

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2011-12-19 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Listing
CCN:	QQGQ, QQGQ7 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
Product:	AC/DC Switch Mode Power Supply (Direct Plug-In)
Model:	DA18-120US-M (For US market only) DA18-120EU-M (For EU market only) DA18-120AU-M (For AU market only) DA18-120UK-M (For UK market only) DA18-120MP-M
Rating:	Input: 100-240Vac, 0.4A (max), 50/60Hz Output: 12Vdc, 1.5A (max), 18W (max)
Applicant Name and Address:	ASTEC INTERNATIONAL LTD - PHILIPPINE BRANCH 3RD & 4TH FL, TECHNO PLAZA ONE BLDG, 18 ORCHARD RD, EASTWOOD CITY CYBERPARK, BAGUMBAYAN, QUEZON CITY 1110, PHILIPPINES

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.

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: Jason Siu

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 under test is Class II AC/DC Switch Mode Power Supply for use with Information Technology Equipment. Double / Reinforced insulation is maintained between Input and Output circuit; Input and Enclosure. Rating: Input: 100 - 240Vac, 0.4A max., 50/60 Hz, Output: 12Vdc, 1.5A max., 18W max.

Maximum recommended ambient (T_{mra}): 40 deg C.

The equipment was evaluated for operating altitude up to 3000m above sea level.

Model Differences

For UL and C-UL Investigation:

Models DA18-120US-M is identical to Model DA18-120MP-M, except for model designation and the plug configuration.

- Model DA18-120US-M provided with US fixed plug portion,

- Model DA18-120MP-M provided with either US detachable plug portion or detachable AC Inlet portion.

Technical Considerations

- Equipment mobility : direct plug-in
- Connection to the mains : pluggable A
- 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 II (double insulated)
- Considered current rating of protective device as part of the building installation (A) : See cover page
- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m) : < 3000 m
- Altitude of test laboratory (m) : < 500 m
- Mass of equipment (kg) : < 1 Kg.
- The Unit is not repairable and it should be thrown away when the unit is damaged.
- 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 means of connection to the mains supply is: Detachable power cord Pluggable A
- The equipment disconnect device is considered to be: Integral Plug or Appliance inlet
- The product is intended for use on the following power systems: TN
- 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: +12 Vdc Output
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): +12 Vdc Output
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual