

### FEATURES

- Single-phase input w/ active PFC
- High power DC output
- Efficiency of 90% typical
- Conduction cooled at card edge
- Conformal coating on PCB



### 6U VITA 62.0 High Power, Single-Phase PFC AC-DC Front-End Module

Behlman's VPXtra®1500CS3 COTS AC to DC front-end module is a rugged, highly reliable, conduction cooled, switch mode unit built for high-end industrial and military applications. The VPXtra®1500CS3 is a VPX 6U front-end module that accepts a 85-265 VAC, 1-phase input IAW MIL-STD-704 or MIL-STD-1399 Section 300B and delivers up to 1500W of 33 VDC power as well as 1.2W of 3.3V\_AUX power. Input current harmonics are designed to comply with MIL-STD-461 (CE101) and MIL-STD-1399.

The VPXtra®1500CS3 front-end module has no minimum load requirement and has over voltage and short circuit protection as well as over current and thermal protection. The front-end module is designed to support the rigors of mission critical airborne, shipboard, vehicle and mobile applications.

Designed and manufactured with *Xtra-Cooling*, *Xtra-Rugged* construction and *Xtra-High Reliability* makes the Behlman VPXtra®1500CS3 your best choice.

### INPUT

<b>Voltage:</b>	85-265 VAC, 1-phase †
<b>Frequency:</b>	47-440 Hz
<b>Power Factor:</b>	0.98 typical

### OUTPUT

<b>Power:</b>	1500 Watts @ 220 VAC In 760 Watts @ 115 VAC In
<b>Voltage/Current:</b>	33 VDC @ 46 Amps †
<b>Auxiliary:</b>	3.3 VDC @ 0.4 Amps
<b>Input Regulation:</b>	0.5% max.
<b>Load Regulation:</b>	5.0% max. (0-100%)
<b>PARD-Ripple &amp; Noise:</b>	2Vp-p (33V Output) 100mVp-p (3.3V AUX Output) 0 - 20MHz Bandwidth
<b>Efficiency:</b>	90% typical

### CONTROLS

<b>INHIBIT*:</b>	Output Off- active low
<b>ENABLE*:</b>	Input On- active low

### (IAW VITA 62.0)

### INDICATORS

<b>AC OK LED:</b>	Green
<b>DC OK LED:</b>	Green
<b>OUTPUT Enable LED:</b>	Green

### PROTECTIVE CIRCUITS

<b>Overvoltage:</b>	110% typical
<b>Overtemperature:</b>	Shutdown

† Derate 33V output current to 23 amps maximum when operating from 85-136VAC source voltage.

### GENERAL CHARACTERISTICS

#### ISOLATION:

Input to Output: 1000 VDC  
 Input to Case: 1000 VDC  
 Output to Case: 100 VDC

MTBF: 157,480hrs G<sub>F</sub> @ 55°C,  
 IAW MIL HDBK-217F Notice 2

### MECHANICAL (1.0-inch pitch)

See O&C drawing 24150-3 for connector details  
 and pin assignment

Dimensions: 9.19"L x 6.64"W x .97"H  
 Weight: 5.5 lbs.  
 Input Connector: P0, TE P/N: 6450833-7  
 Output Connector: P1, TE P/N: 6450839-6

### ENVIRONMENTAL COMPLIANCE

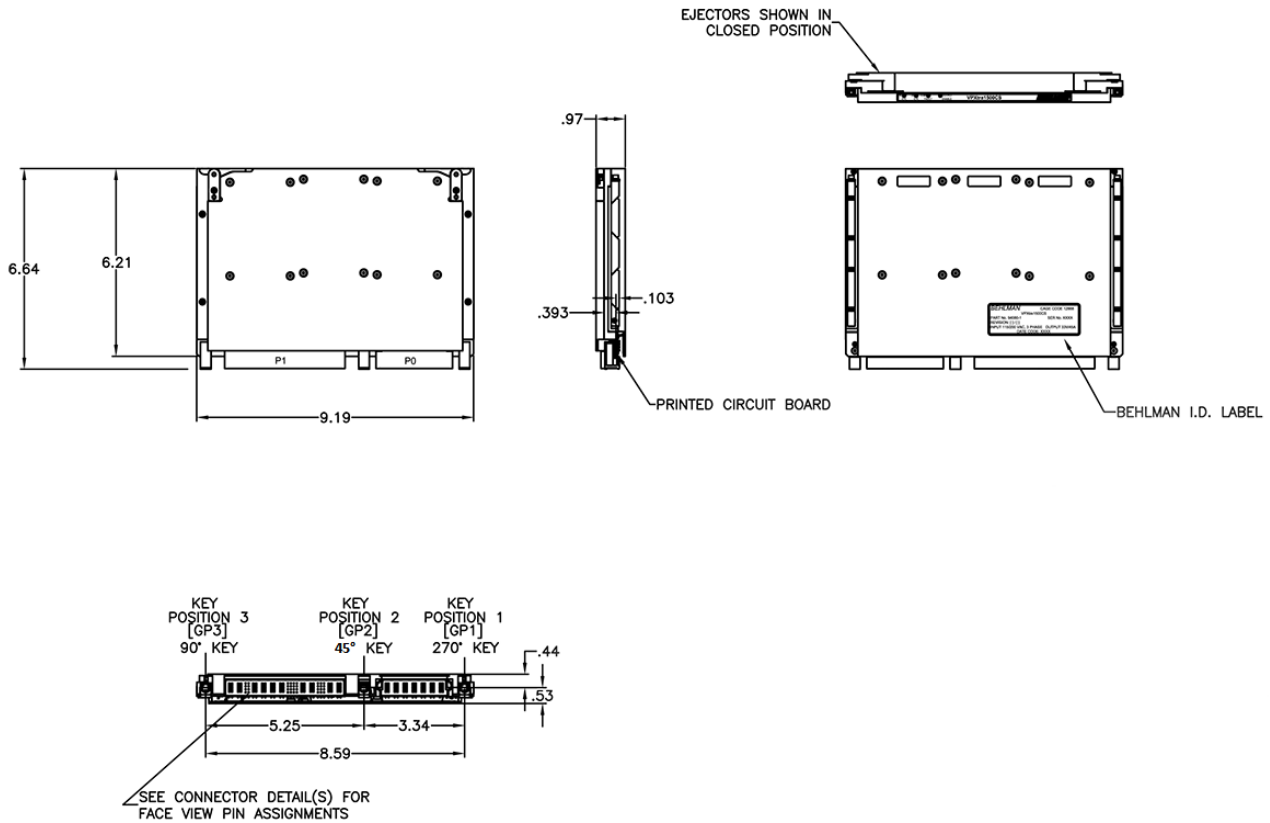
Temperature at card edge (IAW VITA 47)

Operating: -40°C to +71°C  
 Storage: -40°C to +105°C

#### Designed to meet the following:

EMI (MIL-STD-461): CE101-3 & -4  
 CE102, Requires external filter  
 Shock: VITA 47 Class OS2  
 Vibration: VITA 47 Class V3  
 Humidity: VITA 47

See VPXtra<sup>®</sup> 1500CS3.DS Data sheets for more information  
 including input connector wiring instructions



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VITA Member

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