Spec. No.: LHDC7530-181214-A3

PRODUCT SPECIFICATION FOR APPROVAL

CUSTOMER: MARSH ELECTRONICS, INC.

MODEL NO .: FBD7530B12W9-61-2RC1

DESCRIPTION:

DC Fan, 77x75x30mm, 12VDC,

3500RPM, Dual Ball Bearing

With Connector.

| CUSTOMER CONFIRMATION SIGNATURE | | COOLTRON SIGNATURE | |
|---|---------------------------|------------------------|--------------------------|
| Please confirm this Specification Sheet with your Approval Signature by return email or fax | APPROVED | CHECKED | PREPARED |
| | Victor Wang 12/14/2018 | Tony Xin 12/14/2018 | Eric Zhang 12/14/2018 |
| EDITION | | A02 | |
| REVISED DATE | | 12/14/2018 | |

This offer is made according to your current inquiry. Unless otherwise revised, this specification will be final for all future production of orders from your respected company

Please study specifications in details and return to us the duplicate duly signed for your confirmation of this specification sheet



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Product Specification - Revised Record

| Rev. | Changes | Date |
|------|--|------------|
| A02 | Old mold is out of service and change to new mold. | 11/09/2018 |
| | | |
| | | |

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Standards and Specifications of Model: FBD7530B12W9-61-2RC1 (Auto Restart)



A. General Specification

| | ltem | | Specification / | Standard / Condition |
|----|----------------------|--|-----------------------|--|
| 01 | Outline Dimension | 77 x 75 x 30 mm | | |
| 02 | Bearing | Dual Ball Be | aring | |
| 03 | Rated Voltage | DC 12 | V | |
| 04 | Operating Voltage | DC 6.0 | V ~ DC 13.8 | V |
| 05 | Starting Voltage | DC 6.0 | V (At 25°C, Power O | N / OFF) |
| 06 | Rated Current (Max.) | 0.45 | А | 1 Deted Valtage |
| 07 | Actual Current | 0.30 | А | 1. Rated Voltage 2. 25°C, 65% RH |
| 08 | Power Consumption | 3.60 | W (Max.: 5.40W) | 2. 23 0, 00 /01/11 |
| 09 | Rated Speed | 3,500 | RPM ± 10% | Free Air Rated Voltage After 10 Min. Rotating. |
| 10 | Max. Air Flow | 13.13 | CFM | 1. Rated Voltage 2. AMCA Standard |
| 11 | Max. Static Pressure | 15.91 | mm-H₂O | 3. Rated Current |
| 12 | Noise Level(AVG.) | 42.00 | dB(A) | Rated Voltage Measured in a Non-Echo Chamber ISO 3745 Test Condition |
| 13 | Life Expectancy | 70,000 | Hrs at 40°C | L10 at Conf. Level 90% Rated Voltage |
| 14 | Net Weight | 87 | Gram | |
| 15 | Number of Blade | | Blades | |
| 16 | Number of Pole | 4 | Poles | |
| 17 | Rotating Direction | Counter-Clo | ckwise | Looking at Rotor Side |
| 18 | Material: | Housing: Plastic UL 94V-0 P.B.T. Blade: Plastic UL 94V-0 P.B.T. | | |
| 19 | Lead Wire | UL Type #24 AWG, 102mm Red: (+) Black: (-) | | |
| 20 | Connector | With Molex h | nousing# 03-06-1023 8 | terminal# 02-06-1131 |
| 21 | Special Function | Auto Restart | | |

B. Electrical Specification

| | Item | Specification / Condition | |
|----|----------------------------|---------------------------|--|
| | 01 Locked Rotor Protection | \checkmark | Safety Condition |
| 01 | | \checkmark | a. Auto power off after locked at rated voltage for 1 sec.b. After auto power off, circuit attempt to restart in a few seconds. |
| 02 | Polarity Protection | \checkmark | Circuit is protected when VCC & GND are exchanged, the circuit won't be burned within 5 seconds. |
| 03 | Insulation Resistance | \checkmark | 10m.Ohm / between unshielded wire and frame at 500 VDC/min. |
| 04 | Dielectric Strength | \checkmark | 5mA Maximum. / Measured between lead wire (+) and frame at 500 VAC/min. |

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C. Environmental Specification

