Andover Continuum

Power Supplies with or without UPS

The Andover Continuum™ PS 120/240 AC 50-U, PS 120/240 AC 65-U and PS120/240 AC 85-U power supply modules are designed to provide 24 VDC power for the Andover Continuum NetController II CPU module and its associated Andover Continuum I/O modules. In addition, these models provide full UPS battery backup in the event of an AC line failure.

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Andover Continuum Power Supplies with or without UPS Features

The PS 120/240 AC 50-U, AC 65-U, and AC 85-U power supplies are part of the Andover Continuum Ethernet-based intelligent building system. The Andover Continuum system allows you to cost-effectively mix and match DIN rail-mounted CPU, power supply, and various combinations of I/O modules and user interfaces to meet your control and monitoring needs.

PRODUCT AT A GLANCE

- Power Supply Modules Provide 24 VDC Power and Battery-Backed UPS Power to Andover Continuum NetController II CPU and I/O Modules
- Choice of 85 Watt, 65 Watt, or 50 Watt Models
- Built-in Battery Charger
- Selection of Programmable Battery Backup Modes via Andover Plain English Programming
- Non-UPS Models Available for Use as an Extended Power Source
- -48 VDC Model Available for Telecommunications Use
- DIN Rail Mounting and Slide-Together Connectors for Easy Installation

All the models offer an impressive array of features that reduce or eliminate the impact of power failure. In them, a built-in battery charger provides 15 watts maximum to the battery. The charger's current is limited to prevent overloading the power supply in the event of a shorted or defective battery. Using standard rechargeable lead acid batteries (not included), the 50-U model will provide full UPS operation including all I/O modules for up to 60 minutes at 35 watts power consumption; the 65-U model provides 60 minutes full UPS at 50 watts; the 85-U model provides 30 minutes full UPS at 70 watts. Both allow for full operation of the CPU module only (including modem and network interface) with no I/O power for four hours; or backup of DRAM and real-time clock for 72 hours duration.

These backup modes can be selected and controlled through Andover Plain English™ programming. Maximum charging time of the battery charger is 48 hours using recommended batteries. Two 12V 7.0 AHr sealed rechargeable batteries are required with both models (not included). Extended backup times are available using larger batteries.

The UPS circuit provides the Andover Continuum CPU with two status signals indicating the operating condition of the power supply — one signal indicates an AC power failure and a change over to UPS mode and the other signal indicates when the battery voltage has reached an unsafe discharge level and will soon shutdown. A disconnect switch removes the battery and prevents further discharge of the battery.

Andover Continuum Power Supplies with or without UPS Features (continued)

A connector located on the bottom of the power supply is provided for an optional Main Power indicator LED. This option is ideal if you mount your Andover Continuum system within a larger control panel or enclosure and wish to verify power to the system from a separate location.

The power supply module features a sleek, lightweight casing designed for natural convection cooling. Built-in quick-release fasteners at the back of the module are provided for DIN rail mounting — no tools required. These fasteners also snap into a locked position for panel mounting. The power supply is designed for mounting in an optional NEMA 1-style Andover Continuum enclosure.

Other Available Models

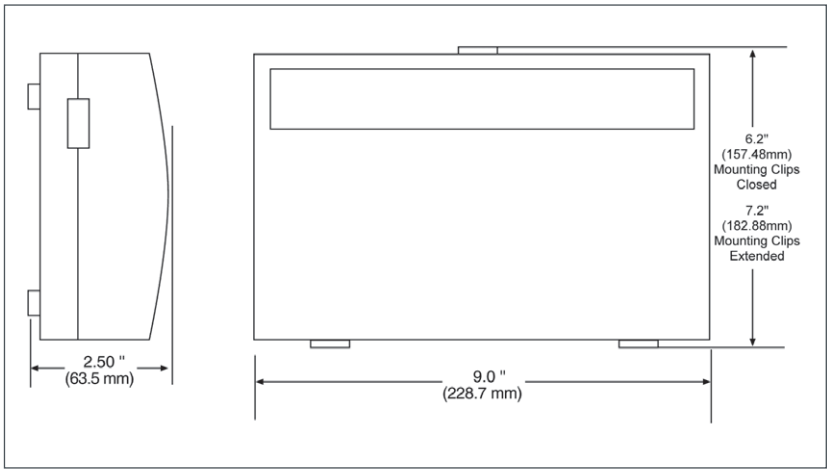
PS 120/240 AC 85

A non-UPS version, the PS 120/240 AC 85, is also available. This power supply can also be used as an extended power source to power additional I/O modules directly, extending the capabilities of a typical Andover Continuum system, even to remote locations. Because there is no built-in battery charger in this model, a full 85 watts of power is available.

PS 120/240 AC 65

A non-UPS version, the PS 120/240 AC 65, is also available. This power supply can also be used as an extended power source to power additional I/O modules directly, extending the capabilities of a typical Andover Continuum system, even to remote locations. Because there is no built-in battery charger in this model, a full 65 watts of power is available.

