Spec Sheet

Cisco R42612 Rack and Cisco RP Series Metered Input Power Distribution Units

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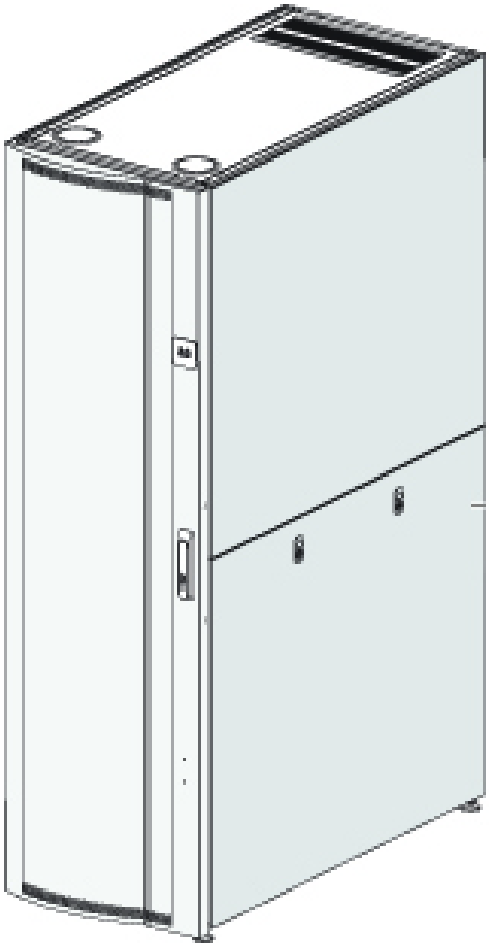
Overview 3
Rack Certifications and Recommendations 4
UCS Third-Party Rack Certification 4
UCS-Recommended Racks 4
Detailed Views 5
Front and Rear Views 5
Joined Racks 6
Stabilized Rack 7
Chassis Mounted in Rack 8
Grounding Kit 9
Product Ordering and Shipping 10
Mounting PDUs 13
Mounting Zero-RU PDUs 14
Mounting RU-Space PDUs 15
Specifications 15
Rack Specifications 15
PDU Specifications 16
RP208-30M1P-4-8 PDU 16
RP208-30M1P-6-36 PDU 18
RP208-30M3P-6-30 PDU 19
RP208-60M3P-12-9 PDU 20
RP230-32M1P-6-36 PDU 22
RP230-32M3P-12-12 PDU 24
RP208-60M3P-12 PDU 26

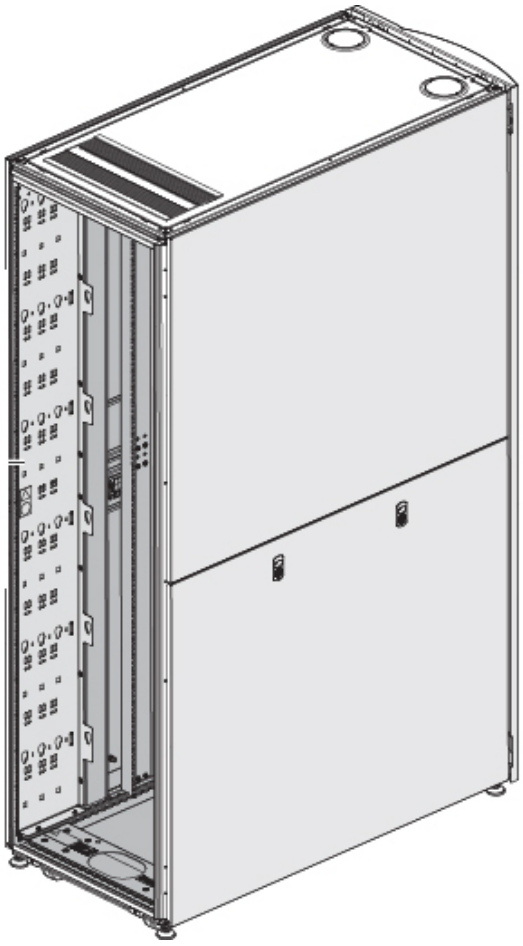
Overview

Cisco R Series Racks are an ideal solution for mission-critical environments, which require the highest levels of reliability, structural integrity, and security. The modern design delivers exceptional power, cooling, and cable management features as well as the strength and stability required in today's rack enclosures, offering peace of mind for the most important infrastructure elements. The Cisco R42612 rack (shown in *Figure 1*) is certified for use with the Cisco Unified Computing System and allow Cisco to offer a complete infrastructure solution, including computing, networking, rack, power, and services.

Figure 1 Cisco R42612 Rack



Front View



Rear View

Rack Certifications and Recommendations

UCS Third-Party Rack Certification

UCS is designed for industry standard (EIA-310-D) 19-inch server racks that meet minimum rack requirements as specified in each component's installation guide. Cisco has no plans to certify 3rd party racks for UCS.

UCS-Recommended Racks

The Cisco R42612 Rack is an industry standard (EIA-310-D), 19-inch rack that has been tested with Cisco UCS and select Nexus products. Cisco R42612 Standard and Expansion racks are ideal for single-rack and multiple-rack UCS installations at customer sites.

Detailed Views

This section shows detailed views of the rack, rack configurations, and rack components.

Front and Rear Views

Figure 2 shows the front and rear views of the rack. Note that there are two small rear doors for improved rear access clearance.

