

300W, Rugged Industrial Quality AC/DC Power Supply HBC 300-FT Series



- Rugged industrial quality
- Field-proven design
- Conduction/convection cooling (no fans)
- Full electronic protection
- Large design headroom
- Most versions are available from stock

This rugged, industrial quality AC/DC power supply uses field-proven topology to generate the required output power. It is a mature design with a track record in numerous applications. The design has large design headroom and is rated for operation at 50°C without de-rating. It is cooled via baseplate to a heat-sinking surface and by natural convection. Full electronic protection, low component count and the use of components with established reliability results in a high MTBF. The input is selectable for 230Vac or 115Vac operation by internal jumper. The unit is manufactured at our plant under strict quality control.

For customized versions with various options, and for Eurocard plug-in modules, please see the HBC 65 and LOT 65 data sheets.

SPECIFICATIONS

Input Voltage

115/230Vac +/- 15%, 47 - 63Hz
Voltage selection by internal jumper
Input also accepts 220V – 370Vdc range

Input Protection

Inrush current limiting
Varistor
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 EN 60950-1 and corresponding UL and CSA standards

EMI

EN55022 Class A with margins

Switching Frequency

55 KHz +/-3KHz

Hold Up Time

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

Output Voltage/Current

12V/25A; 24V/12A, 48V/6A or 125V/2A
Total output power 300W continuous
Output is floating; either terminal can be grounded
Other voltages on request

Redundancy Diode

Installed 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

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

80% - 87% at full load, depending on output voltage

Operating Temperature Range

0 to +50°C for full specification with proper cooling
(For extended temperature range see HBC 65 Series)

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Conduction via base plate to customer heat-sink or chassis and natural convection

Environmental Protection

Basic ruggedizing
Heavy ruggedizing and conformal coating available as an option

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

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

Indicators

Green "Output ON" LED visible through the cooling slots

Control Input

None

Alarm Output

Output fail alarm Form C contacts installed on request

Package/Dimensions (W x H x L)

F3: 132 x 62 x 300 mm (5.2" x 2.43" x 11.8") including terminal block and flanges
Mounting holes are clear

Weight

2 Kg (4.4 lb)

Connections

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

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice

Enhancements to these general specifications can be accommodated upon request. Specifications are 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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