

客戶承認書 SPECIFICATION FOR APPROVAL

CUSTOMER:	DPC	$\overline{}$
DESCRIPTION:	DC FAN	
CUSTOMER P/N:		REV:
DELTA MODEL:	EHB1548SHG-C1 <mark>2</mark> 6	REV: 00
SAMPLE ISSUE DA	ATE: 06/07/2011	
QUANTITY:		
	BACK ONE COPY OF TH PLETION OF APPROVAL	IS SPECIFICATION
	O BY:	

DELTA ELECTRONICS COMPONENTS (WUJIANG) LTD.

FAN/MOTOR PLANT

No. 1688 Jiangxing East Road, WuJiang Economy Development Zone Wujiang City JiangSu Province, P.R.C.

TEL:86-512-63406008 FAX:86-512-63015608 No.1688 Jiangxing East Road WuJiang Economy Development Zone Wujiang City Jiang Su Province, P.R.C.

SPECIFICATION FOR APPROVAL

Customer:	DPC	
Description:	DC FAN	
Customer P/N:		REV:
Delta Model NO.:	EHB1548SHG-C126	Delta Safety Model NO: EHB1548SHG
Sample Rev:	00	Issue NO:
Sample Issue Date:	JUN-07-2011	Quantity:

1. SCOPE:

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

2. CHARACTERS:

ITEM	DESCRIPTION
RATED VOLTAGE	48 VDC
OPERATION VOLTAGE	32.0 - 80.0 VDC
INPUT CURRENT	0.88 (MAX. 1.06) A (SAFETY CURRENT 1.06 A)
INPUT POWER	42.24 (MAX. 50.88) W
SPEED	4900±10% R.P.M.
MAX. AIR FLOW (AT ZERO STATIC PRESSURE)	9.828 (MIN. 8.850) M ³ /MIN. 347.08 (MIN. 312.37) CFM
MAX. AIR PRESSURE (AT ZERO AIRFLOW)	$37.89 \text{ (MIN. } 30.69) \text{ mmH}_20$ $1.492 \text{ (MIN. } 1.209) \text{ inchH}_20$
ACOUSTICAL NOISE (AVG.)	66.5 (MAX. 70.5) dB-A
INSULATION TYPE	UL: CLASS A

(continued)

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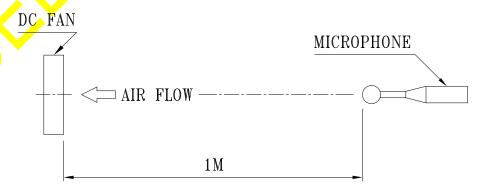
FAX: 86-512-63015608

PART NO:
DELTA MODEL: EHB1548SHG-C126

INSULATION STRENGTH	10 MEG OHM MIN. AT 500 VDC (BETWEEN FRAME AND (+) TERMINAL)
DIELECTRIC STRENGTH	5 mA MAX. AT1000 VAC 60 Hz ONE MINUTE, (BETWEEN FRAME AND (+) TERMINAL)
EXTERNAL COVER	OPEN TYPE
LIFE EXPECTANCE	100,000 HOURS CONTINOUS OPERATION AT 40 °C WITH 15 ~ 65 %RH.
ROTATION	COUNTER CLOCKWISE VIEW FROM NAME PLATE SIDE
OVER CURRENT SHUT DOWN	THE CURRENT WILL SHUT DOWN WHEN LOCKING ROTOR.
STARTING PROTECTION	START AT LOW SPEED , AFTER 15 SEC RUNNIN <mark>G AT FULL SPEED</mark>
LEAD WIRE	UL 1007 -F- AWG #24 BLACK WIRE NEGATIVE(-) RED WIRE POSITIVE(+) BLUE WIRE FREQUENCY(F00)

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.

page: 2

PART NO:	
DELTA MODEL: EHB1548SHG-C126	
3. MECHANICAL:	
3-1. DIMENSIONS	SEE DIMENSIONS DRAWING
3-2. FRAME	DIE-CAST ALUMINUM
3-3. IMPELLER	PLASTIC UL: 94V-0
3-4. BEARING SYSTEM	TWO BALL BEARINGS
3-5. WEIGHT	800 GRAMS
3-6. INGRESS PROTECTION	IP55
4. ENVIRONMENTAL:	
4-1. OPERATING TEMPERATURE	40 TO +80 DEGREE C
4-2. STORAGE TEMPERATURE	-40 TO +85 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 OR TAIWAN
- 8. RESTRICTION OF THE USE CERTAIN OF HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRIC EQUIPMENT.
 - 8-1 NO CONTAINING PB , CD , HG , CR 6+ , PBB , PBDE.

