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, Issued: 2014-12-01 (Audio/video, information and communication technology equipment Part 1: Safety requirements)
Certification Type:	Component Recognition
CCN:	QQJQ2, QQJQ8 (Power Supplies for Use in Audio/Video, Information and Communication Technology Equipment)
Complementary CCN:	N/A
Product:	AC-DC Power Supply
Model:	ASB160PS12-HK, ASB160PS12-XXXXXX, ASB160PS15-HK, ASB160PS15-XXXXXX, ASB160PS24-HK, ASB160PS24-XXXXXX, ASB160PS36-HK, ASB160PS36-XXXXXX, ASB160PS48-HK, ASB160PS48-XXXXXX, ASB160PS54-HK, ASB160PS54-XXXXXX, '-HK' is when optional heatsink is fitted. '-XXXXXX' where X can be any alphanumeric or blank for marketing purposes only.
Rating:	Input: 100-240VAC, 2.0A, 50/60Hz Output: See Model Differences
Applicant Name and Address:	XP POWER L L C 15641 RED HILL AVE, SUITE 100 TUSTIN CA 92780 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: David Feusier / Project Handler Reviewed By: Walid Beytoughan / 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 ASB160 is base-plate cooled AC-DC power supply sub-assembly to be used in information technology equipment and is intended for installation into end-products.

The power supply is encapsulated filling with potting compound.

The dimension of the power supply is 116.8mm (L) x 61.0mm (YV) x 19. 7 mm (H). Optional heatsink with the dimension of 117.0mm (L) x 61.0mm (W) x 25.4mm (H) is available to mount on the base-plate.

The maximum operating ambient temperature is 40°C (Full Load) and 75°C (10% Load) as specified by the manufacturer.

Model Differences

All models are identical with exception to the mains transformer T1, and minor secondary components that allow for different output voltage ratings.

"-HK" is when optional heatsink is fitted.

"-XXXXXX" where X can be any alphanumeric or blank for marketing purposes only.

Output Ratings:

ASB160PS12-HK, ASB160PS12-XXXXXX: 12VDC, 13.3A

ASB160PS15-HK, ASB160PS15-XXXXXX: 15VDC, 10.66A

ASB160PS24-HK, ASB160PS24-XXXXXX: 24VDC, 6.66A

ASB160PS36-HK, ASB160PS36-XXXXXX: 36VDC, 4.44A

ASB160PS48-HK, ASB160PS48-XXXXXX: 48VDC, 3.33A

ASB160PS54-HK, ASB160PS54-XXXXXX: 54VDC, 2.96A

Test Item Particulars

Classification of use by	Skilled person
Supply Connection	AC Mains
Supply % Tolerance	+10%/-10%
Supply Connection – Type	To be considered at the end-product
Considered current rating of protective device as part of building or equipment installation	20 A; equipment
Equipment mobility	for building-in
Over voltage category (OVC)	OVC II
Class of equipment	Not classified
Access location	N/A
Pollution degree (PD)	PD 2
Manufacturer's specified maximum operating ambient (°C)	40°C (Full Load) 75°C (10% Load)
IP protection class	IPX0
Power Systems	TN
Altitude during operation (m)	5000 m
Altitude of test laboratory (m)	2000 m or less
Mass of equipment (kg)	0.28

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 product-line tests are conducted for this product : Earthing Continuity, Electric Strength
- The following output circuits are at ES1 energy levels : ES1
- The following output circuits are at PS3 energy levels : All
- 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 : Electrical, Fire
- 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) : T1 Class B (130)
- The equipment is suitable for direct connection to : AC mains supply
- The end-product Electric Strength Test is to base upon a maximum working voltage 299Vrms / 500Vpk.

Additional Information

Testing of the AC-DC Power Supply models within this report was not considered necessary based upon previous evaluation under the CB scheme. The CB Scheme Test Certificate SG PSB-IV-05659 dated 2022-01-13 and Report Ref. No. 7191269108-EEC21/01 dated 2021-11-18 were prepared by TÜV SUD PSB Pte Ltd, 15 International Business Park, TÜV SUD @ IBP, Singapore 609937. As a result the clause verdicts and test results for this report were noted as N/A and have been referred to the TUV CB Report for details. All tests were performed on models:
ASB160PS12-HK, ASB160PS12-XXXXXX,
ASB160PS15-HK, ASB160PS15-XXXXXX,
ASB160PS24-HK, ASB160PS24-XXXXXX,
ASB160PS36-HK, ASB160PS36-XXXXXX,
ASB160PS48-HK, ASB160PS48-XXXXXX,
ASB160PS54-HK, ASB160PS54-XXXXXX,
'-HK' is when optional heatsink is fitted.
'-XXXXXX' where X can be any alphanumeric or blank for marketing purposes only.

Additional Standards

The product fulfills the requirements of:

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)"

Special Instructions to UL Representative

Inspect the transformer(s) listed in Production-Line Testing Requirements (Electric Strength Test Special Constructions) per AA1.1- (C). When the tests are conducted at other location, Inspect test record and specification sheet provided by the component manufacturer. Verify the specification sheet indicates 100%

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
ASB160PS54	T1	--	Primary to secondary	3000 AC	4242 DC	1 sec
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.**					

BE1.0	Sample and Test Specifics for Follow-Up Tests at UL				
Model	Component	Material	Test	Sample (s)	Test Specifics