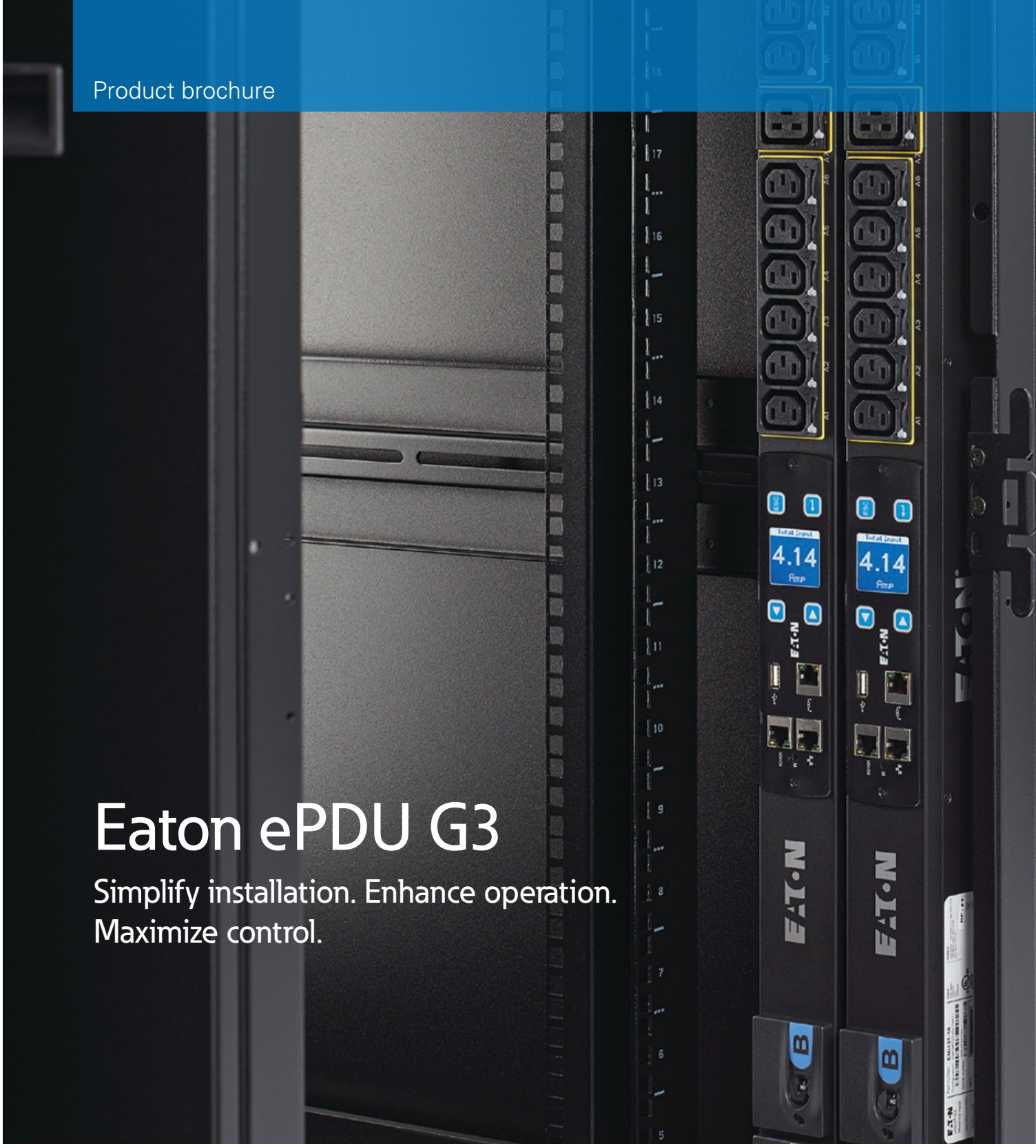
Product brochure



Eaton ePDU G3

Simplify installation. Enhance operation. Maximize control.

Powering Business Worldwide

Power distribution made better by Eaton

The Eaton® ePDU® G3 rack mounted power distribution units (PDUs) provide best-in-class power distribution to information technology (IT) equipment within a rack, enabling data center and IT managers to simplify installation, enhance operation and maximize control of their environment. We offer a tiered portfolio of rack PDUs in multiple form factors with capabilities ranging from basic power distribution to advanced power management and precision control designed to save time, save money and reduce risk.