A00

PART NO:
DELTA MODEL: EHB1548SHG-C126

9. BASIC RELIABILITY REQUIREMENT:

9-1. THERMAL LOW TEMPERATURE: -40°C SHOCK HIGH TEMPERATURE: +80°C

SOAK TIME: 30 MINUTES

TRANSITION TIME < 5 MINUTES DURATION TIME: 48 HOURS

9-2. HUMIDITY TEMPERATURE: 60°C EXPOSURE HUMIDITY: 90-95% RH

POWER: 3PCS IN OPERATING(RATED VOLTAGE)

POWER: 3PCS IN NON-OPERATING

DURATION: 10 DAYS

9-3. VIBRATION SINEWAVE

ORIENTATION: X, Y, Z
POWER: NON-OPERATING
FREQUENCY RANGE: 5 ~ 500Hz

DISPLACEMENT AMPLITUDE: 0.75mm(OR 10G) NUMBER OF SWEEP CYCLES PER AXIS: 10 TEST TIME: 2 HOURS ON EACH ORIENTATION

9-4. MECHANICAL POWER: NON-OPERATING SHOCK ORIENTATION: 6 AXIS

ACCELERATION: 100 G; 6ms

PULSE: HALF-SINE WAVE

NUMBER OF SHOCKS: 3 SHOCKS

FOR EACH DIRECTION

9-5. LIFE TEMPERATURE: MAX, OPERATING TEMPERATURE

POWER: RATED VOLTAGE

DURATION: TEST UNTIL REQUIRE TEST TIME

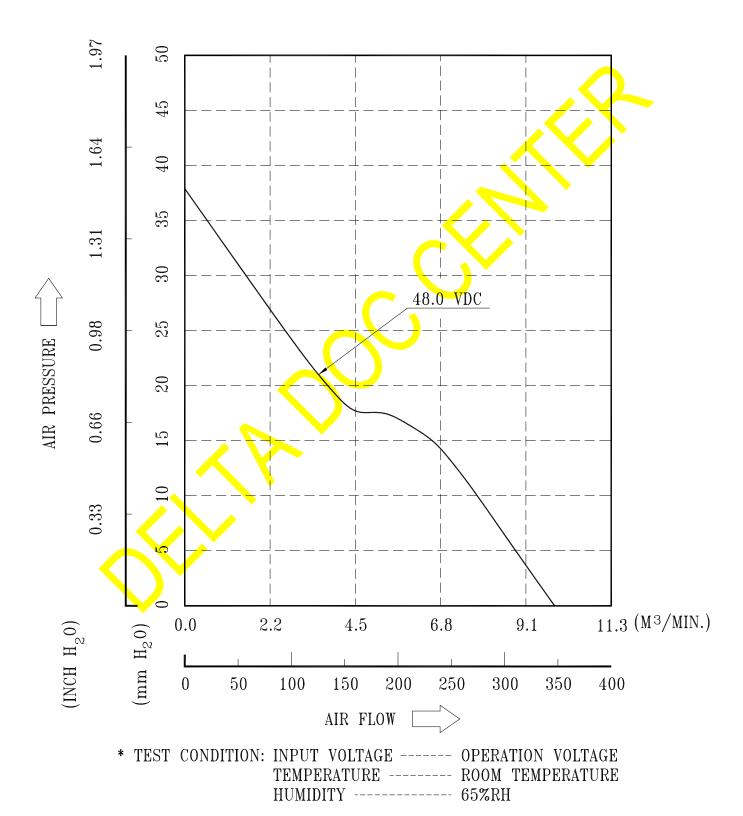
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page: 4 A00

PART NO:

