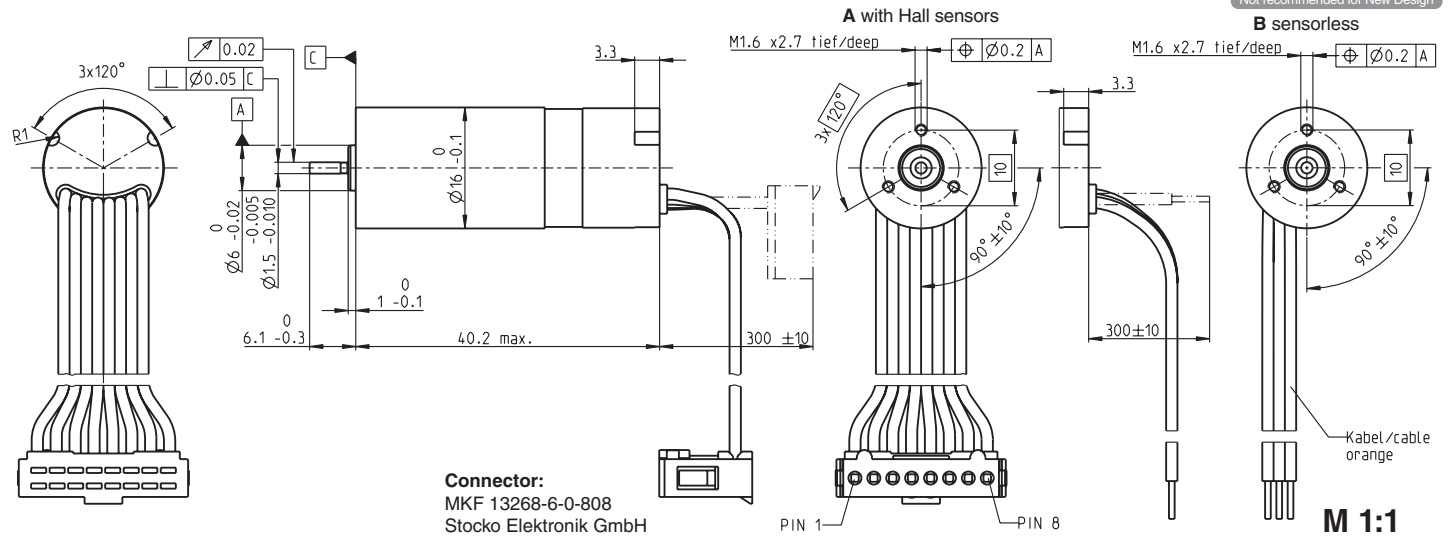


EC 16 Ø16 mm, brushless, 15 Watt

NRND See page 13
Not recommended for New Design



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

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

Part Numbers

	266521	236918	266519	236917
A with Hall sensors				
B sensorless	266523	236922	266522	236921

Motor Data

Values at nominal voltage		12	18	24	32
1 Nominal voltage	V	12	18	24	32
2 No load speed	rpm	33900	37400	39200	38400
3 No load current	mA	234	179	144	105
4 Nominal speed	rpm	28200	31700	33700	32800
5 Nominal torque (max. continuous torque)	mNm	4.96	4.76	4.89	4.77
6 Nominal current (max. continuous current)	A	1.71	1.22	0.984	0.707
7 Stall torque	mNm	31.2	33.1	36.9	34.4
8 Starting current	A	9.47	7.38	6.47	4.43
9 Max. efficiency	%	72	72	73	72
Characteristics		12	18	24	32
10 Terminal resistance phase to phase	Ω	1.27	2.44	3.71	7.22
11 Terminal inductance phase to phase	mH	0.0350	0.0648	0.105	0.194
12 Torque constant	mNm/A	3.30	4.48	5.71	7.77
13 Speed constant	rpm/V	2900	2130	1670	1230
14 Speed/torque gradient	rpm/mNm	1110	1160	1090	1140
15 Mechanical time constant	ms	8.75	9.10	8.53	8.98
16 Rotor inertia	gcm ²	0.750	0.750	0.750	0.750

Specifications

Thermal data	
17 Thermal resistance housing-ambient	15.6 K/W
18 Thermal resistance winding-housing	1.8 K/W
19 Thermal time constant winding	1.24 s
20 Thermal time constant motor	265 s
21 Ambient temperature	-20...+100°C
22 Max. permissible winding temperature	+125°C
Mechanical data (preloaded ball bearings)	
23 Max. permissible speed	50000 rpm
24 Axial play at axial load < 3.5 N	0 mm
> 3.5 N	max. 0.14 mm
25 Radial play	preloaded
26 Max. axial load (dynamic)	3 N
27 Max. force for press fits (static) (static, shaft supported)	30 N
28 Max. radial loading, 5 mm from flange	10 N

Other specifications

29 Number of pole pairs	1
30 Number of phases	3
31 Weight of motor	34 g

Values listed in the table are nominal.

Connection A

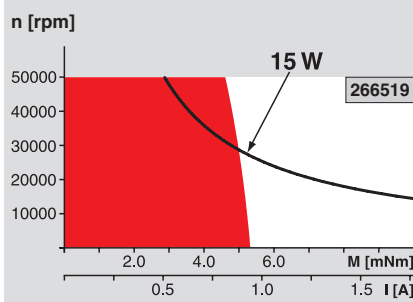
brown	Motor winding 1	Pin 1
red	Motor winding 2	Pin 2
orange	Motor winding 3	Pin 3
yellow	V _{Hall} 3...24 VDC	Pin 4
green	GND	Pin 5
blue	Hall sensor 1	Pin 6
violet	Hall sensor 2	Pin 7
grey	Hall sensor 3	Pin 8

Connection B (Cable AWG 24)

brown	Motor winding 1
red	Motor winding 2
orange	Motor winding 3

Wiring diagram for Hall sensors see p. 35

Operating Range



Comments

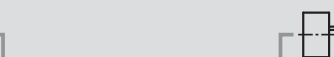
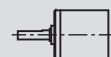
- Continuous operation**
In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.
- Short term operation**
The motor may be briefly overloaded (recurring).
- Assigned power rating**

maxon Modular System

Overview on page 20 - 25

Planetary Gearhead

Ø16 mm
0.1 - 0.3 Nm
Page 243



for type A:

Encoder MR
128/256/512 CPT,
Page 301

Recommended Electronics:

ESCON 50/5	Page 321
DECS 50/5	324
DEC Module 24/2	325
DEC Module 50/5	325
EPOS2 Module 36/2	330
EPOS2 24/2	330
Notes	24