

# Certificate of Compliance

**Certificate:** 2091661

**Master Contract:** 244925

**Project:** 2091661

**Date Issued:** October 9, 2008

**Issued to:** XP Power Ltd.  
401 Commonwealth Drive  
Haw Par Technocentre  
Lobby B #02-02  
SINGAPORE 149598  
**Attention:** A. Bryars

*The products listed below are eligible to bear the CSA Mark shown  
with adjacent indicators 'C' and 'US'*



**Issued by:** Jocelyn Jens  
Technical Assistant

A handwritten signature in black ink, appearing to read 'Terry Nagy'.

**Authorized by:** Terry Nagy  
Operations Manager

## PRODUCTS

CLASS 5311 07 - POWER SUPPLIES - Component Type - (CSA 60950-1-03)  
CLASS 5311 87 - POWER SUPPLIES - Component Type - Certified to US Standard - (UL 60950-1, First Edition, NRTL Program)  
CLASS 5311 20 - POWER SUPPLIES - Component Type - For Use in Medical Equipment  
CLASS 5311 96 - POWER SUPPLIES - Component Acceptance - Certified to US Standards

AC/DC Power Adapter, Series VEP24USXXXYYY-xy, Direct plug-in Class II equipment, rated input 100-240 V ac, 50/60 Hz, 600-300 mA max, output rated 24 W max.

## Notes:

1. For Model and rating descriptions, see additional information on page 2.
2. The letters 'XXX' and 'YYY' in the model designations represent the output voltage and current rating respectively. The letters 'xy' can be blank or 0-9 or A-Z to indicate alternative output connectors.
3. Provided with the CA/US plug certified for direct connection to the mains in Canada and the US.

The 'C' and 'US' indicators adjacent to the CSA Mark signify that the product has been evaluated to the applicable CSA and ANSI/UL Standards, for use in Canada and the U.S., respectively. This 'US' indicator includes products eligible to bear the 'NRTL' indicator. NRTL, i.e. National Recognized Testing Laboratory, is a designation granted by the U.S. Occupational Safety and Health Administration (OSHA) to laboratories which have been recognized to perform certification to U.S. Standards.

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	Output voltage (V)	Max. Load current (A)	Max. Output Power (W)
VEP24US030-xy	3.0	0.01 – 2.50	7.50
VEP24US033-xy	3.3	0.01 – 2.50	8.25
VEP24US036-xy	3.6	0.01 – 2.50	9.00
VEP24US04-xy	4.0	0.01 – 2.50	10.00
VEP24US042-xy	4.2	0.01 – 2.50	10.50
VEP24US045-xy	4.5	0.01 – 2.50	11.25
VEP24US048-xy	4.8	0.01 – 2.50	12.00
VEP24US05-xy	5.0	0.01 – 2.50	12.50
VEP24US052-xy	5.2	0.01 – 2.50	13.00
VEP24US055-xy	5.5	0.01 – 2.50	13.75
VEP24US06-xy	6.0	0.01 – 2.50	15.00
VEP24US065-xy	6.5	0.01 – 2.50	16.25
VEP24US07-xy	7.0	0.01 – 2.50	17.50
VEP24US075-xy	7.5	0.01 – 2.50	18.75
VEP24US08-xy	8.0	0.01 – 2.50	20.00
VEP24US085-xy	8.5	0.01 – 2.50	21.25
VEP24US09-xy	9.0	0.01 – 2.20	19.80
VEP24US098-xy	9.8	0.01 – 2.20	21.56
VEP24US10-xy	10.0	0.01 – 2.20	22.00
VEP24US105-xy	10.5	0.01 – 2.00	21.00
VEP24US12-xy	12.0	0.01 – 2.00	24.00
VEP24US126-xy	12.6	0.01 – 1.90	23.94
VEP24US13-xy	13.0	0.01 – 1.85	24.00
VEP24US138-xy	13.8	0.01 – 1.75	24.00
VEP24US15-xy	15.0	0.01 – 1.60	24.00
VEP24US16-xy	16.0	0.01 – 1.50	24.00
VEP24US165-xy	16.5	0.01 – 1.45	24.00
VEP24US18-xy	18.0	0.01 – 1.33	24.00
VEP24US20-xy	20.0	0.01 – 1.20	24.00
VEP24US22-xy	22.0	0.01 – 1.09	24.00
VEP24US23-xy	23.0	0.01 – 1.04	24.00
VEP24US24-xy	24.0	0.01 – 1.00	24.00