1 Simplify installation

Flexible installation options ease the box-to-rack experience allowing for quick and simple setup.

2 Enhance operation

Well thought-out, user-friendly features allow you to maintain continuous uptime, gain operational stability and monitor your environment which reduces costs and improves performance.

3 Maximize control

Advanced management capabilities allow you to take control of your IT environment to save time, save money and reduce risk, providing you peace of mind and the freedom to focus on other critical tasks.

What this means for you

Save time

Eaton understands how busy you are. That's why the ePDU G3s are designed to quickly and easily install into your rack environment. Featuring a lightweight aluminum chassis, pre-installed, tool-less mounting buttons and flexible mounting options, you'll breeze through installation and be able to focus on other critical tasks.

Save money

A network port can cost between $100 and $500. That cost adds up quickly—ten rack environments can accrue a hefty bill of $10,000. Eaton ePDU G3s reduce network infrastructure costs by 87.5% by allowing you to daisy chain up to eight rack PDUs, saving you $8,750 on network infrastructure costs when applied to this scenario.

Reduce Risk

Integrated IEC outlet grips easily secure plugs in place to prevent accidental disconnect. Protect your critical equipment and prevent downtime by ensuring your plugs stay in place. The grip is designed to grip, not lock in case of emergency. If gripping is not enough, you can lock your plugs in place using a cable tie.

Complete portfolio to fit your needs

Eaton ePDUs are distinguished for their quality, dependability and versatility. They provide best-in-class power distribution, multiple technologies and an arrangement of outlets for every region.

Which ePDU technology is right for me?

Basic

Reliable, cost-effective power distribution solution providing branch circuit protection for all connected equipment in your rack. Slim form factor and pre-installed mounting buttons ease set up.

Metered Outlet

Provides outlet-level monitoring without control of individual outlets. Increased monitoring capabilities to the outlet level allow you to calculate Level 3 power usage effectiveness (PUE) for the most accurate view of your power utilization.

Metered Input

Remote monitoring capabilities provide access to your power data whenever you want it, wherever you are. Monitor your critical equipment within each color-coded outlet section from a single interface.

Managed

Remote management, outlet-level control and monitoring make this our most advanced rack PDU. Benefit from remotely rebooting connected equipment, turning off unused outlets to prevent unauthorized use and measuring the most accurate Level 3 PUE.

High density

With all the features you have come to expect from Managed and Metered Outlet rack PDUs, the HD rack PDU offers the additional benefits of configurability, improved outlet counts and color chassis options. Designed with data center customers in mind, the HD rack PDU offers up to 54 outlets per PDU and alternating phase outlets.

Increasing level of control

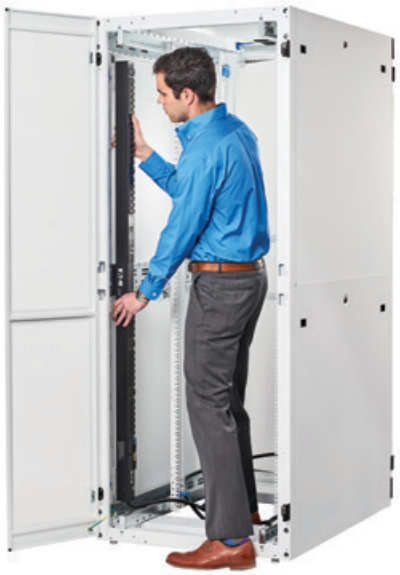
Eaton's G3 PDUs offer a variety of capabilities to fulfill the needs of your IT environment. These PDUs are ready to be deployed in any application, from small/medium business network closets to enterprise data center, and they come standard with a 3-year warranty.

