



SPECIFICATION FOR APPROVAL

Customer. _____

Description. DC FAN

Part No. _____ REV. _____

Delta Model No. PFB0824DHE-T50F REV. 02

Sample Issue No. _____

Sample Issue Date. APR.18, 2017

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

APPROVED BY: _____

DATE : _____

DELTA ELECTRONICS (THAILAND) PCL.
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STATEMENT OF DEVIATION

| |
|--|
| <input checked="" type="checkbox"/> NONE |
| <input type="checkbox"/> DESCRIPTION : |

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Customer:

Description: DC FAN

Customer P/N:

REV:

Delta Model NO.: PFB0824DHE-T50F Delta safety model NO: PFB0824DHE

Sample Rev: 02

Issue NO:

Sample Issue Date: APR.18, 2017

Quantity:

1. SCOPE:

THIS SPECIFICATION DEFINES THE ELECTRICAL AND MECHANICAL CHARACTERISTICS OF THE DC BRUSHLESS AXIAL FLOW FAN.

2. CHARACTERS:

| ITEM | DESCRIPTION |
|--|--|
| RATED VOLTAGE | 24 VDC |
| OPERATION VOLTAGE | 14.0 - 26.4 VDC |
| INPUT CURRENT (AVG) | 1.35 (1.63MAX.) A CURRENT SAFETY ON LABEL : 1.63A |
| INPUT POWER (AVG) | 32.4 (39.12 MAX.) W |
| SPEED | 9000±10% R.P.M. |
| MAX. AIR FLOW (AT ZERO STATIC PRESSURE) | 3.754 (MIN. 3.379) M ³ /MIN 132.56 (MIN. 119.3) CFM |
| MAX.AIR PRESSURE (AT ZERO AIR FLOW) | 51.57 (MIN. 41.77)mmH ₂ O 2.030 (MIN. 1.644) inchH ₂ O |
| ACOUSTICAL NOISE (AVG.) | 65.0 (MAX 70.0) dB-A |
| INSULATION TYPE | UL: CLASS A |
| INGRESS PROTECTION | IP55 (IEC 60529) |

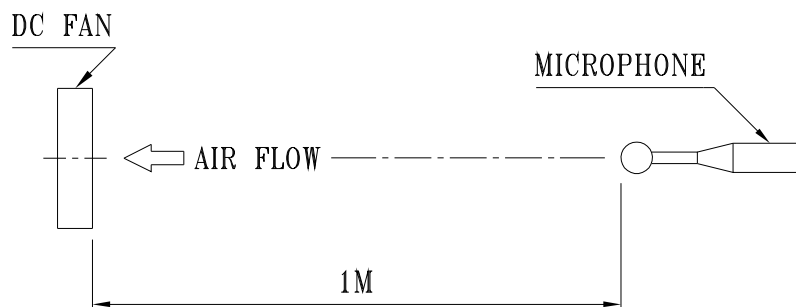
(continued)

PART NO:

DELTA MODEL: PFB0824DHE-T50F

| | |
|---|--|
| 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) |
| LIFE EXPECTANCE (L10) (AT LABEL VOLTAGE) | 50,000 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. |

- 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.

PART NO:

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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 ----- 205 GRAMS (REF.)

4. ENVIRONMENTAL:

- 4-1. OPERATING TEMPERATURE ----- -10 TO +60 DEGREE C
- 4-2. STORAGE TEMPERATURE ----- -40 TO +70 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.

