

**Standards and Specifications
of
Model: FD4010B12W7-81-2N3**

**A. General Specification**

Item		Specification / Standard / Condition	
01	Outline Dimension	40 x 40 x 10 mm	
02	Bearing	Dual Ball Bearing	
03	Rated Voltage	DC 12.0 V	
04	Operating Voltage	DC 6.0 V ~ DC 13.8 V	
05	Starting Voltage	DC 6.0 V	
06	Rated Current (Max.)	0.18 A	1. 25°C, 2. 65% RH
07	Actual Current	0.13 A	
08	Power Consumption	1.56 W (Max. 2.16W)	
09	Rated Speed	6,000 R.P.M. ± 10%	1. Free Air 2. Rated Voltage 3. 25°C, 65% RH 4. After 10 Min. Rotating.
10	Maximum Airflow	8.60 CFM	1. Rated Voltage 2. AMCA Standard 3. Rated Speed
11	Maximum Static Pressure	3.20 mm-H ₂ O	
12	Noise Level	27.60 dB (A)	1. Rated Voltage 2. Measured in a Non-Echo Chamber 3. ISO 3745 Test Condition
13	Life Expectancy	80,000 Hrs. at 40°C	1. L10 at Conf. Level 90%, 2. Rated Voltage
14	Net Weight	11 Gram	
15	Number of Blade	9 Blades	
16	Number of Pole	4 Poles	
17	Rotating Direction	Counter-Clockwise	Looking at Rotor Side
18	Plastic Material: Housing, Blade	Housing: Plastic UL 94V-0 P.B.T. Blade: Plastic UL 94V-0 P.B.T.	
19	Lead Wire	303.8mm LD Length W/UL1180	Red: (+) Black: (-)
20	Connector	Without	
21	Special Function	Without	

B. Electrical Specification

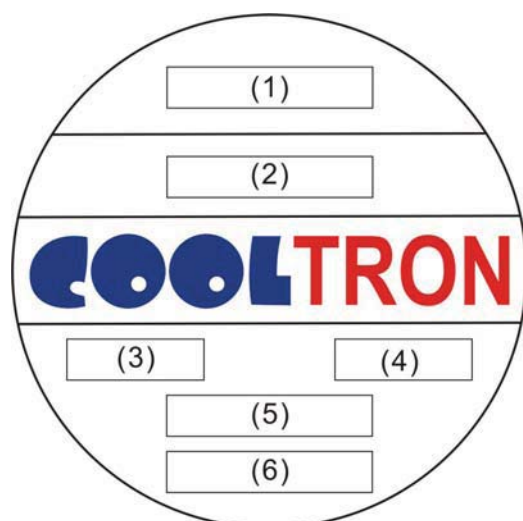
Item		Specification / Condition	
01	Locked Rotor Protection	✓	Safety Condition
		x	a. Auto power off after locked at rated voltage for 1 sec. b. After auto power off, circuit attempt to restart in 2-6 sec.
02	Polarity Protection	✓	a. Circuit is protected when VCC & GND are exchanged, b. The circuit won't be burned within 5 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

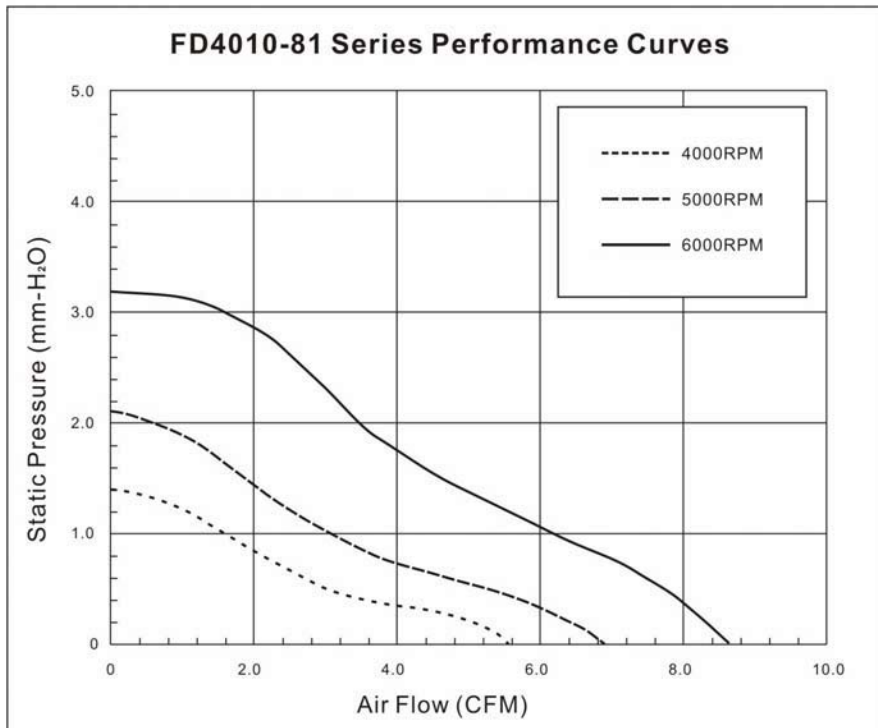
D. Safety Approvals

Safety Approval	File No.
UL E19	4726
CUL E19	4726
TUV	B 05 11 57907

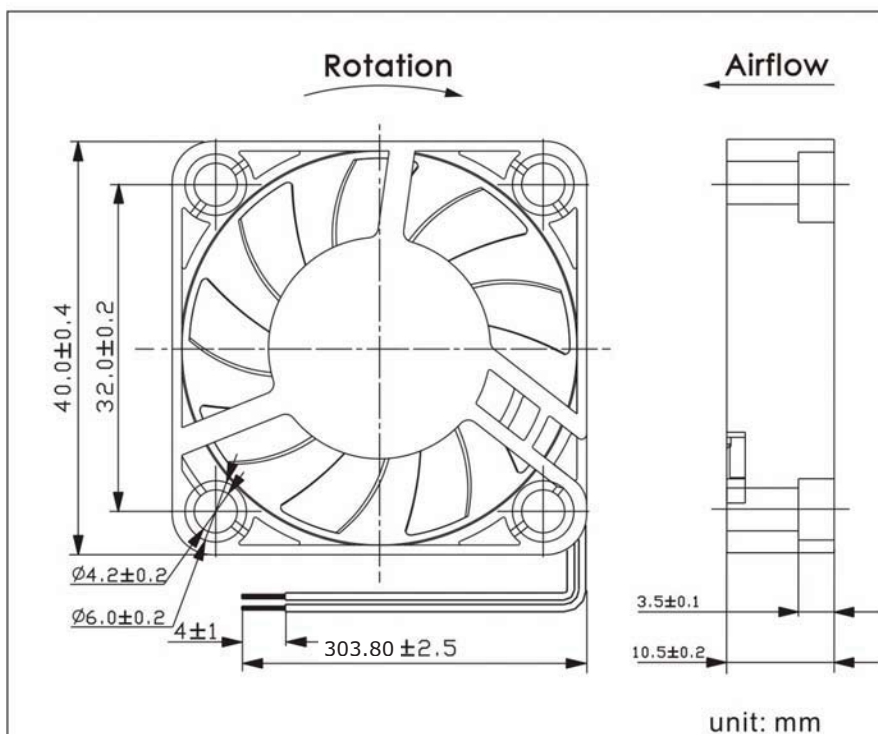
E. Label Marking

(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



FD4010-81