

### FEATURES

- Three-Phase AC Input or 270VDC Input
- High Power DC Output – 28V/30A †
- Efficiency of 90% Typical
- Parallelable for Higher Output Power
- Output Hold-Up Options
  - 700W / 50 msec w/ VPXtra® HU700HV
  - 900W / 80 msec w/ VPXtra® HU700HV2
- Conduction Cooled at Card Edge
  - Convection-Cooled Versions Available
- Conformal Coating on PWA
- Meets MIL-STD-704F Transient Performance



### 3U VPX High Power AC-DC Power Supply (VITA 62.1)

The Behlman VPXtra®800B COTS AC to DC power supply is a rugged, highly reliable, switch mode unit built for high-end industrial and military applications. The VPXtra®800B is intended to convert either 115/200 VAC, 3-phase or 270VDC input IAW MIL-STD-704F to produce an isolated intermediate voltage for use by VPX back-end power supplies to produce final output voltage. The VPXtra®800B has a VPX 3U form factor and delivers up to 840 Watts of 28VDC power at up to 85°C rail temperatures, with additional power available at lower rail temperatures. This model is available in conduction and convection cooled versions, the latter both air flow-by and air flow-through.

The VPXtra®800B power supply has no minimum load requirement and has overvoltage, overcurrent and short circuit protection as well as thermal protection. The power supply is designed to support the rigors of mission critical airborne, shipboard, vehicle and mobile applications.

Designed and manufactured with *Xtra-Cooling*, *Xtra-Reliable* Design and *Xtra-Rugged* construction makes the Behlman VPXtra®800B your best choice.

#### INPUT AC

**Voltage:** 100-125VAC, L-N, 3-phase  
**Frequency:** 360-800 Hz

**INPUT DC** 240-290VDC

#### OUTPUT

**Power:** 840 Watts (85°C card edge) †  
**Voltage/Current:** 28 VDC +/- 1% @ 30 Amps  
**Auxiliary:** 3.3 VDC +/- 5% @ 0.4 Amps  
**Line Regulation:** 1.0% maximum  
**Load Regulation:** 5.0% maximum (Load > 10%)  
**PARD-Ripple & Noise:** 3.3V: 50mV p-p (0-20 MHz)  
 28V: 1V p-p (0-20 MHz)  
**Efficiency:** 90% typical, 50-100% load  
**Power Factor:** 0.93 @ 840W

#### PROTECTIVE CIRCUITS

**Overvoltage:** Latched Shutdown  
**Overcurrent:** Hiccup Mode  
**Short Circuit:** Automatic recovery  
**Overtemperature:** Shutdown w/Auto Recovery

#### CONTROL SIGNALS

**INHIBIT\*:** Output Off- active low  
**ENABLE\*:** Input On- active low  
**FAIL\*:** Output- out of specification

#### INDICATOR

**DC STATUS LED:** Bi-color LED (Red/Green)

† Assumes nominal 115/200VAC or 270VDC source voltage; contact factory for characteristics at other source voltages.

‡ Contact factory for higher power output at reduced rail temperatures

### GENERAL CHARACTERISTICS

#### Isolation:

Input to Output: 1000 VDC  
 Input to Case: 1000 VDC  
 Output to Case: 500 VDC  
 +28V to 3.3V\_AUX: 500 VDC

MTBF: 111, 943 hrs G<sub>F</sub> @ 55°C,  
 IAW MIL-HDBK-217F Notice 2

### MECHANICAL (1.0 inch pitch)

See O&C drawing OC94095-10 for connector details and pin assignment

Dimensions: 3.94"W x 6.63"L x .97"H  
 Weight: 1.9 lbs. maximum  
 Connector: Behlman P/N 11484

### ENVIRONMENTAL COMPLIANCE

(IAW VITA 47.1 Class ECC4SL1)

#### Temperature

Operating: -40°C to +85°C  
 Storage: -55°C to +105°C

#### Altitude:

-1,500 to +60,000 ft.

