

2000W Rugged, Industrial Quality AC-DC Power Supply with PFC-Input PFC 2K-U5512L Series



- Electronic power factor correction (PFC)
- Rugged industrial quality
- Full electronic protection
- Cooling by high quality built-in fans
- Field-proven design
- N+1 redundancy as an option

This rugged, industrial quality AC-DC power supply with PFC input utilizes field proven technology to generate the required output power. It is a mature design with a track record in numerous applications. The unit is built with field proven internal modules. An optional built-in redundancy diode in each module allows for parallel connection and N+1 redundant operation. 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. 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.

SPECIFICATIONS

<p>Input Voltage 90-264Vac (Universal) 47... 63Hz Input current: 25Arms max. Power factor is min 0.97 at full load for the entire input range Meets EN 61000-3-2 and EN 61000-3-12</p>	<p>Output Voltage/Current 12V/160A, 24V/80A, 28V/70A, 48V/40A, 54V/36A or 125V/16A Output is floating, either terminal can be grounded Maximum output power 2000W Other outputs available on request</p>	<p>Efficiency 80% - 84% at full load, depending on output voltage</p>	<p>Indicators Green high intensity "OUTPUT ON" LED visible from the terminal side</p>
<p>Input Protection Inrush current limiting Varistor Internal safety fuse Lower voltage than the specified min. input will not damage the unit</p>	<p>Redundancy Diode Installed internally. Not available for 12V version</p>	<p>Operating Temperature Range 0 °C to +50 °C for full specification with proper cooling Extended temperature ranges available on request</p>	<p>Control Input None</p>
<p>Isolation 2250Vdc input to chassis 4300Vdc input to output; 8mm spacing 500Vdc output to chassis</p>	<p>Line/Load Regulation ±1% combined from zero load to full load</p>	<p>Temperature Drift 0.03% per °C over operating temperature range</p>	<p>Alarm Output None Available on request</p>
<p>Standards Designed to meet EN 62368-1 and corresponding standards</p>	<p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p>	<p>Cooling Forced air by high quality built-in fan and conduction to customer heat-sink or chassis</p>	<p>Package/Dimensions (W x H x D) U5512L: 127 x 127 x 305 mm 5" x 5" x 12". Dimensions exclude terminals and fans Four L- brackets for mounting with M5 x 10mm screws</p>
<p>EMI EN 55032 Class A with margins</p>	<p>Output Ripple / Noise Less than 1% peak-to-peak or 0.2% RMS of the output voltage (20MHz BW)</p>	<p>Environmental Protection Basic ruggedizing Conformal coating</p>	<p>Weight 5.2 kg (11.5 lbs)</p>
<p>Switching Frequency Input stage: 80kHz ±5kHz Output stage: 55kHz ±3kHz</p>	<p>Output Overload Protection Rectangular current limiting with short-circuit protection (no hiccup) Thermal shutdown in case of insufficient cooling (self-resetting)</p>	<p>Shock/Vibration IEC 61373 Cat 1 A&B</p>	<p>Connections Input: 3-pole terminal block with 13mm spacing Output: 2-pole terminal block with 13mm spacing</p>
<p>Hold Up Time Min. 10ms at any input for 5% drop in the output voltage</p>	<p>Output Over-voltage Protection Second regulator loop completely stable and independent of the main regulator loop.</p>	<p>Humidity 5 - 95% non-condensing</p>	<p>RoHS Compliance Compliant</p>
		<p>MTBF 120,000 hours @ 45 °C Demonstrated MTBF is significantly higher. Fans excluded</p>	<p>Warranty Two years subject to application within good engineering practice Contamination related failures and shipping cost excluded.</p>

ABSOPULSE power supplies are designed and built to customer requirements. The specifications on this data sheet are generic guidelines only and are subject to change

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