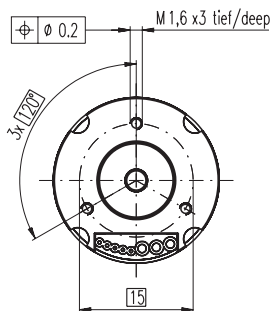


EC-powermax 22 Ø22 mm, brushless, 90 Watt

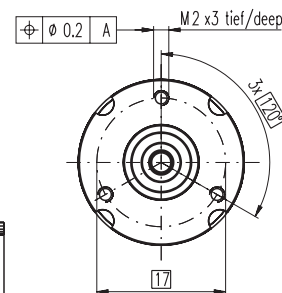
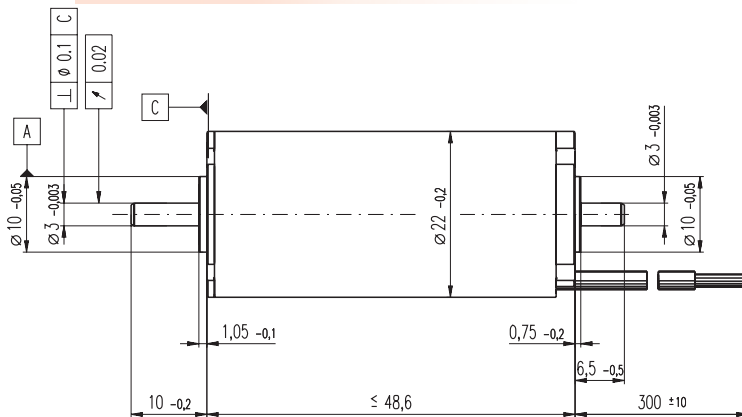
NEW

HighPower



Lage des Kabelabgangs zum Befestigungsbohrbild ±10°

Alignment of cables relative to mounting holes ±10°



M 1:1

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

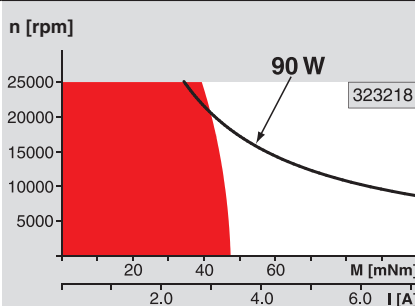
Order Number

323217 323218 323219 323220 327739

Motor Data (provisional)		323217	323218	323219	323220	327739
Values at nominal voltage						
1	Nominal voltage	V	18.0	24.0	36.0	48.0
2	No load speed	rpm	16200	16200	16200	6900
3	No load current	mA	275	206	137	103
4	Nominal speed	rpm	14700	14700	14700	5420
5	Nominal torque (max. continuous torque)	mNm	45.0	47.0	46.0	45.0
6	Nominal current (max. continuous current)	A	4.43	3.46	2.26	1.66
7	Stall torque	mNm	607	661	633	607
8	Starting current	A	57.7	47.1	30.1	21.6
9	Max. efficiency	%	87	88	87	86
Characteristics						
10	Terminal resistance phase to phase	Ω	0.312	0.510	1.20	2.22
11	Terminal inductance phase to phase	mH	0.0597	0.106	0.239	0.425
12	Torque constant	mNm / A	10.5	14.0	21.1	28.1
13	Speed constant	rpm / V	907	680	453	340
14	Speed / torque gradient	rpm / mNm	26.9	24.7	25.8	26.9
15	Mechanical time constant	ms	1.56	1.43	1.50	1.56
16	Rotor inertia	gcm ²	5.54	5.54	5.54	5.54

Specifications Operating Range Comments

- Thermal data**
- 17 Thermal resistance housing-ambient 9.08 K / W
 - 18 Thermal resistance winding-housing 0.904 K / W
 - 19 Thermal time constant winding 3.98 s
 - 20 Thermal time constant motor 358 s
 - 21 Ambient temperature -20 ... +100°C
 - 22 Max. permissible winding temperature +125°C
- Mechanical data (preloaded ball bearings)**
- 23 Max permissible speed 25000 rpm
 - 24 Axial play at axial load < 5.0 N 0 mm
 - 24 Axial play at axial load > 5.0 N 0.14 mm
 - 25 Radial play
 - 26 Max. axial load (dynamic) 4.5 N
 - 27 Max. force for press fits (static) (static, shaft supported) 60 N
 - 27 Max. force for press fits (static) (static, shaft supported) 1000 N
 - 28 Max. radial loading, 5 mm from flange 16 N
- Other specifications**
- 29 Number of pole pairs 2
 - 30 Number of phases 3
 - 31 Weight of motor 110 g



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.

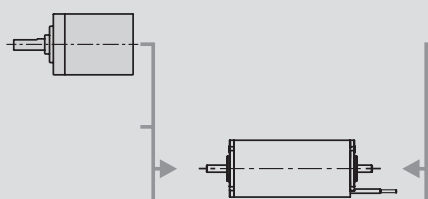
Short term operation
The motor may be briefly overloaded (recurring).

— Assigned power rating

maxon Modular System

Overview on page 16 - 21

Planetary Gearhead
Ø32 mm
1.0 - 6.0 Nm
Page 232



Recommended Electronics:
DEC 50/5 Page 277
DECV 50/5 278
DEC 70/10 278
Notes 20