# Switched eConnect® PDUs



Reduced Networking Costs and Complexity – Secure Array® allows the use of a single IP address for up to 48 connected PDUs (32 when electronic locks are integrated). Second IP address for the

entire array provides failover capability



## **Resistance to High Temperature** – Market-leading temperature ratings of up to 149°F (65°C) ensures reliability when mounted toward hot aisles



**Simplified Load Balancing** – Phase-balance outlets on three-phase models ensure equal loading across all phases; allows use of shorter equipment power cords for better cable and airflow management



No Accidental Disconnections – Patented, low-profile locking outlets prevent accidental disconnections without requiring special cords



## Easy Identification of Failover Unit – Redundancy Pack includes 2 PDUs (one in Black and one in Glacier White) for easy identification of the primary and secondary unit



**Electronic Lock Integration** – Patented technology seamlessly integrates PDU, environmental sensors and electronic locks into a single hardware and software solution



**Gigabit Ethernet** – Ensures compatibility with enterprise routers and switches



**Latest UL Compliance** – Meets UL and IEC 62368 for compliance with new listing requirements for North America and the European Union



**Cabinet Preinstallation** – Complete ecosystem ships ready for IT equipment integration, and saves deployment time and reduces packaging waste.

Switched eConnect<sup>®</sup> PDUs provide remote monitoring of power at the rack level and individual outlet control, making it possible to remotely turn power on or off at each outlet.



## Additional Features:

- PDU monitoring and individual outlet switching; outlet grouping
- Field-replaceable controller module for easy serviceability and upgradeability while maintaining power to critical loads; SD-card transfers PDU configuration
- Bistable latching relays for reduced energy consumption and increased service reliability
- Input and branch circuit monitoring with billing-grade +/-1% accuracy
- Onboard GUI, RESTful API, SNMP v1/v2/v3, Command Line Interface (CLI), and native Power IQ® DCIM software integration allows users to easily manage PDUs
- Zero Touch Provisioning (ZTP) automates configuration and provisioning of large deployments of PDUs.
- HTTPs support, RADIUS and LDAP integration for enhanced authentication and security
- Customization capabilities: outlet configurations, color options, power cord length, input connection types and more
- Made in the United States, TAA-compliant



#### **Global Availability**

**United States** Simi Valley, CA 800-834-4969

Canada Toronto, Ontario, Canac +905-850-7770 Europe Buckinghamshire, Uł +441628 524834 Middle East & Africa Dubai, UAE +971-4-2602125

Doha, Qatar +974-4-267422

#### Latin America Mexico City +52-55-5203-7525 Toll Free within Mexico 800-201-7592 chatsworth.com.co

Asia Pacific Shanghai +86 21 6880-0266 chatsworth.com.cn



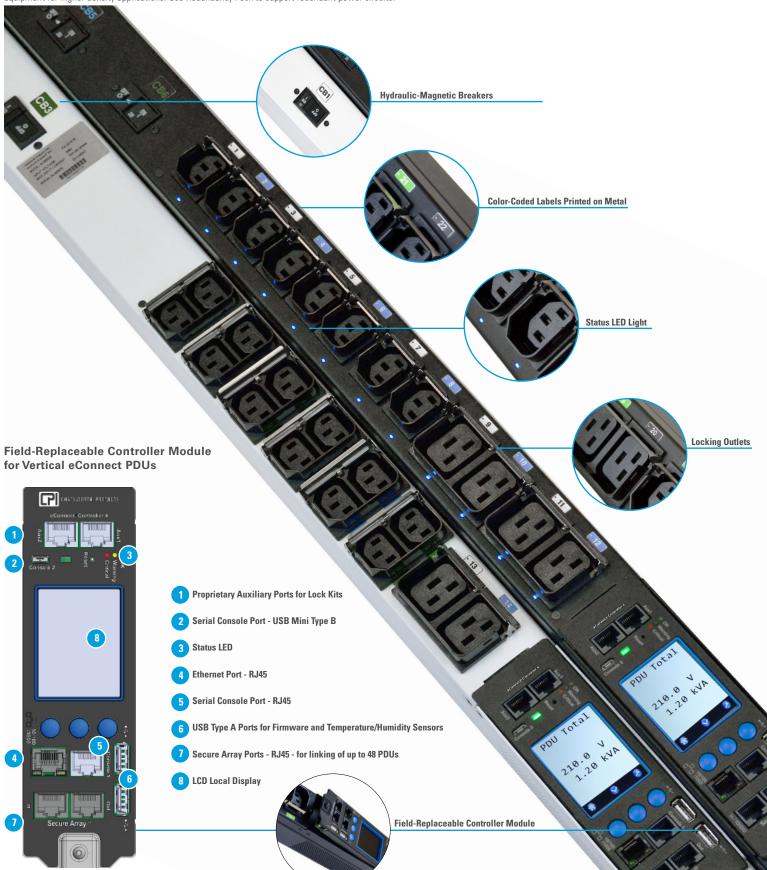
chatsworth.com • techsupport@chatsworth.com

### SPECIFICATIONS

| Description:          | Single-input, vertical rack-mount PDUs   |
|-----------------------|--|
| Use:                  | For indoor use in environmentally controlled areas or within environmental enclosures that maintain Operating Conditions (listed below)  |
| Power Input:          | • Alternating current, 50/60 Hz, 10' (3 m) input power cord  |
|                       | Voltage, maximum current, and inlet/plug type varies per model (see ordering table)  |
| Power Capacity:       | Specific to PDU, limited by circuit breakers or power input (see ordering table)   |
| Power Output:         | NEMA 5-20R, Locking IEC C13 and/or IEC C19 Outlets, specific to PDU with up to 36 outlets (see order table)  |
|                       | UL 489 listed, single- or two-pole, hydraulic-magnetic breakers available on single- and three-phase models  |
| Circuit Protection:   | with 30A and above input   |
|                       | <ul> <li>10kAIC breakers on 220-240/380-415 VAC models; 5kAIC for all other models</li> <li>Low-profile design prevents accidental discharge</li> </ul>  |
|                       | Input line currents  |
|                       | Voltage, current, power, energy and power factor at branch circuit   |
| Metering:             | • +/- 1% billing-grade   |
|                       | Outlet grouping for power charge back reports  |
|                       | <ul> <li>Ability to turn on/off and cycle power to individual or group of outlets using bistable latching relays</li> </ul>  |
| Switching:            | <ul> <li>Ability to name individual outlets to identify attached equipment</li> </ul>  |
|                       | Status indicator LED light for individual outlets  |
|                       | Liquid Crystal Display (LCD) with power-on autotext orientation, color   |
| Local Display:        | <ul> <li>Provides PDU information; allows initial IP setup, restore defaults and upgrade firmware</li> <li>Displays voltage, current, power for input lines and breakers</li> </ul>                        |
| Lucai Display.        | <ul> <li>Displays voltage, current, power for input lines and breakers</li> <li>Displays temperature and humidity when optional environmental sensor (P/N 14665-001) is attached to the PDU</li> </ul>     |
|                       | <ul> <li>Displays temperature and numberly when optional environmental sensor (1/N 14003-001) is attached to the 1 DO</li> <li>Displays alarm notifications – separate LED flashes red on alarm</li> </ul> |
|                       | • 10/100/1000MB Ethernet Port  |
| NL ( 11               | <ul> <li>Secure Array IP Consolidation for up to 48 PDUs with no integrated electronic locks or 32 PDUs with integrated electronic locks</li> </ul>  |
| Networking:           | Secure Array IP Consolidation supports alternate/failover network connection through a second PDU  |
|                       | <ul> <li>Static IP and Dynamic Host Configuration Protocol (DHCP) Support, Zero Touch Provisioning (ZTP)</li> </ul>  |
|                       | HTTP/HTTPs compatible onboard Web GUI, SNMP v1/v2/v3; RESTful API, CLI   |
|                       | Native Software Integration:   |
| Remote Management:    | - Sunbird Power IQ® DCIM and dcTrack DCIM<br>- ZPE Systems Nodegrid Manager™   |
|                       | - RF Code Centerscape Software   |
|                       | - Niyte DCIM   |
| Console Access:       | Through serial console port connection and Command Line Interface (CLI)  |
|                       | LDAP and Radius Authentication   |
|                       | Password protection  |
| Security:             | Separate user- and admin-level permissions   |
|                       | <ul> <li>Ability to upload custom HTTPs certificate</li> </ul>   |
|                       | Secure Shell (SSH)   |
| Controller:           | Field-replaceable controller module; SD-card transfers PDU configuration   |
| Firmware:             | Flash upgradeable through USB port, Web interface, CLI, API or Power IQ.   |
| Environmental Sensor  | Supports 2 temperature and humidity sensors  |
| Integration:          | USB Type A port  |
| Electronic Lock       | <ul> <li>Available on PDUs that have AUX ports on the field-replaceable controller module</li> <li>Front and rear cabinet door locks (ordered separately) connect to AUX ports on the PDU</li> </ul>       |
| Integration:          | <ul> <li>Door locks are powered from and remotely accessed through the PDU</li> </ul>  |
| Mounting:             | 2 preinstalled tool-less mounting buttons; adjustable positions / Top or bottom power cord entry orientation   |
| 0                     | Bonded power inlet/plug and external bond connection with a threaded M5 attachment point   |
| Grounding/Bonding:    | <ul> <li>Includes a bonding kit for CPI cabinets</li> </ul>  |
| 0 1 0 1               | Black or Glacier White   |
| Color Options:        | Redundancy Pack includes (1) Black PDU and (1) Glacier White PDU   |
|                       | • Temperature: -13°F – 149°F (-25°C – 65°C)  |
| Operating Conditions: | • Relative Humidity: 5% – 95%, noncondensing   |
|                       | • Elevation: 0 – 50,000' (0 – 15,000 m)  |
| Storage/Non-operating | • Temperature: -13°F – 149°F (-25°C – 65°C)  |
| Conditions:           | Relative Humidity: 5% – 95%, noncondensing   |
|                       | • Elevation: 0 – 50,000' (0 – 15,000 m)  |
| Shipping Weight:      | 27 lb (12 kg) single unit; 54 lb (24 kg) Redundancy Pack   |
| Certifications:       | UL/cUL/IEC62368, CE (EU), FCC Part 15, Class A, EN 55022, RoHS Compliant   |
| Warranty:             | 3 years standard with advanced replacement; 2 additional years optional  |