**SUBJECT TO THE FOLLOWING QUALIFICATIONS**

1. All models are similar except for the number of turns on the transformer secondary winding and some secondary electrical components.
2. The transformers used in this series are rated Class 130°C insulation.
3. The output of this transformer meets the requirements of Clause 2.5 – limited power source.

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4. The output diode D3 is only provided with a heatsink when the output current exceeds 1.5 A.
5. Units provided with other than a North American plug configuration are certified as components only.
6. When used to supply Medical Equipment, these units are approved as components only. Leakage current needs to be reinvestigated in the end system.
7. Evaluated to IEC/CSA 601-1 Amendment 2 excluding requirements for Electromagnetic compatibility (Clause 36), Biocompatibility (Clause 48) and Programmable Electronic Systems (IEC 60601-1-4 referenced in sub-clause 52.1).

### **APPLICABLE REQUIREMENTS**

- CAN/CSA C22.2 No. 60950-1-03 - Safety of Information Technology Equipment - Safety - Part 1: General Requirements
- CAN/CSA C22.2 601.1-M90 - Medical Electrical Equipment part 1: General requirements for Safety adopted IEC 601-1 2ed (90)
- CAN/CSA C22.2 601.1S1-94 - Supplement No 1-94 to CAN/CSA C22.2 601.1-M90
- CAN/CSA C22.2 601.1B-98 - Amendment 2 to CAN/CSA C22.2 601.1-M90
- UL 60950-1, First Edition - Safety of Information Technology Equipment - Safety - Part 1: General Requirements
- UL 60601-1 (1st edition) - Medical Electrical Equipment part 1: General requirements for Safety

### **MARKINGS and DOCUMENTATION**

**PART 1:** Minimum Markings: (Item D1 (a) in Design Manual)

Marking Method: (For Minimum Markings)

- [X] CSA/UL Approved adhesive nameplate (suitable for surface to which it is applied), or ...
- [X] Non-metallic self-adhesive nameplate (for components only).

Required Information: (For Minimum Markings)



- [a] The submitter's name and/or CSA Master Contract "244925";
- [b] Model designation;
- [c] Complete electrical rating (Optional for accessories, add-on cards, components, kits, plug-in type modules, etc.);
- [d] Date of manufacture, serial number or date code traceable to month and year of manufacture;

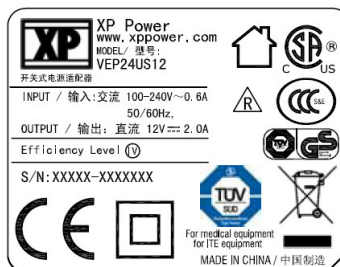
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- [e] The CSA Monogram,  or  and the indicator "For ITE equipment" or "For Medical equipment" or equivalent wording. Optional reference to Standard CAN/CSA C22.2 No. 601.1, UL 60601-1, or IEC 60601-1 may also appear.



**PART 2: Additional Markings and Documentation:** (Due mainly to safety issues)

[Item D1 (b) in Design Manual]

- [X] Double-Insulated Equipment: (Cl. 1.7.1).
- [X] Fuse (Operator Inaccessible): (CSA, Cl. 1.7.6).

**PART 3: Additional Markings and Documentation:** (Due to special equipment features or construction)  
[Items D2 to D16 in Design Manual]