File E135493
Project 92ME10175

February 6, 1992

REPORT

on

COMPONENT - POWER SUPPLIES

For Use In

INFORMATION TECHNOLOGY EQUIPMENT, INCLUDING ELECTRICAL

Vicor Corp.
Andover, MA

DESCRIPTION

PRODUCT COVERED:

USR, CNR: Component Power Supplies, Models VI-IAM, VI-AIM, VI-ARM, FiltMod, IAM, FIAM and FARM Series. All models may be followed by additional suffixes as indicated below.

GENERAL CHARACTER AND USE:

These products are non-isolating power supplies incorporating semi-conductor components. They are provided with input and output terminals for connection to the end use equipment.

*The power supplies have been investigated for compliance with the Standard for Information Technology Equipment Including Business Equipment, **UL60950-1-2007 and CAN/CSA C22.2 No. 60950-1-07, Second Edition, dated March 27, 2007.**

ELECTRICAL RATINGS: Refer to Ill. 8B, 8C, 8D.

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.

Special Considerations -The following items are considerations that were used when evaluating these products.

*USR - Indicates investigation to the U.S. Standards of Safety of Information Technology Equipment, Including Electrical Business, **UL60950-1, Second Edition,** for building in, Class I, (Earthed).

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

*1. This component has been judged on the basis of the required spacings in the Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment, **CAN/CSA C22.2 No. 60950-1-07 / UL60950-1, Second Edition, dated March 27, 2007.**

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

3. Consideration should be given to measuring the temperatures on power electronic components, coils and transformer windings when the power supply is installed in the end-use equipment.

4. Output circuits are not isolated and provide operational insulation only.

5. The unit should be located within an overall enclosure so that live parts are suitably enclosed.

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

7. Units were tested with an external fuse. See Table 1 for details. If an alternate external fuse is employed additional testing may be performed in the end product.

Table 1.

Product Type	Model	Fuse
VI-IAM	VI-A11-CU	AGC-20A / 32V
	VI-AWW-CU	AGC-20A /36V
	VI-A33-CQ	3AB-20A / 60V
	VI-ANN-CQ	3AB-20A / 80V
	VI-A66-CQ	Buss PC-Tron 5A/250V
VI-AIM	VI-AIM-xx	Buss GDB-6.3A / 250V
		Buss GDB-7A / 250V
		Littlefuse 7A 314 series
*FIAM	**FIAM1xyy-aa**	Bussmann-ABC-10A
*	**FIAM2xyy-aa**	Bussmann-ABC-20A
FARM	**FARM1xyy-aa**	Bussmann-ABC-10A
	FARM2xyy-aa	Bussmann-ABC-15A
	FARM3xyy-aa	Bussmann-ABC-10A
ARM	**ARM1-xyzz-aa**	Bussmann-ABC-10A
	ARM2-xyzz-aa	Bussmann-ABC-15A

CONSTRUCTION DETAILS:

General - The design, shape and arrangement of parts shall be as illustrated except where variations are specifically described.

Labels - All required labels are Recognized Component (PGDQ2), suitable for the surface involved.

Marking - Recognized Company's name or trade name or File Number, E135493, model number and optional electrical ratings.

Mechanical Assembly - Unless otherwise stated, all enclosure parts and component mounting assemblies are secured by welding or thread forming screws or machine screws provided with nuts and lockwashers.

Soldered Connections - All soldered connections are secured before soldering. When hand soldered, leads on printed circuit boards are bent over prior to soldering.

Exception - Printed circuit board assemblies that are wave soldered.

*Printed Wiring Boards - Unless otherwise specified, all boards are Recognized Components (ZPMV2), suitable for the solder time and temperature used by the manufacturer, and having a flame rating of V-0 and an operating temperature rating of at least 130°C.

VI-ARM / FARM Family Tree

Vin = 115 / 230 Vac (90-132, 180-264), 15 A Max
Vout = 375 Vdc Max

VI-ARMw-xyzz-aa

w = B (Optional, non-safety related)

x = Product Grade

C = -20 to +100 H = -40 to +100 E= -10 to +100
T = -40 to +100 M = -55 to +100

y = Product Type (Output Power Level)

1 = 500 / 750 W
2 = 750 / 1500 W

zz = Pin Style and Baseplate Designator
(any alphanumeric combination, non-safety related)

aa = Customer Special Designator
(any alphanumeric combination, non-safety related)

FARMwxyy-aa

w = Product Type (Output Power Level)

1 = 500 / 750 W
2 = 750 / 1000 W
3 = 500 / 600 W

x = Product Grade

E = -10 to +100 T = -40 to +100 M = -55 to +100
C = -20 to +100 H = -40 to +100

yy = Pin Style and Baseplate Designator
(any alphanumeric combination, non-safety related)

aa = Customer Special Designator
(any alphanumeric combination, non-safety related)

VI-IAM / VI-AIM Model Numbers

VI = VI for Standard Product
VI = VE for RoHs compliant

Model	Product Type	Input Voltage	Output Power
VI-A11-CU	IAM	24 Vdc	200 W
VI-AWW-CU	IAM	24 Vdc	200 W
VI-A33-CQ	IAM	48 Vdc	400 W
VI-ANN-CQ	IAM	48 Vdc	400 W
VI-A66-CQ	IAM	300 Vdc	400 W
VI-AIM-C1	AIM	85-264 Vac	250W

C = Product Grade, C may be replaced by E, I, or M

C = -25 to +85/+100 (AIM/IAM)
E = -10 to +85/+100 (AIM/IAM)
I = -40 to = +85/+100 (AIM/IAM)
M = -55 to +85/+100 (AIM/IAM)

FIAM Model Numbers

FIAMwxyy-aa
Input voltage = 48Vdc (36-75)

w = Product Type
1 = 10 A
2 = 20 A

x = Product Grade
C = -20 to +100
T = -40 to +100
H = -40 to +100
M = -55 to +100

yy = Pin Style & baseplate Style (non safety related)

aa = Customer Special Designator
(any alphanumeric combination, non-safety related)