



SPECIFICATION FOR APPROVAL

Customer _____

Description DC FAN

Part No. _____ **Rev.** _____

Delta Model No. FFB0924EHE-T500 **Rev.** 00

Sample Issue No. _____

Sample Issue Date. Aug 15, 08

**PLEASE SEND ONE COPY OF THIS SPECIFICATION
BACK AFTER YOU SIGNED APPROVAL FOR PRODUCTION
PRE-ARRANGEMENT.**

APPROVED BY : _____

DATE : _____

DELTA ELECTRONICS (THAILAND) PUBLIC COMPANY LIMITED.

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 24180 THAILAND SPECIFICATION FOR APPROVAL

Customer:

Description: DC FAN

Customer P/N: REV:

Delta Model NO.: FFB0924EHE-T500

Sample Rev: 00 Issue NO:

Sample Issue Date: Aug 15, 08 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	0.50 (MAX. 0.60) A
INPUT POWER	12.00 (MAX. 14.40) W
SPEED	4800±10% R.P.M.
MAX. AIR FLOW (AT ZERO STATIC PRESSURE)	3.120 (MIN. 2.810) M ³ /MIN. 110.18 (MIN. 99.23) CFM
MAX. AIR PRESSURE (AT ZERO AIRFLOW)	16.90 (MIN. 13.69) mmH ₂ O 0.665 (MIN. 0.539) inchH ₂ O
ACOUSTICAL NOISE (AVG.)	55.0 (MAX. 59.0) dB-A
INSULATION TYPE	UL: CLASS A

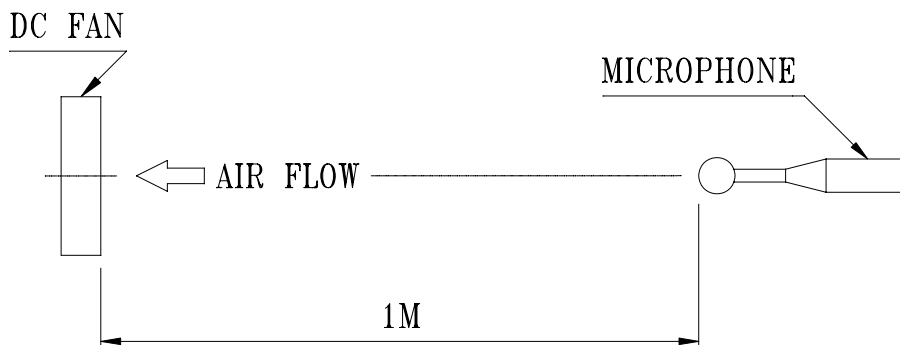
(continued)

PART NO:

DELTA MODEL: FFB0924EHE-T500

INSULATION STRENGTH	10 MEG OHM MIN. AT 500 VDC (BETWEEN FRAME AND (+) TERMINAL)
DIELECTRIC STRENGTH	5 mA MAX. AT 500 VAC 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(+)

- NOTES: 1. ALL READINGS ARE MEASURED AFTER STABLY WARMING UP THROUGH 10 MINUTES.
2. THE VALUES WRITTEN IN PARENS , (), ARE LIMITED SPEC.
3. 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.

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3. MECHANICAL:

- 3-1. DIMENSIONS ————— SEE DIMENSIONS DRAWING
- 3-2. FRAME ————— PLASTIC UL: 94V-0
- 3-3. IMPELLER ————— PLASTIC UL: 94V-0
- 3-4. BEARING SYSTEM ————— TWO BALL BEARINGS
- 3-5. WEIGHT ————— 198 GRAMS
- 3-6. INGRESS PROTECTION ————— IP55

4. ENVIRONMENTAL:

- 4-1. OPERATING TEMPERATURE ————— -10 TO +60 DEGREE C
- 4-2. STORAGE TEMPERATURE ————— -40 TO +75 DEGREE C
- 4-3. OPERATING HUMIDITY ————— 5 TO 90 % RH
- 4-4. STORAGE HUMIDITY ————— 5 TO 95 % RH

5. PROTECTION:

5-1. LOCKED ROTOR PROTECTION

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, PBBOs, CFCs, PBBEs, PBDPEs AND HCFCs.

7. PRODUCTION LOCATION

- 7-1. PRODUCTS WILL BE PRODUCED IN CHINA OR THAILAND OR TAIWAN.

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8. BASIC RELIABILITY REQUIREMENT:

8-1. THERMAL CYCLING LOW TEMPERATURE: -40°C
 HIGH TEMPERATURE: +80°C
 SOAK TIME: 30 MINUTES
 TRANSITION TIME < 5 MINUTES
 DUTY CYCLES: 5

8-2. HUMIDITY EXPOSURE TEMPERATURE: +25°C ~ +65°C
 HUMIDITY: 90-98% RH @ +65°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

FREQUENCY(Hz)	PSD(G ² /Hz)
10	0.040
20	0.100
40	0.100
800	0.002
1000	0.002

TEST TIME: 2 HOURS ON EACH ORIENTATION

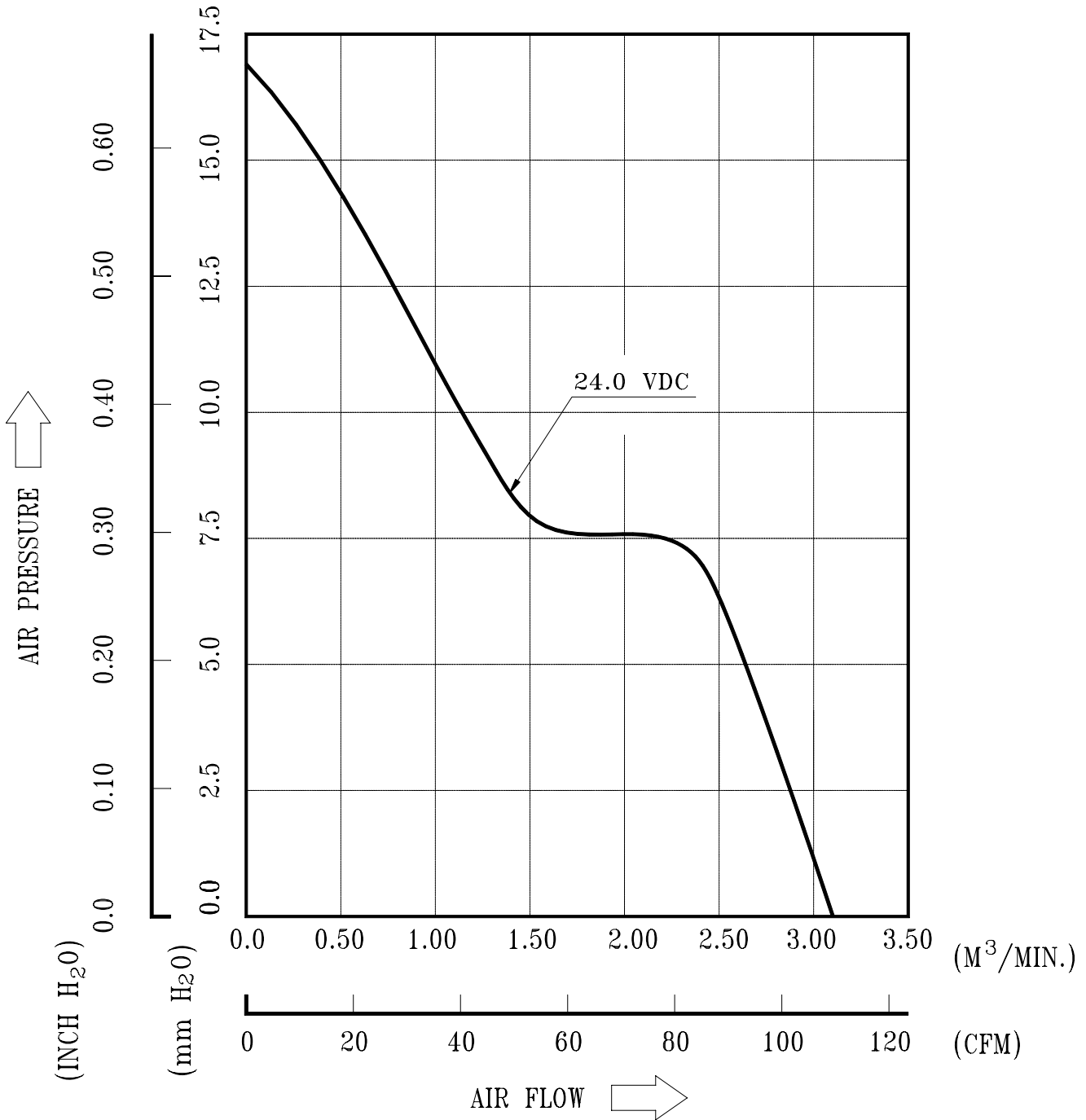
8-4. MECHANICAL SHOCK TEMPERATURE: +20°C
 ORIENTATION: X, Y, Z
 POWER: NON-OPERATING
 ACCELERATION: 20 G MIN.
 PULSE: 11 ms HALF-SINE WAVE
 NUMBER OF SHOCKS: 5 SHOCKS
 FOR EACH DIRECTION

8-5. LIFE TEMPERATURE: MAX , OPERATING TEMPERATURE
 POWER: OPERATING
 DURATION: 1000 HOURS MIN.

