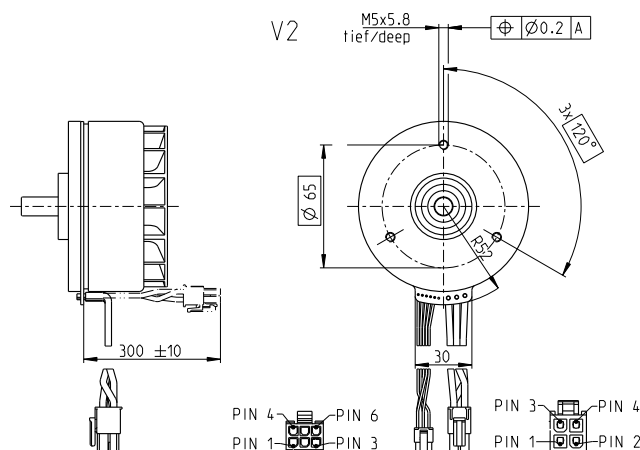
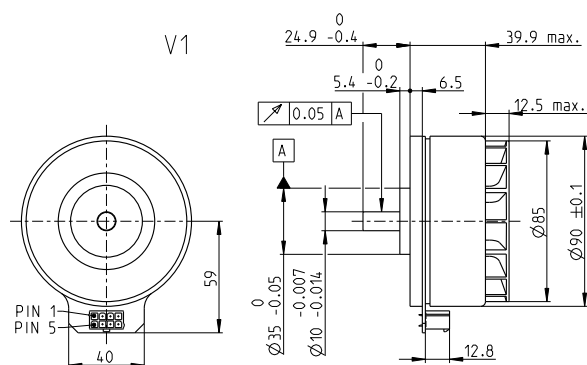


Ventilated

maxon flat motor



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

V1 with Hall sensors
V2 with Hall sensors and cables

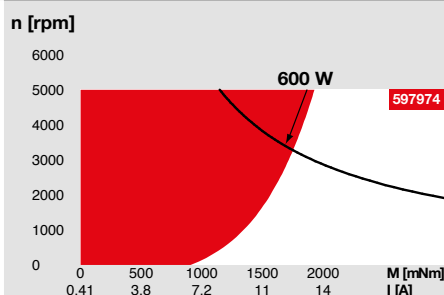
	597974	597975	597976
607937	607938	607939	607940

Values at nominal voltage									
1 Nominal voltage	V	18	30	48	60				
2 No load speed	rpm	2080	2080	1960	1980				
3 No load current	mA	821	493	283	230				
4 Nominal speed	rpm	1620	1620	1520	1540				
5 Nominal torque (max. continuous torque)	mNm	1610	1560	1490	1500				
6 Nominal current (max. continuous current)	A	18	10.5	5.95	4.83				
7 Stall torque ¹	mNm	14900	14600	13100	13300				
8 Stall current	A	183	107	56.9	46.7				
9 Max. efficiency	%	87.2	87	86.5	86.6				
Characteristics									
10 Terminal resistance phase to phase	Ω	0.0983	0.28	0.844	1.28				
11 Terminal inductance phase to phase	mH	0.133	0.369	1.07	1.63				
12 Torque constant	mNm/A	81.6	136	231	286				
13 Speed constant	rpm/V	117	70.2	41.3	33.4				
14 Speed/torque gradient	rpm/mNm	0.141	0.144	0.151	0.15				
15 Mechanical time constant	ms	7.47	7.66	7.99	7.97				
16 Rotor inertia	acm ²	5100	5100	5100	5060				

Thermal data	
17 Thermal resistance housing-ambient	1.04 K/W
18 Thermal resistance winding-housing	0.89 K/W
19 Thermal time constant winding	27.9 s
20 Thermal time constant motor	255 s
21 Ambient temperature	-40...+100°C
22 Max. winding temperature	+125°C
Mechanical data (preloaded ball bearings)	
23 Max. speed	5000 rpm
24 Axial play at axial load	0.14 mm
25 Radial play	preloaded
26 Max. axial load (dynamic)	34 N
27 Max. force for press fits (static) (static, shaft supported)	440 N
28 Max. radial load, 10 mm from flange	130 N
Other specifications	
29 Number of pole pairs	11
30 Number of phases	3
31 Weight of motor	988 g

Values listed in the table are nominal.

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 36



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