



SPECIFICATION FOR APPROVAL

Customer : _____
Description : DC FAN
Customer Part No. _____ REV. : _____
Delta Model No. : BUB0712HJ-00 REV. : 00
Sample Issue No. : _____
Sample Issue Date : JUN.09.2021

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

APPROVED BY:

DATE : _____

DELTA ELECTRONICS, INC.
TAOYUAN PLANT
252, SHANGYING ROAD, GUISHAN INDUSTRIAL ZONE,
TAOYUAN CITY 33341, TAIWAN
TEL:886-(0)3-3591968
FAX:886-(0)3-3591991

DELTA ELECTRONICS, INC.
252, SHANGYING ROAD, GUISHAN INDUSTRIAL ZONE,
TAOYUAN CITY 33341, TAIWAN

TEL : 886-(0)3-3591968
FAX : 886-(0)3-3591991

STATEMENT OF DEVIATION

■ NONE

□ DESCRIPTION:

*** SAMPLE HISTORY***

CUSTOMER:

CUSTOMER P/N:

DELTA MODEL: BUB0712HJ-00

DELTA ELECTRONICS, INC.

252, SHANGYING ROAD, GUISHAN INDUSTRIAL ZONE,
TAOYUAN CITY 33341, TAIWAN

TEL : 886-(0)3-3591968

FAX : 886-(0)3-3591991

Specification For Approval

Customer :

Description : DC FAN

Customer P/N :

rev. :

Delta model no. : BUB0712HJ-00

Delta Safety Model No.: BUB0712HJ-00

Sample revision. : 00

Issue no.:

Sample issue date : JUN.09 2021

Quantity :

1. SCOPE:

THIS SPECIFICATION DEFINES THE ELECTRICAL AND MECHANICAL CHARACTERISTICS OF THE DC BRUSHLESS BLOWER.

2. CHARACTERS:

| ITEM | DESCRIPTION |
|--|--|
| RATED VOLTAGE | 12 VDC |
| OPERATION VOLTAGE RANGE | 5.0-13.2 VDC |
| MIN. START VOLTAGE | ≥ 6.0 VDC |
| INPUT CURRENT(AVG.) ★ (TEST UNDER FREE AIR) | 0.42 (MAX. 0.70) A CURRENT ON LABEL : 0.70A |
| INPUT POWER(AVG.) ★ (TEST UNDER FREE AIR) | 5.04 (MAX. 8.40) W |
| RATED SPEED | 4650 ±10% R.P.M. |
| MAX. AIR FLOW (AT ZERO STATIC PRESSURE) | 0.399 (MIN. 0.359) M ³ /MIN. 14.09 (MIN. 12.68) CFM |
| MAX. AIR PRESSURE (AT ZERO AIR FLOW) | 30.49 (MIN. 24.69) mmH ₂ O 1.20 (MIN. 0.97) inchH ₂ O |
| ACOUSTICAL NOISE (AVG.) | 45.5 (MAX. 49.5) dB-A |
| INSULATION TYPE | UL: CLASS A |
| 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) |

★AVG. IS THE AVERAGE VALUE DURING STEADY OPERATION, AND MAX. IS MAXIMUM AVERAGE VALUE INCLUDED PRODUCTION TOLERANCE. ABOUT THE PEAK VALUE, NEED TO USE OSCILLOSCOPE TO MEASURE.

(continued)

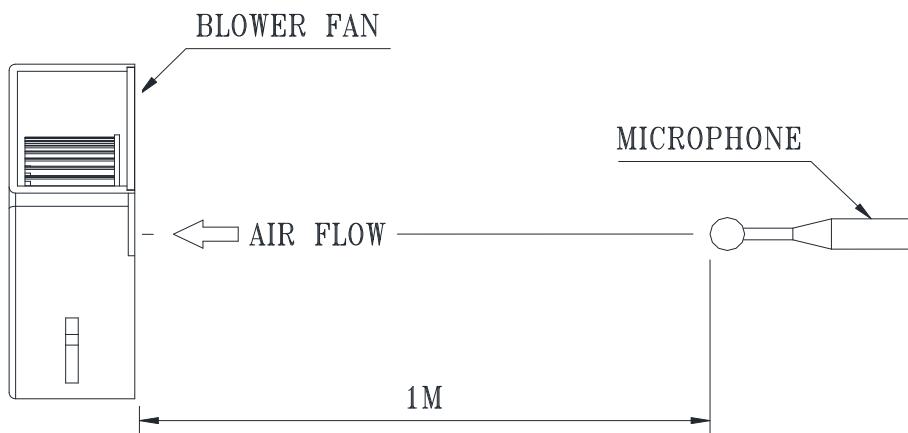
PART NO:

DELTA MODEL: BUB0712HJ-00

| | |
|---|--|
| LIFE EXPECTANCE (L10) (AT LABEL VOLTAGE) | 50,000 HOURS CONTINUOUS OPERATION AT 40 °C WITH 15 ~ 65 %RH. |
| ROTATION | CLOCKWISE VIEW FROM NAME PLAT SIDE |
| LOCK 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 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 SEMI-ANECHOIC CHAMBER WITH MICROPHONE AT A DISTANCE OF ONE METER FROM THE FAN INTAKE.

