

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2011-12-19 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Listing
CCN:	QQGQ, QQGQ7 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
Product:	Switching Power Supply
Model:	Models CENB1100*****, MENB1100*****, and JMW1100***** and JPW1100***** (Where * may be alphanumeric, "for marketing purpose and no impact safety related critical components and constructions")
Rating:	Input Rating: 100-240 Vac, 50-60 Hz, 2.0 A Output Rating: 12.0 Vdc, 7.5 A or 13.0 Vdc, 6.92A or 15.0 Vdc, 6.4 A or 16.0Vdc, 6.0 A or 18.0 Vdc, 5.6 A or 19.0 Vdc, 5.2 A or 24.0 Vdc, 4.2 A or 48.0 Vdc, 2.1A
Applicant Name and Address:	BRIDGEPOWER CORP 964 GOSAEK-DONG GWONSEON-GU SUWON-SI GYEONGGI-DO 441-813 KOREA

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

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Prepared by: InYoung Hwang

Reviewed by: Frederick Won

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization - The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions -
 - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
 - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
 - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

Switching Mode Power Supply(AC/DC adapter), consists of electronic components mounted on PWB, a switching transformer and electronic components mounted on PWB, housed with a plastic enclosure.

Model Differences

Models CENB1100*****, MENB1100*****, and JMW1100*****, and JPW1100*****, (Where * may be alphanumeric, "for marketing purpose and no impact safety related critical components and constructions")

Models CENB1100*****, MENB1100*****, and JMW1100*****, are identical to JPW1100*****, except model designations as follows;

Nomenclature

JPW1100 * * ** ** * **
(a) (b) (c) (d) (f) (e)
or JMW1100 * * ** ** * **
(a) (b) (c) (d) (f) (e)
or CENB1100 * ** ** * **
(b) (c) (d) (f) (e)
or MENB1100 * ** ** * **
(b) (c) (d) (f) (e)

- (a) means custom options, may be A to Z;
- (b) means design revision changes, may be A to Z;
- (c) means output voltages, may be 12, 13, 15, 16, 18,19, 24 or 48;
- (d) means standards output cord options, may be 00 to 99;
- (e) means custom options, may be 00 to 99 or AA to ZZ.
- (f) means class type, maybe F(ClassI) or Q (ClassII) or N(ClassII)

The marked models as 12, 13, 15, 16, 18, 19 , 24 and 48 on (c) nomenclature are identical individually, except model designations, output ratings, transformers and secondary circuits.

The Models JPW1100**13****, JPW1100**16****, CENB1100*13****, CENB1100*16****, JMW1100**13****, JMW1100**16****, MENB1100*13****, and MENB1100*16**** are identical to Model JPW1100**12**** except for model designation, output ratings, transformers and secondary circuits.

The model JPW1100**19****, CENB1100*19****, JMW1100**19****, MENB1100*19**** are identical to JPW1100**12**** except for model designation, output ratings, transformers and secondary circuits.

Technical Considerations

- Equipment mobility : movable
- Connection to the mains : pluggable A
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : +10%, -10%
- Tested for IT power systems : No
- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class I (earthed) or ClassII
- Considered current rating of protective device as part of the building installation (A) : 20A
- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m) : Up to 2000m
- Altitude of test laboratory (m) : Up to 2000m
- Mass of equipment (kg) : 0.7
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 35
- The means of connection to the mains supply is: Pluggable A, Detachable power cord,
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: Appliance inlet

Additional Information

Max. Normal Load Condition: Rated output currents

JPW1100KA1200F01: 12.0 Vdc, 7.5 A;

JPW1100KA1500F01: 15.0 Vdc, 6.4 A;

JPW1100KA1800F01: 18.0 Vdc, 5.6 A;

JPW1100KA2400F01: 24.0 Vdc, 4.2 A.

Amendment 1, 09CA08733

- Applicant change to BRIDGEPOWER CORP.

- Correction of Nomenclature.

- Manufacturer change of Line filter(LF1, LP1, LP2, LP4, LP5), PFC Coil and Transformer(T1) to BRIDGEPOWER CORP in the appended table 1.5.1.

11CA13092

- Upgrade report from UL 60950-1 1st edition to UL 60950-1 2nd edition

11CA15704

- Add model name ; JPW1100**13**F**, JPW1100**16**F**,JMW1100**13**F**,JMW1100**16**F**, CENB1100*13**F**, CENB1100*16**F**,MENB1100*13**F**, MENB1100*16**F**

- Alternate transformer ; typed JEC(B) , Part No.: 3025579001A for 12V, 13V output; Part No.: 3025579002A for 15V, 16V output)

- "Output Rating:13.0 Vdc, 6.92A or 16.0Vdc, 6.0 A " is added due to alternate transformer.

11CA37966

1) Alternate transformer for model JPW1100**18**F**, JPW1100**24**F**, CENB1100*18**F**, CENB1100*24**F**, JMW1100**18**F**, JMW1100**24**F**

2) Add model name ; JPW1100**19**F**, CENB1100*19**F**, JMW1100**19**F**, MENB1100*19**F** , output rating 19.0 Vdc, 5.2A

3)Correct model name in critical component list

- from CENB1100B12**F** to CENB1100A12**F**

- from CENB1100B13**F** to CENB1100A13**F**

- from CENB1100B15**F** to CENB1100A15**F**

- from CENB1100B16**F** to CENB1100A16**F**

- from MENB1100B12**F** to MENB1100A12**F**

- from MENB1100B13**F** to MENB1100A13**F**

- from MENB1100B15**F** to MENB1100A15**F**

- from MENB1100B16**F** to MENB1100A16**F**

4) Change QP1 in critical component list

5) Change Tma from 40 degreeC to 30 degreeC by customer request

6) The model JPW1100**19**F**, CENB1100*19**F**, JMW1100**19**F**, MENB1100*19**F** are identical to JPW1100**12**F** except for model designation, output ratings, transformers and secondary circuits.

11CA57125

Correct critical component list due to previous omission

1) Correct discharging resistor RP111, RP112 from 180K Ohm, 1/8W to 510K Ohm , 1/8W

2) Add discharging resistor RP30, RP31 typed 180Kohm , 1/8W

3) Add discharging IC typed CAP014DG, 1uF, 780Kohm

11CA63174

- Add thermal fuse type ST-22 in critical component list

Project 11CA48555

Separated AC/DC Adaptor models from E300305-A32-UL to E300305-A78. The assembly is manufactured by WENDENG JEIL ELECTRONICS Co LTD(All requirements associate with this report is evaluated as UL report E300305-A32)

Project 12CA56786

1. Add electrical output rating ; 48Vdc/2.1A (transformer type 3025579005A)

2. Delete HN-1064W(+) in critical component list

3. Alternate ClassII type model ; Q type or N type(See enclosure ID 3-10)

4. Tma is changed from 30 degreeC to 35 degreeC

5. Upgrade report from UL 60950-1 2nd edition to UL 60950-1 2nd edition , Amendment1

6. Revise critical component list (listed in E300305-A78-UL)

- Alternate appliance inlet type SS-120A by Rong Feng Industrial Co., Ltd

- Alternate Y-Capacitor(CY1,CY2) type SE or SB , 250V, maximum 1500pF by Success Electronics Co., Ltd

- Alternate Y-Capacitor(CY1,CY2) type KX or KY , 250V, maximum 1500pF by Murata Mfg.Co., Ltd

- Alternate Y-Capacitor(CY3,CY4) type SE or SB , 250V, maximum 1000pF by Success Electronics Co., Ltd


- Alternate Y-Capacitor(CY3,CY4) type KX or KY , 250V, maximum 1000pF by Murata Mfg.Co., Ltd

- Add insulator sheet and shield.

Additional Standards

The product fulfills the requirements of: N/A

Markings and instructions

Clause Title	Marking or Instruction Details
Power rating - Model	Model Number
Power rating - Class II symbol	Symbol for Class II construction  (60417-2-IEC-5172)
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Power rating - Ratings	Ratings (voltage, frequency/dc, current)
<p>Special Instructions to UL Representative</p> <p>Inspect the transformer(s) listed in BD1.1 per AA 1.1-(C). When the tests are conducted at other location, inspect test record and specification sheet provided by the component manufacturer. Verify the specification sheet indicates 100 % routine test specified in BD 1.1 be conducted at the component manufacturer. Products covered in this procedure which are received from factory locations covered by File E300305, Volume X2 bearing the split inspection marking noted below are authorized for use in products covered in this procedure which bear the UL Listing Mark. Products not bearing the split inspection marking are not authorized for use in products at factory locations covered by E300305, Volume X1 which bear the UL Listing Mark.</p> <p>Special Split Inspection Marking ;</p> <p>S-JPW1100**12**F**, S-JPW1100**13**F**, S-JPW1100**15**F**, S-JPW1100**16**F**, S-JPW1100**18**F**, S-JPW1100**19**F**, S-JPW1100**24**F**, S-CENB1100*12**F**, S-CENB1100*13**F**, S-CENB1100*15**F**, S-CENB1100*16**F**, S-CENB1100*18**F**, S-CENB1100*19**F**, S-CENB1100*24**F**, S-JMW1100**12**F**, S-JMW1100**13**F**, S-JMW1100**15**F**, S-JMW1100**16**F**, S-JMW1100**18**F**, S-JMW1100**19**F**, S-JMW1100**24**F**, S-MENB1100*12**F**, S-MENB1100*13**F**, S-MENB1100*15**F**, S-MENB1100*16**F**, S-MENB1100*18**F**, S-MENB1100*19**F**, S-MENB1100*24**F** (Where * may be alphanumeric)</p>	

Production-Line Testing Requirements						
<u>Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.</u>						
Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
All models	Transformer(T1)	N/A	Primary to Secondary	300 0	4242	1s
<u>Earthing Continuity Test Exemptions - This test is not required for the following models:</u>						
All models(except for Class I unit)						
<u>Electric Strength Test Exemptions - This test is not required for the following models:</u>						
<u>Electric Strength Test Component Exemptions - The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:</u>						
<u>Sample and Test Specifics for Follow-Up Tests at UL</u>						
Model	Component	Material	Test	Sample(s)	Test Specifics	
N/A						

1.5.1	TABLE: list of critical components					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
Enclosure(Elec./Mech./Fire)_Optional	Sabic Innovative Plastics	940(f1)	Overall Sized approx 149.8 by 86.6 by 51.0 mm. Min 2.0 mm thickness, V-0. Composed of two pieces, secured together by screws.RTI=120 degreeC	QMFZ2	USR	
Enclosure(Elec./Mech./Fire) - Alternate_Optional	Cheil Industries	HN-1064(+)	Overall Sized approx 149.8 by 86.6 by 51.0 mm. Min 2.0 mm thickness, V-0. Composed of two pieces, secured together by screws.RTI=130 degreeC	QMFZ2	USR	
Nameplate Label_Optional	Various	Various	Suitable for use on surface of Polycarbonate (PC) with Max. 60°C surface temperature.	PGDQ2, PGAA	USR	
Assembly	BridgePower or Wendeng Jeil	S- JPW1100***** , S- JMW1100***** , S- CENB1100***** , S- MENB1100***** *	See test report E300305-A78-UL	QQGQ3/9	USU/CNU	

Enclosures

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Photographs	3-01	Top view
Photographs	3-02	Bottom view
Photographs	3-03	Internal top view 1
Photographs	3-04	Internal top view 2
Photographs	3-05	Internal bottom view 1
Photographs	3-06	Internal bottom view 2
Photographs	3-07	internal Top View_JPW1100**13**F**, JPW1100**16**F**,JMW1100**13**F**,JMW1100**16**F**, CENB1100*13**F**, CENB1100*16**F**,MENB1100*13**F**, MENB1100*16**F**
Photographs	3-08	Internal Bottom View1_JPW1100**13**F**, JPW1100**16**F**,JMW1100**13**F**,JMW1100**16**F**, CENB1100*13**F**, CENB1100*16**F**,MENB1100*13**F**, MENB1100*16**F**
Photographs	3-09	Internal Bottom View2_JPW1100**13**F**, JPW1100**16**F**,JMW1100**13**F**,JMW1100**16**F**, CENB1100*13**F**, CENB1100*16**F**,MENB1100*13**F**, MENB1100*16**F**
Photographs	3-10	External View for ClassII type
Photographs	3-11	Internal View top View3
Photographs	3-12	Internal Top View 4
Diagrams		
Schematics + PWB		
Manuals		
Miscellaneous	7-01	Label_1
Miscellaneous	7-03	Label_3
Miscellaneous	7-04	Label_4
Miscellaneous	7-05	Label_5
Miscellaneous	7-06	Shield
Miscellaneous	7-07	Transformer_ 3025579001A
Miscellaneous	7-08	Transformer_ 3025579002A
Miscellaneous	7-09	Transformer_ 3025579003A
Miscellaneous	7-10	Transformer_ 3025579004A
Miscellaneous	7-11	Transformer_ 3025579005A