Figure 2 Cisco R42612 Rack Front and Rear Views

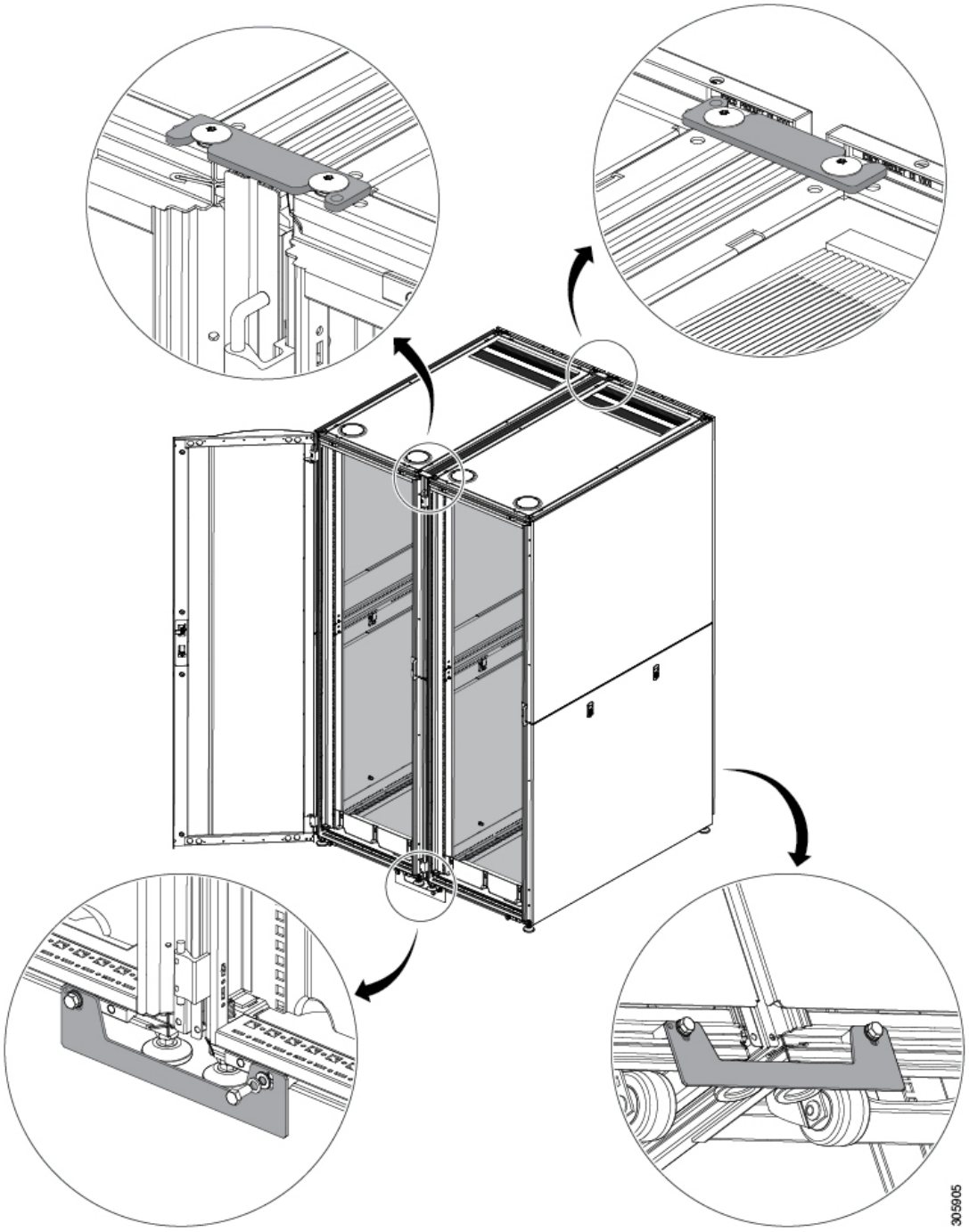
Front View

Rear View

Joined Racks

Figure 3 shows how two racks are joined using the rack joining kit. Both the front and rear of the racks are joined using the joining kit (two brackets in the front and two in the rear).

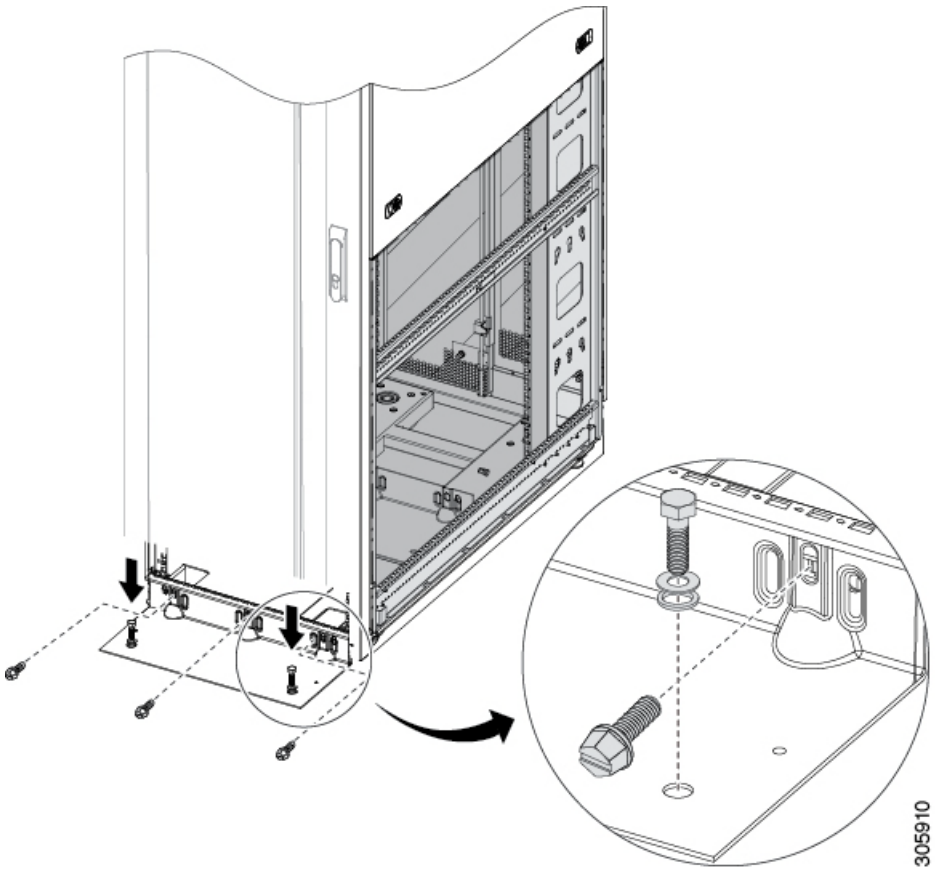
Figure 3 Cisco R42612 Joined Racks



Stabilized Rack

Figure 4 shows how a rack is stabilized by anchoring it to the floor using the rack stabilizer kit.