DELTA MODEL: EHB1548SHG-C126

10. P & Q CURVE:



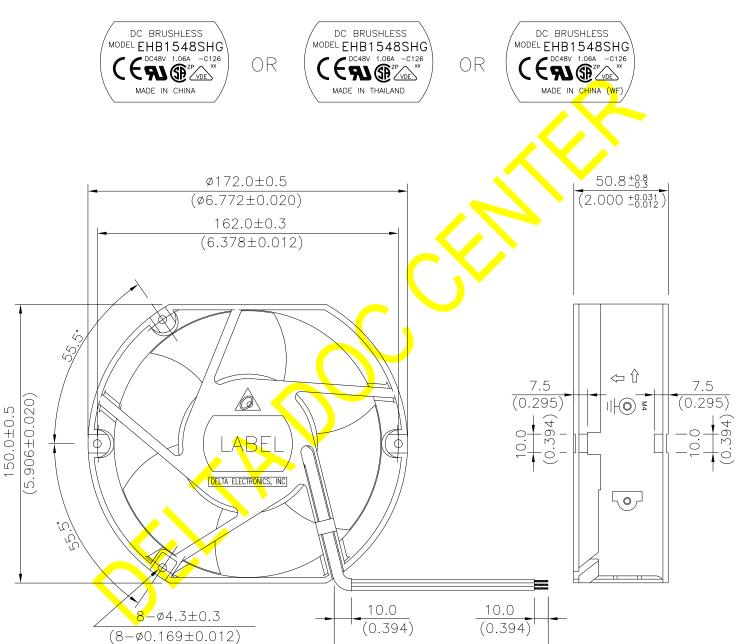
page: 5

PART NO:

DELTA MODEL: EHB1548SHG-C126

11. DIMENSION DRAWING:

LABEL:



- NOTES:
 - 1. WIRE UL 1007 AWG #24

 BLACK WIRE ----(-)

 RED WIRE ----(+)

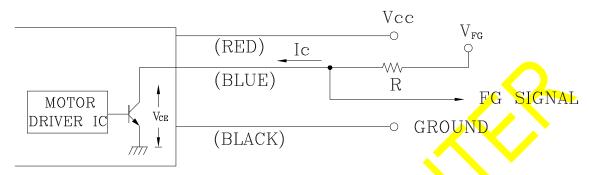
 BLUE WIRE ----(-F00)
 - 2. PWB MUST BE COATING ON BOTH SIDES AND THE PINS OF THE WINDING FOR IP55.
 - 3. THIS PRODUCT IS ROHS COMPLIANT

320.0±10.0 (12.598±0.394) PART NO:

DELTA MODEL: EHB1548SHG-C126

12. FREQUENCY GENERATOR (FG) SIGNAL:

A. OUTPUT CIRCUIT - OPEN COLLECTOR MODE:



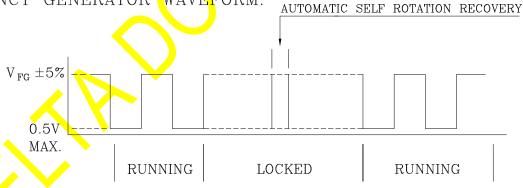
CAUTION: THE FG SIGNAL LEAD WIRE MUST BE KEPT AWAY FROM "+" LEAD WIRE & "-" LEAD WIRE.

B. SPECIFICATION:

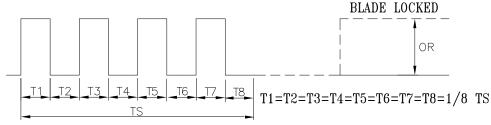
 $V_{FG} = 80V \text{ MAX}.$ $I_{C} = 10\text{mA} \text{ MAX}.$

 $V_{\!\!\scriptscriptstyle CE} = \text{ 0.5V MAX.} \qquad R \ \geq \ V_{\!\scriptscriptstyle FG} \big/ I_{c}$

C. FREQUENCY GENERATOR WAVEFORM:



FAN RUNNING FOR 8 POLES



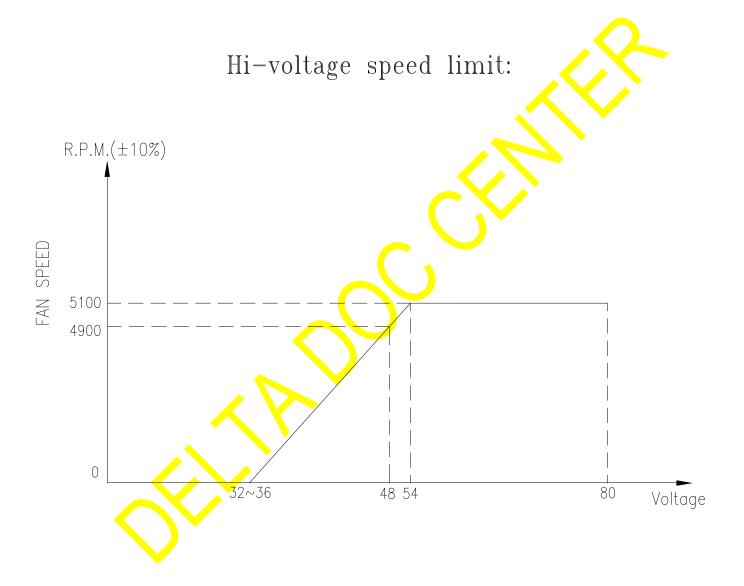
N=R.P.M TS=60/N(SEC)

