



**Powerware® Enclosure Power Distribution Unit (ePDU™)
12-24A/120V, 12-32A/240V
User's Guide**

Requesting a Declaration of Conformity

Units that are labeled with a CE mark comply with the following harmonized standards and EU directives:

- Harmonized Standards: IEC 62040-1-1 and IEC 62040-2; IEC 60950 Third Edition
- EU Directives: 73/23/EEC, Council Directive on equipment designed for use within certain voltage limits
93/68/EEC, Amending Directive 73/23/EEC
89/336/EEC, Council Directive relating to electromagnetic compatibility (EMC)
92/31/EEC, Amending Directive 89/336/EEC relating to EMC

The EC Declaration of Conformity is available upon request for products with a CE mark. For copies of the EC Declaration of Conformity, contact:

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Special Symbols

The following are examples of symbols used on the UPS or accessories to alert you to important information:



RISK OF ELECTRIC SHOCK - Observe the warning associated with the risk of electric shock symbol.



CAUTION: REFER TO OPERATOR'S MANUAL - Refer to your operator's manual for additional information, such as important operating and maintenance instructions.



This symbol indicates that you should not discard waste electrical or electronic equipment (WEEE) in the trash. For proper disposal, contact your local recycling/reuse or hazardous waste center.

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Chapter 1 Enclosure Power Distribution Unit

The Eaton® Powerware® Enclosure Power Distribution Unit (ePDU™) is designed to distribute power within a rack. Providing outstanding performance and reliability, the ePDU's unique benefits include the following:

- The ePDU can be installed in one-U (1U) or two-U (2U) applications (depending on model). The standard mounting bracket allows the ePDU to be recessed up to 32 mm (1.26") in the rack.
- All models can be wall-mounted with included hardware and customer-provided fasteners appropriate to the type of wall.
- All models can be installed in zero-U (0U) applications with included hardware. The standard mounting bracket allows the ePDU to be recessed up to 32 mm (1.26") in the rack.
- All models can be placed on the floor for operation.
- Some models provide load distribution through separate receptacle groups called segments.
- The indicator LED shows when incoming power is available to the ePDU.
- All receptacles, circuit breakers, and the indicator LED and power cord are located on the front panel of the ePDU for easy access.

The following options are available for the ePDU:

- Cord retention bracket for secure power cord retention.
- Universal mounting bracket for mounting the ePDU in a 0U application, recessed up to 32 mm (1.26") in the rack or mounted with hooks instead of fasteners.
- Deep-recess mounting brackets (2U applications only) for mounting the ePDU up to 89 mm (3.50") from the front of the rack or in a wall-mounted application.

Safety Warnings

IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

This manual contains important instructions that you should follow during installation and operation of the ePDU. Please read all instructions before operating the equipment and save this manual for future reference.



DANGER

This ePDU contains **LETHAL VOLTAGES**. All repairs and service should be performed by **AUTHORIZED SERVICE PERSONNEL ONLY**. There are **NO USER SERVICEABLE PARTS** inside the ePDU.



CAUTION

- To reduce the risk of fire or electric shock, install this ePDU in a temperature and humidity controlled, indoor environment, free of conductive contaminants. Ambient temperature must not exceed 45°C (113°F). Do not operate near water or excessive humidity (95% maximum).
 - To comply with international standards and wiring regulations, the total equipment connected to the output of this ePDU must not have an earth leakage current greater than 3.5 milliamperes.
 - For **PERMANENTLY CONNECTED EQUIPMENT**, a readily accessible disconnect device shall be incorporated in the building installation wiring.
 - For **PLUGGABLE EQUIPMENT**, the power outlet shall be installed near the equipment and shall be readily accessible.
-

Consignes de sécurité

CONSIGNES DE SÉCURITÉ IMPORTANTES CONSERVER CES INSTRUCTIONS

Ce manuel contient des instructions importantes que vous êtes invité à suivre lors de toute procédure d'installation et de fonctionnement de la ePDU. Veuillez consulter entièrement ces instructions avant de faire fonctionner l'équipement et conserver ce manuel afin de pouvoir vous y reporter ultérieurement.

DANGER!



Cet ePDU contient des TENSIONS MORTELLES. Toute opération d'entretien et de réparation doit être EXCLUSIVEMENT CONFIEE A UN PERSONNEL QUALIFIE AGRÉÉ. AUCUNE PIÈCE RÉPARABLE PAR L'UTILISATEUR ne se trouve dans la ePDU.

ATTENTION!



- Pour réduire les risques d'incendie et de décharge électrique, installer la ePDU uniquement à l'intérieur, dans un lieu dépourvu de matériaux conducteurs, où la température et l'humidité ambiantes sont contrôlées. La température ambiante ne doit pas dépasser 45 °C. Ne pas utiliser à proximité d'eau ou dans une atmosphère excessivement humide (95 % maximum).
- Afin d'être conforme aux normes et règlements internationaux de câblage, le courant de fuite à la terre de la totalité du matériel branché sur la sortie de la ePDU ne doit pas dépasser 3,5 mA.
- Afin de CONNECTER DE MANIÈRE PERMANENTE L'ÉQUIPEMENT, un dispositif de déconnexion aisément accessible doit être incorporé au câblage d'installation du bâtiment.
- En ce qui concerne l'ÉQUIPEMENT ENFICHABLE, la prise d'alimentation doit être installée près de l'équipement et doit être facile d'accès.

Sicherheitswarnungen

WICHTIGE SICHERHEITSANWEISUNGEN AUFBEWAREN

Dieses Handbuch enthält wichtige Hinweise, welche Sie bei der Installation und Wartung des ePDU beachten sollten. Bitte lesen Sie alle Anweisungen des Handbuches bevor Sie mit dem Gerät arbeiten. Bewahren Sie das Handbuch zum Nachlesen auf.

WARNUNG



Die ePDU führt lebensgefährliche Spannungen. Alle Reparatur- und Wartungsarbeiten sollten nur von Kundendienstfachleuten durchgeführt werden. Die ePDU enthält keine vom Benutzer zu wartenden Komponenten.

ACHTUNG



- Um die Brand- oder Elektroschockgefahr zu verringern, diese ePDU nur in Gebäuden mit kontrollierter Temperatur und Luftfeuchtigkeit installieren, in denen keine leitenden Schmutzstoffe vorhanden sind. Die Umgebungstemperatur darf 45°C nicht übersteigen. Die ePDU nicht in der Nähe von Wasser oder in extrem hoher Luftfeuchtigkeit (max. 95 %) betreiben.
 - Um internationale Normen und Verdrahtungsvorschriften zu erfüllen, dürfen die an den Ausgang dieser ePDU angeschlossenen Geräte zusammen einen Erdableitstrom von insgesamt 3,5 Milliampere nicht überschreiten.
 - Für PERMANENT ANGESCHLOSSENE GERÄTE: In der Gebäudeverkabelung muss eine leicht zugängliche Trennvorrichtung enthalten sein.
 - Für GERÄTE MIT STECKERN: Die Steckdose muss sich in der Nähe des Geräts befinden und leicht zugänglich sein.
-

Advertencias de Seguridad

INSTRUCCIONES DE SEGURIDAD IMPORTANTES GUARDE ESTAS INSTRUCCIONES

Este manual contiene instrucciones importantes que debe seguir durante la instalación y el funcionamiento de la ePDU. Por favor, lea todas las instrucciones antes de poner en funcionamiento el equipo y guarde este manual para referencia en el futuro.

PELIGRO



Este ePDU contiene VOLTAJES MORTALES. Todas las reparaciones y el servicio técnico deben ser efectuados SOLAMENTE POR PERSONAL DE SERVICIO TÉCNICO AUTORIZADO. No hay NINGUNA PARTE QUE EL USUARIO PUEDA REPARAR dentro de la ePDU.

PRECAUCIÓN



- Para reducir el riesgo de incendio o de choque eléctrico, instale este ePDU en un lugar cubierto, con temperatura y humedad controladas, libre de contaminantes conductores. La temperatura ambiente no debe exceder los 45°C. No trabaje cerca del agua o con humedad excesiva (95% máximo).
- Para cumplir con los estándares internacionales y las normas de instalación, la totalidad de los equipos conectados a la salida de este ePDU no debe tener una intensidad de pérdida a tierra superior a los 3,5 miliamperios.
- Para EQUIPO CONECTADO PERMANENTEMENTE, se debe incorporar un dispositivo de desconexión fácilmente accesible al cableado de la instalación del edificio.
- Para EQUIPO ENCHUFABLE, la salida de alimentación debe estar instalada cerca del equipo y estar fácilmente accesible.

Chapter 2 Installation

This section explains:

- Equipment inspection
- Enclosure Power Distribution Unit (ePDU) setup and installation
- Front panel diagrams

Inspecting the Equipment

If any equipment has been damaged during shipment, keep the shipping cartons and packing materials for the carrier or place of purchase and file a claim for shipping damage. If you discover damage after acceptance, file a claim for concealed damage.

To file a claim for shipping damage or concealed damage: 1) File with the carrier within 15 days of receipt of the equipment; 2) Send a copy of the damage claim within 15 days to your service representative.

Checking the Accessory Kit

The ePDU accessory kit includes the following hardware for mounting in 0U, 1U, or 2U applications:

- Four M5 × 0.8 mm panel nuts
- Four M5 × 20 mm hex-head/Phillips screws with integrated lockwashers and flat washers

If you ordered any separate optional accessories, check that the following associated hardware is included with the option.

For the cord retention bracket:

- Cord retention bracket
- 15 tie wraps
- Four #6 × 1/4" pan-head screws

For the universal mounting bracket:

- Universal mounting bracket
- Two M4 × 8 mm pan-head screws

For the deep-recess mounting bracket:

- 2U deep-recess mounting bracket
- Four M4 × 8 mm pan-head screws

Installing Mounting Brackets

Follow the appropriate instructions according to mounting type:

- 1U or 2U recessed rack mounting
- Wall mounting
- 0U rack mounting (with factory-installed mounting brackets)
- 0U rack mounting (with optional universal mounting bracket)
- 2U deep-recess rack mounting



NOTE *If you are installing the ePDU in a flush-mount 1U or 2U application, or placing the ePDU on the floor, the brackets are factory-installed in their appropriate locations. No further adjustment to the brackets is necessary.*

NOTE *The 2U deep-recess rack mounting brackets can be installed as wall mounting brackets. Follow the instructions for 2U deep-recess rack mounting, but install the brackets rotated 180 degrees.*

1U or 2U Recessed Rack Mounting

The recessed dimension is 32 mm (1.26"). To adjust the factory-installed mounting brackets for recessed mounting:

1. Remove the factory-installed mounting brackets. Retain the screws.
2. Align the brackets with the screw holes on the sides of the ePDU in the recessed mounting location (see Figure 1 or Figure 2).
3. Secure the brackets with the retained screws.

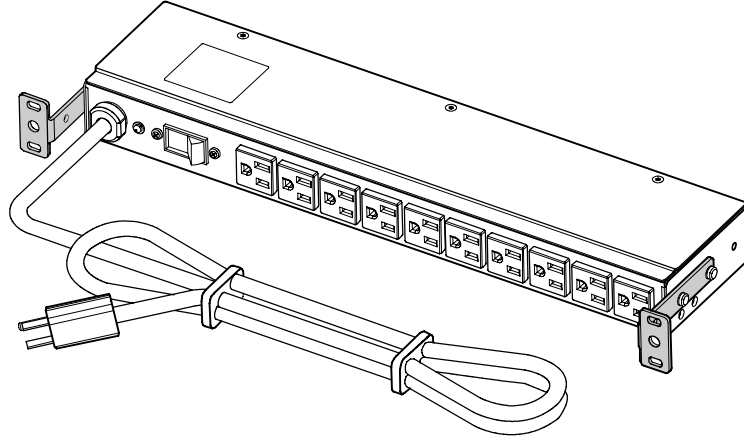


Figure 1. 1U Recessed Mounting Bracket Adjustment (PW101BA1U001 Shown)

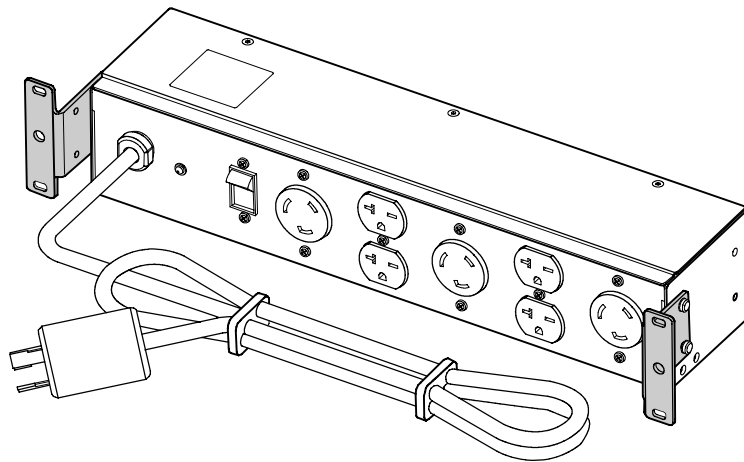


Figure 2. 2U Recessed Mounting Bracket Adjustment (PW103BA2U009 Shown)

Wall Mounting

To adjust the factory-installed brackets for wall mounting:

1. Remove the factory-installed mounting brackets. Retain the screws.
2. Rotate the brackets 180 degrees and align the brackets with the screw holes on the sides of the ePDU in the wall mounting location (see Figure 3 or Figure 4).
3. Secure the brackets with the retained screws.

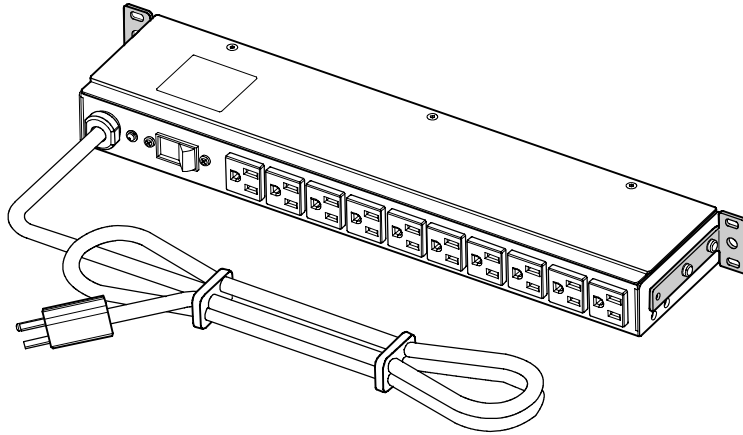


Figure 3. 1U Wall Mounting Bracket Installation (PW101BA1U001 Shown)

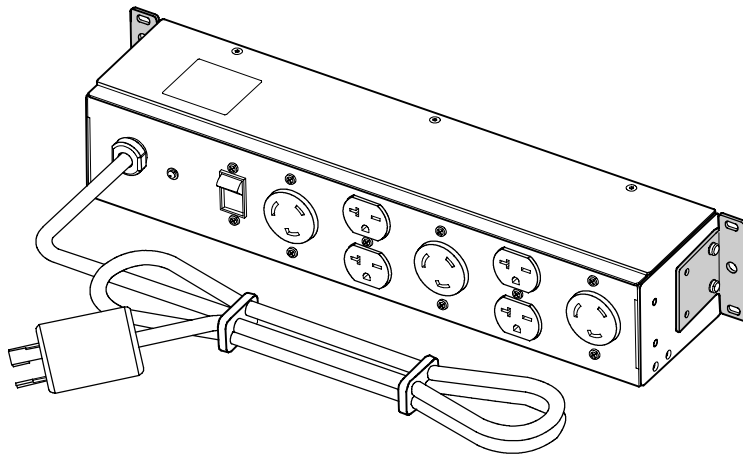


Figure 4. 2U Wall Mounting Bracket Installation (PW103BA2U009 Shown)

0U Rack Mounting (with Factory-Installed Brackets)

To adjust the factory-installed brackets for rack mounting in a 0U configuration:

1. Remove the factory-installed mounting brackets. Retain the screws.
2. Align the brackets with the screw holes on the bottom of the ePDU (see location options shown in Figure 5).

The brackets are adjustable to three places (1U) or two places (2U) along the length of the bracket, 32 mm (1.26") apart.

3. Secure the brackets with two of the retained screws, leaving them finger-tight until final setup.

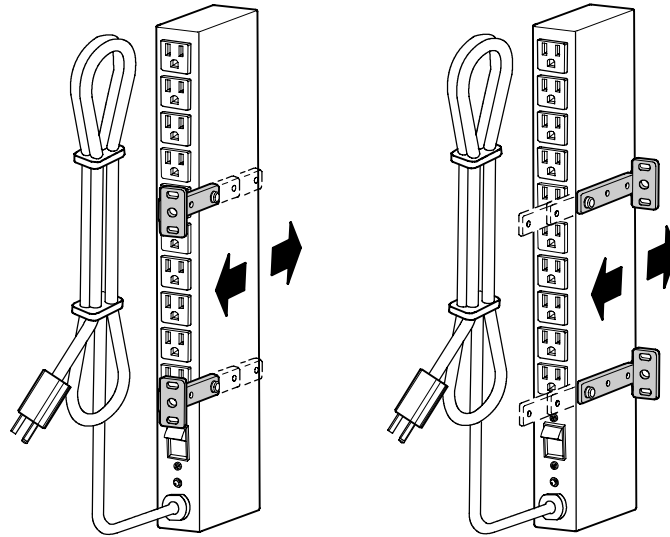


Figure 5. 0U Rack Mounting Bracket Installation Options (1U Models Shown)

0U Rack Mounting (with Universal Mounting Bracket)

To install the universal mounting bracket:

1. **Optional.** Remove the factory-installed mounting brackets.
2. Align the universal mounting bracket with the screw holes on the bottom of the ePDU (see Figure 6).

