



Customer:	
Model:	G1238E48B2-FSR-WS
Customer Part Number:	
Revision:	1.0
Description:	Brushless DC Fan
Issue Date:	
Revision Date:	

Drawn By:	Checked By:	Approved By:
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SPECIFICATIONS FOR APPROVAL

Mechatronics is pleased to submit the following specifications for review. If these specifications are for a final approval, please sign, date, and return to:

Mechatronics
 FAX (425) 222-5155

TEL (425) 222-5900

Customer Approval (print):	Authorized Signature:



BRUSHLESS DC FAN SPECIFICATIONS

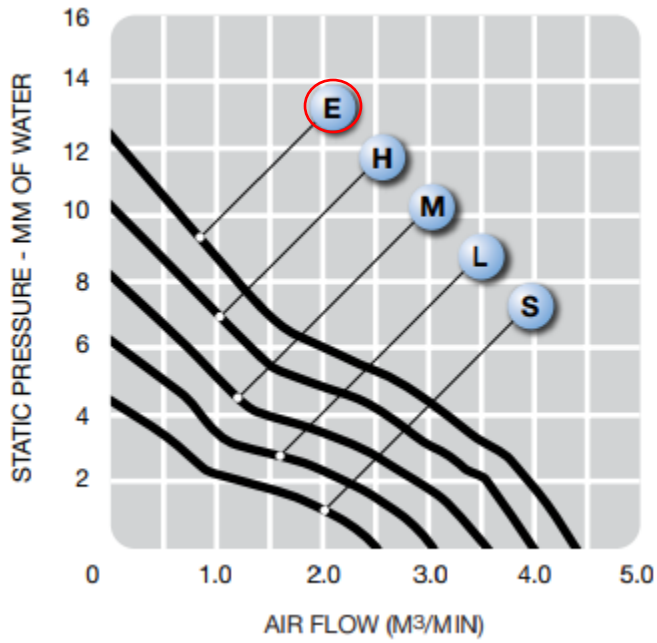
1. SCOPE

This specification applies to axial fan model: **G1238E48B2-FSR-WS**

2. SPECIFICATIONS

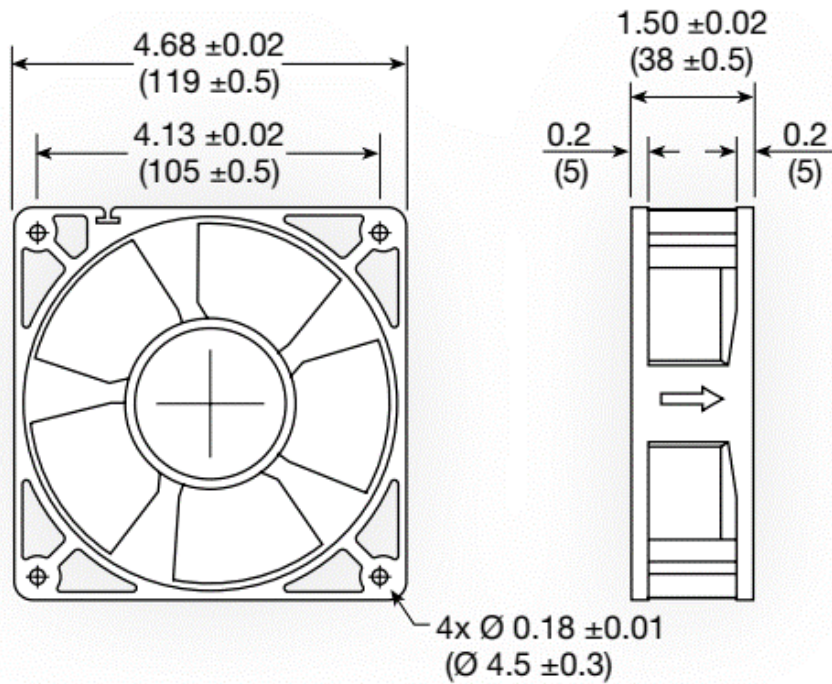
Motor Design	Single phase, 4-pole Brushless DC motor
Frame Material	UL94V-0 PBT
Impeller Material	UL94V-0 PBT
Mass	336g
Bearings	2 Ball Bearings
Motor Insulation	Class A
Maximum Free-Air Flow	158 CFM
Maximum Back Pressure	0.49 In H ₂ O
Rated Voltage	48.0 VDC
Operating Voltage	36 ~ 54 VDC
Rated Current	330 mA
Power	15.8 W
Rated Speed	3,600 RPM
Operating Temperature	-10°C to +70°C, 10% to 90% RH
Storage Temperature	-10°C to +80°C, 5% to 95% RH
Sound Pressure Level	49 dB(A). As measured in a sound isolated room; background noise 20 dB or less; microphone distance 1m from intake side of fan
Insulation Resistance	Min 10M ohm between frame and (+) lead at 500 VDC
Dielectric Strength	Max 5 mA between frame and (+) lead at 500 VAC for 60sec
Life Expectancy	70,000 Hours at 30°C
Lead Wire(s) UL 1007 24AWG 300mm +/-10%	(+) RED (-) GREEN (RD) YELLOW
Safety Ratings	UL, cUL, TUV, CE
RoHS Compliance	RoHS Compliant
Polarity Protection	Capable of withstanding 10 mins of reverse connection of (+) and (-) leads
Motor Protection	Locked Rotor Protection and Auto-Restart Reverse Polarity Protection
Additional Optional Feature(s)	Open Collector Locked Rotor Alarm Signal

3. PERFORMANCE



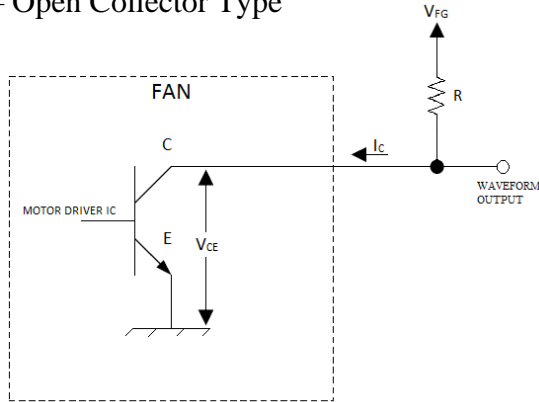
4. MECHANICAL

Dimensional Drawing – Unit: mm (inch)



5. LOCKED ROTOR ALARM

a. OUTPUT CIRCUIT – Open Collector Type



b. ELECTRICAL SPECIFICATIONS

$$V_{CE} \text{ (sat)} = 0.5 \text{ V MAX}$$

$$I_C = 5 \text{ mA MAX}$$

$$V_{FG} = 24 \text{ V MAX}$$

$$R = V_{FG} / I_C$$

c. WAVEFORM OUTPUT

When the rotor is turning the output will be LO

When the rotor is stopped/locked the output be HI

When locked, the motor will periodically attempt to restart.

During restart attempt, output will briefly drop to low.

