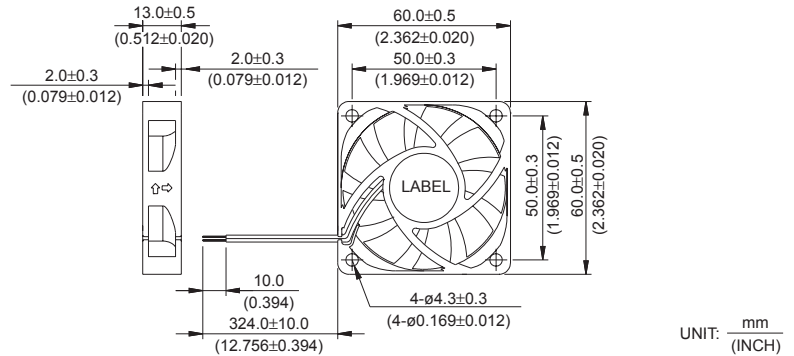


# AFB 60 x 60 x 13 MM SERIES

## DIMENSIONS DRAWING

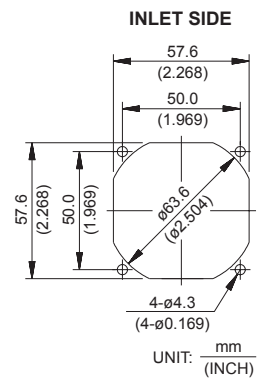
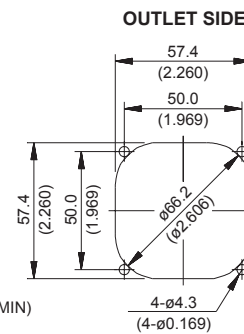
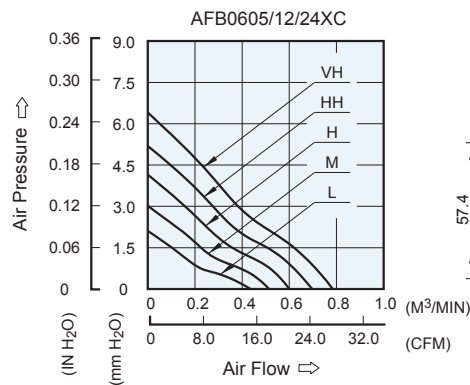


UNIT: mm (INCH)

- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires :  
UL 2468 AWG #28 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 33.5g (1.18 oz)
- \* Rib Type Only

## P & Q CURVE (AT RATED VOLTAGE)

## MOUNTING PANEL CUTOUT



UNIT: mm (INCH)

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
AFB0605LC	-R00 / -F00	5	4.5 to 5.5	0.12	0.60	3000	0.436	15.40	2.11	0.083	24.0
AFB0612LC	-R00 / -F00	12	7.0 to 13.8	0.08	0.96						
AFB0624LC	-R00 / -F00	24	14.0 to 27.6	0.05	1.20						
AFB0605MC	-R00 / -F00	5	4.5 to 5.5	0.18	0.90	3600	0.514	18.15	3.02	0.119	28.0
AFB0612MC	-R00 / -F00	12	7.0 to 13.8	0.11	1.32						
AFB0624MC	-R00 / -F00	24	14.0 to 27.6	0.06	1.44						
AFB0605HC	-R00 / -F00	5	4.5 to 5.5	0.29	1.45	4200	0.601	21.22	4.15	0.163	31.5
AFB0612HC	-R00 / -F00	12	7.0 to 13.8	0.14	1.68						
AFB0624HC	-R00 / -F00	24	14.0 to 27.6	0.07	1.68						
AFB0612HHC	-R00 / -F00	12	7.0 to 13.8	0.20	2.40	4800	0.698	24.65	5.19	0.204	35.0
AFB0624HHC	-R00 / -F00	24	14.0 to 27.6	0.09	2.16						
AFB0612VHC	-R00 / -F00	12	7.0 to 13.8	0.24	2.88	5400	0.785	27.72	6.41	0.252	38.0
AFB0624VHC	-R00 / -F00	24	14.0 to 27.6	0.12	2.88						

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.  
 \* Both of the ball bearing and the 1 ball + 1 Sleeve type are available.



