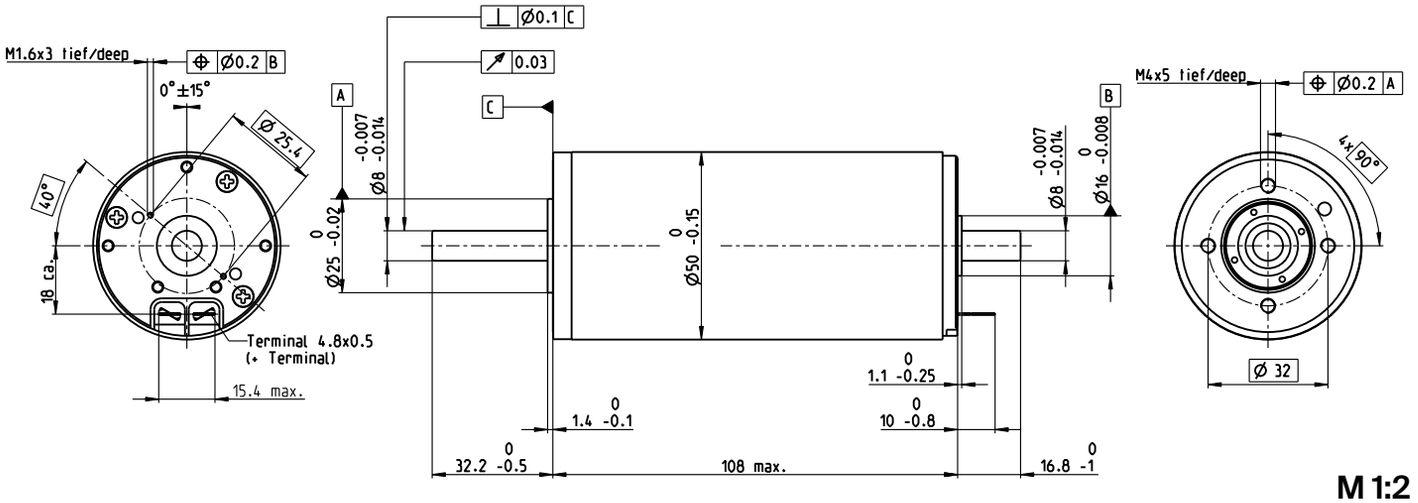
RE 50 ∅50 mm, graphite brushes, 200 watt



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 (max. continuous 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) (static, shaft supported)	150 N 6000 N
28	Max. radial load, 15 mm from flange	110 N

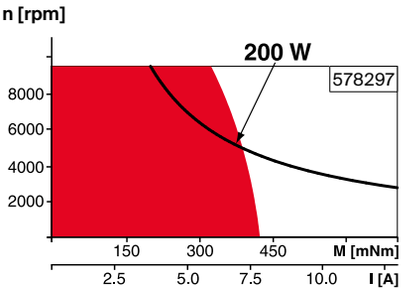
Other specifications

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 82.

* 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).

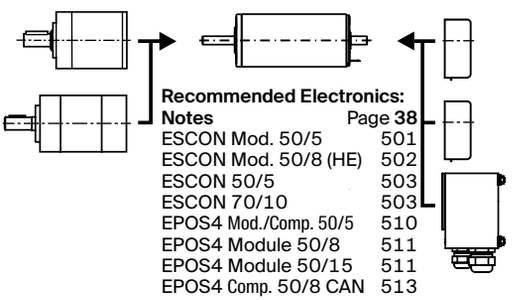
Assigned power rating

maxon Modular System

Details on catalog page 38

Planetary Gearhead
∅52 mm
4-30 Nm
Page 410

Planetary Gearhead
∅62 mm
6.2-38.5 Nm
Page 412



Recommended Electronics:

Notes	Page **38**
ESCON Mod. 50/5	501
ESCON Mod. 50/8 (HE)	502
ESCON 50/5	503
ESCON 70/10	503
EPOS4 Mod./Comp. 50/5	510
EPOS4 Module 50/8	511
EPOS4 Module 50/15	511
EPOS4 Comp. 50/8 CAN	513
EPOS4 Comp. 50/15 CAN	514
EPOS4 50/5	515
EPOS4 70/15	515
EPOS4 Disk 60/8	516
EPOS4 Disk 60/12	517

Encoder HEDS 5540
500 CPT,
3 channels
Page 487

Encoder HEDL 5540
500 CPT,
3 channels
Page 489

Industrial Version IP54*

Encoder HEDL 9140
Page 494

Brake AB 44
Page 540

End cap
Page 541