## VERTICAL CONFIGURATION

Use Vertical eConnect PDUs in data centers and equipment rooms with 42U or higher racks, cabinets and enclosures to provide power connections alongside equipment for higher-density applications. Use Redundancy Pack to support redundant power circuits.



### **ORDERING INFORMATION**

|           | Part Number    |                      |                   |                         |                                       |                                       |                         |
|-----------|----------------|----------------------|-------------------|-------------------------|---------------------------------------|---------------------------------------|-------------------------|
| Black*    | Glacier White* | Redundancy<br>Pack** | Input<br>Amperage | Input Plug              | Outlets                               | kW Capacity (UL)                      | Cabinet<br>Compatibilit |
|           |                |                      |                   | 120 Volt, Single-Phase  | e Input                               |                                       |                         |
| EA-5001-C | EA-5001-E      | EA-5001-CE           | 20A               | C20 Inlet to L5-20      | (24) 5-20                             | 1.9 kW                                | 42U & higher            |
| EA-5002-C | EA-5002-E      | EA-5002-CE           | 30A               | L5-30                   | (24) 5-20                             | 2.9 kW                                | 42U & higher            |
|           |                |                      | <u></u>           | 208 Volt, Single-Phase  | e Input                               | · · · · · · · · · · · · · · · · · · · |                         |
| EA-5069-C | EA-5069-E      | EA-5069-CE           | 20A               | C20 Inlet to L6-20      | (18) C13 + (6) C19                    | 3.3 kW                                | 42U & highe             |
| EA-5070-C | EA-5070-E      | EA-5070-CE           | 20A               | C20 Inlet to L6-20      | (24) C13                              | 3.3 kW                                | 42U & highe             |
| EA-5004-C | EA-5004-E      | EA-5004-CE           | 30A               | L6-30                   | (24) C13                              | 5 kW                                  | 42U & highe             |
| EA-5012-C | EA-5012-E      | EA-5012-CE           | 30A               | L6-30                   | (18) C13 + (6) C19                    | 5 kW                                  | 42U & highe             |
|           | ·              |                      | 12                | 0/208 Volt, Three-Phase | e Input***                            |                                       |                         |
| EA-5006-C | EA-5006-E      | EA-5006-CE           | 20A               | L21-20                  | (24) C13                              | 5.7 kW                                | 42U & highe             |
| EA-5014-C | EA-5014-E      | EA-5014-CE           | 20A               | L21-20                  | (18) C13 + (6) C19                    | 5.7 kW                                | 42U & highe             |
| EA-5025-C | EA-5025-E      | EA-5025-CE           | 20A               | L21-20                  | (18) C13 + (6) C19 Outlets + (3) 5-20 | 5.7 kW                                | 42U & highe             |
| EA-5007-C | EA-5007-E      | EA-5007-CE           | 30A               | L21-30                  | (24) C13                              | 8.6 kW                                | 42U & highe             |
| EA-5015-C | EA-5015-E      | EA-5015-CE           | 30A               | L21-30                  | (18) C13 + (6) C19                    | 8.6 kW                                | 42U & highe             |
| EA-5026-C | EA-5026-E      | EA-5026-CE           | 30A               | L21-30                  | (18) C13 + (6) C19 Outlets + (3) 5-20 | 8.6 kW                                | 42U & highe             |
