

## DESCRIPTION

## PRODUCT COVERED:

USR, CNR: Component - Nonisolating Harmonic Attenuating Power Supply, IP or VI-HAM Series, Model Nos. IP or VI-aAM-de-xx and IP or VI-aAMb-de-xx, where a denotes the module type (H for Driver or B for Booster), d denotes the product grade (C,I,E, or M), e denotes the output power (M,P,Q,S,U,V,W,X,Y, or Z), de may be 00-99 for specials, xx denotes options (00-99, F1-F4, BI,BM, or 5). (See Ill. 10 for nomenclature breakdown)

## GENERAL CHARACTER AND USE:

\*These products are switching type power supplies, incorporating unity power factor. These products have been investigated for compliance with the Standard for Information Technology Equipment Including Electrical Business Equipment, **UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-07, 2nd Edition, 2007-03.**

## MODEL NUMBER DIFFERENCES:

See Ill. 10 for nomenclature breakdown.

The IP and VI-HAM are similar to the IP and VI-BAM except that the IP and VI-BAM do not include the logic circuits. Refer to Ill. Nos. 1 and 3 for details.

The IP and VI-HAMD and -BAMD Series are similar to the IP and VI-HAM and -BAM Series except the bridge rectifier are removed from the circuits. Refer to Ills. 7 and 8 for details.

Where xx may be 00-99, signifies variation not affecting description in this report, unless otherwise indicated.

IP-HAM Series is represented by Ills. 11-13. IP-HAMD and IP-BAMD are represented by Ill's 14-16.

## ELECTRICAL RATING:

Model No.	Input Ratings	Output Ratings
IP or VI-aAM-de-xx	85-264V ac, 8 A max, 47-63 Hz	250-400 V dc, 675Wmax
IP or VI-aAMD-de-xx	120-373V dc, 8 A max	250-400 V dc, 675Wmax

## ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

General - For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Based on paragraph 35A-1 of the Standard for Telephone Equipment, UL 1459, these products are acceptable for use with telephone equipment.

Conditions of Acceptability - Where installed in the end-use equipment, the following are among the considerations to be made.

\*1. These components have been judged on the basis of the required spacings in **CSA C22.2 No. 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements)**.

2. The power supply should be installed in compliance with the enclosure, mounting, spacing, casualty and segregation requirements of the ultimate application.

3. The baseplate temperature should be measured in the end product. The 85°C temperature should not be exceeded.

4. A UL Listed fuse, in accordance with the following table, must be provided in the end use application.

Alternate: R/C (JDXY2) Type HT rated 6.3 A, 250 V by SOC.

Model	Fuse Rating
IP or VI-HAM-XX-XX	250 V, 10 A
IP or VI-BAM-XX-XX	250 V, 10 A
IP or VI-HAMD-XX-XX	250 V, 10 A
IP or VI-BAMD-XX-XX	250 V, 10 A

5. The input/output connectors have not been evaluated for field wiring applications. They are intended for PWB wiring connections within an end-product.

6. This unit has been evaluated at 47-63 Hz.

7. This unit does not provide primary to secondary isolation. For Medical and Dental application, the power supplies are assumed to be isolated from the source of supply through other acceptable means (i.e. UL 544 Vicor VI-200's). If isolation is not provided, the Abnormal Tests should be repeated and followed by a Dielectric Withstand Test and leakage current measurements in order to determine acceptability.

8. The output power of the M version is de-rated linearly 8W/V from 600 Wout at 110 Vin to 400 Wout at 85 Vin.

9. The output power of the L version is de-rated linearly 9W/V from 675 Wout at 110 Vin to 450 Wout at 85 Vin.

## VI-HAM Family Tree

### Model VI-aAMb-de-xx

#### **VI Product Type**

VI = Commercial

VE = RoHs Compliant

MI = Military

#### **a Module Type**

H = Drive Module (master)

B = Boost Module (slave)

#### **b Input Ratings**

D = 120-373 Vdc, 8A

Blank = 85-264 Vac, 47-63 Hz, 8 A Max

#### **d Product Grade**

C = Commercial      -20 °C to 85 °C

I = Industrial      -40 °C to 85 °C

M = Military      -55 °C to 85 °C

E = Economy      0 °C to 85 °C

#### **e Output Ratings**

M = 600W, 250-400 Vdc

L = 675W, 275-425 Vdc

#### **xx Customer Options (Non Safety related)**

xx = any alpha-numeric combination or blanks