



## SPECIFICATION FOR APPROVAL

Customer : \_\_\_\_\_  
Description : DC FAN \_\_\_\_\_  
Customer Part No. \_\_\_\_\_ REV. : \_\_\_\_\_  
Delta Model No. : QUR0912VHH35 \_\_\_\_\_ REV. : 00 \_\_\_\_\_  
Sample Issue No. : \_\_\_\_\_  
Sample Issue Date : OCT.23 2020 \_\_\_\_\_

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

APPROVED BY:

DATE :

深圳市永瑞电机有限公司

地址: 深圳市宝安区沙井街道沙松路衙边学子围工业区6栋2楼

电话 : 0755-23727297 15920096586 传真 : 0755-23727257

E-Mail: jerry@urayfan.com



**STATEMENT OF DEVIATION**

- NONE
- DESCRIPTION:

## Specification For Approval

Customer : \_\_\_\_\_

Description: DC FAN  
\_\_\_\_\_

Customer P/N : \_\_\_\_\_

rev. : \_\_\_\_\_

Delta model no. : QUR0912VHH35  
\_\_\_\_\_

Delta Safety Model No.: QUR0912VH  
\_\_\_\_\_

Sample revision. : 00  
\_\_\_\_\_

Issue no.: \_\_\_\_\_

Sample issue date : OCT.23 2020  
\_\_\_\_\_

Quantity : \_\_\_\_\_

### 1. SCOPE:

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

### 2. CHARACTERS:

ITEM	DESCRIPTION
RATED VOLTAGE	12 VDC
OPERATION VOLTAGE	7.0 -13.8 VDC
INPUT CURRENT (AVG)#	0.12 (MAX. 0.18) A SAFETY CURRENT ON LABEL : 0.60A
INPUT POWER (AVG)	1.44 (MAX 2.16) W
SPEED	2500±10% R.P.M.
MAX. AIR FLOW (AT ZERO STATIC PRESSURE)	1.284 (MIN. 1.155 ) M <sup>3</sup> /MIN. 45.33 (MIN. 40.80) CFM
MAX. AIR PRESSURE (AT ZERO AIRFLOW)	3.277 (MIN. 2.654) mmH <sub>2</sub> O 0.129 (MIN. 0.104) inchH <sub>2</sub> O
ACOUSTICAL NOISE (AVG.)	35.8 (MAX. 39.8) dB-A
INSULATION TYPE	UL: CLASS A
INSULATION STRENGTH	10 MEG OHM MIN. AT 500 VDC (BETWEEN FRAME AND (+) TERMINAL)

# : THE MAX VALUE OF CONSUMING CURRENT DOES NOT REPRESENT THE PEAK VALUE, THE PEAK VALUE NEED MEASURE BY OSCILLOSCOPE.

(continued)

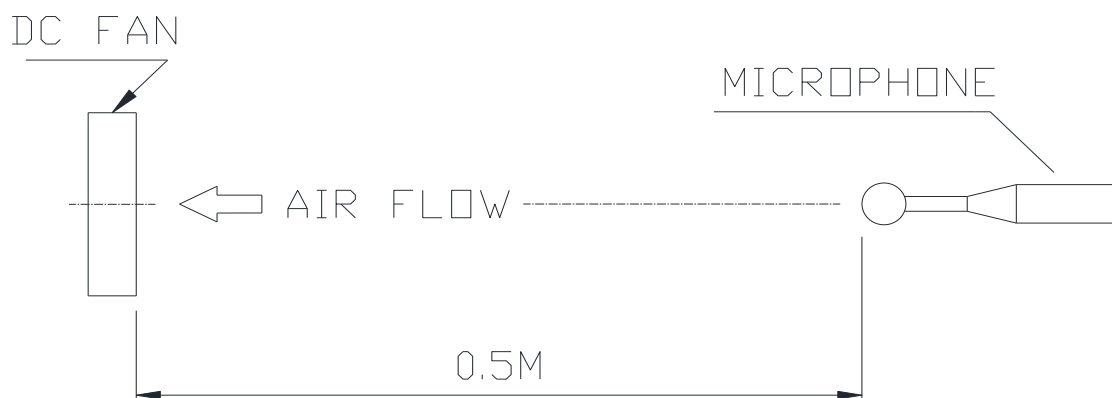
PART NO:

DELTA MODEL: QUR0912VHH35

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
LOCKED ROTOR PROTECTION	THE CURRENT WILL SHUT DOWN, WHEN ROTOR LOCKED AND FIXED.

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 BAROMMAR.28 2019
3. THE VALUES WRITTEN IN PARENS , ( ), ARE LIMITED SPEC.
4. ACOUSTICAL NOISE MEASURING CONDITION:



NOISE IS MEASURED AT RATED VOLTAGE IN FREE AIR IN SEMI-ANECHOIC CHAMBER WITH MICROPHONE AT A DISTANCE OF 0.5 METER FROM THE FAN INTAKE.

