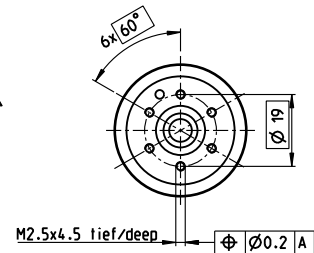
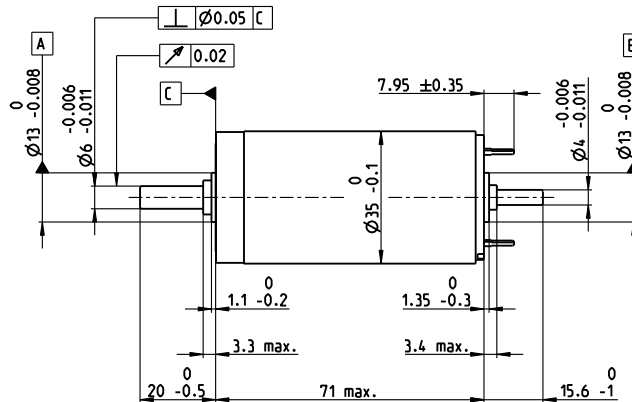
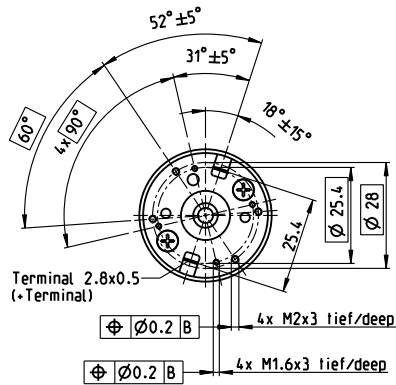


# RE 35 Ø35 mm, graphite brushes, 90 watt



M 1:2

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

## Part Numbers

according to dimensional drawing  
shaft length 15.6 shortened to 4 mm

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																	
1	Nominal voltage	V	15	24	30	42	48	48	48	48	48	48	48	48	48		
2	No load speed	rpm	7200	7750	7280	7580	7310	6680	5990	4770	3830	3150	2590	2110	1630		
3	No load current	mA	188	128	94.1	70.5	58.9	52.6	46	34.9	27	21.6	17.3	13.9	10.5		
4	Nominal speed	rpm	6500	6990	6470	6800	6510	5870	5170	3930	2990	2290	1720	1230	737		
5	Nominal torque (max. continuous torque)	mNm	74.2	105	101	105	103	104	104	106	108	107	107	106	106		
6	Nominal current (max. continuous current)	A	4	3.72	2.68	2.07	1.71	1.58	1.41	1.15	0.934	0.764	0.628	0.508	0.393		
7	Stall torque	mNm	931	1200	976	1090	983	892	778	621	499	399	323	256	196		
8	Stall current	A	47.9	41.2	25.1	20.7	15.8	13.1	10.3	6.52	4.21	2.77	1.85	1.2	0.71		
9	Max. efficiency	%	85	87	87	88	88	87	86	85	84	83	81	79	77		
Characteristics																	
10	Terminal resistance	Ω	0.313	0.582	1.2	2.03	3.04	3.66	4.68	7.36	11.4	17.3	26	40.1	67.6		
11	Terminal inductance	mH	0.085	0.191	0.34	0.62	0.87	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	7.91	6.54	7.55	7.03	7.5	7.55	7.77	7.75	7.74	7.99	8.1	8.38	8.47		
15	Mechanical time constant	ms	5.62	5.41	5.37	5.32	5.32	5.32	5.33	5.33	5.33	5.34	5.35	5.36	5.38		
16	Rotor inertia	gcm <sup>2</sup>	67.9	79	67.9	72.3	67.7	67.2	65.4	65.7	65.7	63.8	63	61	60.6		

## Specifications

Thermal data			
17	Thermal resistance housing-ambient	6.2 K/W	
18	Thermal resistance winding-housing	2 K/W	
19	Thermal time constant winding	30.1 s	
20	Thermal time constant motor	707 s	
21	Ambient temperature	-30...+100°C	
22	Max. winding temperature	+155°C	

Mechanical data (ball bearings)			
23	Max. 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)	110 N	
	(static, shaft supported)	1200 N	
28	Max. radial load, 5 mm from flange	28 N	

## Other specifications

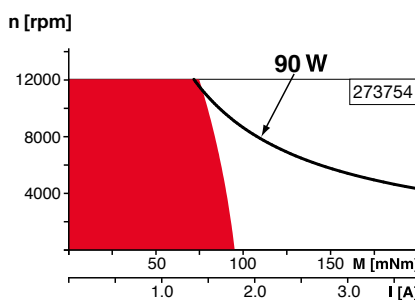
29	Number of pole pairs	1
30	Number of commutator segments	13
31	Weight of motor	340 g

Values listed in the table are nominal.  
Explanation of the figures on page 82.

## 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

Details on catalog page 38

### Planetary Gearhead

Ø32 mm  
0.75-6.0 Nm  
Page 392-399

### Planetary Gearhead

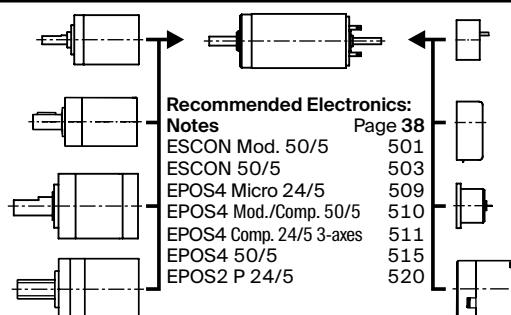
Ø32 mm  
4.0-8.0 Nm  
Page 400

### Planetary Gearhead

Ø42 mm  
3-15 Nm  
Page 405

### Screw Drive

Ø32 mm  
Page 426-433



### Encoder MR

256-1024 CPT,  
3 channels  
Page 479

### Encoder HED\_5540

500 CPT,  
3 channels  
Page 486/488

### DC-Tacho DCT

Ø22 mm  
0.52 V  
Page 495

### Brake AB 28

24 VDC  
0.4 Nm  
Page 535  
End cap  
Page 541