Feature (value)	Basic	Metered Input	Metered Outlet	HD Metered Outlet	Managed	HD Managed
Simplify installation Flexible installation options ease the box-to-rack experience allowing for quick and simple setup, no tools or electricians required.						
Low-weight aluminum chassis for easy installation	•	•	•	•	•	•
Low-profile form factor provides zero interference into the rail space	•	•	•	•	•	•
Pre-installation, tool-less mounting buttons	•	•	•	•	•	•
Flexible mounting options allows you to choose your preferred mounting method between 0U or 1U/2U	•	•	•	•	•	•
Enhance operation Designed with real-world applications in mind, G3 PDUs include features that allow you to maintain continuous up-time, gain operational stability and monitor your environment, all while reducing costs and improving performance.						
Integrated IEC outlet grips prevent accidental disconnects	•	•	•	•	•	•
High 140°F (60°C) operating temperature reduces cooling costs while maintaining full functionality	•	•	•	•	•	•
Color-coded outlet sections simplify load balancing	•	•	•	•	•	•
Advanced LCD pixel display allows for easy IP setup and troubleshooting	•	•	•	•	•	•
Hot-swappable meter eliminates power disruption to your IT equipment when removing the meter		•	•	•	•	•
Daisy chain up to eight units under a single IP address, reducing infrastructure costs by 87.5%		•	•	•	•	•
Monitor power consumption with one percent billing-grade accuracy		•	•	•	•	•
Phase and section metering to balance loads and prevent overloads		•	•	•	•	•
Measure power consumption at the outlet level		•	•	•	•	•
Measure Level 3 power usage effectiveness (PUE) to optimize data center performance and efficiency			•	•	•	•
Maximize control Advanced management capabilities allow you to take control of your IT environment from a granular level, giving you confidence in the performance of your equipment and the freedom to focus on more critical tasks.						
Outlet switching to remotely turn individual outlets on or off					•	•
Turn off unused outlets to control unauthorized use					•	•
Remote site management saves time from on-site visits					•	•
Group reboot for A and B feed saves time by controlling grouped power supplies					•	•
Configure your units Take power distribution to the next level with PDUs that are designed by you with your data center in mind.						
Alternating outlet phases make it easier to visually access load balancing and reduce cord clutter				•		•
Multiple chassis color options to easily identify A and B feed				•		•
Up to 54 outlets per PDU delivers all the power distribution required for your application				•		•

Simplify installation

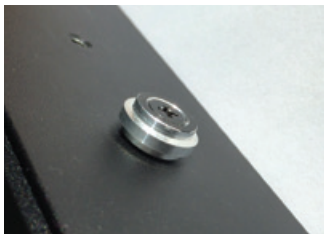
Light-weight aluminum chassis

- Offers a 30 percent lighter-than-steel chassis, making each unit easier to install
- Lower shipping costs compared to competitive models made from steel
- Dissipates heat for better performance in high-density environments
- Offers better electrical conductivity for improved electrical grounding



Flexible mounting options

- Multiple form factors give you the flexibility to choose
  - 0U models are vertically mounted in the rear of your rack, providing the most amount of receptacles and not occupying your valuable rack space
  - 1U/2U models are horizontally mounted in the U space of your rack, providing a smaller footprint for those with less equipment to power
- Patented clip feet allow for multiple mounting methods
- Optional side mounting button locations allow ePDU G3 to be mounted at a 90-degree rotation, preventing interference with hot-swap fans and power supplies



Pre-installed, tool-less mounting buttons

- Mounting buttons come pre-installed to reduce installation time
- Double-sided buttons accommodate different variations of metal thickness

Low-profile form factor

The width of the ePDU G3 has been optimized for side mounting, resulting in zero interference into the rail space so you don't block hot-swap fans or power supplies. Some models feature low-profile circuit breakers to reduce interference when the ePDU G3 is mounted with outlets facing the rail (center of the rack).

Enhance operation

Measure power consumption at the outlet level

- **Acquire** more accurate and detailed data by measuring power at the outlet level
- **Gain** energy analysis at a deeper level to make informed decisions and assist with effectively deploying equipment
- **Compare** efficiency between manufacturers and understand what drives power usage so you can make intelligent decisions to reduce power consumption