The bracket is adjustable to two places along the length of the bracket, 32 mm (1.26") apart.

3. Secure the bracket with the supplied screws.

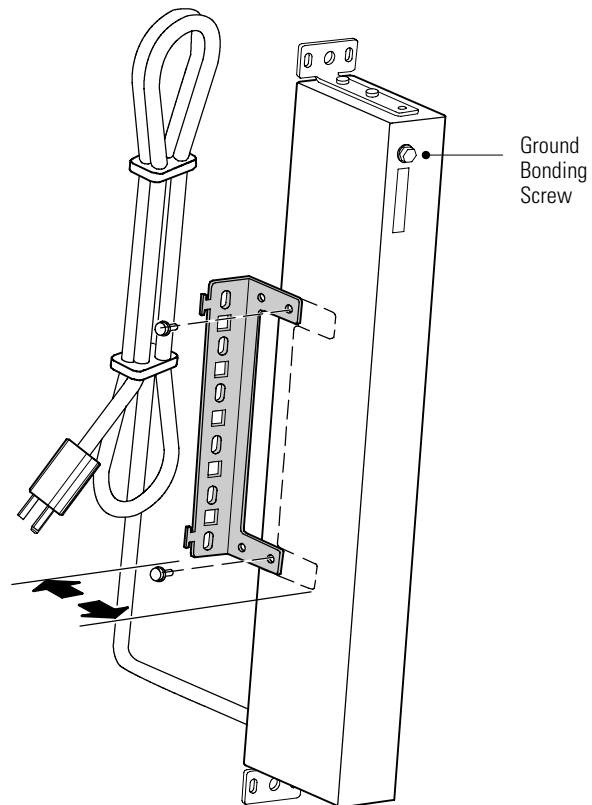


Figure 6. 0U Universal Mounting Bracket Installation (1U Model Shown)

2U Deep-Recess Rack Mounting

To remove the factory-installed brackets and install the deep-recess mounting brackets:

1. Remove the factory-installed mounting brackets.
2. Align the deep-recess mounting brackets with the screw holes on the sides of the ePDU (see Figure 7).

The bracket is adjustable to three places along the length of the bracket, 31 mm (1.25") apart.

3. Secure the brackets with the supplied screws.

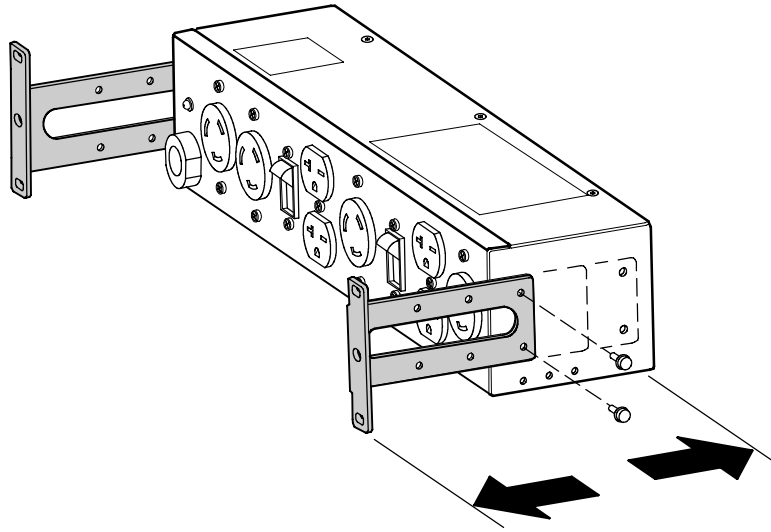


Figure 7. Deep-Recess Mounting Bracket Installation (2U Only)

Installing the Optional Cord Retention Bracket

To install the optional cord retention bracket:

1. Place the ePDU on a flat, stable surface.
2. Slide the cord retention bracket onto the sides of the ePDU. Align the holes in the cord retention bracket with the screw holes on the ePDU (see Figure 8).

The bracket is adjustable to five places along the length of the bracket, 16 mm (0.75") apart.

3. Secure the cord retention bracket with the supplied screws.

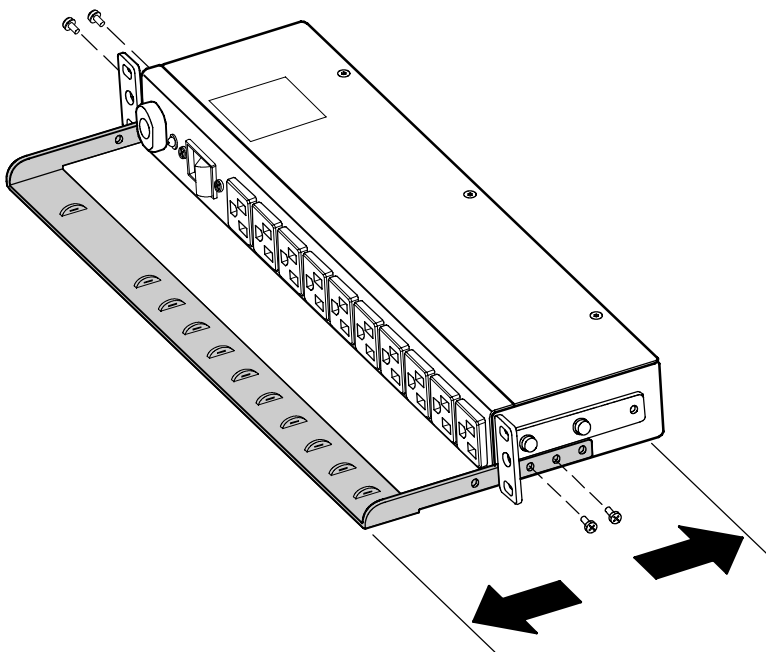


Figure 8. Cord Retention Bracket (PW101BA1U001 Shown)

Final Setup

Follow the appropriate instructions according to mounting type:

- 1U and 2U rack-mount
- Wall-mount
- Floor-mount
- 0U rack-mount
- 2U deep-recess rack-mount

Setup for 1U and 2U Rack-Mount Applications

To install the ePDU in a standard 19-inch EIA rack:

1. Select the proper holes in the rail for positioning the ePDU in the rack. You can mount the ePDU using the top and bottom hole in each mounting bracket (recommended), or use just the middle hole.

Install the supplied panel nuts over the holes according to the rack type (see Figure 9). If the rail has round rather than square holes, flip the panel nuts over to mount the smooth side to the rail.

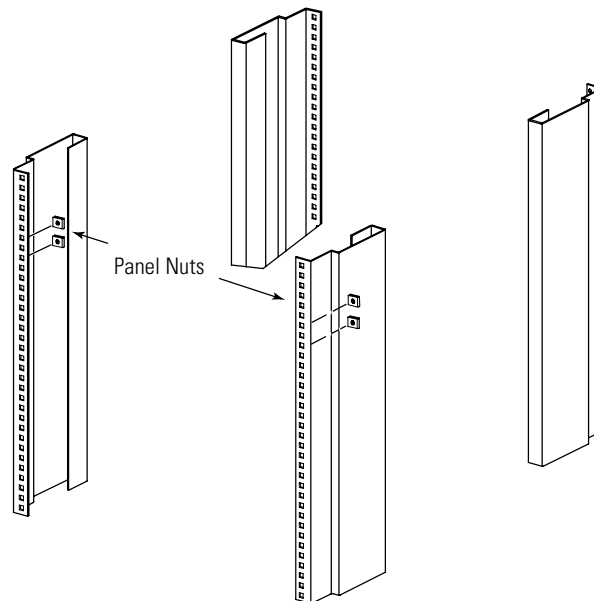


Figure 9. Installing the Panel Nuts (Typical Rack Shown)



NOTE To provide initial stability, insert the bottom screws first and finger-tighten before inserting the top screws.

2. Secure the ePDU to the rack with the supplied screws. Insert the screws through the mounting brackets and then through the rail and the panel nuts installed in Step 1 (see Figure 10).

