

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST
CERTIFICATES FOR ELECTRICAL EQUIPMENT
(IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE
CERTIFICATS D'ESSAIS DES EQUIPEMENTS
ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE**CERTIFICAT D'ESSAI OC**

Product
Produit

Power Supply, Built-In DC/DC

Name and address of the applicant
Nom et adresse du demandeur

XP POWER L L C
SUITE 150
1241 E DYER RD
SANTA ANA, CA 92705 United States

Name and address of the manufacturer
Nom et adresse du fabricant

XP POWER LTD
401 COMMONWEALTH DR
HAW PAR TECHNOCENTRE
LOBBY B, #02-02
149598 Singapore

Name and address of the factory
Nom et adresse de l'usine

CINCON ELECTRONICS CO LTD
8-1 FU KUNG RD
FU HSING PARK
FU HSING HSIANG
CHANGHUA HSIEN, 506 Taiwan

Note: When more than one factory, please report on page 2
Note: Lorsque il y plus d'une usine, veuillez utiliser la 2^{ème} page

Additional Information on page 2
See Page 2

Ratings and principal characteristics
Valeurs nominales et caractéristiques principales

XP

Trademark (if any)
Marque de fabrique (si elle existe)



Type of Manufacturer's Testing Laboratories used
Type de programme du laboratoire d'essais
constructeur

JCA02XXYZZ Series, JCA03XXYZZ Series
See Page 2

Model / Type Ref.
Ref. De type

Additional information (if necessary may also be
reported on page 2)
Les informations complémentaires (si nécessaire,,
peuvent être indiqués sur la 2^{ème} page

For building-in.
Additionally evaluated to
EN 60950-1:2006/A11:2009/A1:2010/A12:2011.
National Differences specified in the CB Test Report.

Additional Information on page 2
IEC 60950-1(ed.2), IEC 60950-1(ed.2);am1

A sample of the product was tested and found
to be in conformity with
Un échantillon de ce produit a été essayé et a été
considéré conforme à la

As shown in the Test Report Ref. No. which forms
part of this Certificate
Comme indiqué dans le Rapport d'essais numéro de
référence qui constitue partie de ce Certificat

E317867-A29-CB-2 issued on 2012-09-28

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**



- UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
- UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
- UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
- UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

Date: 2012-09-28

Signature:

For full legal entity names see www.ul.com/ncbnames

Jolanta M. Wroblewska



Ref. Certif. No.

US-19829-UL

Model Details:

JCA02XXYZZ Series, JCA03XXYZZ Series (where XX = 05, 12, 24, or 48, Y = S or D, ZZ = can be any two digit number 01-15)

Factories:

DONGGUAN DONGCHENG ZHUSHAN CINCON ELECTRONICS FACTORY
1 JING XIANG RD DONGCHENG
FOREIGN TRADE INDUSTRIAL PARK
ZHUSHAN DONGCHENG DISTRICT
DONGGUAN, 523128 GUANGDONG China

Ratings:

Input voltage:

JCA02 Series

5Vdc (4.5-9.0Vdc), 700mA

12Vdc (9-18Vdc), 350mA

24Vdc (18-36Vdc), 175mA

48Vdc (36-75Vdc), 100mA

JCA03 Series

5Vdc (4.5-9.0Vdc), 1000mA

12Vdc (9-18Vdc), 500mA

24Vdc (18-36Vdc), 250mA

48Vdc (36-75Vdc), 125mA

Output: See Model Differences in the test report for details.

Additional information (if necessary)

Information complémentaire (si nécessaire)



UL (US), 333 Pflingsten Rd IL 60062, Northbrook, USA

UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK

UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN

UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2012-09-28

Signature:

Jolanta M. Wroblewska



Test Report issued under
the responsibility of:



TEST REPORT
IEC 60950-1
Information technology equipment - Safety -
Part 1: General requirements

Report Reference No: E317867-A29-CB-2

Date of issue: 2012-09-28

Total number of pages: 54

CB Testing Laboratory: UL San Jose

Address: 455 E. Trimble Rd., San Jose, CA, 95131-1230, USA

Applicant's name: XP POWER LLC
SUITE 150

Address: 1241 E DYER RD
SANTA ANA CA 92705
UNITED STATES

Test specification:

Standard: IEC 60950-1:2005 (2nd Edition); Am 1:2009

Test procedure: CB Scheme

Non-standard test method: N/A

Test Report Form No.: IEC60950_1B

Test Report Form originator: SGS Fimko Ltd


Master TRF: 2010-04



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If this test Report is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description	Power Supply, Built-In DC/DC
Trade Mark	XP
	
Manufacturer	XP POWER LTD 401 COMMONWEALTH DR HAW PAR TECHNOCENTRE LOBBY B, #02-02 SINGAPORE 149598 SINGAPORE
Model/Type reference	JCA02XXYZZ and JCA03XXYZZ Series (where XX = 05, 12, 24, or 48, Y = S or D, ZZ = can be any two digit number 01-15)
Ratings	Input voltage: JCA02 Series 5Vdc (4.5-9.0Vdc), 700mA 12Vdc (9-18Vdc), 350mA 24Vdc (18-36Vdc), 175mA 48Vdc (36-75Vdc), 100mA JCA03 Series 5Vdc (4.5-9.0Vdc), 1000mA 12Vdc (9-18Vdc), 500mA 24Vdc (18-36Vdc), 250mA 48Vdc (36-75Vdc), 125mA Output: See model differences for details.

