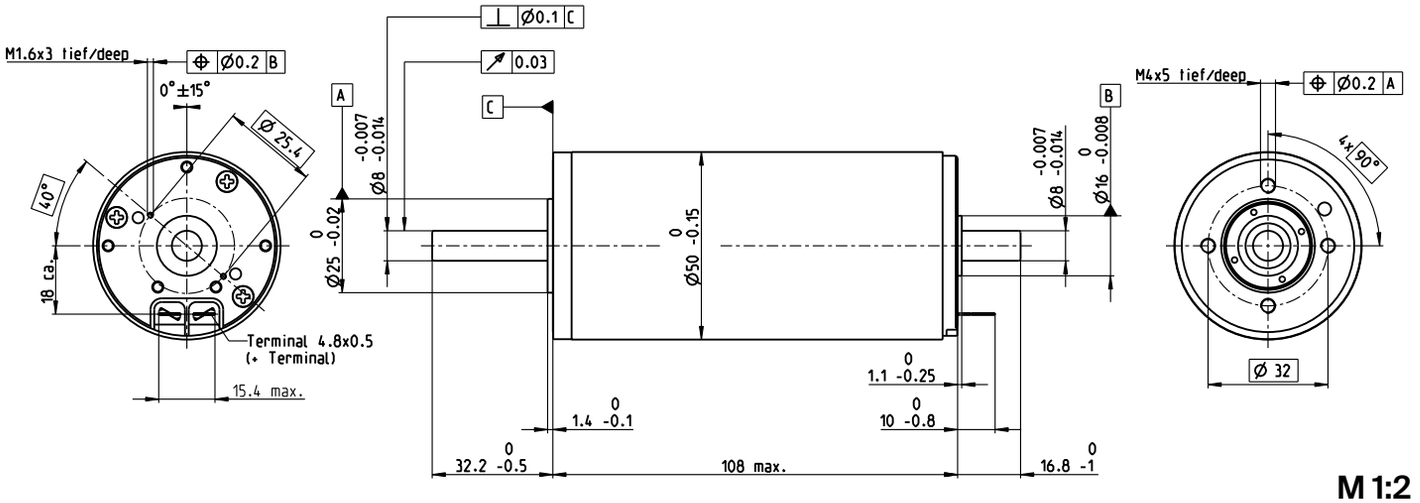
RE 50 ∅50 mm, graphite brushes, 200 watt



M 1:2

Stock program
Standard program
Special program (on request)

		Part Numbers			
		578296	578297	578298	578299
	Industrial Version IP54*	618570	618571	618572	618573
Motor Data					
	Values at nominal voltage				
1	Nominal voltage	V	24	36	48	70
2	No load speed	rpm	5950	5680	4900	2760
3	No load current	mA	236	147	88.4	27.4
4	Nominal speed	rpm	5680	5420	4620	2470
5	Nominal torque	mNm	405	418	420	452
6	Nominal current (max. continuous current)	A	10.8	7.07	4.58	1.89
7	Stall torque	mNm	8920	8920	7370	4340
8	Stall current	A	232	148	78.9	17.9
9	Max. efficiency	%	94	94	94	92
	Characteristics					
10	Terminal resistance	Ω	0.103	0.244	0.608	3.9
11	Terminal inductance	mH	0.072	0.177	0.423	2.83
12	Torque constant	mNm/A	38.5	60.4	93.4	242
13	Speed constant	rpm/V	248	158	102	39.5
14	Speed/torque gradient	rpm/mNm	0.668	0.638	0.666	0.638
15	Mechanical time constant	ms	3.75	3.74	3.78	3.74
16	Rotor inertia	gcm²	536	560	542	560

Specifications

Thermal data

17	Thermal resistance housing-ambient	3.8 K/W
18	Thermal resistance winding-housing	1.2 K/W
19	Thermal time constant winding	71.7 s
20	Thermal time constant motor	1370 s
21	Ambient temperature	-30...+100°C
22	Max. winding temperature	+125°C

Mechanical data
(preloaded ball bearings)

23	Max. speed	9500 rpm
24	Axial play at axial load	< 11.5 N 0 mm > 11.5 N 0.1 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	30 N
27	Max. force for press fits (static)	150 N
	(static, shaft supported)	6000 N
28	Max. radial load, 15 mm from flange	110 N

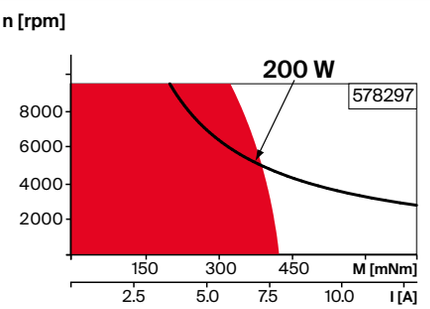
Other specifications

29	Number of pole pairs	1
30	Number of commutator segments	15
31	Weight of motor	1100 g

Values listed in the table are nominal.
Explanation of the figures on page 90.

* 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

Modular System

Details on catalog page 44

Gear
436_GP 52 C
438_GP 62 A

Sensor
519_Encoder HEDS 5540
521_Encoder HEDL 5540

Industrial Version IP54*
526_Encoder HEDL 9140
570_Brake AB 44
572_End cap

Motor Control
533_ESCON Module 50/5
534_ESCON Module 50/8 HE
535_ESCON 50/5
535_ESCON 70/10
542_EPOS4 Module 50/5
543_EPOS4 Module 50/8
543_EPOS4 Module 50/15
545_EPOS4 Compact 50/5
545_EPOS4 Compact 50/8 CAN
546_EPOS4 Compact 50/15
547_EPOS4 50/5
547_EPOS4 70/15
548_EPOS4 Disk 60/8
549_EPOS4 Disk 60/12