UL TEST REPORT AND PROCEDURE

Standard:	UL 62368-1, 2nd Ed, 2014-12-01 (Audio/video, information and communication technology equipment Part 1: Safety requirements) CSA C22.2 No. 62368-1-14, 2nd Ed., Issue Date: 2014-12-01 (Audio/video, information and communication technology equipment Part 1: Safety requirements)
Certification Type:	Component Recognition
CCN:	QQJQ2, QQJQ8 (Power Supplies for Use in Audio/Video, Information and Communication Technology Equipment)
Complementary CCN:	N/A
Product:	Switching Power Supply
Model:	HNSP9-520PX and HPCSA-570PX ('X ' = Where X maybe maximum 50 characters, - or space or 0 to 9 or A to Z, except first alphanumeric - X2S5 and -S27 and last alphanumeric 24V and 48V) HNSP9-520PX24V, HPCSA-570PX24V, HNSP9-520PX48V, and HPCSA-570PX48V ('X' = Where X maybe maximum 50 characters, - or space or 0 to 9 or A to Z, except first alphanumeric -X2S5 and -S27) HPCSA-570P-X2S5* ('*' = Where * maybe maximum 50 characters, - or space or 0 to 9 or A to Z) HNSP9-520P-S27(X)(a)-H6V* ('(X)' = Where (X) maybe blank or 1, '(a)' = Where (a) maybe blank or A, '*' = Where * maybe Maximum 10 characters, 0-9 or A-Z or - or blank)
Rating:	Model HNSP9-520PX Input: 100-240V~, 4.8-2.1A, 50/60Hz Output: CH1: 3.3 Vdc. maximum 20 A, peak 30 A CH2: 5 Vdc, maximum 24 A, peak 30 A CH3: 12 Vdc, maximum 30 A, peak 35 A CH4: -12 Vdc, maximum 0.5 A, peak 0.5 A CH5: 5 VSB, maximum 2 A, peak 2.5 A Peak: maximum 5 seconds Interval: 45 seconds Total Wattage: 400 W maximum (CH1+CH2: 150 W maximum, CH3: 360 W maximum, CH4: 6 W maximum, CH5: 10 W) Total Peak Wattage: 520 W maximum (CH1+CH2: 200 W maximum, CH3: 420 W maximum, CH4: 6 W maximum, CH5: 12.5 W) Models HPCSA-570PX, HPCSA-570P-X2S5* Input: 100-240V~, 4.8-2.1A, 50/60Hz Output: CH1: 3.3 Vdc. maximum 20 A, peak 30 A

CH2: 5 Vdc, maximum 24 A, peak 30 A
CH3: 12 Vdc, maximum 30 A, peak 35 A
CH4: -12 Vdc, maximum 0.5 A, peak 0.5 A
CH5: 5 VSB, maximum 2 A, peak 3 A
Peak: maximum 5 seconds
Interval: 45 seconds
Total Wattage: 400 W maximum (CH1+CH2: 150 W maximum, CH3: 360 W maximum, CH4: 6 W maximum, CH5: 10 W)
Total Peak Wattage: 570 W maximum (CH1+CH2: 200 W maximum, CH3: 420 W maximum, CH4: 6 W maximum, CH5: 15 W)

Model HNSP9-520PX24V
Input: 100-240V~, 5.0-2.1A, 50/60Hz
Output:
CH1: 3.3 Vdc. maximum 20 A, peak 30 A
CH2: 5 Vdc, maximum 24 A, peak 30 A
CH3: 12 Vdc, maximum 25 A, peak 35 A
CH4: -12 Vdc, maximum 0.5 A, peak 0.5 A
CH5: 5 VSB, maximum 2 A, peak 2.5 A
CH6: 24 Vdc, maximum 8.3 A, peak 12.5 A
Peak: maximum 5 seconds
Interval: 45 seconds
Total Wattage: 400 W maximum (CH1+CH2: 150 W maximum, CH3: 300 W maximum, CH4: 6 W maximum, CH5: 10 W maximum, CH6: 199.2 W maximum)
Total Peak Wattage: 520 W maximum (CH1+CH2: 200 W maximum, CH3: 420 W maximum, CH4: 6 W maximum, CH5: 12.5 W maximum, CH6: 300W maximum)