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9. P & Q CURVE:



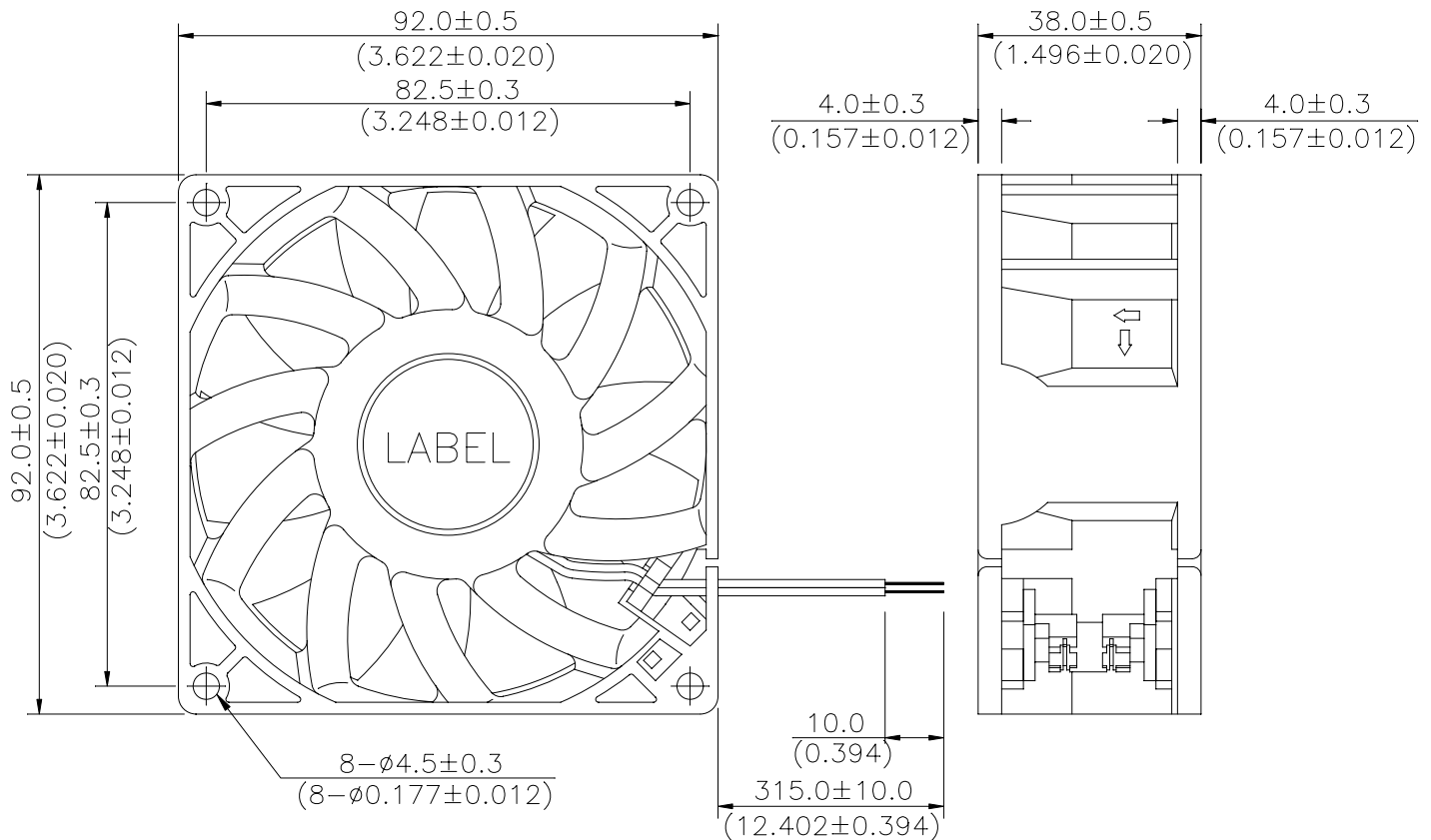
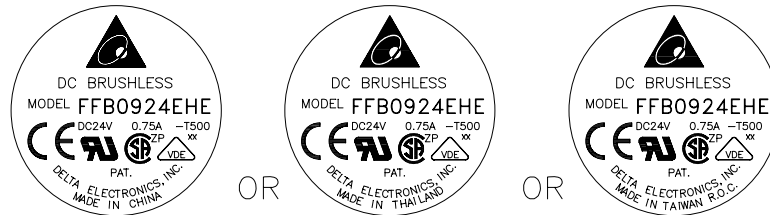
* TEST CONDITION: INPUT VOLTAGE — OPERATION VOLTAGE
TEMPERATURE — ROOM TEMPERATURE
HUMIDITY — 65%RH

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10. DIMENSION DRAWING:

LABEL:



NOTES:

1. WIRE: UL1007 AWG#24
RED WIRE-----(+)
BLACK WIRE-----(-)
2. FOR IP55 PROTECTION, THE MOTOR(PWB+WINDING ASSY) MUST COATED BY PARYLENE WITH THICKNESS 0.005MM (REF.) DELTA P/N 4020158300
3. THIS PRODUCT IS RoHS COMPLIANT

UNIT: mm(INCH)