PART NO:

DELTA MODEL: BUB0712HJ-00

3. MECHANICAL:

| | |
|--------------------------|------------------------|
| 3-1. DIMENSIONS----- | SEE DIMENSIONS DRAWING |
| 3-2. PILLOW----- | PLASTIC UL: 94V-0 |
| 3-3. IMPELLER----- | PLASTIC UL: 94V-0 |
| 3-4. FRAME----- | PLASTIC UL: 94V-0 |
| 3-5. BEARING SYSTEM----- | SLEEVE BEARING |
| 3-6. WEIGHT----- | 47.0 (REF.) 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, PBBOs, CFCs, PBBEs, PBDPEs AND HCFCs.

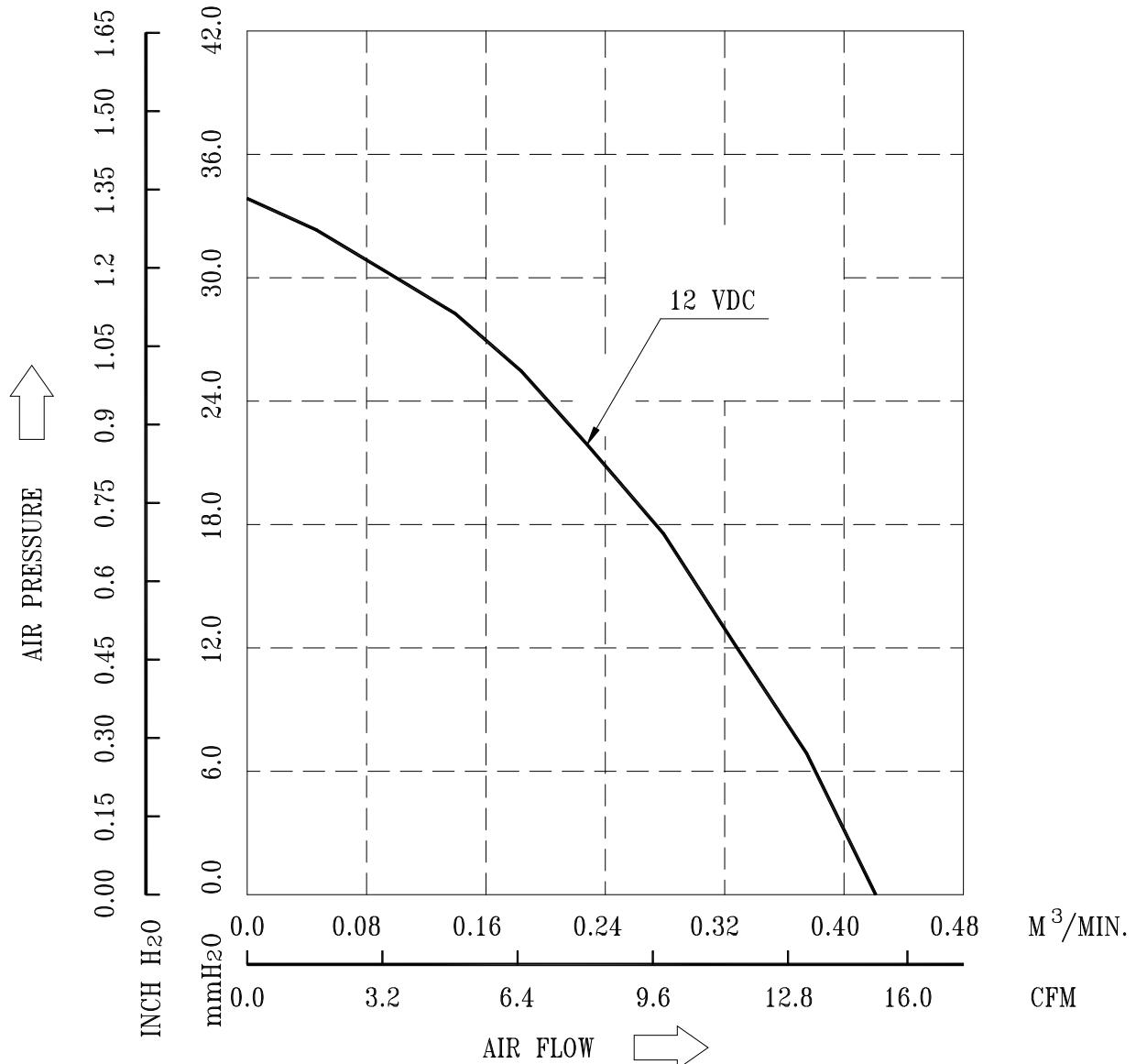
7. PRODUCTION LOCATION

7-1. PRODUCTS WILL BE PRODUCED IN CHINA.

