

Source Control Document.

Model: HBC65-24FTND (Standard ND Stock Version)
OSD: 1510 0496 SPND UL Part No.: 1510 0496
Summary Description: 300W Single Output, AC/DC Power Supply, 24V/12A



Product description:

This power converter is a rugged industrial quality unit uses field proven topology. It is a mature design with an excellent track record in hundreds of applications. The design headrooms are large. It is cooled by conduction via baseplate to a heatsinking surface and by natural convection. A built-in redundancy diode allows parallel connection to achieve higher output power or N+1 redundancy. A Form C output fail alarm is also included. This chassis-mount design is optimized for low component count and high efficiency. The use of components with established reliability results in a high MTBF. The unit is manufactured at our plant under strict quality controls. Customized versions are available.

Special Feature: These stock units are individually packed and ready for immediate delivery

SPECIFICATIONS

Input Voltage / Current

115/230Vac +/-15%, 47-63Hz
 Jumper Selectable
 Input Current: 6.4Arms max. at 95 Vac

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 EN60950 and corresponding UL & CSA standards
 Approved to UL60950-1

EMI

EN55022 Class B

Hold Up Time

Min. 5ms at nominal input for 5% drop of the output voltage

Switching Frequency

55KHz ±3KHz

Output Voltage/Current

24Vdc/12A
 Adjustable 24-28V
 Output is floating, either terminal can be grounded

Redundancy Diode

Installed internally

Line/Load Regulation

±1.5% combined from zero load to full load including built-in redundancy diode

Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

Output Ripple / Noise

Better than 60mVrms or 300mVpp (20MHz BW)

Output Overload Protection

Rectangular current limiting with short-circuit protection (no hiccup)
 Thermal shutdown in case of insufficient cooling (self re-setting)
 Current Limit: 14A ±2A

Output Overvoltage Protection

Second regulator loop, completely stable and independent of main regulator loop
 OVP setting: 30V ± 2V

Efficiency

Min. 85% at full load

Operating Temperature Range

-20 to +50°C for full specification with proper installation

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Conduction via baseplate to customer chassis or heatsink and natural air convection

Environmental Protection

Basic ruggedizing

MTBF

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

Indicators

Internal "Output ON" green LED visible through slot on the side of the unit

Control Input

None

Alarm Outputs

Form C alarm for output failure

Package / Dimensions (WxHxL)

F3: 132mm x 63mm x 290mm
 (5.2" x 2.46" x 11.4")
 Mounting holes are clear

Weight

2.0 kg (4.4 lb)

Connections


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

RoHS

Fully Compliant

Warranty

Two years subject to application within good engineering practice

Drawn by SS	Date Nov. 13, 2008
Checked by TS	Drawing No./ Rev. SCD 1510 0496NDA
Approved by TS	

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