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PART NO:

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DELTA MODEL: QUR0912VHH35

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3. MECHANICAL:

- 3-1. DIMENSIONS----- SEE DIMENSIONS DRAWING
- 3-2. FRAME----- PLASTIC UL: 94V-0  
(THE CONTACT OF HALOGEN LESS THAN 1500 PPM FOR USING EDX ...ETC)
- 3-3. IMPELLER----- PLASTIC UL: 94V-0  
(THE CONTACT OF HALOGEN LESS THAN 1500 PPM FOR USING EDX ...ETC)
- 3-4. BEARING SYSTEM----- SUPERFLO BEARING
- 3-5. WEIGHT----- 110 GRAMS(REF.)

4. ENVIRONMENTAL:

- 4-1. OPERATING TEMPERATURE----- -10 TO +70 DEGREE C
- 4-2. STORAGE TEMPERATURE----- -40 TO +85 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.

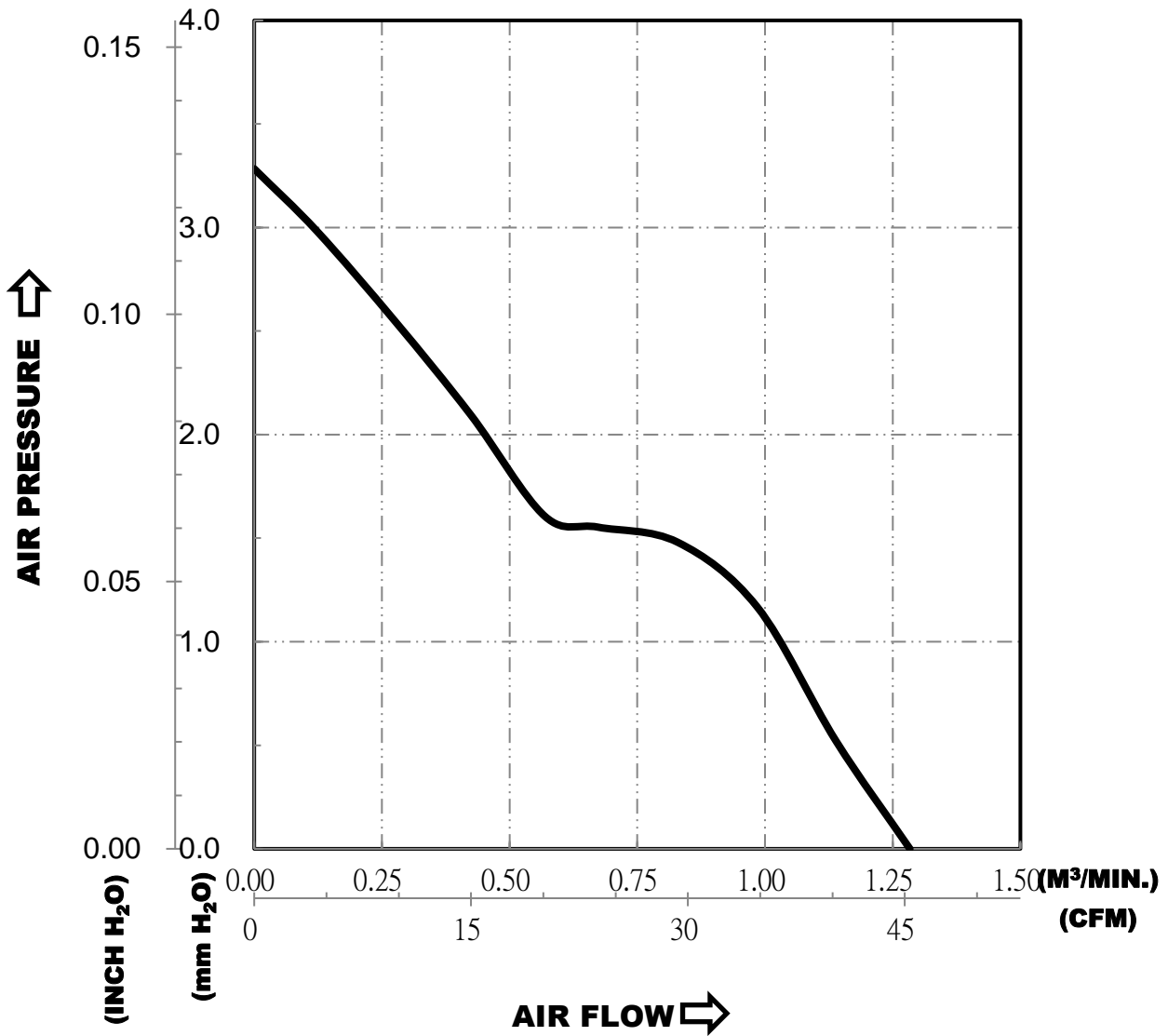
7. PRODUCTION LOCATION

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

PART NO:

DELTA MODEL: QUR0912VHH35

8. P & Q CURVE:



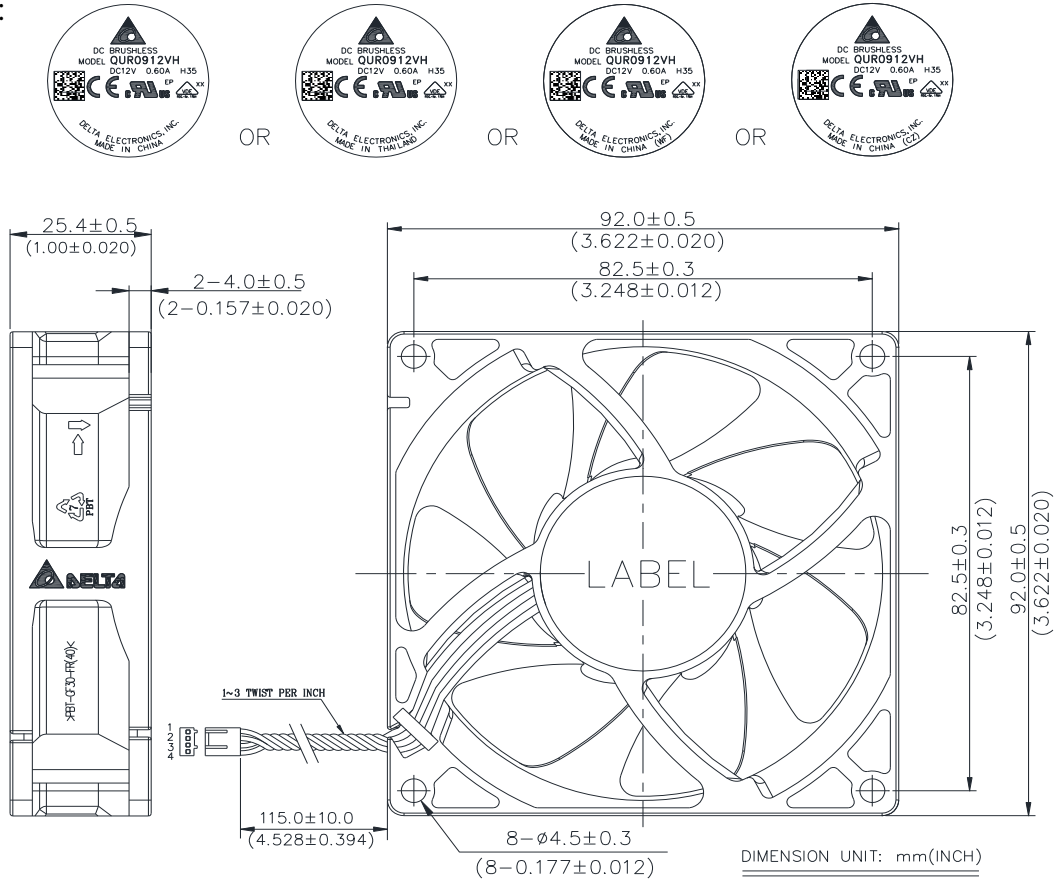
\*TEST CONDITION: INPUT VOLTAGE-----OPERATION VOLTAGE  
TEMPERATURE-----ROOM TEMPERATURE  
HUMIDITY-----65%RH

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DELTA MODEL: QUR0912VHH35

9. DIMENSION DRAWING:

LABEL:



NOTE:

1. HOUSING: LOTES ABB-WAF-057-P08 OR EQUIVALENT
2. TERMINAL: LOTES ABB-WAF-055-K06 OR EQUIVALENT
3. CABLE WIRE UL:10368 #26
  - PIN 1: BLACK WIRE-----(-)
  - PIN 2: RED WIRE-----(+)
  - PIN 3: BLUE WIRE---(F00)
  - PIN 4: YELLOW WIRE----- (PWM)
4. THIS PRODUCT IS RoHS2.0 COMPLIANT
5. DELTA'S RESTRICTIONS ON HALOGEN APPLY ONLY TO ROMINATED AND CHLORINATED COMPOUNDS. NO OTHER HALOGEN IS RESTRICTED. SUBSTANCES RESTRICTIONS FOR HALOGEN-FREE(INCLUDE FAN PLASTIC PARTS, PWB BOARD, IC, ELECTRICAL MATERIALS & CABLE ASSY),
  - a. BROMINE(Br) < 900 PPM,
  - b. CHLORINE(CI) < 900 PPM
  - c. (Br) + (CI) < 1500 PPM.

