

# 1,300W Rugged, Industrial AC/DC Power Supply HBC 1K3 Series



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

The HBC 1K3 series rugged industrial quality AC/DC power supply uses field-proven internal modules to generate 1,300W 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 are also available.

## SPECIFICATIONS

### Input Voltage

115/230VAC  $\pm$  15%  
Selectable by internal jumper  
47 - 63Hz  
Input current 22Arms max at 95V

### Input Protection

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

### Input Isolation

2250VDC input to chassis  
4300VDC input to output  
8mm spacing  
500VDC output to chassis

### Standards

Designed to meet EN60950 and corresponding UL and CSA standards

### EMI

Meets and EN 55022 Class A with margins

### Switching Frequency

55kHz  $\pm$  3kHz

### Hold-up Time

Min. 5msec at nominal input

### Output Voltages

24V/54A, 48V/27A or 125V/10A are standard  
Output is floating, either terminal can be grounded  
Consult factory for other voltages

### Redundancy Diode

Not installed  
Available as option

### Line/Load Regulation

$\pm$ 1% combined from zero load to full load.

### Dynamic Response

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

### Output Ripple Noise

Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ BW)

### Output Overload Protection

Rectangular current limiting with short circuit protection  
Thermal shutdown with automatic reset in case of insufficient airflow

### Output Overvoltage Protection

Double regulator loop

### Efficiency

Min 80% at full load

### Operating Temperature

0° C to +50° C for full specification without derating.  
Extended temperature ranges available.

### Temperature Drift

0.03% per °C over operating temperature range

### Cooling

Forced air by built-in fans and additional cooling via base plate

### Environmental Protection

Basic ruggedizing  
Heavy ruggedizing and conformal coating as option

### Shock/Vibration

IEC 61373 Cat 1 A&B

### Humidity

5 - 95% non-condensing

### MTBF

110,000 hours at 45°C (Fan excluded)  
Demonstrated MTBF is significantly higher

### Indicators

None

### Control Input

None

### Alarm Output

None  
Available as option

### Dimensions (W x H x L)

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

### Weight

5.2 kg (11.5 lb.)

### Connections

Input: terminal blocks  
Output: Terminal block or threaded studs

### RoHS Compliance

Fully compliant

### Warranty

Two years subject to application within good engineering practice

**Enhancements to these general specifications and customizing can be accommodated upon request. Specifications subject to change.**

*Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BAPT-approved Facility.*



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