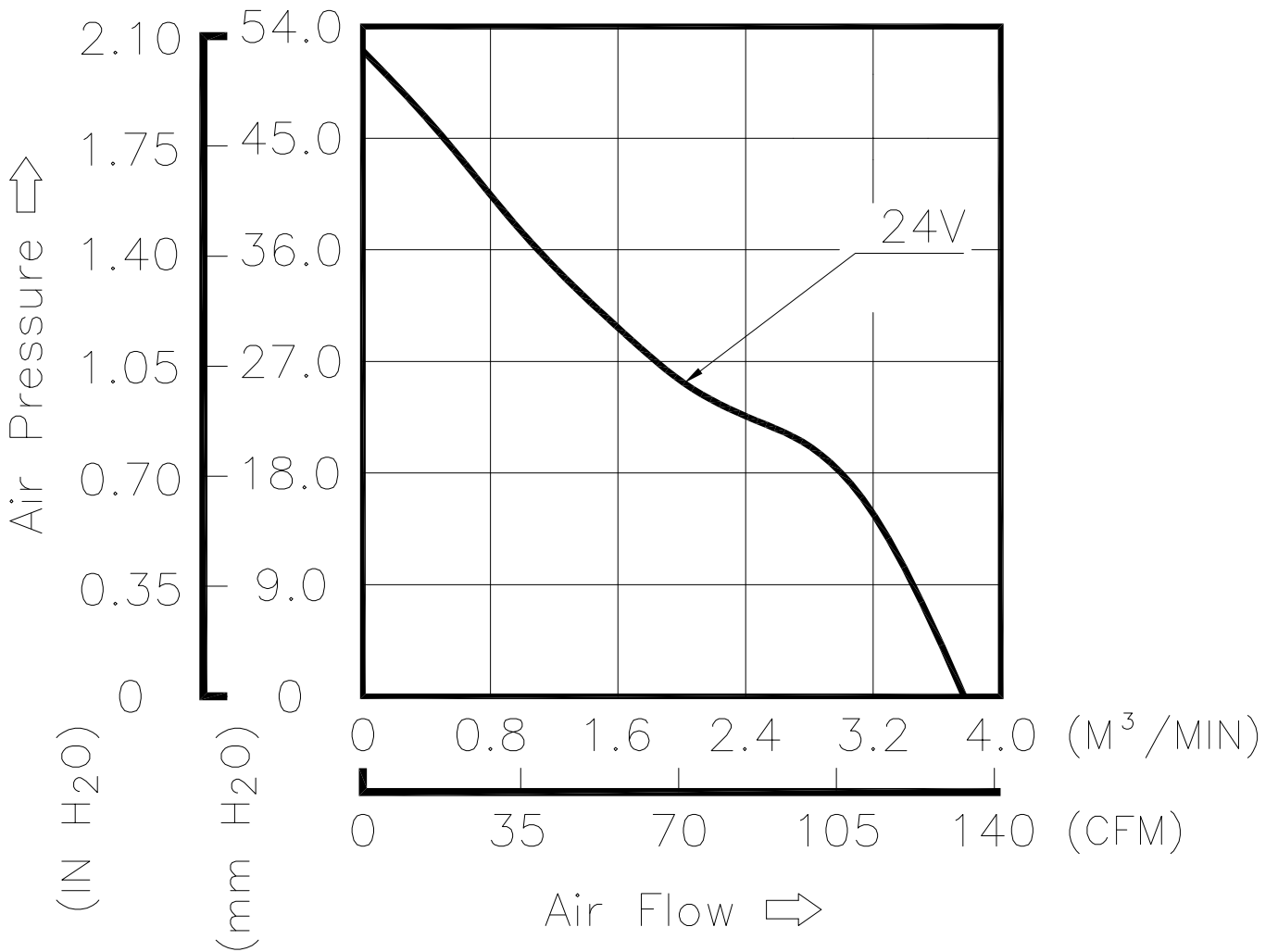
7. PRODUCTION LOCATION

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

PART NO:

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8. P & Q CURVE:



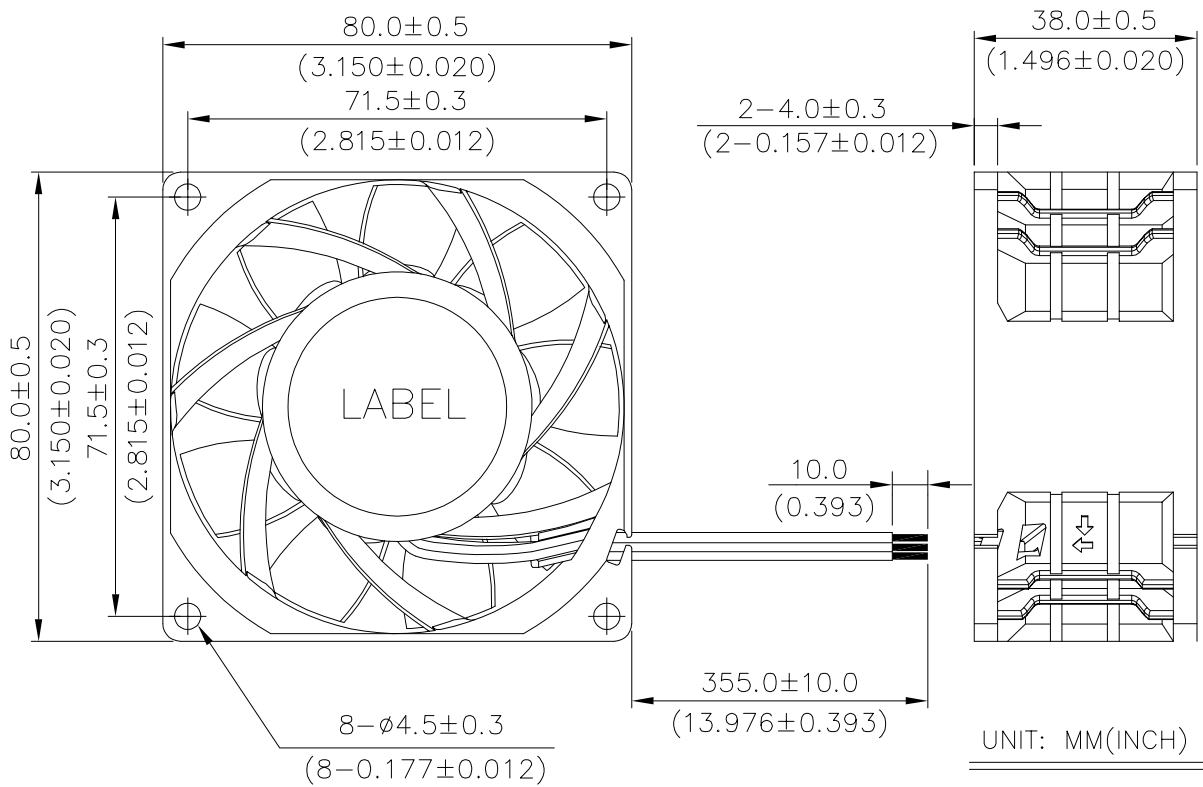
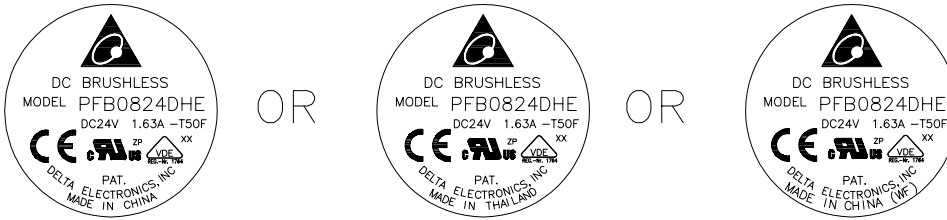
* TEST CONDITION: INPUT VOLTAGE ----- OPERATION VOLTAGE
TEMPERATURE ----- ROOM TEMPERATURE
HUMIDITY ----- 65%RH

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9. DIMENSION DRAWING:

LABEL:



NOTES:

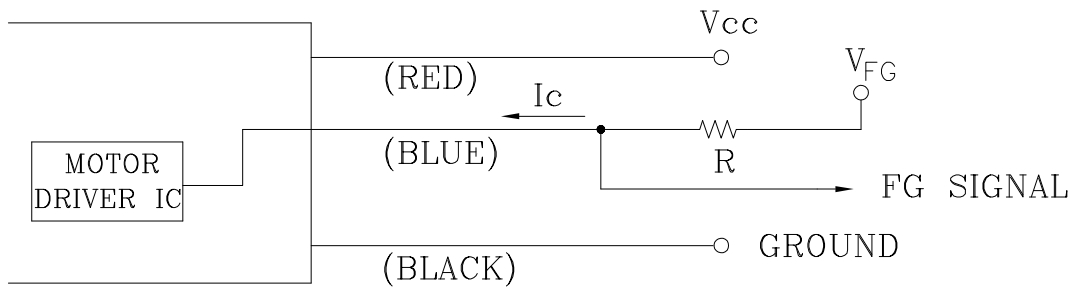
1. WIRE: UL1007 AWG#24
RED WIRE-----(+)
BLACK WIRE-----(-)
BLUE WIRE-----(-F00)
2. FOR IP55 PROTECTION.
3. THIS PRODUCT IS RoHS COMPLIANT

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10.FREQUENCY GENERATOR (FG) SIGNAL:

1. OUTPUT CIRCUIT - OPEN COLLECTOR MODE:



CAUTION: THE RD SINGAL LEAD WIRE MUST BE KEPT AWAY FROM
" + " LEAD WIRE & " - " LEAD WIRE.

2. SPECIFICATION:

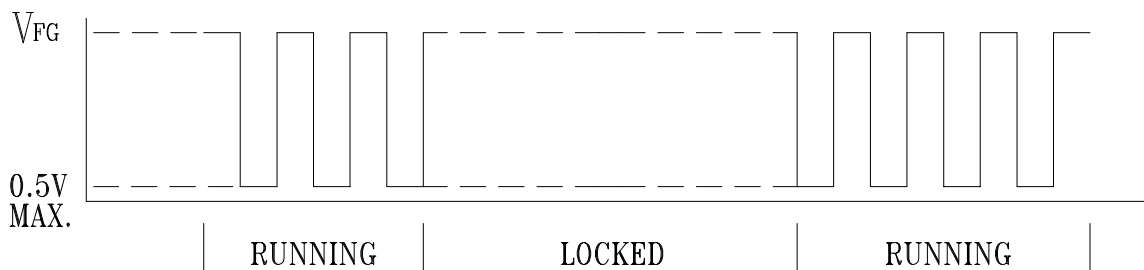
$$V_{CE(sat)} = 0.5V \text{ MAX}$$

$$V_{FG} = 26.4V \text{ MAX}$$

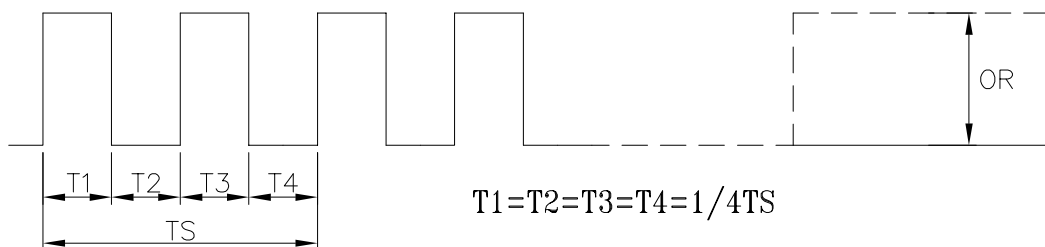
$$I_c = 5mA \text{ MAX.}$$

$$R \geq V_{FG} / I_c$$

3. FREQUENCY GENERATOR WAVEFORM:



FAN RUNNING FOR 4 POLES



$$N = R.P.M$$

$$TS = 60 / N (\text{SEC})$$

*VOLTAGE LEVEL AFTER BLADE LOCKED

*4 POLES