

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) CAN/CSA C22.2 No. 62368-1-14, 2nd Ed-(Audio/video, information and communication technology equipment Part 1: Safety requirements)
Certification Type:	Listing
CCN:	QQJQ, QQJQ7 (Power Supplies for Use in Audio/Video, Information and Communication Technology Equipment)
Complementary CCN:	N/A
Product:	Switching Power Supply
Model:	TE150AXXYZWW Where XX is 12 to 48, YY is a number 00 to 99 or blank, Z is a letter A to Z, WW is a number 00-99 or blank.
Rating:	INPUT: 100-110V~, 50-60Hz, 2.0A OUTPUT: See Model Differences section. INPUT: 110-240V~, 50-60Hz, 2.0A OUTPUT: See Model Differences section.
Applicant Name and Address:	SL POWER ELECTRONICS CORP BLDG A 6050 KING DR VENTURA CA 93003 UNITED STATES

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: Adam Tangocci / Project Handler Reviewed By: Gregory Ray / 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

The units are external AC-DC power supplies.

Model Differences

Models TE150AXXYFWW are identical to TE150AXXYNWW except for class of equipment and designation. TE150AXXYFWW for Class I product, all models were similar in construction except for secondary winding of transformer, secondary components and output rating.

TE150AXXYNWW for Class II product, all models were similar in construction except for secondary winding of transformer, secondary components and output rating.

XX represents the output voltage which may be any number 12 to 48.

Z may be either any letter from A to Z, representing non safety related options.

YY and WW can be any number between 00-99 or blank, representing non safety related options.

Test Item Particulars

Classification of use by	Ordinary person Children likely to be present
Supply Connection	AC Mains
Supply % Tolerance	+10%/-10%
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	transportable
Over voltage category (OVC)	OVC II
Class of equipment	Class I Class II
Access location	N/A
Pollution degree (PD)	PD 2
Manufacturer's specified maximum operating ambient (°C)	40
IP protection class	IP 22
Power Systems	TN
Altitude during operation (m)	up to 5000 m

Altitude of test laboratory (m)	2000 m or less
Mass of equipment (kg)	0.613

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (T_{ma}) permitted by the manufacturer's specification of : 40°C
- The product is intended for use on the following power systems : TN
- Considered current rating of protective device as part of the building installation (A) : 20
- Mains supply tolerance (%) or absolute mains supply values : +10%/-10%
- The equipment disconnect device is considered to be : Appliance inlet
- The following were investigated as part of the protective earthing/bonding : Class I Models: Appliance inlet to output ground.
- The following are available from the Applicant upon request : Installation (Safety) Instructions / Manual
- The product was investigated to the following additional standard : UL 62368-1 2nd Edition, CSA C22.2 No. 62368-1 2nd Edition, IEC 62368-1:2014, EN 62368-1:2014 + A11:2017
- Power supplies covered by this report were evaluated for both Class I and Class II (double insulated). Double insulated symbol is optionally provided. Earthing symbol may only be provided for Class I power supplies.
- Required clearances have been adjusted by multiplying the clearance at sea level by a factor of 1.48 for operating at an altitude of 5000 meters. If the calculated clearance exceeded the creepage, the creepage was adjusted to the value of clearance.

Additional Information

The Marking Plates provided are representative of all models.

This report is based on previously conducted testing and the review of product construction of original UL certification E511363-A6008. Refer to the "Summary of testing" section which covers the tests accepted and the additional testing performed as part of this evaluation.

The following test was selected as representative of the test program applicable to models covered by this CBTR: Annex B.2.5 - Input Test. This test has been witnessed for models selected as representative of the standard covered by this report and of the applicable test program.

Additional Standards

The product fulfills the requirements of: UL 62368-1 2nd Edition, CSA C22.2 No. 62368-1 2nd Edition, IEC 62368-1:2014, EN 62368-1:2014 + A11:2017

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)"

Warning to service personnel	"CAUTION: Double pole, neutral fusing. Disconnect mains before servicing. "/"ATTENTION. Double pôle/fusible sur le neutre. Débrancher l'alimentation avant l'entretien."
Special Instructions to UL Representative N/A	

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
All	Transformers T1	-	Between Primary and Secondary Windings.	3000	-	1
BD1.2	Earthing Continuity Test Exemptions – This test is not required for the following models:					
BD1.3	Electric Strength Test Exemptions – This test is not required for the following models:					
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.					
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BE1.0	Sample and Test Specifics for Follow-Up Tests at UL				
Model	Component	Material	Test	Sample (s)	Test Specifics