COOLTRON Industrial Supply, Inc.
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Standards and Specifications
of
Model: FD8025B12W11-3R21C
(with upgrade IC) (RoHS Compliance)

A. General Specification

Item	Specification / Standard / Condition	
Outline Dimension	80 mm x 80 mm x 25 mm	
Bearing	Dual Ball Bearing	
Rated Voltage	DC 12 V	Tolerance: ±10%
Starting Voltage	DC 7.0 V	1. Rated Voltage 2. 25°C, 65% RH
Rated Current	0.45 A	
Power Consumption	5.4 W	
Speed	4500 R.P.M.	1. Free Air 2. Rated Voltage 3. 25°C, 65% RH 4. Tolerance: ±10%
Maximum Airflow	59.2 CFM	1. Rated Voltage 2. AMCA Standard 3. Rated Current
Maximum Static Pressure	8.5 mm-H_2O	
Noise Level	44 dB (A)	1. Rated Voltage 2. Measured in a Non-Echo Chamber 3. CNS 8753 Standard 4. ISO 3744 Test Condition
Fan Life	75,000 hrs	MTTF (Mean Time To Failure), Confidence Level 90%, 40°C
Number of Blade	7 Blades	
Number of Pole	4 Poles	
Rotating Direction	Counter-Clockwise	
Plastic Material: Blade, Housing, Bobbin	1. UL 94V-0 2. P.B.T. + 30% GF Black	
Lead Wire	AWG #24 for 3 wires, UL1007, length 146.1 mm.	Red: (+) Black: (-) Yellow: Tachometer wire
Connector	Tyco Connector# 3-640441-3	

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	10 m.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.

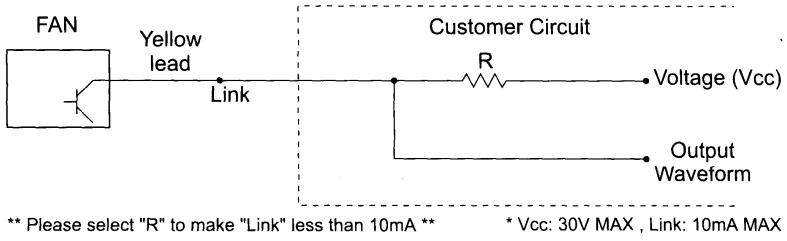
C. Environmental Specification

Item	Specification / Condition
Operating Condition	Temperature: -10°C ~ + 70°C Humidity: 35% ~ 85% RH
Storage Temperature	Temperature: -40°C ~ + 80°C Humidity: 35% ~ 85% RH
Humidity	Per MIL-STD-202F Method 103B Life: 96 hours Humidity: 95% 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

