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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## SPECIFICATION FOR APPROVAL

Customer		
Description. DC FAN		
Part No.	REV	
Delta Model No. AFB0624EH-AF00	REV	02
Sample Issue No		
Sample Issue Date. OCT.28 2015		
PLEASE SEND ONE COPY OF T	HIS SPECIF	ICATION BACK
AFTER YOU SIGNED APPROVAL	FOR PRODU	JCTION PRE-
ARRANGMENT.		
APPROVED BY:		
DATE :		

DELTA ELECTRONICS, INC. TAOYUAN PLANT 252, SHANG YING ROAD, KUEI SAN INDUSTRIAL ZONE TAOYUAN SHIEN, TAIWAN, R.O.C. TEL:886-(0)3-3591968 FAX:886-(0)3-3591991

DELTA ELECTRONICS, INC.

252, SHANG YING ROAD, KUEI SAN

TAOYUAN HSIEN 333, TAIWAN, R. O. C. FAX : 886 - (0)3 - 3591991

## SPECIFICATION FOR APPROVAL

TEL: 886-(0)3-3591968

Customer:			
Description:	DC FAN		
Customer P/N:		REV:	
Delta Model NO.:	AFB0624EH-AF00	Delta safety model	NO.: <b>AFB0624EH</b>
Sample Rev:	02	Issue N0:	
Sample Issue Date:		Quantity:	

#### 1. SCOPE:

THIS SPECIFICATION DEFINES THE ELECTRICAL AND MECHANICAL CHARACTERISTICS OF THE DC BRUSHLESS AXIAL FLOW FAN. THE FAN MOTOR IS WITH TWO PHASES AND FOUR POLES.

#### 2. CHARACTERS:

ITEM	DESCRIPTION
RATED VOLTAGE	24 VDC
OPERATION VOLTAGE	14.0 - 27.6 VDC
INPUT CURRENT	0.24 (MAX. 0.36) A
	SAFETY CURRENT ON LABEL: 0.36A
INPUT POWER	5.76 (MAX. 8.64) W
SPEED	6800 R.P.M. (REF.)
MAX. AIR FLOW (AT ZERO STATIC PRESSURE)	1.086 (MIN. 0.977 ) M <sup>3</sup> /MIN. 38.35 (MIN. 34.50 ) CFM
MAX. AIR PRESSURE (AT ZERO AIRFLOW)	$13.81$ (MIN. $11.18$ ) ${ m mmH}_20$ $0.544$ (MIN. $0.441$ ) ${ m inchH}_20$
ACOUSTICAL NOISE (AVG.)	46.5 (MAX. 50.5) dB-A
INSULATION TYPE	UL: CLASS A

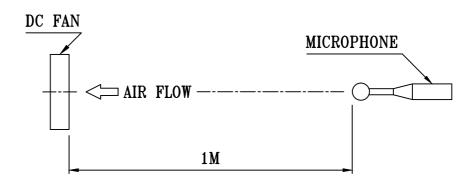
(continued)

PART NO:	
DELTA MODEL:	AFB0624EH-AF00

INSULATION STRENGTH	   10 MEG OHM MIN. AT 500 VDC
	(BETWEEN FRAME AND (+) TERMINAL)
DIELECTRIC STRENGTH	5 mA MAX. AT 500 VAC 50/60 Hz ONE MINUTE, (BETWEEN FRAME AND (+) TERMINAL)
EXTERNAL COVER	OPEN TYPE
LIFE EXPECTANCE	70,000 HOURS CONTINUOUS OPERATION AT 40 °C WITH 15 ~ 65 %RH.
ROTATION	CLOCKWISE VIEW FROM NAME PLATE SIDE
OVER CURRENT SHUT DOWN	THE CURRENT WILL SHUT DOWN WHEN LOCKING ROTOR.
LEAD WIRE	UL 1007 -F- AWG #24 BLACK WIRE NEGATIVE(-) RED WIRE POSITIVE(+) BLUE WIRE FREQUENCY(-F00)

NOTES: 1. ALL READINGS ARE MEASURED AFTER STABLY WARMING UP THROUGH 10 MINUTES.