PART NO:

DELTA MODEL: BUB0712HJ-00

8. P & Q CURVE:

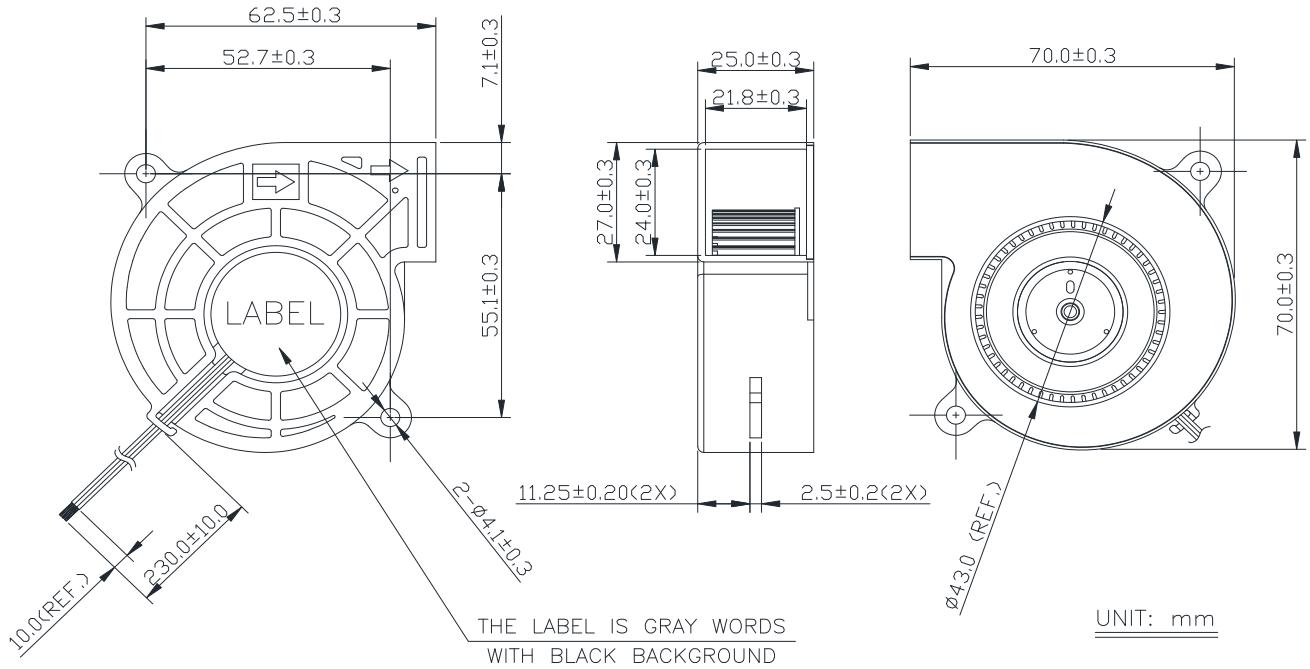


*TEST CONDITION: INPUT VOLTAGE----OPERATION VOLTAGE
TEMPERATURE----ROOM TEMPERATURE
HUMIDITY----65%RH

PART NO:

DELTA MODEL: BUB0712HJ-00

9. DIMENSION DRAWING:



NOTES:

1. LEAD WIRE: UL 1571 AWG #28
RED WIRE (+)
BLACK WIRE (-)
BLUE WIRE (FG)
2. THIS PRODUCT IS ROHS COMPLIANT.

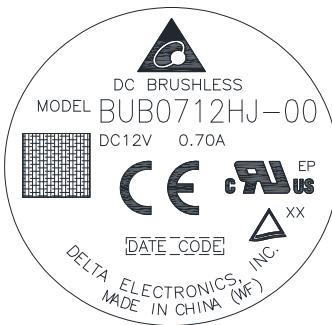
PART NO:

DELTA MODEL: BUB0712HJ-00

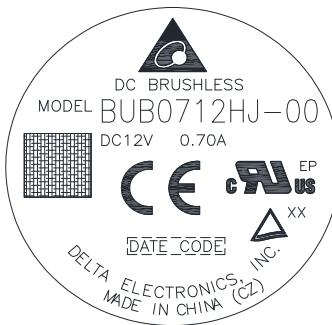
10. LABEL:



OR



OR



DATE CODE NUMBER REFER TO BELOW LIST:

| THE FORMAT FOR DATE CODE | | |
|--------------------------|-------------------|---|
| Y | YEAR | "0" FOR 2010, "1" FOR 2011, ET AL. |
| M | MONTH | 1-9 IS JAN-SEP, X IS OCT, Y IS NOV, Z IS DEC |
| DD | DATE | 01-31 MEANS DATE OF MONTH |
| FXX | LINE | "F1" MEANS NO.1 PRODUCTION LINE, "F2" MEANS NO.2 PRODUCTION LINE, "F10" MEANS NO.10 PRODUCTION LINE, ET AL. |
| R | PRODUCE CONDITION | "R": MEANS THE FAN CONFORM TO RoHS COMPLIANCE. |

THE CONTENT OF 2D BARCODE IS SHOWN AS BELOW:

2D BARCODE



(DATA MATRIX)

SCAN

BARCODE

BUB0712HJ-00A0YYMDSSSS

BARCODE INFORMATION REFER TO BELOW LIST:

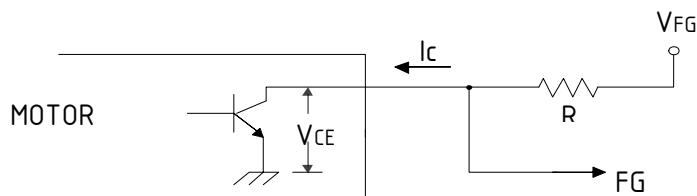
| THE FORMAT FOR THE BARCODE | | |
|----------------------------|---------------|---|
| BUB0712HJ-00 | P/N | DELTA MODEL NAME. |
| A0 | VENDOR | "A0" MEANS DELTA. |
| YY | YEAR | "10" FOR 2010, "11" FOR 2011, ET AL. |
| M | MONTH | 1-9 IS JAN-SEP, A IS OCT, B IS NOV, C IS DEC. |
| D | DATE | 1-9 IS 1st-9th, A IS 10th, B IS 11th, ET AL. (NOT INCLUDED I, J, O and Q.) |
| SSSS | SERIAL NUMBER | FROM 00001 TO 99999. |

PART NO:

DELTA MODEL: BUB0712HJ-00

11. FREQUENCY GENERATOR (FG) SIGNAL:

11-1. OUTPUT CIRCUIT - OPEN COLLECTOR MODE:



CAUTION:

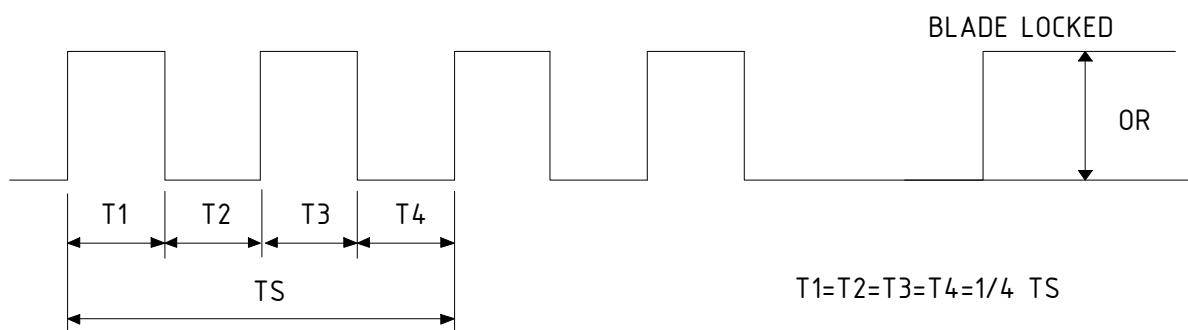
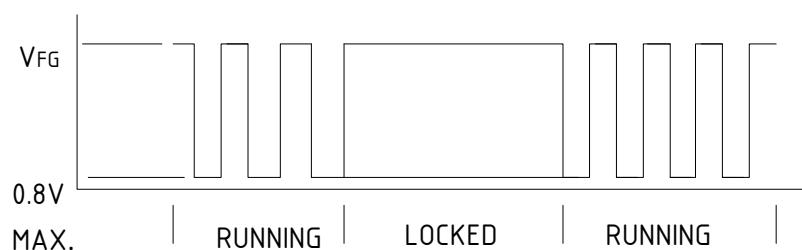
THE LEAD WIRE OF FG SIGNAL CAN NOT TOUCH
THE LEAD WIRE OF POSITIVE OR NEGATIVE.

11-2. SPECIFICATION:

$$V_{FG} = 5.0 \text{ TYP.} (V_{cc} \text{ MAX.}) \quad I_C = 5 \text{ mA MAX.}$$

$$V_{CE} = 0.8 \text{ V MAX.} \quad R \geq V_{FG} / I_C$$

11-3. FREQUENCY GENERATOR WAVEFORM:



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

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

*V_{FG} IS ALWAYS HIGH OR LOW LEVEL AFTER BLADE LOCKED

*4 POLES



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.