



Approval Specification for Cofan Part # F-2510M12S Rev A

Sleeve Bearing, 25x10mm, 12VDC, Fan with Tachometer Sensor and
190mm Wire Length, 10K RPM, RoHS Compliant

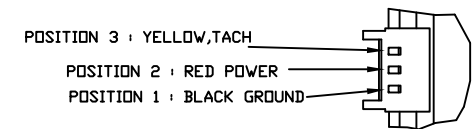
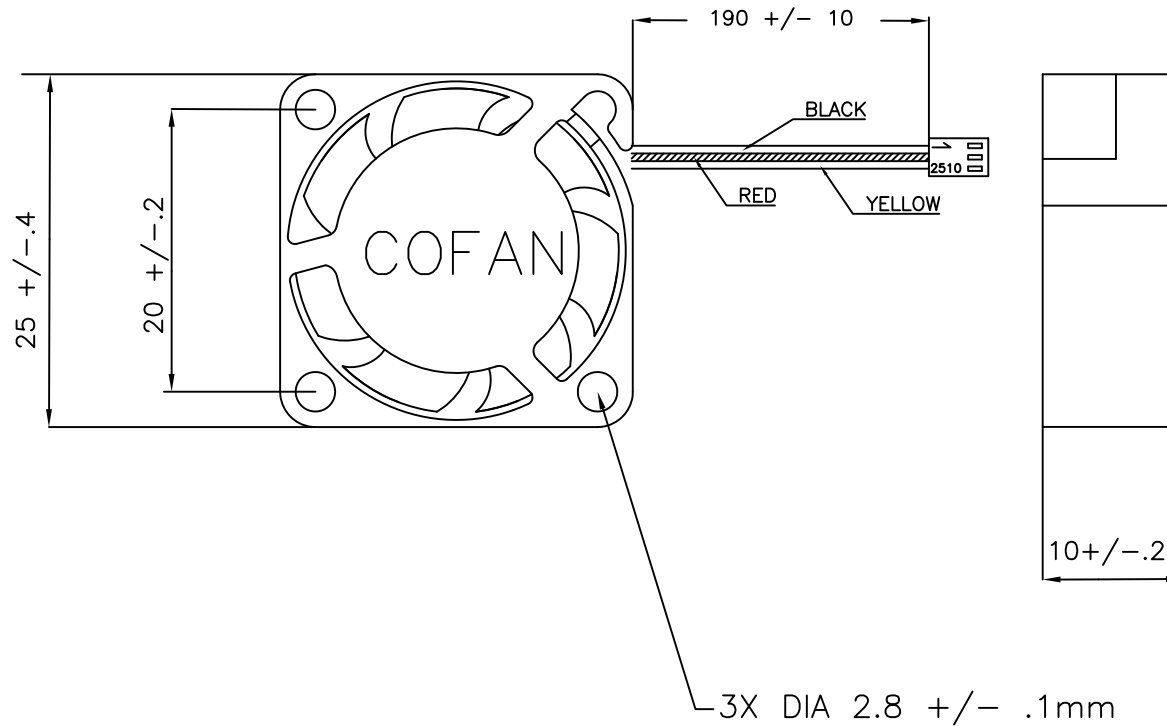
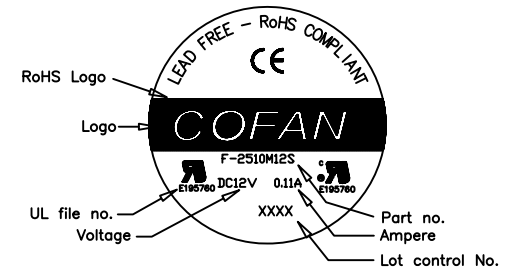
Revision Date: Nov-2-2009

Cofan USA, 46177 Warm Springs Blvd, Fremont, CA 94539 www.cofan-usa.com (800) 766-6097

TO ORDER: USE COFAN PART # F-2510M12S

ROTATION

AIR FLOW



1X MOLEX HOUSING 22-01-3037 OR EQUIV.
3X MOLEX TERMINAL 08-50-0113 OR EQUIV.

