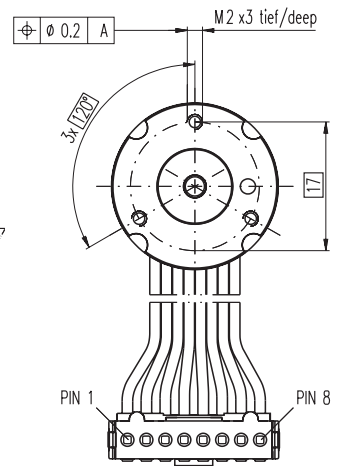
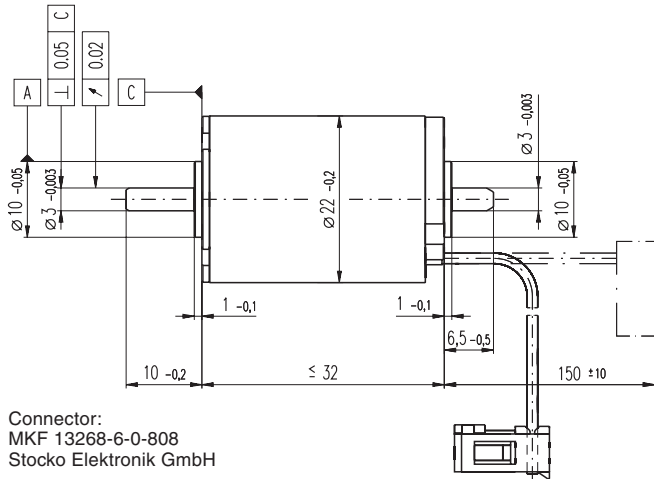
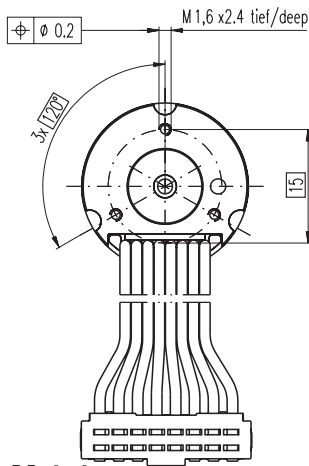


EC-max 22 Ø22 mm, brushless, 12 Watt



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

M 1:1

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

Order Number

283837	283838	283839	283840	283841
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Motor Data

		283837	283838	283839	283840	283841
Values at nominal voltage						
1	Nominal voltage	V	6.0	12.0	18.0	24.0
2	No load speed	rpm	10800	11500	11500	11500
3	No load current	mA	221	123	81.1	61.0
4	Nominal speed	rpm	6840	7550	7740	7690
5	Nominal torque (max. continuous torque)	mNm	11.4	11.2	11.9	11.7
6	Nominal current (max. continuous current)	A	2.38	1.25	0.884	0.661
7	Stall torque	mNm	31.9	33.3	37.7	36.2
8	Starting current	A	6.23	3.47	2.60	1.94
9	Max. efficiency	%	67	67	69	68
Characteristics						
10	Terminal resistance phase to phase	Ω	0.963	3.46	6.93	12.4
11	Terminal inductance phase to phase	mH	0.0343	0.121	0.275	0.488
12	Torque constant	mNm / A	5.12	9.60	14.5	19.3
13	Speed constant	rpm / V	1870	995	658	495
14	Speed / torque gradient	rpm / mNm	351	358	314	318
15	Mechanical time constant	ms	8.27	8.45	7.41	7.49
16	Rotor inertia	gcm ²	2.25	2.25	2.25	2.25

Specifications

Thermal data		
17	Thermal resistance housing-ambient	13.5 K / W
18	Thermal resistance winding-housing	1.72 K / W
19	Thermal time constant winding	1.82 s
20	Thermal time constant motor	567 s
21	Ambient temperature	-20 ... +100°C
22	Max. permissible winding temperature	+155°C
Mechanical data (preloaded ball bearings)		
23	Max permissible speed	18000 rpm
24	Axial play at axial load < 5.0 N	0 mm
	> 5.0 N	0.14 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	4.5 N
27	Max. force for press fits (static)	60 N
	(static, shaft supported)	1400 N
28	Max. radial loading, 5 mm from flange	16 N
Other specifications		
29	Number of pole pairs	1
30	Number of phases	3
31	Weight of motor	67 g

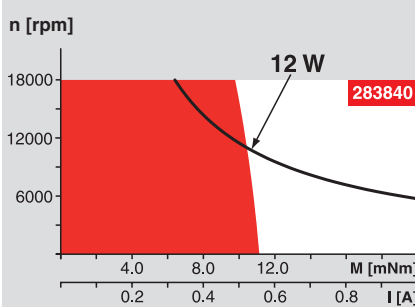
Values listed in the table are nominal.

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 27

Operating Range



Comments

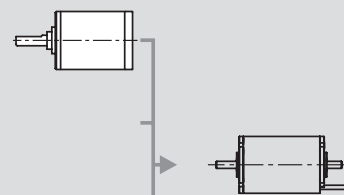
Continuous operation
In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.

Short term operation
The motor may be briefly overloaded (recurring).

— Assigned power rating

maxon Modular System

Planetary Gearhead
Ø22 mm
0.5 - 2.0 Nm
Page 232



Overview on page 16 - 21

Encoder MR
128 / 256 / 512 CPT,
2 / 3 channels
Page 257

Brake AB 20
Ø20 mm
24 VDC, 0.1 Nm
Page 306

Recommended Electronics:

DECS 50/5	Page 284
DEC 24/1	284
DEC 24/3	285
DECV 50/5	286
DES 50/5	287
EPOS 24/1	294
EPOS 24/5	294
EPOS2 50/5	295
EPOS P 24/5	297
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