Model HPCSA-570PX24V
Input: 100-240V~, 5.0-2.1A, 50/60Hz
Output:
CH1: 3.3 Vdc. maximum 20 A, peak 30 A
CH2: 5 Vdc, maximum 24 A, peak 30 A
CH3: 12 Vdc, maximum 25 A, peak 35 A
CH4: -12 Vdc, maximum 0.5 A, peak 0.5 A
CH5: 5 VSB, maximum 2 A, peak 3 A
CH6: 24 Vdc, maximum 8.3 A, peak 12.5 A
Peak: maximum 5 seconds
Interval: 45 seconds
Total Wattage: 400 W maximum (CH1+CH2: 150 W maximum, CH3: 300 W maximum, CH4: 6 W maximum, CH5: 10 W maximum, CH6: 199.2W maximum)

Total Peak Wattage: 570 W maximum (CH1+CH2: 200 W maximum, CH3: 420 W maximum, CH4: 6 W maximum, CH5: 15 W maximum, CH6: 300W maximum)

Model HNSP9-520PX48V

Input: 100-240V~, 3.8-1.6A, 50/60Hz

Output:

CH1: 3.3 Vdc. maximum 20 A, peak 30 A

CH2: 5 Vdc, maximum 24 A, peak 30 A

CH3: 12 Vdc, maximum 16.5 A, peak 35 A

CH4: -12 Vdc, maximum 0.5 A, peak 0.5 A

CH5: 5 VSB, maximum 2 A, peak 2.5 A

CH6: 48Vdc, maximum 4.0 A, peak 4.0 A

Peak: maximum 5 seconds

Interval: 45 seconds

Total Wattage: 305.1 W maximum (CH1+CH2: 150 W maximum, CH3: 198 W maximum, CH4: 6 W maximum, CH5: 10 W maximum, CH6: 192W maximum)

Total Peak Wattage: 520 W maximum (CH1+CH2: 200 W maximum, CH3: 420 W maximum, CH4: 6 W maximum, CH5: 12.5 W maximum, CH6: 192W maximum)

Model HPCSA-570PX48V

Input: 100-240V~, 3.8-1.6A, 50/60Hz

Output:

CH1: 3.3 Vdc. maximum 20 A, peak 30 A

CH2: 5 Vdc, maximum 24 A, peak 30 A

CH3: 12 Vdc, maximum 16.5 A, peak 35 A

CH4: -12 Vdc, maximum 0.5 A, peak 0.5 A

CH5: 5 VSB, maximum 2 A, peak 3 A

CH6: 48 Vdc, maximum 4.0 A, peak 4.0 A

Peak: maximum 5 seconds

Interval: 45 seconds

Total Wattage: 305.1 W maximum (CH1+CH2: 150 W maximum, CH3: 198 W maximum, CH4: 6 W maximum, CH5: 10 W maximum, CH6: 192W maximum)

Total Peak Wattage: 570 W maximum (CH1+CH2: 200 W maximum, CH3: 420 W maximum, CH4: 6 W maximum, CH5: 15 W maximum, CH6: 192W maximum)

Model HNSP9-520P-S27(X)(a)-H6V*

Input: 100-240V~, 4.8-2.1A, 50/60Hz

Output:

CH1: 3.3 Vdc. maximum 20 A, peak 30 A

	CH2: 5 Vdc, maximum 24 A, peak 30 A CH3: 12 Vdc, maximum 30 A, peak 35 A CH4: -12 Vdc, maximum 0.5 A, peak 0.5 A CH5: 5 VSB, maximum 2 A, peak 2.5 A Total Wattage: 400 W maximum (CH1+CH2: 150 W maximum, CH3: 360 W maximum, CH4: 6 W maximum, CH5: 10 W)
Applicant Name and Address:	NIPRON CO LTD 2-57 OHAMA-CHO AMAGASAKI-SHI HYOGO-KEN 660-0095 JAPAN

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.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

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

Prepared By:	Yoshifusa Koyanagi / Project Handler	Reviewed By:	Tadao Nakayama / Reviewer

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

This equipment is component type DC power supply which is supplied power from main Power Supply and charges Battery. Also it provides power to main Power Supply from Battery in case of interrupted power source of main Power Supply.

