

#### FEATURES

- Developed in Alignment with the SOSA™ Technical Standard
- Wide Input Range
- High Power DC Outputs
  - 12V/60A ‡
  - 3.3V\_AUX/25A
- High Efficiency
- Conduction Cooled at Card Edge
- Conformal Coating on PCB
- Remote Error Sensing on All Outputs
- Active Load Sharing on All Outputs
- Redundancy on All Outputs
- VITA 46.11 Compatible IPMC for System Management



#### 3U VPX High Power Dual-Output Power Supply

The Behlman VPXtra®700D-IQI COTS DC to DC power supply is a rugged, highly reliable, conduction cooled, switchmode unit developed in alignment with the SOSA™ Technical Standard for high-end industrial and military applications. The VPXtra®700D-IQI is a 3U VPX power supply that accepts 28 VDC input IAW MIL-STD-704F and delivers up to 800 Watts of DC power via two outputs. Both outputs may be paralleled for higher power output and/or redundancy, with active load sharing provided for each. The VPXtra®700D-IQI also contains a VITA 46.11 compatible IPMC for integration with system management functions.

The VPXtra®700D-IQI 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*, *Xtra-Reliable* Design and *Xtra-Rugged* construction, the Behlman VPXtra®700D-IQI is the best choice for your power supply needs.

#### INPUT

**Voltage:** 18 to 36 VDC †

#### OUTPUT

**Power:** 800 Watts maximum †

#### Voltage/Current:

**PO1** +12 VDC @ 30 Amps †

**PO2 (3.3V\_AUX)** +3.3 VDC @ 25 Amps

**PO3** +12 VDC @ 30 Amps †

**Line Regulation:** 0.25% max (all outputs)

**Load Regulation:** 0.5% max (all outputs)

**PARD-Ripple & Noise:** 120 mV p-p (+12V outputs)  
33 mV p-p (3.3V\_AUX output)  
20 MHz Bandwidth

**Sharing:** Active Sharing including N+1 Redundancy

**Efficiency:** 89% typical,  
30 - 75% of Load Power

† Thermal and connector pin current limitations restrict available output power and input voltage range; consult product data sheet for details.

‡ PO1 and PO3 must be connected in parallel externally on the system backplane to create a single +12V / 60A output.

#### PROTECTIVE CIRCUITS

**Overvoltage:** 120% typical

**Overcurrent:** 120% typical

**Short Circuit:** Automatic Recovery

**Overtemperature:** Shutdown w/Auto Recovery

#### CONTROLS (IAW VITA 62.0)

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

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

#### INDICATOR

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

#### SYSTEM MANAGEMENT

**VITA 46.11:** IPMC

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

**Reports:** Input and Output Voltages

Input and Output Currents

Internal Temperature (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: 346,747 hrs  $G_F$  @ 55°C,  
IAW MIL-HDBK-217F Notice 2

### MECHANICAL (1.0 inch pitch)

See O&C drawing OC94108-1 for connector details  
and pin assignment

**Dimensions:** 3.94"W x 6.63"L x .97"H

**Weight:** 1.8 lbs. maximum

**Connector:** TE P/N: 2317477-1

### 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 (Aircraft) \*

\* Excludes CS114; contact Behlman Sales for details

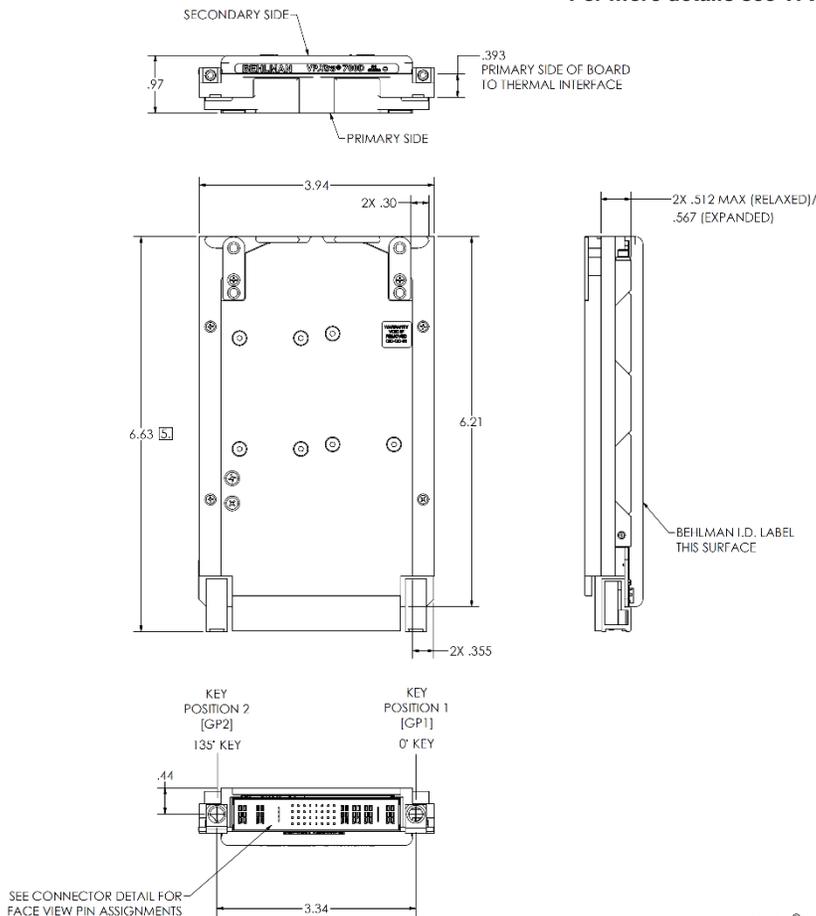
### Designed to meet the following:

**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®700D-IQI Data Sheet



VPXtra® is a registered trademark of Behlman Electronics.  
The VPX logo and related marks are trademarks of VITA.  
SOSA™ and logo design and The Open Group Certification Mark™ are  
trademarks of The Open Group in the United States and other countries.



VITA Member

[www.behlman.com](http://www.behlman.com)

**ORBIT POWER GROUP**  
**Behlman Electronics**

Headquarters:  
80 Cabot Court, Hauppauge, NY 11788  
631 435-0410 800 874-6727  
Fax: 631 951-4341

[sales@behlman.com](mailto:sales@behlman.com)

