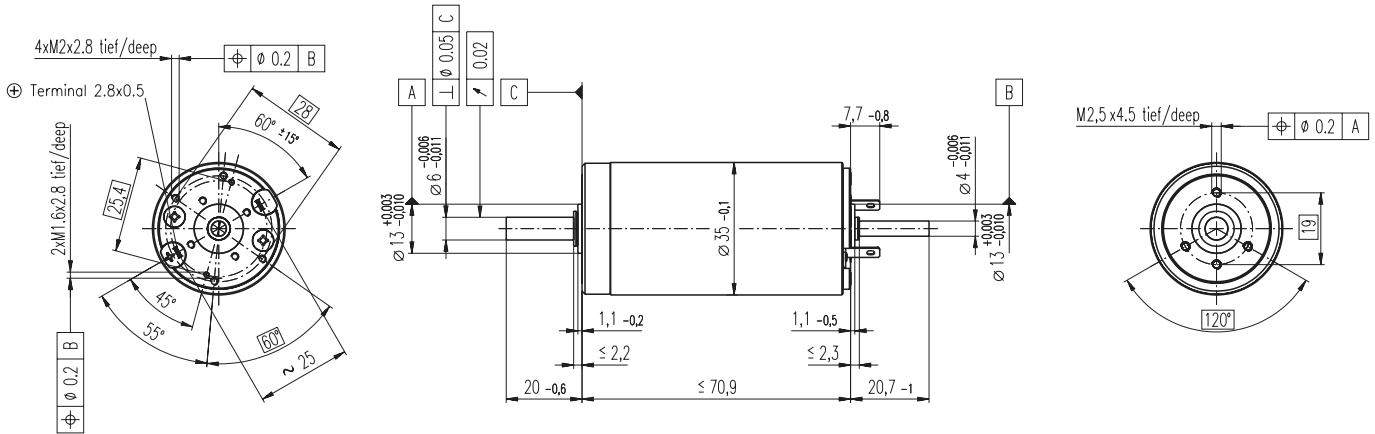


RE 35 \varnothing 35 mm, Graphite Brushes, 90 Watt



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

Order Number

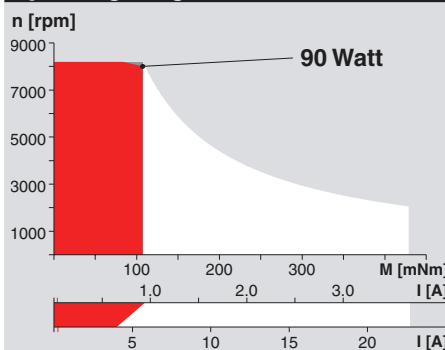
118776 118777 118778 118779 118780 118781 118782 118783 118784 118785 118786 118787 118788 118789 118790

Motor Data		118776	118777	118778	118779	118780	118781	118782	118783	118784	118785	118786	118787	118788	118789	118790
1 Assigned power rating	W	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
2 Nominal voltage	Volt	15.0	30.0	42.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0
3 No load speed	rpm	7070	7220	7530	7270	6650	5970	4750	3810	3140	2570	2100	1620	1290	1060	856
4 Stall torque	mNm	872	949	1070	966	878	766	613	493	394	320	253	194	155	125	99.5
5 Speed / torque gradient	rpm / mNm	8.45	7.77	7.17	7.63	7.68	7.89	7.86	7.84	8.09	8.19	8.47	8.55	8.54	8.80	8.94
6 No load current	mA	245	124	93	77	69	60	45	34	27	22	17	13	10	8	7
7 Starting current	A	44.9	24.4	20.3	15.5	12.9	10.1	6.43	4.16	2.74	1.83	1.18	0.704	0.448	0.298	0.193
8 Terminal resistance	Ohm	0.334	1.23	2.07	3.09	3.72	4.75	7.46	11.5	17.5	26.2	40.5	68.2	107	161	248
9 Max. permissible speed	rpm	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200
10 Max. continuous current	A	4.00	2.74	2.15	1.78	1.63	1.45	1.17	0.944	0.768	0.630	0.508	0.392	0.313	0.256	0.206
11 Max. continuous torque	mNm	77.7	107	113	111	111	110	111	112	111	110	109	108	108	107	106
12 Max. power output at nominal voltage	W	152	175	206	181	150	118	75.0	48.4	31.8	21.2	13.7	8.07	5.10	3.36	2.15
13 Max. efficiency	%	81	84	86	85	85	84	83	82	80	79	77	74	72	69	66
14 Torque constant	mNm / A	19.4	38.9	52.5	62.2	68.0	75.8	95.2	119	144	175	214	276	346	418	515
15 Speed constant	rpm / V	491	246	182	154	140	126	100.0	80.6	66.4	54.6	44.7	34.6	27.6	22.9	18.5
16 Mechanical time constant	ms	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5
17 Rotor inertia	gcm ²	65.5	65.5	69.6	65.0	64.5	62.7	62.8	62.8	60.7	59.9	57.9	57.2	57.2	55.5	54.5
18 Terminal inductance	mH	0.09	0.34	0.62	0.87	1.04	1.29	2.04	3.16	4.65	6.89	10.30	17.10	26.90	39.30	59.70
19 Thermal resistance housing-ambient	K / W	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
20 Thermal resistance rotor-housing	K / W	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
21 Thermal time constant winding	s	27	27	29	27	27	26	26	26	25	25	24	24	24	23	23

Specifications

- Axial play 0.05 - 0.15 mm
- Max. ball bearing loads
 - axial (dynamic) 5.6 N
 - not preloaded 2.4 N
 - preloaded 28 N
 - radial (5 mm from flange) 110 N
 - Press-fit force (static, shaft supported) 1200 N
- Radial play ball bearing 0.025 mm
- Ambient temperature range -20 / +100°C
- Max. rotor temperature +155°C
- Number of commutator segments 13
- Weight of motor 340 g
- Values listed in the table are nominal. For applicable tolerances (see page 43). For additional details please use the maxon selection program on the enclosed CD-Rom.

Operating Range

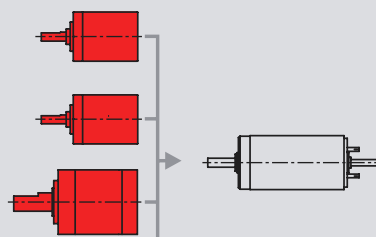


Comments

- 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).
- 118783 Motor with high resistance winding
- 118776 Motor with low resistance winding

maxon Modular System

- Planetary Gearhead**
 \varnothing 32 mm
0.75 - 4.5 Nm
Details page 184
- Planetary Gearhead**
 \varnothing 32 mm
1.0 - 6.0 Nm
Details page 187
- Planetary Gearhead**
 \varnothing 42 mm
3 - 15 Nm
Details page 191



- DC-Tacho**
 \varnothing 22 mm
0.52 V
Details page 213
- Digital Encoder**
HP HED_55
500 CPT, 3 channels
Details page 205 / 207
- Brake**
 \varnothing 40 mm
24 VDC, 0.4 Nm
Details page 236
- Digital MR Encoder**
256 - 1024 CPT,
3 channels
Details page 202

- Option: Hollow shaft as special design.