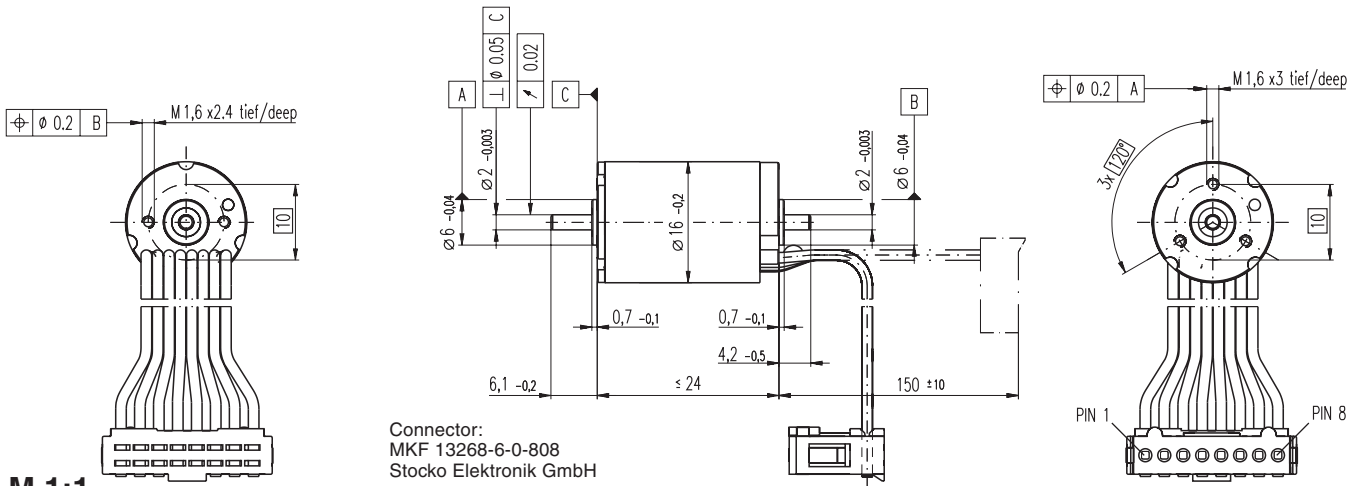


EC-max 16 \varnothing 16 mm, brushless, 5 Watt



Connector:
MKF 13268-6-0-808
Stocko Elektronik GmbH

M 1:1

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

Order Number

283825	283826	283827	283828
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Motor Data (provisional)

		283825	283826	283827	283828	
Values at nominal voltage						
1	Nominal voltage	V	4.5	6.0	9.0	12.0
2	No load speed	rpm	12400	13000	12200	13000
3	No load current	mA	121	97.6	59.1	48.8
4	Nominal speed	rpm	4960	5430	4680	5540
5	Nominal torque (max. continuous torque)	mNm	3.53	3.41	3.50	3.46
6	Nominal current (max. continuous current)	A	1.17	0.900	0.573	0.455
7	Stall torque	mNm	6.15	6.11	5.95	6.27
8	Starting current	A	1.89	1.49	0.901	0.762
9	Max. efficiency	%	57	56	56	57
Characteristics						
10	Terminal resistance phase to phase	Ω	2.38	4.04	9.99	15.7
11	Terminal inductance phase to phase	mH	0.0396	0.0634	0.163	0.254
12	Torque constant	mNm / A	3.25	4.12	6.60	8.23
13	Speed constant	rpm / V	2940	2320	1450	1160
14	Speed / torque gradient	rpm / mNm	2150	2280	2190	2220
15	Mechanical time constant	ms	9.64	10.2	9.81	9.95
16	Rotor inertia	gcm ²	0.428	0.428	0.428	0.428

Specifications

Thermal data		
17	Thermal resistance housing-ambient	23.5 K / W
18	Thermal resistance winding-housing	2.57 K / W
19	Thermal time constant winding	0.883 s
20	Thermal time constant motor	390 s
21	Ambient temperature	-40 ... +100°C
22	Max. permissible winding temperature	+155°C
Mechanical data (preloaded ball bearings)		
23	Max permissible speed	20000 rpm
24	Axial play at axial load < 2.0 N	0 mm
	> 2.0 N	0.14 mm preloaded
25	Radial play	1.5 N
26	Max. axial load (dynamic)	40 N
27	Max. force for press fits (static) (static, shaft supported)	600 N
28	Max. radial loading, 5 mm from flange	6 N
Other specifications		
29	Number of pole pairs	1
30	Number of phases	3
31	Weight of motor	30 g

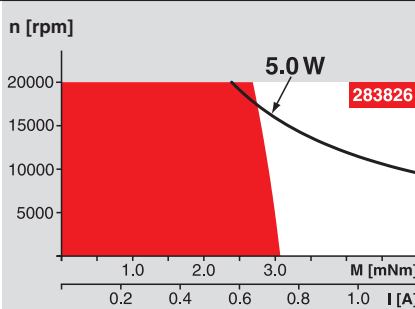
Values listed in the table are nominal.

Connection (Cable AWG 24)

brown	Motor winding 1	Pin 1
red	Motor winding 2	Pin 2
orange	Motor winding 3	Pin 3
yellow	V _{Hall} 4.5 ... 24 VDC	Pin 4
green	GND	Pin 5
blue	Hall sensor 1	Pin 6
violet	Hall sensor 2	Pin 7
grey	Hall sensor 3	Pin 8

Wiring diagram for Hall sensors see page 26

Operating Range



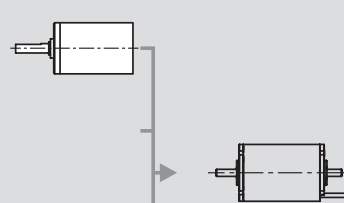
Comments

- 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

Overview on page 16 - 21

Planetary Gearhead
 \varnothing 16 mm
0.1 - 0.3 Nm
Page 215



Encoder MR
128 / 256 / 512 CPT,
2 / 3 channels
Page 249

Recommended Electronics:
DEC 24/1 Page 276
DECV 50/5 278
DES 50/5 279
EPOS 24/1 286
Notes 20