

File E135493
Project 92ME10175

February 6, 1992

REPORT

on

COMPONENT - POWER SUPPLIES

For Use In

INFORMATION TECHNOLOGY EQUIPMENT, INCLUDING ELECTRICAL

Vicor Corp.
Andover, MA

Copyright © 1992 Underwriters Laboratories Inc.

Underwriters Laboratories Inc. authorizes the above-named company to reproduce this Report provided it is reproduced in its entirety.

Underwriters Laboratories Inc. authorizes the above-named company to reproduce that portion of this Report consisting of this Cover Page through Page 2.

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 semiconductor 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, UL 60950-1:2003, First Edition; CAN/CSA C22.2 No. 60950-01-03, and UL 544, The Standard for Medical and Dental Equipment, Third Edition.

ELECTRICAL RATINGS: Refer to Ill. 8.

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, First 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. 60950-1-03, UL60950-1 and UL 544, The Standard for Medical and Dental. ***
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.

<u>Product Type</u>	<u>Model</u>	<u>Fuse</u>
<u>VI-IAM</u>	<u>VI-A11-CU</u>	<u>AGC-20A / 32V</u>
	<u>VI-AWW-CU</u>	<u>AGC-20A / 36V</u>
	<u>VI-A33-CQ</u>	<u>3AB-20A / 60V</u>
	<u>VI-ANN-CQ</u>	<u>3AB-20A / 80V</u>
	<u>VI-A66-CQ</u>	<u>Buss PC-Tron 5A/250V</u>
<u>VI-AIM</u>	<u>VI-AIM-xx</u>	<u>Buss GDB-6.3A / 250V</u>
		<u>Buss GDB-7A / 250V</u>
		<u>Littlefuse 7A 314 series</u>
<u>FIAM</u>	<u>FIAM1xyz</u>	<u>Bussmann-ABC-10A</u>
	<u>FIAM2xyz</u>	<u>Bussmann-ABC-20A</u>
<u>FARM</u>	<u>FARM1</u>	<u>Bussmann-ABC-10A</u>
	<u>FARM2</u>	<u>Bussmann-ABC-15A</u>
	<u>FARM3</u>	<u>Bussmann-ABC-10A</u>
<u>ARM</u>	<u>ARM1-xyz</u>	<u>Bussmann-ABC-10A</u>
	<u>ARM2-xyz</u>	<u>Bussmann-ABC-15A</u>

VI-ARM / FARM Model Numbers

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

VI-ARMw-xyz

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

z = Pin Style

1 = Short

N = Long ModuMate

2 = Long

F = Short RoHS

S = Short ModuMate

G = Long RoHS

FARMwxyz

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

C = -20 to +100

H = -40 to +100

y = Pin Style

1 = Short

N = Long ModuMate

2 = Long

F = Short RoHS

S = Short ModuMate

G = Long RoHS

z = Baseplate

1 = Slotted

2 = Threaded

3 = Thru-hole

VI-IAM / VI-AIM Model Numbers

VI = VI for Standard Product

VI = VE for RoHs compliant

<u>Model</u>	<u>Product Type</u>	<u>Input Voltage</u>	<u>Output Power</u>
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

FIAMwxyz

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

y = Pin Style

1 = Short

2 = Long

S = Short ModuMate

N = Long ModuMate

F = Short RoHS

G = Long RoHS

z = Baseplate

1 = Slotted

2 = Threaded

3 = Thru-hole