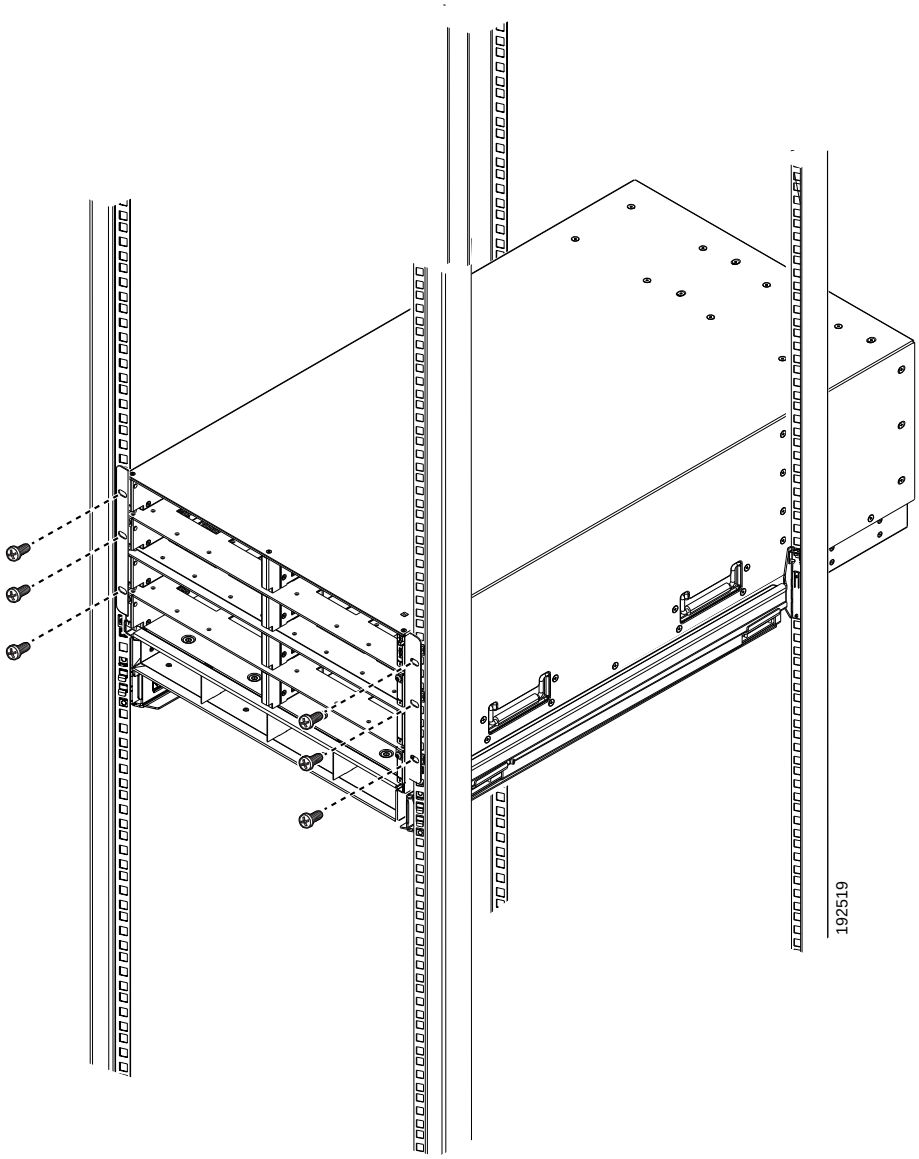
Figure 4 Stabilized Cisco R42612 Rack



Chassis Mounted in Rack

Figure 5 shows a chassis being mounted in the rack using mounting rails, cage nuts, and mounting screws.

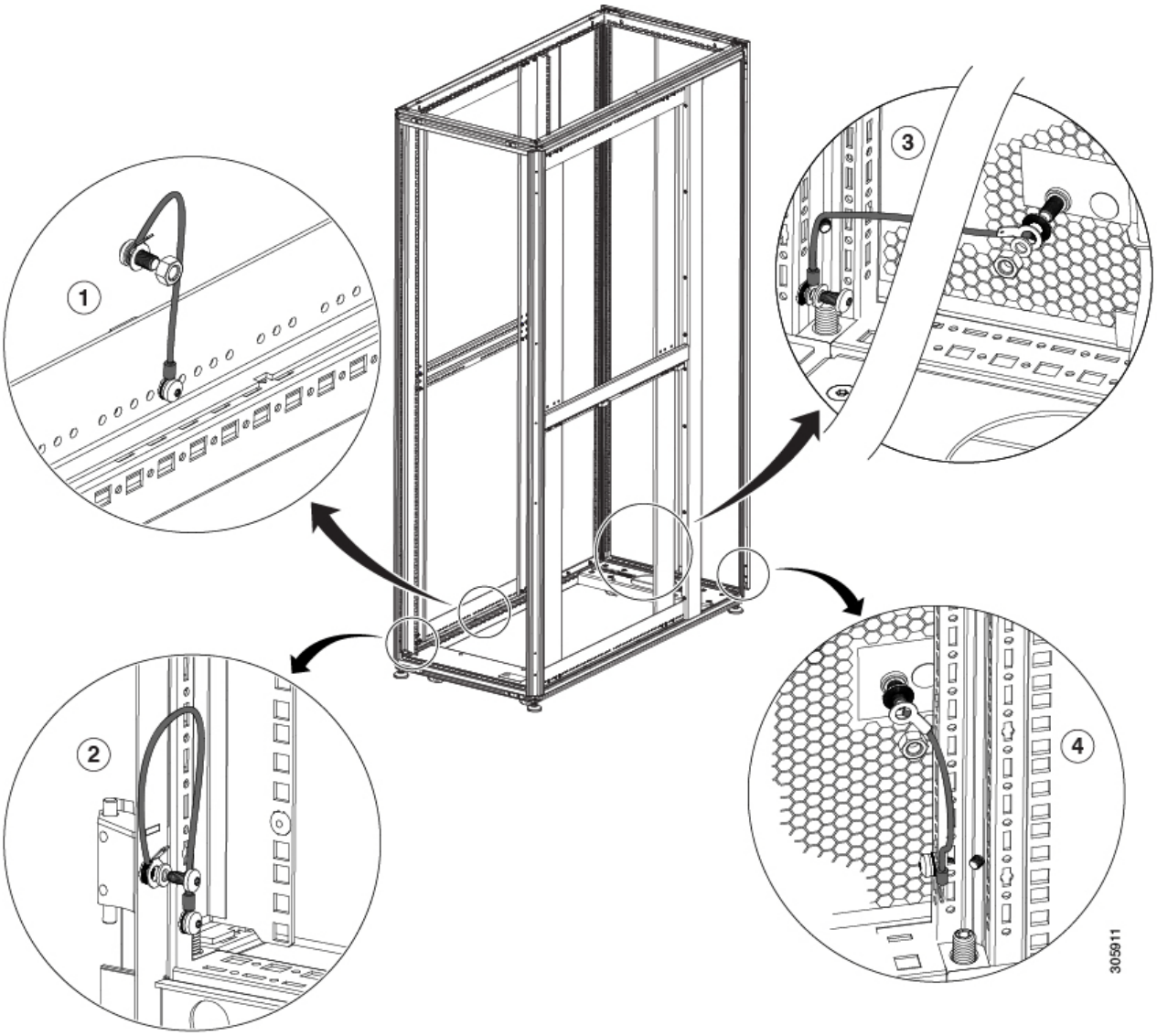
Figure 5 Chassis Installed in Cisco R42612 Rack



Grounding Kit

Figure 6 shows a grounding kit installed in the rack.

Figure 6 Grounding Kit Installed in Cisco R42612 Rack



1 = Bottom side panel nut earthing point

2 = Front door screw earthing point

3 = Master rear door nut earthing point

4 = Slave rear door nut earthing point

Product Ordering and Shipping

Cisco racks are currently shipping worldwide.

