

5000W, Industrial Quality Rack- or Chassis-mount AC/DC Power Supply HBC 5K Series

- Rugged industrial quality
- Modular construction
- Flexible design for customizing
- Single phase 240Vac input
- Fan cooling
- Full electronic protection
- Field-proven design



**Chassis-mount
chassis**



Rack-mount

The HBC 5K Series modular, rugged, industrial quality AC/DC power supply system uses established design techniques to deliver up to 5000W output power, depending on the input/output configuration. It is a mature product with a track record in numerous applications. Built-in fans provide sufficient airflow for operation without de-rating to the specified temperature. 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. An optional built-in redundancy diode allows for several shelves to be paralleled for higher output power. Other options include extended operating temperature and alarm output. Additional ruggedizing and conformal coating are available for operation in extreme environments. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

240Vac (range 180-264Vac)
47-63Hz, +/-15%
3-phase and other
inputs as option

Input Protection

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

Input Isolation/Safety

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 EN 55022 Class A as a
minimum

Switching Frequency

55 KHz +/-3KHz

Hold Up Time

Minimum 5ms at full load for
5% drop of output voltage @ 240V
nominal input

Output Voltages

24V/200A, 48V/100A, 125V/40A
or 250V/20A
Consult factory for other voltages

Redundancy Diode

Available on request

Line/Load Regulation

+/-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)

Overload Protection

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

Output Over-voltage Protection

Double regulator loop completely
stable and independent of main
loop

Efficiency

Min 80% at full load

Operating Temperature

0 to+50°C for full specification
Extended operating temperature
range available

Environmental Protection

Basic ruggedizing
Optional heavy ruggedizing and
conformal coating

Temperature Drift

0.03% per °C over operating
temperature range

Cooling

Forced air by built-in fans.
Fans draw air into the unit,
air exits at the rear.

MTBF

150,000 hours @ 45 °C per
internal module.
Demonstrated MTBF is
significantly higher.

Indicators

None

Control Input

None
Remote SD as option

Alarm Output

None on the standard version
Module fail alarm available as
option (Form C)

Package/Dimensions (H x W x D)

Chassis-mount:
3U7: 132 x 432 x 407mm
(5.2" x 17" x 16") including connectors
Rack-mount:
3U7: 132 x 483 x 407 mm
(5.2" x 19" x 16") including connectors

Weight

Approx. 14 kg (30 lb)

Connections

Terminal blocks or studs.
Other connectors according to
customer requirements

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 converters, inverters, UPS systems, complete rack mount systems and
DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved Facility.*



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