Testing procedure and testing location:	
<input type="checkbox"/>	CB Testing Laboratory Testing location / address..... :
<input checked="" type="checkbox"/>	Associated CB Test Laboratory Testing location / address..... : UL Brea 2929 Imperial Hwy, Ste 100, Brea, CA, 92821, USA Tested by (name + signature) : Karl Bier <div style="text-align: right;"></div> Approved by (name + signature) ... : Linus Park <div style="text-align: right;"></div>
<input type="checkbox"/>	Testing Procedure: TMP Tested by (name + signature) : _____ Approved by (+ signature) : _____ Testing location / address..... :
<input type="checkbox"/>	Testing Procedure: WMT Tested by (name + signature) : _____ Witnessed by (+ signature)..... : _____ Approved by (+ signature) : _____ Testing location / address..... :
<input type="checkbox"/>	Testing Procedure: SMT Tested by (name + signature) : _____ Approved by (+ signature) : _____ Supervised by (+ signature) : _____ Testing location / address..... :
<input type="checkbox"/>	Testing Procedure: RMT Tested by (name + signature) : _____ Approved by (+ signature) : _____ Supervised by (+ signature) : _____ Testing location / address..... :

List of Attachments
National Differences (41 pages)
Enclosures (132 pages)

Summary Of Testing
Unless otherwise indicated, all tests were conducted at UL Brea 2929 Imperial Hwy, Ste 100, Brea, CA, 92821, USA.

Tests performed (name of test and test clause)	Testing location / Comments
Guide Information Page - Maximum Output Voltage, Current, and Volt Ampere Measurement (1.2.2.1)	Conducted Under Original Evaluation (E300271-A2)

Input: Single-Phase (1.6.2)	Conducted Under Original Evaluation (E300271-A2)
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	Conducted Under Original Evaluation (E300271-A2)
Determination of Working Voltage; Working Voltage Measurement (2.10.2)	Conducted Under Original Evaluation (E300271-A2)
Heating (4.5.1, 1.4.12, 1.4.13)	Conducted Under Original Evaluation (E300271-A2)
Electric Strength (5.2.2)	Conducted Under Original Evaluation (E300271-A2)
Component Failure (5.3.1, 5.3.4, 5.3.7)	Conducted Under Original Evaluation (E300271-A2)
Power Supply Output Short-Circuit/Overload (5.3.7)	Conducted Under Original Evaluation (E300271-A2)

Summary of Compliance with National Differences:

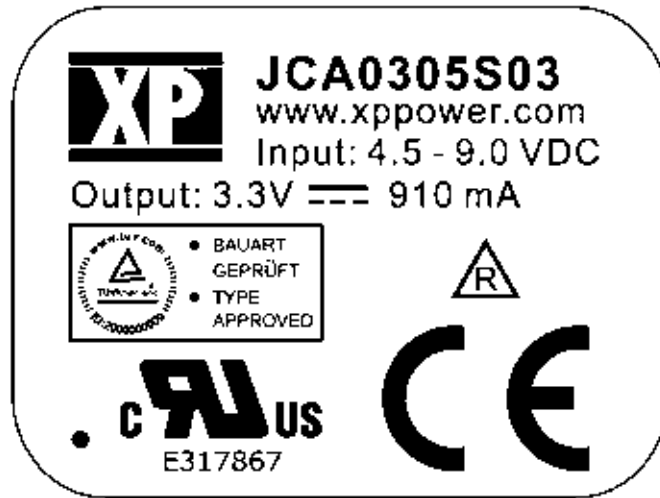
Countries outside the CB Scheme membership may also accept this report.

List of countries addressed: AT, BE, BG, CA, CH, CN, CZ, DE, DK, ES, EU, FI, FR, GB, GR, HU, IE, IL, IT, JP, KR, NL, NO, PL, PT, RO, SE, SG, SI, SK, UA, US

The product fulfills the requirements of: CSA C22.2 No. 60950-1-07 + A1:2011, EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011, UL 60950-1 2nd Ed. Revised 2011-12-19

