

Standards and Specifications of Model: FD4028B12W1-81-3R (Auto Restart Protection)

A. General Specification

Item		Specification / Standard / Condition	
01	Outline Dimension	40 x 40 x 28	mm
02	Bearing	Dual Ball Bearing	
03	Rated Voltage	DC 12	V
04	Operating Voltage	DC 6.0	V ~ DC 13.8 V
05	Starting Voltage	DC 6.0	V
06	Rated Current (Max.)	0.12	A
07	Actual Current	0.10	A
08	Power Consumption (Max.)	1.44	W
09	Rated Speed	5,500	R.P.M. ± 10%
10	Maximum Airflow	9.50	CFM
11	Maximum Static Pressure	4.40	mm-H ₂ O
12	Noise Level	31.70	dB (A)
13	Life Expectancy	80,000	hrs at 40°C
14	Net Weight	24	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: Blade, Housing, Bobbin	Housing: Plastic UL 94V-0 P.B.T. Blade: Plastic UL 94V-0 P.B.T.	
19	Lead Wire	UL Type #26 AWG	Red: (+) Black: (-) Yellow:(Speed Sensor)
20	Connector	Without	

B. Electrical Specification

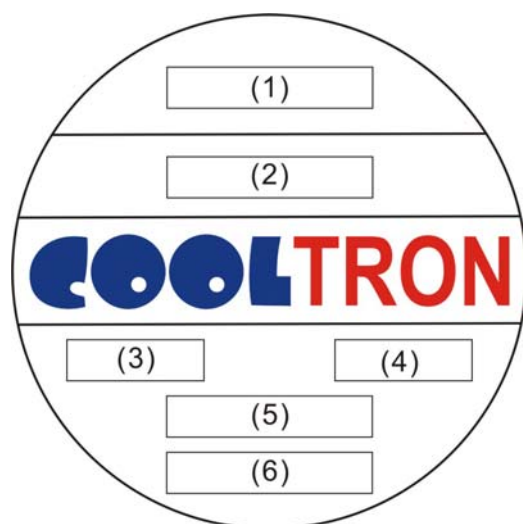
Item		Specification / Condition	
01	Locked Rotor Protection	✓	Safety Condition
		✓	a. Auto power off after locked at rated voltage for 1 sec. b. After auto power off, circuit attempt to restart in 2-6 sec.
02	Polarity Protection	✓	Circuit is protected when VCC & GND are exchanged, the circuit won't be burned within 10 seconds.
03	Insulation Resistance	✓	10 m.Ohm / 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

Item		Specification / Condition
01	Operating Condition	Temperature: -20°C ~ + 70°C Humidity: 15% ~ 90% RH
02	Storage Temperature	Temperature: -40°C ~ + 85°C 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

