



VITA 62 VPX SOLUTIONS Three Phase

DPM4706 SERIES

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AC/DC POWER SUPPLY



PRODUCT HIGHLIGHTS

- VITA 62 COMPLIANT
- VITA 48.7 Class A AFB COMPLIANT
- 6U VPX FORM FACTOR
- SOSA™ ALIGNED
- AC/DC CONVERTER
- Up to 1200W Steady State
- 100W@50mSec Holdup
- Cyber Secure

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



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Ver. 1.0

Applications

Military (Airborne, ground-fix, shipboard), Ruggedized, Telecom, Industrial

Special Features

- VITA 62 6U
- SOSA™ Aligned
- High efficiency
- Input / Output isolation
- Remote sense
- EMI filters included
- Fixed switching frequency
- Parallel configuration
- 46.11 Tier 2 communication
- External Inhibit & Enable
- Indefinite short circuit protection with auto-recovery
- Over temperature shutdown with auto recovery

Electrical Specifications

AC Input

115VAC ± 10% 400Hz Three-Phase
Ride-through Mil-STD-704F normal transient

Line/Load regulation

±1% or better (no load to full load, low line to high line -55°C to +55°C @ 27 CFM)

Ripple and Noise

Less than 50mVp-p, typical (max. 1%), measured across 0.1µF and 10µF on Load

System Management Options

- 1) I2C
- 2) VITA 46.11 Tier I IPMC
- 3) VITA 46.11 Tier II IPMC

Data available:

- Output voltages and currents
- Input voltage
- Card temperature
- Card status

DC Outputs

PO1/PO2/PO3 12V/90A
3.3Vaux 3.3V/20A
±12Vaux - Optional

Total Steady state Power 1200W (-55°C to +55°C).

Hold Up

100W@50mSec

Current Share

12V Active Current share
3.3Vaux Passive Current Share (3.3Vaux ACS optional)

Load Transient

Output dynamic response up to 5% at step load of 30%-90%.
Output return to steady stated within 300-500µSec

Power Factor

≥ 0.87 (Full load) ³

Isolation

500VDC Input to Output
500VDC Input to Case
500VDC Output to Case

EMC

Designed to meet with External Filter
MIL-STD-461F ²
CE102, CS101, CS114, CS115 & CS116, RE102

Efficiency

Typical 87% (Nominal line, nominal load, room temperature)

Notes:

¹ Contact Factory for peak power options

² Deviation under 70KHz, See EMI Paragraph. Some of the EMI filter was removed to support Holdup.
RE102 Supported at system Level

³ P.F Leading, lagging optional with external Filter

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.



Protections (Thresholds and protections can be modified / removed – please consult factory).

<p><u>Input</u></p> <ul style="list-style-type: none"> • Inrush Current Limiter: peak value of 5 x IIN for inrush currents lasting longer than 100µs. • Under Voltage Lock-Out Unit shuts down when input voltage is below 70Vacrms ± 5Vacrms. • Catastrophic Failure Protection Fuses are available to protect from catastrophic failure. The fuses are rated not to engage due to any normal type operation. 	<p><u>Outputs</u></p> <ul style="list-style-type: none"> • Over Voltage Protection: 12V Active & Passive OVP 3.3Vaux Active & Passive OVP ±12Vaux Active & Passive OVP • Overload / Short Circuit Protection 12V Output-Continuous Hiccup protection (110-130%). 3.3Vaux – Typical 33A 	<p><u>General</u></p> <ul style="list-style-type: none"> • Over temperature Protection: Shutdown at +100 °C ± 5°C Recovery at +90 °C ± 5°C Temperature measured at Unit edge.
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<p><u>Environmental</u> Designed to meet MIL-STD-810G and VITA 47</p>		
<p><u>Temperature</u> Operating: -55°C to +55°C @ 27 CFM (at inlet, IAW VITA 62 AC2) Storage: -55°C to +125°C</p> <p><u>Humidity</u> 810G Method 507.5 & VITA 47 Para. 5.6, Up to RH 95%.</p> <p><u>Reliability</u> > 314,000 hours, calculated per MIL-STD-217F Notice 2 at +65°C at wedge lock edge, Ground Fixed.</p>	<p><u>Altitude</u> 810G Method 500.5, Procedure II (Operational) & VITA 47 para. 5.7 60,000 ft.</p> <p><u>Vibration</u> 810G Method 514.6 Procedure I. General minimum integrity exposure. (1 hour per axis & VITA 47 Vibration Class V2</p>	<p><u>Salt Fog</u> Method 509.5</p> <p><u>Shock</u> 810G Method 516.6 Procedure I & VITA 47 Shock Class OS1 Saw-tooth, 20g peak, 11ms</p>