Model Differences

Model HNSP9-520PX is base model in this Test Report.

Model HPCSA-570PX is identical to Model HNSP9-520PX, except for model designation, output rating, and secondary components.

Model HPCSA-570PX48V is identical to Model HPCSA-570PX, except for model designation, output rating, and providing an extra output unit for CH6.

Model HNSP9-520PX48V is identical to Model HNSP9-520PX, except for model designation, output rating, and providing an extra output unit for CH6.

Models HPCSA-570PX48V and HNSP9-520PX48V are provided an extra 48 Vdc output Unit, Model AU-200-48X for CH6.

Model HPCSA-570PX24V is identical to Model HPCSA-570PX, except for model designation, input and output rating, and providing an extra output unit for CH6.

Model HNSP9-520PX24V is identical to Model HNSP9-520PX, except for model designation, input and output rating, and providing an extra output unit for CH6.

Models HPCSA-570PX24V and HNSP9-520PX24V are provided an extra 24 Vdc output Unit, Model AU-300-24X for CH6.

HPCSA-570P-X2S5* is identical to Model HPCSA-570PX except for addition of alternate PWB pattern (6217P1 and 6217P2), addition of varistor (ZNR101), and addition of alternate Inductors (LF101, LF102), type LT1435.

Extra output unit Model AU-300-24X is identical to Model AU-200-48X except for output rating, transformer (T101), minor components and providing silicon polymer, Insulating Sheet 2. See enclosure id. 07-22 for details of Insulating Sheet 2.

Model names of "X" are maybe - or space or 0 to 9 or A to Z, maximum 50 figures.
Model name of '*' is maybe - or space or 0 to 9 or A to Z, maximum 50 figures.

These alphabetic characters stand for management numbers.
Models HNSP9-520PX and HPCSA-570PX, 'X' do not used first alphanumeric '-X2S5' and '-S27' and last alphanumeric '24V' and '48V'.

HNSP9-520P-S27(X)(a)-H6V* is identical to Model HNSP9-520PX except for addition of Marking lable, addition of alternate transformers (T201, T202) and addition of alternate Metal Fan cover.

HNSP9-520P-S27(X)(a)-H6V* (X) - Fan cover material: blank - Plastic Fan cover, 1 - Metal Fan cover, (a) - Input SW connection: blank - Line SW only, A - 2 poles SW, * - Customer No. (Max 10 characters, 0-9 or A-Z or - or blank)

Test Item Particulars	
Classification of use by	Ordinary person
Supply Connection	AC Mains
Supply % Tolerance	Other + 10 % / - 15 %
Supply Connection – Type	pluggable equipment type A - appliance coupler
Considered current rating of protective device as part of building or equipment installation	20 A; building;
Equipment mobility	for building-in
Over voltage category (OVC)	OVC II
Class of equipment	Class I
Access location	N/A
Pollution degree (PD)	PD 2
Manufacturer's specified maximum operating ambient (°C)	45°C (100% Load) / 60°C (70% Load)
IP protection class	IPX0
Power Systems	TN IT - 230 V L-L
Altitude during operation (m)	up to 3000 m
Altitude of test laboratory (m)	2000 m or less
Mass of equipment (kg)	1.7 kg (HNSP9-520PX, HPCSA-570PX, HPCSA-570P-X2S5* and HNSP9-520P-S27(X)(a)-H6V*) / 2.1 kg (HNSP9-520PX48V and HPCSA-570PX48V) / 2.2 kg (HNSP9-520PX24V and HPCSA-570PX24V)

Technical Considerations

- The product is intended for use on the following power systems : TN, IT(for Norway)
- The equipment disconnect device is considered to be : Appliance inlet
- The Lead-Acid Battery were not investigated for use with the product.

