

CPCI-6U Series

350 – 650 Watt Compact PCI Power Supply

Product Description

The **Digital Power CPCI 6U Series** power supplies offer industry-leading performance for the Military, Commercial, Telecom and Industries markets, with a full range of AC Input, 24 VDC and 48 VDC input products. The entire range of products are compliant to the PICMG 2.11 power interface specification and provide from 350-650 Watts of output power. Key features include:

Key Features

- 350–650 watts
- 6U cabinet
- Ruggedized construction
- Universal AC input with PFC
- 24 VDC and 48 VDC input models available
- Active load current share (+5 V and 3.3 V output)
- O'ring diodes/FETs for N+1 parallel operation
- RoHS compliant
- PICMG 2.11 compliant
- International regulatory approvals



INPUT

- Input—AC Models 90–264 VAC, 47–63 Hz
- Power Factor >0.90/0.95 typical @ 110/220 VAC (full load)
- Hold-Up Time 16 ms minimum (full load)
- Inrush Current <35/65 A @ 110/230 VAC
- Input—48 V Input Models 36–72 VDC Input range
- Input—24 V Input Models 18–36 VDC Input range

OUTPUT

- Line Regulation $\pm 0.5\%$ for minimum to maximum voltage input
- Transient Response >0.90/0.95 typical @ 110/220 VAC (full load)
- Over-Voltage Protection 110–125% of V1/V2/V3 (latched shutdown)
- Overload Protection V1 and V2: 125% / V3 and V4: 200%
- Load Regulation V1 and V2: $\pm 1\%$ maximum
V3 and V4: $\pm 5\%$ maximum
- Min Load Requirement None
- Turn-On Delay 2 seconds maximum
- Initial setting Accuracy $\pm 1\%$
- Ripple/Noise V1 and V2: 60 mV
V3 and V4: 120mV (20M Hz bandwidth)

ENVIRONMENTAL CONDITIONS

- Operating Temperature -5°C to 55°C (23°F to 131°F);
De-rate of 2.5% per 1°C to 70°C (34°F to 158°F)
- Storage Temperature -40°C to 85°C (-40°F to 185°F)
- Cooling 400–500 W = 250LFM/600–650 W=400 LFM airflow
- Humidity 400–500 W = 250LFM/600–650 W=400 LFM airflow
- Shock & Vibration Up to 95% RH non-condensing
- MTBF >400,000 hours per Belcore 332 issue 6

STATUS AND CONTROL

- Remote Inhibit Active Low = Off
- DC Fail Open collector ACTIVE low
- Over Temperature Warning Open collector ACTIVE low
- Remote Sense Compensates for < 500 mV drop
- Current Share Single wire (V1 and V2)
- Front Panel Green LED Outputs OK
- Front Panel Red LED Fault condition

ELECTROMAGNETIC COMPATIBILITY

- Electrostatic Discharge EN61000-4-2, $\pm 8\text{KV}$ contact / $\pm 8\text{KV}$ air discharge
- Radiated Susceptibility EN61000-4-3, 26–1000 MHz, 10V/m, 80% AM
- EFT/Bursts EN61000-4-4, $\pm 2\text{KV}$
- Surges EN61000-4-5, $\pm 2\text{KV}$ line-earth, $\pm 1\text{KV}$ line-line
- Conducted Immunity EN61000-4-6, 0.15–800 MHz, 10 V, 80% AM
- Voltage Dips EN61000-4-11, 30% dip for 10 ms, 60% Dip for 100 ms
- Voltage Interruptions EN61000-4-11, 95% reduction, 5 seconds
- Fluctuations & Flicker EN61000-3-3

