

Brushless Motor
EC90FLAT 400W



The advantages :
Flat format motor for improved installation
Ventilated rotor for improved performance.

Associated products :

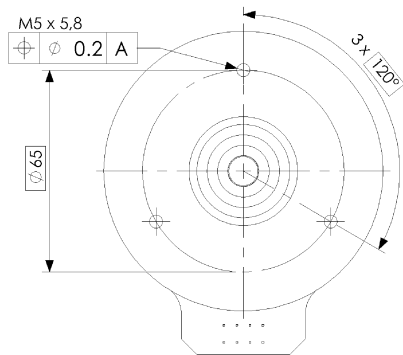
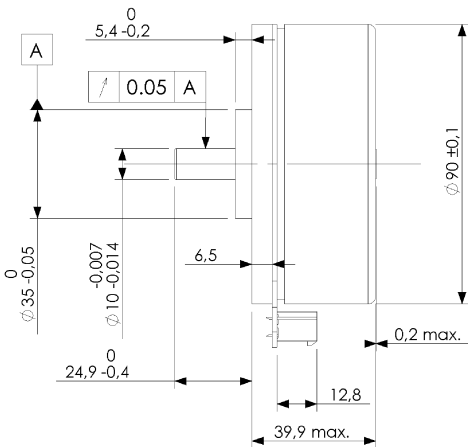
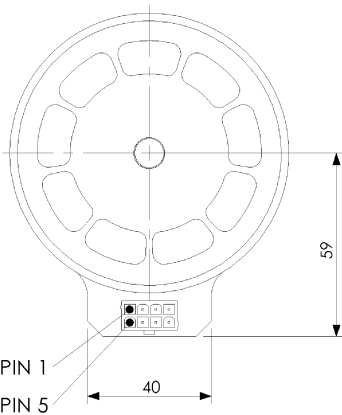
- > Power supply
SDR-960-48
SP750 48V/15.7A
- > Controller
EPOS4 70/15
ESCON 70/10

maxon motor

420 W - 660 W

Power supply voltage (Ua)	V	48
Speed at current In	tr/mn	3184
Torque at current In	mNm	1260
Maximum permanent current In	mA	8730
Ua no-load speed +/- 10%	tr/mn	3328
No-load current +/- 50%	mA	475
Ua stall current	mA	107000
Ua stall torque	mNm	14600
Torque constant	mNm/A	136
Speed constant	tr/mn/V	70.2
Speed/torque gradient	tr/mn/mN	0.144
Limit speed	tr/mn	5000
Maximum Ua operating power	W	1274
Maximum efficiency	%	87.3
Electromechanical time constant	ms	7.66
Inertia	gcm ²	4765
Terminal resistance phase to phase	Ohm	0.28
Inductance	mH	0.369
Ambient/Housing thermal	K/W	1.56
Coil/Housing thermal resistance	K/W	1.09
Coil thermal time constant	s	34.2
Housing thermal time constant	s	232
Test voltage	V	48
Nominal operating power output	W	420
Max permanent operating power	W	660

Number of phases	3
Bearings	Bearings
Maximum axial load (dynamic)	34 N
Minimum axial play	0 mm
Maximum axial play	0.14 mm
Maximum radial load	130 N
at a distance from the face of:	10 mm
Radial play	0 mm
If fixed rear axis	440 N
Minimum ambient operating temperature	-40 °C
Maximum ambient operating temperature	100 °C
Maximum coil temperature	125 °C
Weight	964 g



Connecteur Molex 46015-0806	
Borne 1	Capteur à effet Hall 1
Borne 2	Capteur à effet Hall 2
Borne 3	V _{test} 4.5...24 VDC
Borne 4	Bobinage 3 du moteur
Borne 5	Capteur à effet Hall 3
Borne 6	GND
Borne 7	Bobinage 1 du moteur
Borne 8	Bobinage 2 du moteur

Edition:Juli 2022 / subject to modification

Version of06/07/2022