Engineering Conditions of Acceptability

For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC. When installed in an end-product, consideration must be given to the following:

- The following product-line tests are conducted for this product : Earthing Continuity, Electric Strength
- The end-product Electric Strength Test is to be based upon a maximum working voltage of : Models HNSP9-520PX, HPCSA-570PX, HPCSA-570P-X2S5* and HNSP9-520P-S27(X)(a)-H6V*: Primary-SELV: 393 Vrms, 594 Vpk., Models HNSP9-520PX48V and HPCSA-570PX48V: Primary-SELV: 389 Vrms, 840 Vpk., Models HNSP9-520PX24V and HPCSA-570PX24V: Primary-SELV: 402 Vrms, 768 Vpk.
- The following output circuits are at ES1 energy levels : All outputs
- The following output circuits are at PS3 energy levels : All Outputs
- The investigated Pollution Degree is : 2
- Proper bonding to the end-product main protective earthing termination is : Required
- The following end-product enclosures are required : Fire, Electrical
- The following magnetic devices (e.g. transformers or inductor) are provided with an OBJY2 insulation system with the indicated rating greater than Class A (105°C) : Transformers (T201, T202), (T101 for Extra Output Unit Model AU-300-24X)) Class B
- The equipment is suitable for direct connection to : AC mains supply
- The power supply terminals and/or connectors are: Suitable for factory wiring only
- Front Enclosure not evaluated as Mechanical Enclosure. Mechanical Strength Test for Front Enclosure should be evaluated in end-product.
- Tests were conducted on Power Supply Model HNSP9-520PX48V, HPCSA-570PX48V, HNSP9-520PX24V or HPCSA-570PX24V with limited load conditions from the Applicant's request. See Test Load Conditions in Additional information, Load Conditions L, M, N, O, P, Q, R, S and T for details. Consideration shall be given to conducting the Heating (Thermal Requirements) Test in the end-product.
- X-Capacitors may have variation in capacitance up to 0.47 uF (C101) and 1 uF (C102) maximum. Therefore, consideration shall be given in controlling the capacitance value in end-product application with respect to capacitance discharge issue.
- Y-Capacitors may have variation in capacitance up to 470 pF (C103, C104) and 2200 pF (C105, C106, C118) maximum. Therefore, consideration shall be given in controlling the capacitance value in end product application with respect to touch current issue.
- The maximum battery capacity that can be used for this power supply is 24Vdc, 2.3Ah.
- This component has been evaluated in ‘control of fire spread’ method assuming appropriate fire enclosure is provided in end product. Unless the fire enclosure is made of non-combustible or V-0 material, the separation from the PIS shall be considered.
- The product was evaluated to be used in tropical climatic conditions.

Additional Information

Load Conditions for Models HNSP9-520PX and HPCSA-570PX.
Load Conditions were as follows (CH1, CH2, CH3, CH4, CH5).

Condition A (Rated Load)
3.3 Vdc/10 A, 5 Vdc/10 A, 12 Vdc/25 A, -12 Vdc/0.5A, 5 VSB/2.0 A

Condition B (Maximum Continuous Load 1 (Most Unfavorable Load. Total 400 W))
3.3 Vdc/7.27 A, 5 Vdc/0 A, 12 Vdc/30 A, -12 Vdc/0.5 A, 5 VSB/2.0 A

Condition C (Pulse 1 (Most Unfavorable Load. Total 520 W))
3.3 Vdc/24.4 A, 5 Vdc/0 A, 12 Vdc/18 A, 12 Vdc/35 A, -12 Vdc/0.5 A, 5 VSB/2.5 A

Condition D (No Load)
3.3 Vdc/0 A, 5 Vdc/0 A, 12 Vdc/0 A, -12 Vdc/0 A, 5 VSB/0 A

Condition E (Rated Load)
3.3 Vdc/10 A, 5 Vdc/10 A, 12 Vdc/25 A, -12 Vdc/0.5 A, 5 VSB/2 A