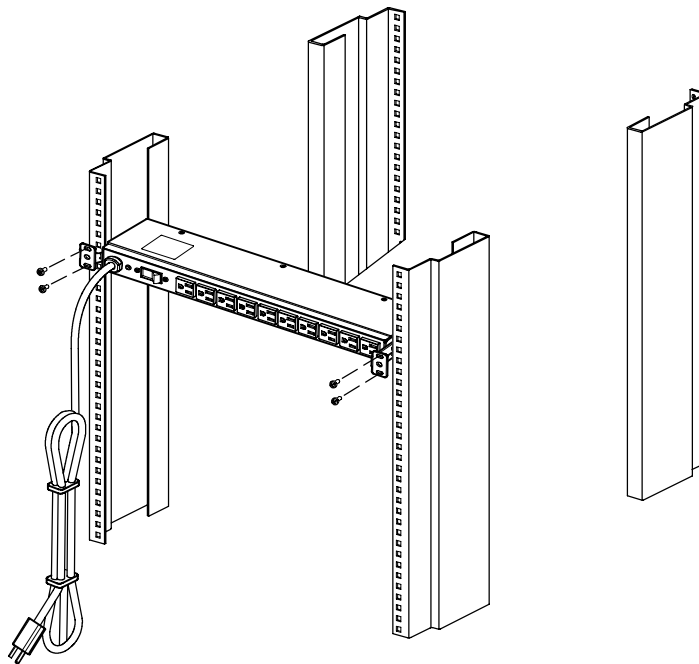


Figure 10. Setup for 1U and 2U Applications (1U Shown)

3. Continue to one of the ePDU installation sections:
 - “Plug-Receptacle Installation” on page 20.
 - “Hardwired Installation” on page 21.

Setup for Wall-Mount Applications

To install the ePDU on a wall:

1. Locate an area on a wall with a power outlet within reach of the ePDU's power cord. Refer to the template shown in Figure 11 to mark the locations for the mounting fasteners.
2. Obtain and install the appropriate mounting fasteners for the type of wall and the weight of the ePDU, any installed options, and power cords. This hardware is not included with the ePDU.
3. Secure the ePDU to the wall.
4. Continue to one of the ePDU installation sections:
 - "Plug-Receptacle Installation" on page 20.
 - "Hardwired Installation" on page 21.

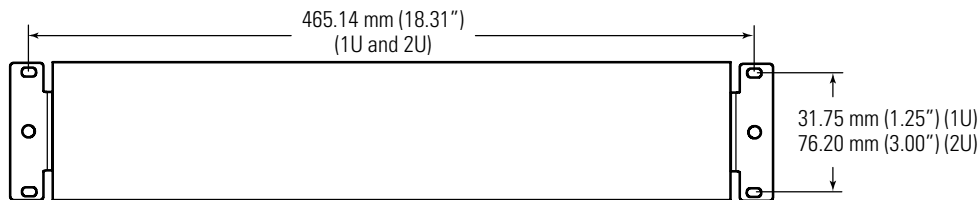


Figure 11. Wall-Mount Template (1U and 2U)

Setup for Floor-Mount Applications

To install the ePDU on a floor:

1. Locate an area on the floor with a power outlet within reach of the ePDU's power cord. Verify that the location of the ePDU does not present a tripping hazard to personnel.
2. Continue to one of the ePDU installation sections:
 - "Plug-Receptacle Installation" on page 20.
 - "Hardwired Installation" on page 21.

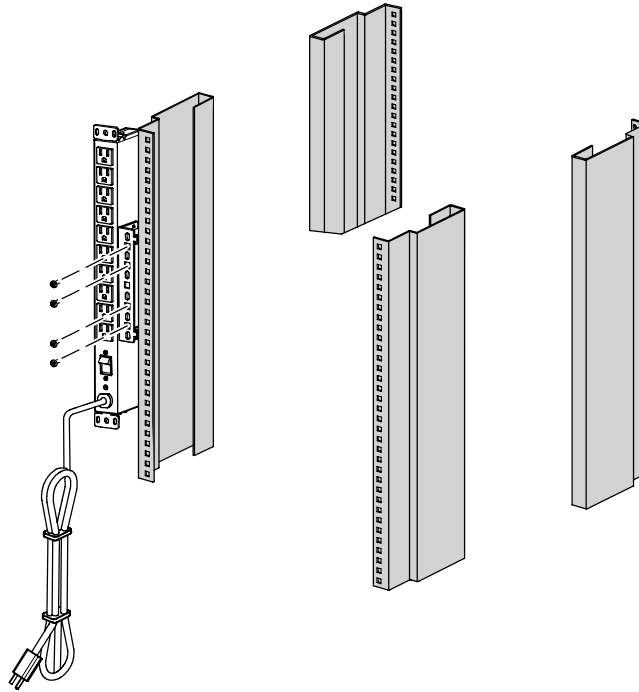
Setup for 0U Rack-Mount Applications

To install the ePDU in a 0U configuration:

1. Select the proper holes in the rail or rack for positioning the ePDU:

If you installed a universal mounting bracket or relocated the two factory-installed brackets, the ePDU can be mounted on the inside or outside of a rail or on part of the rack using the supplied panel nuts and screws. Figure 12 shows the ePDU with a universal mounting bracket on the outside of a rail.

If you installed a universal mounting bracket, the ePDU can also be positioned on a part of the rack that accepts the hooks on the edges of the universal mounting bracket.



**Figure 12. Setup for 0U Applications
(1U with Universal Mounting Bracket on Typical Rack Shown)**

2. **Universal mounting bracket only.** To mount the ePDU using the hooks on the universal mounting bracket, insert the bracket's hooks into the selected slots on the rack and then continue to Step 6.

To mount the ePDU using fasteners and the holes in the universal mounting bracket, continue to Step 4.

3. **Factory-installed brackets only.** Align the holes on the brackets with the selected holes on the rail or rack. Verify that at least one hole on each bracket aligns to the holes on the rail or rack.

Tighten the two factory-installed brackets in their verified positions.

4. Install the supplied panel nuts over the holes according to the rack type. If the rail or rack has round rather than square holes, flip the panel nuts over to mount the smooth side to the rail or rack.
5. Secure the ePDU to the rail or rack with the supplied screws. Insert the screws through the mounting bracket(s) and then through the rail (or rack) and the panel nuts installed in Step 4.
6. Continue to one of the ePDU installation sections:
 - "Plug-Receptacle Installation" on page 20.
 - "Hardwired Installation" on page 21.

Setup for 2U Deep-Recess Applications

To install the ePDU on a rack in a deep-recess configuration, follow the procedure in "Setup for 1U and 2U Rack-Mount Applications" on page 15.

Plug-Receptacle Installation



CAUTION

For PLUGGABLE EQUIPMENT, the power outlet shall be installed near the equipment and shall be readily accessible.

To install the plug-receptacle ePDUs:

1. Verify that each circuit breaker on the ePDU front panel is in the OFF position. The indicator LED should be off.
2. If your rack has conductors for grounding or bonding of ungrounded metal parts, connect the ground cable (not included) to the ground bonding screw on the ePDU rear panel. Figure 6 on page 12 shows the location of the ground bonding screw.
3. Plug the equipment power cords into the ePDU output receptacles.

For models with separate receptacle groups, distribute the load evenly between the segments (see “Front Panels” on page 25 for the location of the segments).



NOTE The ePDU segments are protected separately by each circuit breaker on the front panel. For models PW107BA2U051 and PW107BA2U054, Segment 3 is protected only by the 30A upstream breaker (not from the front panel).

NOTE Confirm that the equipment connected to the ePDU does not exceed the ePDU's capacity. Each circuit breaker is rated at:

- PW101BA1U001: 12A/100–120 Vac; 12A maximum rating
- PW102BA1U002: 16A/100–120 Vac; 16A maximum rating
- PW102BA1U003: 12A/100–240 Vac; 12A maximum rating
- PW103BA1U007: 16A/100–240 Vac; 16A maximum rating
- PW103BA1U008, PW103BA2U009: 16A/200–240 Vac; 16A maximum rating
- PW104BA1U010: 16A/100–120 Vac; 16A per segment maximum rating
- PW107BA1U052, PW107BA1U053: 16A/200–240 Vac; 16A per segment maximum rating
- PW107BA2U051, PW107BA2U054: 16A/200–240 Vac; 16A maximum rating for Segments 1 and 2, 24A maximum rating for Segment 3

4. Secure the power cords to the cord retention bracket (if installed) with the supplied tie wraps.
5. **PW102BA1U003 and PW103BA1U007 models only.** Plug the detachable power cord into the input connector on the ePDU front panel.
6. Plug the ePDU power cord into a power outlet.
The indicator LED illuminates.
7. Turn each circuit breaker to the ON position.



NOTE *If power to the ePDU is interrupted, check each circuit breaker and reset if necessary.*

Hardwired Installation



WARNING

Only qualified service personnel (such as a licensed electrician) shall perform the electrical installation. Risk of electrical shock.



CAUTION

For PERMANENTLY CONNECTED EQUIPMENT, a readily accessible disconnect device shall be incorporated in the building installation wiring.