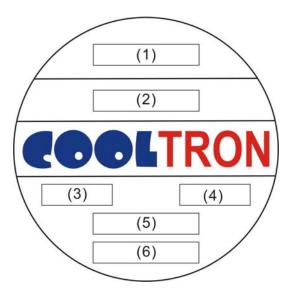
| <u> </u> | | | |
|----------|----|---------------------|---|
| | | ltem | Specification / Condition |
| | 01 | Operating Condition | Temperature: -10°C ~ + 70°C Humidity: 35% ~ 85% RH |
| | 02 | Storage Temperature | Temperature: -40°C ~ +75°C Humidity: 35% ~ 85% RH |

D. Safety Approvals

| Safety Approval | File No. | i Ov Kneinizna |
|-----------------|------------|----------------|
| CE | TB10088262 | |
| UL | E194726 | |
| CUL | E194726 | |
| TUV | R50048194 | |

E. Label Marking

01: Fan Label Marking



| (1) | Safety Approval |
|-----|------------------------------|
| (2) | Model Number & Appendix Code |
| (3) | Rated Voltage |
| (4) | Power Consumption |
| (5) | Bearing Type |
| (6) | Location |

02: RoHS Label Marking:

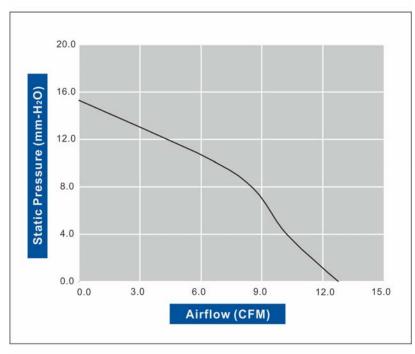


| Label | Location |
|------------------|------------------|
| RoHS & Date Code | Fan Outlet Frame |

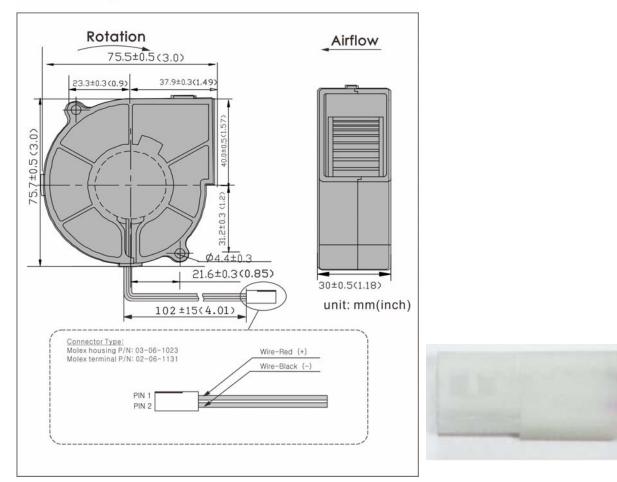
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F. Air Flow Performance Curve



G. Model Drawing



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H. Fan Photos





FBD7530-61

REMARKS

- 1. COOLTRON will not assume responsibility for the performance of the products if the application conditions fall outside the parameters stated forth in this specification.
- 2. A written request should be submitted to COOLTRON prior to approval if abnormality and deviation from this specification is required.
- 3. Please be cautious when fan is being exercised or handled. Damages may be resulted when apply pressure to the impeller or hold the fan by the lead wires or drop the fans to the production platform.
- 4. With exception of suitability of some particular designs, any failure and problems regarding safety of the product caused by the introduction of powder, droplets of water or encroachment of insert in the hub are not guaranteed.
- 5. All general specifications and quality values are measured under condition of free air and fan vertical set up. COOLTRON highly suggests practicing a test when fan apply to a special application.
- 6. COOLTRON fans are not suitable to be used in an environment that contains aggressive or corrosive fluids.
- 7. Always ensure that fans are stored according to the storage temperatures specified. Do not store in an environment with a high humidity level. If the fans were stored for longer than 6 months, it is highly recommended to apply functional testing before shipping.
- 8. Except for the feature of the Lock Rotor Protection specifically stated, this feature is not applied to all fans. COOLTRON highly suggests not to stop the impellers of the working fans such interruption will cause adverse effect.
- 9. During installation, please be cautious. COOLTRON is not responsible for any excess resonance, vibration and subsequent noise caused by incorrect mounting of fans.
- 10. During testing it is important to consider safety at all times. A suitable guard should be fitted to the fan to prevent personal injury.
- 11. All test environments are conducted under the condition of relative (ambient) temperature and humidity at 25°C, 65%RH. The test result stated above is effective only for unique fan performance.
- 12. The above conditions are examples of extreme application. However they are very important and should receive top priority.