#### **Product presentation**

## Eaton Rack PDU G4

## Enterprise-quality power distribution, global compatibility



#### PDU G4 – Built for Enterprise

 High-density, enterprise-quality power distribution

 Eaton PDU G4 offers simplicity in design without compromising on any technological capabilities

 The Eaton PDU G4 product line is versatile and enables users to standardize global operations on one power distribution platform



# Rack PDU G4: features and functionality



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## High-density, enterprise-quality power distribution

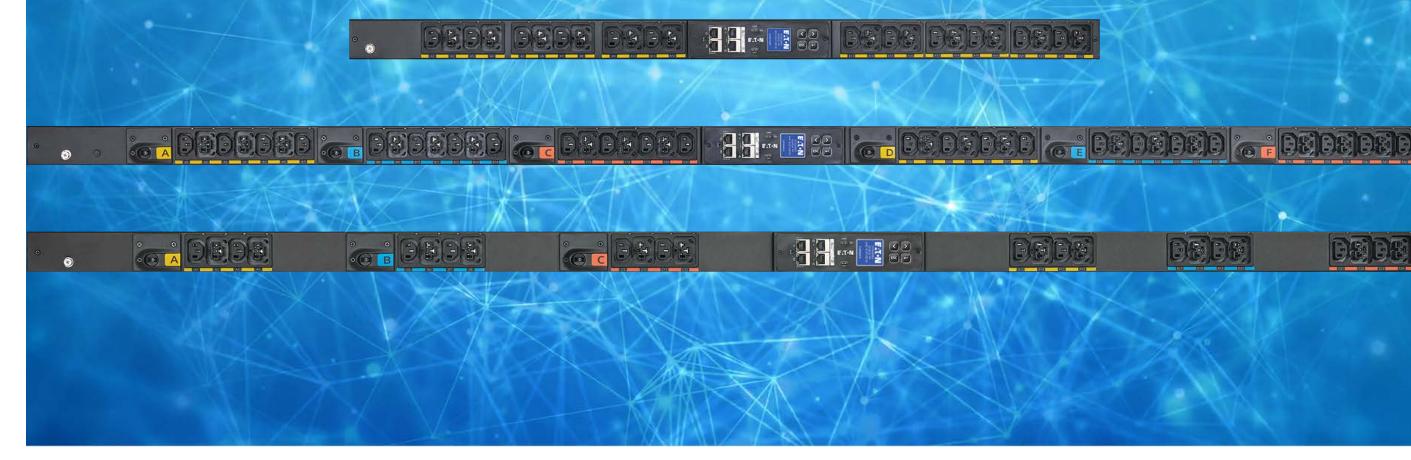
- Options from 5 to 23 kVA, single-phase or three-phase (Delta and Wye)
- Managed technology (outlet metering + switching)
- Metered input technology (metering at the breaker level)
- Network card module is hot-swappable and upgradeable





#### High-density, enterprise-quality power distribution

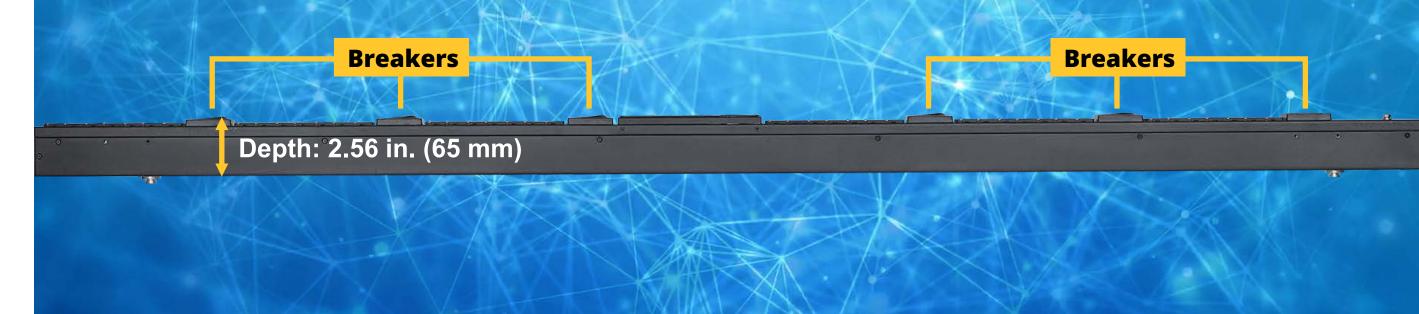
- Best-in-class 42 outlets in 42U (24 C13 + 18 C39)
- 24-outlet designs available in 42U or shorter-length chassis





