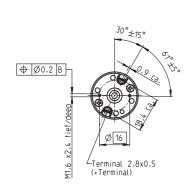
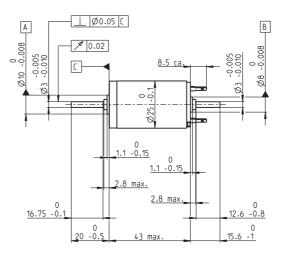
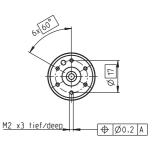
# RE 25 Ø25 mm, Graphite Brushes, 20 Watt







M 1:2

Stock program Standard program Special program (on request)		Part Numbers														
Motor Data		302534	339149	339150	339151	339152	339153	339154	339155	339156	339157	339158				
Values at nominal voltage																
Nominal voltage	V	7.2	9	12	18	<mark>24</mark>	30	36	48	48	48	48				
2 No load speed	rpm	10500	9710	9620	10400	10900	9210	10100	9540	8450	6720	4650				
3 No load current	mA	133	93.2	68.1	50.6	40.2	25	23.7	16.4	13.7	9.89	6				
4 Nominal speed	rpm	8970	8260	8310	9190	9690	8010	8860	8360	7270	5530	3430				
5 Nominal torque (max. continuous torque)	mNm	21.9	24.4	27.5	29.1	30.4	31.4	30.7	31.7	32.3	32.9	32.8				
6 Nominal current (max. continuous current)	Α	3.68	2.97	2.45	1.85	1.5	1.04	0.931	0.68	0.614	0.495	0.341				
7 Stall torque	mNm	259	238	268	297	325	265	279	270	243	192	127				
8 Stall current	Α	42.1	28.1	23.2	18.4	15.6	8.61	8.24	5.67	4.51	2.84	1.3				
9 Max. efficiency	%	79	81	84	86	88	88	88	89	88	88	86				
Characteristics																
10 Terminal resistance	Ω	0.171	0.32	0.517	0.98	1.53	3.49	4.37	8.47	10.6	16.9	36.8				
11 Terminal inductance	mH	0.016	0.031	0.057	0.112	0.186	0.407	0.493	0.979	1.25	1.97	4.11				
12 Torque constant	mNm/A	6.15	8.46	11.5	16.1	20.8	30.8	33.8	47.7	53.8	67.7	97.6				
13 Speed constant	rpm/V	1550	1130	828	591	460	311	282	200	177	141	97.8				
14 Speed / torque gradient	rpm/mNm	43.2	42.8	37.1	35.9	34	35.2	36.5	35.6	35.1	35.2	36.9				
15 Mechanical time constant	ms	6.52	6.06	5.62	5.36	5.24	5.17	5.16	5.13	5.12	5.12	5.14				
16 Rotor inertia	gcm <sup>2</sup>	14.4	13.5	14.5	14.3	14.7	14	13.5	13.8	13.9	13.9	13.3				

#### **Specifications** Thermal data 14.4 K/W Thermal resistance housing-ambient Thermal resistance winding-housing 5.1 K/W 19 Thermal time constant winding 27.7 s Thermal time constant motor 543 s Ambient temperature -30...+100°C Max. winding temperature +155°C

#### Mechanical data (ball bearings) Max. speed 14000 rpm 0.05 - 0.15 mm 24 Axial play Radial play 0.025 mm Max. axial load (dynamic) Max. force for press fits (static) (static, shaft supported) 20 N 60 N 1000 N Max. radial load, 5 mm from flange 35 N

11

115 g

### Other specifications

Number of pole pairs

30 Number of commutator segments

Weight of motor

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

## **Operating Range** Comments n [rpm] 15000 339155 10000 5000 20 M [mNm] Assigned power rating 1.0 I[A]

## 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).

maxon Modular System Overview on page 20-25 **Planetary Gearhead Encoder MR** 128 - 1000 CPT, Ø22 mm 0.5 Nm 3 channels Page 294 Page 355 Encoder HED\_ 5540 500 CPT, **Planetary Gearhead** Recommended Electronics: Ø26 mm Page 22 Notes 0.75 - 4.5 Nm ESCON Module 24/2 378 3 channels ESCON 36/2 DC ESCON Module 50/5 Page 301 378 Page 363/364 **Planetary Gearhead** 379 DC-Tacho DCT ∅22 mm ESCON 50/5 380 Ø32 mm EPOS2 24/2 EPOS2 Module 36/2 0.75 - 6.0 Nm 386 0.52 V 386 Page 303/304/307 Page 373 EPOS2 24/5, EPOS2 50/5 EPOS2 P 24/5 EPOS3 70/10 EtherCAT 387 Koaxdrive Brake AB 28 390 Ø32 mm **24 VDC** 393 1.0 - 4.5 Nm 0.4 Nm MAXPOS 50/5 Page 312 Page 408 **Spindle Drive** Ø32 mm Page 334-336