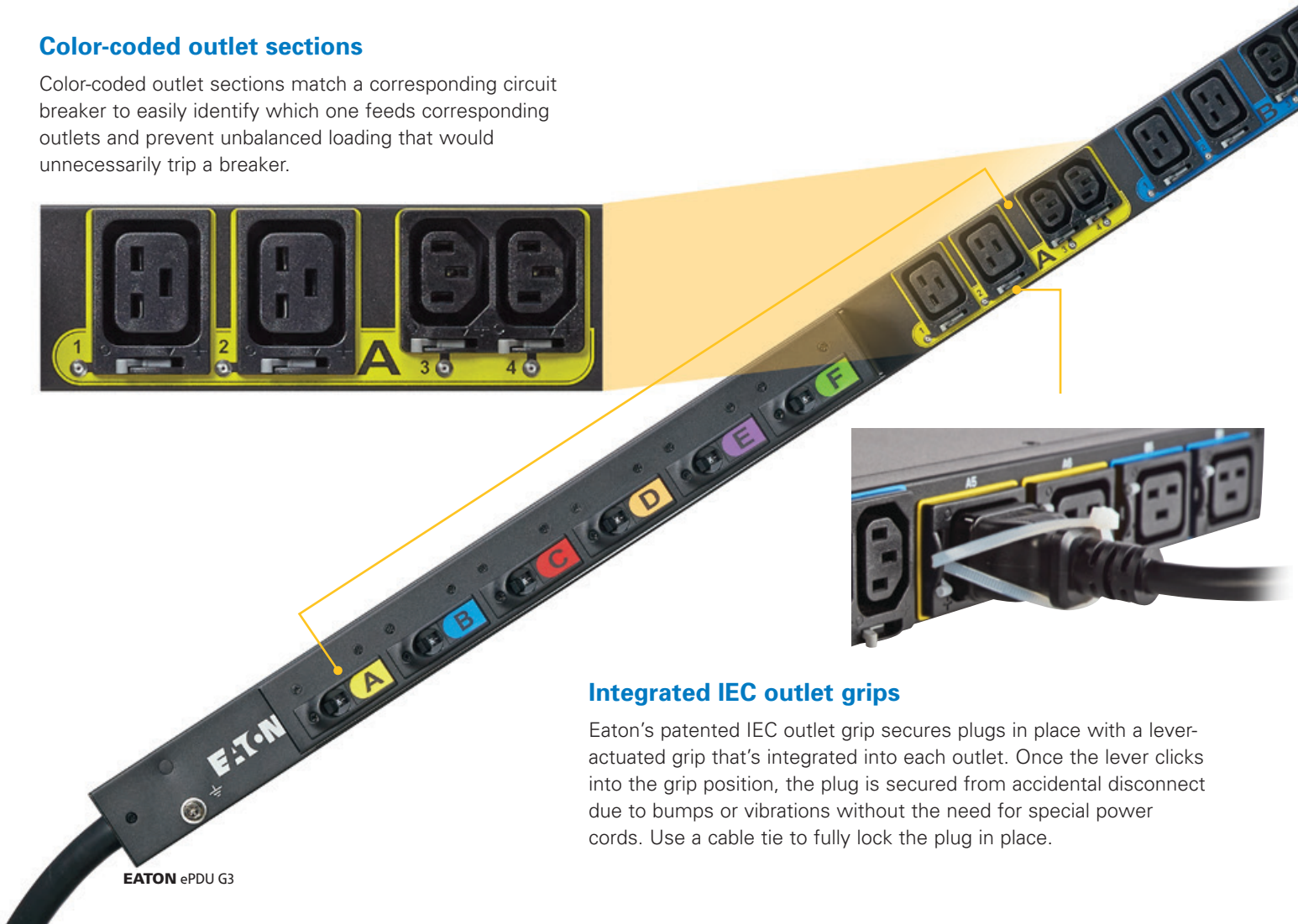
From meter screen, select outlets...

From outlet screen, select specific outlet to view...

View live power levels for selected outlet

Color-coded outlet sections

Color-coded outlet sections match a corresponding circuit breaker to easily identify which one feeds corresponding outlets and prevent unbalanced loading that would unnecessarily trip a breaker.



