

1000W Rugged, Industrial AC/DC Power Supply in 5" X 5" X 12" Package

HBC 1K Series

- Rugged industrial quality
- Single adjustable output
- Full electronic protection
- Robust industrial quality
- Field-proven design
- N+1 redundancy available



The HBC 1K Series rugged, industrial quality AC/DC power supply uses a field-proven design to generate 1000W output power. It has an excellent track record in numerous applications. Cooling is by a built-in fan. The unit features full electronic protection and low output 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 extreme environments. An optional built-in redundancy diode allows for parallel and N+1 operation. The unit is manufactured at our plant under strict quality control. A power factor corrected version, the PFC 1000, is also available.

SPECIFICATIONS

Input Voltage

115/230VAC $\pm 15\%$
Selectable by internal jumper
47 - 63Hz
Input current 19Arms 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 wide margins

Switching Frequency

55kHz ± 3 kHz

Hold-up Time

Min. 5msec at nominal input

Output Voltages

24V/41A; 28V/35A; 48V/20A;
54V/18A are standard
 $\pm 5\%$ adjustable
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

Output voltage dependent.
Typically 80% at full load

Operating Temperature Range

0 to $+50^{\circ}\text{C}$ for full specification without derating.
Extended temp. range available

Temperature Drift

0.03% per $^{\circ}\text{C}$ over operating temperature range

Cooling

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

Environmental Protection

Basic ruggedizing
Optional conformal coating and heavy ruggedizing

Humidity

5 - 95% non-condensing

MTBF

100,000 hours @ 45°C
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 315mm
(5" x 5" x 12.45") enclosed case.
Dimensions include terminal blocks and fans.

Weight: 5.2 kg (11.5 lb.)

Connections

Terminal blocks

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice



European Stocking Distributor

Phone: +41 44 730 33 53

Email: sales@hvps-condatas.com / www.hvps-condatas.com

Rietbachstrasse 7, 8952 Schlieren (ZH), Switzerland