#### Low-profile design

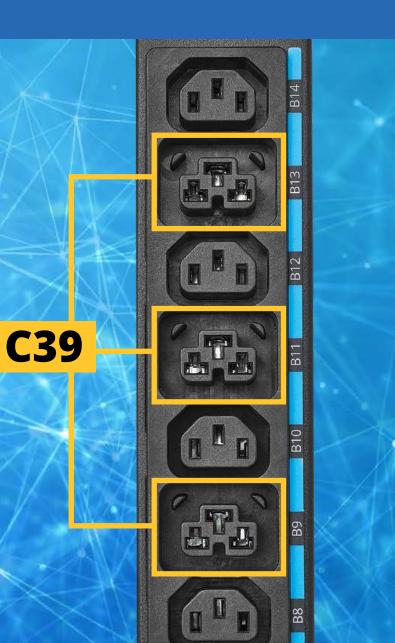
- 2 in. width, 2.56 in. depth at circuit breakers, 72 in. height fits in a 42U enclosure (52 x 65 x 1829 mm)
- Low-profile circuit breakers prevent interference with servers, storage or networking equipment
- Circuit breakers and outlets are evenly distributed for easy cable routing





## C39 combo outlet

- Dual capability to act as C13 or C19
- Flexibility reduces total outlets needed
- High contact retention so plugs won't fall out
- P-lock cable compatibility for full locking
- Alternating phase sections distribute power evenly across six groups of seven outlets





#### Management and cybersecurity

- Comprehensive power management with market-leading cybersecurity
- Shorten response time with automation and remote management
- Proactively address power problems before they become downtime
- Minimize cybersecurity vulnerabilities through hardware root of trust





#### Cybersecurity

- Zero Trust architecture
   Enables secure boot and complete
   hardware root of trust to mitigate
   cybersecurity risk
- User configurable firewall Reduces an organization's attack surface and helps meet cybersecurity compliance requirements

#### • REST API

Easily integrates with native systems and automates M2M interactions



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#### Cybersecurity (continued)

- Chain-of-trust encryption and secure firmware boot capability
   Prevent PDU G4 from being a cyberattack
   vulnerability point
- Network card

Can only be upgraded by genuine encrypted Eaton firmware

• USB-C port

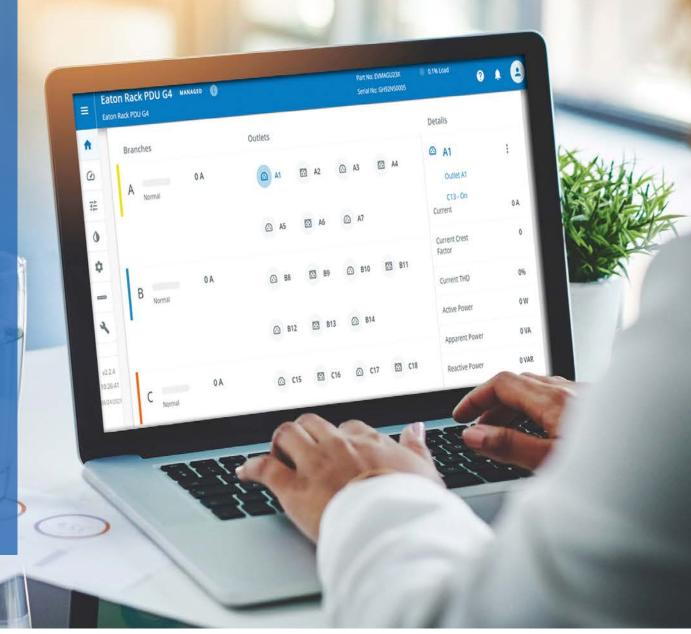
Enables direct computer connection to the PDU control module for a more secure method than connecting via Ethernet





