

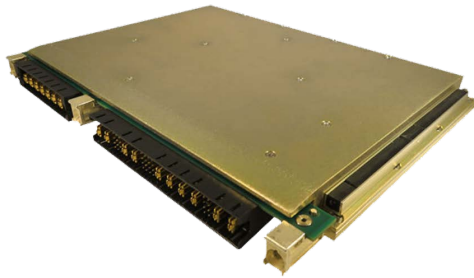


VITA 62 VPX SOLUTIONS DC/DC POWER SUPPLY

DPM4268 SERIES

DPM4268 SERIES

DC/DC POWER SUPPLY



PRODUCT HIGHLIGHTS

- VITA 62 COMPLIANT
- 6U VPX FORM FACTOR
- SIX OUTPUTS
- DC/DC CONVERTER
- UP TO 1200W

For quotes and customization requests, please
contact us at (877) 634-0982 or sales@digipwr.com



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Ver. 1.0

Special Features

- VITA 62 compliant
- Remote sense
- High Efficiency
- Fixed switching frequency (250kHz)
- External synchronization capability
- Indefinite short circuit Protection
- Over-voltage shutdown with auto-recovery
- Reverse battery protection
- Over temperature shutdown with auto-recovery
- EMI filters included
- IPMI communication

Electrical Specifications

DC Input

18 to 48 V_{DC}

Operation during transient IAW MIL-STD-704F

Line/Load regulation

See Table 2

Ripple and Noise

Typically, less than 50mV_{p-p} (max. 1%_p). Measured across a 0.1μF capacitor and 10μF capacitor on load at Input Voltage of 18V-48V, all Temperature Range.

DC Output*

PO1: 12 V up to 40 A

PO2: 12 V up to 40 A

PO3: 5 V up to 12 A

+12V_Aux: +12 V up to 1 A

-12V_Aux: -12 V up to 1 A

3.3V_Aux: 3.3 V up to 12 A

Efficiency

Up to 90 %

Load Transient

Overshoot and

Undershoot

Output dynamic response of less than 5% at load Step of 30%-90%. Output returns to regulation in less than 1mSec

Isolation

Input to Output:

200 V_{DC} Input to

Case: 200 V_{DC}

Output to Case:

100 V_{DC}

EMC

Designed to meet[†] MIL-STD-461F: CE101, CE102, CS101

Communication

IPMI protocol available for voltages, currents and temperature for all positive voltages (GAX, SCL, SDA)

Notes: Compliance achieved with 50μH LISN, shielded cable and static resistive load.

About Digital Power

Digital Power Corporation designs and manufactures full custom, value-added, and standard comprehensive power solutions for the most demanding applications in the defense, healthcare, telecom, and industrial markets.

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Protections ‡

Input

Input Reverse Polarity:
Protection for unlimited time

Inrush Current Limiter
Peak value of $5 \times I_{IN}$ for initial inrush currents lasting more than 50 μ Sec.

Under Voltage
Unit shuts down when input voltage drops below 16.5 ± 0.5 VDC.
Automatic restart when input voltage returns to nominal range.

Over Voltage Lock-Out
Unit shuts down when input steady state voltage rise above 55 ± 2 VDC (Can be configured for 100V)
Automatic restart when input voltage returns to nominal range.

Output

Passive over voltage protection on Aux outputs
Zener selected at $25\% \pm 5\%$ above nominal voltage, is placed across the output for passive voltage limit.

Active over voltage protection on VS# outputs
 $20\% \pm 5\%$ above nominal voltage.
Automatic recovery when output voltage drops below threshold.

Overload / Short-Circuit Protection
Continuous protection (10-30% above maximum current) for unlimited time (Hiccup). Automatic recovery when overload/short circuit removed.

General

Over Temperature Protection
Automatic shutdown at temperature of 95 ± 5 °C (at unit edge) Automatic recovery when temperature drops below 90 ± 5 °C. 5 °C Hysteresis guaranteed.

