

VPXtra® 750HD-IQ1

FEATURES

- Developed in Alignment with the SOSA™ Technical Standard
- Wide Input Voltage Range
- High Power DC Outputs
 - +12V / 60A
 - 3.3V_AUX / 10A
- High Efficiency
- Conduction Cooled at Card Edge
- Conformal Coating on PWA
- Remote Error Sensing on All Outputs
- 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®750HD-IQ1 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®750HD-IQ1 is a 3U VPX power supply that accepts 270 VDC input IAW MIL-STD-704F and delivers up to 738 Watts of DC power via two outputs. Both outputs may be paralleled for redundancy, with load sharing provided to facilitate two or more units paralleled for higher output power. The VPXtra®750HD-IQ1 also contains a VITA 46.11 compatible IPMC for integration with system management functions.

The VPXtra®750HD-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*, *Xtra-Reliable* Design and *Xtra-Rugged* construction, the Behlman VPXtra®750HD-IQ1 is the best choice for your power supply needs.

INPUT

Voltage: 240 to 290 VDC

OUTPUT

Power: 738 Watts maximum†

Voltage/Current:

PO1 + PO3 +12 VDC @ 60 Amps

PO2 (3.3V_AUX) +3.3 VDC @ 10 Amps

Line Regulation: ±0.5% max (all outputs)

Load Regulation: ±2.5% max (+12V output)

±0.5% max (3.3V_AUX output)

PARD-Ripple & Noise: 120 mV p-p (+12V output)

50 mV p-p (3.3V_AUX output)

20 MHz Bandwidth

Sharing: Sharing including N+1

Redundancy

Efficiency: 89% typical

PROTECTIVE CIRCUITS

Overvoltage: 125% typical

Overcurrent: 115 - 190% 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 limitations restrict available output power above 70°C; consult product data sheet for details.

Consult product data sheet for details

GENERAL CHARACTERISTICS

Isolation:

Input to Output: 1500 VDC

Input to Case: 1500 VDC

Output to Case: 500 VDC

MTBF: 112,000 hrs G_F @ 55°C (est.)
IAW MIL-HDBK-217F Notice 2

MECHANICAL (1.0 inch pitch)

See O&C drawing OC94112 for connector details and pin assignment

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

Weight: 1.8 lbs. maximum

Mating Connector: TE Connectivity 2313441-1 or similar IAW VITA 62.2. Power supply has separators installed per VITA 62.2

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 +70,000 ft.

Shock: VITA 47.1 Class OS2

Vibration: VITA 47.1 Class V3

EMI: MIL-STD-461G: CE102, CS101, CS114, CS115, CS116

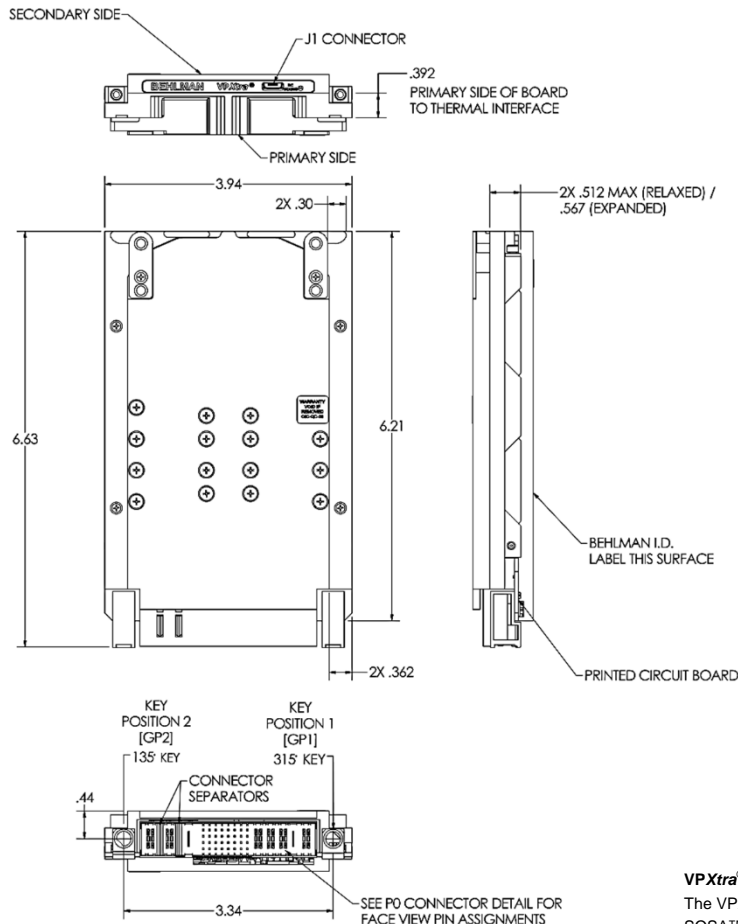
Designed to meet the following:

Humidity: VITA 47.1, up to 95% RH (NC)

Salt Fog: VITA 47.1, Class SL1

MIL-STD-704F: Including operation through normal and abnormal transients

For more details see VPXtra®750HD-IQI Data Sheet



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VITA Member



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