Dimensional Drawing



PS 120/240 AC 50

A non-UPS version, the PS 120/240 AC 50, is also available. This power supply can also be used as an extended power source to power additional I/O modules directly, extending the capabilities of a typical Andover Continuum system, even to remote locations. Because there is no built-in battery charger in this model, a full 50 watts of power is available.

PS –48 DC 50

A PS –48 DC 50 model is available. This model accepts power from –41 to –53 VDC and allows industries such as telecommunications to provide uninterrupted power to critical environmental monitoring and control equipment using their own battery-backed power systems.

Andover Continuum Power Supplies with or without UPS Specifications

Andover Continuum Power Supplies

Electrical

Input Voltages
100 to 240 VAC, 50/60 Hz
-41 to -53 VDC
(PS –48 DC 50 model only)
Output Voltages
24 VDC, ±5% (all models)
Output Power Available
70 watts (PS 120/240 AC 85-U model)
85 watts (PS 120/240 AC 85 model)
50 watts (PS 120/240 AC 65-U, PS 120/240 AC 50 and PS -48 DC 50 models)
65 watts (PS 120/240 AC 65 model)
35 watts (PS 120/240 AC 50-U model)
Overload Protection
Short circuit protection
Overvoltage protection
Fuse protection on inputs
MOV protection on inputs

Mechanical

Operating Environment
32 to 120°F, (0 to 49°C),
10 to 95%RH (non-condensing)
Size
9.0″W (228.7mm)
7.2″H (182.88mm)
(with mounting clips extended)
6.2″H (157.48mm)
(with mounting clips closed)
2.5″D (96.5 x 170.2 x 63.5mm)
Weight
1.75 lbs (0.79kg)
Enclosure Type
UL open class, flammability rating of UL94-5V, IP 10
Mounting
Mount on DIN rail or wall-mount using attached fasteners. Andover Continuum NEMA 1-style enclosure available.

Battery

(PS 120/240 AC 50-U, PS 120/240 AC 65-U and PS 120/240 AC 85-U models only)
Battery Backup
Battery backup UPS circuit with built-in battery charger provides automatic battery backup UPS power in event of AC line failure. Two 12V 7.0 AHr sealed rechargeable batteries (not included), connected with 5 amp pico fuse, provide a 24 VDC battery source.
Battery Backup Duration
60 minutes @ 35 watts power consumption full UPS to CPU plus I/O power (PS 120/240 AC 50-U model),
60 minutes @ 50 watts power consumption full UPS to CPU plus I/O power (PS 120/240 AC 65-U model) and
30 minutes @ 70 watts (PS 120/240 AC 85-U model); 4 hours CPU module only (including modem and network interface) with no I/O; or 72 hours DRAM and real-time clock. Expandable by use of greater amp hour batteries. For example, for a 4-hour full backup time, minimum of 2-12V 28 AHr batteries must be provided.
Battery Charging Time
48 hours maximum for built-in 15 watt battery charger to fully charge battery from lowest system battery discharge point.

Connections

AC Input
(PS 120/240 AC 50-U, PS 120/240 AC 50, PS 120/240 AC 65-U, PS 120/240 AC 65, PS 120/240 AC 85, and PS 120/240 AC 85-U models only)
Three-position screw connector
DC Input
(PS –48 DC 50 model only)
Three-position screw connector
Battery, 24 VDC
(PS 120/240 AC 50-U, PS 120/240 AC 65-U and PS 120/240 AC 85-U models only)
Two-position plug-in screw connector
External Power Indicator
Two-position connector for optional power indicator LED (optional cable assembly available).

User LEDs/Switches

Status Indicator LEDs
MAIN POWER
AC (or DC) Power ON/OFF Status Indicator
UPS POWER
(PS 120/240 AC 50-U, PS 120/240 AC 65-U and PS 120/240 AC 85-U models only)
UPS Power ON/OFF Status Indicator

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Andover Continuum Power Supplies with or without UPS Specifications (continued)

Andover Continuum Power Supplies

Switches

ON/OFF

Turns AC (or DC) power ON and OFF.
Located on top left side of module.
Indicated by MAIN POWER LED.

Agency Listings

UL/CUL 916, FCC CLASS A, CE,
UL 864 (PS 120/240 AC 65-U and
PS 120/240 AC 65 only)
UL 294 (PS 120/240 AC 50-U, PS 120/240
AC 50, PS 120/240 AC 65-U, PS 120/240
AC 65, PS 120/240 AC 85-U, PS 120/240 85)
UL1076 (PS 120/240 AC 50-U, PS 120/240
AC 65-U and PS 120/240 AC 85-U only)

Options

External Power Indicator LED Cable Assembly—Approximately 2 ft. in length. (P/N: 01-0100-422)

Two 12V 7.0 AHr Sealed Rechargeable Batteries Only (P/N: 01-2100-423)

Battery Bracket & Cable Only (P/N: 01-0010-868)

Two 12V 7.0 AHr Sealed Rechargeable Batteries plus Battery Bracket & Cable (P/N: 01-0010-842)

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