Customer:	Rev. 01
Item: Brushless DC Blower	Page 1 of 5
Model: B1232H12B-BSR-E	Issue Date:

# **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:

FAX (425) 222-5155

TEL (425) 222-5900

Customer Approval	Authorized Signature

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# **BRUSHLESS DC FAN SPECIFICATIONS**

#### 1. SCOPE

This specification applies to model: B1232H12B-BSR-E

### 2. STANDARD ENVIRONMENTAL CONDITIONS

Temperature 25°C and relative humidity 60%.

Operating temperature range and acceptable environment: 5 - 35°C and relative

humidity 45 - 85%.

#### 3. STRUCTURE AND FORM

3-1	Structure	Brushless DC fan motor
3-2	External	As per attached drawing
3-3	Housing	PBT UL94-VO
3-4	Impeller	PBT UL94-VO
3-5	Weight	320g
3-6	Bearing	2 Ball Bearing

#### 4. RATING AND OPERATING CONDITIONS

4-1	Rated voltage	DC 24
4-2	Rated current	DC 480 mA
4-3	Rated input	11.5 W
4-4	Operating voltage	14 – 26 VDC
4-5	Operating temperature	-10°C to +70°C
4-6	Storage temperature	-40°C to +70°C
4-7	Speed	3,000 RPM

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### 5. AIR FLOW, AIR PRESSURE CHARACTERISTICS

Item		Condition	Test Result
5-1	Air flow	Air pressure $= 0$	28 CFM (30 CFM Max)
5-2	Air pressure	Air flow $= 0$	0.68 InH20 (0.71 InH20)
5-3	Air flow/Air pressure		See performance curves
	characteristics		

# 6. PERFORMANCE

	Item	Condition	Test Result/
			Standard
6-1	Noise Free air Fan Microphone	As measured in a sound isolated room; background noise 20 dB or less; microphone distance 1 m from intake side of fan.	49 dBA (52 dBA Max)
6-2	Insulation resistance	Measured between frame and (+) lead wire or terminal when measured with insulation resistance meter with dc 250v applied.	Min. 10 Megohm
6-3	Dielectric voltage	AC 500 v applied for one minute.	Shall be free of abnormality.

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7. Special Test

7. Special Test	1	1	1
7-1	Vibration	5-30Hz, 0.04 peak-	Fan(s) meet
	resistance	to-peak amplitude,	performance
		30-500Hz, 2g peak	standards
		amplitude for 5	
		minutes to all three	
		axes	
7-2	Shock resistance	60g, 11 millisecond	Fan(s) meet
		(1/2  sine), twice to	performance
		all three axes	standards
7-3	Durability	Expected mean	+60,000 hours at
		endurance time until	40°C; 45-85%
		revolutions drop by	relative humidity
		30% from the initial	
		value - when run	
		continuously within	
		rated environmental	
		conditions	
7-4	Rotor Resistance	With rotor restricted	Shall have no
		and at rated voltage	damage
		for 72 hours	

### 8. Other

8-1	Terminal	(+) terminal – red lead wire
		(-) terminal – blue lead wire
8-2	Rotating direction	Marked on housing
8-3	Air flow direction	Marked on housing
8-4	Appearance	Shall be free of defects
8-5	Mounting hole	As noted on pg. 5
8-6	Lot marking	Date code stamped on label
		or frame
8-7	Options	None

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