

### FEATURES

- Open VPX VITA 62 compliant
- Single-phase active PFC input
- High power DC output
- Efficiency of 90% typical
- Conduction cooled at card edge
- Conformal coating on PCB



### 6U Open VPX VITA 62 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 VITA 62, Open VPX compliant, 6U front-end module that accepts a 85-265 VAC, 1-phase input, IAW MIL-STD-704, and delivers 1500W of 33 VDC power. Input current harmonics 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

**Voltage:** 85-265 VAC, 1-phase,  
47-440 Hz

**Power Factor:** 0.99

### OUTPUT

**Power:** 1500 Watts @ 220 VAC In  
1000 Watts @ 115 VAC In

**Voltage/Current:** 33 VDC @ 46 Amps

**Auxiliary:** 3.3 VDC @ 0.2 Amps

**Input Regulation:** 0.5% max.

**Load Regulation:** 5.0% max. (0-100%)

**PARD-Ripple & Noise:** 300mVp-p (1KHz-20MHz)

**Efficiency:** 90% typical

### PROTECTIVE CIRCUITS

**Over Voltage:** 110% typical

**Over Current:** 120% typical

**Short Circuit:** Automatic recovery

**Over Temp:** Shutdown

### CONTROLS

**Inhibit:** Output Off- active low

**Enable:** Input On- active low

### (IAW VITA 62)

### INDICATORS

**AC OK:** Green

**DC OK:** Green

**OUTPUT Enable:** Green

**TEMP Warning:** Red

## GENERAL CHARACTERISTICS

### ISOLATION:

Input to Output: 1250 VDC  
 Input to Case: 1250 VDC  
 Output to Case: 100 VDC

MTBF: 95,000hrs  $G_b$  @ 50°C,  
 IAW MIL HDBK-217F Notice 2

## ENVIRONMENTAL

Temperature at card edge (IAW VITA 47)

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

## MECHANICAL (1.0-inch pitch)

See O&C drawing 24150-X 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

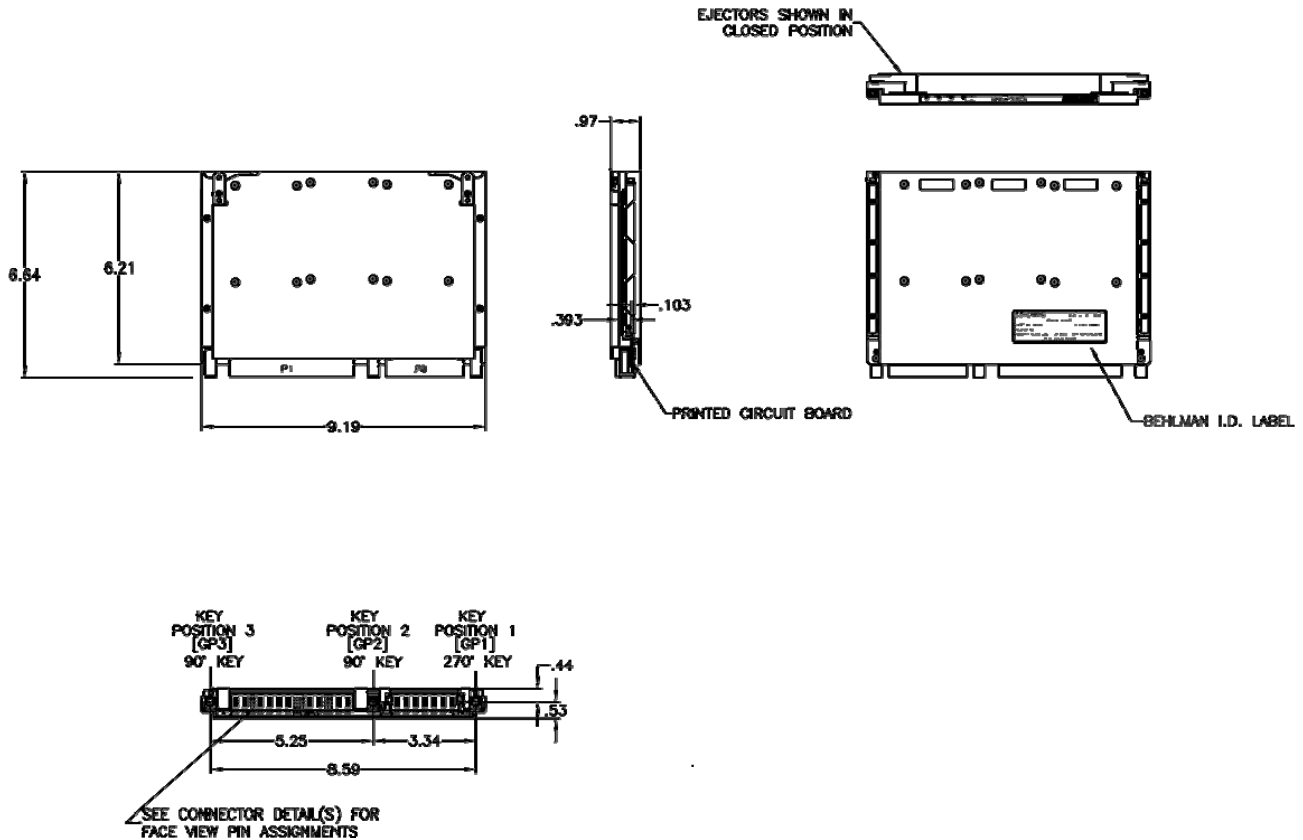
## COMPLIANCE

EMI (MIL-STD-461): CE101-3 & -4  
 CE102, Requires external filter

Designed to meet the following:

Shock: VITA 47 Class OS2  
 Vibration: VITA 47 Class V3  
 Humidity: VITA 47

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 VPX is a trademark of VITA



For more detail, see VPXtra1500CS3.DS Data sheets



VITA Member

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