

500W, Rugged AC/DC Power Supply HBC 319 Series



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

The HBC 319 Series AC/DC power supply uses a high frequency half-bridge topology with many years of field proven reliability. It generates 500W output power with convection/conduction cooling and 600W if external forced air is available. For 700W output power, the HBC 319F version is available with built-in fans. Standard output voltages are from 24V to 125VDC. 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
Varistors
Internal safety fuse
Lower voltage than the specified minimum 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 EN60950 and corresponding US and CSA standards

EMI

EN 55022 Class B

Switching Frequency

55KHz +/- 3KHz

Hold Up Time

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

Output Voltages

24VDC/20A, 48VDC/10A or 125V/5.6A standard
Consult factory for other voltages

Redundancy Diode

Optional

Line/Load Regulation

± 1% combined from no 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

0 to 50°C at full power without de-rating.
Extended temperature range available

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Conduction to customer heatsink or chassis and natural convection

Environmental Protection

Basic ruggedizing
Optional conformal coating

Humidity

5 – 95% non-condensing

MTBF

150,000 at 45°C
Demonstrated MTBF over one million hours

Indicators

None on standard version

Control Input

None

Alarm Output

None on standard version
Available as option

Dimensions (WxHxD)

F4: 5.1x 2.63" x 13.82" including mounting flanges and terminals

Weight

2.0 kg (4.4 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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