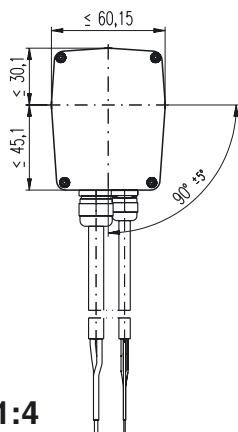
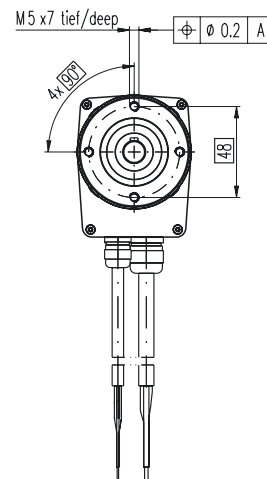
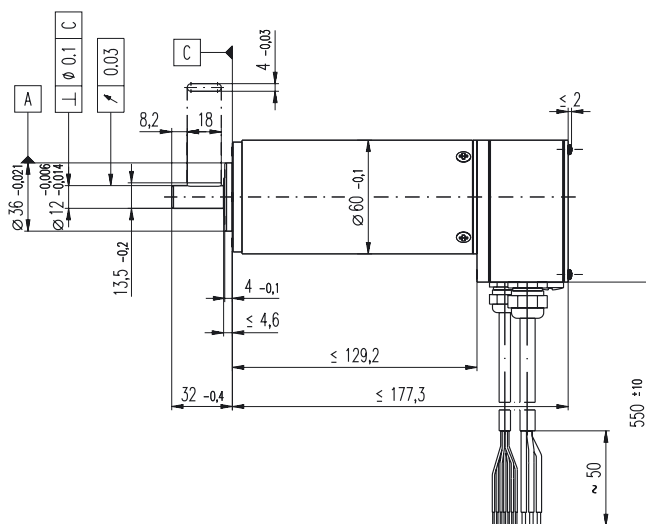


EC 60 Ø60 mm, brushless, 400 Watt, C€ approved



M 1:4



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

Order Number



167132 167131

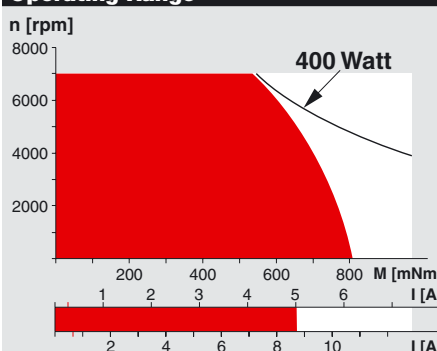
Motor Data

		167132	167131
1	Assigned power rating	W	400
2	Nominal voltage	Volt	48.0
3	No load speed	rpm	5400
4	Stall torque	mNm	11000
5	Speed / torque gradient	rpm / mNm	0.49
6	No load current	mA	740
7	Terminal resistance phase to phase	Ohm	0.37
8	Max. permissible speed	rpm	7000
9	Max. continuous current at 5000 rpm	A	9.3
10	Max. continuous torque at 5000 rpm	mNm	688
11	Max. efficiency	%	86
12	Torque constant	mNm / A	85
13	Speed constant	rpm / V	113
14	Mechanical time constant	ms	4.3
15	Rotor inertia	gcm ²	831
16	Terminal inductance phase to phase	mH	0.270
17	Thermal resistance housing-ambient	K / W	1.3
18	Thermal resistance winding-housing	K / W	0.5
19	Thermal time constant winding	s	38
20	Thermal time constant stator	s	1200

Specifications

- Motor connection Screw fitting for cable PG9
- Axial play at axial load < 30 N 0 mm
- Axial play at axial load > 30 N max. 0.14 mm
- Preloaded **ball bearings**
- Max. **ball bearing** loads
 - axial (dynamic) 26 N
 - radial (5 mm from flange) 240 N
 - Force for press fits (static) 320 N
 - (static, shaft supported) 8000 N
- Radial play **ball bearing** 0.03 mm
- Ambient temperature range -20 ... +125°C
- Max. permissible winding temperature +125°C
- Weight of motor 2450 g
- Protection IP54
- 2 pole permanent magnet
- Values listed in the table are nominal.
- **Connection** (Cable AWG 16)
 - Cable 1 Motor winding 1
 - Cable 2 Motor winding 2
 - Cable 3 Motor winding 3
- **Connection** (Cable AWG 24)
 - Cable white Hall sensor 3
 - Cable brown Hall sensor 2
 - Cable green Hall sensor 1
 - Cable yellow GND
 - Cable grey V_{Hall} 4.5 ... 24 VDC
 - Cable blue Temperature monitoring (PTC)
 - Cable pink Temperature monitoring (PTC)
- Temperature monitoring
 - PTC resistance micropille 110°C
 - R 25°C < 0.5 kΩ, R 105°C = 1.2 ... 1.5 kΩ
 - R 115°C = 7 ... 13 kΩ, R 120°C = 18 ... 35 kΩ
- For wiring diagram for Hall sensors, see p. 26
- Options: motor connection with plug

Operating Range



Comments

Curve of constant assigned power rating

Continuous operation

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

Short term operation

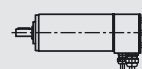
The motor may be briefly overloaded (recurring).

167131 Motor with high resistance winding

167132 Motor with low resistance winding

maxon Modular System

Planetary Gearhead
Ø81 mm
20 - 120 Nm
Details page 230



Recommended Electronics:
DEC 50/5 page 264
DEC 70/10 266
DES 50/5, 70/10 267, 268
EPOS 70/10 271
MIP 50, MIP 100 273
Notes 17

Encoder HEDL 9140
500 CPT,
3 channels
Details page 247
Resolver Res
Ø26 mm
10 V
Details page 253
Brake AB
Ø41 mm
24 VDC, 2.0 Nm
Details page 283