CPI

CHATSWORTH
PRODUCTS

Protecting
your technology
investment.

Power Management Solutions

Burdened with complexity and inefficiency across your operations?

As the Internet of Everything (IoE) and Industry 4.0 push networks to the edge for improved latency and faster processing, power demands in the data center become more complex. And with more processing being done at the cabinet, it's become imperative to devise a cabinet power distribution strategy that reaches the highest levels of availability and efficiency while minimizing management overhead.

Now, more than ever, operators of enterprise data centers, colocation facilities and information and communications technology (ICT) equipment rooms should look to a total power management solutions provider—and partner— who can help develop a strategy and offer a wide breadth of effective power management solutions and technologies to support their availability goals.

With a proven track record of providing innovative power solutions for nearly 30 years, look no further than Chatsworth Products (CPI).

1992
One year after being formed, CPI introduces a power product line to its offering.

2009
CPI acquires Epicenter. With the integration of Epicenter's technology and power expertise, CPI further addresses customer needs with one of the most comprehensive data center power hardware and software solutions in the market.

2012
CPI introduces eConnect® PDUs as a new generation of power management solutions for enterprise data centers, featuring the highest ambient temperature rating in the industry.

Uncertain about the best path to effective power management?

Rack power distribution units (PDUs) represent the last leg in the power chain. So, before you develop your power management strategy, you'll want to understand the benefits of monitoring and measuring down to the device level. This will help ensure you make the right decision about which PDU functionality you need—from levels of security, to thresholds and alerts, outlet-level monitoring and more.

CPI will be with you every step of the way.

At the inception of a project, you'll have access to a team of power solution experts who will work alongside you to understand your unique facility and application needs. They'll help you realize the benefits of CPI's expansive power management portfolio—from power strips to PDUs and Data Center Infrastructure Management (DCIM) software—and offer key considerations as you prepare to make a choice. Meaning, when it's time, you'll be ready to choose and be confident in your selection.

"It's nice to have a single-vendor solution, so we don't have to worry about someone else's PDU fitting and the compatibility with the cabinet. It's a good package to go along with the cabinet."

Robert Carneim, PhD, Supervisor of Instructional Technology at Oak Ridge Schools

2019
CPI opens a new facility—the Electronics & Software Technology Center—in Round Rock, Texas, focused on technology development, customization and production of the eConnect line of intelligent power management solutions.

2020
CPI launches major enhancements of its next-generation eConnect PDUs, featuring Redundancy Packs, phase-balance outlets and IP consolidation of up to 48 PDUs.
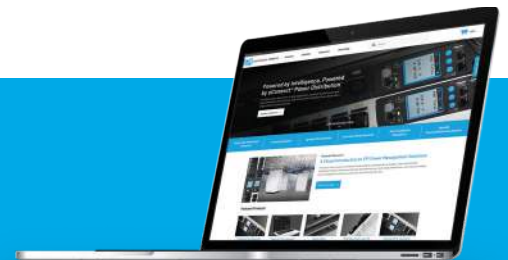
Take advantage of CPI's power expertise and innovation.

Find out more at chatsworth.com/power.

eConnect® PDUs are the answer.

CPI's intelligent eConnect® PDUs—available in over 350 standard configurations—provide users with a variety of high-performance features and benefits that can help solve application needs from big to small, low to high density and in traditional or nontraditional environments.

No other PDU offers the broad application versatility of CPI's eConnect PDUs. Designed to simplify deployment, installation and service, eConnect PDUs have helped to power and protect ICT equipment in countless applications and sites thanks to CPI's industrywide high performance and reliability.

Achieve high availability.
Find out how you can increase availability and get a high return on investment with enhanced performance and reliable operation.

See page 6 for details.

Efficiently distribute power and security.
Learn how you can quickly apply the efficiency and security of CPI eConnect PDUs to many different applications within your operation.

See page 8 for details.

Intelligent PDUs empower you to:

- Prevent failures
- Ensure failover capacity
- Maximize utilization
- Identify underutilized ICT equipment
- Reduce time spent monitoring and reporting for proof of SLAs and metrics
- Collect data for future machine learning toward facility artificial intelligence and automation

"I think what separates Chatsworth from most other manufacturers is they can engineer it, design it, build it."

Steve McAllister, Network Administrator
Orlando Health

Reduce the complexity of deploying, installing and servicing.
Discover how to simplify management and service, resulting in savings that go right to your bottom line.

