

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Component Recognition
CCN:	QQGQ2, QQGQ8 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
Complementary CCN:	QQJQ2, QQJQ8 (Power Supplies for Use in Audio/Video, Information and Communication Technology Equipment)
Product:	Power Supply
Model:	CN30A110-xyza Series CN50A110-xyza Series CN100A110-xyza Series
Rating:	(x = 5, 12, 15, or 24 denotes output voltage, y = "/" or blank, z = "CO" or blank, a = "T" or blank) Input Voltage: 60-160Vdc Input Current : 0.65A (CN30A110) 1.1A (CN50A110) 2.5A (CN100A110) Output: 5Vdc 6A (Model CN30A110-5) 10A (Model CN50A110-5) 20A (Model CN100A110-5) 12Vdc 2.5A (Model CN30A110-12) 4.2A (Model CN50A110-12) 8.4A (Model CN100A110-12) 15Vdc 2.0A (Model CN50A110-15) 3.4A (Model CN50A110-15) 6.7A (Model CN100A110-15) 24Vdc 1.3A (Model CN30A110-24) 2.1A (Model CN50A110-24) 4.2A (Model CN100A110-24)
Applicant Name and Address:	TDK-LAMBDA CORP NAGAOKA TECHNICAL CENTER R&D DIV 2704-1 SETTAYA-MACHI NAGAOKA-SHI NIIGATA 940-1195 JAPAN

Issue Date: 2009-10-07
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Report Reference #

E122103-A77-UL

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.

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Reviewed by: Tetsuo Iwasaki

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

Built in power supply for use in general office environment.

Model Differences

CN30A110 and CN50A110 are identical to CN100A110 except;

1) Output power

CN30A110: typical 30W

CN50A110: typical 50W

CN100A110: typical 100W

For detail specification, see specification sheet from manufacturer

2) L151

C25650 (for CN30A110-5 and CN50A110-5)

C25651 (for CN30A110-12 and CN50A110-12)

C25651 (for CN30A110-15 and CN50A110-15)

C25653 (for CN30A110-24 and CN50A110-24)

Units vary in output circuitry and ratings.

Suffix "/CO" in all models denotes with coating material.

Suffix "/T" denotes no threads in the corner.

Technical Considerations

- Equipment mobility : for building-in
- Connection to the mains : Not directly connected
- Operating condition : continuous
- Access location : N/A
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : N/A
- Tested for IT power systems : No
- IT testing, phase-phase voltage (V) : NA
- Class of equipment : Not classified
- Considered current rating of protective device as part of the building installation (A) : 20
- Pollution degree (PD) : PD 2

- IP protection class : IP X0
- Altitude of operation (m) : Up to 3000
- Altitude of test laboratory (m) : Up to 2000
- Mass of equipment (kg) : 0.1
- The product was investigated to the following additional standards: EN 60950-1:2006 (which includes all European national differences, including those specified in this Test Report).

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 Production-Line tests are conducted for this product: Electric Strength
- The following secondary output circuits are SELV: All
- The following secondary output circuits are at non-hazardous energy levels: All
- The power supply terminals and/or connectors are: Not investigated for field wiring
- The investigated Pollution Degree is: 2
- Proper bonding to the end-product main protective earthing termination is: Not required
- An investigation of the protective bonding terminals has: Not been conducted
- The following end-product enclosures are required: Mechanical, Fire
- The following components require special consideration during end-product Thermal (Heating) tests due to the indicated maximum temperature measurements during component-level testing: maximum baseplate temperature of 100°C. (Note: meets 2.10.10 choice "a", pollution degree 2 creepage and clearance.)
- The power supply was tested with an external 5A Listed Fuse placed at input.
- The following secondary output circuits are ES1: All
- The following secondary output circuits are at PS3 energy level: All
- Humidity conditioning has been conducted by tropical condition.
- Classification of PIS has not been conducted. Therefore, all electrical components and conductors including printed wirings were assumed to be arcing/resistive PIS.
- 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.

Additional Information

N/A

Additional Standards

The product fulfills the requirements of: The product fulfills the requirements of: The product fulfills the requirements of: UL 62368-1, 2nd Edition, 2014-12-01, CAN/CSA C22.2 No. 62368-1-14, 2nd Edition, 2014-12

Markings and instructions

Clause Title	Marking or Instruction Details
1.7.1 Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number

1.7.1 Power rating - Model	Model Number
1.7.1 Power rating - Ratings	Ratings (voltage, frequency/dc, current)