

SPECIFICATION FOR APPROVAL

Customer		
Description	DC FAN	
Part No.		Rev
Delta Model No.	AFB0405MB-R00	Rev. <u>00</u>
Sample Issue No.		
Sample Issue Date.	Nov 09, 12	

	E COPY OF THIS SPECIFICATION SIGNED APPROVAL FOR PRODUC-MENT.
APPROVED BY	:
DATE	:

DELTA ELECTRONICS (THAILAND) PUBLIC COMPANY LIMITED.

111 MOO 9 WELLGROW INDUSTRIAL ESTATE BANGNA-TRAD ROAD, TAMBON BANGWUA, AMPHUR BANGPAKONG, CHACHOENGSAO 24180 THAILAND TEL. +66-(0)-38522455, FAX. +66-(0)-38522477 BANGNA-TRAD ROAD, BANGWUA, BANGPAKONG, FAX: +66-(0)38-522477 CHACHEONGSAO 24180 THAILAND.

Customer:

Description:	DC FAN	
Customer P/N:		REV:
Delta Model NO.:	AFB0405MB-R00	
Sample Rev:	00	Issue N0:
Sample Issue Date:	Nov 09, 12	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	5 VDC
OPERATION VOLTAGE	4.5 - 5.5 VDC
INPUT CURRENT	0.17 (MAX. 0.25) A
INPUT POWER	0.85 (MAX. 1.25) W
SPEED(AT ROOM TEMPERATURE)	6000±10% R.P.M.
MAX. AIR FLOW (AT ZERO STATIC PRESSURE)	0.230 (MIN. 0.210) M ³ /MIN. 8.12 (MIN. 7.42) CFM
MAX. AIR PRESSURE (AT ZERO AIRFLOW)	$5.12~({ m MIN.}~4.15~)~{ m mmH}_20 \ 0.202~({ m MIN.}~0.163~)~{ m inchH}_20$
ACOUSTICAL NOISE (AVG.)	24.5 (MAX. 27.5) dB-A
INSULATION TYPE	UL: CLASS A

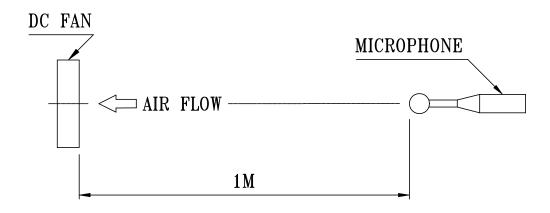
(continued)

A00

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 (AT LABEL VOLTAGE)	L10, 70,000 HOURS AT 40 °C WITH 15 ~ 65 %RH.
ROTATION	CLOCKWISE VIEW FROM NAME PLATE SIDE
LEAD WIRE	UL 1007 -F- AWG #24 BLACK WIRE NEGATIVE(-) RED WIRE POSITIVE(+) BLUE WIRE LOCK SIGNAL(-R00)

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.

DELTA MODEL:	AFB0405MB-R00		
3. MECHANICAI	.:		
3-1. DIMENS	SIONS —	SEE DIMENSIONS DRAW	ING
3-2. FRAME		PLASTIC UL: 94\	7-0
3-3. IMPELI	ER	PLASTIC UL: 94\	7-0
3-4. BEARIN	NG SYSTEM	TWO BALL BEARIN	IGS
3-5. WEIGHT	Γ	25.0 GRA	MS
4. ENVIRONME	NTAL:		
4-1. OPERA	TING TEMPERATURE	-10 TO +70 DEGREI	E C
4-2. STORAG	GE TEMPERATURE	-40 TO +75 DEGREI	E C
4-3. OPERA	TING HUMIDITY —	5 TO 90 %	RH
4-4. STORAG	GE HUMIDITY —	5 TO 95 %	RH
5. PROTECTION	I:		

5-1. LOCKED ROTOR PROTECTION

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 OR TAIWAN.

A00

DELTA MODEL: AFB0405MB-R00

8. BASIC RELIABILITY REQUIREMENT:

8-1. THERMAL LOW TEMPERATURE: -40°C CYCLING HIGH TEMPERATURE: +80°C

SOAK TIME: 30 MINUTES

TRANSITION TIME < 5 MINUTES

DUTY CYCLES: 5

8-2. HUMIDITY TEMPERATURE: +25°C ~ +65°C EXPOSURE 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)

