

**Standards and Specifications  
of  
Model: FD3010B12W5-81-3FSC  
(With 3<sup>rd</sup> wire for speed signal)**

**A. General Specification**

Item	Specification / Standard / Condition	
Outline Dimension	30 mm x 30 mm x 10 mm	
Bearing	1 Ball + 1 Sleeve Bearing	
Rated Voltage	DC 12 V	Tolerance: ± 15%
Starting Voltage	DC 9 V	1. Rated Voltage 2. 25°C, 65% RH
Rated Current	0.08 A	
Power Consumption	0.96 W	
Speed	8,500 R.P.M.	1. Free Air 2. Rated Voltage 3. 25°C, 65% RH 4. Tolerance: ± 15%
Maximum Airflow	2.66 CFM	1. Rated Voltage 2. AMCA Standard 3. Rated Current
Maximum Static Pressure	3.69 mm-H <sub>2</sub> O	
Noise Level	22.5 dB (A)	1. Rated Voltage 2. Measured in a Non-Echo Chamber 3. CNS 8753 Standard 4. ISO 3744 Test Condition
Fan Life	30,000 hrs	MTTF (Mean Time To Failure), Confidence Level 90%, 20°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	UL 1095, 28 AWG 6 inch wire	Red: (+) Black: (-) Yellow: Speed Signal
Connector	Amp Equivalent 3P connector & Cable sleeve.	

**B. Electrical Specification**

Item	Specification / Condition
Locked Rotor Protection	No damage done for a continuous 72 hours rotation lock at rated voltage.
Polarity Protection	Circuit is protected when V <sub>CC</sub> & 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 ~ + 70°C Humidity: 35% ~ 85% RH
Humidity	Per MIL-STD-202F Method 103B Life: 96 hours Humidity: Less than 85%(RH) 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	B041228804040

**E. Model Drawing**