NOTE *The PW107BA1U050 model requires a customer-supplied 40A upstream breaker.*

To hardwire the PW107BA1U050 model:

1. Verify that the circuit breakers on the ePDU front panel are in the OFF position.
2. If your rack has conductors for grounding or bonding of ungrounded metal parts, connect the ground cable (not included) to the ground bonding screw on the ePDU rear panel. Figure 6 on page 12 shows the location of the ground bonding screw.
3. Switch off utility power at the distribution point where the ePDU will be connected. Be absolutely sure there is no power.

4. Use a T10 TORX® driver to remove the three #6 TORX flat-head screws from the ePDU's top cover and retain (see Figure 13).

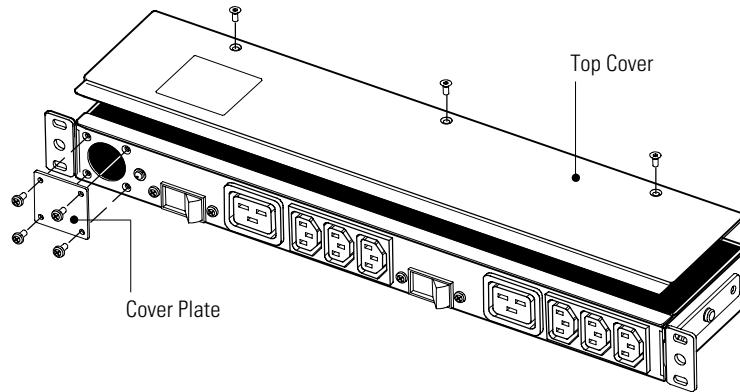


Figure 13. Hardwired Installation

5. Slide the top cover off the ePDU and retain.
6. Use a Phillips screwdriver to remove the four screws from the cover plate on the ePDU front panel and retain (see Figure 13).
7. Remove the cover plate, exposing the wiring access entry.

The wiring access entry accepts IMC (intermediate metal conduit) trade size: 21 (metric) or 3/4 (US).
8. Pull the input wires through the conduit, leaving approximately 15 cm (6") of exposed wire. Attach a flexible metal fitting to the end of the conduit.
9. Insert the conduit through the wiring access entry and attach the conduit fitting to the panel. Strip 1.5 cm (0.5") of insulation from the end of each incoming wire.

10. From the ground stud near the terminal block, remove the installed nut and retain (see Figure 14).
11. Connect the input wires to the input terminal block and the ground wire to the ground stud according to Figure 14 and Table 1.

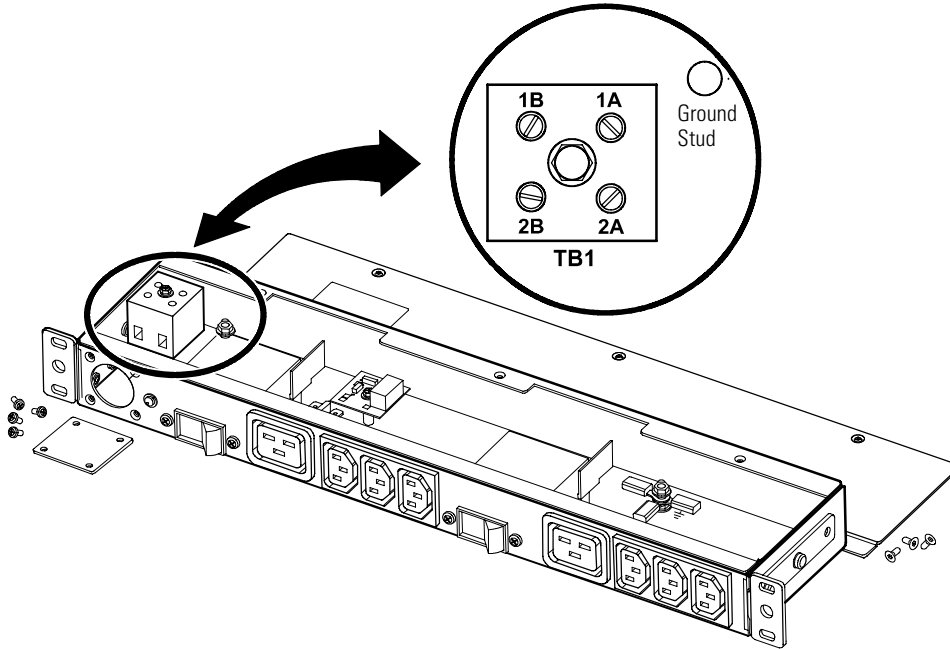


Figure 14. Terminal Block (ePDU Top View)

Table 1. ePDU Wiring Specifications

ePDU Wire Function	Terminal Position	Terminal Wire Size Rating*	Tightening Torque
Input Line	2A	8.36 mm ² (8 AWG)	1.8 Nm (16 lb in)
Input Line/Neutral	2B	8.36 mm ² (8 AWG)	1.8 Nm (16 lb in)
Ground	Ground Stud		

* Use 75°C copper wire minimum. Suggested wire size is based on full load ratings applied to NEC Code Table 310.16.

12. To the ground stud, reinstall the nut removed in Step 10.
13. **Optional.** Replace the four screws removed in Step 6.
14. Replace the top cover and secure with the three screws removed in Step 4.
15. Switch the main utility breaker on.
The indicator LED illuminates.
16. Plug the equipment power cords into the ePDU output receptacles.
Distribute the load evenly between the segments (see Figure 22 on page 29 for the location of the segments).



NOTE *The ePDU segments are protected separately by each circuit breaker on the front panel.*

NOTE *Confirm that the equipment connected to the ePDU does not exceed the ePDU's capacity. Each PW107BA1U050 circuit breaker is rated at 16A/100–240 Vac; 16A per segment maximum rating.*

17. Secure the power cords to the cord retention bracket (if installed) with the supplied tie wraps.
18. Turn each circuit breaker to the ON position.



NOTE *If power to the ePDU is interrupted, check each circuit breaker and reset if necessary.*

Front Panels

This section shows the front panels of the ePDU models.

ePDU Model Number	See Figure	On Page
PW101BA1U001	Figure 15	26
PW102BA1U002	Figure 16	26
PW102BA1U003	Figure 17	27
PW103BA1U007	Figure 18	27
PW103BA1U008	Figure 19	28
PW103BA2U009	Figure 20	28
PW104BA1U010	Figure 21	29
PW107BA1U050	Figure 22	29
PW107BA1U052	Figure 23	30
PW107BA1U053	Figure 24	30
PW107BA2U051	Figure 25	31
PW107BA2U054	Figure 26	31

