

**Standards and Specifications  
of  
Model: FD3010B12W5-81-3FSC**

**A. General Specification**

| Item |   | Specification / Standard / Condition                               |   |
|------|---|--|---|
| 01   | Outline Dimension                           | 30 x 30 x 10   | mm  |
| 02   | Bearing                                     | Dual ball bearing  |   |
| 03   | Rated Voltage                               | DC 12  | V   |
| 04   | Operating Voltage                           | DC 9.0   | V ~ DC 13.8 V                             |
| 05   | Starting Voltage                            | DC 9.0   | V   |
| 06   | Rated Current (Max.)                        | 0.11   | A   |
| 07   | Actual Current                              | 0.08   | A   |
| 08   | Power Consumption (Max.)                    | 0.96   | W   |
| 09   | Rated Speed                                 | 8,500  | R.P.M. ± 15%                              |
| 10   | Maximum Airflow                             | 3.00   | CFM                                       |
| 11   | Maximum Static Pressure                     | 3.60   | mm-H <sub>2</sub> O                       |
| 12   | Noise Level                                 | 24.40  | dB (A)                                    |
| 13   | Life Expectancy                             | 80,000   | hrs at 40°C                               |
| 14   | Net Weight                                  | 7.8  | Gram                                      |
| 15   | Number of Blade                             | 7  | Blades                                    |
| 16   | Number of Pole                              | 4  | Poles                                     |
| 17   | Rotating Direction                          | Counter-Clockwise  | Looking at Rotor Side                     |
| 18   | Plastic Material:<br>Blade, Housing, Bobbin | Housing: Plastic UL 94V-0 P.B.T.<br>Blade: Plastic UL 94V-0 P.B.T. |   |
| 19   | Lead Wire                                   | UL Type #28 AWG  | Red: (+) Black: (-) Yellow:(Speed Sensor) |
| 20   | Connector                                   | W/Amp Equivalent 3P connector & Cable Sleeve, Pb-Free              |   |

**B. Electrical Specification**

| Item |                         | Specification / Condition |   |
|------|-------------------------|---------------------------|---|
| 01   | Locked Rotor Protection | ✓                         | Safety Condition  |
|      |                         | X                         | a. Auto power off after locked at rated voltage for 1 sec.<br>b. After auto power off, circuit attempt to restart in 2-6 sec. |
| 02   | Polarity Protection     | ✓                         | Circuit is protected when VCC & GND are exchanged, the circuit won't be burned within 10 seconds.                             |
| 03   | Insulation Resistance   | ✓                         | 10 m.Ω / between unshielded wire and frame at 500 VDC/min.  |
| 04   | Dielectric Strength     | ✓                         | 5 mA Maximum. / Measured between lead wire (+) and frame at 500 VAC/min.  |

**C. Environmental Specification**

# COOLTRON Industrial Supply, Inc.

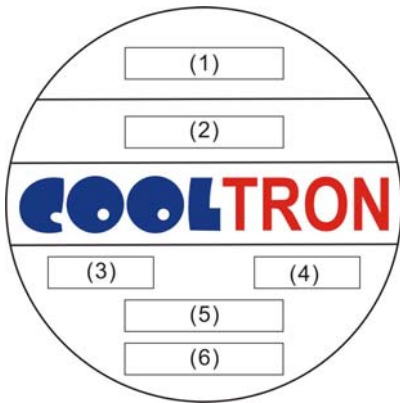
19929 Harrison AVE, city of Industry, CA 91789 Tel: 909-598-6033 Fax: 909-598-6043 [www.cooltron.com](http://www.cooltron.com)

| Item |                                | Specification / Condition   |
|------|--------------------------------|---|
| 01   | Operating Condition            | Temperature: -20°C ~ + 70°C<br>Humidity: 15% ~ 90% RH                         |
| 02   | Storage Temperature            | Temperature: -40°C ~ + 85°C<br>Humidity: 15% ~ 90% RH                         |
| 03   | Test of high & low Temperature | Test Circulation at -10°C & 70°C two times per 4 hours                        |
| 04   | Packing Vibration Test         | Packing condition: X, Y, Z 3 directions, 1.1G load vibration test for 30 min. |
| 05   | Packing Shock Proof Test       | 1 corner, 3 edges, 6 faces natural drop from 60cm high, packed                |

## D. Safety Approvals

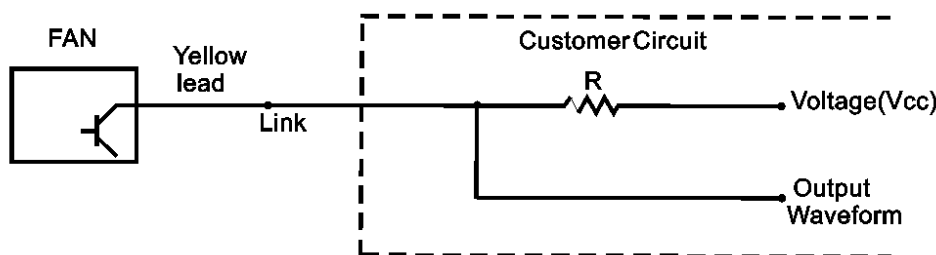
| Safety Approval | File No.      |
|-----------------|---------------|
| UL              | E194726       |
| CUL             | E194726       |
| TUV             | B 05 11 57907 |