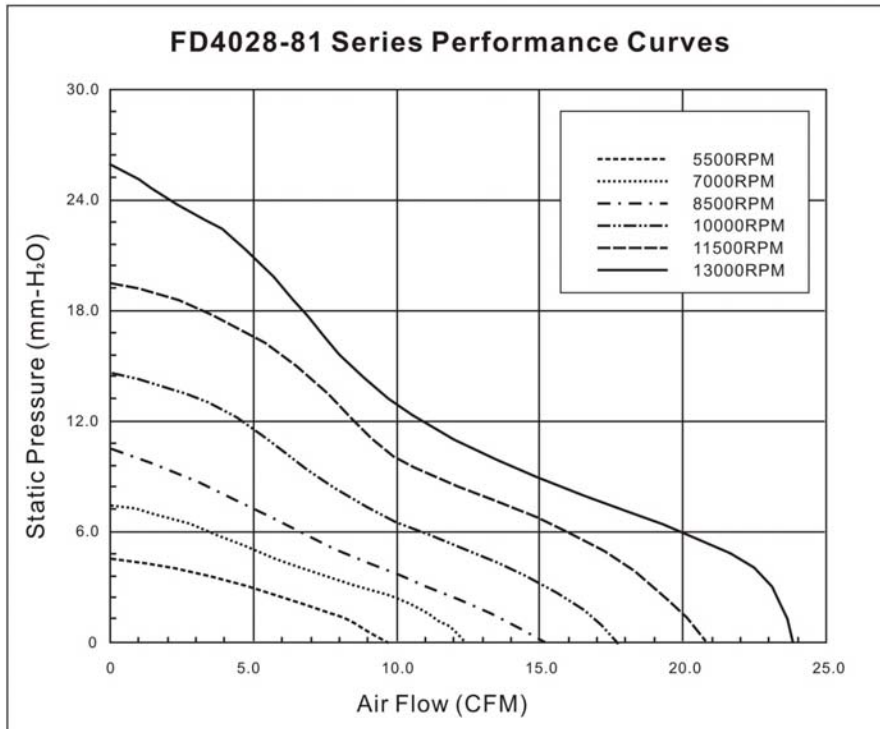
D. Safety Approvals

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

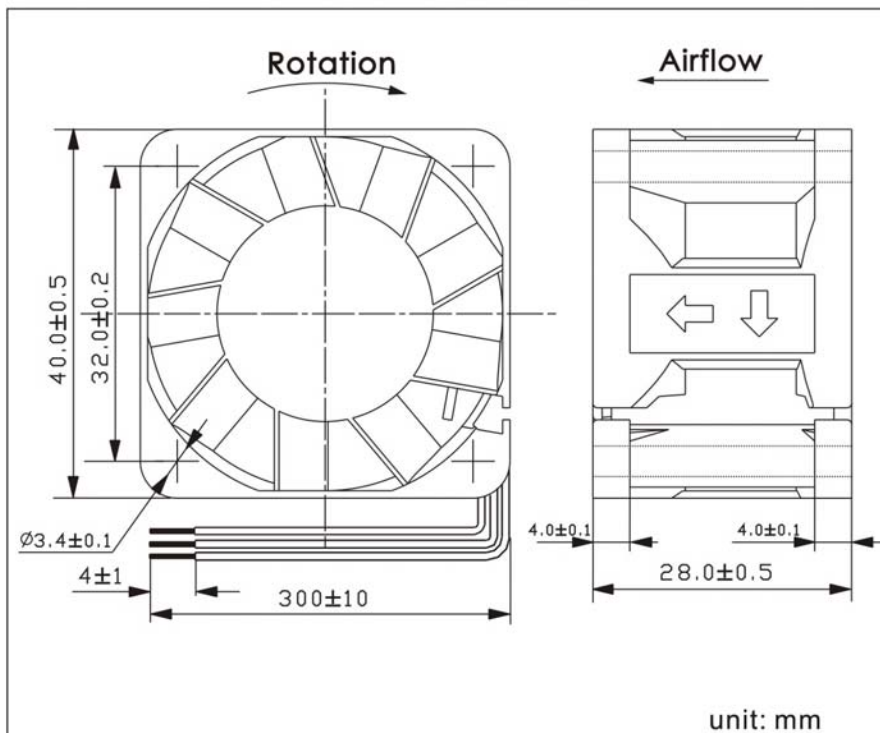
E. Label Marking

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

F. Air Flow Performance Curve



G. Model Drawing



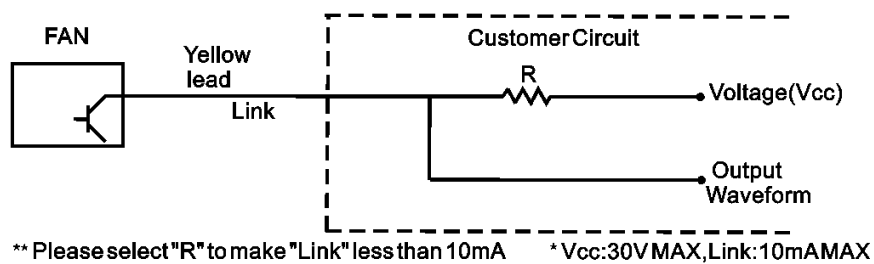
H. Fan Photos



FD4028-81

I. Sensor Circuit System:

Speed Sensor w/Auto restart



Output Waveform