To order an R42612 rack:

(1) Use *Table 1* to select an appropriate Cisco rack for UCS installation at customer sites

Table 1 Available Racks

Product ID (PID)	Description
RACK2-UCS	Cisco R42612 expansion rack, no side panels. This type of rack is used for multiple-rack deployments.
RACK2-UCS2	Cisco R42612 static (standard) rack, with side panels. This type of rack is used for single-rack and end of row deployments. Side panels are needed for racks at the ends of multiple-rack deployments. For example, when configuring a row of 5 racks, order 1 standard rack plus 4 expansion racks. Apply the side panels from the standard rack to the racks at each end of the row.

(2) Use *Table 2* to select Cisco static (standard and expansion) rack options

The following accessories ship with the Cisco standard (RACK2-UCS2) and expansion (RACK2-UCS) R42612 racks:

- 50 M6 cage nuts
- 50 M6 mounting screws
- 2 M6 socket head screws
- 1 cage nut insertion tool
- 1 rack stabilizer
- 1 4-mm Allen key
- 20 Velcro cable management straps

Keep this in mind when ordering optional items from *Table 2*.

Table 2 Available Standard and Expansion Rack Options

Product ID (PID)	Description
RACK-BLANK-001	Blanking panels (qty 12), 1U, plastic, toolless. Recommended to ensure proper airflow. Fill all empty RU spaces in the front of the rack. Because each blanking panel PID includes 12 panels, use the following calculation: 42RU - occupied RU = available RU. Divide available RU by 12 to determine PID order quantity.
RACK-CBLMGT-001	Cable mgt D rings (qty 10), metal. Use the D rings to bundle system cables to ensure proper airflow.
RACK-CBLMGT-003	Brush strip (qty 1), 1 U. The brush strip promotes proper airflow while allowing cables to be passed from the front to the rear of the rack.
RACK-CBLMGT-011	Cable mgt straps (qty 10), Velcro. Use the Velcro straps to bundle system cables to ensure proper airflow.
RACK-FASTEN-001	Mounting screws (qty 100), M6. The rack ships with nuts and screws, but extras may be ordered.
RACK-FASTEN-002	Cage nuts (qty 50), M6. The rack ships with nuts and screws, but extras may be ordered.
RACK2-JOIN-001	Rack joining kit. Use the kit to connect adjacent racks within a row. Order 1 unit less than the number of racks in the row.
RACK2-GRND-001	Cisco R42612 grounding kit

(3) Use *Table 3* to select Cisco power distribution units (PDUs).

The Cisco RP Series PDUs are recommended for Cisco UCS and the Cisco R42612 Rack.

Table 3 Available PDUs

Product ID (PID)	Description
RP208-30M1P-4-8	24A Metered Input 1-Phase 4x C19, 8x C13 - 1U Mount PDU
RP208-60M3P-12	48A Metered Input 3-Phase 12x C19 - 2U Mount PDU
RP208-30M1P-6-36	24A Metered Input 1-Phase 6x C19, 36x C13 - 0U PDU
RP208-30M3P-6-30	24A Metered Input 3-Phase 6x C19, 30x C13 - 0U PDU
RP208-60M3P-12-9	48A Metered Input 3-Phase 12x C19, 9x C13 - 0U PDU

Table 3 Available PDUs *(continued)*

Product ID (PID)	Description
RP230-32M1P-6-36	32A Metered Input 1-Phase 6x C19, 36x C13 - 0U PDU
RP230-32M3P-12-12	32A Metered Input 3-Phase 12x C19, 12x C13 - 0U PDU
RP-BRKT-RETENTION	R42612 retention bracket for 0U PDUs

Mounting PDUs

Before you install a PDU, plan how to route the power cable. It can be routed through the bottom of the Cisco R42612 rack, through the two knockout cabling portholes on the top enclosure of the rack, or through the large opening with brushes at the rear of the top enclosure of the rack.

There are five PDUs that can be mounted vertically in a Cisco R42612 Rack. These PDUs can be installed on the plates at the rear of the rack and do no require any RU spaces, so they are also referred to a zero-RU PDUs. There are also two PDUs that mount horizontally in one of the RU spaces.

The following table provides descriptions for these PDUs.

Table 4 Available PDUs

Product ID (PID)	Description	Plug	Country
Zero-RU PDUs			
RP208-30M1P-6-36	30 A, single-phase, vertical-mount PDU with 6 C19 and 36 C13 connectors	L6-30P	North America
RP208-30M3P-6-30	30 A, three-phase, vertical-mount PDU with 6 C19 and 30 C13 connectors	L15-30P	North America
RP208-60M3P-12-9	60 A, three-phase, vertical-mount PDU with 12 C19 and 9 C13 connectors	IEC60309 460P9	North America
RP230-32M1P-6-36	32 A, single-phase, button-mount (rear and sides) PDU with 6 C19 and 36 C13 connectors	IEC60309 332P6	International
RP230-32M3P-12-12	32 A, single-phase, button-mount (rear and sides) PDU with 12 C19 and 12 C13 connectors	IEC60309 532P6	International
Horizontal PDUs (occupy RU space)			
RP208-30M1P-4-8 (1 RU space)	30 A, single-phase, horizontal-mount PDU with 4 C19 and 8 C13 connectors	L6-30P	North America
RP208-60M3P-12 (2 RU spaces)	48 A, three-phase, horizontal-mount PDU with 12 C19 connectors	IEC 60309 460P9	North America

