

File E135493

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REPORT

on

COMPONENT - POWER SUPPLIES, INFORMATION TECHNOLOGY EQUIPMENT
INCLUDING ELECTRICAL BUSINESS EQUIPMENT

Vicor Corp.
Andover, MA

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DESCRIPTION

PRODUCT COVERED:

USR, CNR: Component - Power Supply Modules, VI-J00 and IP-J00 Family, Model Nos. VI-Jbc-de-xxx, VI-aJbccc-deee-xx, and IP-Jbc-de-xx may be followed by additional suffixes.

Refer to Ill. 8 and 8a.

GENERAL CHARACTER AND USE:

* This product is a switching type power supply incorporating semiconductor components in the primary circuits. It is provided with input and output terminals for connection to the end use equipment. USR/CNR indicates investigation to the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, ANSI/UL60950-1-2011, dated December 19, 2011 and CAN/CSA C22.2 No. 60950-1-07, 2nd Edition + A1:2011 (MOD).

The Standard for General Purpose Power Supplies, UL1012.

Based on the March 15, 1991 Industry Review and per the manufacturer's request. This section of this report was transferred to the category for Power Supplies For Use In Electronic Data Processing Equipment, General Purpose Power Supplies, and Power Supplies For Use In Information Technology Equipment, Including Electrical Business Equipment.

NOMENCLATURE BREAKDOWN:

Model number coding breakdown is specified in Ill. 8 and 8a.

VI-Jbc-de-xxx

VI-J00 (MiniMOD) DC-DC Series

VI = Product Type

VI = VI (Vicor), VI = VE (Vicor RoHS), VI = MI (Military), VI = IP (Vicor Japan)
 VI = IE (Vicor Japan RoHS)

d = Product Grade

C = Commercial -20C to 100C
 I = Industrial -40C to 100C
 M = Military -55C to 100C
 E = Economy 0C to 100C

e = Output Power /Current

$V_{out} \geq 5V$	$V_{out} < 5V$
W = 100W	20A
X = 75W	15A
Y = 50W	10A
Z = 25W	5A

b = Input Voltage (Vdc)

	Nominal	Range
0 =	12	10-20
V =	24	10-36
1 =	24	21-32
W =	24	18-36
2 =	36	21-56
3 =	48	42-60
N =	48	36-76
4 =	72	55-100
T =	110	66-160
F =	165	130-260
5 =	150	100-200
6 =	300	200-400
7 =	225	100-375

c = Output Voltage (Vdc)

Nominal	Max(A)	Max(W)	Nominal	Max(A)	Max(W)
Z = 2.0 @	20A	40W	2 = 15.0 @	6.6A	100W
Y = 3.3 @	20A	66W	N = 18.5 @	5.4A	100W
0 = 5.0 @	20A	100W	3 = 24.0 @	4.2A	100W
X = 5.2 @	19.2A	100W	L = 28.0 @	3.6A	100W
W = 5.5 @	18.2A	100W	J = 36.0 @	2.7A	100W
V = 5.8 @	17.2A	100W	K = 40.0 @	2.5A	100W
T = 6.5 @	15.4A	100W	4 = 48.0 @	2.1A	100W
R = 7.5 @	13.3A	100W	H = 52.0 @	1.9A	100W
M = 10.0 @	10A	100W	F = 72.0 @	1.4A	100W
1 = 12.0 @	8.3A	100W	D = 85.0 @	1.2A	100W
P = 13.8 @	7.2A	100W	B = 95.0 @	1.1A	100W

xxx = Specials / Options

F1-F7 = FinMOD (Heatsink)

S = SlimMOD (Flangeless Package)

B1 = BusMOD (screw / lug wiring interface)

0 – 999 = Customer special, unique label or testing, non-safety related changes, d and e are optional for specials

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

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

2. The Normal Temperature Test was conducted with the unit in a 40°C ambient yielding a temperature of 100°C on the aluminum base plate. The transformer T1 temperature rise is less than the max permitted (100°C) measurement by thermocouple method rise for a Class F (155°C) insulation system. The 100°C temperature should not be exceeded to ensure that the transformer T1 will be within its 100°C rise limitation.

3. For models with 5 to 40 V dc outputs, the secondary circuits have been investigated for compliance with SELV requirements. Models with 48 to 95 V dc do not meet the SELV requirements.

4. The base plate is isolated by basic insulation from the primary circuit. As such it should be properly grounded if it is subject to operator contact in the end product.

5. The Leakage Test should be performed during the end product investigation.

6. The input and output terminals are not acceptable for field connections and are only intended for connection to mating connectors or internal wiring inside the end-use machine. The acceptability of these and the mating connectors relative to secureness, insulating materials, and temperature should be considered.

7. The "Gate In" and "Gate Out" terminals are in low voltage primary connected circuits.

8. All units must have an external primary fuse provided in the end use application. See Table 1 for ratings.

Model	Max Input Fuse Rating
VI-J7x-xx	Bussmann PC-Tron 2.5 A, 250 V ac/450 V dc
VI-J6x-xx	Bussmann PC-Tron 3 A, 250 V ac/450 V dc
VI-J5x-xx	Bussmann PC-Tron 5 A, 125 V ac/400 V dc
VI-JTx-xx	Bussmann PC-Tron 5 A, 125 V ac/400 V dc
VI-J4x-xx	Bussmann PC-Tron 5 A, 125 V ac/400 V dc
VI-J3x-xx	Bussmann PC-Tron 5 A, 125 V ac/ 400 V dc
VI-JNx-xx	Bussmann PC-Tron 5 A, 125 V ac/250 400 V dc
VI-JNx-xX	Bussmann PC-Tron 5 A, 125 V ac/400 V dc Alternates - Littelfuse R251005 (5 A, 125 V ac/V dc)
	Bussmann MCR5 (5 A, 125 V ac/V dc)
VI-JNx-xY	Bussmann PC-Tron 3 A, 125 V ac/450 V dc Alternate - Littelfuse R251003 (3 A, 125 V ac/V dc)
VI-J2x-xx	Bussmann PC-Tron 5 A, 125 V ac/400 V dc
VI-JWx-xx	8 A/60 V or 8A / 125 V
VI-J1x-xx	8 A/60 V or 8A / 125 V
VI-JVx-xx	8 A/60 or 8A / 125 V
VI-J0x-xx	8 A/60 V or 8A / 125 V

* Where x can be any character.