

CERTIFICATE OF COMPLIANCE

Certificate Number 20190126-E139109
Report Reference E139109-A6068-UL
Issue Date 2019-JANUARY-26

Issued to: XP POWER L L C
15641 Red Hill Ave, Suite 100
Tustin, CA 92780

**This certificate confirms that
representative samples of**

Power Supplies for Use in Audio/Video, Information and
Communication Technology Equipment
Switching Brick Power Supply, Model:
ALM200PSXX-WZ##V,
Where XX is 12, 15, 19, 24, 48, W is blank or 6, Z is blank
or A, # can be blank or any alphanumeric character, and V
can be blank or any alphanumeric character. May be
provided with or without "-".

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.


Standard(s) for Safety: UL 62368-1 and CAN/CSA C22.2 No. 62368-1-14,
Audio/Video, Information and Communication Technology
Equipment Part 1: Safety Requirements

Additional Information: See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up
Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's
Follow-Up Services.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



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 Brick Power Supply
Model:	ALM200PSXX-WZ##V Where XX is 12, 15, 19, 24, 48, W is blank or 6, Z is blank or A, # can be blank or any alphanumeric character, and V can be blank or any alphanumeric character. May be provided with or without "-".
Rating:	INPUT: 100 - 240V ~ 2.4A, 50/60Hz OUTPUT: ALM200PS12: 12 Vdc, 16.7 A ALM200PS15: 15 Vdc, 13.4 A ALM200PS19: 19 Vdc, 10.6 A ALM200PS24: 24 Vdc, 8.4 A ALM200PS48: 48 Vdc, 4.2 A
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.

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Prepared By: Adam Tangocci / Project Handler Reviewed By: Gregory Ray / Operations Leader

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 subject models are Class I switch mode power supplies. All electrical components are mounted on a PWB and housed within a plastic enclosure which is secured by four screws at four corners.

The operating environment maximum temperature specified by the manufacturer is +40°C for full load condition and +60°C for load condition derating to 70W.

This equipment is evaluated for altitude up to 5000m above sea level. The correction factor for clearance is 1.48.

Model Differences

All models within the series are identical with the exception of transformer T1 (difference in the number of turns in the primary and secondary winding of the transformer) and other minor changes to secondary circuit to accommodate different output voltages and current ratings.

Models ALM200PSXX-WZ##V where:

XX is 12, 15, 19, 24, 48, indicating the output voltage

W is blank indicating a C14 input connector, or 6 indicating a C6 input connector

Z is blank indicating the absence of optional IEC cable retention, or A indicating the use of optional IEC cable retention

can be blank or any alphanumeric character for marketing purposes

V can be blank or any alphanumeric character to indicate the color of the casing

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 II
Access location	N/A
Pollution degree (PD)	PD 2
Manufacturer's specified maximum operating ambient	See Model Differences section. °C
IP protection class	IPX0
Power Systems	TN IT - 230 V L-L
Altitude during operation (m)	5000 m
Altitude of test laboratory (m)	2000 m or less
Mass of equipment (kg)	0.91 kg

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 at 100% load; 60°C at 70W load.
- The product is intended for use on the following power systems : TN, IT
- 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 : Appliance inlet to output ground
- The following are available from the Applicant upon request : Installation (Safety) Instructions / Manual
- 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. The correction factor is based on barometric pressure of 54kPa. If the calculated Clearance exceeded the Creepage, the Creepage was adjusted to the value of clearance.

Additional Information

This report is based on a previous evaluation to IEC 62368-1:2014 (2nd Ed.) under TUV CBTR Ref. No. 7191187900-EEC18/03-NCH including Amendments, CBTC Ref. No. SG PSB-IV-00190. Based on the previously conducted performance testing, no additional testing was considered necessary.

The following tests were conducted under CBTL to IEC 62368-1:2014 (2nd Ed.) at TUV SUD PSB Pte Ltd, 1 Science Park Drive, Singapore 118221:

Steady Force Test, 250 N (4.4.4.2, Annex T.5)

Drop Test (4.4.4.3, Annex T.7)

Impact Test (4.4.4.4, Annex T.6)

Stress Relief Test (4.4.4.7, Annex T.8)

Classification of Electrical Energy Sources (5.2, 5.7)

Ball Pressure Test (5.4.1.10.3)

Humidity Conditioning (5.4.8)

Electric Strength Test (5.4.9)

Safeguards Against Capacitor Discharge after Disconnection of a Connector (5.5.2.2)

Resistance of the Protective Bonding System (5.6.6.2)

Prospective Touch Voltage and Touch Current Measurement (5.7)


Input Test: Single Phase (B.2.5)

Normal Operating Conditions Temperature Measurement (B.2.6)

Simulated Abnormal Operating Conditions (B.3)

Simulated Single Fault Conditions (B.4)

Test for the Permanence of Markings (Annex F.3.10)

Additional Standards	
The product fulfills the requirements of: EN 62368-1:2014 + A11:2017	
Markings and Instructions	
Clause Title	Marking or Instruction Details
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."
Equipment identification marking – Manufacturer identification	Listees or Recognized companies 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)"
Fuses – replaceable by skilled person	Fuses, F1 and F2, provided with an unambiguous cross reference to service documentation.
Class I equipment -Terminal for main protective earthing	Provided adjacent to the main protective earthing terminal  (IEC 60417-5019)
Special Instructions to UL Representative	
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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 Models	--	--	Primary to Secondary	2830	4000	1
BD1.2						
Earthing Continuity Test Exemptions – This test is not required for the following models:						
All models exempt.						
BD1.3						
Electric Strength Test Exemptions – This test is not required for the following models:						
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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
-	-	-	-	-	-