See page 10 for details.

Easily select the right PDU for your application.
Your CPI sales representative has the expertise to help you select the best model to achieve your business goals.

See page 12 for details.

Make better, faster decisions.
Additional testing and technology add another layer of performance, intelligence and analytics to your physical infrastructure.

See page 13 for details.

Increase Availability with Value-Added Features

Power management within your data center—and down to the cabinet level—is critical to ensure availability of all ICT applications and gather the granular data needed to ensure your equipment is operating at its best capacity. Keeping your ICT systems up and running reliably is what keeps you and your customers competitive. Simply put, availability is everything in your data center.

CPI PDUs are designed with functionality and features that help ensure increased efficiency and high availability in your facility. They are engineered to reliably protect your ICT equipment and improve productivity—even in the highest density environments.

Maximize Operations in High Temperatures

CPI's industry-leading ambient air temperature rating of up to 149°F (65°C) protects equipment and ensures reliable operation, particularly in hot aisles and high-density environments. Integrated environmental monitoring helps identify hot spots within the cabinets.

Prevent Accidental Disconnections

Low-profile locking outlets prevent accidental disconnections and keep ICT loads secured without the use of special power cords, which reduces installation costs.

Simplify Load Balance

Phase-balance outlets on three-phase models ensure equal loading across all phases and allows the use of shorter equipment power cords for easier airflow management.

Billing-Grade Power Measurement

Get continuous voltage, current, power (kW), power factor and energy (kWh) monitoring at each branch (breaker) or phase on the unit with +/- 1% accuracy, ensuring the breakers on or upstream of the PDU won't exceed capacity.

Minimize Equipment Downtime

Switched and Switched Pro eConnect PDUs enable you to remotely control power to individual outlets or groups, minimizing disruptions created by hung-up ICT equipment and letting administrators have full control of outlet provisioning.

Reliable Overcurrent Protection

eConnect PDUs utilize 100% rated UL® 489 listed slim-profile hydraulic magnetic breakers that minimize nuisance tripping due to temperature variations and minor overloads. All 415V three-phase configurations utilize 10k AIC breakers and can handle higher fault currents seen within those environments.

Improve Compliance

All eConnect PDUs are tested to UL/IEC 62368, the latest standard for ICT equipment expected to be mandated in several countries in 2020. All PDUs ship with the UL and CE mark, allowing standardization of SKUs across global sites.

Prevent Impending Equipment Disruptions

The ability to set warning and critical thresholds for power and environmental parameters alerts data center operators of impending problems that could create downtime. Notifications can be sent as emails or SNMP traps.

Simplify Serviceability

The field-replaceable controller can be easily replaced while the loads continue to be powered up. A removable SD card allows all PDU configurations to be transferred to the new controller.

eConnect users have the ability to remotely monitor and manage their power using a variety of intuitive, online dashboards and tools.

Increase Efficiency with Value-Added Features

Achieving improved efficiency may seem quite elusive when it comes to determining how a power management solution can help. The PDU you select will play a large part in managing and controlling energy consumption in your facility and in your applications.

When you prepare to evaluate and select a PDU, you'll find that CPI PDUs offer energy-saving features that help ensure you're able to distribute power efficiently—meaning you'll realize reduced operating costs and improved reliability.

Know Equipment Utilization

Monitored Pro and Switched Pro eConnect models provide monitoring of power parameters down to the outlet level. The granular level of visibility allows data center operators to identify ghost servers and helps provide justification to replace high power-consuming devices with next-generation equipment.

Improve Billing Accuracy

Exact power measurement is a key benefit for determining precise per-customer and per-equipment power usage at colocation and high-density facilities. eConnect PDUs offer kW readings with +/-1% accuracy and improve billing grade accuracy so service providers bill customers based on their actual energy usage.

Minimize Power Consumption

The Switched and Switched Pro eConnect models utilize bi-stable relays for recycling power to the outlets. These relays do not draw any power during normal operation, helping maintain PDU efficiency levels. These relays also allow outlets to maintain state after a power event while ensuring that basic power distribution to an outlet does not get compromised.

Enhance Security with Value-Added Features

Security is not just a top concern, it's a requirement for your business. And, in the future, as ICT systems and equipment continue to be placed in colocation facilities or remote sites, the need for enhanced security will continue to increase. In a networked world, securing personal and business data from theft has become an issue of paramount importance. Industries that exchange highly secure information, such as the financial and health care sectors, have to abide by strict regulatory and compliance regulations. These regulations mandate that organizations must limit physical access to information equipment to authorized individuals.