## E. Label Marking



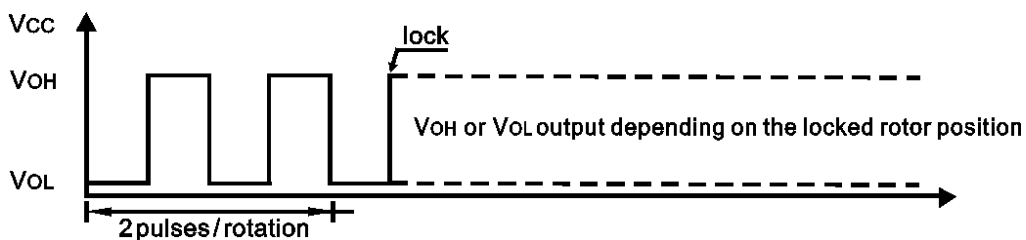
|     |                              |
|-----|------------------------------|
| (1) | Safety Approval              |
| (2) | Model Number & Appendix Code |
| (3) | Rated Voltage                |
| (4) | Power Consumption            |
| (5) | Bearing Type                 |
| (6) | Location           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

## Speed Sensor or Tachometer

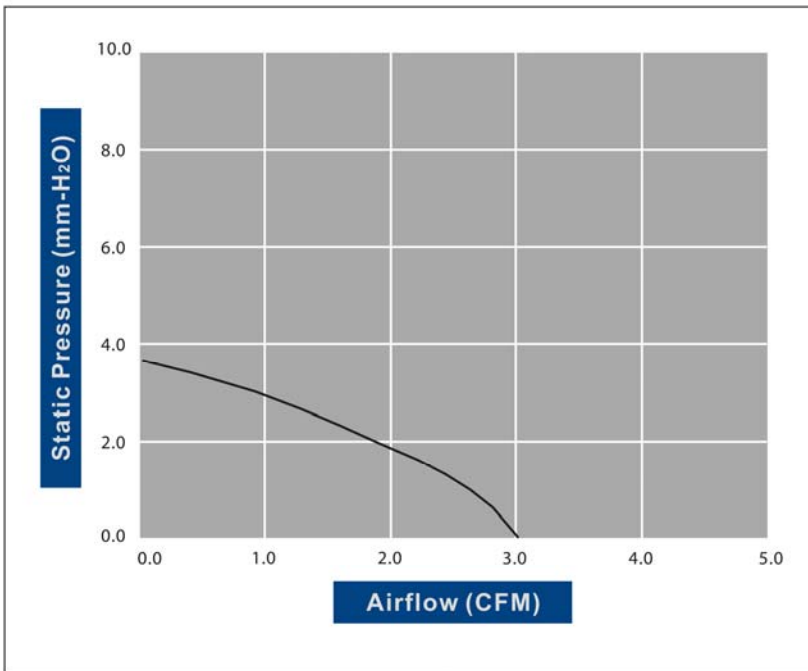


\*\* Please select "R" to make "Link" less than 10mA \*Vcc:30V MAX,Link:10mA MAX

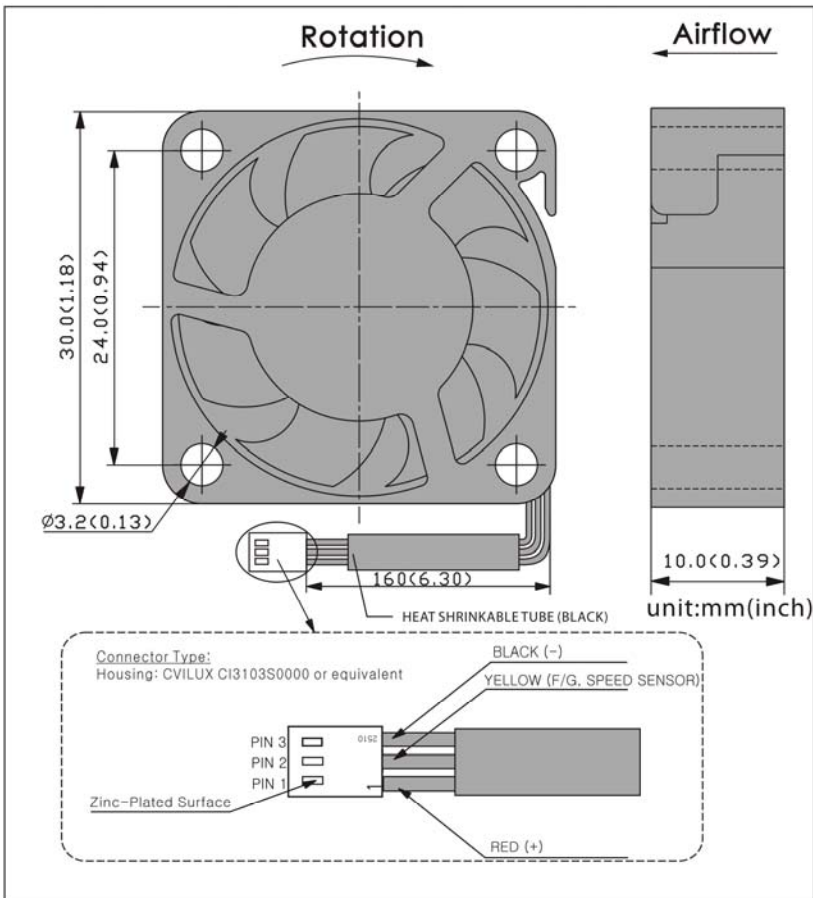
Output Waveform



## F. Air Flow Performance Curve



## G. Model Drawing



H. Fan Photos



FD3010-81