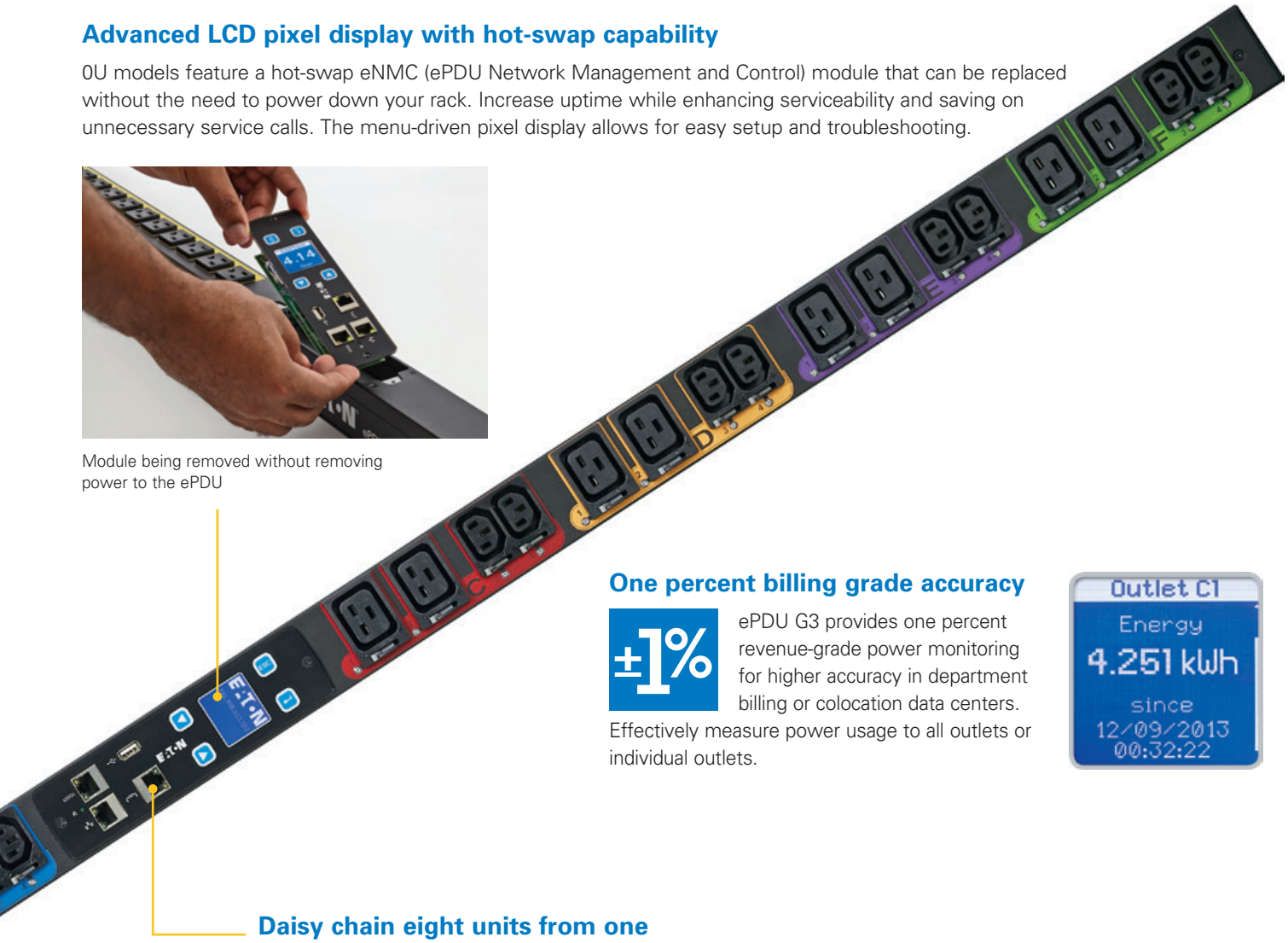
Integrated IEC outlet grips

Eaton's patented IEC outlet grip secures plugs in place with a lever-actuated grip that's integrated into each outlet. Once the lever clicks into the grip position, the plug is secured from accidental disconnect due to bumps or vibrations without the need for special power cords. Use a cable tie to fully lock the plug in place.

Advanced LCD pixel display with hot-swap capability

0U models feature a hot-swap eNMC (ePDU Network Management and Control) module that can be replaced without the need to power down your rack. Increase uptime while enhancing serviceability and saving on unnecessary service calls. The menu-driven pixel display allows for easy setup and troubleshooting.

Module being removed without removing power to the ePDU



One percent billing grade accuracy

±1%

ePDU G3 provides one percent revenue-grade power monitoring for higher accuracy in department billing or colocation data centers. Effectively measure power usage to all outlets or individual outlets.

Daisy chain eight units from one IP address

Eaton's new patented daisy-chain capability allows up to eight ePDUs to share the same network connection and IP address. Unlike competitive rack PDUs that require a dedicated IP address for best performance, Eaton technology provides a 87.5 percent reduction in network infrastructure costs.