#### **PDU management feature/function**

- Remote management Manage PDUs from anywhere (via desktop/mobile software platform)
- Remote on/off Power cycling/sequencing
- Outlet metering Metering and switching at the individual outlet level, providing granular power data and precise control of power delivery
- Network cascading Connect up to 40 PDUs from a single network port





#### **PDU Management feature/function**

- Hot-swap Network Module Replace or upgrade with no loss of power to outlets
- Replace or upgrade with no loss of power to outlets

High accuracy (+/- 1%) measurement of voltage, current, power and energy for each phase, breaker and outlet

- Zero-touch provisioning Auto-configuration commissions devices faster, saving time exponentially in large-scale deployment
- **Pixel LCD Display** Set IP address, rotate display, control outlets, view alarms and read current, voltage, power and energy





#### Metering down to the outlet

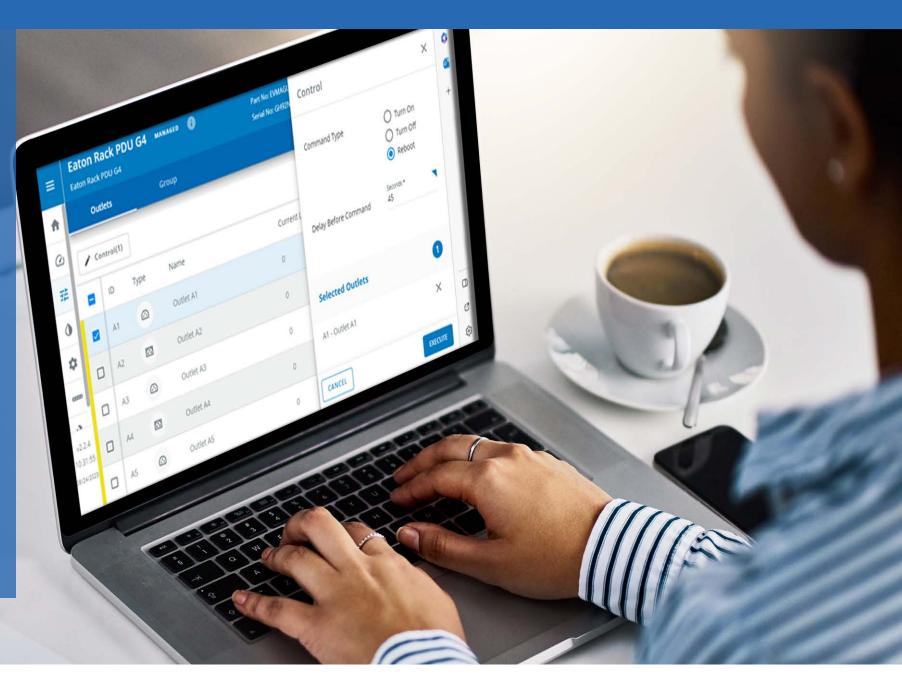
- Phase, circuit breaker and outlet metering
  - Balance phases and circuit breakers
- Alarm for overload to prevent circuit breaker trip or detect loss of power at the outlet
- Metering on local LCD or over network
- Measure power uptime at the outlet for QOS metrics





#### Outlet on/off control

- Control inrush through sequenced power on
- Remotely power cycle locked equipment
- Securely power off unused outlets
- Bi-stable latching relays are highly reliable and fault tolerant