*VOLTAGE LEVEL AFTER BLADE LOCKED

*8 POLES

PART NO:		
DELTA MODEL:	EHB1548SHG-C126	

13. 54~80V FAN SPEED KEEP IN 5100R.P.M



page: 8 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 " $4.7\mu F$ or greater" capacitor to the fan externally when the application calls for using multiple fans in parallel, to avoid any unstable power.

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



Certification Record

CUSTOMER	CLASS	FILE
Delta Electronics, Inc. 252 Shang Ying Rd, Kuei San Taoyuan Hsien	3812-01 FANS AND BLOWERS-	091949_0_000
333 Taiwan	Refer to Class Description for progr	ram details

CATEGORIES:

• Extra Low Voltage Fans and Ventilators

Notes:

- 1. The above categories are components of other certified equipment, where the suitability of the combination is to be determined by CSA International.
 - Components, DC Fans, Cat Nos and rating are as follows:

Cat Nos	Rated Voltage (V dc)	Rated Current (mA)	Optional Suffixes
AFB SERIES:			
AFB02505HA	5	180	STD R00 F00
AFB02505HB	5	120	STD F00
AFB02505HHB	5	230	STD F00
AFB02505LA	5	60	STD R00 F00
AFB02505LB	5	50	STD F00
AFB02505MA	5	100	STD R00 F00
AFB02505MB	5	80	STD F00
AFB02505HHA	5	240	-
AFB02512HA	12	100	STD R00 F00
AFB02512HHA	12	120	STD R00 F00
AFB02512LA	12	50	STD R00 F00
AFB02512MA	12	60	STD R00 F00
AFB0305HK	5	210	STD F00
AFB0305LLA	5	60	-
AFB0305LA	5	110	-
AFB0305LK	5	90	STD F00
AFB0305MA	5	170	-
AFB0305MK	5	170	STD F00
AFB0305HA	5	240	-
AFB03505LA	5	90	-
AFB03505MA	5	150	-
AFB03505HA	5	210	-

AFC0948DE-SP08	48	700	0 to 9, A to Z
AFC0912DF	12	3000	0 to 9, A to Z
FHB1248GHE	48	940	0 to 9, A to Z
FHB1248UHE	48	1090	0 to 9, A to Z
FHB1248DHE	48	1540	0 to 9, A to Z
EHB1548HHG	48	730	0 to 9, A to Z
EHB1548VHG	48	860	0 to 9, A to Z
EHB1548SHG	48	1060	0 to 9, A to Z
EHB1548EHG	48	1440	0 to 9, A to Z
EHB1748HHG	48	730	0 to 9, A to Z
EHB1748VHG	48	860	0 to 9, A to Z
EHB1748SHG	48	1060	0 to 9, A to Z
EHB1748EHG	48	1440	0 to 9, A to Z
AFB1524LG	24	1080	0 to 9, A to Z
AFB1524MG	24	1440	0 to 9, A to Z
AFB1524HG	24	2100	0 to 9, A to Z
AFB1525HHG	24	2520	0 to 9, A to Z
AFB1548LG	48	600	0 to 9, A to Z
AFB1548MG	48	740	0 to 9, A to Z
AFB1548HG	48	960	0 to 9, A to Z
AFB1548HHG	48	1330	0 to 9, A to Z
KHB1748MT	48	430	0 to 9, A to Z
KHB1748HT	48	680	0 to 9, A to Z
KHB1748HHT	48	880	0 to 9, A to Z
KFB1748VHT	48	1360	0 to 9, A to Z
KFB1748SHT	48	1740	0 to 9, A to Z
KHB1048MS	48	280	0 to 9, A to Z
KHB1048HS	48	350	0 to 9, A to Z
KHB1048HHS	48	440	0 to 9, A to Z
KHB1048VHS	48	530	0 to 9, A to Z
KHB1348LW	48	510	0 to 9, A to Z

PFB0848EHE	48	280	0 to 9, A to	\mathbf{Z}
PFB0848GHE	48	320	0 to 9, A to	\mathbf{Z}
PFB0848UHE	48	650	0 to 9, A to	\mathbf{Z}
PFC0848DE	48	650	0 to 9, A to	\mathbf{Z}
AFB04512LB	12	110	0 to 9, A to	\mathbf{Z}
AFB04512MB	12	120	0 to 9, A to	\mathbf{Z}
AFB04512HB	12	170	0 to 9, A to	\mathbf{Z}
AFB0512LB-A	12	110	0 to 9, A to	\mathbf{Z}
AFB0512MB-A	12	120	0 to 9, A to	\mathbf{Z}
AFB0512HB-A	12	170	0 to 9, A to	\mathbf{Z}
AFB1212MF	12	400	0 to 9, A to	\mathbf{Z}
AFB1212HF	12	650	0 to 9, A to	\mathbf{Z}
AFB1212HHF	12	800	0 to 9, A to	\mathbf{Z}
AFB1212VHF	12	120	0 to 9, A to	\mathbf{Z}
AFB1212SHF	12	1650	0 to 9, A to	\mathbf{Z}
AFB1212EHF	12	230	0 to 9, A to	\mathbf{Z}
AFB1224MF	24	250	0 to 9, A to	\mathbf{Z}
AFB1224HF	24	400	0 to 9, A to	\mathbf{Z}
AFB1224HHF	24	500	0 to 9, A to	\mathbf{Z}
AFB1224VHF	24	650	0 to 9, A to	\mathbf{Z}
AFB1224SHF	24	900	0 to 9, A to	\mathbf{Z}
PFB0948EHE	48	260	0 to 9, A to	\mathbf{Z}
PFB0948GHE	48	420	0 to 9, A to	\mathbf{Z}
PFB0948UHE	48	800	0 to 9, A to	\mathbf{Z}
PFC0948DE	48	800	0 to 9, A to	\mathbf{Z}
AFB0612VHF	12	770	0 to 9, A to	\mathbf{Z}
AFB0612SHF	12	100	0 to 9, A to	\mathbf{Z}
AFB0612EHF	12	126	0 to 9, A to	\mathbf{Z}
AFB0612GHF	12	1620	0 to 9, A to	\mathbf{Z}
GFB0412SHG-A	12	1320	0 to 9, A to	\mathbf{Z}

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UL Online Certifications Directory

