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)
Product:	AC-DC Power Supply
Model:	7001674-XXXX, DS1100SLPE-3 and DS1100SLPE-3-XXX (where XXXX and XXX is any number or letter representing for different customer identity, without safety impact, respectively.)
Rating:	Input: AC100-240V, 12-5A, 50/60Hz. Output: DC+12V, 90A MAX; DC+3.3Vsb, 3A MAX. MAX. CONTINUOUS TOTAL OUTPUT POWER IS 1100W.
Applicant Name and Address:	ASTEC INTERNATIONAL LTD 16TH FL LU PLAZA 2 WING YIP ST, KWUN TONG KOWLOON HONG KONG

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: Paul Wan Reviewed by: Brian Wong

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 equipment is a Class I building-in power supply.

1. The equipment provided with reinforced insulation between primary and secondary, basic insulation between primary and chassis.

2. 7001674-XXXX maximum operating ambient temperature is 45 deg C (Forward air flow versdafsion), 55 degC (Reverse air flow version).

3.The equipment can be operated in an altitude of maximum 10000 feet (3050m) above sea level. Annex G of IEC 60950-1 was used in determining the clearance requirement.

4. DS1100SLPE-3 maximum operating ambient temperature is 55 deg C (Forward air flow version), 45 degC (Reverse air flow version).

Model Differences

Model DS1100SLPE-3 is identical to Model 7001674-XXXX except for the OCP rating.

The forward airflow direction for Model 7001674-XXXX is defined as from the input connector to the output connector.

The forward airflow direction for Model DS1100SLPE-3 is defined as from the output connector to the input connector.

Model DS1100SLPE-3-XXX is identical to Model DS1100SLPE-3

Technical Considerations

- Equipment mobility : for building-in
- Connection to the mains : Considered in end system
- 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 : Yes

- IT testing, phase-phase voltage (V) : 230
- Class of equipment : Class I (earthed)
- Considered current rating of protective device as part of the building installation (A) : 32A
- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m) : 3050m
- Altitude of test laboratory (m) : less than 2000 meters
- Mass of equipment (kg) : <1.5kg
- The product is intended for use on the following power systems: IT, TN, TT
- 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).
- Output connector interruption test has been evaluated

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 end-product Electric Strength Test is to be based upon a maximum working voltage of: Primary-Earthed Dead Metal: (T802, 1F-PE): _372.2__ Vrms, _734__ Vpk, Primary-SELV: (T802, 1F-2S): _363.2__ Vrms, _734__ Vpk ,
- The following secondary output circuits are at hazardous energy levels: 12Vdc
- The following secondary output circuits are at non-hazardous energy levels: 3.3Vdc
- The maximum investigated branch circuit rating is: 32A
- The investigated Pollution Degree is: 2
- 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): examples: T301 (Class F) , T302 (Class A) and T802 (Class F).
- The following end-product enclosures are required: Mechanical, Fire, Electrical
- The fans included as part of this component are suitable for use in a user access area: No

Additional Information

Revision (project 13CA12058)
- Add reverse air flow version at ambient 45 degC and 55 degC.
- Add alternate source of Varistor MOV701, Type S14K320 by EPCOS, Type TVR14511K by THINKING, Type SR511K14D by Walsin and Type V320LA20A by Littelfuse

Project 13CA21975 (E132002-A303-CB-1-Amendment-2):
1. Employing alternate Relay (RLY1) type HF32F by Xiamen Hongfa (E134517) and type 835NL by Song Chuan (E74321);
2. Employing alternate TIW for Power Transformer (T301) type 8Y13 by Draka (E211469) and type T28A01TXXX-1.5 by Rubadue (E206198);
3. Employing alternate TIW for Gate Transformer (T302) type 8Y13 by Draka (E211469) and type TEX-E by Furukawa (E206440);
4. Employing alternate TIW for Auxiliary Transformer (T802) type THL-F by Hoiluen (E257525) and type 8Y13 by Draka (E211469)