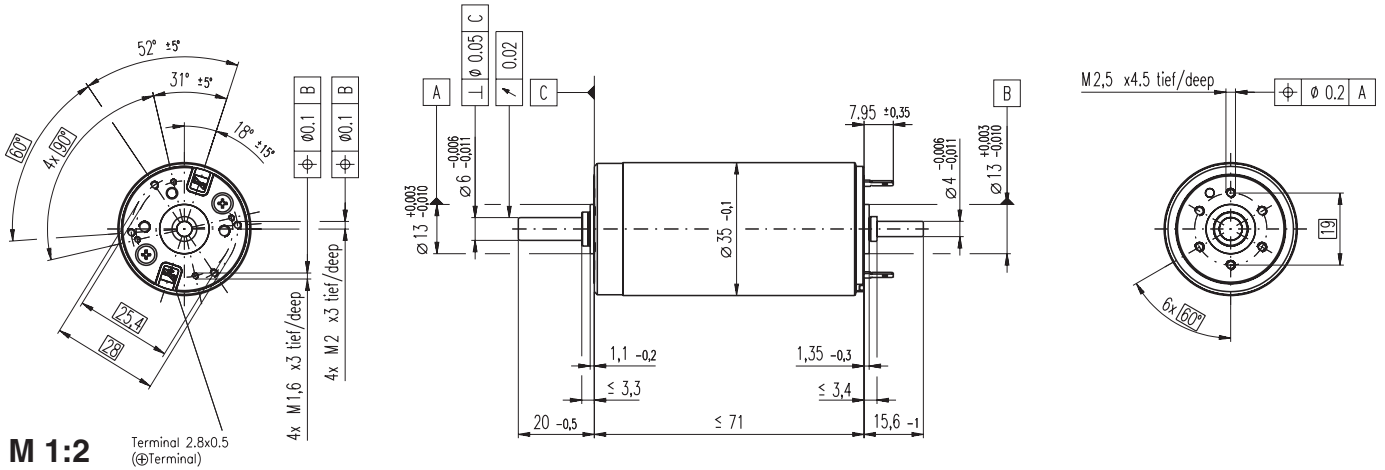


RE 35 Ø35 mm, Graphite Brushes, 90 Watt



M 1:2

Terminal 2.8x0.5 (ØTerminal)

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

according to dimensional drawing shaft length 15.7 shortened to 4 mm

Order Number

273752	323890	273753	273754	273755	273756	273757	273758	273759	273760	273761	273762	273763
285785	323891	285786	285787	285788	285789	285790	285791	285792	285793	285794	285795	285796

Motor Data

Values at nominal voltage		273752	323890	273753	273754	273755	273756	273757	273758	273759	273760	273761	273762	273763	
1	Nominal voltage	V	15.0	24.0	30.0	42.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	
2	No load speed	rpm	7070	7670	7220	7530	7270	6650	5960	4740	3810	3140	2570	1620	
3	No load current	mA	245	168	123	92.7	77.3	68.7	59.7	44.7	34.2	27.1	21.6	12.9	
4	Nominal speed	rpm	6270	6910	6420	6770	6490	5860	5150	3920	2970	2280	1710	732	
5	Nominal torque (max. continuous torque)	mNm	73.2	93.3	92.4	97.7	96.5	98.2	98.8	102	105	105	104	104	
6	Nominal current (max. continuous current)	A	4.00	3.36	2.50	1.95	1.63	1.51	1.36	1.12	0.915	0.752	0.621	0.391	
7	Stall torque	mNm	874	1160	949	1070	967	878	766	613	493	394	320	253	
8	Starting current	A	45.0	39.7	24.4	20.3	15.5	12.9	10.1	6.43	4.16	2.74	1.83	0.704	
9	Max. efficiency	%	81	84	84	86	85	85	84	83	82	80	79	74	
Characteristics			273752	323890	273753	273754	273755	273756	273757	273758	273759	273760	273761	273762	273763
10	Terminal resistance	Ω	0.334	0.605	1.23	2.07	3.09	3.72	4.75	7.46	11.5	17.5	26.2	40.5	68.2
11	Terminal inductance	mH	0.085	0.191	0.340	0.620	0.870	1.04	1.29	2.04	3.16	4.65	6.89	10.3	17.1
12	Torque constant	mNm / A	19.4	29.2	38.9	52.5	62.2	68	75.8	95.2	119	144	175	214	276
13	Speed constant	rpm / V	491	328	246	182	154	140	126	100	80.5	66.4	54.6	44.7	34.6
14	Speed / torque gradient	rpm / mNm	8.43	6.79	7.76	7.16	7.62	7.67	7.89	7.85	7.84	8.08	8.19	8.46	8.55
15	Mechanical time constant	ms	5.97	5.60	5.50	5.40	5.38	5.38	5.39	5.38	5.37	5.38	5.39	5.39	5.41
16	Rotor inertia	gcm ²	67.6	78.7	67.6	72.0	67.4	67.0	65.2	65.4	65.5	63.6	62.8	60.8	60.4

Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 6.2 K / W
 - 18 Thermal resistance winding-housing 2.0 K / W
 - 19 Thermal time constant winding 30 s
 - 20 Thermal time constant motor 1050 s
 - 21 Ambient temperature -30 ... +100°C
 - 22 Max. permissible winding temperature +155°C
- Mechanical data (ball bearings)**
- 23 Max. permissible speed 12000 rpm
 - 24 Axial play 0.05 - 0.15 mm
 - 25 Radial play 0.025 mm
 - 26 Max. axial load (dynamic) 5.6 N
 - 27 Max. force for press fits (static) (static, shaft supported) 110 N
 - 28 Max. radial loading, 5 mm from flange 28 N

Other specifications

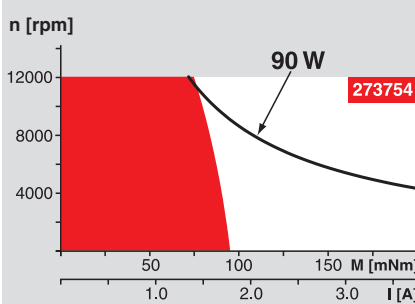
- 29 Number of pole pairs 1
- 30 Number of commutator segments 13
- 31 Weight of motor 340 g

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

Option

- Hollow shaft as special design
- Preloaded ball bearings

Operating Range



Comments

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

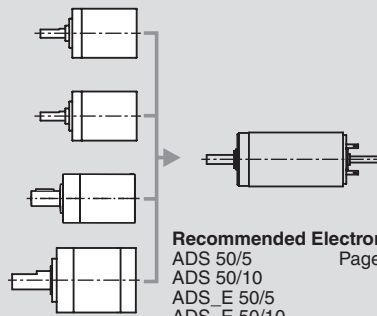
maxon Modular System

Planetary Gearhead
Ø32 mm
0.75 - 4.5 Nm
Page 239

Planetary Gearhead
Ø32 mm
1.0 - 6.0 Nm
Page 240

Planetary Gearhead
Ø32 mm
8 Nm
Page 242

Planetary Gearhead
Ø42 mm
3 - 15 Nm
Page 244



Recommended Electronics:

- ADS 50/5 276
- ADS 50/10 277
- ADS_E 50/5 277
- ADS_E 50/10 277
- EPOS 24/5 294
- EPOS2 50/5 295
- EPOS P 24/5 297
- Notes 18

Overview on page 16 - 21

- Encoder MR**
256 - 1024 CPT,
3 channels
Page 259
- Encoder HED_ 5540**
500 CPT,
3 channels
Page 262 / 264
- DC-Tacho DCT**
Ø22 mm
0.52 V
Page 271
- Brake AB 28**
Ø40 mm
24 VDC, 0.4 Nm
Page 308