A and B power PDU sharing a network connection via daisy chain

Measure Level 3 PUE

PUE is an industry-wide accepted method to measure power effectiveness. Measuring at the outlet level removes upstream devices from the calculation to provide an accurate view of how effectively power is being used for the connected IT equipment. Data center managers typically prefer Level 3 PUE for the most accurate calculation.

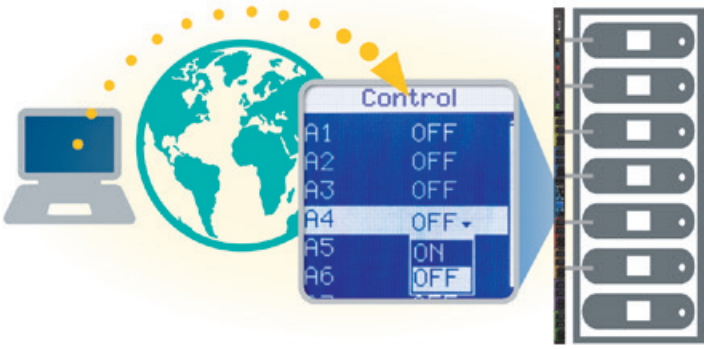
PUE measurement	Level 1: Basic	Level 2: Intermediate	Level 3: Advanced
IT equipment energy	UPS outputs	PDU outputs	IT equipment input
Total facility energy	Utility inputs	Utility inputs	Utility inputs
Measurement intervals	Monthly/weekly	Daily / hourly	Continuous (15 minutes or less)

To obtain Level 3 PUE, you must take measurements at the IT equipment level in intervals of at least 15 minutes.

Maximize control

Remote site management

- Manage ePDU G3s using a web browser or via SNMP integration into DCIM or monitoring software,like Eaton's Intelligent Power Manager (IPM) or Visual Power Manager (VPM)
- Simplify management by using the daisy-chain capability to manage up to eight ePDU G3s with a single IP address
- Avoid costly site visits by remotely rebooting and monitoring the site, allowing more time to manage other critical tasks



Network-ready 1U ePDU G3

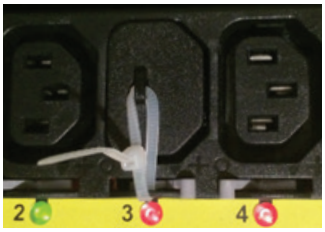
Outlet switching

- Remotely control devices by powering on or off individual outlets
- Save time and operating costs by rebooting machines from your control center, avoiding costly site visits

Turn off unused outlets

- Secure and protect your environment by easily turning off unused outlets
- Avoid overloading your system from others plugging in unauthorized devices

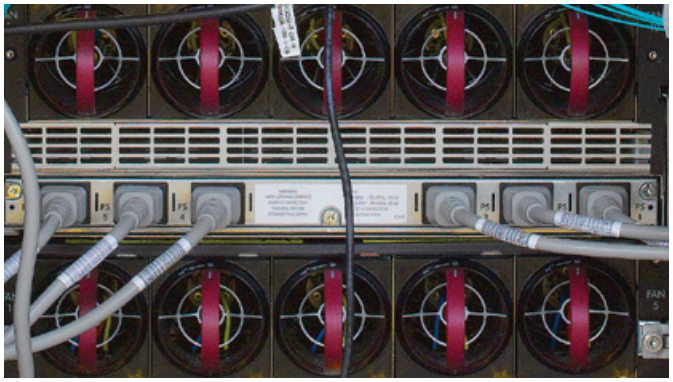
Green LED signifies power on and red is power off to outlet



Cap secures in place with cable tie

Grouped reboot for A and B feed

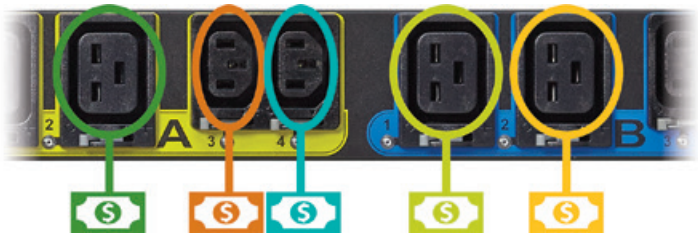
When connecting multiple source input servers to an A and B feed power source, the daisy-chain capability allows you to group power supplies across the rack PDU. As a result, all power supplies are controlled with a single action, which saves time rebooting servers with two to six power supplies.



