

## UL TEST REPORT AND PROCEDURE

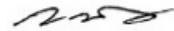
<b>Standard:</b>	UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements)
<b>Certification Type:</b>	Listing
<b>CCN:</b>	QQGQ, QQGQ7 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
<b>Product:</b>	Switching Power Supply
<b>Model:</b>	MENT1150AWWXXYZ; Where A is an alpha character A-Z, WW is a number 0-48, XX is a 2 digit number 00-99, Y is an alpha character A-Z, and Z is a number 00-99.
<b>Rating:</b>	Input: 100-240 V~, 50-60 Hz, 3.0 A Output: 48 V maximum, 11.67 A maximum, or see below for standard output models.  MENT1150V12XXFZ: 12 V dc/11.67 A; MENT1150V15XXFZ: 15 V dc/9.33 A; MENT1150V18XXFZ: 18 V dc/7.78 A; MENT1150V24XXFZ: 24 V dc/6.25 A; MENT1150V28XXFZ: 28 V dc/5.36 A; MENT1150V48XXFZ: 48 V dc/3.13 A.
<b>Applicant Name and Address:</b>	SL POWER ELECTRONICS CORP BLDG A 6050 KING ST 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 Underwriters Laboratories Inc. ('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 Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

Prepared by: Bob Hilbrecht  
Underwriters Laboratories Inc.



Reviewed by: Curtis Butler  
Underwriters Laboratories Inc.



**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 Power Supply housed within a thermoplastic enclosure.

**Model Differences**

The models differ in output ratings which require different turns and wire gauge size in transformer T200 and secondary circuitry component values to accommodate the rated output.

Model number nomenclature explains construction as follows:

MENT1150AWWXYZ; Where A is an Alpha Character that represents generational differences, WW is a Numeric indicator of output voltage, XX is a 2 digit Numeric indicator of external connectors, Y is an alpha character that represents Input Options, and Z is a numeric indicator where 00 is the standard configuration and 01-99 are custom modifications that may or may not be related to Safety.

Where A signifies generational differences which may have impact on safety the specific letter will be documented in this Report.

**Technical Considerations**

- Equipment mobility : transportable
- Connection to the mains : AC Inlet Adapter
- 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)
- Considered current rating (A) : 20A
- Pollution degree (PD) : PD 2
- IP protection class : IP X1
- Altitude of operation (m) : 2000
- Altitude of test laboratory (m) : 4
- Mass of equipment (kg) : 0.845
- 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°C
- 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
- The product was investigated to the following additional standards: EN 60950-1:2006 + A11:2009 (which includes all European national differences, including those specified in this test report).
- The following accessible locations (with circuit/schematic designation) are within a limited current circuit: CY200 - CY203
- The following are available from the Applicant upon request: Specific data sheets for LED indicators that are class I and operate at wavelength in the 400-710 nm range., Installation (Safety) Instructions / Manual.

**Additional Information**

The attached label is a draft of artwork for the marking plates pending approval by National Certification Bodies and they shall not be affixed to products prior to such an approval. The artwork provided is representative of all models in the Series.

The Instruction manual provided with the unit was only reviewed in English language. Applicant to furnish Instructions in language suitable for countries noted in National Differences Enclosure of the report when submitting for National Certification.

Testing to applicable collateral standards was not conducted by UL and no supporting evidence of compliance has been presented. When submitting this Test Report to other Certification Body, the manufacturer is responsible for providing any additional information that the Body may need in order to issue its Mark, including testing for compliance with the applicable collateral standards.

Light Emitting Diodes (LED's) employed on the units are for use as visual indicators only, and operate within Class 1 limits in accordance to IEC 60825 Standard. The LED's operate in the visible range of 400 to 710 nm. Applicant to furnish LED specifications upon request. Additional review may be required at the discretion of the accepting NCB. Non-lasing LEDs provided for indicating only.

The attached Licenses for the Critical Components effective for three years from the date of issue noted on the License. A Recognizing National Certification Body (NCB) may challenge the CB Test Certificate when it is more than three years old.

Current Licenses for critical components to be furnished by applicant upon request.

The schematics for these models are kept on file at the Testing Laboratory mentioned in the first page of this test report, and can be provided by the manufacturer upon request by an accepting NCB.

These models have been tested in accordance with IEC 60529 for an IPX1 rating. See Enclosure 7-10 for test details.

#### **Additional Standards**

The product fulfills the requirements of: CSA C22.2 No. 60950-1-07, EN 60950-1:2006 + A11:2009, IEC 60950-1:2005, UL 60950-1 2nd Ed. Revised 2007-03-27

#### **Markings and instructions**

Clause Title	Marking or Instruction Details
Inter-connecting cables - Non-LPS or TNV	Non-LPS or TNV output connectors identify the type of circuit, intended cable type or relevant circuit characteristics. (Marking or Instruction)
Power rating - Ratings	Ratings (voltage, frequency/dc, current)
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
Fuses - Non-operator access/soldered-in fuses	Unambiguous reference to service documentation for instructions for replacement of fuses replaceable only by service personnel

Warning to service personnel	"CAUTION: Double pole/neutral fusing"
Symbols	IPX1
<b>Special Instructions to UL Representative</b>	
N/A	

**Production-Line Testing Requirements**

**Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.**

Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
All models covered in this report	Transformer T200	-	Between Primary and Secondary Windings.	300 0	--	1

**Earthing Continuity Test Exemptions - This test is not required for the following models:**

--

**Electric Strength Test Exemptions - This test is not required for the following models:**

--

**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:**

--

**Sample and Test Specifics for Follow-Up Tests at UL**

Model	Component	Material	Test	Sample(s)	Test Specifics
N/A					