Mounting Zero-RU PDUs

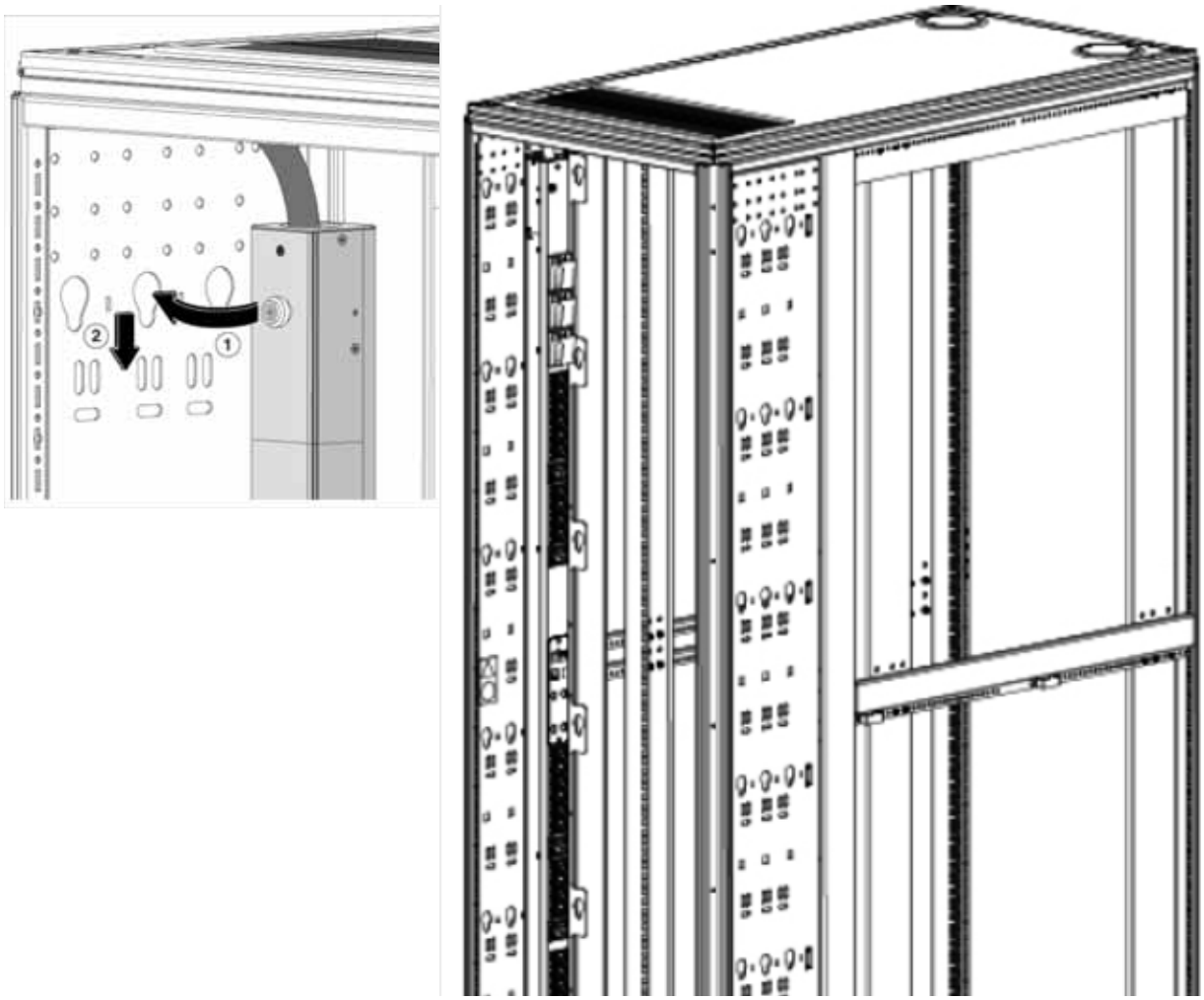
You can install up to six zero-RU PDUs in the Cisco R42612 Rack. No tools are required. When servicing UCS servers, some products may require temporary removal of cables to provide service space for rear facing field replaceable units (FRUs). Due to height restrictions, RP208-60M3P-12-9 must be installed facing the rear of the rack.

To install a zero-RU PDU:

(1) Open the rear of the rack and, as is appropriate for your situation, route the PDU power cable either through the large access opening in the back of the rack canopy or through the bottom of the Cisco R42612 rack.

(2) Insert the mounting button on the back of the PDU into a key hole near the top of the PDU tray or into the top key hole of the rear-facing flange. Callout 1 in the following figure shows the mounting button and the key hole of the PDU tray on the side of the rack

Figure 7 Using the Mounting Screws to Install a Zero-RU PDU



(3) Slide the PDU down slightly so that it locks into place in the PDU tray.

(4) Secure the lower PDU mounting screw into place as in steps 1 and 2.

(5) Loosen the ground connector and either wrap around it the end of a 10 AWG wire with 1" of the end stripped, or attach a wire that has a ring connector attached.

(6) Connect the other end of the grounding wire to the Cisco R42612 Rack.

(7) Connect the PDU power cord to the AC power source.

Mounting RU-Space PDUs

RU space PDUs mount horizontally in available RU space.

Specifications

This section gives the specifications for the R42612 rack and the various PDus.

Rack Specifications

The following table lists specifications for the R42612 rack.

Table 5 R42612 Specifications

Cisco R42612 Rack	Standard (Static with side panels)	Expansion (Static without Side Panels)
Dimensions (H x W x D)	79.25 x 23.50 x 49.84 in. (2013 x 597 x 1266 mm)	79.25 x 23.50 x 49.84 in. (2013 x 597 x 1266 mm)
Dimensions (H x W x D) with packaging	84.25 x 32 x 54.84 in. (2140 x 813 x 1393 mm)	84.25 x 32 x 54.84 in.(2140 x 813 x 1393 mm)
Distance from front mounting rail to rear mounting rail	29.19 in. (741.5 mm)	29.19 in. (741.5 mm)
Weight	339.51 lb (154 kg)	264.55 lb (120 kg)
Weight with packaging	410.06 lb (186 kg)	335.10 lb (152 kg)
Side panels included	Yes	No
Equipment mounting capacity	42 RU	42 RU
Static load capacity	2700 lb (1224.7 kg)	2700 lb (1224.7 kg)
Dynamic load capacity	N/A	N/A

PDU Specifications

The following sections list specifications for the PDUs.

