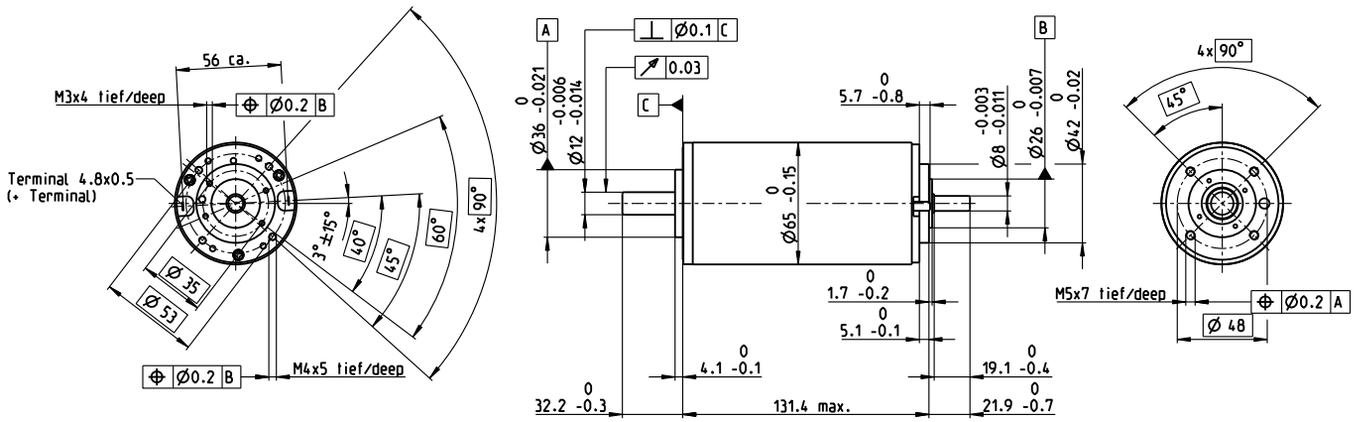
RE 65 ∅65 mm, Graphite Brushes, 250 Watt



M 1:4

RE

Stock program
Standard program
Special program (on request)

Part Numbers

		353294	353295	353296	353297	353298	353299	353300	353301
	Industrial Version IP54*	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	gcm²	1380	1290	1380	1340	1320	1310	1280	1340

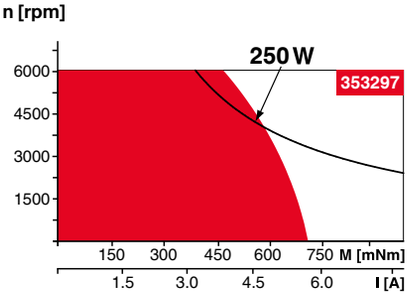
Specifications

	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)		420 N
	(static, shaft supported)		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 72.

* 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.

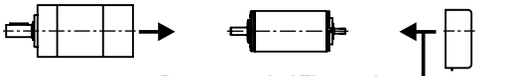
Short term operation
The motor may be briefly overloaded (recurring).

Assigned power rating

maxon Modular System

Details on catalog page 34

Planetary Gearhead
∅81 mm
20 - 120 Nm
Page 404



Recommended Electronics:

Notes	Page 34
ESCON Mod. 50/5	487
ESCON Mod. 50/8 (HE)	488
ESCON 50/5	489
ESCON 70/10	489
EPOS4 Module 50/8	497
EPOS4 Module 50/15	497
EPOS4 Comp. 50/8 CAN	499
EPOS4 Comp. 50/15 CAN	500
EPOS4 70/15	501

Encoder HEDS 5540
500 CPT,
3 channels
Page 472
Encoder HEDL 5540
500 CPT,
3 channels
Page 474
Industrial Version IP54*
Encoder HEDL 9140
Page 479
Brake AB 44
Page 524
End cap
Page 525