



SPECIFICATION FOR APPROVAL

Customer. _____

Description. DC FAN

Part No. _____ REV. _____

Delta Model No. AFB0412VB-AR00 REV. 00

Sample Issue No. _____

Sample Issue Date. MAR-10-2017

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

APPROVED BY:

DATE :

Delta Electronics, Inc.
HeTianXia High-Tech Industrial Park.
Shi Jie Town, Dong Guan City.
Guangdong Province, China. P. R. C.
TEL : 86-769-86329008
FAX : 86-769-86631589

Delta Electronics, Inc.
HeTianXia High-Tech Industrial Park.
Shi Jie Town, Dong Guan City.
Guangdong Province, China. P. R. C.

TEL : 86-769-86329008
FAX : 86-769-86631589

STATEMENT OF DEVIATION

NONE

DESCRIPTION :

Delta Electronics, Inc.
 HeTianXia High-Tech Industrial Park.
 Shi Jie Town, Dong Guan City.
 Guangdong Province, China. P. R. C.

TEL : 86-769-86329008
 FAX : 86-769-86631589

SPECIFICATION FOR APPROVAL

Customer:

Description:	DC FAN	
Customer P/N:		REV:
Delta Model NO.:	AFB0412VB-AR00	Delta Safety Model: AFB0412VB-A
Sample Rev:	00	Issue NO:
Sample Issue Date:	MAR-10-2017	Quantity:

1. SCOPE:

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

2. CHARACTERS:

ITEM	DESCRIPTION
RATED VOLTAGE	12.0 VDC
OPERATION VOLTAGE	5.0 - 13.2 VDC
INPUT CURRENT(AVG)	0.21 (MAX. 0.30) A SAFETY CURRENT ON LABEL : 0.30A
INPUT POWER(AVG)	2.52 (MAX. 3.60) W
SPEED	12000 R.P.M. ±10%
MAX. AIR FLOW (AT ZERO STATIC PRESSURE)	0.36 MIN. (0.43 TYP.) M ³ /MIN
MAX. AIR PRESSURE (AT ZERO AIRFLOW)	12.41 MIN. (15.8 TYP.) mmH ₂ O
ACOUSTICAL NOISE (AVG.)	46.0 MAX. (41.5 TYP.)
INSULATION TYPE	UL: CLASS A

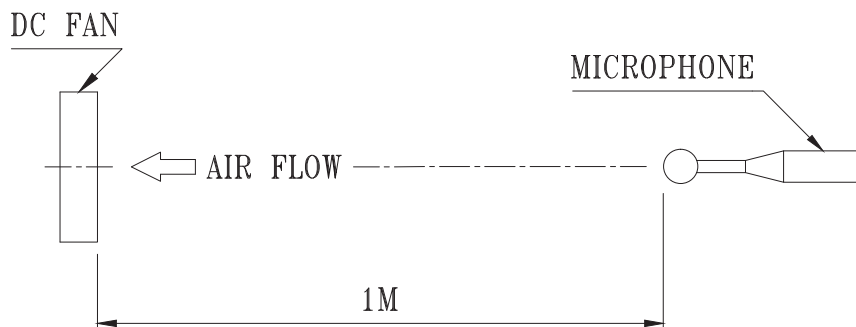
(continued)

PART NO:

DELTA MODEL: AFB0412VB-AR00

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)
LIFE EXPECTANCE (AT LABEL VOLTAGE)	70,000 HOURS CONTINUOUS OPERATION AT 40 °C WITH 15 ~ 65 %RH.
ROTATION	CLOCKWISE VIEW FROM NAME PLATE SIDE

- 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:

DELTA MODEL: AFB0412VB-AR00

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 ----- 25.0 GRAMS(REF.)

4. ENVIRONMENTAL:

- 4-1. OPERATING TEMPERATURE ----- -10 TO +70 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.

