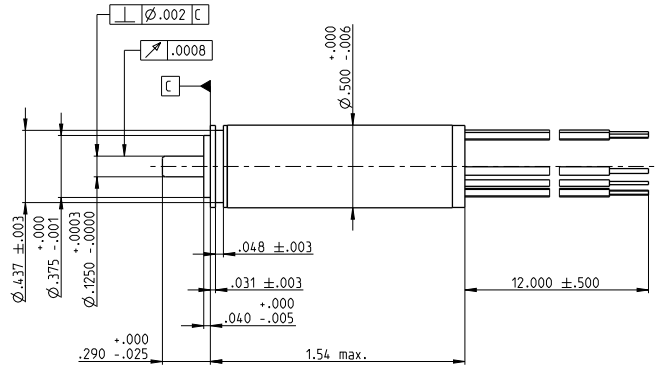
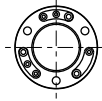


EC size 5 Ø0.5 in, brushless, 30 Watts, sterilisable



M 1:1

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

Order Number

A with Hall Sensors
B sensorless

368849	368850	370541
371404	371405	371406

Motor Data (provisional)

Values at nominal voltage					
1	Nominal voltage	V	12.0	24.0	48.0
2	No load speed	rpm	71200	71200	82900
3	No load current	mA	175	87.6	53.5
4	Nominal speed	rpm	63900	64100	75600
5	Nominal torque (max. continuous torque)	oz-in	0.692	0.716	0.657
6	Nominal current (max. continuous current)	A	3.17	1.63	0.882
7	Stall torque	oz-in	7.84	8.38	8.88
8	Starting current	A	34.5	18.4	11.4
9	Max. efficiency	%	86	87	87
Characteristics					
10	Terminal resistance phase to phase	Ω	0.348	1.30	4.22
11	Terminal inductance phase to phase	mH	0.0180	0.0720	0.213
12	Torque constant	oz-in / A	0.227	0.454	0.781
13	Speed constant	rpm / V	5970	2980	1740
14	Speed / torque gradient	rpm / oz-in	9155	8521	9366
15	Mechanical time constant	ms	3.47	3.24	3.56
16	Rotor inertia	oz-in-s ²	$3.61 \cdot 10^{-6}$	$3.61 \cdot 10^{-6}$	$3.61 \cdot 10^{-6}$

Specifications

Thermal data		
17	Thermal resistance housing-ambient	32.4°F/W
18	Thermal resistance winding-housing	2.8°F/W
19	Thermal time constant winding	1.12 s
20	Thermal time constant motor	306 s
21	Ambient temperature	-40...+275°F
22	Max. permissible winding temperature	+311°F
Mechanical data (preloaded ball bearings)		
23	Max. permissible speed	90000 rpm
24	Axial play at axial load < 7.2 oz	0 in
	> 7.2 oz	max. 0.0473 in
25	Radial play	preloaded
26	Max. axial load (dynamic)	25.2 oz
27	Max. force for press fits (static)	25.2 oz
28	Max. radial loading, 0.2 in from flange	14.4 oz
Other specifications		
29	Number of pole pairs	1
30	Number of phases	3
31	Weight of motor	1.2 oz

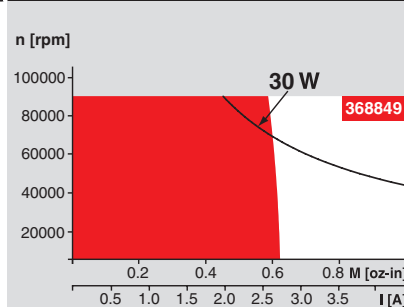
Values listed in the table are nominal

Connection A and B	
red	Motor winding 1
black	Motor winding 2
white	Motor winding 3
Connection A	
green	V _{Hall} 3.8 ... 24 VDC
blue	GND
red / grey	Hall sensor 1
black / grey	Hall sensor 2
white / grey	Hall sensor 3

Option:

Metric version EC13 as standard variant available

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 77°F ambient. = Terminal limit.

Short term operation

The motor may be briefly overloaded (recurring).

Assigned power rating

Application

Medicine/ surgery / chemicals

Hand tools such as bone saws, bone drilling and grinding machine can be sterilised.

Dermatological and dental tools

Infusion pumps

ECG

Therapy aid, analysis and dialysis equipment

Sterilisation information

In normal use, the motor can be sterilised 500 times in an autoclave. No need to dismantle.

Sterilisation with steam

Temperature	+273°F ± 7°F
Compression pressure up to	2.3 bar
Rel. humidity	100 %
Cycle length	20 minutes

maxon Modular System

Planetary Gearhead

GP size 5 M
sterilisable
Ø0.5 in
14 - 39 oz-in



Recommended Electronics:

DECS 50/5	Catalogue page 289
DEC 24/3	290
DEC Module 24/2	290
DEC 50/5 / Module 50/5	291
DECV 50/5	297

additional informaton

partially inductors necessary