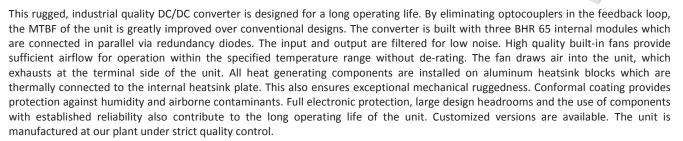
# 3000W, Opto-less, High Reliability, Industrial Quality DC/DC Converter BHR 3K-3U3 Series

- No optocouplers, low component count
- Rugged construction
- Conformal coating
- High input/output isolation
- Fan cooling
- Full electronic protection
- Customized versions available



#### **SPECIFICATIONS**

#### **Input Voltage**

48Vdc (42-60V) 125Vd (105-145V) For other input voltages, please consult factory.

## **Input Protection**

Inrush current limiting
Varistor
Reverse polarity protection
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 700VDC output to chassis (or according to output voltage)

## Standards

Designed to meet EN 60950-1 and corresponding UL and CSA standards

## EMI

EN55022 Class A with margins

**Switching Frequency** 55kHz ±3kHz

# Output Voltages

24Vdc/120A, 48Vdc/60A, 125Vdc/25A 3000W continuous Output is floating; either terminal can be grounded Consult factory for other voltages

# Redundancy diode

Installed

# Line/Load Regulation

± 2% combined from no load to full load including 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 1% of output voltage peak to peak or 0.2% Vrms (20MHz BW)

## **Output Overload Protection**

Rectangular current limiting with hiccup type short-circuit protection Thermal shutdown in case of

## **Output Overvoltage Protection**

Second regulation loop completely stable and independent of the main regulator loop

insufficient cooling (self -resetting)

## Efficiency

Typically 85% at full load depending on input/output combination

## **Operating Temperature Range**

0 ° C to 50 ° C for full specification Extended temperature ranges available on request

#### **Temperature Drift**

0.03% per °C, over operating temperature range

## Cooling

Forced air by high quality fans with a specified operating life

# **Environmental Protection**

Ruggedizing Conformal coating

# Shock/Vibration

IEC 61373 Cat 1 A&B

# Humidity

5 - 95% non-condensing

## MTBF

140,000 hours at 45  $^{\circ}\text{C}$  Demonstrated MTBF is significantly higher

# Indicators

None

# **Control Input**

Optional

# **Alarm Output**

None on standard version Output fail alarm Form C contacts installed on request

# Package/Dimensions (H x W x D)

3U3: 132 x 187 x 407 mm 5.2 x 7.4 x 16" including terminal block and mounting flanges Mounting holes are clear

# Weight

Approx7 kg (15 lb)

# Connections

Input: Terminal block Output: Threaded studs, M6

# **RoHS Compliance**

Compliant

# Warranty

Two years subject to application within good engineering practice Contamination related failures not covered.

