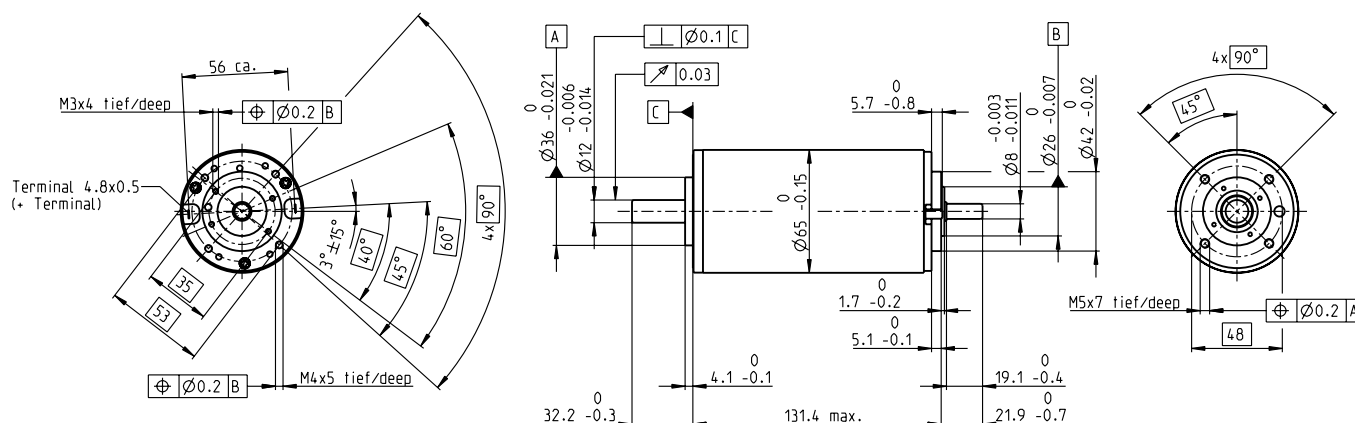


RE 65 Ø65 mm, Graphite Brushes, 250 Watt



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	Ω	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	gcm ²	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	

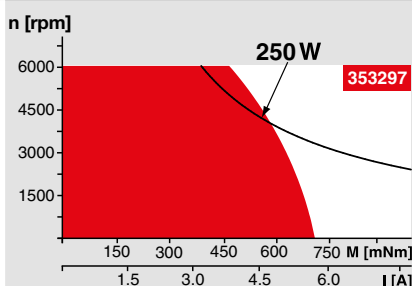
Other specifications

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 64.

* 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

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

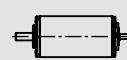
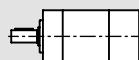
The motor may be briefly overloaded (recurring).

Assigned power rating

maxon Modular System

Planetary Gearhead

Ø81 mm
 20 - 120 Nm
 Page 353



Recommended Electronics:

Notes	Page
ESCON Mod. 50/5	427
ESCON 50/5	428
ESCON 70/10	428
EPOS2 50/5	435
EPOS2 70/10	435
EPOS4 Module 50/8	443
EPOS4 Comp. 50/8 CAN	443
EPOS4 Module 50/15	444
EPOS4 Comp. 50/15 CAN	444
MAXPOS 50/5	447

Overview on page 28–36

Encoder HEDS 5540
500 CPT,
3 channels
Page 414

Encoder HEDL 5540
500 CPT,
3 channels
Page 416

Industrial Version
IP54*
Encoder HEDL 9140
Page 420

Page 420
Brake AB 44

Page 462

End cap
Page 463