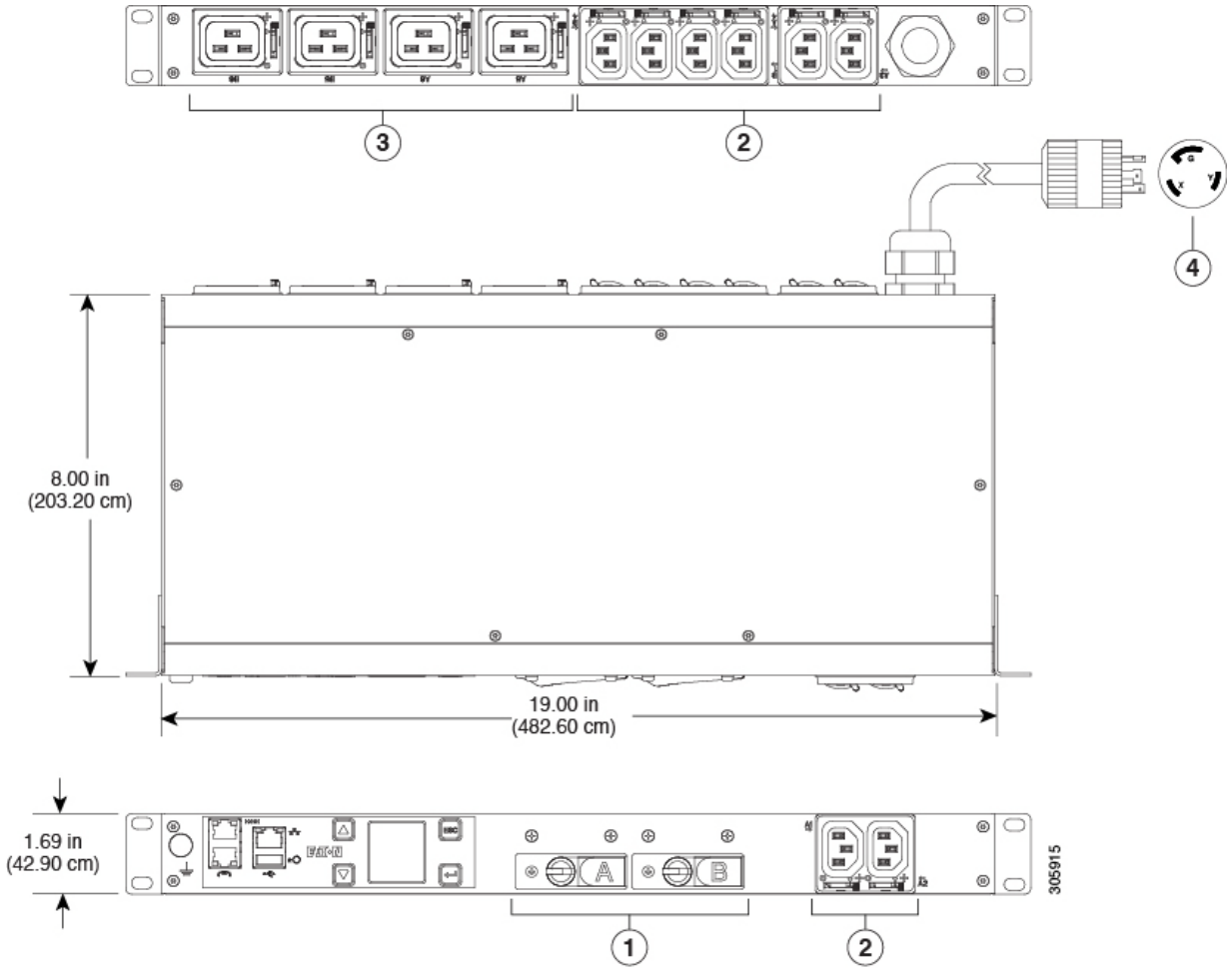
RP208-30M1P-4-8 PDU

Table 6 Specifications for RP208-30M1P-4-8 PDU

Feature	Description
PID	RP208-30M1P-4-8
Country	North America
RU Size	1U
Dimensions (H x W x D)	1.69 x 19.0 x 8.0 in. (42.9 x 482.6 x 203.2 mm)
Mounting style	Horizontal
Cable length	10 ft (3.04 m)
Plug	NEMA L6-30P
Maximum kW	5.76
Input voltage	200 to 240 V
Output voltage	200 to 240 V
Amperage	24 A
Phase	Single phase
Frequency	50 to 60 Hz
Circuit breakers	2 two-pole 20 A
Outlets	8 IEC 60320 C13 outlets with outlet grip 4 IEC 60320 C19 outlets with outlet grip
Serial interface	RS-232
Ethernet interface	10/100 Ethernet
Voltage monitoring	Yes
Operating temperature	32º to 140ºF (0º to 60ºC)

The following figure shows rear, top-down, and front views of the RP208-30M1P-4-8 PDU.

Figure 8 RP208-30M1P-4-8 PDU



1 = 20A circuit breaker

2 = IEC 60320 C13 outlets

3 = EC 60320 C19 outlets

4 = NEMA L6-30P plug

RP208-30M1P-6-36 PDU

Table 7 Specifications for RP208-30M1P-6-36 PDU

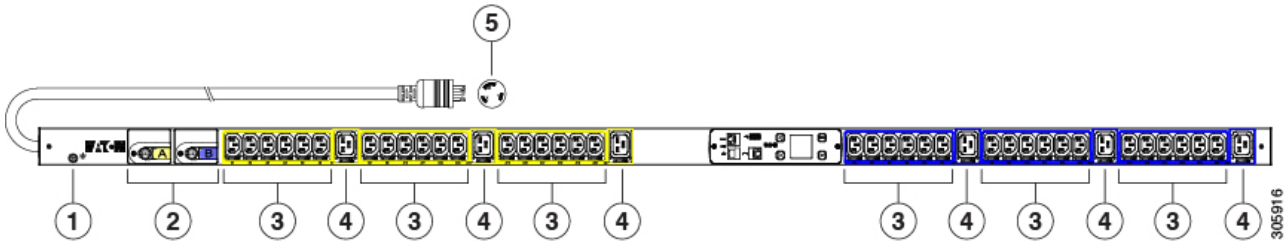
Feature	Description
PID	RP208-30M1P-6-36
Country	North America

Table 7 Specifications for RP208-30M1P-6-36 PDU *(continued)*

Feature	Description
RU Size	0U
Dimensions (H x W x D)	66.5 x 2.05 x 2.1 in. (1689 x 52 x 53 mm)
Mounting style	Vertical
Cable length	10 ft (3.04 m)
Plug	NEMA L6-30P
Maximum kW	5.76
Input voltage	200 to 240 V
Output voltage	200 to 240 V
Amperage	24 A
Phase	Single phase
Frequency	50 to 60 Hz
Circuit breakers	2 two-pole 20 A
Outlets	36 IEC 60320 C13 outlets with outlet grip 6 IEC 60320 C19 outlets with outlet grip
Serial interface	RS-232
Ethernet interface	10/100 Ethernet
Voltage monitoring	Yes
Operating temperature	32º to 140ºF (0º to 60ºC)

The following figure shows the front view of the RP208-30M1P-6-36 PDU.

Figure 9 RP208-30M1P-6-36 PDU



1 = Ground

2 = 20 A circuit breakers

3 = IEC 60320 C13 outlets

4 = EC 60320 C19 outlets

5 = NEMA L6-30P plug

RP208-30M3P-6-30 PDU

Table 8 Specifications for RP208-30M3P-6-30 PDU

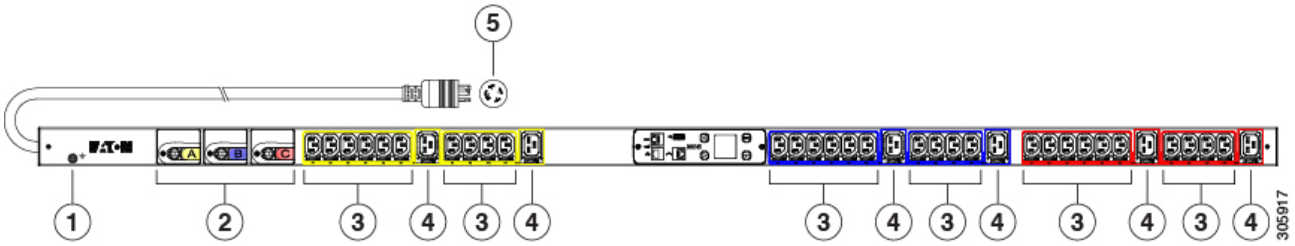
Feature	Description
PID	RP208-30M3P-6-30
Country	North America
RU Size	0U
Dimensions (H x W x D)	66.5 x 2.05 x 2.1 in. (1689 x 52 x 53 mm)
Mounting style	Vertical
Cable length	10 ft (3.04 m)
Plug	NEMA L15-30P
Maximum kW	8.64
Input voltage	200 to 240 V
Output voltage	200 to 240 V
Amperage	24 A
Phase	Three-phase
Frequency	50 to 60 Hz

Table 8 Specifications for RP208-30M3P-6-30 PDU *(continued)*

Feature	Description
Circuit breakers	3 two-pole 20 A
Outlets	30 IEC 60320 C13 outlets with outlet grip 6 IEC 60320 C19 outlets with outlet grip
Serial interface	RS-232
Ethernet interface	10/100 Ethernet
Voltage monitoring	Yes
Operating temperature	32º to 140ºF (0º to 60ºC)

The following figure shows the front view of the RP208-30M3P-6-30 PDU.