Typical server with multiple power inputs powered by two ePDUs

Perform department and customer billing

Metering at the outlet level provides customer-level energy tracking and turns power billing into a revenue stream that considers actual usage. Similarly, you can measure power usage per application and assign it to specific departments for budgeting purposes or to justify costs.



Each outlet can be billed separately

Manage network-connected rack PDUs

Visual Power Manager displays real-time heat map and dash board data

Remotely monitor any time from anywhere

Eaton network-connected ePDUs allow you to view and manage your equipment remotely instead of being physically present in your server room or data center. For smaller environments, you can utilize the built-in web server and email alert capability to connect using a standard web browser.

For a more sophisticated approach, Eaton PDUs integrate smoothly with Eaton's Intelligent Power Manager (IPM), Visual Power Manager (VPM) and Visual Capacity Optimization Manager (VCOM) software platforms, giving you the tools needed to monitor and manage the power in your physical or virtual environment.

IPM is optimized to help automate your virtual environment to ensure system uptime and is fully compatible with the industry's leading virtualization platforms, including VMware, Microsoft and Citrix.

VPM, ideal for large rack PDU installations and large distributed power infrastructures, is a robust monitoring tool that displays a live data center map view for a visual, up-to-the-minute health status and delivers intelligent reports, keeping you completely informed of the status of your environment.

VCOM builds on the feature set of VPM and combines data monitoring and management for a complete and centralized DCIM software solution to manage asset data including facility, IT and security.

Software	Number of devices supported	Software type	Application	Cost
Web browser / email alerts	1–2	Embedded Web server	Data closet or small network	Included
Eaton IPM	1–200	Server based / Web interface	Small-to-medium enterprise	Free up to 10 nodes
Third-party DCIM	50–1,000	Varies / SNMP data to third party	Medium-to-large enterprise	Varies
Eaton Foreseer	100–1,000	Server based / Web interface	Facility or large enterprise	Varies by size
Eaton VPM	200–50,000+	Server based / Web interface	Facility or large enterprise	Varies by size
Eaton VCOM	200–50,000+	Server based / Web interface	Facility or large enterprise	Varies by size

Validated alliance solution provider

Eaton is the leader in virtualized power management and differentiates itself by having over 500 hours invested in validation testing with our network of alliance partners. Focused on building our integration and alliance partnerships, we've done the heavy lifting by validating our power management offering on the industry's leading IT platforms to increase efficiency and reliability.

Accessories

Eaton RE Enclosure

Whether you have a network closet, server room or multi-tenant data center, the new Eaton RE Enclosure provides an easy-to-configure solution for IT equipment storage. RE features tool-less configuration, optimized mounting for power distribution, flexible cable management solutions and security provisions.

RE Enclosure is made for ePDU G3

Today's increasing power densities require flexible rack PDU mounting and cable management solutions. The RE Enclosure provides:

- Multiple rack PDU mounting options allowing for easy out-of-the-box installation for rack PDUs
- Cable pathways at the top and bottom of the enclosure to accommodate large connectors and cable loops
- Tool-less rack PDU mounting brackets with integrated cable management

Environmental monitoring

The optional environmental monitoring probe connects to the serial port and enables you to collect temperature and humidity readings in the rack environment to monitor environmental data remotely. You can also monitor the status of two contact closure devices, such as door switches.

Part #	Description
EMPDT1H1C2	Environmental monitoring probe Gen 2*

*The EMPDT1H1C2 environmental monitoring probe is compatible with the Network-M2 and Eaton rack PDUs including G3 (firmware 4.x or later) and G3HD.

Daisy chain sensors

Daisy chain up to 3 sensors per rack PDU to get more environmental data from your rack. Each sensor has 1 temperature probe, 1 humidity probe and 2 dry contacts.

