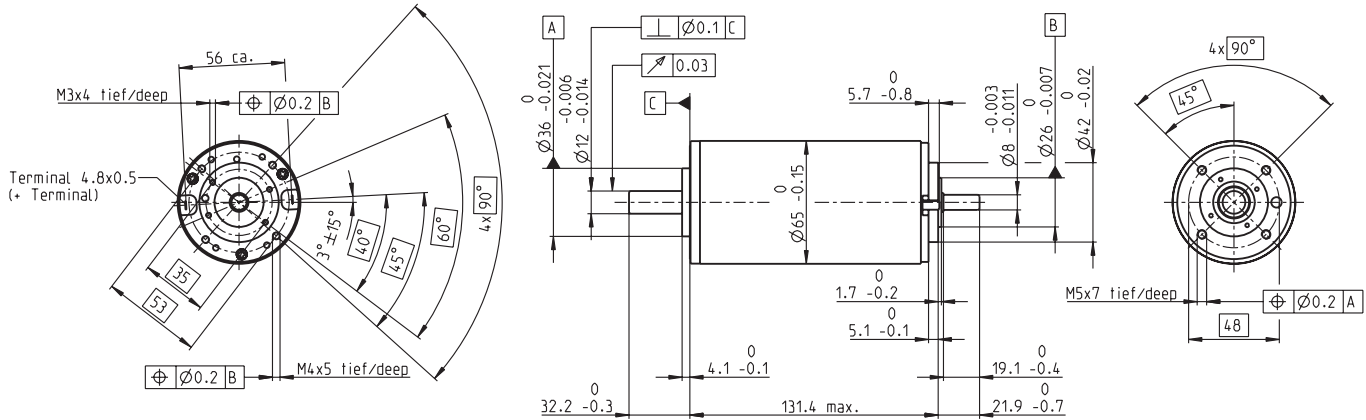


RE 65 Ø65 mm, Graphite Brushes, 250 Watt



M 1:4

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

Part Numbers

Industrial Version IP54*

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

Motor Data

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

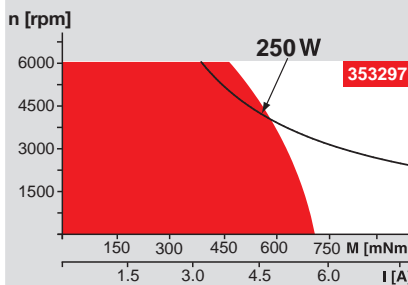
Mechanical data (preloaded ball bearings)		
23	Max. speed	5500 rpm
24	Axial play at axial load < 25 N	0 mm
	> 25 N	0.1 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	70 N
27	Max. force for press fits (static) (static, shaft supported)	420 N
		12000 N
28	Max. radial load, 15 mm from flange	350 N

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 151.

* 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.
= 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 357



Recommended Electronics: Notes		Page 24
ESCON Mod. 50/5		417
ESCON 50/5		418
ESCON 70/10		418
EPOS2 50/5		425
EPOS2 70/10		425
EPOS4 Module 50/8		431
EPOS4 Comp. 50/8 CAN		431
EPOS4 Module 50/15		432
EPOS4 Comp. 50/15 CAN		432
MAXPOS 50/5		435

Overview on page 20-27

Encoder HEDS 5540 500 CPT, 3 channels Page 400	Encoder HEDL 5540 500 CPT, 3 channels Page 402	Industrial Version IP54* Encoder HEDL 9140 Page 406	Brake AB 44 Page 450	End cap Page 451
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