## SPECIFICATION FOR APPROVAL

Customer \_\_\_\_\_

Description DC FAN

Part No. \_\_\_\_\_ REV. \_\_\_\_\_

Delta Model No. AFB0624VHC-F00 REV. 00

Sample Issue No. \_\_\_\_\_

Sample Issue Date JUL.04 2013

PLEASE SEND ONE COPY OF THIS SPECIFICATION BACK AFTER YOU SIGNED APPROVAL FOR PRODUCTION 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

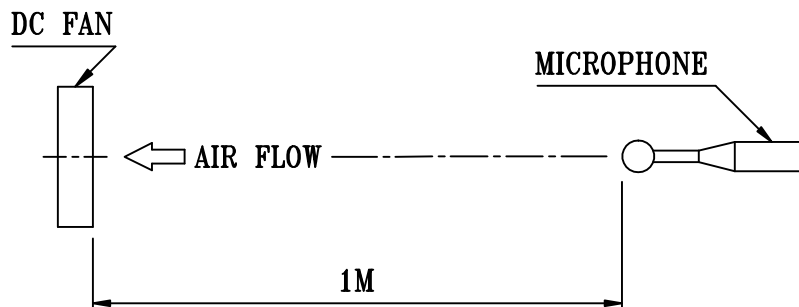


PART NO:

DELTA MODEL: AFB0624VHC-F00

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 #28 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.

-----  
PART NO:  
-----

DELTA MODEL: AFB0624VHC-F00  
-----

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 ----- 33.5 GRAMS

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, PBB0s, CFCs, PBBEs, PBDPEs AND HCFCs.

7. PRODUCTION LOCATION

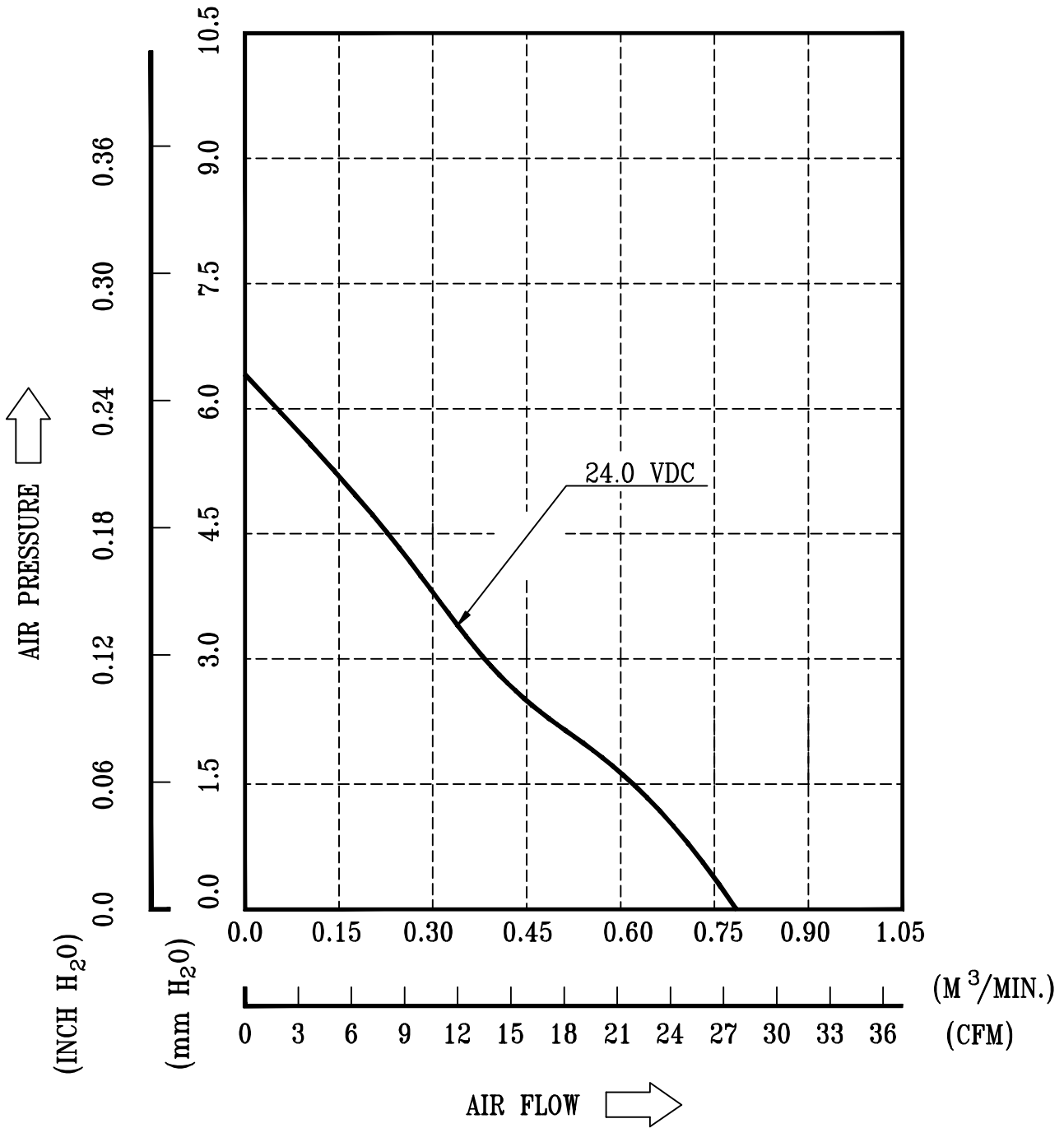
- 7-1. PRODUCTS WILL BE PRODUCED IN CHINA OR THAILAND.