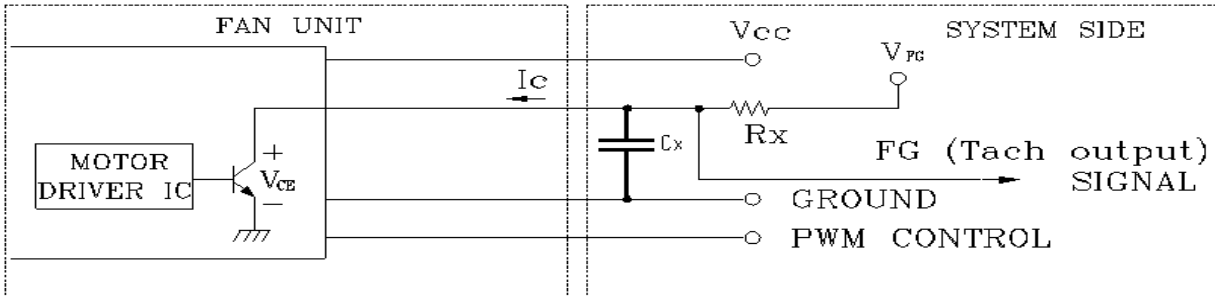


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### 11. FREQUENCY GENERATOR (FG) SIGNAL:

#### 11-1. OUTPUT CIRCUIT - OPEN COLLECTOR MODE:



GENERAL CONDITION: VFG is 3.3V, Rx is 8.2Kohm, and Cx is 4nF.

CAUTION: THE FG SIGNAL LEAD WIRE MUST BE KEPT AWAY FROM "+" LEAD WIRE & "-" LEAD WIRE.

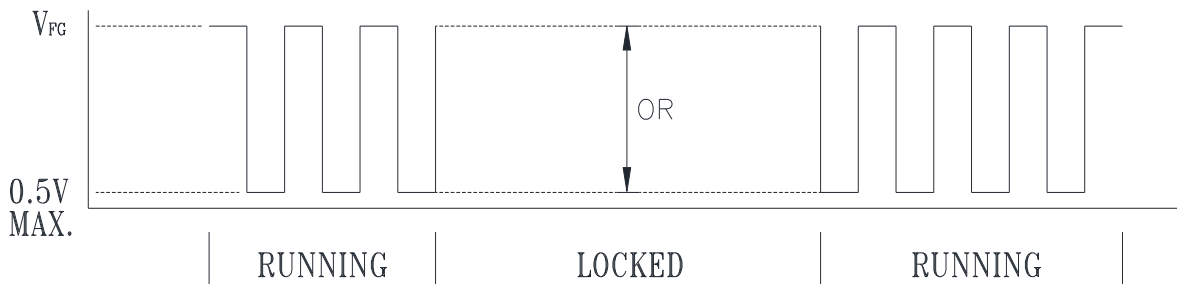
#### 11-2. SPECIFICATION:

VFG= 13.8V MAX.

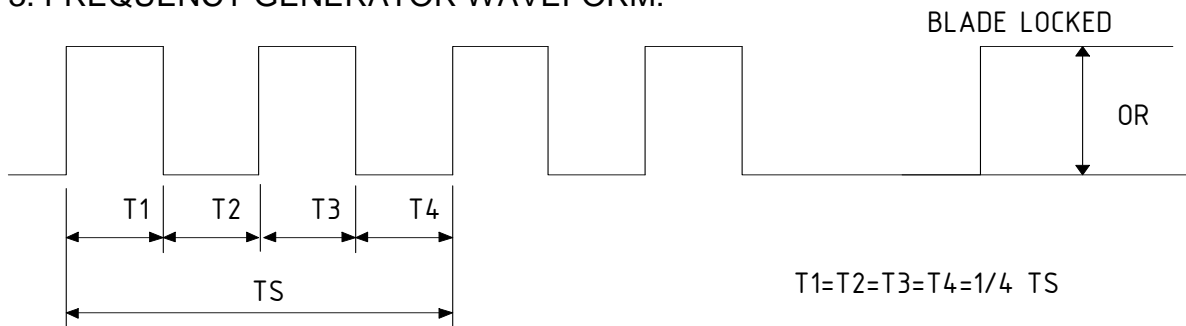
Ic = 5mA MAX.

VCE= 0.5V MAX.

Rx ≥ VFG / Ic



#### 11-3. FREQUENCY GENERATOR WAVEFORM:



N=R.P.M

TS=60/N(SEC)

\*VOLTAGE LEVEL AFTER BLADE LOCKED

\*4 POLES