Fan description: Cofan Model F-2510M12S, sleeve bearing, 50K MTBF @ 25C, 25x10mm, 12VDC, 10000 RPM, 7.5" lead wire, with connector

PARTS LIST

- | | |
|---|---|
| 1 | 1X FAN F-2510M12S |
| 2 | 1X MOLEX HOUSING 22-01-3027 OR EQUIV.
3X MOLEX TERMINAL 08-52-0123 OR EQUIV. |

DO NOT SCALE DRAWING		DRAWING NUMBER: F-2510M12S		COFAN USA 1400 FULTON PLACE FREMONT CA 94539	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETRE TOLERANCES ARE:		MATERIAL:		Fan, 25x10mm, 5V, 10K RPM	
1 PLACE .X		FINISH:		RPM, Sleeve Bearing	
2 PLACE .XX		DRAWN BY: DAN		w/Tachometer Sensor	
3 PLACE .XXX		PART NUMBER: F-2510M12S		REV: A	
ANGLES EXCEPT 90°		ENGINEER:		SHEET:	
MAXIMUM SURFACE ROUGHNESS		125		DATE DRAWN: 11-02-09	
				SCALE: 1:1	

REV	REVISIONS	DATE	BY
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7			
6			
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SPECIFICATION FOR APPROVAL

1. SCOPE:

This specification defines the electrical and mechanical characteristics of the following DC brushless axial flow fan:

Item		Description	
1-1	Part Number	F-2510M12S	
1-2	Outline Dimensions	25 x 25 x 10 mm (see dimensions drawing #7)	
1-3	Bearing System	Sleeve Bearing	
1-4	Rated Voltage	12 VDC	
1-5	Operating Voltage	9 – 13.8 VDC	
1-6	Input Current	0.11A, 0.08A in running conditions	
1-7	Input Power	1.32 W	
1-8	Speed	10000 R.P.M.	a. 25°C, 65% RH, b. Free Air c. Rated Voltage
1-9	Max. Air Flow (At zero static pressure)	1.47 CFM .042 CMM	a. Rated Voltage b. AMCA Standard c. Rated Current
1-10	Max. Air Pressure (At zero airflow)	.073 inH ₂ O 1.86 mm H ₂ O	
1-11	Acoustical Noise (Avg)	22.1 dBA	a. Rated Voltage b. Measured in a Non-Echo Chamber c. CNS 8753 Standard d. ISO 3744 Test Condition
1-12	Life Expectance	50,000 Hours	a. Continuous Operation
1-13	Insulation Type	UL: Class A	
1-14	Weight	20 Grams	
1-15	Rotation	Clockwise from label side	

2. Major Material

Materials / Parts	Specification	Remarks
Plastic Material	Frame: PBT70%: + FIBER30% Impeller: PBT85% + FIBER15%	UL: 94V-0 UL: 94V-0
Lead Wire	(+) Red; (-) Black; (Signal) Yellow; AWG#24(2 Pin), #28(3Pin)	UL: 1007-F
Connector	Upon customer specifications custom connector can be installed at minimum extra charge	

