

# 1,200W Rugged, Industrial AC/DC Power Supply

## HBC 1K2 Series



- Rugged, industrial quality
- Fan cooling
- Full electronic protection
- Field-proven design topology

The HBC 1K2 series rugged, industrial quality AC/DC power supply uses field-proven internal modules to generate 1,200W output power. It is a mature design with a track record in numerous applications. Cooling is by a built-in fan, with additional conduction via the baseplate. The unit has full electronic protection. The input and output are filtered for low noise. Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF. Additional ruggedizing and conformal coating are available for operation in mobile applications. It is manufactured at our plant under strict quality control. The chassis has four M6 PEM nuts for mounting on the bottom surface. Power factor corrected versions, the PFC 1K and PFC 1K5, are also available.

### SPECIFICATIONS

<p><b>Input Voltage</b> 115/230VAC <math>\pm</math> 15% Selectable by internal jumper 47 - 63Hz Input current 22Arms max at 95V</p> <p><b>Input Protection</b> Inrush current limiting Varistor Internal safety fuse Lower voltage than the specified minimum input will not damage the unit</p> <p><b>Input Isolation</b> 2250VDC input to chassis 4300VDC input to output 8mm spacing 500VDC output to chassis</p> <p><b>Standards</b> Designed to meet EN60950 and corresponding UL and CSA standards</p> <p><b>EMI</b> Meets and EN 55022 Class A with margins</p> <p><b>Switching Frequency</b> 55kHz <math>\pm</math> 3kHz</p> <p><b>Hold-up Time</b> Min. 5msec at nominal input</p>	<p><b>Output Voltages</b> 24V/50A, 48V/25A or 125V/9A are standard Output is floating, either terminal can be grounded Consult factory for other voltages</p> <p><b>Redundancy Diode</b> Not installed Available as option</p> <p><b>Line/Load Regulation</b> <math>\pm</math>1% combined from zero load to full load.</p> <p><b>Dynamic Response</b> Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p> <p><b>Output Ripple Noise</b> Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ BW)</p> <p><b>Output Overload Protection</b> Rectangular current limiting with short circuit protection Thermal shutdown with automatic reset in case of insufficient airflow</p> <p><b>Output Overvoltage Protection</b> Double regulator loop</p>	<p><b>Efficiency</b> Min 80% at full load</p> <p><b>Operating Temperature</b> 0° C to +50° C for full specification without derating. Extended temperature ranges available.</p> <p><b>Temperature Drift</b> 0.03% per ° C over operating temperature range</p> <p><b>Cooling</b> Forced air by built-in fans and additional cooling via base plate</p> <p><b>Environmental Protection</b> Basic ruggedizing Heavy ruggedizing and conformal coating as option</p> <p><b>Shock/Vibration</b> IEC 61373 Cat 1 A&amp;B</p> <p><b>Humidity</b> 5 - 95% non-condensing</p> <p><b>MTBF</b> 110,000 hours at 45° C (Fan excluded) Demonstrated MTBF is significantly higher</p>	<p><b>Indicators</b> None</p> <p><b>Control Input</b> None</p> <p><b>Alarm Output</b> None Available as option</p> <p><b>Dimensions (W x H x L)</b> U5512: 127 x 127 x 315 mm (5" x 5" x 12.42") enclosed case Mounting by four M6 screw ports on the bottom surface</p> <p><b>Weight</b> 5.2 kg (11.5 lb.)</p> <p><b>Connections</b> Input: terminal blocks Output: Terminal block or threaded studs</p> <p><b>RoHS Compliance</b> Fully compliant</p> <p><b>Warranty</b> Two years subject to application within good engineering practice</p>
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