CPI PDUs enable enhanced security through features that ensure access to ICT equipment within cabinets and the PDU itself.

Simplify Cabinet-Level Security

Integration of electronic locks simplifies deployment of physical security at the cabinet level. Door locks are powered and managed through the same PDU interface, minimizing cabling infrastructure required to deploy electronic locks and they put control of cabinet-level security in the hands of IT. Logging of all successful and failed access attempts allows organizations to better comply with security requirements dictated by PCI, HIPPA, FISMA, etc.

Ensure Enterprise Authentication and Secure Communication

LDAP and RADIUS compatibility ensures integration into enterprise authentication protocols most commonly used by IT groups. Support for SNMPv1, v2 and v3 allows encryption of data communicated between the PDU and other applications. Support for HTTPs with the ability to load a custom certificate allows for secure communication between the PDU and a web browser.
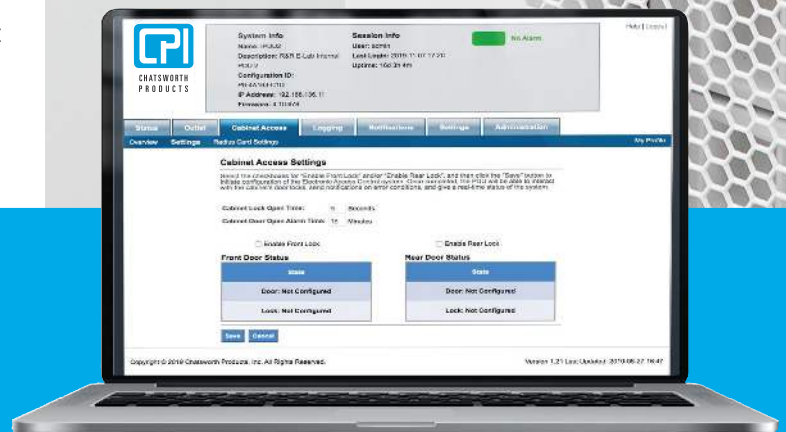
Improve Your Time to Deployment—and Prepare for the Future, Today with Short Lead Times, Preinstallation and More

Because most enterprise and colocation data centers typically deploy several hundreds of cabinets, each housing at least two PDUs for failover support, selecting the right PDU is critical to your capital and operational expenditures—and can be a primary factor in getting your business—and your customer's business—up and running quickly.

CPI offers preinstallation of PDUs into your cabinets, and with an industry-leading 10-business-day lead-time, that means you'll quickly receive your cabinet and be ready to deploy equipment upon its arrival at your facility.

Reduce Networking Costs and Complexity
With the use of Secure Array® IP Consolidation*, you can link up to 48 devices under a single IP address using standard Ethernet cables, reducing networking costs up to 90%.

Reduce Total Deployment Costs
By integrating power management, environmental monitoring and cabinet access control under a single network connection, one user interface and one user database, you will have dramatically reduced deployment costs.

Optimize Firmware Upgrades
Flash-upgradeable firmware can be installed through USB ports, web interface, Application Programming Interfaces (APIs), Command Line Interface (CLI) or through Power IQ® (PIQ) for eConnect Software.

Reduce Initial Setup Complexity
Tool-less mounting capability enables quick and easy deployment of PDUs within CPI or third-party cabinet solutions. An easy-to-read LCD display with accelerometer automatically determines the text orientation and makes it easy to complete initial IP setup.

Simplify Identification of Failover Unit
CPI's unprecedented Redundancy Pack includes two PDUs—one black and one Glacier White—to ensure easy identification of the primary and secondary unit—all under one standard part number for easy ordering.

Ensure Compliance Today—and in the Future
Gigabit Ethernet capability ensures compatibility with enterprise routers and switches, and IPv6 compatibility ensures support in large networks. In addition, eConnect PDUs meet UL/IEC 62368, the latest standard for ICT equipment.

Take Advantage of Customization
Not every application is made equal. CPI PDUs can be customized to meet your needs. Custom capabilities include outlet configurations, color options, power cord plug and length, input connection, mounting method and more.

Reduce Lead Times
PDUs are manufactured in the United States and can be shipped separately or preinstalled in CPI cabinets all over the world with a lead-time of 10 business days.