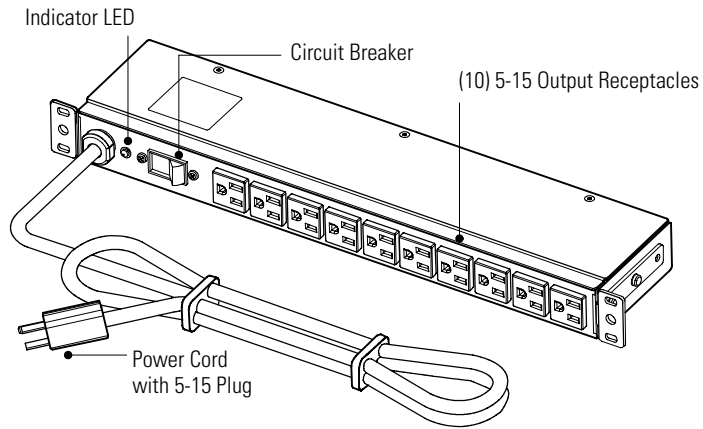


Figure 15. PW101BA1U001

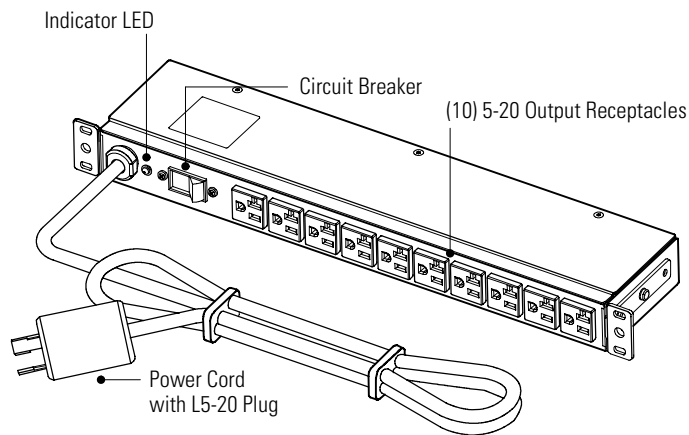


Figure 16. PW102BA1U002

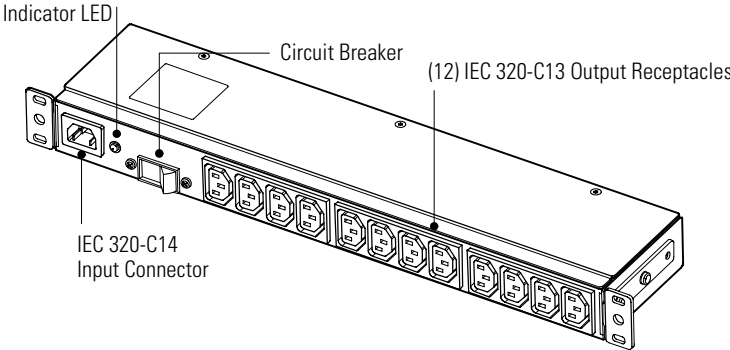


Figure 17. PW102BA1U003

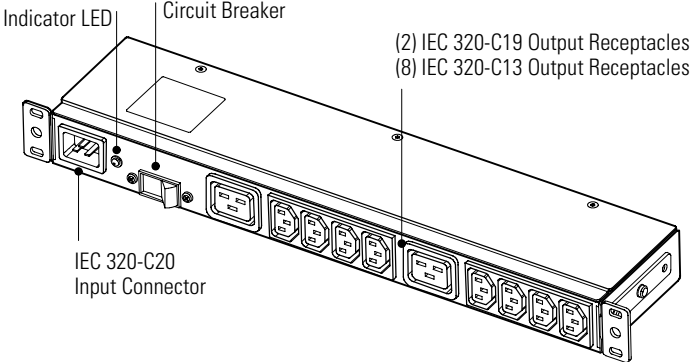


Figure 18. PW103BA1U007

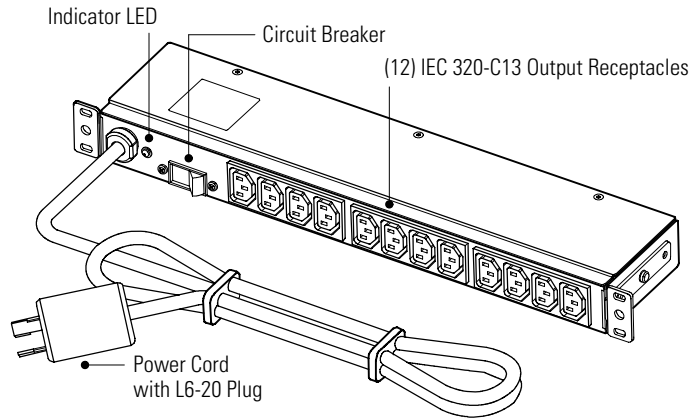


Figure 19. PW103BA1U008

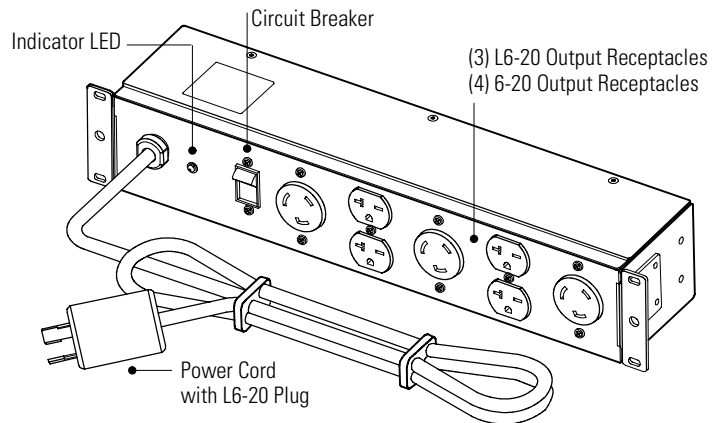


Figure 20. PW103BA2U009

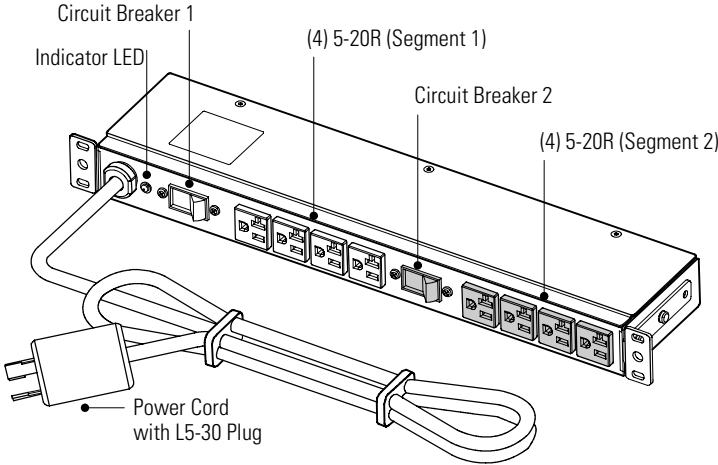


Figure 21. PW104BA1U010

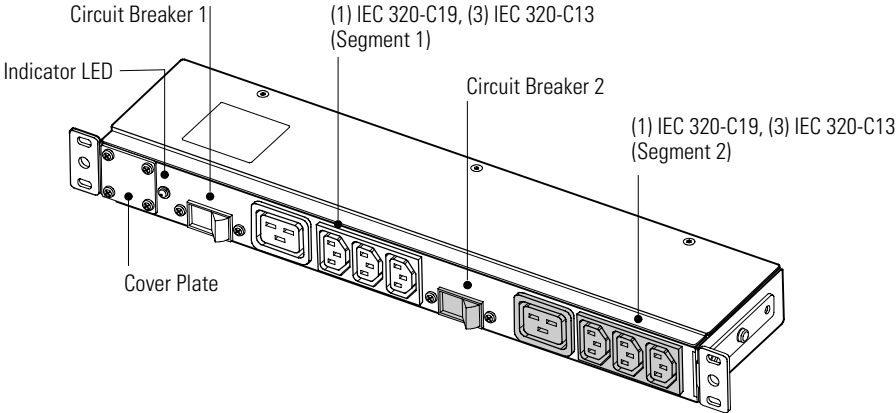


Figure 22. PW107BA1U050

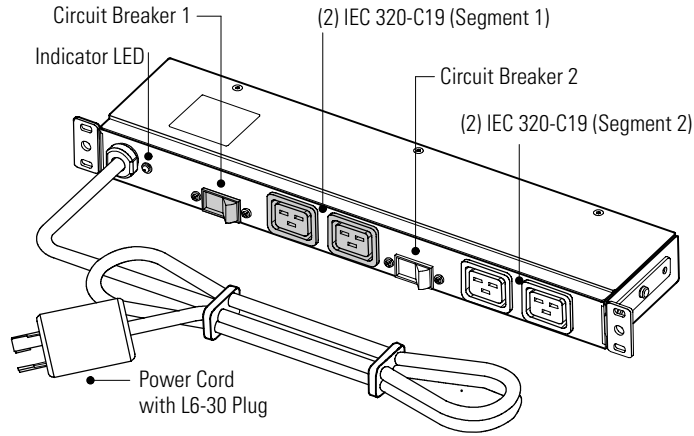


Figure 23. PW107BA1U052

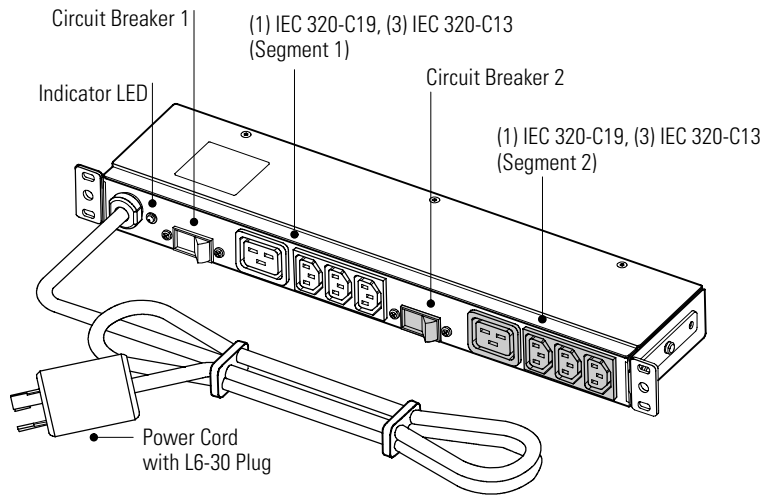


Figure 24. PW107BA1U053

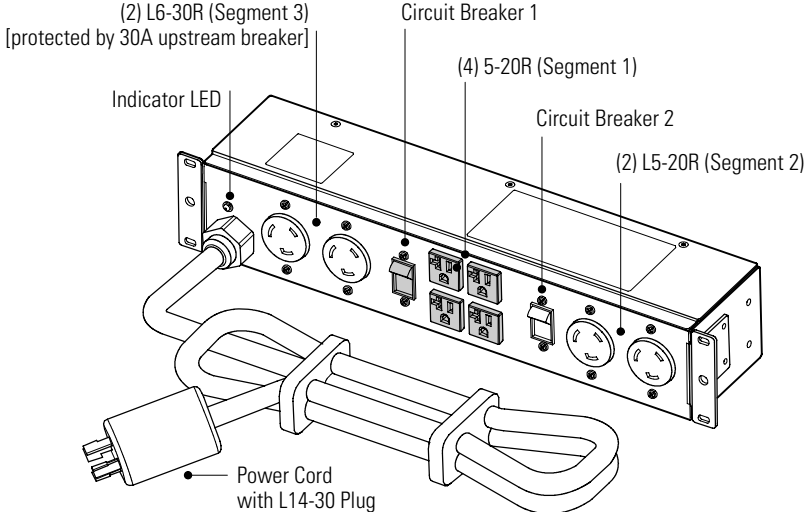


Figure 25. PW107BA2U051

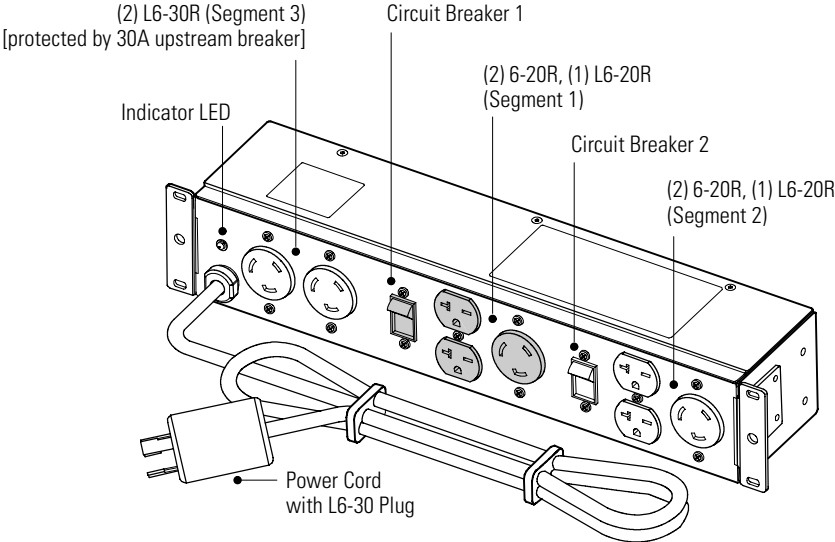


Figure 26. PW107BA2U054

Chapter 3 Specifications

This section provides the following specifications for the Enclosure Power Distribution Units (ePDUs):

- Environmental
- Dimensions and weights
- Electrical input and output
- Safety

Table 2. Environmental (All ePDU Models)

Operating Temperature	0°C to 45°C (32°F to 113°F)
Nonoperating Temperature	-25°C to 70°C (-13°F to 158°F)
Relative Humidity	5–95% noncondensing
Operating Altitude	Up to 3,000m (9,843 ft) above sea level
Nonoperating Altitude	Up to 5,000m (16,404 ft) above sea level

Table 3. Model PW101BA1U001

Dimensions (WxHxD)	44.45 x 4.45 x 10.00 cm (17.5" x 1.75" x 4.0") (1U rack height)
Weight	2.2 kg (4.8 lb)
Power Cord Length	3.66m (12 ft)
Input/Output Voltage Range	100–120V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	12A
Input Connection	NEMA 5-15P power cord
Output Circuit Breaker	15A
Output Receptacles	(10) 5-15R
Safety Markings	cULus

Table 4. Model PW102BA1U002

Dimensions (WxHxD)	44.45 x 4.45 x 10.00 cm (17.5" x 1.75" x 4.0") (1U rack height)
Weight	2.4 kg (5.4 lb)
Power Cord Length	3.66m (12 ft)
Input/Output Voltage Range	100–120V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	16A
Input Connection	NEMA L5-20P power cord
Output Circuit Breaker	20A
Output Receptacles	(10) 5-20R
Safety Markings	cULus

Table 5. Model PW102BA1U003

Dimensions (WxHxD)	44.45 x 4.45 x 10.00 cm (17.5" x 1.75" x 4.0") (1U rack height)
Weight	2.4 kg (5.3 lb) including detachable power cord
Power Cord Length	3.66m (12 ft)
Input/Output Voltage Range	100–240V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	12A
Input Connection	IEC 320-C14 input connector
Output Circuit Breaker	15A
Output Receptacles	(12) IEC 320-C13
Safety Markings	CE, cULus, UL/GS

Table 6. Model PW103BA1U007

Dimensions (WxHxD)	44.45 x 4.45 x 10.00 cm (17.5" x 1.75" x 4.0") (1U rack height)
Weight	2.6 kg (5.8 lb) including detachable power cord
Power Cord Length	3.66m (12 ft)
Input/Output Voltage Range	100–240V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	16A
Input Connection	IEC 320-C20 input connector
Output Circuit Breaker	20A
Output Receptacles	(2) IEC 320-C19, (8) IEC 320-C13
Safety Markings	CE, cULus, UL/GS

Table 7. Model PW103BA1U008

Dimensions (WxHxD)	44.45 x 4.45 x 10.00 cm (17.5" x 1.75" x 4.0") (1U rack height)
Weight	2.5 kg (5.6 lb)
