

CPCI Power Supply Manual

PRODUCT DOCUMENTATION

PD01 CP3-SVE-ATX235AC

Reference ID: 24139 PD01

Revision: 01

Issued: February 01, 2002



The product described in this manual is in compliance with all applied CE standards.



Revision History

| Manual/Product Title: | | CPCI Power Supply Manual: Product Documentation: CP3-SVE-ATX235AC | |
|-----------------------|------------------------------|---|---------------|
| Reference ID: | | 24139 PD01 | |
| Rev. Index | Brief Description of Changes | | Date of Issue |
| 01 | Initial Issue | | Feb. 01, 2002 |
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Imprint

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DISCLAIMER:

PEP Modular Computers GmbH rejects any liability for the correctness and completeness of this manual as well as its suitability for any particular purpose.

This manual was realized by: **TPD/Engineering, PEP Modular Computers GmbH.**



1. Introduction

The specific product description provided with this product documentation is part of the PEP's CPCI Power Supply manual. For further information, in particular regarding general details as well as safety and warranty statements, refer to the CPCI Power Supply Manual, ID 24139.

2. 235W ATX-Type Power Supply Unit

The main features of the 3U ATX-type, 120V/230V input, 235W output AC/DC power supply unit CP3-SVE-ATX235AC are described in the following table:

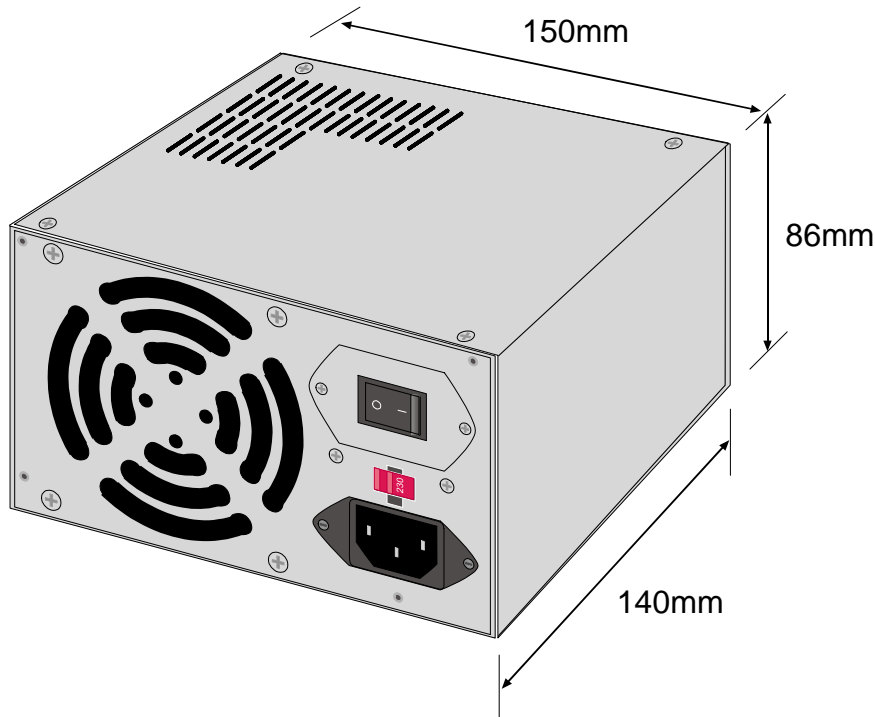
Table 1: Distinctive Features of Power Supply Unit CP3-SVE-ATX235AC

| Feature | Specification |
|-----------------------------|---|
| Form Factor | 3U |
| Front Panel Size | No frontpanel |
| Mechanics | 133.35*213.36 mm front panel adapter for 19" rack mounting |
| Plug-In Compatibility | — |
| Power Supply Connector | ATX connector |
| Input Voltage | $V_{US} = 95V..135V$ AC $V_{EU} = 180V..265V$ AC Frequency: 47Hz..63Hz |
| Voltage Switching | Manual switching |
| Output Power | 235W |
| Output Voltages/Currents | $V_{01} = +3.3V$ at 14A $V_{02} = +5.1V$ at 22A $V_{03} = +12V$ at 8A $V_{04} = -12V$ at 1A $V_{05} = -5.1V$ at 0.5A $V_{06} = -12V$ at 1A |
| Cooling | Internal fan (12V DC) |
| Redundant Supply Capability | — |
| Status Indication | — |
| Special Feature(s) | — |



2.1 Mechanical Specifications

Figure 1: View of the Power Supply Unit CP3-SVE-ATX235AC



2.2 Power Supply Connector

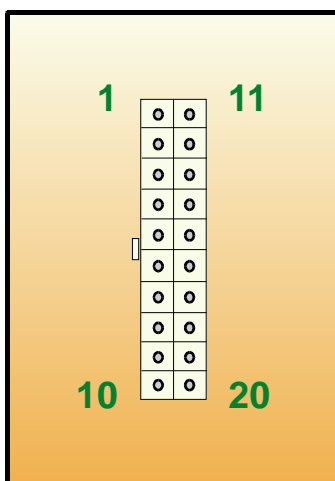


Figure 2: Orientation of the ATX Power Supply Connector

The VEU and VUS input voltages are fed directly to the power supply unit without any throughput through the backplane to a mains connector. The power supply unit's Vo1..Vo4 output power is wired from to the backplane by means of the 20-pole Molex Mini-Fit Junior Connector "ATX".



