# imall

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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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| Customer:              | Rev. 0      |
|------------------------|-------------|
| Item: Brushless AC Fan | Page 1 of 5 |
| Model: UF80A12/23-BWHR | 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:

Mechatronics 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: UF80A12/23-BWHR
- STANDARD ENVIRONMENTAL CONDITIONS Temperature 25°C and relative humidity 60%.
  Operating temperature range and acceptable environment: 5 - 35°C and relative humidity 45 - 85%.

| J. SINCCIURL |                  |                        |
|--------------|------------------|------------------------|
| 3-1          | Structure        | Brushless AC fan motor |
| 3-2          | External         | As per drawing         |
| 3-3          | Housing          | Die Cast Aluminum      |
| 3-4          | Impeller         | UL94V-0 PBT            |
| 3-5          | Weight           | 0.28 kg                |
| 3-6          | Bearing          | 2 Ball Bearing         |
| 3-7          | Motor Insulation | Class B                |

| 4. RATING AND | OPERATING CONDITION   | NS 50Hz                            | 60Hz           |
|---------------|-----------------------|------------------------------------|----------------|
| 4-1           | Rated voltage         | AC 115V / 230V                     | AC 115V / 230V |
| 4-2           | Rated current         | 0.14A / 0.07A                      | 0.12A / 0.06A  |
| 4-3           | Power                 | 12W / 14W                          | 9W / 12W       |
| 4-3           | Operating voltage     | 103-127 VAC /                      | 103-127 VAC /  |
|               |                       | 207-253 VAC                        | 207-253 VAC    |
| 4-4           | Operating temperature | $-40^{\circ}$ C to $+70^{\circ}$ C | -40°C to +70°C |
| 4-5           | Storage temperature   | $-40^{\circ}$ C to $+70^{\circ}$ C | -40°C to +70°C |
| 4-6           | Speed                 | 2500 RPM                           | 3000 RPM       |

## 3. STRUCTURE AND FORM



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#### 5. AIR FLOW, AIR PRESSURE CHARACTERISTICS

| Item |                       | Condition          | Test Result 50Hz | Test Result 60Hz |
|------|-----------------------|--------------------|------------------|------------------|
| 5-1  | Air flow              | Air pressure = $0$ | 24 CFM           | 30 CFM           |
| 5-2  | Air flow/Air pressure | Air flow $= 0$     | 0.14 in H2O      | 0.21 in H2O      |
|      | characteristics       |                    |                  |                  |

### 6. PERFORMANCE

|     | Item                                | Condition  | Test Result/<br>Standard     |
|-----|-------------------------------------|--|------------------------------|
| 6-1 | Noise<br>Free air<br>Fan Microphone | As measured in a<br>sound isolated<br>room; background<br>noise 20 dB or less;<br>microphone distance<br>1 m from intake side<br>of fan. | 50Hz – 32dbA<br>60Hz – 36dbA |
| 6-2 | Dielectric Test                     | Measured between<br>terminal and fan<br>frame with AC 1500<br>v applied for one<br>minute.   |                              |



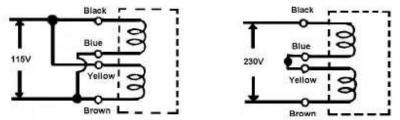
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#### 7. SPECIAL TEST

| 7. SI LEIME ILSI |                  |                       |                 |
|------------------|------------------|-----------------------|-----------------|
| 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              | L10 Life         | Expected mean         | 60,000 hours at |
|                  |                  | endurance time until  | 40°C.           |
|                  |                  | revolutions drop by   |                 |
|                  |                  | 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           | 22awg Lead Wires (x4)      |
|-----|--------------------|----------------------------|
| 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      | 8 places 4.3mm             |
| 8-6 | Lot marking        | Date code stamped on label |





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