

VPXtra® 700BD-IQI

FEATURES

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

VPXtra AIR FLOWOVER



3U VPX High Power Dual-Output Power Supply (VITA 62.0)

The Behlman VPXtra®700BD-IQI COTS DC to DC power supply is a rugged, highly reliable, switchmode unit developed in alignment with the SOSA™ Technical Standard for high-end industrial and military applications. The VPXtra®700BD-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®700BD-IQI also contains a VITA 46.11 compatible IPMC for integration with system management functions.

The VPXtra®700BD-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®700BD-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: 0.5% 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

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)

† 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.

Consult product data sheet for details

VPXtra

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 (1.2 inch pitch)

See O&C drawing OC94108-30 for connector details and pin assignment

Dimensions : 3.34"W x 6.62"L x 1.17"H

Weight: 1.85 lbs. maximum

Mating Connector: TE Connectivity 2309390-1 or similar IAW VITA 62.0

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

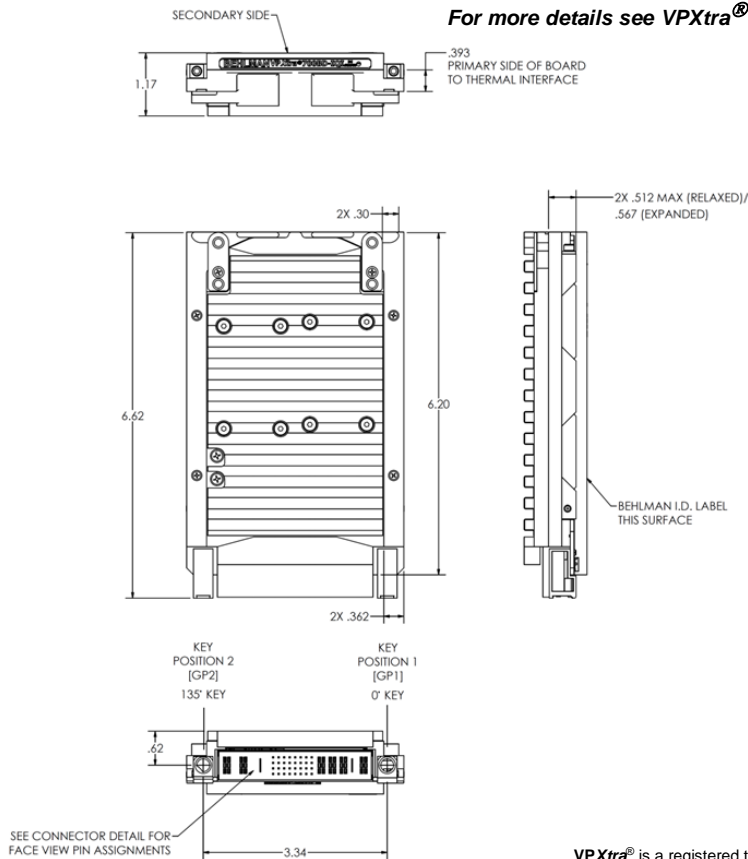
Designed to meet the following:

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®700BD-IQI Data Sheet.



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