| EA-5035-C | EA-5035-E      | EA-5035-CE           | 30A               | L21-30                  | (36) C13                              | 8.6 kW                                | 42U & highe             |
|           |                |                      |                   | 208 Volt, Three-Phase   | e Input                               |                                       |                         |
| EA-5005-C | EA-5005-E      | EA-5005-CE           | 30A               | L15-30                  | (24) C13                              | 8.6 kW                                | 42U & highe             |
| EA-5013-C | EA-5013-E      | EA-5013-CE           | 30A               | L15-30                  | (18) C13 + (6) C19                    | 8.6 kW                                | 42U & highe             |
| EA-5034-C | EA-5034-E      | EA-5034-CE           | 30A               | L15-30                  | (36) C13                              | 8.6 kW                                | 42U & highe             |
| EA-5016-C | EA-5016-E      | EA-5016-CE           | 50A               | CS8365                  | (18) C13 + (6) C19                    | 14.4 kW                               | 42U & highe             |
| EA-5027-C | EA-5027-E      | EA-5027-CE           | 50A               | CS8365                  | (12) C13 + (12) C19                   | 14.4 kW                               | 42U & highe             |
| EA-5136-C | EA-5136-E      | EA-5136-CE           | 50A               | CS8365                  | (36) C13                              | 14.4 kW                               | 45U & highe             |
| EA-5144-C | EA-5144-E      | EA-5144-CE           | 50A               | CS8365                  | (24) C13 + (12) C19                   | 14.4 kW                               | 45U & highe             |
| EA-5017-C | EA-5017-E      | EA-5017-CE           | 60A               | IEC 60309 60A 3P+E      | (18) C13 + (6) C19                    | 17.2 kW                               | 42U & highe             |
| EA-5028-C | EA-5028-E      | EA-5028-CE           | 60A               | IEC 60309 60A 3P+E      | (12) C13 + (12) C19                   | 17.2 kW                               | 42U & highe             |
| EA-5137-C | EA-5137-E      | EA-5137-CE           | 60A               | IEC 60309 60A 3P+E      | (36) C13                              | 17.2 kW                               | 45U & highe             |
| EA-5145-C | EA-5145-E      | EA-5145-CE           | 60A               | IEC 60309 60A 3P+E      | (24) C13 + (12) C19                   | 17.2 kW                               | 45U & highe             |
|           |                |                      | 2                 | 240/415 Volt, Three-Pha | se Input                              |                                       |                         |
| EA-5018-C | EA-5018-E      | EA-5018-CE           | 30A               | L22-30                  | (18) C13 + (6) C19                    | 17.2 kW                               | 42U & highe             |
| EA-5029-C | EA-5029-E      | EA-5029-CE           | 30A               | L22-30                  | (12) C13 + (12) C19                   | 17.2 kW                               | 42U & highe             |
| EA-5038-C | EA-5038-E      | EA-5038-CE           | 30A               | L22-30                  | (36) C13                              | 17.2 kW                               | 42U & highe             |
| EA-5046-C | EA-5046-E      | EA-5046-CE           | 30A               | L22-30                  | (24) C13 + (12) C19                   | 17.2 kW                               | 42U & highe             |

Notes: \* Shipping weight for each unit is 27 lb (12 kg). \*\*Redundancy Pack includes 2 PDUs in Black and Glacier White for easy identification of the primary and secondary unit; shipping weight is 54 lb (24 kg). \*\*\*Convenience 5-20 outlets do not provide monitoring or switching capabilities.