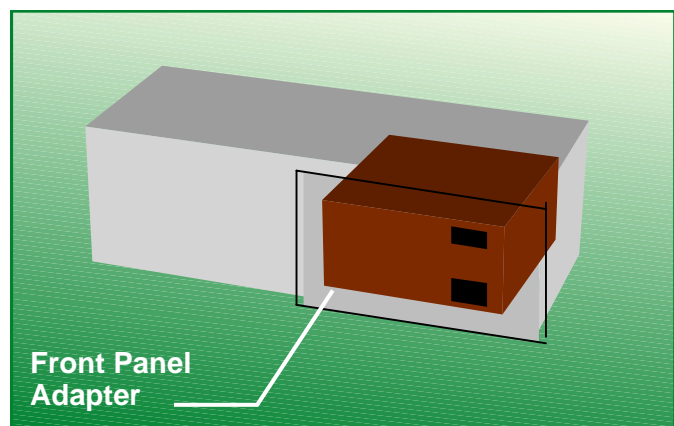
Table 2: ATX Connector Pinouts

| Pin | Function | Pin | Function |
|-----|----------|-----|----------|
| 1 | +3.3V | 11 | +3.3V |
| 2 | +3.3V | 12 | -12V |
| 3 | GND | 13 | GND |
| 4 | +5V | 14 | PS-ON |
| 5 | GND | 15 | GND |
| 6 | +5V | 16 | GND |
| 7 | GND | 17 | GND |
| 8 | PW-OK | 18 | -5V |
| 9 | +5V SB | 19 | +5V |
| 10 | +12V | 20 | +5V |

2.3 Installation

Due to its overall dimensions, the ATX power supply unit, which is held in place by means of four fastening screws, requires a special front panel adapter to be mounted in 19-inch racks. This 3U/32HP front panel adapter is part of the supply.

Figure 3: 19" Rack Mounting of ATX Power Supply Unit





2.4 Electrical Specifications

Input

| | |
|--------------------------|--|
| Input voltage ranges | $V_{EU} = 180V..235V \text{ AC}$ $V_{US} = 95V..135V \text{ AC}$ Frequency: 47Hz..63Hz |
| Voltage Switching | Manual switching |
| Efficiency | Min. 65% at line/full load |
| Input current limitation | Typ. $\leq 5A$ at 115VAC Typ. $\leq 2.5A$ at 230VAC |
| Fuse | Internally located AC line fuse |

Output

| | |
|-------------------------|--|
| Min. Load Current | $V_{01}: 0.0A$ $V_{02}: 1.0A$ $V_{03}: 0.05A$ $V_{04}: 0.0A$ $V_{05}: 0.0A$ $V_{06}: 0.0A$ |
| Ripple and Noise (Max.) | $V_{01}: 50mV_{pp}$ $V_{02}: 50mV_{pp}$ $V_{03}: 120mV_{pp}$ $V_{04}: 50mV_{pp}$ $V_{05}: 150mV_{pp}$ $V_{06}: 50mV_{pp}$ |

Regulation

| | |
|--------------------|--|
| Overall regulation | $V_{01}: 5\%$ $V_{02}: 5\%$ $V_{03}: 5\%$ $V_{04}: 10\%$ $V_{05}: 10\%$ $V_{06}: 5\%$ |
|--------------------|--|



Protection and Control

| | |
|------------------------|---|
| Overvoltage protection | Provided on all outputs |
| Short protections | Latching type with no damage |
| Power Good signal | TTL-compatible. High 100-500ms after start-up, low \geq 1ms before break-down |

EMC

No EMC parameters or standards of reference specified.

Safety

UL, CSA, DVE, NEMKO, CB certification

Operating Data

| | |
|----------------------|----------------------------------|
| Temperature range | +10°C..+40°C with forced cooling |
| Temperature derating | No parameter specified. |



Warning!

Adequate thermal cooling of the power supply must be ensured. Therefore do not obstruct or hinder cooling air circulation or heat conduction within the power supply or surrounding equipment.

Failure to comply with this warning may result in damage to your equipment.



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