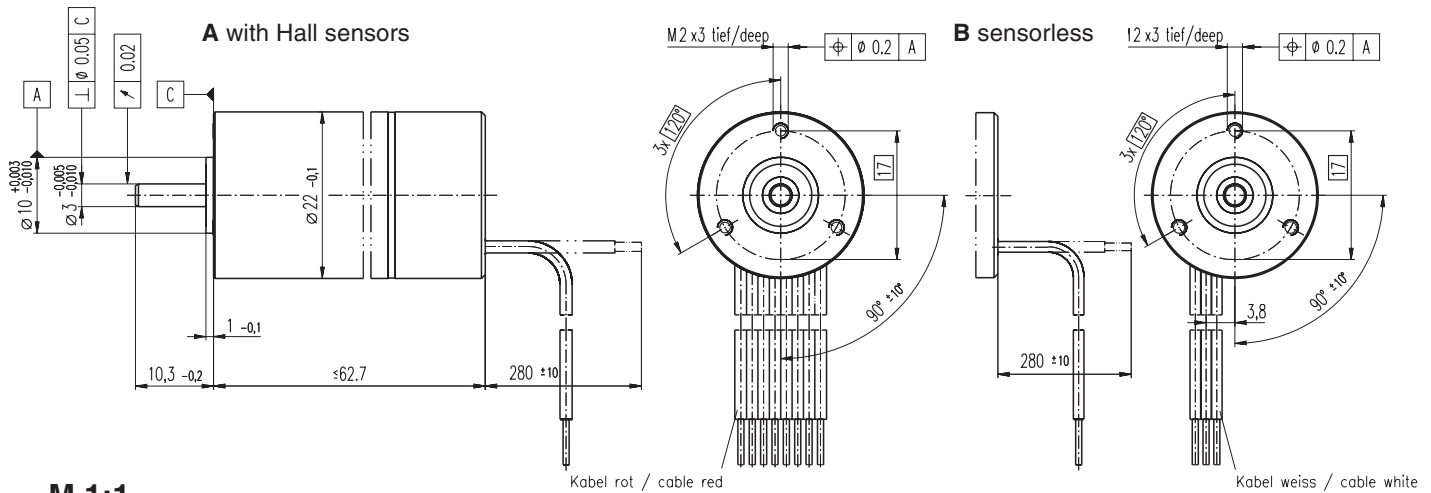


EC 22 Ø22 mm, brushless, 50 Watt, sterilisable



M 1:1

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

A with Hall sensors
B sensorless

Order Number

266520	264443
275312	254168

Motor Data (provisional)

Values at nominal voltage			
1	Nominal voltage	V	32.0
2	No load speed	rpm	41100
3	No load current	mA	364
4	Nominal speed	rpm	38900
5	Nominal torque (max. continuous torque)	mNm	28.6
6	Nominal current (max. continuous current)	A	4.18
7	Stall torque	mNm	652
8	Starting current	A	88.2
9	Max. efficiency	%	88
Characteristics			
10	Terminal resistance phase to phase	Ω	0.363
11	Terminal inductance phase to phase	mH	0.0490
12	Torque constant	mNm / A	7.39
13	Speed constant	rpm / V	1290
14	Speed / torque gradient	rpm / mNm	63.4
15	Mechanical time constant	ms	3.08
16	Rotor inertia	gcm ²	4.63

Specifications

Thermal data	
17	Thermal resistance housing-ambient 7.0 K / W
18	Thermal resistance winding-housing 1.0 K / W
19	Thermal time constant winding 5.06 s
20	Thermal time constant motor 355 s
21	Ambient temperature -40 ... +135°C
22	Max. permissible winding temperature +155°C
Mechanical data (preloaded ball bearings)	
23	Max. permissible speed 50000 rpm
24	Axial play at axial load < 5 N 0 mm
	> 5 N max. 0.14 mm
25	Radial play preloaded
26	Max. axial load (dynamic) 4 N
27	Max. force for press fits (static) 60 N
	(static, shaft supported) 250 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 130 g

Values listed in the table are nominal.

Connection A, Motor (Cable AWG 22)

- red Motor winding 1
- black Motor winding 2
- white Motor winding 3

Connection A, Sensoren (Cable AWG 26)

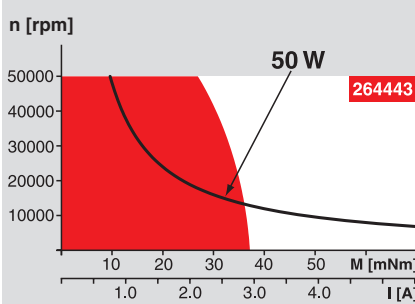
- green V_{Hall} + 5 VDC
- blue GND
- red / grey Hall sensor 1
- black / grey Hall sensor 2
- white / grey Hall sensor 3

Connection B (Cable AWG 22)

- red Motor winding 1
- black Motor winding 2
- white Motor winding 3

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

Application

Medicine / surgery / chemicals

- Hand tools that can be sterilised, such as bone saw, bone drilling and grinding machine
- Dermatological and dental tools
- Infusion pumps
- ECG
- Therapy aid, analysis and dialysis equipment

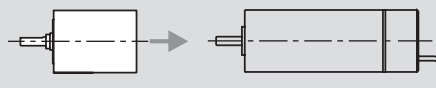
Sterilisation information

The motor can be sterilised at least 100 times in autoclave. No need to dismantle.

Sterilisation with steam	
Temperature	+134°C ± 4°C
Compression pressure up to	2.3 bar
Rel. humidity	100 %
Cycle length	20 minutes

maxon-Baukastensystem

Planetary Gearhead
sterilisable
Ø22 mm
0.5 - 2.0 Nm
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