Figure 10 RP208-30M3P-6-30 PDU



1 = Ground

2 = 20 A circuit breakers

3 = IEC 60320 C13 outlets

4 = EC 60320 C19 outlets

5 = NEMA L15-30P plug

RP208-60M3P-12-9 PDU

Table 9 Specifications for RP208-60M3P-12-9 PDU

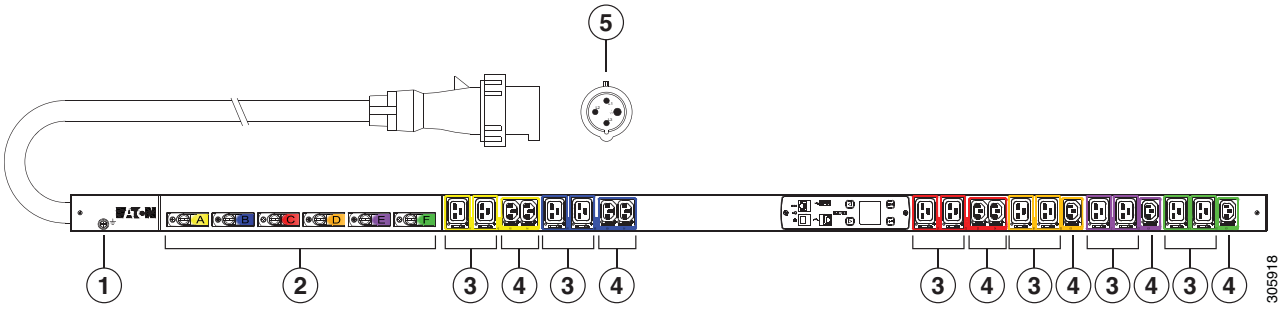
Feature	Description
PID	RP208-60M3P-12-9
Country	North America
RU Size	0U
Dimensions (H x W x D)	66.5 x 2.05 x 2.1 in. (1689 x 52 x 53 mm)

Table 9 Specifications for RP208-60M3P-12-9 PDU *(continued)*

Feature	Description
Mounting style	Vertical
Cable length	6 ft (1.82 m)
Plug	IEC 60309 460P9
Maximum kW	17.3
Input voltage	200 to 240 V
Output voltage	200 to 240 V
Amperage	48 A
Phase	Three-phase
Frequency	50 to 60 Hz
Circuit breakers	6 two-pole 20 A
Outlets	9 IEC 320 C13 outlets with outlet grip 6 IEC 320 C19 outlets with outlet grip
Serial interface	RS-232
Ethernet interface	10/100 Ethernet
Voltage monitoring	Yes
Operating temperature	32º to 140ºF (0º to 60ºC)

The following figure shows the front view of the RP208-60M3P-12-9 PDU.

Figure 11 RP208-60M3P-12-9 PDU



1 = Ground

2 = 20 A circuit breakers

3 = IEC 60320 C13 outlets

4 = EC 60320 C19 outlets

5 = IEC 60309 460P9 plug

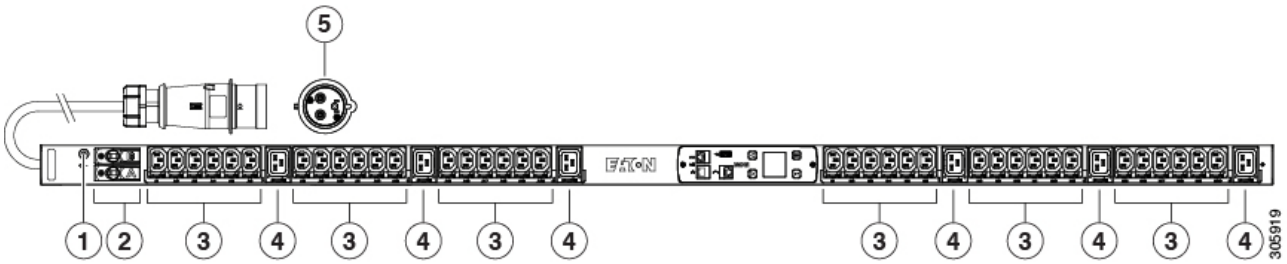
RP230-32M1P-6-36 PDU

Table 10 Specifications for RP230-32M1P-6-36 PDU

Feature	Description
PID	RP230-32M1P-6-36
Country	International
RU Size	0U
Dimensions (H x W x D)	41.88 x 2.04 x 2.08 in. (1064 x 52 x 53 mm)
Mounting style	Vertical
Cable length	10 ft (3.04 m)
Plug	IEC 60309 32 A
Maximum kW	7
Input voltage	200 to 240 V
Output voltage	200 to 240 V
Amperage	32 A
Phase	Single-phase
Frequency	50 to 60 Hz
Circuit breakers	2 16 A one-pole
Outlets	36 IEC 320 C13 outlets 6 IEC 320 C19 outlets
Serial interface	RS-232
Ethernet interface	10/100 Ethernet
Voltage monitoring	Yes
Operating temperature	32º to 140ºF (0º to 60ºC)

The following figure shows the front view of the RP230-32M1P-6-36 PDU.

