Spec. No.: <u>JYDC4015-110629-A1</u>

PRODUCT SPECIFICATION FOR APPROVAL

COOLTRON

CUSTOMER: Zebra Technologies Corporation

REF. NO.:

MODEL NO.: FD4015B24W5-61-2RSC1

DESCRIPTION: DC Fan, 40x40x15mm, 24VDC,

2Ball Bearing, twist wire

with JST# EHR-2 & SEH-001T-P0.6

| CUSTOMER CONFIRMATION SIGNATURE | COOLTRON SIGNATURE | | |
|---|------------------------|----------------------|-------------------------|
| Please Confirmation your acceptance of this Approval sheet by return fax or email | APPROVED | CHECKED | PREPARED |
| | Kevin Zou 6/29/2011 | Tony Li 6/29/2011 | Eric Zhang 6/29/2011 |
| EDITION | V1.02 | | |
| REVISED DATE | 6/29/2011 | | |

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

Kindly study in details and return to us the duplicate duly signed as your confirmation of same.

20468 Carrey Road, Walnut, CA 91789 Tel: 909-598-6033 Fax: 909-598-6043 www.cooltron.com

Standards and Specifications of Model: FD4015B24W5-61-2RSC1 (Auto Restart Protection)

A. General Specification

| Item | Specifica | tion / Standard / Condition |
|-------------------------|---|---|
| Outline Dimension | 40 mm x 40 mm x 15 mm | |
| Bearing | Dual Ball Bearing. | |
| Rated Voltage | DC 24V | |
| Operating Voltage | DC12.00V ~ DC27.6V | |
| Starting Voltage | DC12.00V | |
| Rated Current | 0.10A | 1. Rated Voltage 2. 25°C, 65% RH |
| Power Consumption | 2.40W | 2. 25 0, 00 /0 1(1) |
| Speed | 6500R.P.M. | Free Air Rated Voltage 25°C, 65% RH Tolerance: ± 10% |
| Maximum Airflow | 8.30CFM | Rated Voltage AMCA Standard |
| Maximum Static Pressure | 5.20mm-H ₂ O | 3. Rated Current |
| Noise Level | 29.10 dB (A) | Rated Voltage Measured in a Non-Echo Chamber CNS 8753 Standard ISO 3744 Test Condition |
| Life | 70,000 hrs | 25°C, L10 at Conf. Level 90%,Rated Voltage |
| Net Weight | 23.5g | |
| Number of Blade | 7 Blades | |
| Number of Pole | 4 Poles | |
| Rotating Direction | Counter-Clockwise | |
| Plastic Material: | 1. UL 94V-0 | |
| Blade, Housing, Bobbin | 2. P.B.T. + 30% GF Black | |
| Lead Wire | UL 1007, 26AWG | Red: (+) Black: (-) |
| Connector | JST EHR-2 Connector & JST SEH-001T-P0.6 Terminals | |

B. Electrical Specification

| Item | Specification / Condition |
|-------------------------|--|
| Locked Rotor Protection | a. Auto power off after locked at rated voltage for 1 sec. |
| | b. After auto power off, circuit attempt to restart in 2-6 sec. |
| Polarity Protection | Circuit is protected when V _{CC} & GND are exchanged. |
| Insulation Resistance | 10m.Ohm / between unshielded wire and frame at 500 VDC/min. |
| Dielectric Strength | 5 mA Maximum. / Measured between lead wire + and frame at 500 VAC/min. |

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C. Environmental Specification

| Item | Specification / Condition | |
|--------------------------|---|--|
| Operating Condition | Temperature: -10°C ~ + 70°C Humidity: 35% ~ 85% RH | |
| Storage Temperature | Temperature: -40°C ~ +70°C Humidity: 35% ~ 85% RH | |
| Humidity | Per MIL-STD-202F Method 103B Life: 96 hours Temperature: +40 ± 2°C | |
| Thermal Shock | Per MIL-STD-202F Method 107D, Condition D | |
| Packing Vibration Test | Packing condition: X, Y, Z 3 directions, 1.1G load vibration test for 30 min. | |
| Packing Shock Proof Test | 1 corner, 3 edges, 6 faces natural drop from 60cm high, packed | |

D. Safety Approvals

| Safety Approval | File No. |
|-----------------|---------------|
| UL | E194726 |
| CUL | E194726 |
| TUV | B 05 11 57907 |

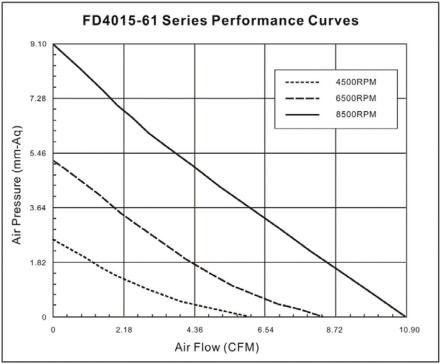
E. Label Marking



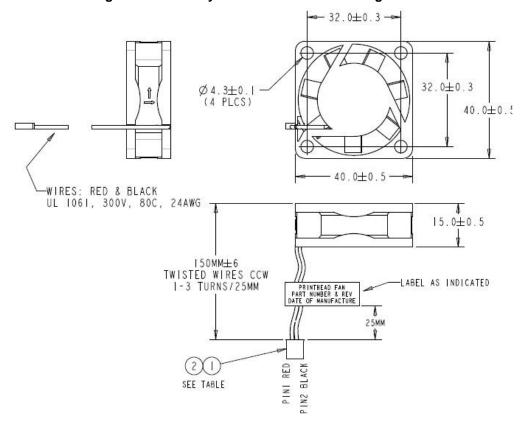
| (1) | Model Number |
|-----|-------------------|
| (2) | Rated Voltage |
| (3) | Power Consumption |
| (4) | Bearing Type |
| (5) | Location |

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F. Air Flow Performance Curve



E Model Drawing Assemble Way: Refer to Zebra drawing# 211190-001 - REV G



G. Wire position of connector



H. Fan Photos