PROUDLY MADE IN AMERICA
with Globally Sourced Components

Simplify Your Management with Value-Added Features

Focusing on the health of your data center means focusing on completing daily tasks that ensure your availability.

Understand the Operating Conditions of Your Equipment

Hot spots within cabinets are a common cause for equipment downtime. Environmental sensors can be added to eConnect PDUs to monitor conditions at each cabinet (rack). Management through a common interface minimizes complexity and application maintenance costs.

Simplify Ongoing Management

A common web interface spans the entire Secure Array, making it easy to clone configuration parameters from one PDU to the rest in the array.

Integrate with Power IQ for eConnect Software

Power IQ (PIQ) for eConnect Software provides a centralized solution for configuring, managing and reporting on data collected from the entire PDU deployment across one or more data centers. Native support for eConnect and Secure Array IP Consolidation makes the integration plug-and-play.

Streamline Equipment and Software Integration

eConnect PDUs support SNMPv1, v2 and v3, RESTFul API as well as CLI. This allows multiple ways to integrate the PDUs into any third-party applications. APIs and CLI can also be used for bulk configuration changes and mass firmware upgrades.
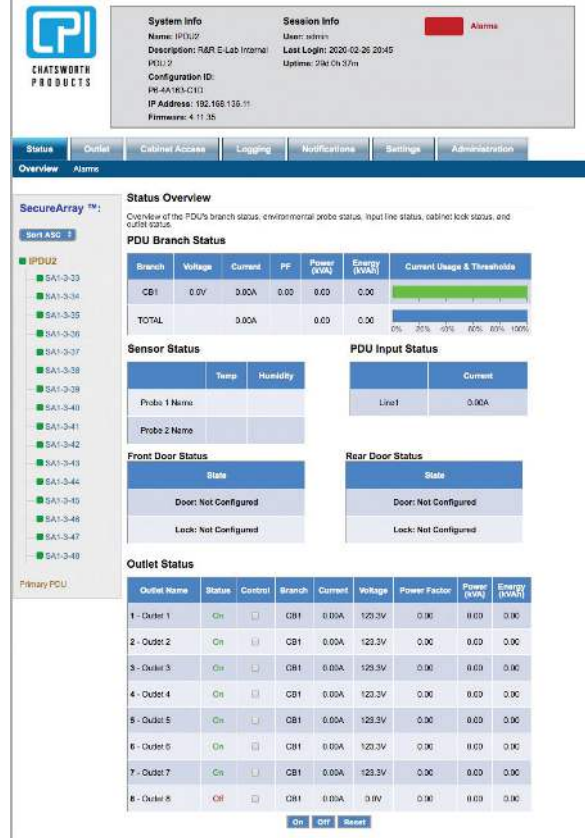
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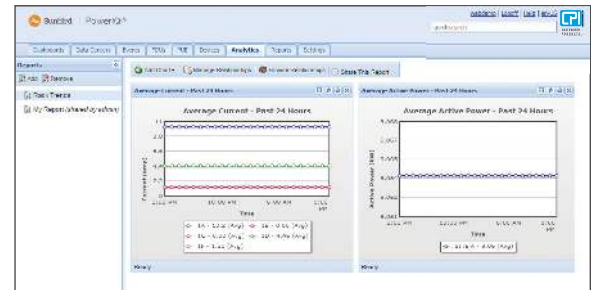
Power IQ Analytics Screen

PDU Selection Guide

The first step when selecting a rack PDU is to identify the level of functionality. The chart below summarizes the monitoring and control differences.

eConnect Model	Basic Power Distribution	Inlet Metering	Branch Circuit Metering	Remote Access	Access Control	Outlet Metering	Switched Outlets
Basic	✓						
Metered	✓	✓					
Monitored	✓	✓	✓	✓	✓		
Monitored Pro	✓	✓	✓	✓	✓	✓	
Switched	✓	✓	✓	✓	✓		✓
Switched Pro	✓	✓	✓	✓	✓	✓	✓

Need Even Greater Flexibility?

CPI also offers eConnect PDUs in 1U configurations with up to 12 outlets, and 2U configurations with up to 24 outlets. Horizontal PDUs are ideal for networking and edge applications, as well as within data centers where cabinet depth limits the space for vertical PDU installation. Horizontal PDUs feature all of the innovative capabilities of CPI's vertical eConnect PDUs, including 19-inch EIA mounting brackets for easy installation.