#### PDU G4 model list

| Catalog PN                  | Technology | Plug            | Phase | Voltage               | Current (Derated) | Outlets       | kW Rating |  |  |
|-----------------------------|------------|-----------------|-------|-----------------------|-------------------|---------------|-----------|--|--|
| CORDED MODELS, BY OUTPUT    |            |                 |       |                       |                   |               |           |  |  |
| EVMAL620A                   | Managed    | C20 Plug/L6-20P | 1P/2P | 100-240V              | 16A               | 12xC13 12xC39 | 3.8       |  |  |
| EVMIL620A                   | Metered    | C20 Plug/L6-20P | 1P/2P | 100-240V              | 16A               | 12xC13 12xC39 | 3.8       |  |  |
| EVMAL630A                   | Managed    | L6-30P          | 1P    | 208V                  | 24A               | 12xC13 12xC39 | 5         |  |  |
| EVMAL630B                   | Managed    | L6-30P          | 1P    | 208V                  | 24A               | 10xC13 10xC39 | 5.8       |  |  |
| EVMAL630X                   | Managed    | L6-30P          | 1P    | 208V                  | 24A               | 24xC13 18xC39 | 5.8       |  |  |
| EVMIL630X                   | Metered    | L6-30P          | 1P    | 208V                  | 24A               | 24xC13 18xC39 | 5.8       |  |  |
| EVMA2120A                   | Managed    | L21-20P         | 3P    | 120/208V              | 16A               | 12xC13 12xC39 | 5.8       |  |  |
| EVMI2120X                   | Metered    | L21-20P         | 3P    | 120/208V              | 16A               | 24xC13 18xC39 | 5.8       |  |  |
| EVMA1530A                   | Managed    | L15-30P         | 3P    | 208V                  | 24A               | 12xC13 12xC39 | 8.6       |  |  |
| EVMA1530X                   | Managed    | L15-30P         | 3P    | 208V                  | 24A               | 24xC13 18xC39 | 8.6       |  |  |
| EVMA2130A                   | Managed    | L21-30P         | 3P    | 120/208V              | 24A               | 12xC13 12xC39 | 8.6       |  |  |
| EVMA2130X                   | Managed    | L21-30P         | 3P    | 120/208V              | 24A               | 24xC13 18xC39 | 8.6       |  |  |
| EVMI1530X                   | Metered    | L15-30P         | 3P    | 208V                  | 24A               | 24xC13 18xC39 | 8.6       |  |  |
| EVMI2130X                   | Metered    | L21-30P         | 3P    | 120/208V              | 24A               | 24xC13 18xC39 | 8.6       |  |  |
| EVMA8365X                   | Managed    | CS8365          | 3P    | 208V                  | 24A               | 24xC13 18xC39 | 14.4      |  |  |
| EVMI8365X                   | Metered    | CS8365          | 3P    | 208V                  | 40A               | 24xC13 18xC39 | 14.4      |  |  |
| EVMA4609X                   | Managed    | 460P9W          | 3P    | 208V                  | 48A               | 24xC13 18xC39 | 17.3      |  |  |
| EVMA4609X-06                | Managed    | 460P9W          | 3P    | 208V                  | 48A               | 24xC13 18xC39 | 17.3      |  |  |
| EVMI4609X                   | Metered    | 460P9W          | 3P    | 208V                  | 48A               | 24xC13 18xC39 | 17.3      |  |  |
| EVMI4609X-06                | Metered    | 460P9W          | 3P    | 208V                  | 48A               | 24xC13 18xC39 | 17.3      |  |  |
| EVMAG332C                   | Managed    | 532P6W          | 3P    | 240/415V              | 48A               | 24xC13 24xC39 | 17.3      |  |  |
| EVMAG332X                   | Managed    | 532P6W          | 3P    | 240/415V              | 24A               | 24xC13 18xC39 | 17.3      |  |  |
| EVMIG332X                   | Metered    | 532P6W          | 3P    | 240/415V              | 24A               | 24xC13 18xC39 | 17.3      |  |  |
| UNIVERSAL MODELS, BY OUTPUT |            |                 |       |                       |                   |               |           |  |  |
| EVBAGU23X-E                 | Basic      | UTG 8-pin       | 1P/3P | Varies by input cable | 24xC13            | 18xC39        | 5-23      |  |  |
| EVMIGU23A-E                 | Metered    | UTG 8-pin       | 1P/3P | Varies by input cable | 12xC13            | 12xC39        | 5-23      |  |  |
| EVMIGU23X                   | Metered    | UTG 8-pin       | 1P/3P | Varies by input cable | 24xC13            | 18xC39        | 5-23      |  |  |
| EVMIGU23X-E                 | Metered    | UTG 8-pin       | 1P/3P | Varies by input cable | 24xC13            | 18xC39        | 5-23      |  |  |
| EVMAGU23A-E                 | Managed    | UTG 8-pin       | 1P/3P | Varies by input cable | 12xC13            | 12xC39        | 5-23      |  |  |
| EVMAGU23X                   | Managed    | UTG 8-pin       | 1P/3P | Varies by input cable | 24xC13            | 18xC39        | 5-23      |  |  |
| EVMAGU23X-E                 | Managed    | UTG 8-pin       | 1P/3P | Varies by input cable | 24xC13            | 18xC39        | 5-23      |  |  |



