

### FEATURES

- Wide Input Range
- High Power DC Outputs
- Efficiency of 90% typical
- Conduction Cooled at Card Edge
- Conformal Coating on PCB
- Remote Sensing on Main Output
- Load Sharing on Main Output
- Redundancy on All Outputs
- System Management IAW VITA 46.11
- Developed in Alignment with SOSA™ Technical Standard



### 6U VITA 62.0 High Power Dual Output Power Supply

The Behlman VPXtra®1000CD5-IQ1 COTS DC to DC power supply is a rugged, highly reliable, conduction cooled, switchmode unit built for high-end industrial and military applications. The VPXtra®1000CD5-IQ1 is a 6U VPX power supply that operates from a 28 VDC input IAW MIL-STD-704E and delivers 1050 Watts of DC power via two outputs. The +12V output can be paralleled with other VPXtra®1000CD5-IQ1 power supplies for higher power and redundancy. The VPXtra®1000CD5-IQ1 also contains a VITA 46.11 IPMC for integration into chassis with system management.

The VPXtra®1000CD5-IQ1 power supply has no minimum load requirement and has overvoltage and short circuit protection as well as over current and 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* technology, *Xtra-Reliable* design and *Xtra-Rugged* construction, Behlman's VPXtra®1000CD5-IQ1 is the best choice for your power supply needs.

#### INPUT

**Voltage:** 18 to 36 VDC

#### OUTPUT

**Power:** 1050 Watts †

**Voltage/Current:**

**PO1/PO2/PO3:** +12 VDC +/- 1.5% @ 83.3 Amps

**Auxiliary:** +3.3 VDC +/- 1.5% @ 15 Amps

**Line Regulation:** 0.25% max

**Load Regulation:** 0.25% max (+12V Output)  
0.5% max (+3.3V Aux Output)

**PARD-Ripple & Noise:** 120mV p-p (+12V Output)  
33mV p-p (+3.3V Aux Output)  
0 - 20 MHz Bandwidth

**Efficiency:** 90% typical, 87% minimum

† Power derating may be required below 20VDC input at high rail temperatures; consult product data sheet for details.

#### PROTECTIVE CIRCUITS

**Over Voltage:** 120% typical

**Over Current:** 135% typical (+12V output)  
120% typical (+3.3V Aux output)

**Short Circuit:** Automatic recovery

**Over Temperature:** Shutdown w/ auto recovery

#### CONTROLS

**INHIBIT\*:** Output Off - active low

**ENABLE\*:** Input On - active low

#### (IAW VITA 62.0)

#### INDICATORS

**DC IN OK:** Green

**DC OUT:** Green

**OUT FAULT:** Red

**TEMP ALERT:** Yellow

**WE:** Yellow

#### SYSTEM MANAGEMENT

**VITA 46.11:** IPMC ‡

**I2C Reporting:** Dual Bus (IPMB-A, IPMB-B)

**Reports:** Input and Output Voltages

Input and Output Currents

Internal Temperatures (3 places)

‡ Consult product data sheet for details.

## GENERAL CHARACTERISTICS

### Isolation:

Input to Output: 500 VDC  
 Input to Case: 500 VDC  
 Output to Case: 500 VDC

MTBF: 208,185 hrs  $G_F$  @ 55°C,  
 IAW MIL HDBK-217F Notice 2

## MECHANICAL (1.0 inch pitch)

See O&C drawing OC94078-12 for connector details  
 and pin assignment

Dimensions: 9.19"L x 6.64"W x .97"H

Weight: 3.5 lbs

Input Connector: P0, TE P/N: 6450833-7

Output Connector: P1, TE P/N: 6450839-6

## ENVIRONMENTAL COMPLIANCE

(IAW VITA 47.1 Class ECC4SL1)

### Temperature

Operating: -40°C to +71°C @ 1050W

-40°C to +85°C @ 790W

### Storage:

-55°C to +105°C

### Designed to meet the following:

EMI: MIL-STD-461G (Aircraft)

external filter required

### Shock:

VITA 47.1 Class OS2

### Vibration:

VITA 47.1 Class V3

### Humidity:

VITA 47.1, up to 95% RH

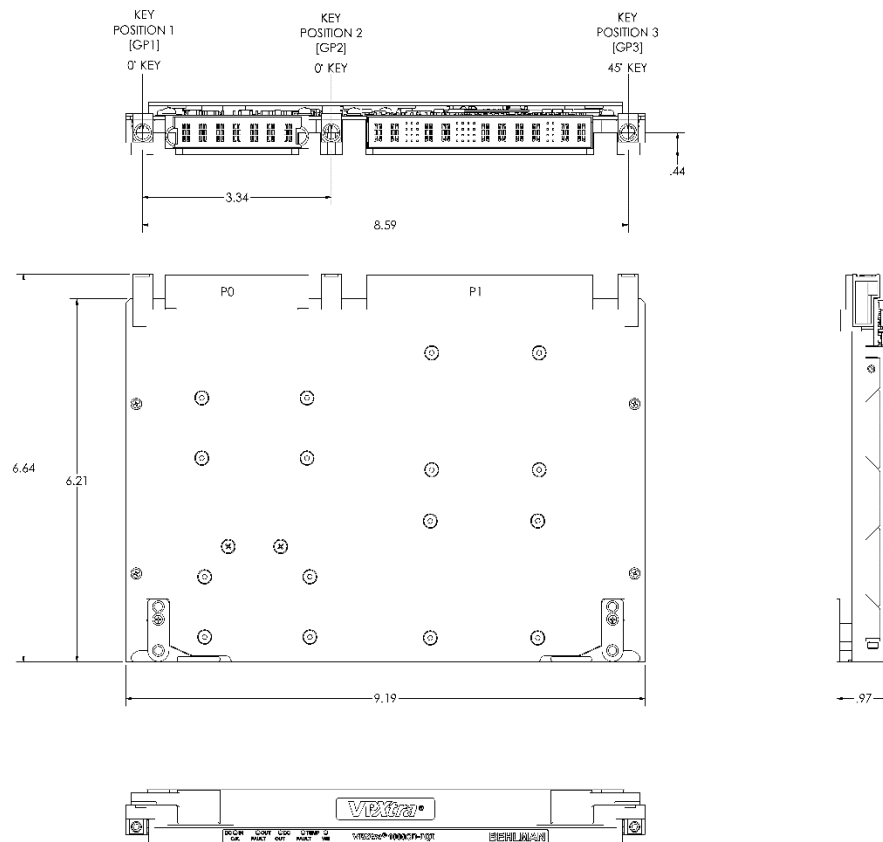
### Altitude:

-1,500 to +60,000 ft.

### Salt Fog:

VITA 47.1, Class SL1

For more detail, see VPXtra® 1000CD5-IQI Data Sheet



VPXtra® is a trademark of Behlman Electronics.  
 VPX is a trademark of VITA



VITA Member

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