PDU Selection Made Easy

The second step is to choose a unit with the correct electrical specification. PDU selection is made easy with CPI's Power Selector, a free and easy-to-use online software available on selectapdu.com. The Power Selector enables you to select the best power product for your application by narrowing down options based on your requirements. After you're done comparing, you can email or print the results. Visit selectapdu.com to access the Power Selector.
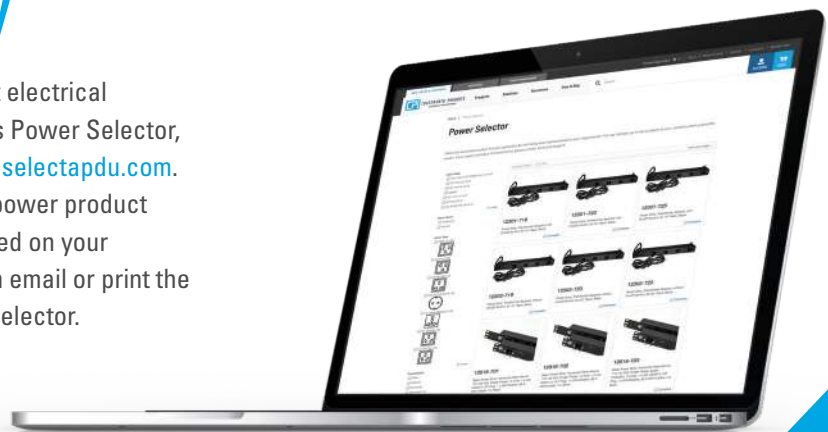
Need to make quicker and more educated decisions?

Once intelligent PDUs are in place, you can centralize monitoring and automate reporting with a DCIM software like Power IQ (PIQ) for eConnect. PIQ is a data center energy, power, environmental and access control monitoring software that adds yet another layer of intelligence and analytics to your physical infrastructure, creating a smarter data center environment that has the ability to deliver substantial cost savings while improving the delivery of critical business applications.

Through simple, intuitive and user-configurable screens and dashboards, PIQ collects data and turns it into actionable information that enables you to make informed decisions and proactively prevent downtime.

Features and benefits:

- Centrally manages and controls CPI eConnect PDUs and intelligent assets
- Fully supports Secure Array technology, allowing for significant savings on PDU networking costs
- Maintains centralized authentication, access and auditing of all equipment and ensures regulatory compliance with HIPAA, PCI DSS, FIMSA and EU directives
- Utilizes power and cooling resources efficiently to improve Power Usage Effectiveness (PUE)
- Monitors overall data center health to prevent costly unplanned downtime

Data Center Health Map

Visit chatsworth.com/management-software to learn more.