# Universal Input Rack PDU (UPDU) G4

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#### Universal Input Rack PDU (UPDU) G4

- The most flexible PDU
- Universal power input
- Detachable cord options for 5 to 23 kVA, single-phase or three-phase Delta, or three-phase Wye

• Standardize global business on one PDU



#### Global design and safety approvals

- Source one rack PDU globally and attach appropriate cord regionally
- UPDU certifications:
  - TUV: cTUVus mark with compliance to ANSI/UL 62368-1
  - CB Certificate and Report to IEC/EN 62368-1
  - CE Declaration, including compliance for safety, EMC and RoHS
- Universal input cable certifications:
  - UL: cRUus mark with compliance to UL 817 (UL file E529492)
  - CE declaration for compliance to safety and RoHS





#### Universal input cables

- Input connector determines singleor three-phase wiring
- UL 817 approved cord sets tested and rated for disconnect under load
- 15 plug options from
  5 to 23 kVA with
  10 ft. cable



L6-30P cable CBL350-10



360P6W cable CBL362-10



460P9W cable CBL356-10



532P6W cable CBL358-10



#### Universal connector

#### Overmolded backshell

- Reduced depth versus competitors for less interference
- Provides high strength with no screws to come loose
- Connector has robust, locking, mil-aerospace design





#### Lower power cables (5 to 11 kVA)

| Part<br>number | Plug    | Length       | Panel<br>breaker | Derated<br>current | Voltage      | Region    | Power<br>phase | Max power<br>per PDU |
|----------------|---------|--------------|------------------|--------------------|--------------|-----------|----------------|----------------------|
| CBL350-10      | L6-30P  | 10 ft. (3 m) | 30A              | 24A                | 208V         | AMER      | 1P             | 5.0 kVA              |
| CBL354-10      | 332P6W  | 10 ft. (3 m) | 30A              | 24A                | 240V         | AMER      | 1P             | 5.8 kVA              |
|                |         |              | 32A              | 32A                | 230V         | EMEA/APAC | 1P             | 7.4 kVA              |
| CBL367-10      | L21-20P | 10 ft. (3 m) | 20A              | 16A                | 208V WYE     | AMER      | 3P             | 5.8 kVA              |
| CBL365-10      | L15-30P | 10 ft. (3 m) | 30A              | 24A                | 208V Delta   | AMER      | 3P             | 8.6 kVA              |
| CBL351-10      | L21-30P | 10 ft. (3 m) | 30A              | 24A                | 208/120V WYE | AMER      | 3P             | 8.6 kVA              |
| CBL362-10      | 360P6W  | 10 ft. (3 m) | 60A              | 48A                | 240V         | AMER      | 1P             | 11.5 kVA             |
| CBL355-10      | 516P6W  | 10 ft. (3 m) | 20A              | 16A                | 240/415V WYE | AMER      | 3P             | 11.5 kVA             |
|                |         |              | 16A              | 16A                | 230/400V WYE | EMEA/APAC | 3P             | 11.0 kVA             |



