

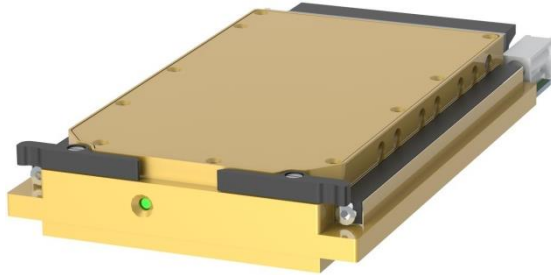


VITA 62 VPX SOLUTIONS Three Phase

DPM4071 SERIES

DPM4071 SERIES

3-PHASE AC/DC POWER SUPPLY



PRODUCT HIGHLIGHTS

- 1.0 PITCH, 3U VPX FORM FACTOR
- HIGH POWER OUTPUT + AUX OUTPUT
- UP TO 800W

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 Power Supply

Special Features

- 1.0 Pitch, 3U IAW VITA 62
- High efficiency
- Input / Output isolation
- EMI filters included
- Fixed switching frequency
- Remote Inhibit
- Remote Enable
- Non-latching protections:
 - Short-circuit/overload
 - Output over-voltage
 - Over temperature

Electrical Specifications

AC Input

103 to 125 V_{phase-Neutral}
400 Hz
Three-Phase

DC Outputs (standard version)

VS1	28 V _{DC}	30 A
3.3V_Aux	3.3 V _{DC}	0.4 A

Isolation

Input to Output: 1000 V_{DC}
Input to Case: 1000 V_{DC}
Output to Case: 200 V_{DC}

Optional: 80Vac and 180Vac transients IAW MIL-STD-704F. **Please consult factory.**

Optional: VS1 peak power of 1000 W for short time. **Please consult factory.**

Output voltage regulation

±1% or better (no load to full load, low line to high line, -40 °C to +71 °C at card edges).

Efficiency

Typical 90% (Nominal line, nominal load, room temperature)

EMC

Internal EMI filter included.
Compliance with MIL-STD-461F CE102, CS101, CS114, CS115 & CS116 possible with external filter.

Ripple and Noise

Less than 100 mV_{p-p}, typical (max. 1%) without external capacitance. When connected to system capacitance ripple drops significantly.

Output Under-and-overshoot

Output impedance at load step of 50%-100% is 30 to 120 mΩ (depending on output voltage). Output resumes steady-state within 300-500 μs.

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).

Input

- **Inrush Current Limiter**
- **Under Voltage Lock-Out**
Unit shuts down when input voltage is below 90 V_{ac}.

Output

- **Active Over-Voltage**
Threshold set at 110% ± 5% of nominal voltage.
- **Passive Over-Voltage**
Threshold selected at 120% ± 10% of nominal voltage.
- **Overload / Short-Circuit**
Protected against indefinite short circuit by a hiccup mechanism (periodical off/on until short is removed).
Threshold set at 120% ± 10% of maximum current.

General

- **Over-Temperature Protection:**
Shutdown if temperature exceeds +95 ± 5 °C.
Automatic recovery upon cooldown to below +85 ± 5 °C.

Environmental Conditions

Designed to meet MIL-STD-810G

Temperature

Operating: -40 °C to +71 °C
(at plug-in card edge, IAW VITA 62 CC3)

Storage: -55 °C to +105 °C

Humidity

Method 507.5
Up to RH 95%

Altitude

Method 500.5, Procedure II
(Operational)

Salt Fog

Method 509.5

Vibration

Method 514.6
Procedure I
Category 24 - General minimum integrity exposure

Shock

Method 516.6
Procedure I
Saw-tooth, 20g peak, 11ms.

Reliability

At least 100,000 hours, calculated IAW MIL-HDBK-217F Notice 2 at +85°C at wedge lock edge, Ground Fix condition.

Environmental Stress Screening (ESS)