G3 PDU List

		Basic	Metered Input	Metered Outlet	Switched	Managed
Basic features	Outlets with **dual built-in security mechanism** eGrip & P-Lock	√	√	√	√	√
	Colour-coded outlet and branch circuits for simple load balancing	√	√	√	√	√
	60°C Operating temperature	√	√	√	√	√
	Universal rack **mounting system** (button & clip feet)	√	√	√	√	√
	Alternating phase per sections (available on 3Phase 32A PDU)	√	√			√
Standard features	**Hot-Swap Control module** with **Advanced LCD** + Optional **Temp/Humidity sensor**		√	√	√	√
	±1% IEC Class 1 Billing Grade Accuracy for V, W, A and kWh & Cisco **EnergyWise** compliant		√	√	√	√
	Phase Metering, **Circuit Breaker** Current Metering and **Input** Metering		√	√	√	√
	Daisy-Chain up to 8 ePDUs, reduce network infratsructure costs		√	√	√	√
	Power chain monitoring & Real time Intelligence on your Data Center, via Eaton and advanced action on **virtual environement** via **Eaton IPM Edition**		√	√	√	√
	Protocols & standards HTTPS, SSL, Telnet, FTP, SNMP, SMTP, DHCP, LDAP, RADIUS, DHCP 66/67 for Mass Configuration		√	√	√	√
Advanced features	Circuit Breaker Status Monitoring			√	√	√
	Outlet and IT Equipment Metering across A and B feed			√		√
	Level 3 PUE measurements			√		√
	Turn off unused outlets to control commissioning				√	√
	Outlet and IT Equipment **Switching/reboot /sequencing** across A and B feed				√	√

	Input Type / Rating (A)	Outlet type: Qty	Breakers	Nominal Power	Catalog #	Dimensions L x W x D, mm		Metered Input p/n	Dimensions L x W x D, mm	Catalog #	Dimensions L x W x D, mm	Catalog #	Dimensions L x W x D, mm	Catalog #	Dimensions L x W x D, mm
1 Phase	C14 10A	8xC13		2.3kW	EBAB02	443x19"x53	1U	EMIH02	1Ux19"x203						
		12xC13		2.3kW	EBAB19	443x19"x53									
		16xC13		2.3kW	EBAB03	704x52x53		EMIB03	1070x52x53			ESWB03	1154x52x53	EMAB03	1154x52x53
	C20 16A	16xC13		3.7kW	EBAB21	704x52x53									
		8xC13		3.7kW			1U	EMI07G-E	1Ux19"x203			1U ESWH28	1Ux19"x203	1U EMA07G-E	1Ux19"x203
		20xC13: 4xC19		3.7kW	EBAB22	1070x52x53		EMIB22	1070x52x53	EMOB22	1604x52x53	ESWB22	1604x52x53	EMAB22	1604x52x53
		18xC13:2xC19		3.7kW				EMI01G-E	902x52x53					EMA03G-E	1604x52x53
	IEC60309 16A	20xC13 : 4xC19		3.7kW	EBAB04	1070x52x53		EMIB04	1070x52x53			ESWB04	1604x52x53	EMAB04	1604x52x53
	IEC60309 32A	12xC13 : 4xC19	2 single pole	7,4kW				EMIB06	1070x52x53						
							2U	EMIH06	2Ux19"x127					2U EMAH06	2Ux19"x225
		20xC13 : 4xC19	2 single pole	7.4kW	EBAB05	1070x52x53		EMIB05	1154x52x53	EMOB05	1604x52x53	ESWB05	1604x52x53	EMAB05/ EMA04G-E	1604x52x53
		28xC13 : 4xC19	2 single pole	7.4kW										EMAB71	1829x52x53
		36xC13 : 6xC19	2 single pole	7.4kW	EBAB08	1604x52x53		EMIB08/ EMI02G-E	1604x52x53						
3 Phase	IEC60309 16A	21xC13 : 3xC19		11kW	EBAB20	1070x52x53		EMIB20	1070x52x53	EMOB20	1604x52x53	ESWB20	1604x52x53	EMAB20	1604x52x53
		36xC13 : 6xC19		11kW	EBAB00	1604x52x53		EMIB00	1829x52x53						
	IEC60309 32A Alternating phase per section	3xC13 : 6xC19	6 single pole	22kW	EBAB01	704x52x53									
		6xC13 : 12xC19	6 single pole	22kW				EMIB07	1604x52x53						
		18xC13 : 6xC19	6 single pole	22kW										EMAB33	1829x52x65
		12xC13 : 12xC19	6 single pole	22kW				EMIB12	1604x52x53					EMAB12	1829x52x65
		24xC13 : 6xC19	6 single pole	22kW	EBAB32	1154x52x53		EMIB32	1604x52x53						
		30xC13 : 12xC19	6 single pole	22kW				EMIB34	1829x52x65						

Green marked SKU are made in Eaton APAC plant with better L/T for APAC countries.

Powering Business Worldwide

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