

File E132003  
Project 02NK96951

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REPORT

on

COMPONENT - FANS, ELECTRIC

Delta Electronics Inc.  
**Taoyuan** Hsien, Taiwan

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## DESCRIPTION

## PRODUCT COVERED:

**USR, CNR** Component - DC Fans, Models see "ELECTRICAL RATINGS" for details.

## MODEL REFERENCES:

New Model Numbers replace original model numbers as below tables for details. All references are identical to the original models.

New Model Nos.	Original Model Nos.
FFB1212EH (Y)	FFB1212EH
FFB1212SH (Y)	FFB1212SH
FFB1212VH (Y)	FFB1212VH
FFB1212HH (Y)	FFB1212HH
FFB1224EH (Y)	FFB1224EH
FFB1224SH (Y)	FFB1224SH
FFB1224VH (Y)	FFB1224VH
FFB1224HH (Y)	FFB1224HH
FFB1248EH (Y)	FFB1248EH
FFB1248SH (Y)	FFB1248SH
FFB1248VH (Y)	FFB1248VH
FFB1248HH (Y)	FFB1248HH
FFB0812SH (Y)	FFB0812SH
FFB0812VH (Y)	FFB0812VH
FFB0812HH (Y)	FFB0812HH

## ELECTRICAL RATINGS: (CONT.)

Model Nos.	V dc	mA
FFB1212EH	12	1740
FFB1212SH	12	1240
FFB1212VH	12	950
FFB1212HH	12	780
FFB1224XHE-M(Y)	24	3900
FFB1224EH	24	760
FFB1224SH	24	630
FFB1224VH	24	450
FFB1224HH	24	340
FFB1248EH	48	380
FFB1248SH	48	300
FFB1248VH	48	220
FFB1248HH	48	170
FFB1724SHG(Y)	24	5780
FFB1724VHG(Y)	24	4550
FFB1724HHG(Y)	24	3600
FFB1748SHG(Y)	48	3000
FFB1748VHG(Y)	48	2280
FFB1748HHG(Y)	48	1680
FFB0812SH	12	600
FFB0812VH	12	420
FFB0812HH	12	320
LFB0712H(Y)	12	150
LFC0712D(Y)	12	150
LFB0712M(Y)	12	140
LFB0712L(Y)	12	130
LFB0612LD(Y)	12	80
LFB0612MD(Y)	12	110
LFB0612HD(Y)	12	140
LFB0612HHD(Y)	12	150
LFB0612VHD(Y)	12	180

Note: above (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

## ELECTRICAL RATINGS: (CONT.)

Model Nos.	V dc	mA
<b>BCB1012UH(Y)</b>	<b>12</b>	<b>3840</b>
<b>BCB1012GH(Y)</b>	<b>12</b>	<b>2640</b>
<b>BCB1012EH(Y)</b>	<b>12</b>	<b>1560</b>
BCB1012UHF(Y)	12	4380
BCB1012GHF(Y)	12	2940
BCB1012EHF(Y)	12	1680
BCB0812EHN(Y)	12	1200
BCB0812GHN(Y)	12	1740
BCB0812UHN(Y)	12	2760

Note: above (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

## ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE USE):

USR indicates investigation to Standard for Electric Fans, UL 507.

**CNR indicates investigation to the Canadian Standard for Fans and Ventilators, CSA C22.2 No. 113.**

Use - For use only in complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

## Conditions of Acceptability -

When installed in the end-use equipment, consideration shall be given to the following:

1. The suitability of the fan leads, connector and strain relief shall be determined for each application.
2. A suitable enclosure, either a fire enclosure (enclosure rated with suitable flammability rating) or mechanical enclosure (guard) shall be provided in accordance with the requirements of the end application.
3. These fans have not been evaluated for use in combination with any solid-state speed control.
4. These fans have only been investigated for connection to low voltage non-energy hazard isolated secondary circuit. Further considerations must be given for a non-isolated secondary circuit connection.
5. These units are provided with Class A (105) insulation, the need for measuring fan coil temperature shall be determined during each end-use application.
- \* 6. Models LFB0612VHD/HHD/HD/MD/LD(Y), FFB0812, FFB1212, FFB1224, FFB1224XHE-M(Y), FFB1248, FFB1724, FFB1748, LFB0712 and LFC0712D series were provided with locked rotor protected circuit (controlled by the IC and other electronic components); the locked rotor current is greater than 50% of the normal input current and **cannot** be considered as an electronic protected type motor.
7. Models BCB1012UH/GH/EH(Y), BCB1012UHF/GHF/EHF(Y), BCB0812EHN(Y), BCB0812GHN(Y) and BCB0812UHN(Y) series are provided with locked rotor protected circuit (controlled by the IC and other electronic components); the locked rotor current is less than 50% of the normal input current and is considered as an electronic protected type motor.

## CONSTRUCTION DETAILS:

If provided and unless otherwise described, the following paragraphs apply to all equipment included in this Report.

Spacing - Not specified for units connected to low voltage non-energy hazard isolated secondary circuit.

Corrosion Protection - All ferrous parts are protected against corrosion by means of painting, plating.

Printed Wiring Boards - Unless otherwise specified, all boards are Recognized Component (ZPMV2), rated minimum V-1, suitable for the solder time and temperature used by the manufacturer, and having an operating temperature rating of at least 105°C.

\* Leads - **Each R/C AWM** (AVLV2), **CN**, rated minimum 60 V, 80°C, VW-1.

Soldered Connections - Unless otherwise noted, all electrical connections shall be mechanically secured before soldering.

Wiring leads and motor windings may be "tack soldered" to printed wiring board if routing is provided such that a detached lead shall not move to such an extent it can cause reduced spacings in the fan or in an end product in which it is installed.

Thermoplastic - Recognized Component (QMFZ2), rated minimum V-0 for impeller assembly and frame; rated minimum HB for bobbin.

Impeller assembly, frame and bobbin are made of thermoplastic except for specific noted.

Winding - Enameled copper wire.

Markings - Provided in accordance with the Sec. Gen. **except where specified described.**

Tolerance - Except where otherwise specified, all indicated dimensions are nominal.