

File E131905  
Project 99SC41897

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REPORT

ON

COMPONENT - INFORMATION TECHNOLOGY EQUIPMENT,  
INCLUDING ELECTRICAL BUSINESS EQUIPMENT

Power-One Inc.  
Camarillo, California

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## DESCRIPTION

## PRODUCT COVERED:

USR/CNR - Linear - Power Supply, Models HA5-1.5/OVP, HA15-0.9, HA24-0.5, HAD12-0.4, HAD15-0.4, HB5-3/OVP, HB12-1.7, HB15-1.5, HB24-1.2, HB28-1, followed by suffix -A. Suffixes after the first hyphen may be replaced by -5XX where X is 0-9. Model name may be followed by "G" or SXXX or SXXXG indicating non-safety critical options.

## ELECTRICAL RATING:

Model	Input			Output, (ac) (dc)		
	V	A	Hz	V	A	W @
HA5-1.5/OVP-A	100/120/230/240	0.25/0.125	50/60	5	1.5	7.5
HA15-0.9-A	100/120/230/240	0.5/0.25	50/60	12-15	0.9	10.8
HA24-0.5-A	100/120/230/240	0.5/0.25	50/60	24-28	0.5	14.0
HAD12-0.4-A	100/120/230/240	0.5/0.25	50/60	12	0.4	9.6
HAD15-0.4-A	100/120/230/240	0.5/0.25	50/60	15	0.4	12.0
HB5-3/OVP-A	100/120/230/240	0.5/0.25	50/60	5	3.0	15.0
HB12-1.7-A	100/120/230/240	0.5/0.25	50/60	12	1.7	20.4
HB15-1.5-A	100/120/230/240	0.5/0.25	50/60	15	1.5	22.5
HB24-1.2-A	100/120/230/240	0.75/0.375	50/60	24	1.2	28.8
HB28-1-A	100/120/230/240	0.75/0.375	50/60	28	1.0	28.0

@ - Maximum continuous output power without forced air cooling when the units operate at 25°C ambient. Some units may require forced air cooling when operated at 50°C. See Conditions of Acceptability for more information.

## ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in (or with) complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Special Considerations - The following items are considerations that were used when evaluating this product.

USR/CNR indicates investigation to the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, CSA C22.2 No. 60950-1 \* UL60950-1, First Edition, dated April 1, 2003.

Conditions of Acceptability - When installed in the end product, consideration shall be given to the following:

1. **This component has been judged on the basis of the required spacings in the Standard for Safety of Information Technology Equipment, CSA/UL60950-1, First Edition, dated April 1, 2003, Sub-clause 2.10 which would cover the component itself if submitted for Listing.**
2. The products were tested on a 20 A branch circuit. If used on a branch circuit greater than this, additional testing may be necessary.
3. All secondary output circuits for all models are SELV and are not hazardous energy levels.
4. The terminals and connectors have not been evaluated for field wiring.
5. The power supply shall be properly bonded to the main protective earthing termination in the end product.
6. Magnetic device(s) (e.g. transformer, inductor) T1 employ(s) an (OBJY3) electrical insulation system designated Class B.
7. The equipment has been evaluated for use in a Pollution Degree 2 environment.
8. A suitable Electrical and Fire enclosure shall be provided.
9. Abnormal Tests were conducted with a Listed non-time-delay fuse rated 0.75 A connected in the ungrounded conductor circuit.
10. Bonding terminals provided on this equipment have not been evaluated as protective earthing terminals.
11. These power supplies have been evaluated for use in a 25, 50 and 70°C ambient in accordance with the manufacturer's specifications. The units were loaded to 100% normal rated load for 25 and 50°C ambient and 40% of normal load for 70°C ambient. At 50°C, the following units required forced air cooling in order to comply with standard requirements.

<u>Model</u>	<u>Required LFM</u>
HB24-1.2-A	100
HB28-1-A	50



America

# CERTIFICATE

No. B 10 11 24238 01475

Holder of Certificate: **Power-One, Inc.**



740 Calle Plano  
Camarillo, CA 93012-8583  
USA

Production Facility(ies): 73536

Certification Mark:



Product: **Power supply  
(AC/DC Linear Power Supplies)**

Model(s): HA5-1/OVP, HA15-0.9, HA24-0.5, HAD12-0.4, HAD15-0.4, HB5-3/OVP, HB12-1.7, HB15-1.5, HB24-1.2, HB28-1, HB48-0.5, maybe followed by -A. Model name may be followed by "G" or SXXX or SXXXG where X is from 0-9, indicating non-safety critical options.

Parameters:

Rated Input Voltage:	100/120/220/230/240 V AC
Rated Input Current:	Model depended, see attachment
Rated Frequency:	50 / 60 Hz
Rated DC Outputs:	Model depended, see attachment
Temperature, Ambient:	50°C
Protection Class:	I

For further information please see attachment

Tested according to: EN 60950-1/A11:2009

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.: 095-1000015268-000

Date, 2010-11-12

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America

**ATTACHMENT TO CERTIFICATE NO. B 10 11 24238 01475  
FOR POWER-ONE INC.**

**GENERAL PRODUCT INFORMATION:**

These models are open frame AC/DC linear power supplies. They were evaluated for use in a maximum operating temperature of 50°C in which forced air cooling is needed for some models. The models were tested with 100% rated load at 60 Hz and derated by 10% at 50 Hz input except model HA5-1.5/OVP.

The models require:

- 1) A suitable fire enclosure at end use.
- 2) A reliable ground (Protective Earth) connection at end use.

**ELECTRICAL RATING:**

Model	Input			Output (dc)		Airflow Required (LFM)
	V	A	Hz	V	A	
HA5-1.5/OVP	100/120/220/230/240	0.25/0.125	50/60	5	1.5	N/A
HA15-0.9	100/120/220/230/240	0.5/0.25	50/60	12 or 15	0.9	N/A
HA24-0.5	100/120/220/230/240	0.5/0.25	50/60	24 or 28	0.5	N/A
HB5-3/OVP	100/120/220/230/240	0.5/0.25	50/60	5	3	N/A
HB12-1.7	100/120/220/230/240	0.5/0.25	50/60	12	1.7	N/A
HB15-1.5	100/120/220/230/240	0.5/0.25	50/60	15	1.5	N/A
HB24-1.2	100/120/220/230/240	0.75/0.375	50/60	24	1.2	100
HB28-1	100/120/220/230/240	0.75/0.375	50/60	28	1	50
HB48-0.5	100/120/220/230/240	0.75/0.375	50/60	48	0.5	70
HAD12-0.4	100/120/220/230/240	0.5/0.25	50/60	12 -12	0.4 0.4	N/A
HAD15-0.4	100/120/220/230/240	0.5/0.25	50/60	15 -15	0.4 0.4	N/A

# *Declaration of Conformity*

## **CE MARKING**

We, **Power-One, Inc., 740 Calle Plano, Camarillo, CA. 93012 USA**  
declare under our sole responsibility that the products;

**Power Supply Model: Linear Power Supplies (B Case)**

to which this declaration relates, is/are in compliance with the following document(s):

Quality Standard(s): **ISO 9001, EN 29001**

Directive: **DIR 2006/95/EC, Low Voltage Directive**

Product Safety Standard(s): **EN 60950-1/A11:2009**  
**IEC 60950-1: 2005**

(Licensed by a Notified Body to the European Union )

These component level power supplies are intended exclusively for inclusion within other equipment by an industrial assembly operation or by professional installers per the Installation Instructions provided with the power supplies. The power supply is considered Class I and must be connected to a reliable earth grounding system.



(Manufacturer)

Robert P. White Jr.  
Product Safety Director

**Camarillo, Ca.**

(Place)

**January 04, 2011**

(Date)