

PC-100

Power Conditioner 100

- > Rack-mountable power conditioner
- > Eight switched rear panel outlets
- > Three-stage sequential turn-on delay
- > One unswitched front panel outlet
- > Professional grade surge protection
- > UL® 1449 Type 3 Listed
- > Thermal breaker overload protection
- > Over-voltage and under-voltage cutoff
- > EMI and RFI noise filtering
- > Wiring fault detection^[1]
- > Front panel main power switch and status indicators
- > Protection status contact closure output
- > Single-space 19 inch rack-mountable
- > Rated 15 Amps at 120 Volts AC
- > Limited Lifetime Product Warranty
- > Limited 5 Year Connected Equipment Protection Warranty



The PC-100 is a professional grade, rack-mountable power conditioner designed to provide 120 Volt AC power distribution, switching, surge protection, and noise filtering for Crestron® control systems, AV systems, computers, and other equipment. Eight switched outlets are provided on the rear panel, plus a single unswitched convenience outlet is provided on the front. All nine outlets are protected and filtered. The switched outlets are arranged in four banks of two, two of which are turn-on delayed to prevent dangerous transients during power-up.

Power Conditioning

A quality power conditioner is an essential component of any professional system to prevent sudden equipment failure due to lightning and electrical disturbances, to prolong the lifespan of that equipment, and to maximize overall system performance during everyday operation. The PC-100 includes the following power conditioning features:

- **Surge Protection** — Provides protection against surges and spikes in the AC power line caused by lightning and other electrical disturbances
- **Under/Over Voltage Cutoff** — Shuts off power to the rear panel outlets if the line voltage strays beyond the normal operating range
- **Thermal Breaker** — Disrupts power to all outlets in case of an overload condition
- **EMI/RFI Noise Filtering** — Prevents electromagnetic and radio frequency interference that can negatively impact sound and video quality
- **Wiring Fault Detection** — Detects faulty wiring of the incoming AC power line and shuts off power to the rear panel outlets until the fault is corrected^[1]

Three-Stage Sequential Turn-On Delay

The switched outlets on the PC-100's rear panel are arranged in four banks, with two outlets per bank. When the front panel switch is turned on, or when power is applied to the main line input following a power outage or through an externally switched circuit, the first two banks of outlets turn on immediately, the third bank turns on following a one second delay, and the fourth bank turns on following a two second delay. This ensures that the connected equipment gets powered up in proper order, preventing dangerous transients that can damage delicate components and potentially trip the main circuit breaker. It can also help to prevent audible pops and thumps through connected audio equipment at power-up.

Protection Status Output

A contact closure output is included to provide notification to a control system or other equipment if the internal surge protection circuit is compromised due to an extreme transient voltage surge. In the unlikely event of such a condition, the PROTECTION output presents a low-voltage contact closure signal and all power to the rear panel outlets is switched off. Protection status is also indicated via LEDs on the front panel.

UL® 1449 Certified

The PC-100 has been tested and certified by UL as compliant with the UL 1449 safety and performance standard for surge protective devices (SPD).

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Front View



Rear View

SPECIFICATIONS

Power Conditioner

- Maximum Output Current, Total:** 15 Amps @ 120 Volts AC
- Maximum Output Current, Per Outlet/Bank:** 15 Amps @ 120 Volts AC (subject to a maximum total output current of 15 Amps for all outlets combined)
- Filtration:** 40 dB @ 100 kHz, 50 dB @ 300 kHz, with 50 Ohm load
- Surge Protection Modes:** L-G, L-N, N-G
- Surge Protection Shutoff:** Shuts off rear outlets if surge protection is compromised
- Energy Dissipation:** 2000 Joules per Mode
- Clamping Voltage:** 370 Volts
- Clamping Time:** 1 ns
- Wiring Fault Detection:** Shuts off rear outlets if a wiring fault is detected at the input^[1]
- Under-Voltage Cutoff:** Shuts off rear outlets if input drops below 93 Volts
- Over-Voltage Cutoff:** Shuts off rear outlets if input exceeds 135 Volts
- Turn-On Delay:** SWITCHED ON 1: 0 seconds;
SWITCHED ON 2: 0 seconds;
DELAYED ON 1: 1 second;
DELAYED ON 2: 2 seconds

Power

- Line Power:** 15 Amps @ 120 Volts AC, 60 Hz
- Power Consumption:** ~10 Watts typical;
30 Watts maximum (not including load)

Connectors

120V~ 15A 60Hz: (1) Attached 9.8 ft (3 m) grounded AC power cord with NEMA 5-15P plug, line power input

SWITCHED ON 1: (2) NEMA 5-15R AC power outlets;
Switched 120 Volt AC power outlet bank;
Turn-On Delay: 0 seconds

SWITCHED ON 2: (2) NEMA 5-15R AC power outlets;
Switched 120 Volt AC power outlet bank;
Turn-On Delay: 0 seconds

DELAYED ON 1: (2) NEMA 5-15R AC power outlets;
Switched 120 Volt AC power outlet bank;
Turn-On Delay: 1 second

DELAYED ON 2: (2) NEMA 5-15R AC power outlets;
Switched 120 Volt AC power outlet bank;
Turn-On Delay: 2 second

PROTECTION: (1) 2-pin 3.5 mm detachable terminal block;
Normally open, isolated relay;
Rated 1 Amp, 30 Volts AC/DC;
Provides a dry contact closure if surge protection is compromised

G: (1) 6-32 screw, chassis ground lug

ALWAYS ON (front): (1) NEMA 5-15R AC power outlet;
Unswitched 120 Volt AC power outlet

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Controls & Indicators

PWR: (1) Bi-color green/amber LED, indicates line power is present and the power switch is on (green) or off (amber)

FAULT: (1) Red LED, indicates any of the following fault conditions: surge protection is compromised, line and neutral are reversed, or no ground is detected ^[1]

PROTECT: (1) Green LED, indicates surge protection is fully functional

SHUTDOWN: (1) Amber LED, indicates power to the rear outlets is shut off due to an over-voltage, under-voltage, line input miswire, missing ground, or compromised surge protection fault condition

Power Switch: (1) Rocker switch, "On" position initiates turn-on delay sequence to the rear panel outlets, "Off" position turns all rear outlets off immediately

THERMAL BREAKER (rear): (1) Disrupts power to all outlets in case of an overload condition, press to reset after overload condition is resolved

Environmental

Temperature: 32° to 113° F (0° to 45° C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 34 BTU/hr typical, 102 BTU/hr maximum

Construction

Chassis: Steel, black finish

Front Panel: Extruded aluminum, black finish, polycarbonate label overlay

Mounting: 1 RU 19-inch rack-mountable (rack ears included)

Dimensions

Height: 1.73 in (44 mm) without feet

Width: 17.32 in (440 mm), 19.00 in (483 mm) with rack ears

Depth: 10.56 in (269 mm)

Weight

8.2 lb (3.8 kg)

Compliance

UL 1449 Type 3 Listed

MODELS

Available Models

PC-100: Power Conditioner 100

Notes:

1. Detects most input line wiring faults. Does not detect neutral/ground reversal. Does not discern between ground connections at the AC power line, chassis, or connected equipment (a ground connection at any point will be detected by the PC-100 as normal). The installer is responsible for proper wiring and grounding of this and all connected equipment according to applicable electrical codes, accepted guidelines, and best practices. Proper wiring and function of the AC power source should be verified prior to connecting the PC-100 or any other equipment. Use of this product does not negate the responsibilities of the installer and end-user to exercise all appropriate and required measures for safe and reliable installation and operation.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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