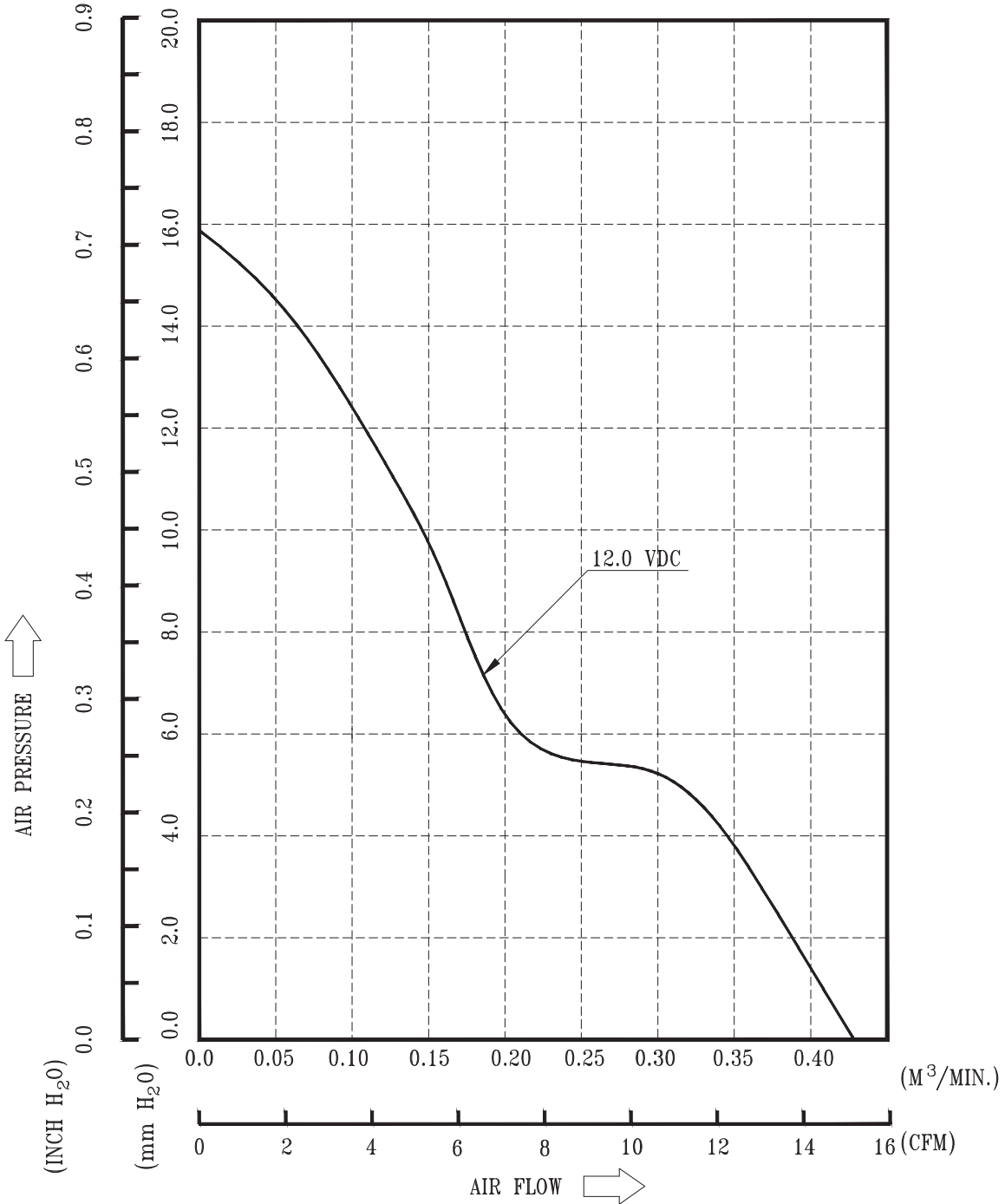
7. PRODUCTION LOCATION

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

PART NO:

DELTA MODEL: AFB0412VB-AR00

8. P & Q CURVE:



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

PART NO:

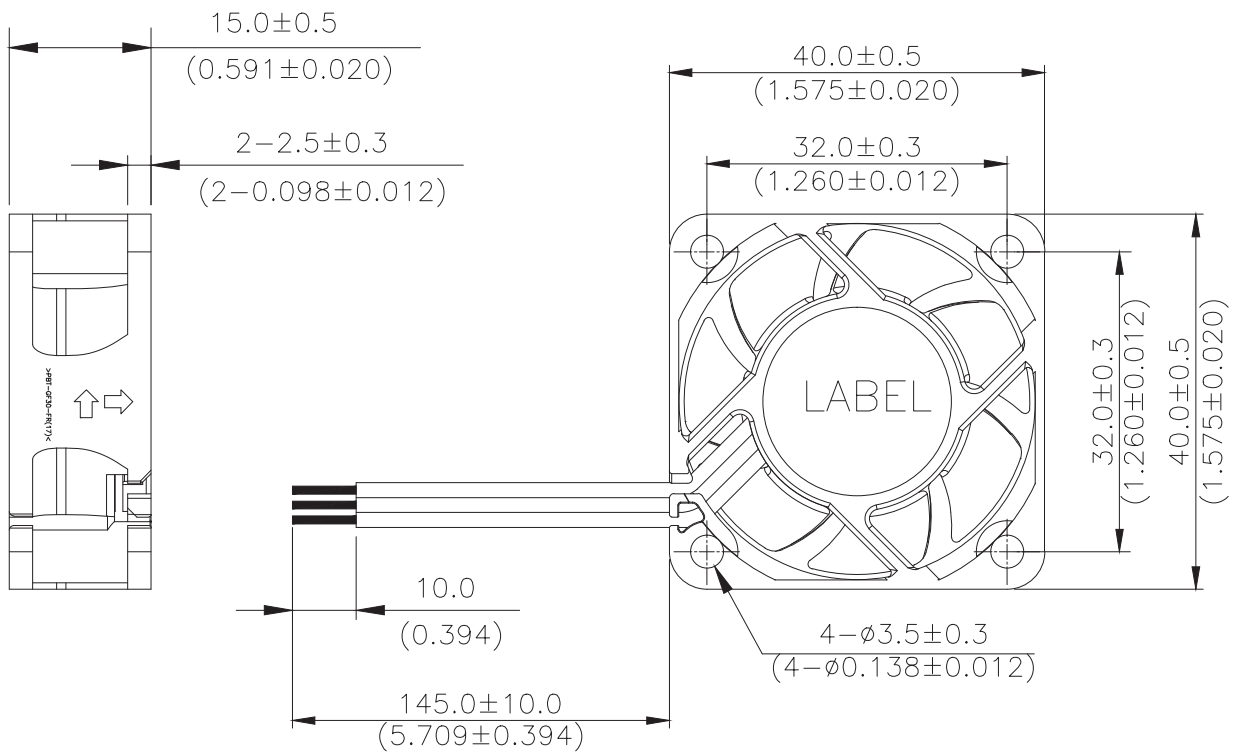
DELTA MODEL: AFB0412VB-AR00

9. DIMENSION DRAWING:

LABEL:



OR



UNIT: $\frac{\text{MM}}{\text{(INCH)}}$

NOTES:

1.LEAD WIRE UL1061 AWG#26

BLACK WIRE-----(-)

RED WIRE-----(+)

BLUE WIRE----- (RD)

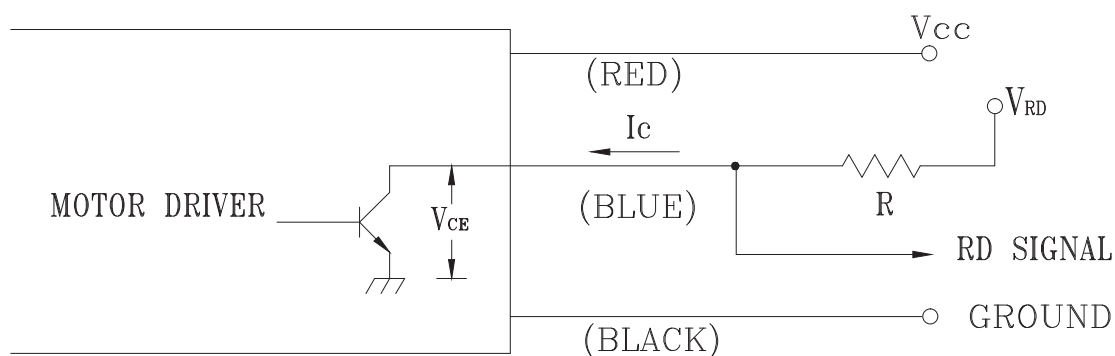
2.THIS PRODUCT IS ROHS COMPLIANT

PART NO:

DELTA MODEL: AFB0412VB-AR00

10. ROTATION DETECT (RD) SIGNAL:

10-1. OUTPUT CIRCUIT - OPEN COLLECTOR MODE:



CAUTION:

THE LEAD WIRE OF RD SIGNAL CAN NOT TOUCH
THE LEAD WIRE OF POSITIVE OR NEGATIVE.

10-2. SPECIFICATION:

$V_{CE}(\text{sat}) = 0.5\text{V MAX.}$ $V_{RD} = 5.0\text{VDC TYP.}(V_{CC} \text{ MAX.})$

$I_c = 5\text{mA MAX.}$ $R \geq V_{RD}/I_c$

10-3. ROTATION DETECT WAVEFORM:

