

## UL TEST REPORT AND PROCEDURE

|                                    |   |
|------------------------------------|---|
| <b>Standard:</b>                   | UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements)<br>CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements)   |
| <b>Certification Type:</b>         | Listing   |
| <b>CCN:</b>                        | QQGQ, QQGQ7 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)   |
| <b>Product:</b>                    | Switching Power Supply  |
| <b>Model:</b>                      | BX060XYXX, XE60XYXXXXXX, BX050XYXX, XE50XYXXXXXX<br>(Where X may be alphanumeric, "for marketing purpose and no impact safety related critical components and constructions", where YY may any number 05 through 48)  |
| <b>Rating:</b>                     | BX060XYXX, XE60XYXXXXXX, BX050XYXX, XE50XYXXXXXXseries;<br><br>Input Rating: 100-240 Vac, 50-60 Hz, 1.5 A<br>Output Rating: 5 Vdc, 6 A/7A or<br>9 Vdc, 5A/6A or<br>12 Vdc, 4.2 A/5A or<br>15 Vdc, 3.36 A/4A or<br>18 Vdc, 2.8 A / 3.4A or<br>24 Vdc, 2.1A / 2.7A or<br>48 Vdc, 1.1 A./ 1.3A<br>5Vdc/7A~48Vdc/1.1A |
| <b>Applicant Name and Address:</b> | BRIDGEPOWER CORP<br>(GOSAEK-DONG) 16 OMOKCHEN-RO 132BEON-GIL<br>GWONSEON-GU<br>SUWON-SI GYEONGGI 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.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

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Reviewed by: SeungTae Kim

### 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 adaptor), consists of electronic components mounted on PWB, a switching transformer and electronic components mounted on PWB, housed with a plastic enclosure.

### Model Differences

Models XE60 series is identical to models BX060 series except for model designation.  
 Models XE50 series is identical to models BX050 series except for model designation.  
 Models BX050 series is identical to models BX060 series except for model designation and rated output current (See power supply reference page for detail).

### Nomenclature

B X 060 X YY X, B X 050 X YY X  
 (a) (b) (c) (d) (a) (b) (c) (d)

- (a) Family Related Designs  
X is A-Z
- (b) Output  
X is S (S=Single)
- (c) Output Voltage  
05, 09, 12, 15, 18, 24, 48 , 05 through 48
- (d) Standard Input Cord Options  
F : (Class I = IEC320-C14)  
Q: (Class II = IEC320-C18)  
N: ((Class II = IEC320-C8)

XE 50 X YY XX X XX, XE 60 X YY XX X XX  
 (a) (b) (c) (d) (e) (f) (a) (b) (c) (d) (e) (f)

- (a) Family Related Designs  
X is A-Z
- (b) AC Ground Configuration  
A to Z (Standard)
- (c) Output Voltage  
05, 09, 12, 15, 18, 24, 48 , 05 through 48

- (d) Standards Output Cord Options  
Number : 00 thru 99
- (e) Standard Input Connector Options  
F : (Class I = IEC320-C14)  
Q: (Class II = IEC320-C18)  
N: ((Class II = IEC320-C8)
- (f) Model Configuration  
Number : 00 thru 99

#### Technical Considerations

- Equipment mobility : movable
- Connection to the mains : pluggable A
- Operating condition : continuous
- Access location : N/A
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : +10%, -10%
- Tested for IT power systems : Yes (for Norway only)
- IT testing, phase-phase voltage (V) : 230 Vac
- Class of equipment : Class I (earthed) or Class II (double insulated)
- Considered current rating of protective device as part of the building installation (A) : 15
- Pollution degree (PD) : PD 2
- IP protection class : IP 22
- Altitude of operation (m) : Up to 5000m
- Altitude of test laboratory (m) : N/A
- Mass of equipment (kg) : 0.36
- The product was submitted and evaluated for use at the maximum ambient temperature (T<sub>ma</sub>) permitted by the manufacturer's specification of: 40
- The means of connection to the mains supply is: 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
- The product was investigated to the following additional standards: EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 (which includes all European national differences, including those specified in this test report).
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): 12 Vdc, 15 Vdc, 16 Vdc, 18 Vdc, 24 Vdc and 48 Vdc outputs.

#### Additional Information

4786811227


Max. Normal Load Condition: Rated output current

#### Additional Standards

The product fulfills the requirements of: N/A

#### Markings and instructions

| Clause Title           | Marking or Instruction Details |
|------------------------|--------------------------------|
| Power rating - Ratings |                                |

|  |   |
|--|---|
|  | Ratings (voltage, frequency/dc, current)  |
| Power rating -<br>Company identification   | Listee's or Recognized company's name, Trade Name, Trademark or File Number   |
| Power rating -<br>Class II symbol  | <p>Symbol for Class II construction</p>  <p>(60417-2-IEC-5172)</p> |
| Power rating -<br>Model  | Model Number  |
| Fuses - Rating   | Rated current and voltage and type located on or adjacent to fuse or fuseholder.  |
| Fuses -<br>Operator caution statement  | "CAUTION: For continued protection against risk of fire, replace only with same type and rating of fuse".   |
| <p><b>Special Instructions to UL Representative</b></p> <p>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.</p> <p>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 ;<br/>S-BX060XYXX, S-XE60XYXXXXXX, S-BX050XYXX, S-XE50XYXXXXXX</p> |   |

| <b>Production-Line Testing Requirements</b>   |           |                 |                     |           |                |              |
|---|-----------|-----------------|---------------------|-----------|----------------|--------------|
| <b><u>Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.</u></b>   |           |                 |                     |           |                |              |
| Model   | Component | Removable Parts | Test probe location | V rms     | V dc           | Test Time, s |
| N/A   |           |                 |                     |           |                |              |
| <b><u>Earthing Continuity Test Exemptions - This test is not required for the following models:</u></b>   |           |                 |                     |           |                |              |
| all models  |           |                 |                     |           |                |              |
| <b><u>Electric Strength Test Exemptions - This test is not required for the following models:</u></b>   |           |                 |                     |           |                |              |
|   |           |                 |                     |           |                |              |
| <b><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></b> |           |                 |                     |           |                |              |
|   |           |                 |                     |           |                |              |
| <b><u>Sample and Test Specifics for Follow-Up Tests at UL</u></b>   |           |                 |                     |           |                |              |
| Model   | Component | Material        | Test                | Sample(s) | Test Specifics |              |
| N/A   |           |                 |                     |           |                |              |