300W, Rugged AC/DC Power Supply
HBC 65 Series

- Industrial quality
- Single regulated and adjustable output
- Convection/conduction cooling
- Full electronic protection
- Field-proven design
- N+1 redundancy available

The HBC 65 Series AC/DC power supply uses a high frequency half-bridge topology with many years of field proven reliability. It generates 300W output power with convection/conduction cooling and 400W if external forced air is available. For 500W output power, see the HBC 65F version with built-in fans. Standard output voltages from 12V to 125VDC are available. The chassis-mount design features low component count and high efficiency. The use of high quality components and rigorous quality control results in a demonstrated MTBF exceeding 1,000,000 hours confirmed by a track record established in hundreds of applications.

SPECIFICATIONS

Input Voltage
115/230VAC +/- 15%
47 - 63Hz
Voltage selection by internal jumper

Input Protection
Inrush current limiting
Varistor
Internal safety fuse
Lower voltage than the specified min. input will not damage the unit

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

Standards
Designed to meet EN 60950 and corresponding UL and CSA standards

EMI
EN55022 Class B

Switching Frequency
55 KHz +/-3KHz

Hold Up Time
Minimum 10ms at full load for 5% drop of output voltage at nominal input

Output Voltage/Current
12VDC/25A, 24VDC/12.5A, 48VDC/6.25A or 125VDC/2.4A
Consult factory for other voltages

Redundancy Diode
Optional

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
Less 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 (no hiccup)
Thermal shutdown in case of insufficient cooling (self resetting)

Output Overvoltage Protection
Double regulator loop completely stable and independent of main loop

Efficiency
Output voltage dependent .
Typically 80% at full load

Operating Temperature Range
0 to 50°C for full specification without de-rating.
Extended temp. range available

Temperature Drift
0.03% per °C over operating tempera range

Cooling
Conduction to customer heatsink or chassis and natural convection

Environmental Protection
Basic ruggedizing
Optional conformal coating

Humidity
5 – 95% non-condensing

MTBF
200,000 hours @ 45 °C (calculated)
Demonstrated MTBF exceeds 1,000,000 hours at typical operating temperatures

Indicators
None on standard version

Control Input
None

Alarm Output
None on standard version
Available as option

Dimensions (WxHxD)
F3: 5.2" x 2.5" x11.4"
including mounting flanges and terminals

Weight
1.77 kg (3.9 lb)

Connections
12 pole barrier type terminal block with 3/8" spacing

RoHS Compliance
(Directive 2002/95/EC)
According to requirements

Warranty
Twelve months 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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