Note 1: Thresholds and protections can be modified / removed (please consult factory)

Environmental ¹

Design to Meet MIL-STD-810G

Temperature
Operating: -55 °C to $+85$ °C at unit edge
Storage: -55 °C to $+125$ °C

Fungus
Does not support fungus growth, in accordance with the guidelines of MIL-STD-454, Requirement 4.

Vibration

Shock: Saw-tooth, 20g peak, 11mS.
Vibration: Figure 514.6E-1. General minimum integrity exposure. (1 hour per axis.)

Note 1: **Environmental Stress Screening (ESS)** Including random vibration and thermal cycles is also available. **Please consult factory for details.**

Altitude
Method 500.5, Procedure I & II Storage/Air Transport: 40 kft Operation/Air carriage: 70 kft

Humidity
Method 507.5, Up to 95% RH

Salt Fog:
Method 509.5

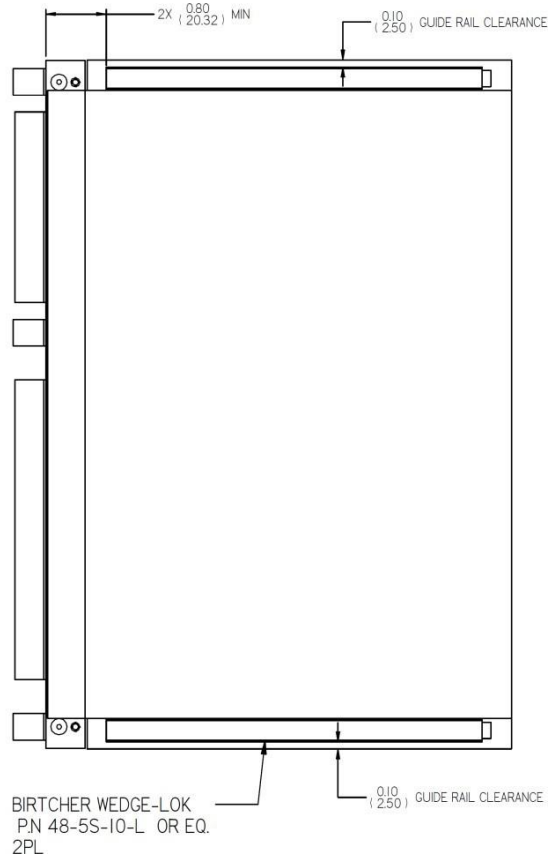
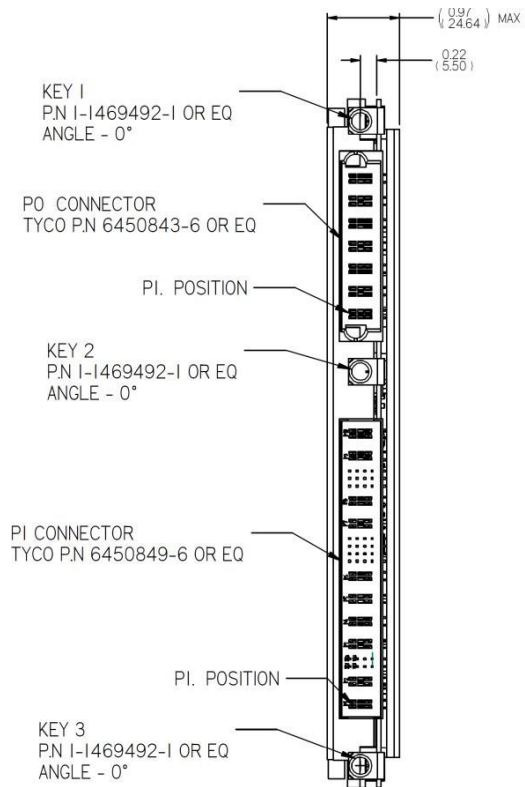
Shock
Method 516.6
40g, 11msec saw-tooth (all directions)

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Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
.XX ± 0.01 IN
.XXX ± 0.005 IN
3. Weight: Approx. 3.9 lbs

Note: Specifications are subject to change without prior notice by the manufacturer

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