Copy of Marking Plate

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Test item particulars :	
Equipment mobility	for building-in
Connection to the mains	N/A
Operating condition	continuous
Access location	for building-in
Over voltage category (OVC)	N/A
Mains supply tolerance (%) or absolute mains supply values	No direct connection
Tested for IT power systems	No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Special Application - TNV-2
Considered current rating of protective device as part of the building installation (A)	-
Pollution degree (PD)	2
IP protection class	IP X0
Altitude of operation (m)	3048
Altitude of test laboratory (m)	less than 2000 meters
Mass of equipment (kg)	0.02
Possible test case verdicts:	
- test case does not apply to the test object	N / A
- test object does meet the requirement	P(Pass)
- test object does not meet the requirement	F(Fail)
Testing:	
Date(s) of receipt of test item	2006-12-11
Date(s) of Performance of tests	2006-12-12
General remarks:	
<p>The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the testing laboratory.</p> <p>"(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a point is used as the decimal separator.</p>	
Manufacturer's Declaration per Sub Clause 6.25 of IEC60950:	
The application for obtaining a CB Test Certificate includes more than one factory and a declaration form the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided	Yes
When differences exist, they shall be identified in the General Product Information section.	
Name and address of Factory(ies):	CINCON ELECTRONICS CO LTD

8-1 FU KUNG RD
FU HSING PARK
FU HSING HSIANG
CHANGHUA HSIEN
506 TAIWAN

DONGGUAN DONGCHENG ZHUSHAN CINCON
ELECTRONICS FACTORY
1 JING XIANG RD DONGCHENG
FOREIGN TRADE INDUSTRIAL PARK
ZHUSHAN DONGCHENG DISTRICT
DONGGUAN 523128 GUANGDONG CHINA

GENERAL PRODUCT INFORMATION:

Report Summary

All applicable tests according to the referenced standard(s) have been carried out.

Product Description

The products covered by this report are single and dual output, dc/dc converters. They are provided with input and output connectors (pins) for connection to a source of supply and to the load. All components are mounted on a printed wiring board.

Model Differences

All models within the JCA02 and JCA03 Series were identical with exception to Transformer Winding Ratio and Number of Windings and minor secondary differences to accommodate different output voltages.

Model	V1	Rated	V2	Rated
JCA02XXS03	+3.3V	0.6A		
JCA02XXS05	+5V	0.4A		
JCA02XXS12	+12V	0.17A		
JCA02XXS15	+15V	0.14A		
JCA02XXD01	+5V	0.2A	- 5V	0.2A
JCA02XXD02	+12V	0.085A	-12V	0.085A
JCA02XXD03	+15V	0.07A	-15V	0.07A
JCA03XXS03	+3.3V	0.91A		
JCA03XXS05	+5V	0.6A		
JCA03XXS12	+12V	0.26A		
JCA03XXS15	+15V	0.20A		
JCA03XXD01	+5V	0.3A	- 5V	0.3A
JCA03XXD02	+12V	0.13A	-12V	0.13A
JCA03XXD03	+15V	0.1A	-15V	0.1A

Input: XX indicates input voltage: 05 for 5V(4.5-9.0Vdc), 12 for 12V(9 - 18Vdc), 24 for 24V(18 - 36Vdc) and 48 for 48V(36 -75Vdc).

Suffix "S" = Indicates Single Output
Suffix "D" = Indicates Dual Output

Additional Information

This Test Report is a reissue of CBTR Ref. No. E317867-A29-CB-1, CB Test Certificate Ref. No. DK-19033-A1. Based on previously conducted testing and the review of product technical documentation it was determined that the product complies with the upgrade of the Second Edition of the standard to Amendment 1.

Label provided represents all models.

The label is a draft of an artwork for marking plate pending approval by National Certification Bodies and it shall not be affixed to products prior to such an approval.

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (T_{ma}) permitted by the manufacturer's specification of: 75°C
- The product is intended for use on the following power systems: Regulated DC source.
- The product was investigated to the following additional standards: EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 (which includes all European national differences, including those specified in this test report)., ,

Engineering Conditions of Acceptability

When installed in an end-product, consideration must be given to the following:

- The following Production-Line tests are conducted for this product: Electric Strength
- The following secondary output circuits are SELV: All outputs
- The following secondary output circuits are at non-hazardous energy levels: All Outputs
- The power supply terminals and/or connectors are: Not investigated for field wiring
- The investigated Pollution Degree is: 2
- The following end-product enclosures are required: Mechanical, Fire, Electrical
- The source to these dc/dc converters are intended to be supplied from an isolated source, such as a battery, or a source which meets the requirements for basic (ELV) or reinforced (SELV) insulation from primary (mains) or TNV-2 circuitry, depending on output type required. , , If the input meets all the requirements for ELV, the outputs may be considered ELV. , , If the input meets all the requirements for SELV or TNV-2, then the outputs may be considered SELV. Output voltages remain within SELV limits, even with internally generated non-SELV voltages, if any. --
- The input and output connectors (pins) have not been evaluated for field connections and are only

intended for connection to mating connectors of internal wiring inside the end-use machine. The acceptability of these and the mating connectors relative to secureness, insulating materials and temperature shall be considered. --

- The units shall be installed in compliance with the enclosure, mounting, spacing, casualty, and segregation requirements of the end-use application. --
- The need for humidity testing to be considered as part of the end product. --

Abbreviations used in the report:

- normal condition	N.C.	- single fault condition	S.F.C
- operational insulation	OP	- basic insulation	BI
- basic insulation between parts of opposite polarity:	BOP	- supplementary insulation	SI
- double insulation	DI	- reinforced insulation	RI

Indicate used abbreviations (if any)