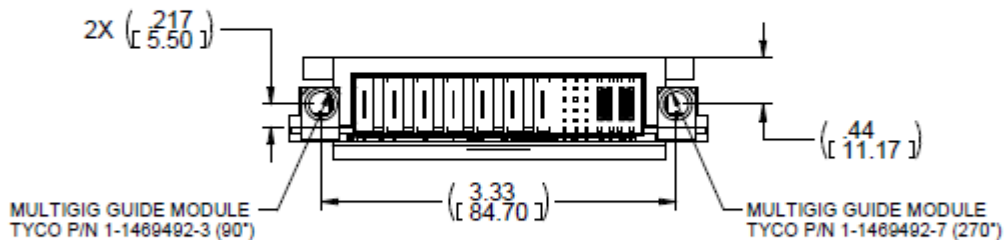
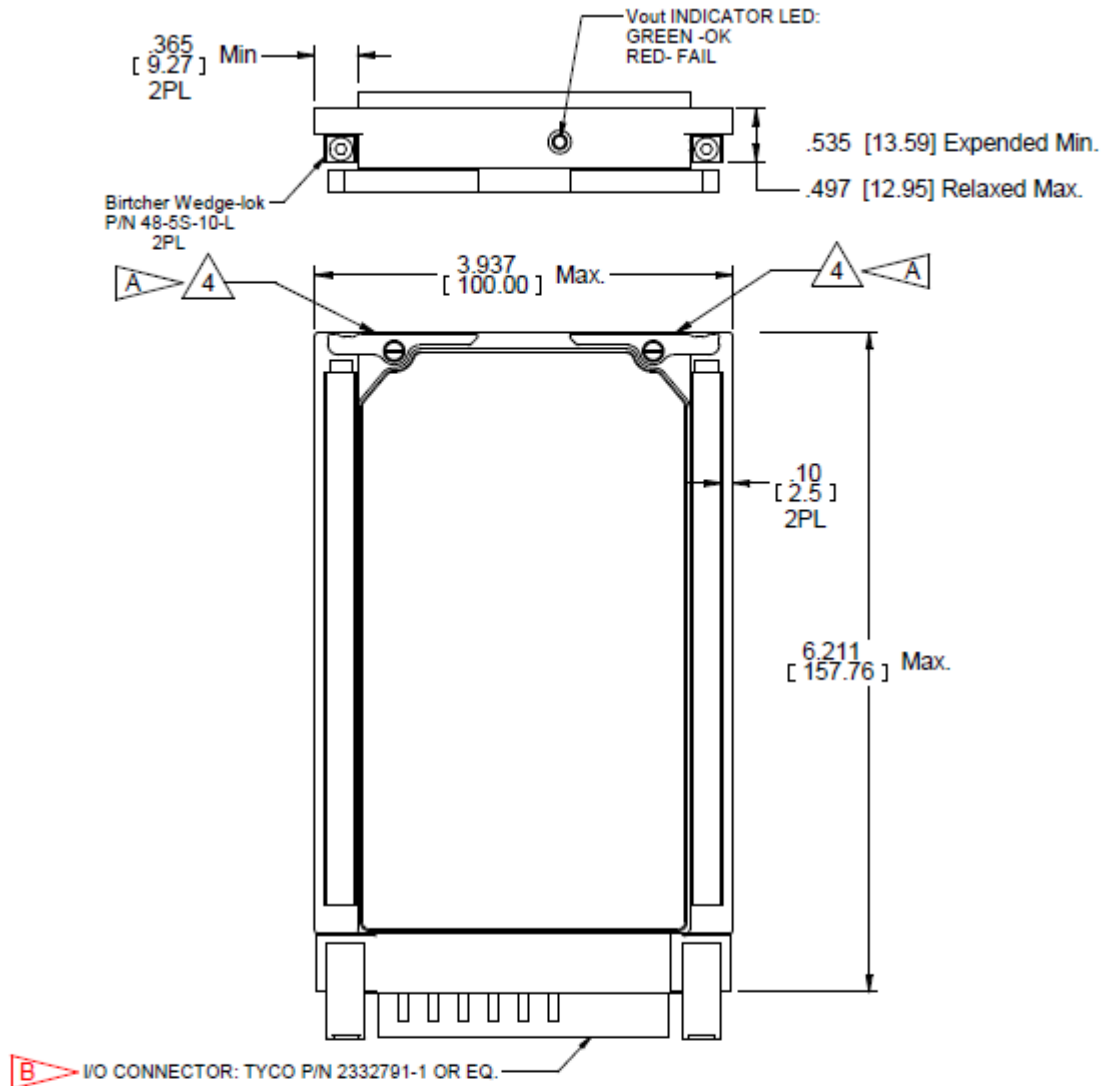
100% of units are tested at minimum and maximum operational temperature, in addition to an ATP in room ambient. Random vibration and thermal cycles can be added if required. **Please contact factory for details and a quote.**

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NOTES :

1. WORKMANSHIP SHALL BE MIL-STD-454, REQT. 9
2. DRILL, TAP & COUNTERSINK PER MS 33537
3. MAIN BODY AND COVERS
 - 3.1 MTL. ALUMINIUM ALLOY 6061-T651& AL 5052-H32
 - 3.2 FINISH: CONVERSION COATING PER MIL -C-5541 TYPE 1, CL 1A
4. EJECTOR/INJECTOR
 - 4.1 MTL. ALUMINIUM ALLOY 6061-T651
 - 4.2 FINISH: BLACK ANODIZE PER MIL-A-8625, TYP II, CLASS 2



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