Condition F (Pulse 1 (Most Unfavorable Load. Total 570 W)
3.3 Vdc/39.1 A, 5 Vdc/0 A, 12 Vdc/35 A, -12 Vdc/0.5 A, 5 VSB/3 A

Condition G (Interval Load. Total 386 W)
3.3 Vdc/10 A, 5 Vdc/9.8 A, 12 Vdc/24 A, -12 Vdc/0.5 A, 5 VSB/2 A

Condition H (Interval Load. Total 376 W)
3.3 Vdc/10 A, 5 Vdc/10 A, 12 Vdc/23.1 A, -12 Vdc/0.5 A, 5 VSB/2 A

Condition I (Pulse 1 (Most Unfavorable Load. Total 570 W)
3.3 Vdc/30 A, 5 Vdc/6 A, 12 Vdc/35 A, -12 Vdc/0.5 A, 5 VSB/3 A

Condition J
3.3 Vdc/10 A, 5 Vdc/10 A, 12 Vdc/19.1 A, -12 Vdc/0.5 A, 5 VSB/2 A

Condition K
3.3 Vdc/7.27 A, 5 Vdc/0 A, 12 Vdc/13.8 A, -12 Vdc/0.5 A, 5 VSB/2 A

Load Conditions for Models HNSP9-520PX48V and HPCSA-570PX48V with extra 48 Vdc output Unit Model AU-200-48X for CH6.
Conditions L, M and N were Applicant's request.

Condition L (CH1, CH2, CH3, CH4, CH5, CH6).
3.3 Vdc/9 A, 5 Vdc/22 A, 12 Vdc/3.6 A, -12 Vdc/0.5 A, 5 VSB/2.0 A, 48 Vdc/2.2 A
Total 304.5 W

Condition M (CH1, CH2, CH3, CH4, CH5, CH6).
3.3 Vdc/9 A, 5 Vdc/22 A, 12 Vdc/25.5 A, -12 Vdc/0.5A, 5 VSB/2.0 A, 48 Vdc/2.2 A
Total 567.3W

Condition N (CH1, CH2, CH3, CH4, CH5, CH6). (70% Load)
3.3 Vdc/5 A, 5 Vdc/15.5 A, 12 Vdc/3 A, -12 Vdc/0.3A, 5 VSB/1.4 A, 48 Vdc/1.5 A
Total 212.6 W

Load Conditions for Models HNSP9-520PX24V and HPCSA-570PX24V with extra 24 Vdc output Unit Model AU-300-24X for CH6.
Conditions O, P, Q, R, S and T were Applicant's request.

Condition O (CH1, CH2, CH3, CH4, CH5, CH6).
3.3 Vdc/7.8 A, 5 Vdc/9.3 A, 12 Vdc/9.6 A, -12 Vdc/0.2 A, 5 VSB/2.0 A, 24 Vdc/8.3 A
(Total 399 W, CH5, CH6 Max)

Condition P (CH1, CH2, CH3, CH4, CH5, CH6).
3.3 Vdc/10 A, 5 Vdc/12.4 A, 12 Vdc/13 A, -12 Vdc/0.3 A, 5 VSB/3.0 A, 24 Vdc/12.5 A
(Total 569.6 W, CH5, CH6 Peak)

Condition Q (CH1, CH2, CH3, CH4, CH5, CH6).
3.3 Vdc/12 A, 5 Vdc/12 A, 12 Vdc/16 A, -12 Vdc/0.5 A, 5 VSB/2.0 A, 24 Vdc/3.8 A
(Total 398.8 W, CH1, 2, 3 and 4 Max)

Condition R (CH1, CH2, CH3, CH4, CH5, CH6).
3.3 Vdc/25 A, 5 Vdc/21 A, 12 Vdc/30 A, -12 Vdc/0.5 A, 5 VSB/0.5 A, 24 Vdc/0.5 A
(Total 568 W, CH1, 2, 3 and 4 Peak)