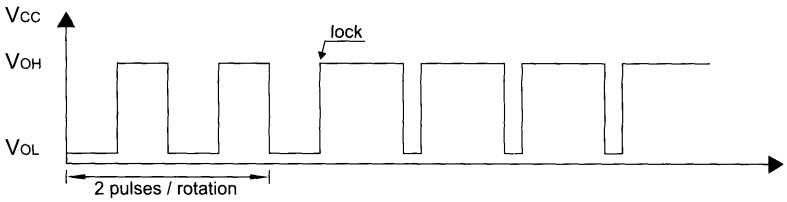
D. Safety Approvals

Safety Approval	File No.
UL	E194726
CUL	E194726
TUV	R2054644

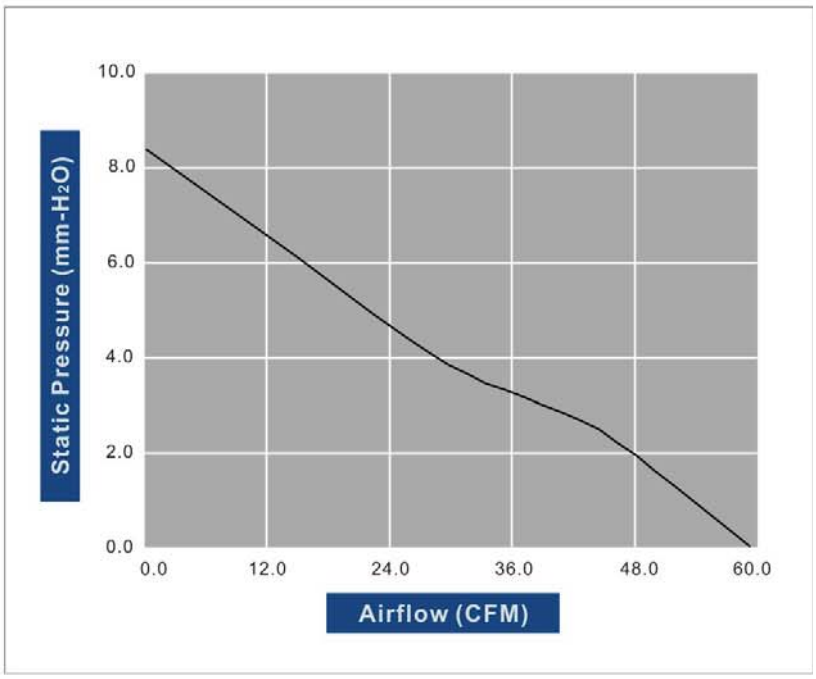
E. Tachometer (Speed Sensor)



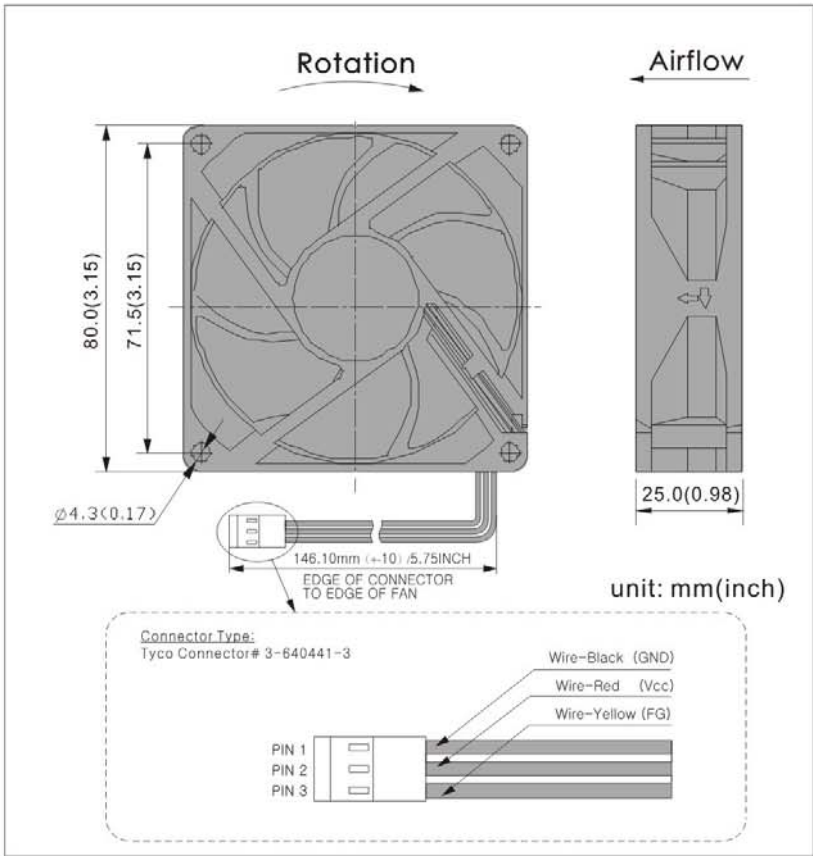
Output Waveform



F. Air Flow Performance Curve



G. Model Drawing



H. Fan Photos

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℃, 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.