GPWV2.E132003 Fans, Electric - Component

Page Bottom

Fans, Electric - Component

See General Information for Fans, Electric - Component

DELTA ELECTRONICS INC

E132003

31-1 SHIEN PAN RD KUEI SAN INDUSTRIAL ZONE TAOYUAN HSIEN, 33370 TAIWAN

DC Fans, Model AFB, followed by 0405, followed by HA, HHA, LA or MA, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AFB, followed by 0505, followed by HB, LB or MB, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AFB, followed by 0512, followed by HB, HHB, LB or MB, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AFB, followed by 0605, followed by H, L or M, followed by R00, R05, RR0 or RR05, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AFB, followed by 0805, followed by H, L or M; Model AFB, followed by 0612, 0624, followed by EH, SH VH; Model AFB0612LB, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AFB, followed by 0612, 0624, 0812, 0824, 0912 or 0924, followed by H, HB, HH, HHB, LB, LLB, MB, SHB or VHB, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Models ASB0412MA, ASB0412LA, ASB0405MA; Model ASB, followed by 0405, 0412, followed by HA, HHA, LA or MA, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model ASB, followed by 0505, followed by HB, LB or MB, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model ASB, followed by 0512, 0524, followed by HB, HHB, LB or MB, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model ASB, followed by 0812, 0824, followed by HB, HHB, LB, LLB, MB, SHB or VHB, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model ASB, followed by 0612 or 0624, followed by H, HH, L or M, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model ASB, followed by 0812, followed by L or M; Model ASB, followed by 0912 or 0924, followed by H, L or M, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AUB, followed by 0505, 0512 or 0524, followed by HB, HHB, LB or MB, followed by (Y), where (Y) may be xxxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AUB, followed by 0612, 0624, followed by H, HH, L or M, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AUB, followed by 0912, 0924, followed by H, HH, L, M or VH, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AUB, followed by 0612 or 0624, followed by L, M, H or HH, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AUB, followed by 0812 or 0824, followed by HB, HHB, LB, LLB, MB, SHB or VHB, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AUB, followed by 0924, followed by L, M, H, HH or VH, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model BFB, followed by 1212, followed by H, HH, L, LL, M or VH, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model BFB, followed by 1224, followed by H, HH, L, LL, M or VH, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model BFB, followed by 1248, followed by H, HH, L, LL, M, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model BFC, followed by 1012, followed by A, B or C, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model DFB, followed by 0405 or 0412, followed by H, L, LL, M, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model DFB, followed by 0612, 0812, 0912, 0824 or 0924 followed by H, L or M, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model DFB, followed by 0612, 0812, 0824, 0912 or 0924, followed by HH, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model DFB, followed by 0424, followed by H, L, LL, M, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model DFB, followed by 0612, 0624, followed by H, HH, L or M, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model DFC, followed by 0612, 0812 or 0912, followed by "A" or "B", followed by (Y), where (Y) may be xxxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model DFD, followed by 0612 or 0624, followed by H, HH, L or M, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model SB, followed by 0412, followed by H, L, LL or M, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model SB, followed by 0612, 0624, followed by HH, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model SB, followed by 0612, 0624, 0812, 0824, followed by H, L or M, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model SB, followed by 0612, 0624, followed by HD, LD or MD, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model SB, followed by 0812, 0824, followed by HH, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model SB, followed by 0812, followed by MSA or MSG, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AFC0612D(Y), where (Y) may be A through Z, 0 through 9, "-" or blank.

Model AFB, followed by 02505, followed by HA, HHA, LA or MA, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AFB, followed by 02512, followed by HA, HHA, LA or MA, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AFB, followed by 0305, followed by -HA, -LA, -LLA, MA, followed by (Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank; Model AFB, followed

Model (X)09(Y)(Z), where (X) may be AFB, AUB or ASB, (Y) may be 12 or 24,(Z) may be LD, MD, HD, HHD or VHD.

Model EFC1748DG-S41P.

Models EFC1548DG-S82U(Y), EFC1748DG-(Y), where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

 $\label{eq:models_LFB0612VHD(Y), LFB0612HD(Y), LFB0612HD(Y), LFB0612HD(Y), LFB0612LD(Y), BCB0812EHN(Y), BCB0812GHN(Y), BCB0812UHN(Y), BCB1012UH(Y), BCB1012GHF(Y), BCB1012EHF(Y), BCB1012GHF(Y), BCB1012EHF(Y), LFB0712H(Y), LFB0712H(Y), LFB0712L(Y), LFC0712D(Y), FFB1724SHG(Y), FFB1724VHG(Y), FFB1724HHG(Y), FFB1748(Z)HG(Y), FFB1212(X)H, FFB1212(X)H, FFB1224XHE-M(Y), FFB1248(X)H Series, where (X) may be H, V, S or E, (Z) may be S, V or H, (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.$

Models AFB0705(Y), AFB0712(X)D, AFB0724(X)D Series, where (X) may be L, M, H, HH or VH, (Y) may be H, M or L.

Models GFB0412SHE, GFB0612(X)HG, GFB0624(Y)HG, GFB0912(X)HG, GFB0924(Y)HG, GFB0948(Y)HG Series, where (X) may be H, V or S, (Y) may be H or V.

Models FFB1424(X)HG, FFB1448(X)HG Series, where (X) may be H, V or S.

Models PFB0412EHN(Y), PFB0412SHN(Y), PFB0412VHN(Y), PFB0412HHN(Y), FFB0412SHN-SE03(Y), GFB0412EHS-A(Y), GFB0412SHS-A(Y), GFB0412SHS-A(Y), GFB0412SHS-A(Y), GFB0412SHS-A(Y), GFB0412SHG, GFB0412SHG, GFB0412SHG, GFB0412SHG, GFB0412SHG, GFB1212VHG, GFB124SHG(Y) Series, where (X) may be H, V or S, (W) may be H or V, (Y) may be xxxxx where x may be A through Z, 0 through 9, "-" or blank.

