

### FEATURES

- Three-Phase AC Input or 270VDC Input
- High Power DC Output – 28V/35A
- 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
- Air Cooled
- Conformal Coating on PWA
- Meets MIL-STD-704F Transient Performance

VPXtra AIR FLOWOVER



### 3U VPX High Power AC-DC Power Supply [VITA 62.1]

The Behlman VPXtra®800BB COTS AC to DC power supply is a rugged, highly reliable, switch mode unit built for high-end industrial and military applications. The VPXtra®800BB 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 VPXtra800BB has a VPX 3U form factor and delivers up to 980 Watts of 28VDC power when cooled with up to 55°C air at a mass flow rate of 1.2lb/min.

The VPXtra®800BB 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®800BB your best choice.

#### INPUT AC

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

**INPUT DC** 240-290VDC

#### OUTPUT

**Power:** 980 Watts  
**Voltage/Current:** 28 VDC +/- 1% @ 35 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 @ 980W

#### 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)

### 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

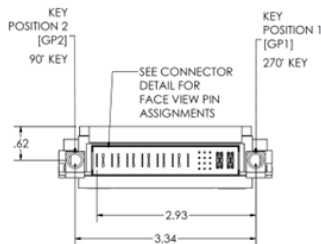
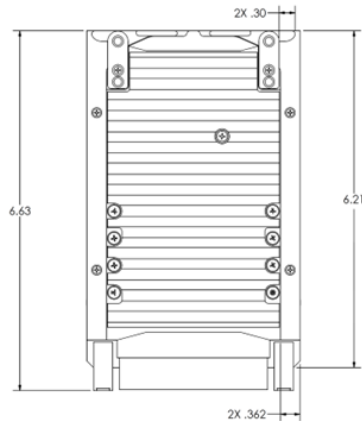
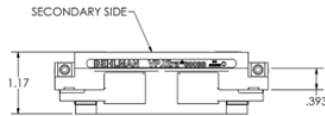
### MECHANICAL (1.2 inch pitch)

See O&C drawing OC94095-30 for connector details and pin assignment

**Dimensions:** 3.94"W x 6.64"L x 1.17"H

**Weight:** 2.10 lbs. maximum

**Mating Connector:** TE Connectivity 2332795-1 or similar IAW VITA 62.1



### ENVIRONMENTAL COMPLIANCE

(IAW VITA 47.1 Class EFC2SL1)

#### Temperature

**Operating:** -40°C to +55°C  
 (inlet air temperature, assuming a mass flow rate of 1.2lb/min at worst case; consult data sheet for additional airflow details)

**Storage:** -55°C to +105°C

**Altitude:** -1,500 to +70,000 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.

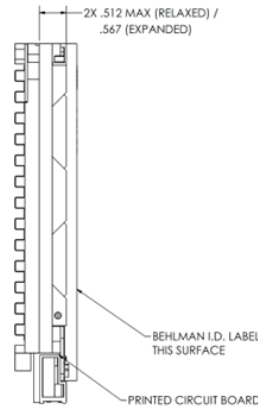
### Designed to meet the following:

**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®800BB Data Sheet.



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VITA Member

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