#### Higher power cables (14.4 to 23 kVA)

| Part<br>number | Plug    | Length        | Panel<br>breaker | Derated<br>current | Voltage      | Region    | Power<br>phase | Max power<br>per PDU |
|----------------|---------|---------------|------------------|--------------------|--------------|-----------|----------------|----------------------|
| CBL364-06      | CS8365  | 6 ft. (1.8 m) | 50A              | 40A                | 208V Delta   | AMER      | 3P             | 14.4 kVA             |
| CBL364-10      | CS8365  | 10 ft. (3 m)  | 50A              | 40A                | 208V Delta   | AMER      | 3P             | 14.4 kVA             |
| CBL356-06      | 460P9W  | 6 ft. (1.8 m) | 60A              | 48A                | 208V Delta   | AMER      | 3P             | 17.3 kVA             |
| CBL356-10      | 460P9W  | 10 ft. (3 m)  | 60A              | 48A                | 208V Delta   | AMER      | 3P             | 17.3 kVA             |
| CBL366-10      | 560P9W  | 10 ft. (3 m)  | 60A              | 48A                | 208/120V WYE | AMER      | 3P             | 17.3 kVA             |
| CBL357-10      | Pigtail | 10 ft. (3 m)  | 60A              | 48A                | 208V Delta   | AMER      | 3P             | 17.3 kVA             |
| CBL368-10      | L22-30P | 10 ft. (3 m)  | 30A              | 24A                | 240/415V WYE | AMER      | 3P             | 17.3 kVA             |
| CBL358-10      | 532P6W  | 10 ft. (3 m)  | 30A              | 24A                | 240/415V WYE | AMER      | 3P             | 17.3 kVA             |
|                |         |               | 32A              | 32A                | 230/400V WYE | EMEA/APAC | 3P             | 22.1 kVA             |
| CBL360-10      | 560P6W  | 10 ft. (3 m)  | 40A or 60A       | 32A                | 240/415V WYE | AMER      | 3P             | 23.0 kVA             |
| CBL354-10      | 332P6W  | 10 ft. (3 m)  | 16A              | 16A                | 230/400V WYE | EMEA/APAC | 3P             | 11.0 kVA             |



## Benefits of UPDU in the data center



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#### Colocation data center

- Competitive advantage by stocking PDU for fast deployment after lease signing
- Cables define power rating of the rack – upgrading power only requires cable and bus tap box swap
- Fully managed allows the end customer to monitor power and control devices remotely





#### Global enterprise

- Challenge of managing data centers in different regions
- Standardize one PDU for all regions with only changing the power cord
- Simplifies deployment and management by having a single power profile