Figure 12 RP230-32M1P-6-36



1 = Ground

2 = Single pole circuit breakers

3 = IEC 60320 C13 outlets

4 = EC 60320 C19 outlets

5 = IEC 60309 32 A plug

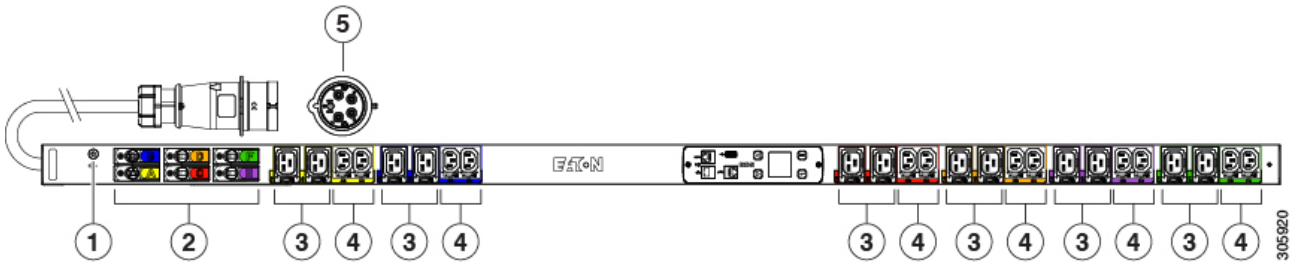
RP230-32M3P-12-12 PDU

Table 11 Specifications for RP230-32M3P-12-12 PDU

Feature	Description
PID	RP230-32M3P-12-12
Country	International
RU Size	0U
Dimensions (H x W x D)	41.88 x 2.04 x 2.08 in. (1064 x 52 x 53 mm)
Mounting style	Vertical
Cable length	10 ft (3.04 m)
Plug	IEC 60309 32 A 3P
Maximum kW	22
Input voltage	346 to 415 V
Output voltage	200 to 240 V
Amperage	32 A
Phase	Three-phase
Frequency	50 to 60 Hz
Circuit breakers	6 one-pole 16A
Outlets	12 IEC 320 C13 outlets 12 IEC 320 C19 outlets
Serial interface	RS-232
Ethernet interface	10/100 Ethernet
Voltage monitoring	Yes
Operating temperature	32º to 140ºF (0º to 60ºC)

The following figure shows the front view of the RP230-32M3P-12-12 PDU.

Figure 13 RP230-32M3P-12-12



1 = Ground

2 = Single-pole circuit breakers

3 = IEC 60320 C13 outlets

4 = EC 60320 C19 outlets

5 = IEC 60309 32 A 3P plug

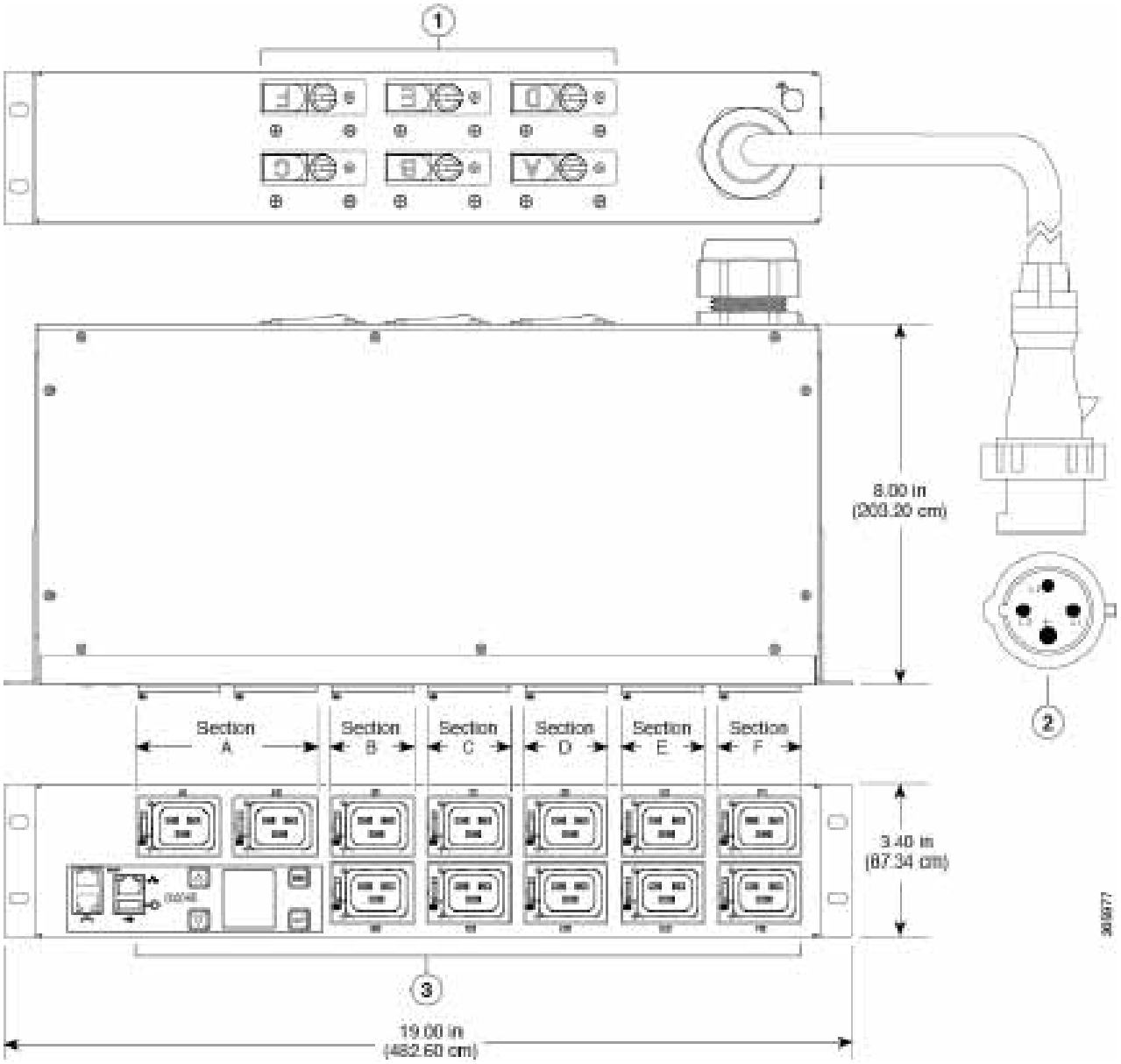
RP208-60M3P-12 PDU

Table 12 Specifications for RP208-60M3P-12 PDU

Feature	Description
PID	RP208-60M3P-12
Country	North America
RU Size	2U
Dimensions (H x W x D)	3.44 x 19.0 x 8.0 in. (87.34 x 482.6 x 203.2 mm)
Mounting style	Horizontal
Cable length	10 ft (3.04 m)
Plug	IEC 60309 460P9
Maximum kW	17.3
Input voltage	200 to 240 V
Output voltage	200 to 240 V
Amperage	48 A
Phase	Three-phase
Frequency	50 to 60 Hz
Circuit breakers	6 two-pole 20A
Outlets	12 IEC 60320 C19 outlets with outlet grip
Serial interface	RS-232
Ethernet interface	10/100 Ethernet
Voltage monitoring	Yes
Operating temperature	32º to 140ºF (0º to 60ºC)

The following figure shows the front view of the RP208-60M3P-12 PDU.

Figure 14 RP208-60M3P-12



1 = Six 20A circuit breakers

2 = IEC 60309 460P9 plug

3 = 12 IEC 60320 C19 outlets

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