Condition S (CH1, CH2, CH3, CH4, CH5, CH6).
3.3 Vdc/5.5 A, 5 Vdc/6.5 A, 12 Vdc/6.7 A, -12 Vdc/0.1 A, 5 VSB/1.4 A, 24 Vdc/5.8 A
(Total 278.3 W, CH5 and 6 70% load)

Condition T (CH1, CH2, CH3, CH4, CH5, CH6).
3.3 Vdc/8.4 A, 5 Vdc/8.4 A, 12 Vdc/11.2 A, -12 Vdc/0.35A, 5 VSB/1.4 A, 24 Vdc/2.6 A
(Total 277.7 W, CH1, 2, 3 and 4 70% load)

Condition U (70% Load of Condition A)
3.3 Vdc/7 A, 5 Vdc/7 A, 12 Vdc/17.5 A, -12 Vdc/0.35A, 5 VSB/1.4 A

The Rechargeable Ni-MH Battery, type 20HR-4/5FAUP and Cell, type HR-4/5FAUP for use in this product application have been evaluated for compliance with IEC 62133-1: 2017. See CB Test Report No. BATT-4789365905-A-1, CB Test Certificate No. DK-97426-UL, and CB Test Report No. BATT-4789105895-A-1, CB Test Certificate No. DK-94710-UL issued by UL.

Additional Standards

The product fulfills the requirements of: EN 62368-1:2014 + A11:2017, UL 62368-1 2nd Edition, Issued December 1, 2014, CSA CAN/CSA-C22.2 No. 62368-1 2nd Edition, Issued December 1, 2014, AS/NZS 62368.1:2018

Markings and Instructions

Clause Title	Marking or Instruction Details
Equipment identification marking – Manufacturer identification	Listee's or Recognized companys name, Trade Name, Trademark or File Number
Equipment identification marking – model identification	Model Number
Equipment rating marking – ratings	"Input Ratings (voltage, frequency/dc, current/power)", "Output Ratings (voltage, frequency/dc, current/power)"
Symbols - On/Off switch	Switches to be marked with symbol for "ON" (IEC 60417-5007) and  symbol for "OFF" (IEC 60417-5008)

Special Instructions to UL Representative

Inspect the Transformer(s) listed in Electric Strength Test Special Constructions.
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 Electric Strength Test Special Constructions be conducted at the component manufacturer.

BD1.0	TABLE: Production-Line Testing Requirements					
BD1.1	**Electric Strength Test Special Constructions – Refer to Generic Inspection Instructions, Part AC for further information.**					
Model	Component	Removable parts	Test probe location	Test V rms	Test V dc	Test Time, s
HNSP9-520PX and HPCSA-570PX ('X ' = Where X maybe - or space or 0 to 9 or A to Z, except first alphanumeric -X2S5 and -S27 and last alphanumeric 24V and 48V) HNSP9-520PX24V, HPCSA-570PX24V, HNSP9-520PX48V, and HPCSA-570PX48V ('X' = Where X maybe - or space or 0 to 9 or A to Z, except first alphanumeric -X2S5 and -S27) HPCSA-570P-X2S5* ('*' = Where * maybe - or space or 0 to 9 or A to Z, 'X' = Where X maybe - or space or 0 to 9 or A to Z) HNSP9-520P-S27(X)(a)-H6V* ('(X)' = Where (X) maybe blank or 1, '(a)' = Where (a) maybe blank or A), '*' =	Transformers (T201, T202 and T203, T101 (Extra output unit, model AU-200-48X), T101 (Extra output unit Model AU-300-24X))	N/A	Primary to Secondary	4000 Vpk	4000	1

Where * maybe Maximum 10 characters, 0-9 or A-Z or - or blank)						
BD1.2	**Earthing Continuity Test Exemptions – This test is not required for the following models:**					
	N/A					
BD1.3	**Electric Strength Test Exemptions – This test is not required for the following models:**					
	N/A					
BD1.4	**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.**					
	N/A					

BE1.0	**Sample and Test Specifics for Follow-Up Tests at UL**				
Model	Component	Material	Test	Sample (s)	Test Specifics
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