#### Shock:

VITA 47.1 Class OS2

#### Vibration:

VITA 47.1 Class V3

#### EMI: \*

MIL-STD-461G:

CE102, CS101, CS115, CS116

\* Requires external filter, Behlman P/N 13530 or similar.

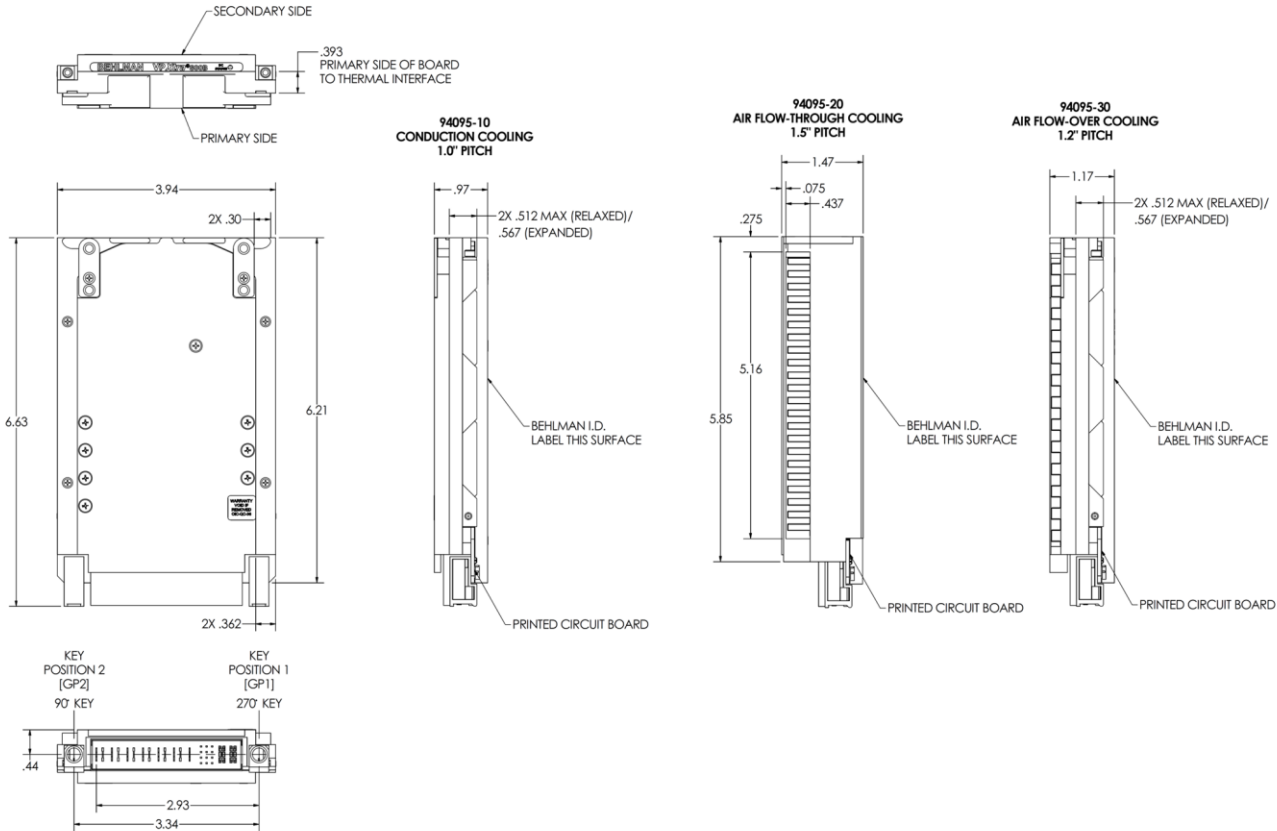
### Designed to meet the following:

Humidity: VITA 47.1, up to 95% RH

Salt Fog: VITA 47.1, Class SL1

MIL-STD-704F: Including operation through normal transients

For more details see VPXtra®800B Data Sheet.



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VITA Member

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