SAFETY AND EMISSIONS

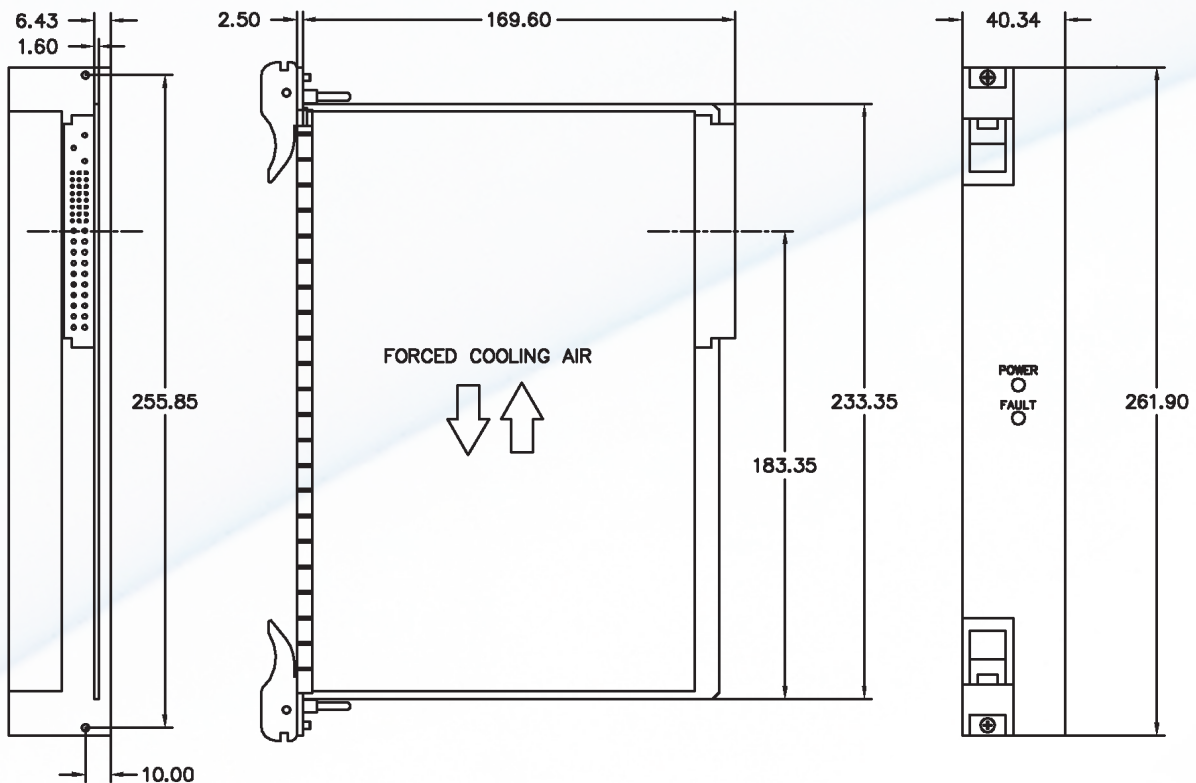
- Safety Approvals UL/cUL 60950-1, IEC/EN 60950-1
- Emissions EN55022 Level B

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Model Selection Guide

Model	Input	Power	V1	V2	V3	V4
CPCI-AC-6U-400	90–264 VAC	400 W	+5 V/50 A	+3.3 V/80 A	+12 V/7.5 A	–12 V/1.5 A
CPCI-AC-6U-500	90–264 VAC	500 W	+5 V/65 A	+3.3 V/80 A	+12 V/12 A	–12 V/1.5 A
CPCI-AC-6U-600	90–264 VAC	600 W	+5 V/70 A	+3.3 V/70 A	+12 V/7 A	–12 V/1.5 A
CPCI-AC-6U-650	90–264 VAC	650 W	+5 V/80 A	+3.3 V/70 A	+12 V/7 A	–12 V/1.5 A
CPCI-DC-6U-350/24	18–36 VDC	350 W	+5 V/50 A	+3.3 V/60 A	+12 V/7 A	–12 V/1.5 A
CPCI-DC-6U-400/48	36–72 VDC	400 W	+5 V/50 A	+3.3 V/80 A	+12 V/7.5 A	–12 V/1.5 A
CPCI-DC-6U-500/48	36–72 VDC	500 W	+5 V/65 A	+3.3 V/80 A	+12 V/12 A	–12 V/1.5 A
CPCI-DC-6U-600/48	36–72 VDC	600 W	+5 V/70 A	+3.3 V/70 A	+12 V/7 A	–12 V/1.5 A
CPCI-DC-6U-650/48	36–72 VDC	650 W	+5 V/80 A	+3.3 V/70 A	+12 V/7 A	–12 V/1.5 A



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