Power Cord Length	3.66m (12 ft)
Input/Output Voltage Range	200–240V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	16A
Input Connection	NEMA L6-20P power cord
Output Circuit Breaker	20A
Output Receptacles	(12) IEC 320-C13
Safety Markings	cULus

Table 8. Model PW103BA2U009

Dimensions (WxHxD)	44.45 x 8.89 x 10.00 cm (17.5" x 3.5" x 4.0") (2U rack height)
Weight	3.5 kg (7.7 lb)
Power Cord Length	3.66m (12 ft)
Input/Output Voltage Range	200–240V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	16A
Input Connection	NEMA L6-20P power cord
Output Circuit Breaker	20A
Output Receptacles	(3) L6-20R, (4) 6-20R
Safety Markings	cULus

Table 9. Model PW104BA1U010

Dimensions (WxHxD)	44.45 x 4.45 x 10.00 cm (17.5" x 1.75" x 4.0") (1U rack height)
Weight	3.1 kg (6.8 lb)
Power Cord Length	3.66m (12 ft)
Input/Output Voltage Range	100–120V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	16A per segment; 24A total
Input Connection	NEMA L5-30P power cord
Output Circuit Breakers	(2) 20A
Output Receptacles (Segment 1)	(4) 5-20R
Output Receptacles (Segment 2)	(4) 5-20R
Safety Markings	cULus

Table 10. Model PW107BA1U050

Dimensions (WxHxD)	44.45 x 4.45 x 10.00 cm (17.5" x 1.75" x 4.0") (1U rack height)
Weight	2.0 kg (4.3 lb)
Input/Output Voltage Range	100–240V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	16A per segment; 32A total
Input Connection	Hardwired
Output Circuit Breakers	(2) 20A
Output Receptacles (Segment 1)	(1) IEC 320-C19, (3) IEC 320-C13
Output Receptacles (Segment 2)	(1) IEC 320-C19, (3) IEC 320-C13
Safety Markings	CE, cULus, UL/GS

Table 11. Model PW107BA1U052

Dimensions (WxHxD)	44.45 x 4.45 x 10.00 cm (17.5" x 1.75" x 4.0") (1U rack height)
Weight	3.2 kg (7.0 lb)
Power Cord Length	3.66m (12 ft)
Input/Output Voltage Range	200–240V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	16A per segment; 24A total
Input Connection	NEMA L6-30P power cord
Output Circuit Breakers	(2) 20A
Output Receptacles (Segment 1)	(2) IEC 320-C19
Output Receptacles (Segment 2)	(2) IEC 320-C19
Safety Markings	cULus

Table 12. Model PW107BA1U053

Dimensions (WxHxD)	44.45 x 4.45 x 10.00 cm (17.5" x 1.75" x 4.0") (1U rack height)
Weight	2.0 kg (4.3 lb)
Power Cord Length	3.66m (12 ft)
Input/Output Voltage Range	200–240V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	16A per segment; 24A total
Input Connection	NEMA L6-30P power cord
Output Circuit Breakers	(2) 20A
Output Receptacles (Segment 1)	(1) IEC 320-C19, (3) IEC 320-C13
Output Receptacles (Segment 2)	(1) IEC 320-C19, (3) IEC 320-C13
Safety Markings	cULus

Table 13. Model PW107BA2U051

Dimensions (WxHxD)	44.45 x 8.89 x 10.00 cm (17.5" x 3.5" x 4.0") (2U rack height)
Weight	4.4 kg (9.8 lb)
Power Cord Length	3.66m (12 ft)
Input/Output Voltage Range	100–240V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	16A for Segments 1 and 2; 24A for Segment 3; 24A total
Input Connection	NEMA L14-30P power cord
Output Circuit Breakers	(2) 20A [30A upstream for Segment 3]
Output Receptacles (Segment 1)	(4) 5-20R
Output Receptacles (Segment 2)	(2) L5-20R
Output Receptacles (Segment 3)	(2) L6-30R
Safety Markings	cULus