Environmental Stress Screening (ESS)

Including random vibration and thermal cycles is also available. **Please consult factory for details.**

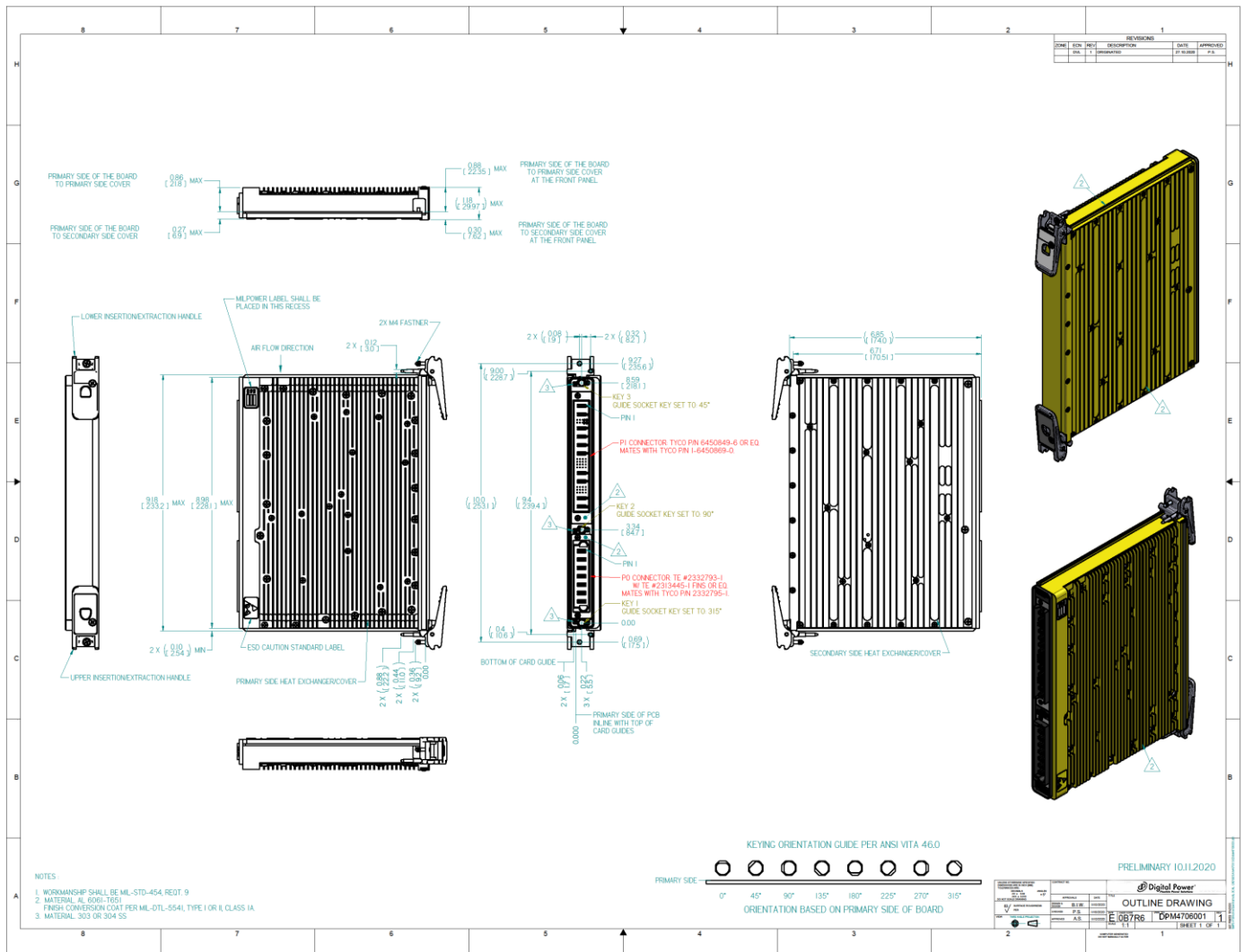
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Outline Drawing



* Specifications are subject to change without prior notice by the manufacturer.

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