#### Rack system integrator

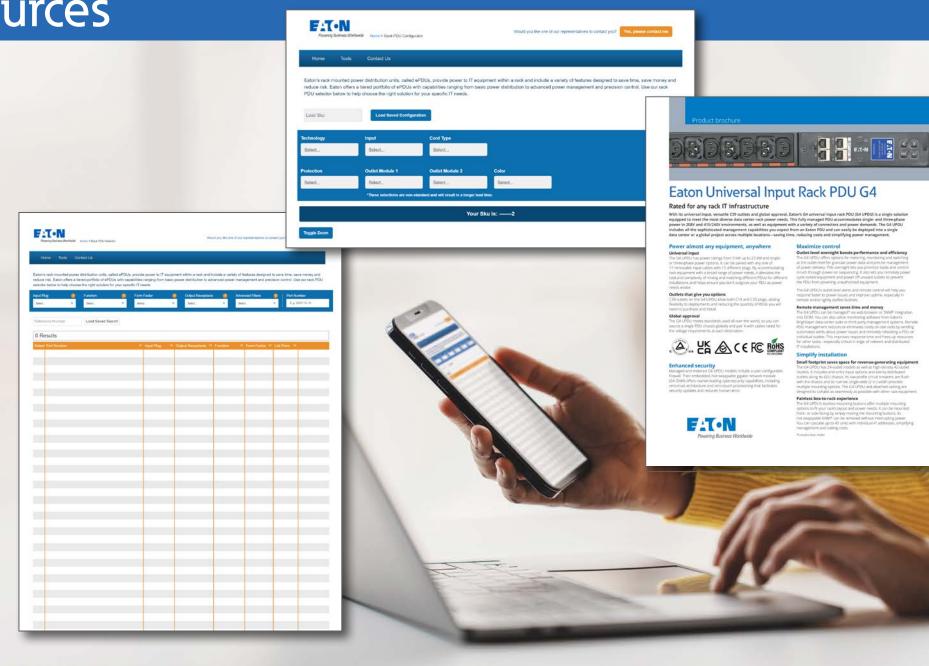
- Storage or compute systems require location-specific power input
- System can be built and tested without knowing end destination
- Attach country-specific cords before shipping system
- Eliminates challenges associated with global system sales





#### Rack PDU G4 resources

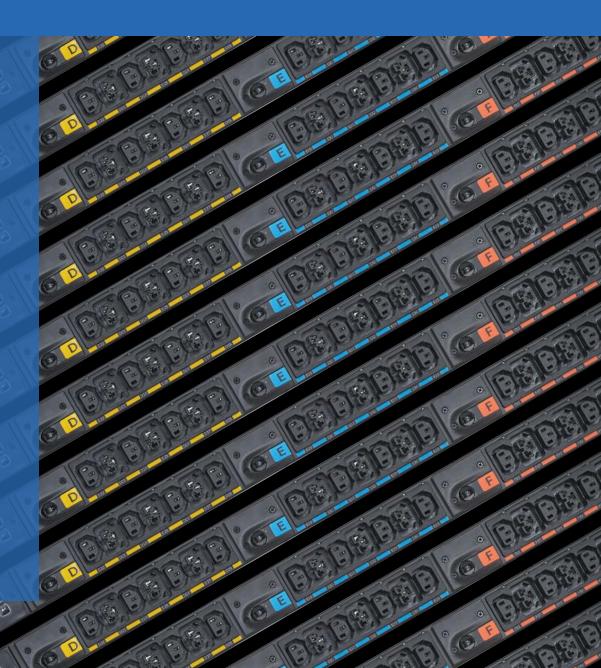
- Rack PDU selector
- Rack PDU configurator
- UPDU brochure
- Rack PDU G4 topic page





## Summary

- Eaton Rack PDU G4 launched in October 2023
- Universal input option is highly flexible, allowing customers to deploy a single rack PDU globally
- The C39 outlet accommodates either a C14 or C20 plug
- 42 outlets in a 42U form factor with low-profile circuit breakers
- Fully managed for outlet switching and outlet metering
- Sustainable engineering, operation, packaging and shipping





#### Additional resources

• PDU G4 topic page • UPDU topic page • UPDU G3 brochure (PDF) • UPDU overview video UPDU installation video • UPDU infographic





#### Questions?

Richard Varela Global Product Manager 919.339.6182 richardjvarela@eaton.com linkedin.com/in/richardvarela Joe Skorjanec Product Manager Growth 605.310.5669 joeskorjanec@eaton.com





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