

cPS-P325/AC

Wide temperature PICMG® 2.11 47-pin Hot-Swap Redundant 3U CompactPCI® 8HP 250 W Power Module

Features

- Supports -25 °C to +70 °C operating temperature
- Compliant to PICMG 2.11
- Wide range AC input with PFC
- Extremely high efficiency and high power density
- Low inrush current
- 4 high current outputs with flexible load distribution
- Integrated ORing FETs / diodes for true redundancy
- Inhibit and enable inputs
- Remote sense lines
- Single-wire current share function for 3 outputs
- Hot-swap capability
- 47-pin connector
- Overtemperature, overvoltage, overcurrent, and overpower protection



Specifications

• cPS-P325/AC

PICMG® Standards

PICMG® 2.11 CompactPCI® Power Interface compliant

Form Factor: 3U cPCI (100 x 160mm), 2-slot (8HP) wide

Input Voltage: 100-240 ± 10% VAC

Input Frequency: 50-60 ± 5% Hz

Input Current: 3.6A @ 230VAC

4A @ 260VAC

Inrush Current: <15A @ 240VAC

Power Factor (PFC, only for AC): Correction Typical 0.95

Meets Harmonic Correction EN 61000-3-2

Output Voltage/Current

5V: Typ. 25A, Max. 40A

3.3V: Typ. 20A, Max. 40A

+12V: Typ. 4A, Max. 5.5A

-12V: Typ. 1A, Max. 2A

Max. load is the continuous operating load of each rail individually. The max. load of each rail cannot be drawn from all outputs simultaneously.

Output Voltage: 1.5A @ +12V

Minimum Load

Output Wattage: Typical 250W continuous

Line Regulation: max ± 10mV

Load Regulation

3.3V & 5V: ± 10mV

+12V: ± 30mV

-12V: -380 mV

Ripple

60 mV @ +5 V and 3.3 V outputs

120 mV @ +12 V and -12 V outputs

Hold-up Time: 20 ms after power fail signal

Efficiency: Typical 81.5-82.6%

Output Voltage Sense

Available at 5V, 3.3V, and +12V outputs and current sharing

N+1 Redundancy

Equipped with internal OR-ing diodes at all outputs for N+1 redundancy operation

Remote ON/OFF: Available at [INH#] & [EN#]

Power Failure Signal: Available at [FAL#] pin

Power Degradation Signal: Available at [DEG#] pin

Specifications

Protections

Over Temperature Protection (OTP): $TC \geq +105^{\circ}C$
Over Current Protection (OCP): Installed at each rail
Over Load Protection (OLP): Typical 120% max. load, fully protected against output overload or short circuit.
Over Voltage Protection (OVP): Built-in at all outputs

Status LED

<Green LED> [POWER] means valid input voltage
<Amber LED> [FAULT] means a critical fault
Earth Leakage: 1.18mA at 254Vac/60Hz

Operating Temperature

-25°C to 70°C (-25°C to +50°C at full load with specified air flow. Derates linearly to 50% at +70°C.)

Storage Temperature

-40°C to +85°C

Humidity

5% to 95% non-condensing

Shock

20G Acceleration amplitude, 11 ms duration, converter operation

Vibration

Operation: 4.9 Grms, 20-500Hz, each axis
Cooling Requirement: Min. 400 LFM (2 m/s) is required for typical full power rating

Certifications

IEC/EN 60950-1 2nd Ed, UL/CSA 60950-1 2nd Ed & China CCC

Ordering Information

Processor Blades

- **cPS-P325/AC**
PICMG® 47-pin hot-swap redundant 3U CompactPCI® 8HP 250 W power module with universal AC Input