10

0.040

20

40

0.100

800

1000

0.002

1000

TEST TIME: 2 HOURS ON EACH ORIENTATION

8-4. MECHANICAL TEMPERATURE: +20°C

SHOCK 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

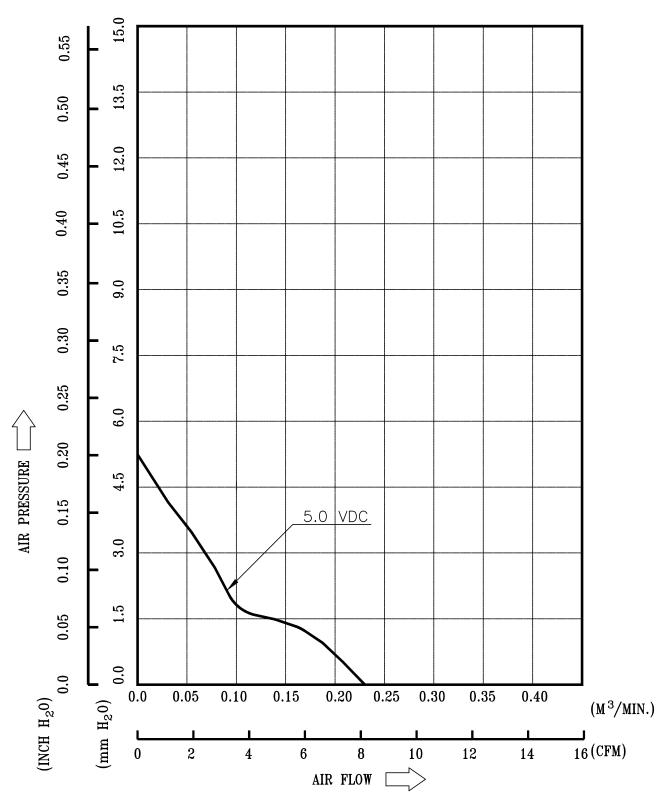
8-5. LIFE TEMPERATURE: MAX, OPERATING TEMPERATURE

POWER: OPERATING

DURATION: 1000 HOURS MIN.

page: 4 A00

8. P & Q CURVE:



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

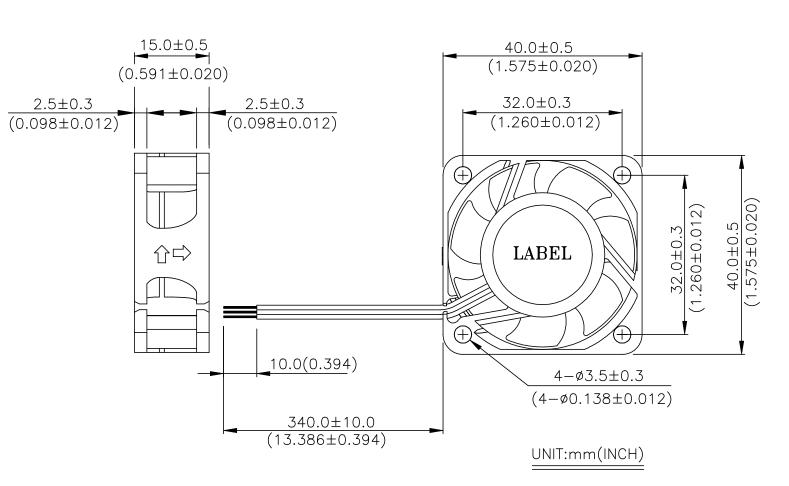
page: 5

DELTA MODEL: AFB0405MB-R00

9. DIMENSION DRAWING:

LABEL:





NOTES:

1. WIRE: UL1007 AWG#24

BLACK WIRE ---- (-)

RED WIRE ---- (+)

BLUE WIRE ---- (-R00)

2. THIS PRODUCT IS ROHS COMPLIANT.

page: 6 A00



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 "4.7μF or greater" capacitor to the fan externally when the application calls for using multiple fans in parallel, to avoid any unstable power.

Doc. No: FMBG-ES Form 001 Rev. 01 Date: June 24, 2009

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for DC Fans category:

Click to view products by Delta manufacturer:

Other Similar products are found below:

614R 6424/2HP-210 8312R DV4118/2NP-183 AFB0948HH-S687 PFB0824DHE-8B72 G2E085-AA05-10 RD20S-4/210660 4318/12T 4418HH AUB0912H-F00 3412N/2ME K2E225-RA92-09 4184N/2XR 5214N2HH 614J2HHPR-010 8412NGL-12 4114N/12HHR-297 4656 ZWR-903 4112N12GL-175 KD2406PKB2.(2).GN AFB1248HHE AFB1212LE-F00 FAN-SCH-1 MF60151V1-1000U-G99 PF80252V1-1000U-G99 PF92252V1-1000U-G99 4112N/2H6P 4114N/17-251 6212NH 622/2N 712F-011 8218J/2NP-181 W1G180-AB47-15 FAA1-12038NBKW31-A 6318N/2TDP 6318N/2H3PU 6318HU 424JMU PMD1206PTVX-A.U.GN PF80251B2-000U-F99 EF40101BX-1000U-G99 AD1224LB-A71GL 9GA0924L4021 9GA0924M4021 9GA0924M4011 9GA0824B20011 9GA0812A2D0011 9GA0912M4D011 9GA0924W4D01