

### FEATURES

#### Open VPX VITA 62 compliant

- Wide input range
- High power DC output
- Efficiency of 90% typical
- Conduction cooled at card edge
- Conformal coating on PCB
- Intelligent Communication, Measurement and Control
- Support for ANSI/VITA 46 signals



### 6U Open VPX VITA 62 High Power Multi-Output Power Supply

The Behlman VPXtra™1000CM-IQ COTS DC to DC power supply is a rugged, highly reliable, conduction cooled, switch mode unit built for high-end industrial and military applications. The VPXtra™1000CM-IQ is a VITA 62, Open VPX compliant, 6U power supply that delivers 700 Watts of DC power via five outputs. The 12V output can be paralleled for higher power and redundancy. The VPXtra™1000CM-IQ operates from a 28 VDC input, IAW MIL-STD-704, and supplies a high power DC output.

The VPXtra™1000CM-IQ 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 makes the Behlman VPXtra™ 1000CM-IQ your best choice.

#### INPUT

**Voltage:** 18 to 36 VDC

#### OUTPUT

**Power:** 700 Watts

#### Voltage/Current:

**VS1/VS2** 12 VDC +/- 1% @ 42 Amps

**VS3** 5 VDC +/- 1% @ 24 Amps

**Auxiliary:** 3.3 VDC +/- 3% @ 15 Amps

**Auxiliary:** -12 VDC +/- 2% @ 2 Amps

**Auxiliary:** +12 VDC +/- 2% @ 1 Amp

**Line Regulation:** 0.25% max.

**Load Regulation:** 0.25% max (VS1/VS2 and VS3)  
2.0% max (Auxiliary outputs)

**PARD-Ripple & Noise:** 50mV p-p (0-20 MHz)

**Efficiency:** 90% typical

#### PROTECTIVE CIRCUITS

**Over Voltage:** 120% typical

**Over Current:** 120% typical

**Short Circuit:** Automatic recovery

**Over Temperature:** Shutdown

#### CONTROLS

(IAW VITA 62)

**Inhibit:** Output Off- active low

**Enable:** Input On- active low

#### INDICATORS

**DC IN OK:** Green

**DC OUT:** Green

**OUT Fault:** Yellow

**TEMP Warning:** Yellow

**ALERT:** Yellow

**WP:** Yellow

#### GENERAL CHARACTERISTICS

##### Isolation:

**Input to Output:** 500 VDC

**Input to Case:** 500 VDC

**Output to Case:** 100 VDC

**MTBF:** 277,000hrs  $G_b$  @ 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 24149-1 for connector details and pin assignment

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

**Weight:** 6.5 lbs

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

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

**COMPLIANCE:**

EMI (MIL-STD-461): CE102 with external filter

Designed to meet the following:

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

**IQ: Intelligent Communication, Measurement and control** allow the user to monitor and report the following information over an I2C bus using a PMBUS command set:

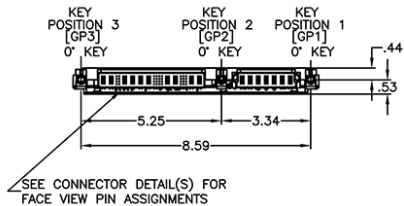
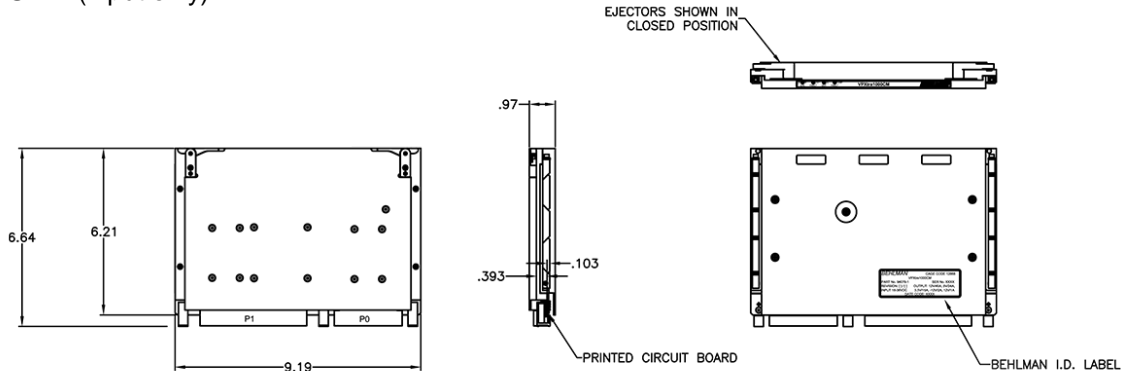
- Output voltages
- Output currents
- Input voltages
- Input Current
- Temperature at 3 different locations (one near each cooling rail and one in middle of unit)

Provides support for the following ANSI/VITA 46 signals

- Geographical Addressing
- NVMRO (Non-Volatile Memory Read Only)
- SYSRESET\* (input only)

It also provides the following features:

- User adjustable warning/fault levels for voltage, current or temperature.
- Inventory management information including part number, serial number, and revision status.
  - SMBALERT# signal to alert the system controller of a change of the power supply status.
- More than 200K of User Storage memory to allow user to store settings and information.
- PMBUS status registers support.



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

For more detail, see VPXtra1000CM-IQ.DS Data Sheet



VITA Member

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