Models BFB05512(X)A, KFB0412HA(Y) Series, where (X) may be HH, H or M, (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Models GFB12(Z)(X)W, GFC12(Z)(X)CW Series, where (Z) may be 12, 24 or 48, (X) may be VH, HH, H or M, (Z) may be 12, 24 or 48.

Models FFC0848CE, FFC0912CE.

Models EFC12(X)DF, EFC12(X)D, AFC12(X)D Series, where (X) may be 12, 24 or 48.

Models EFB08(X)(Z)B(Y), EFC0812DB(Y) Series, where (X) may be 12 or 24, (Z) may be HH, H, M or L, (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Models KHB1048MS(Y), KHB1048HS(Y), KHB1048HHS(Y), KHB1048VHS(Y), KFB0505HHA(Y), KHB1348(X)W(Y), KFB1348(X)T, KFB1748HHT, KFB1748EHS(Y), KFB1748SHS(Y), KFB1724EHS(Y), KFB1724SHS(Y), KHB1748HHT-A(Y), KHB1748HHT-A(Y), KHB1748HHT(Y), KHB1748HT(Y), KHB1748MT(Y), KHB1748VHS(Y), KHB1748HHS(Y), KHB1748HS(Y) Series, where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank, where (X) may be H, M or L.

Models FFC0848CE, FFC0912CE.

Models EFC12(X)DF, EFC12(X)D, AFC12(X)D Series, where (X) may be 12, 24 or 48.

Model EFB08(X)(Z)B(Y), EFC0812DB(Y) Series, where (X) may be 12 or 24, (Z) may be HH, H, M or L, (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Models FFB0412SHN, FFB03812VHN(Y), FFB03812HHN(Y), FFB03812HN(Y), FFB03812MN(Y) and FFB03812LN(Y) Series, where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Models AFC1548D, AFB1548EH, AFC1748D, AFB1748EH, AFB0712VHB, AFB0712HHB-P117; Models AHB1348(Z)E(Y), AHB1548 (Z)G(Y), AHB1748(Z)G(Y), EHB1548(X)G(Y), EHB1748(X)G(Y), AHB1548EH/SH/VH(Y), AHB1748EH/SH/VH(Y) and AFC1512DG-5C34(Y) Series, where (X) may be EH, SH, VH or HH, (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank, (Z) may be VH, SH, EH or GH.

 $\label{eq:models} \begin{tabular}{ll} Models AFC0948DE-SP08(Y), AFC0912DE(Y), AFB0912EHE(Y), AFB0912GHE(Y), AFB0912UHE(Y), AFC0912DF(Y), FFC0612DE(Y) Series, where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank. \\ \end{tabular}$

Models BUB0512(X)D(Y), BFB0612MB, BFB0605HA(Y), BFB0705HA(Y), BFB0612HB, BFB0612MB-N(Y), BFB0612HB-N(Y), BFB1112H(Y), BFB1112H(Y), KSB0405HHA(Y), KSB0505HHA(Y) Series, where (X) may be VH, HH, H, M or L; (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Model AFB07(X)(Y) Series, where (X) may be 12 or 24, (Y) may be SH, VH, HH, H, M or L.

Models FHB1748HHG(Y), FHB1748HG(Y), FHB1748MG(Y), FHB1448EHE(Y), FHB1448VHE(Y), FHB1448VHE(Y), FHB1448HHE(Y),

Models BUB0512HHB(Y), BUB0512HB(Y), BUB0512MB(Y), BUB0512LB(Y) Series, where (Y) may be xxxxx, x may be A through z, 0 through 9, "-" or blank.

Model AFB02512VHB-5B05(Y) Series, where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Models AFC0912D-A(X) Series, AUB0712HH-5B22, AUB0712HH-5G85, where (X) may be blank, F00 or R00.

Models AUC0812DD(Y) Series, where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Models KFB1248EHS(X) and KFB1248GHS(X) Series, where (X) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Model KDB04505HA(Y) series, where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Models KFB1248EHS(X) and KFB1248GHS(X) Series, where (X) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Model KDB0505HB(Y) series, where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Models KDB04505HA(Y) series, where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Model BFB0712HB-SM.

Models PHB2048MT(Y), PHB2048LT(Y) Series, where (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

Model KDB0505HB-5K86.

Questions?

Models DSB0624(A)(Y), KHB1248(B)S(Y) Series, where (A) may be VH or HH; (B) may be EH, SH or VH; (Y) may be xxxxx, where x may be A through Z, 0 through 9, "-" or blank.

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