

5000W, 400Vac, 3-phase Input, Rugged, Industrial Power Supply with Active PFC-Input PFHI 5K-3U7

- Active power factor correction (PFC)
- High input voltage
- 3-Phase input, 3 wire connection
- Rugged, industrial quality
- Field-proven design topology
- Full electronic protection



This rugged, industrial quality, high input voltage AC-DC power supply with active power factor corrected input utilizes field proven technology to generate the required output power. The system is built with three PFH1700 and three KHI 1700 internal power cards. The input and output are filtered for low noise. High quality built-in fans provide sufficient airflow for operation within the specified temperature range without de-rating. The fans draw air into the unit, and exhaust at the terminal side of the unit. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also ensures exceptional mechanical ruggedness. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large design headroom, and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control. Several units can be connected parallel for higher output power.

SPECIFICATIONS

<p>Input Voltage 400Vac, 3-phase, 47-63Hz 340-460Vac operating range Input current: 10Arms per phase Power Factor is better than 0.97 at full load for the entire input range. Power factor meets EN61000-3-2 and EN61000-3-12</p> <p>Input Protection Inrush current limiting Varistor Internal safety fuse Lower voltage than the specified minimum input will not damage the unit</p> <p>Isolation 2250Vdc input to chassis 4300Vdc input to output 5600Vdc type testing Output to chassis: according to output voltage</p> <p>Standards Designed to meet EN60950-1 and related standards</p> <p>EMI EN55032 Class A with margins</p> <p>Switching Frequency 55kHz ±3kHz</p>	<p>Output Voltage/Current Any fixed voltage 300V ... 600Vdc 5000W continuous output The output is floating Other outputs on request</p> <p>Redundancy Diode Installed internally for separation of the internal modules</p> <p>Line/Load Regulation ±1% combined from zero load to full load including redundancy diodes</p> <p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p> <p>Output Ripple/Noise Better than 0.2% rms or 2% peak-to-peak of output voltage (20MHz BW)</p> <p>Output Overload Protection Rectangular current limiting with short-circuit protection Thermal shutdown with automatic reset in case of insufficient airflow (self-resetting)</p> <p>Output Overvoltage Protection Second regulator loop completely stable and independent of main regulator loop</p>	<p>Efficiency Depends on input/output configuration. Min. 84% at full load</p> <p>Operating Temperature Range 0°C to 50°C for full specification without derating Extended temperature range available</p> <p>Temperature Drift 0.03% per °C over operating temperature range</p> <p>Cooling By high quality built-in fans</p> <p>Environmental Protection Basic ruggedizing Conformal coating</p> <p>Shock/Vibration IEC 61373 Cat 1 A&B</p> <p>Humidity 5 - 95% non-condensing</p> <p>MTBF 140,000 hours @ 45°C per internal power card (fans excluded) Demonstrated MTBF is significantly higher</p>	<p>Indicators Green "Output ON" LED on each internal module visible through the cooling slots</p> <p>Control Input None</p> <p>Alarm Output Not installed Available on request</p> <p>Package/Dimensions H x W x D 3U7/19: 19" rack mount 132 x 483 x 407mm (3U) 5.2" x 19" x 16") 3U7 chassis-mount 132 x 432 x 407 mm (3U) 5.2" x 17" x 16" (includes terminals)</p> <p>Weight 12 kg (26 lbs)</p> <p>Connections Input: Terminal block with 3/8" spacing Output: Terminal block suitable for output configuration</p> <p>RoHS Compliance Compliant</p> <p>Warranty Two years subject to application within good engineering practice Contamination related failures and shipping cost excluded</p>
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The specifications on this data sheet are generic and are subject to change. Enhancements to these specifications can be provided upon request.

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ABSOPULSE ELECTRONICS LTD

110 Walgreen Road, Ottawa, Ontario. K0A 1L0. CANADA

Tel: +1-613-836-3511 | Fax: +1-613-836-7488

<https://absopulse.com/contact> | <https://www.absopulse.com>