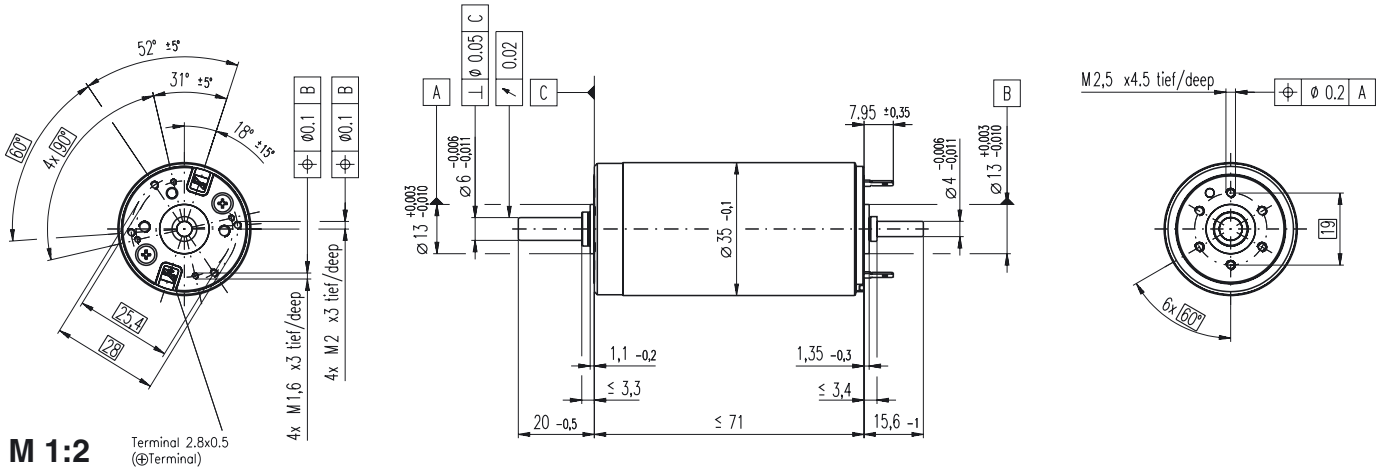


RE 35 $\varnothing 35$ mm, Graphite Brushes, 90 Watt

new with lever brushes



M 1:2

Terminal 2.8x0.5
(\varnothing Terminal)

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

according to dimensional drawing
Shaft length 15.6 shortened to 4 mm

Order Number

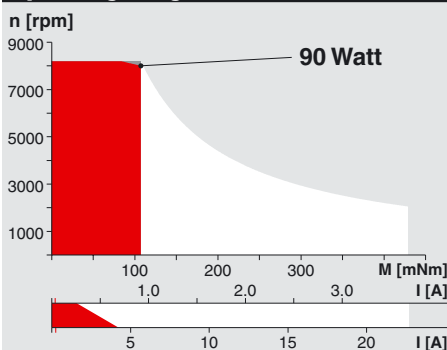
273752	273753	273754	273755	273756	273757	273758	273759	273760	273761	273762	273763	273764	273765	273766
285785	285786	285787	285788	285789	285790	285791	285792	285793	285794	285795	285796	285797	285798	285799

Motor Data (provisional)		273752	273753	273754	273755	273756	273757	273758	273759	273760	273761	273762	273763	273764	273765	273766
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) 28 N
 - Force for press fits (static) 110 N
 - (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
- 2 pole permanent magnet
- 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

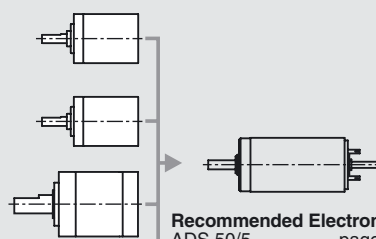
- Recommended operating range**
 - Continuous operation**
In observation of above listed thermal resistances (lines 19 and 20) the maximum permissible rotor temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.
 - Short term operation**
The motor may be briefly overloaded (recurring).
- 273766** Motor with high resistance winding
- 273752** Motor with low resistance winding

Details on page 49

maxon Modular System

Overview on page 17 - 21

- Planetary Gearhead**
 $\varnothing 32$ mm
0.75 - 4.5 Nm
Details page 219
- Planetary Gearhead**
 $\varnothing 32$ mm
1.0 - 6.0 Nm
Details page 220
- Planetary Gearhead**
 $\varnothing 42$ mm
3 - 15 Nm
Details page 224



- Recommended Electronics:**
page 259
- ADS 50/5 259
 - ADS 50/10 259
 - ADS_E 50/5, 50/10 260
 - EPOS 24/5 271
 - MIP 50 273
 - Notes 17

- Encoder MR**
256 - 1024 CPT,
3 channels
Details page 239
- Encoder HED_ 5540**
500 CPT,
3 channels
Details page 242 / 244
- DC-Tacho DCT**
 $\varnothing 22$ mm
0.52 V
Details page 252
- Brake AB**
 $\varnothing 40$ mm
24 VDC, 0.4 Nm
Details page 279