PART NO:

DELTA MODEL: AFB0624VHC-F00

9. P & Q CURVE:



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

-----  
PART NO:  
-----

DELTA MODEL: AFB0624VHC-F00  
-----

10. DIMENSION DRAWING:

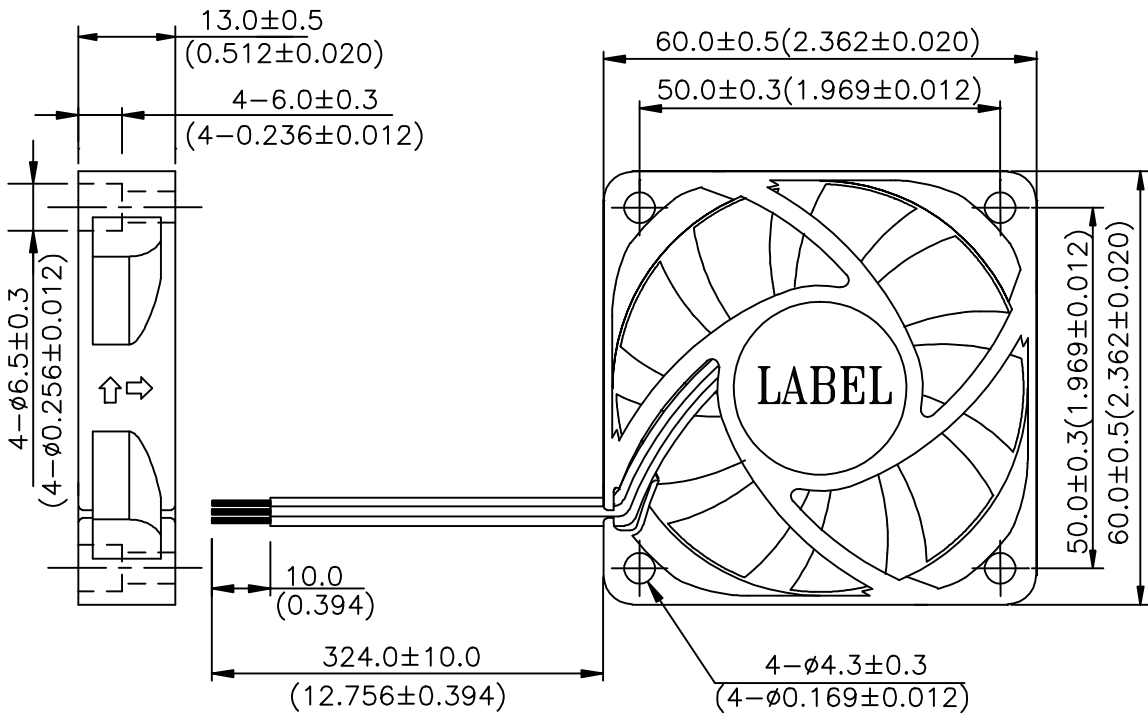
LABEL:



OR



OR



UNIT:mm(INCH)

UL 1007 -F- AWG #28  
BLACK WIRE NEGATIVE(-)  
RED WIRE POSITIVE(+)  
BLUE WIRE FREQUENCY(-F00)

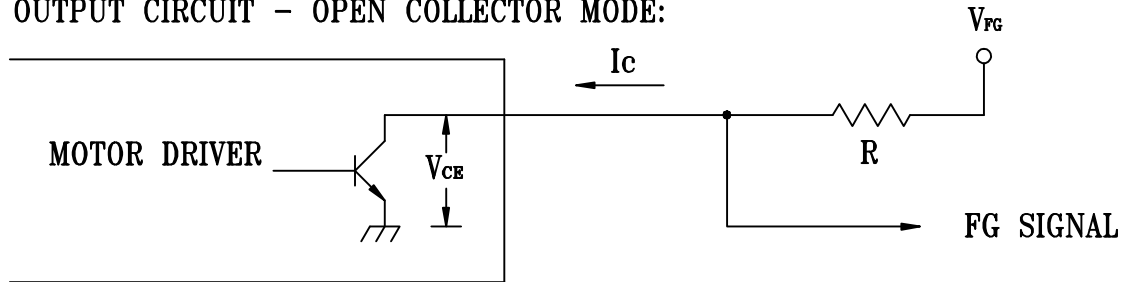


PART NO:

DELTA MODEL: AFB0624VHC-F00

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

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



#### CAUTION:

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

#### 2. SPECIFICATION:

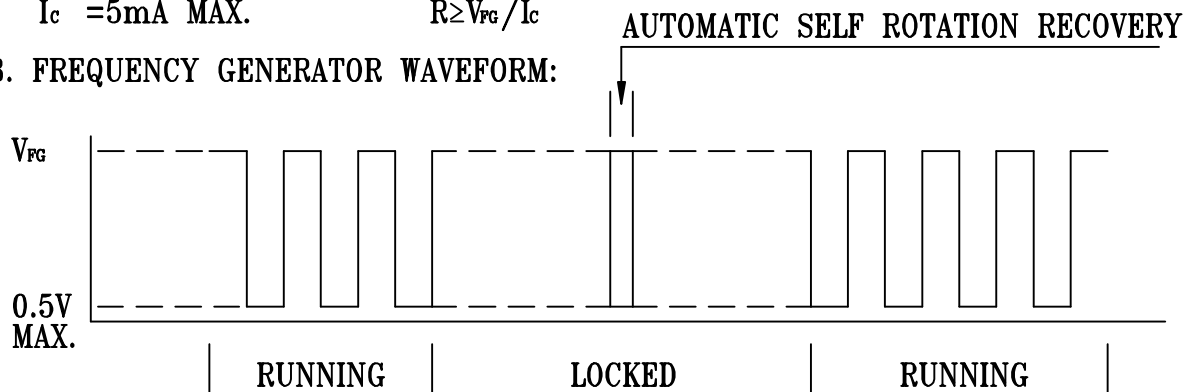
$V_{CE}(\text{sat}) = 0.5\text{V MAX.}$

$V_{FG} = 15\text{VDC MAX.}$

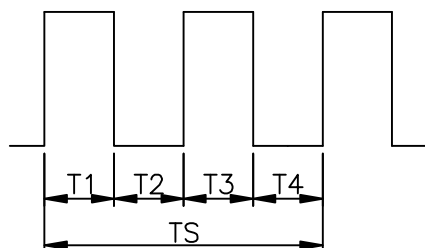
$I_c = 5\text{mA MAX.}$

$R \geq V_{FG} / I_c$

#### 3. FREQUENCY GENERATOR WAVEFORM:



FAN RUNNING FOR 4 POLES



$$T1=T2=T3=T4=1/4 TS$$

$N = \text{R.P.M}$

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

\*VOLTAGE LEVEL AFTER BLADE LOCKED

\*4 POLES

BLADE LOCKED

OR



## ***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.**