

File E135493
Project 90ME19878

March 12, 1991

REPORT

on

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

Vicor Corp.
Andover, MA

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D E S C R I P T I O NPRODUCT COVERED:

USR, CNR: Component - Power Supply, 3 Phase Front Ends, Model Nos. VI-TKY6-CHX, VI-TKY6-IHX, VI-TKY6-CEX, VI-TKY6-IEX, VI-TRY6-CCX, VI-TRY6-ICX, and VI-TRY6-01. VI may be replaced by IP for all models.

Model No. can be followed by additional suffixes.

GENERAL CHARACTER AND USE:

This product is a power supply incorporating semiconductor components in the primary circuits. It is provided with input terminals for connection to 3 phase Wye or Delta power source. The output connectors provide unisolated 300 V dc power to (Vicor Recognized Component) power supplies.

The power supply has been investigated to the Standard for Information Technology Equipment, CAN/CSA C22.2 No. 60950-00, UL60950, CAN/CSA 22.2 No. 950-85, UL1950, 3rd Edition, UL 1012, Standard for General Purpose Power *Supplies, Sixth Edition. 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.

ELECTRICAL RATINGS:

<u>Model No.</u>	<u>Input Ratings</u>	<u>Output Ratings</u>
VI-TKY6-CHX	208/120 V ac, 3 phase, 5 A 47-63 Hz	300 V dc, 1.5 kW
VI-TKY6-IHX	208/120 V ac, 3 phase, 5 A 47-440 Hz	300 V dc, 1.5 kW
VI-TKY6-CEX	208/120 V ac, 3 phase, 10 A 47-63 Hz	300 V dc, 3.0 kW
VI-TKY6-IEX	208/120 V ac, 3 phase, 10 A 47-440 Hz	300 V dc, 3.0 kW
VI-TRY6-CCX	208/120 V ac, 3 phase, 18 A, 47-63 Hz	300 V dc, 5.0 kW
VI-TRY6-ICX	208/120 V ac, 3 phase, 18 A, 47-440 Hz	300 V dc, 5.0 kW

MODEL DIFFERENCES:

Specials - Additional suffixes signify variations not effecting descriptions in this Report, unless otherwise indicated.

<u>Model No.</u>	<u>Input</u>	<u>Output</u>
VI-TRY6-01	208/120 V ac, 3 ph	18 A, 47-440 Hz, 300 V dc, 8.5 kW

Conditions of Acceptability - When 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 the CAN/CSA C22.2 No. 60950-00, UL 60950, CAN/CSA C22.2 No. 950-95, UL 1950 3rd Edition of the Standard for Information Technology Equipment, UL 1950.

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

3. The normal temperature test was conducted with the unit in a 50°C ambient. Temperature testing may have to be repeated if ambient temperature exceeds 50°C. Temperature measurements for Models VI-TKY6-IHX, -IEX, -ICX have been conducted at 60 Hz only.

4. Output circuits are not isolated and do not comply with ELV or SELV requirements, and are meant to power Vicor components.

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

6. External fusing in each phase required. Bussmann ABC-7 or equivalent, rated 250 V, 7 A. Normal Blow

7. Models VI-TKY6-IHX, VI-TKY6-IEX and VI-TRY6-ICX provided with a label. "Warning high leakage current, earth connections essential before connecting supply". See Ill. 1. These models should be checked for leakage current less than five percent of input phase current and should be provided with a protective conductor of min 1 sq mm cross-sectional area.

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

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

CONSTRUCTION DETAILS:

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

Spacings - Min spacings between live parts of opposite polarity and between live and dead-metal parts shall be as indicated (from Tables III, IV, and V of UL 1950, First Edition.)

<u>Between</u>	<u>Creepage (mm)</u>	<u>Clearance (mm)</u>
Primary (ac) to Ground	2.5	2.0
Primary (dc) to Ground	4.0	2.0

Labels - All required Labels are Recognized Components (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 components 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 94V-0 and an operating temperature rating of at least 130°C.

Corrosion Protection - Parts are of corrosion resistant material or plated or painted as corrosion protection.

Tolerance - Unless specified otherwise, all indicated dimensions are nominal.