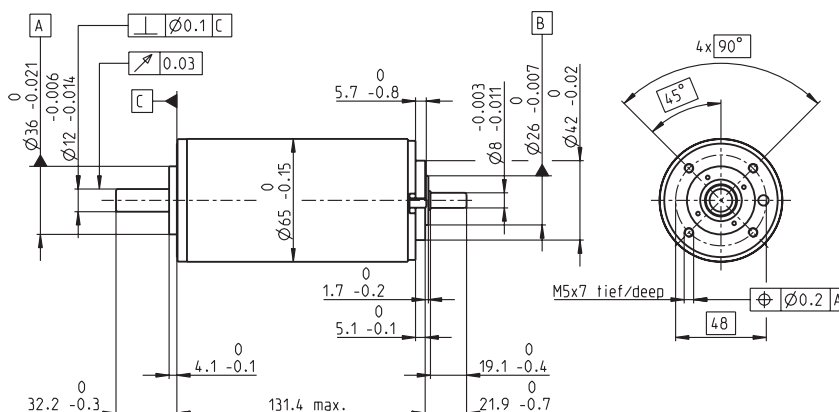
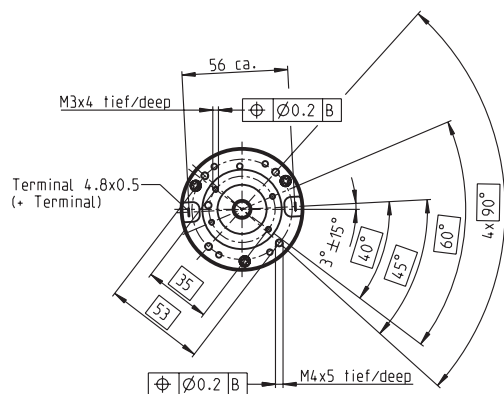


**RE 65** Ø65 mm, Graphite Brushes, 250 Watt



**M 1:4**

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

## Part Numbers

353294	353295	353296	353297	353298	353299	353300	353301
388984	388985	388986	388987	388988	388989	388990	388991

### Motor Data

Industrial Version IP54\*

Values at nominal voltage													
1	Nominal voltage	V	18	24	36	48	60	70	70	70			
2	No load speed	rpm	3520	4090	3970	3670	3680	3440	3190	2690			
3	No load current	mA	755	697	437	289	231	179	160	125			
4	Nominal speed	rpm	3250	3810	3700	3420	3450	3220	2960	2470			
5	Nominal torque (max. continuous torque)	mNm	427	501	751	800	813	832	839	888			
6	Nominal current (max. continuous current)	A	10	10	9.32	6.8	5.53	4.51	4.21	3.74			
7	Stall torque	mNm	13600	15700	17400	16100	16200	15100	13700	12200			
8	Stall current	A	295	292	207	131	106	78.6	66.1	49.7			
9	Max. efficiency	%	81	83	87	88	89	89	89	89			
Characteristics													
10	Terminal resistance	$\Omega$	0.0609	0.0821	0.174	0.365	0.568	0.891	1.06	1.41			
11	Terminal inductance	mH	0.023	0.031	0.076	0.161	0.251	0.393	0.458	0.644			
12	Torque constant	mNm/A	46	53.7	84.4	123	153	192	207	245			
13	Speed constant	rpm/V	208	178	113	77.8	62.3	49.8	46.1	38.9			
14	Speed / torque gradient	rpm/mNm	0.275	0.272	0.234	0.231	0.231	0.231	0.236	0.223			
15	Mechanical time constant	ms	3.98	3.68	3.38	3.25	3.19	3.16	3.16	3.13			
16	Rotor inertia	acm <sup>2</sup>	1380	1290	1380	1340	1320	1310	1280	1340			

## Specifications

### Thermal data

17	Thermal resistance housing-ambient	1.3 K/W
18	Thermal resistance winding-housing	1.85 K/W
19	Thermal time constant winding	123 s
20	Thermal time constant motor	1060 s
21	Ambient temperature	-30...+100°C
22	Max. winding temperature	+125°C

### Mechanical data

**(preloaded ball bearings)**

23	Max. speed	5500 rpm
24	Axial play at axial load	0 mm
	< 25 N	0.1 mm
	> 25 N	preloaded
25	Radial play	70 N
26	Max. axial load (dynamic)	420 N
27	Max. force for press fits (static)	12 000 N
	(static, shaft supported)	350 N
28	Max. radial load. 15 mm from flange	

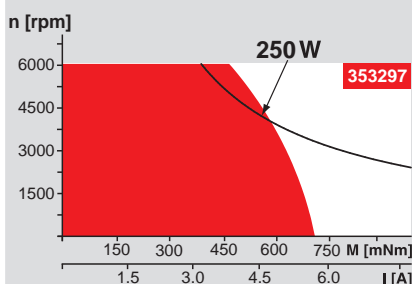
### Other specifications

29	Number of pole pairs	2
30	Number of commutator segments	26
31	Weight of motor	2100 g

Values listed in the table are nominal.  
Explanation of the figures on page 107.

\* Industrial version with radial shaft seal ring (resulting in increased no load current).  
IP54 protection only if mounted on brush side, in compliance with maxon modular system.

### 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.

### Short term operation

The motor may be briefly overloaded (recurring).

## Assigned power rating

## maxon Modular System

**Planetary Gearhead**  
 Ø81 mm  
 20 - 120 Nm  
 Page 321

Recommended Electronics:  
Notes Page 2

ESCON Mod. 50/5	37
ESCON 50/5	38
ESCON 70/10	38
EPOS2 50/5	38
EPOS2 70/10	38
EPOS3 70/10 EtherCAT	39
MAXPOS 50/5	39

Overview on page 20–25

Encoder HEDS 5540  
500 CPT,  
3 channels  
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**Encoder HEDL 5540**  
500 CPT,  
3 channels  
Page 365

**Industrial Version**  
**IP54\***  
**Encoder HEDL 0140**

Encoder HEDL 9140  
Page 369  
Brake AB 44Page 412  
End cap  
Page 413