3. Electrical Characteristics & Test Environmental:

Item		Specification / Condition
3-1	Operation Temperature	-10°C ~ +70°C
3-2	Storage Temperature	-40°C ~ +75°C
3-3	Operating Humidity	5 to 90% RH
3-4	Storage Humidity	5 to 95% RH
3-5	Locked Rotor Protection	a. The current will shut down when rotation is locked b. Automatic restart after a continuous 72 hours rotation lock at rated voltage. c. Impedance of motor winding protects motor from fire after 72 hours of locked rotor condition at the rated voltage. d. Signal Alarm- Optional
3-6	Insulation Strength	10Meg Ohm min at 500VDC Between Frame and (+) terminal
3-7	Dielectric Strength	Withstand 5 mA Max 500 VAC 60 Hz for one minute, (between frame and (+) terminal)
3-8	Vibration Test	Vibration test in rest status, scan frequency : 5~55Hz 1OCT/Min. in the 3 directions(X.Y.Z), take 16 rotating scan for each axis.
3-9	Shock Test	Test of acceleration 30G is applied in the 3 directions (X.Y.Z) and 6 faces, take 11± 1ms(Half Chord Wave), 3 times for each face.
3-10	Noise Level	Measured in a semi-anechoic chamber. The fan is running in free air with Microphone at a distance of one meter from the fan intake.
3-11	Tolerance	±10% on rated power and current.
3-12	Polarity Protection	Capable of withstanding reverse polarity connection

4. Safety Approvals

Safety Approvals	File No.
UL	E195760
CUL	E195760
TUV	B 04 03 52557 002
CE	EN50081-1

5. Ozone Depleting Substances & RoHS Compliance

5-1. None of our products or manufacturing processes contain or require the use of ozone-depleting chemicals such as PBB's, PBBO's, CFC's, PBBE's, PBDPE's or HCFC's and all fans are RoHS Compliant.

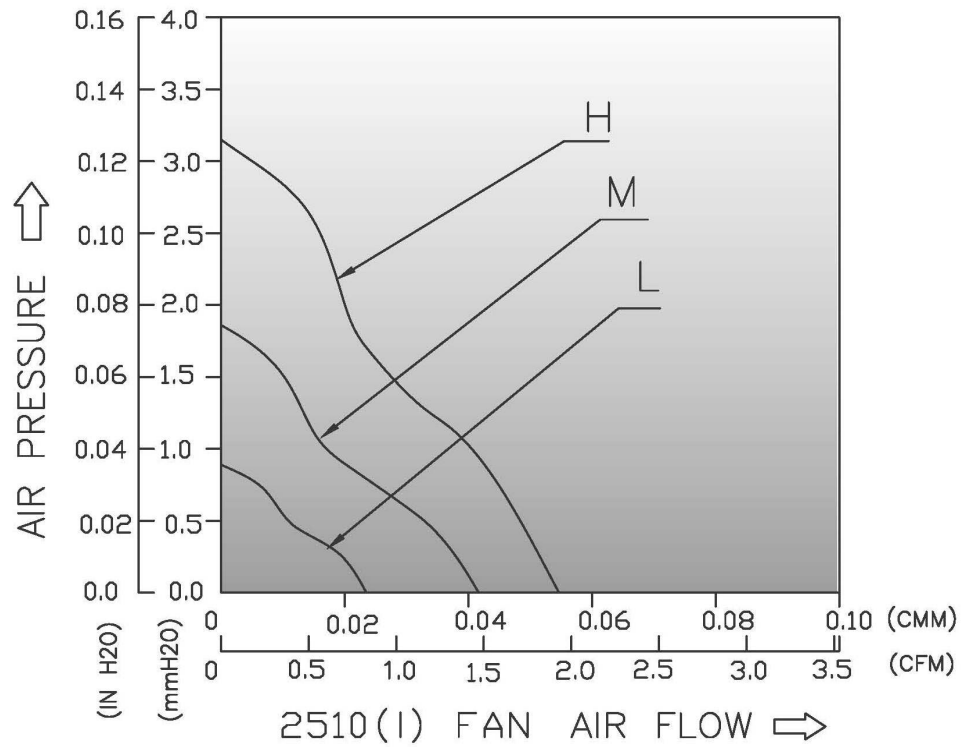
6. Production Location

6-1. Products will be produced in China and Taiwan

7. Dimensional Drawing

See Page 2.

8. Performance Curve



9. Sensor Description

A. Tachometer Pulse Sensor

