



Model: HVI 6K-E3P/600-3U7A-U2744

COSD: XXXX

Summary Description: 6000W Industrial Quality Power Supply
400Vac, 3-phase to 600Vdc/10A

Customer Name: Thiele KG/Germany

Customer Part Number: Same as above

Preliminary

Product Description:

The unit is a heavy-duty industrial quality power supply, built with a combination of three PFH1700 and three KHH 2000 internal power cards. Built-in fans provide sufficient airflow for operation at the specified temperature without de-rating. The fans draw air into the unit and the exhaust exits at the rear of the unit. The system has full electronic protection. The input and output are filtered for low noise. Large design headroom, and the use of components with established reliability result in a high MTBF. The unit is manufactured at our plant under strict quality control.

Special Features: Active PFC input. The input source is a Diesel generator. Alarm, Conformal coating

SPECIFICATIONS

Input Voltage

400Vac, 3-phase nominal, 47-63Hz
340-460Vac operating range
Input current: 12Arms max per phase
Power factor meets EN61000-3-2 and -12

Input Protection

Inrush current limiting
Varistor
Internal safety fuses
Lower voltage than the specified minimum input will not damage the unit

Isolation

2250Vdc input to chassis
4300Vdc input to output
5600Vdc type testing
3000Vdc output to chassis

Standards

Designed to meet EN62368-1 and related standards

EMI

EN55032 Class A with margins

Switching Frequency

80kHz \pm 5kHz

Output Voltage/Current

600Vdc \pm 1V/10A
Output is floating, either terminal can be grounded

Redundancy Diode

Installed internally for separation of the internal modules

Line/Load Regulation

\pm 1% combined from zero load to full load including redundancy diode.

Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

Output Ripple/Noise

Better than 200mVrms or 900mVpp (@ 20MHz BW)

Output Overload Protection

Rectangular current limiting with short-circuit protection (no hiccup)
Thermal shutdown in case of insufficient airflow (self-resetting)
Current Limit: 10A \pm 0.8A

Output Over-voltage Protection

Second regulator loop, completely stable and independent of main regulator loop
OVP limit: 650V \pm 20V

Efficiency

Min 85% at full load

Operating Temperature Range

0°C to +50°C for full specification

Temperature Drift

0.03% per °C over operating temperature range

Cooling

By built-in high quality fans

Environmental Protection

Basic ruggedizing
Conformal coating

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5-95% non-condensing

MTBF

90,000 hours @45°C (Fans excluded)
Demonstrated MTBF is significantly higher

Indicators

Green OUTPUT ON LED installed on each internal module visible through the cooling slots

Alarm Output

Output Fail Alarm
Form C contacts

Package/ Dimensions

3U7: 432 x 132 x 432mm
(17" x 5.2" x 17")
Chassis mount

Weight

14kg (31 lbs)

Connections


Input: Terminal block
Output: Terminal block Phoenix HV

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice
Contamination related failures and shipping cost excluded

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