- 2. STANDARD AIR PROPERTY IS AIR AT (Td) 25°C TEMPERATURE, (RH) 65% RELATIVE HUMIDITY, AND (Pb) 760 mmHg BAROMETRIC PRESSURE.
- 3. THE VALUES WRITTEN IN PARENS, ( ), ARE LIMITED SPEC.
- 4. ACOUSTICAL NOISE MEASURING CONDITION:



NOISE IS MEASURED AT RATED VOLTAGE IN FREE AIR IN ANECHOIC CHAMBER WITH B & K SOUND LEVEL METER WITH MICROPHONE AT A DISTANCE OF ONE METER FROM THE FAN INTAKE.

A00

PART NO:		
DELTA MODEL:	AFB0624EH-AF00	
3. MECHANICAL:		
3-1. DIMENS	IONS	SEE DIMENSIONS DRAWING
3-2. FRAME		PLASTIC UL: 94V-0
3-3. IMPELLI	ER	PLASTIC UL: 94V-0
3-4. BEARIN	G SYSTEM	TWO BALL BEARINGS
3-5. WEIGHT		80 GRAMS
4. ENVIRONMEN	TAL:	
4-1. OPERAT	ING TEMPERATURE	10 TO +70 DEGREE C
4-2. STORAG	E TEMPERATURE	<b>-40</b> TO <b>+75</b> DEGREE C
4-3. OPERAT	ING HUMIDITY	5 TO 90 % RH
4-4. STORAG	E HUMIDITY	5 TO 95 % RH
5. PROTECTION:	:	
5-1. LOCKED	ROTOR PROTECTION	
71 FT TO 11	NATE OF MARKET WINDOWS PROF	

IMPEDANCE OF MOTOR WINDING PROTECTS MOTOR FROM FIRE IN 96 HOURS OF LOCKED ROTOR CONDITION AT THE RATED VOLTAGE.

5-2. POLARITY PROTECTION

BE CAPABLE OF WITHSTANDING IF REVERSE CONNECTION FOR POSITIVE AND NEGATIVE LEADS.

- 6. RE OZONE DEPLETING SUBSTANCES:
  - 6-1. NO CONTAINING PBBs, PBB0s, CFCs, PBBEs, PBDPEs AND HCFCs.
- 7. PRODUCTION LOCATION
  - 7-1. PRODUCTS WILL BE PRODUCED IN CHINA OR THAILAND.

PART NO:
DELTA MODEL: AFB0624EH-AF00

8. BASIC RELIABILITY REQUIREMENT:

8-1. THERMAL LOW TEMPERATURE: -40°C HIGH TEMPERATURE: +80°C SOAK TIME: 30 MINUTES

TRANSITION TIME < 5 MINUTES

DUTY CYCLES: 5

8-2. HUMIDITY TEMPERATURE:  $+25^{\circ}\text{C} \sim +65^{\circ}\text{C}$  EXPOSURE HUMIDITY: 90-98% RH @  $+65^{\circ}\text{C}$ 

FOR 4 HOURS/CYCLE

POWER: NON-OPERATING TEST TIME: 168 HOURS

8-3. VIBRATION TEMPERATURE: +25°C

ORIENTATION: X, Y, Z POWER: NON-OPERATING

VIBRATION LEVEL: OVERALL gRMS=3.2

$PSD(G^2/Hz)$
0.040
0.100
0.100
0.002
0.002

TEST TIME: 2 HOURS ON EACH ORIENTATION

8-4. MECHANICAL TEMPERATURE: +20°C SHOCK ORIENTATION: X, Y, Z

ORIENTATION: X, Y, Z
POWER: NON-OPERATING
ACCELERATION: 20 G MIN.

PULSE: 11 ms HALF-SINE WAVE NUMBER OF SHOCKS: 5 SHOCKS

FOR EACH DIRECTION

8-5. LIFE TEMPERATURE: MAX, OPERATING TEMPERATURE

POWER: OPERATING

DURATION: 1000 HOURS MIN.

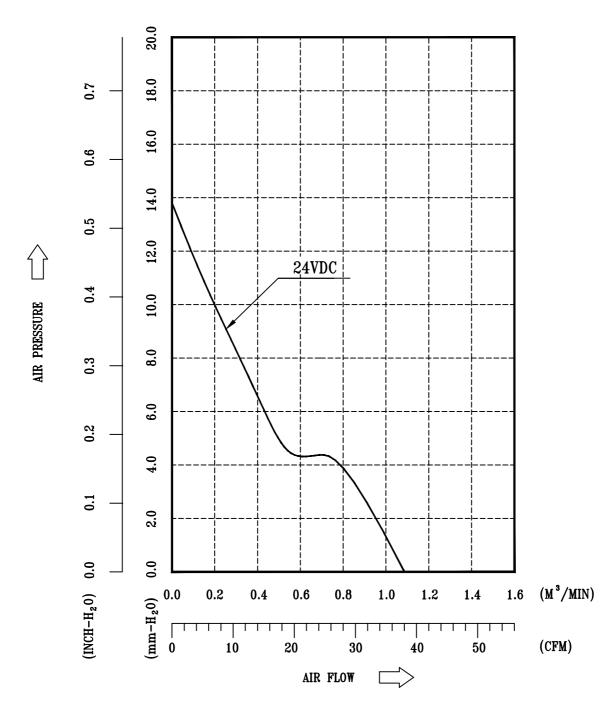
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PART NO:

DELTA MODEL: AFB0624EH-AF00

### 9. P & Q CURVE:



\* TEST CONDITION: INPUT VOLTAGE ----- OPERATION VOLTAGE TEMPERATURE ----- ROOM TEMPERATURE HUMIDITY ------ 65%RH

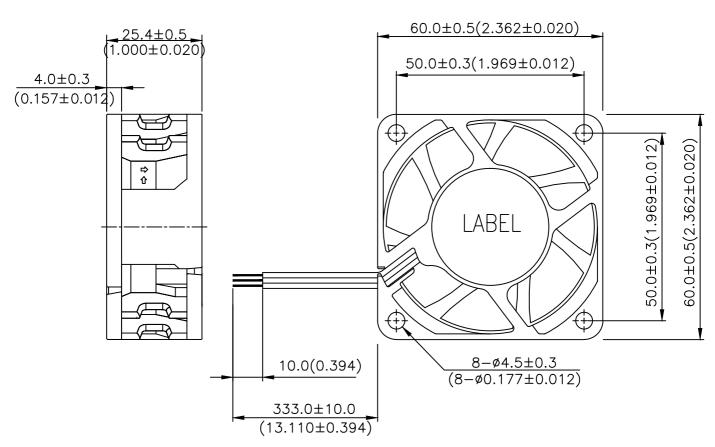
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PART NO:		 
DELTA MODEL:	AFB0624EH-AF00	

#### 10. DIMENSION DRAWING:

#### LABEL:





UNIT: mm(INCH)

UL 1007 -F- AWG #24

BLACK WIRE NEGATIVE(-)

RED WIRE POSITIVE(+)

BLUE WIRE FREQUENCY(-F00)

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# **Application Notice**

- 1. Delta will not guarantee the performance of the products if the application condition falls outside the parameters set forth in the specification.
- 2. A written request should be submitted to Delta prior to approval if deviation from this specification is required.
- 3. Please exercise caution when handling fans. Damage may be caused when pressure is applied to the impeller, if the fans are handled by the lead wires, or if the fan was hard-dropped to the production floor.
- 4. Except as pertains to some special designs, there is no guarantee that the products will be free from any such safety problems or failures as caused by the introduction of powder, droplets of water or encroachment of insect into the hub.
- 5. The above-mentioned conditions are representative of some unique examples and viewed as the first point of reference prior to all other information.
- 6. It is very important to establish the correct polarity before connecting the fan to the power source. Positive (+) and Negative (-). Damage may be caused to the fans if connection is with reverse polarity, if there is no foolproof method to protect against such error specifically mentioned in this spec.
- 7. Delta fans without special protection are not suitable where any corrosive fluids are introduced to their environment.
- 8. Please ensure all fans are stored according to the storage temperature limits specified. Do not store fans in a high humidity environment. We highly recommend performance testing is conducted before shipping, if the fans have been stored over 6 months.
- 9. Not all fans are provided with the Lock Rotor Protection feature. If you impair the rotation of the impeller for the fans that do not have this function, the performance of those fans will lead to failure.
- 10. Please be cautious when mounting the fan. Incorrect mounting of fans may cause excess resonance, vibration and subsequent noise.
- 11. It is important to consider safety when testing the fans. A suitable fan guard should be fitted to the fan to guard against any potential for personal injury.
- 12. Except where specifically stated, all tests are carried out at room (ambient) temperature and relative humidity conditions of 25°C, 65% RH. The test value is only for fan performance itself.
- 13. Be certain to connect an " $4.7\mu F$  or greater" capacitor to the fan externally when the application calls for using multiple fans in parallel, to avoid any unstable power.

Doc. No: FMBG-ES Form 001 Rev. 0001 Date: June 24, 2009