Table 14. Model PW107BA2U054

Dimensions (WxHxD)	44.45 x 8.89 x 10.00 cm (17.5" x 3.5" x 4.0") (2U rack height)
Weight	4.3 kg (9.5 lb)
Power Cord Length	3.66m (12 ft)
Input/Output Voltage Range	200–240V
Nominal Frequency	50/60 Hz
Output Current (Maximum)	16A for Segments 1 and 2; 24A for Segment 3; 24A total
Input Connection	NEMA L6-30P power cord
Output Circuit Breakers	(2) 20A [30A upstream for Segment 3]
Output Receptacles (Segment 1)	(1) L6-20R, (2) 6-20R
Output Receptacles (Segment 2)	(1) L6-20R, (2) 6-20R
Output Receptacles (Segment 3)	(2) L6-30R
Safety Markings	cULus

Chapter 4 Service and Support

If you have any questions or problems with the Enclosure Power Distribution Unit (ePDU), call your **Local Distributor** or the **Help Desk** at one of the following telephone numbers and ask for an ePDU technical representative:

United States: **1-800-356-5737** or **1-919-870-3149**
Canada: **1-800-461-9166 ext 260**
All other countries: **Call your local service representative**

Please have the following information ready when you call for service:

- Model number
- Serial number
- Date of failure or problem
- Symptoms of failure or problem
- Customer return address and contact information

Two-Year Limited Warranty (US and Canada)

Powerware Enclosure Power Distribution Units (ePDUs)

WARRANTOR: The warrantor for the limited warranties set forth herein is Eaton Electrical Inc., a Delaware Corporation company ("Company").

LIMITED WARRANTY: This limited warranty (this "Warranty") applies only to the original End-User (the "End-User") of any Powerware-branded Enclosure Power Distribution Units (the "Product") purchased on or after June 1, 2004 and cannot be transferred. This Warranty applies even in the event that the Product is initially sold by Company for resale to an End-User.

LIMITED WARRANTY PERIOD: The period covered by this Warranty for the Product installed [and currently located] in the fifty (50) United States, the District of Columbia, and Canada is twenty-four (24) months from the date of purchase.

WHAT THIS LIMITED WARRANTY COVERS: The warrantor warrants that the Product (the "Warranted Item") is free from defects in material and workmanship. If, in the opinion of Company, a Warranted Item is defective and the defect is within the terms of this Warranty, Company's sole obligation will be to repair or replace such defective Warranted Item (including by providing service, parts and labor, as applicable), at the option of Company.

PROCEDURES FOR REPAIR OR REPLACEMENT OF WARRANTED ITEMS: The Warranted Item will be repaired or replaced at a Company site or such other location as determined by Company.

If the Warranted Item is to be replaced by Company, and the End-User supplies a credit card number or purchase order for the value of the replacement Product, Company will use commercially reasonable business efforts to ship (via standard ground shipment and at no cost to the End-User) the replacement Warranted Item to the End-User within one (1) business day after Company receives notice of the warranty claim. In such case, the End-User must return (at Company's expense) the defective Warranted Item to Company in the same packaging as the replacement Warranted Item received by the End-User or as otherwise instructed by Company. If Company does not receive the defective Warranted Item, Company will either charge the End-User's credit card, or send the End-User an invoice (which the End-User agrees to pay), for the value of the replacement Product.

If the Warranted Item is to be replaced by Company, but the End-User is unwilling or unable to supply a credit card number or purchase order for the value of the replacement Product, Company will use commercially reasonable business efforts to ship (via standard ground shipment and at no cost to the End-User) the replacement Warranted Item to the End-User within one (1) business day after Company receives the defective Product from the End-User.

In any case, Company will provide shipping instructions and will pay its designated carrier for all shipping charges for return of defective equipment and replacement of Warranted Items. Any returned Warranted Item or parts that are replaced may be new or reconditioned. All Warranted Items returned to Company and all parts replaced by Company shall become the property of Company.

WHAT THIS LIMITED WARRANTY DOES NOT COVER: This Warranty does not cover any defects or damages caused by: (a) failure to properly store the Product before installation; (b) shipping and delivery of the Product if shipping is FOB Factory; (c) neglect, accident, abuse, misuse, misapplication, or incorrect installation; (d) repair or alteration not authorized in writing by Company personnel or performed by an authorized Company Customer Service Engineer or Agent; (e) improper testing, operation, maintenance, adjustment, or modification of any kind not authorized in writing by Company personnel or performed by an authorized Company Customer Service Engineer or Agent; or (f) use of the Product under other than normal operating conditions or in a manner inconsistent with the Product's labels or instructions.

This Warranty is not valid if the Product's serial numbers have been removed or are illegible. Any Warranted Items repaired or replaced pursuant to this Warranty will be warranted for the remaining portion of the original Warranty subject to all the terms thereof.

Company shall not be responsible for any charges for testing, checking, removal or installation of Warranted Items.

COMPANY DOES NOT WARRANT EQUIPMENT NOT MANUFACTURED BY COMPANY. IF PERMITTED BY THE APPLICABLE MANUFACTURER, COMPANY SHALL PASS THROUGH SUCH MANUFACTURER'S WARRANTIES TO END-USER.

COMPANY DOES NOT WARRANT SOFTWARE (IF APPLICABLE TO THE PRODUCT), INCLUDING SOFTWARE EMBEDDED IN PRODUCTS, THAT IS NOT CREATED BY COMPANY. WITHOUT LIMITING THE FOREGOING, COMPANY SPECIFICALLY DOES NOT WARRANT SOFTWARE (SUCH AS LINUX) THAT WAS CREATED USING AN "OPEN SOURCE" MODEL OR IS DISTRIBUTED PURSUANT TO AN OPEN SOURCE LICENSE.

THIS WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY OFFERED BY COMPANY WITH RESPECT TO THE PRODUCTS AND SERVICES AND, EXCEPT FOR SUCH FOREGOING WARRANTY COMPANY DISCLAIMS ALL OTHER WARRANTIES INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY, TITLE, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE. CORRECTION OF NON-CONFORMITIES IN THE MANNER AND FOR THE PERIOD OF TIME PROVIDED ABOVE SHALL CONSTITUTE COMPANY'S SOLE LIABILITY AND END-USER'S EXCLUSIVE REMEDY FOR FAILURE OF COMPANY TO MEET ITS WARRANTY OBLIGATIONS, WHETHER CLAIMS OF THE END-USER ARE BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY), OR OTHERWISE.

LIMITATION OF LIABILITY: The remedies of the End-User set forth herein are exclusive and are the sole remedies for any failure of Company to comply with its obligations hereunder. In no event shall Company be liable in contract, in tort (including negligence or strict liability) or otherwise for damage to property or equipment other than the Products, including loss of profits or revenue, loss of use of Products, loss of data, cost of capital, claims of customers of the End-User or any special, indirect, incidental or consequential damages whatsoever. The total cumulative liability of Company hereunder whether the claims are based in contract (including indemnity), in tort (including negligence or strict liability) or otherwise, shall not exceed the price of the Product on which such liability is based.

Company shall not be responsible for failure to provide service or parts due to causes beyond Company's reasonable control.

END-USER'S OBLIGATIONS: In order to receive the benefits of this Warranty, the End-User must use the Product in a normal way; follow the Product's user's guide; and protect against further damage to the Product if there is a covered defect.

OTHER LIMITATIONS: Company's obligations under this Warranty are expressly conditioned upon receipt by Company of all payments due to it (including interest charges, if any). During such time as Company has not received payment of any amount due to it for the Product, in accordance with the contract terms under which the Product is sold, Company shall have no obligation under this Warranty. Also during such time, the period of this Warranty shall continue to run and the expiration of this Warranty shall not be extended upon payment of any overdue or unpaid amounts.

COSTS NOT RELATED TO WARRANTY: The End-User shall be invoiced for, and shall pay for, all services not expressly provided for by the terms of this Warranty, including without limitation, site calls involving an inspection that determines no corrective maintenance is required. Any costs for replacement equipment, installation, materials, freight charges, travel expenses or labor of Company representatives outside the terms of this Warranty will be borne by the End-User.

OBTAINING WARRANTY SERVICE: In the USA, call the Customer Reliability Center 7x24 at 800-356-5737. Outside of the USA, contact your local Powerware product sales or service representative, or call the Customer Reliability Center in the USA at 919-870-3149. For comments or questions about this Warranty, write to the Customer Quality Representative, 3301 Spring Forest Road, Raleigh, North Carolina 27616 USA.



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