# 300W, Rack-mount Power Supply/Charger BCH 65-3U/19M Series

- 19" Rack-mounted, 3U
- Rugged, industrial quality
- Convection cooled no fan
- Fully protected
- Field-proven design



This rugged, industrial quality, single output charger uses field-proven topology to generate 300W output power. It is a mature design with a track record in hundreds of applications. The unit consists of an internal HBC 65 power supply module. Standard single output float voltage configurations include 13.8Vdc, 27.6Vdc, 55.2Vdc or 138Vdc. This series has large design headroom and it is rated for full operation over the specified temperature range. Cooling is by convection and conduction to the 3U x 19" front-panel. The unit features an output separation diode, front panel adjustment, output voltage and current meters and input switch. Low component count and the use of components with established reliability result in a high MTBF. This power supply/charger is manufactured at our plant under strict quality control.

# **SPECIFICATIONS**

#### Input Voltage

115V/230Vac +/-15% Selectable by internal jumper, 47-63Hz Max. input current: 5.6Arms at 95Vrms AC line: Input switch on front panel

# **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 and corresponding UL & CSA standards

# EMI

EN55022 Class A with margins

Switching Frequency 55kHz ±3kHz

# Output Voltage/Current

Configurations available for 13.8V/21A, 27.6V/11A 55.2V/5V or 138V/2A Please consult factory if different voltage required Output is floating, either terminal can be grounded Output is adjustable ±5% by trimpot on front panel

#### **Output Separation Diode** Installed internally

# Line/Load Regulation

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

## Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time (without battery)

# **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 (without battery) Thermal shutdown in case of insufficient cooling (self re-setting) <u>Warning</u>: Battery must be fused externally, directly at the battery Output Overvoltage Protection Second regulator loop, completely stable and independent of main regulator loop

**Efficiency** Typically 80% at full load

**Operating Temperature Range** 0°C to +50°C for full specification Wider temperature ranges are available as an option

**Temperature Drift** 0.03% per deg. C over operating temperature range

Cooling Natural air convection

#### **Environmental Protection** Basic ruggedizing. Heavy ruggedizing and conformal coating available as an option

# MTBF

150,000h at 45°C Demonstrated MTBF is significantly higher

**Indicators (on Front Panel)** Output voltage and current meters (analog) Control Input None

Alarm Outputs None on standard version Output fail alarm available as an option

**Package/Dimensions (HxWxD)** 3U x 19" x 3"

**Weight** 3.0 kg (6.6 lbs)

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

**RoHS Compliance** Fully compliant

# Warranty

Two years subject to application within good engineering practice