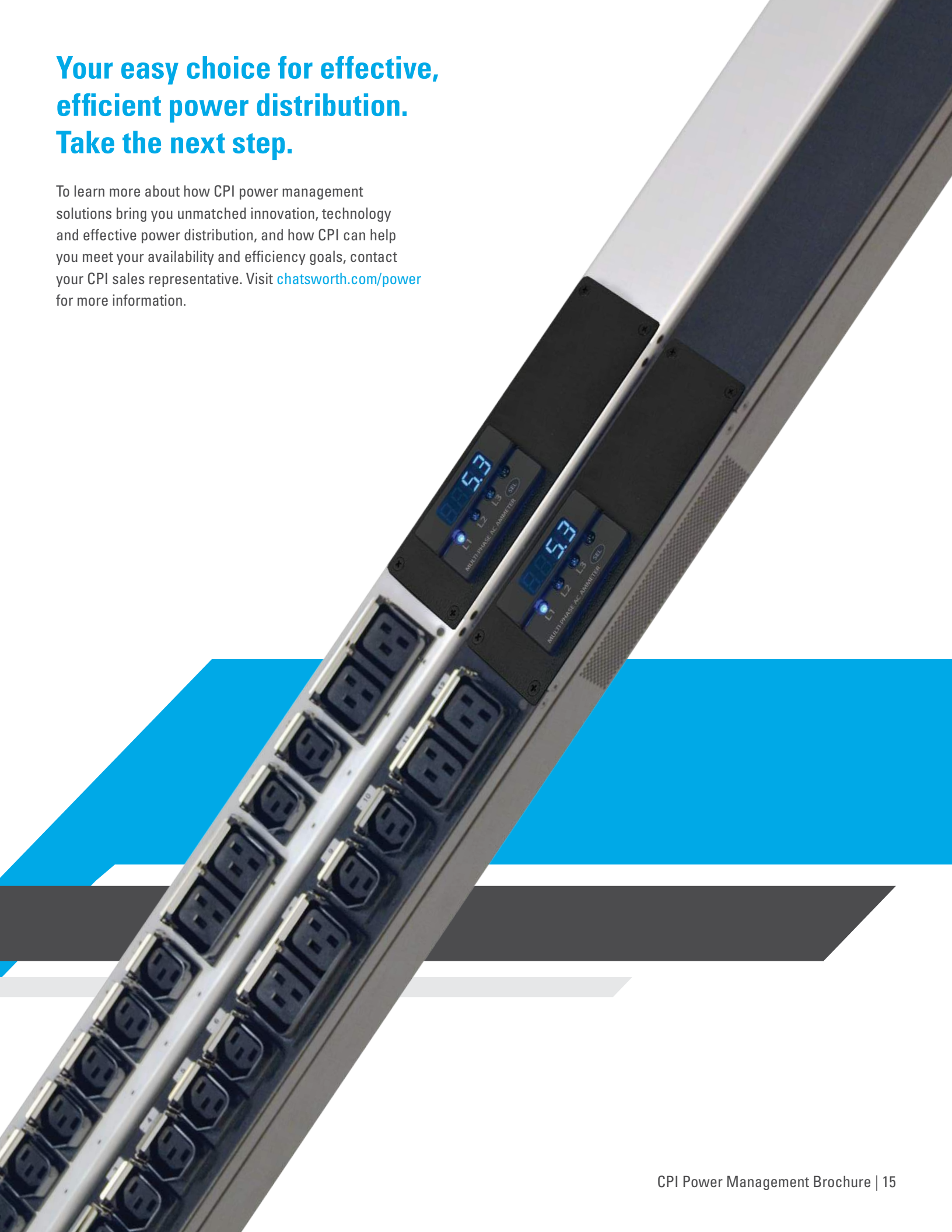# Low-density application? You're covered.

If your application doesn't require an intelligent or basic eConnect PDU, but you still need dependable power distribution, look to CPI Power Strips, which offer low-density power distribution with optional surge protection and local metering capabilities, available in vertical and horizontal configurations.

CPI Power Strips are available in two distinct functionalities, Basic and Metered, and offer a mix of the following features:

- Horizontal rack-mount configurations use only 1U of rack-mount space

- Vertical configurations attach next to rack-mount space

- Vertical power strips feature tool-less mounting, and include tool-less installation hardware spaced to match the mounting brackets in CPI cabinets

- On Metered units, the digital ammeter with LED screen displays the amount of current drawn by equipment, making it easier to judge the remaining power available from each power strip

- Select models include surge protection, which limits input voltage during sudden changes in utility power conditions

- Thermal circuit breakers limit input current to protect connected equipment

- Models with country-specific plugs available

Your easy choice for effective, efficient power distribution. Take the next step.

To learn more about how CPI power management solutions bring you unmatched innovation, technology and effective power distribution, and how CPI can help you meet your availability and efficiency goals, contact your CPI sales representative. Visit chatsworth.com/power for more information.

Manufacturing Capability and Global Availability

Headquartered in the United States, CPI operates from multiple sites worldwide, including offices in Mexico, Canada, China, the Middle East and the United Kingdom. CPI's manufacturing facilities are located in the United States, Asia and Europe.

Standard products are readily available through a global network of industry-leading distributors. With stock availability, and CPI's consistently short factory lead times, you can be assured that CPI solutions will be accessible to meet your project scheduling needs.

How to Buy

CPI sales are conducted in partnership with a network of electrical distributors and industrial sales representatives that specialize in control automation, electrification and instrumentation. Visit chatsworth.com/power to find quick links for your buying preference.

About CPI

CPI, a 100% employee-owned company, was founded in June 1991, when 90 workers joined together and purchased the Dracon Division of Harris Corporation using an Employee Stock Ownership Plan (ESOP). Employee ownership is central to the success of CPI. Employee owners are committed to a philosophy of quality through teamwork, caring and commitment, which are extended to customers through our solutions and services.

CPI CHATSWORTH PRODUCTS