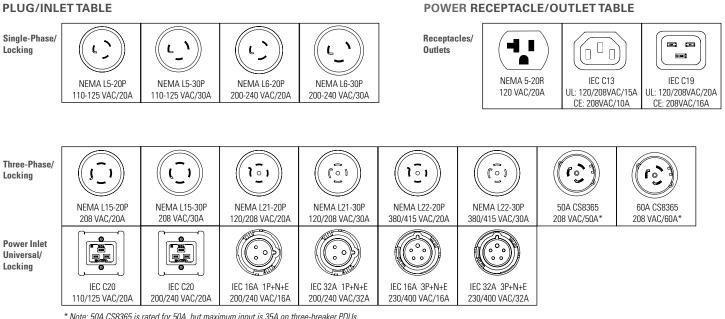
#### **ORDERING INFORMATION**

|             | Switched eConnect PDU, Vertical - Worldwide |                      |                   |                                      |                     |                   |                       |               |
|-------------|---|----------------------|-------------------|--------------------------------------|---------------------|-------------------|-----------------------|---------------|
| Part Number |   | Innet                |                   |                                      | kW Capacity         | kW Capacity       | Cabinet               |               |
| Black*      | Glacier White*                              | Redundancy<br>Pack** | Input<br>Amperage | Input Plug                           | Outlets             | Worldwide<br>(CE) | North America<br>(UL) | Compatibility |
|             | 220 - 240 Volt, Single-Phase Input          |                      |                   |                                      |                     |                   |                       |               |
| EA-5008-C   | EA-5008-E                                   | EA-5008-CE           | 16A               | C20 Inlet to IEC 60309<br>16A 1P+N+E | (24) C13            | 3.8 kW            | 3.8 kW                | 42U & higher  |
| EA-5019-C   | EA-5019-E                                   | EA-5019-CE           | 16A               | C20 Inlet to IEC 60309<br>16A 1P+N+E | (18) C13 + (6) C19  | 3.8 kW            | 3.8 kW                | 42U & higher  |
| EA-5009-C   | EA-5009-E                                   | EA-5009-CE           | 32A               | IEC 60309 32A 1P+N+E                 | (24) C13            | 7.7 kW            | 6.1 kW                | 42U & higher  |
| EA-5020-C   | EA-5020-E                                   | EA-5020-CE           | 32A               | IEC 60309 32A 1P+N+E                 | (18) C13 + (6) C19  | 7.7 kW            | 6.1 kW                | 42U & higher  |
|             |   |                      | 220               | - 240/380 - 415 Volt, Three-         | Phase Input         | ·                 | ·                     |               |
| EA-5010-C   | EA-5010-E                                   | EA-5010-CE           | 16/20A            | IEC 60309 16/20A<br>3P+N+E           | (24) C13            | 11.5 kW           | 11.5 kW               | 42U & higher  |
| EA-5021-C   | EA-5021-E                                   | EA-5021-CE           | 16/20A            | IEC 60309 16/20A<br>3P+N+E           | (18) C13 + (6) C19  | 11.5 kW           | 11.5 kW               | 42U & higher  |
| EA-5030-C   | EA-5030-E                                   | EA-5030-CE           | 16/20A            | IEC 60309 16/20A<br>3P+N+E           | (12) C13 + (12) C19 | 11.5 kW           | 11.5 kW               | 42U & higher  |
| EA-5039-C   | EA-5039-E                                   | EA-5039-CE           | 16/20A            | IEC 60309 16/20A<br>3P+N+E           | (36) C13            | 11.5 kW           | 11.5 kW               | 42U & higher  |
| EA-5047-C   | EA-5047-E                                   | EA-5047-CE           | 16/20A            | IEC 60309 16/20A<br>3P+N+E           | (24) C13 + (12) C19 | 11.5 kW           | 11.5 kW               | 42U & higher  |
| EA-5022-C   | EA-5022-E                                   | EA-5022-CE           | 32A               | IEC 60309 32A 3P+N+E                 | (18) C13 + (6) C19  | 23 kW             | 18.4 kW               | 42U & higher  |
| EA-5031-C   | EA-5031-E                                   | EA-5031-CE           | 32A               | IEC 60309 32A 3P+N+E                 | (12) C13 + (12) C19 | 23 kW             | 18.4 kW               | 42U & higher  |
| EA-5040-C   | EA-5040-E                                   | EA-5040-CE           | 32A               | IEC 60309 32A 3P+N+E                 | (36) C13            | 23 kW             | 18.4 kW               | 42U & higher  |
| EA-5048-C   | EA-5048-E                                   | EA-5048-CE           | 32A               | IEC 60309 32A 3P+N+E                 | (24) C13 + (12) C19 | 23 kW             | 18.4 kW               | 42U & higher  |

Notes: \* Shipping weight for each unit is 27 lb (12 kg).

\*\*Redundancy Pack includes 2 PDUs in Black and Glacier White for easy identification of the primary and secondary unit; shipping weight is 54 lb (24 kg).

### **PLUG/INLET TABLE**



\* Note: 50A CS8365 is rated for 50A, but maximum input is 35A on three-breaker PDUs.

### ACCESSORIES

# POWER MANAGEMENT, ENVIRONMENTAL MONITORING AND PHYSICAL SECURITY INTEGRATION



### eConnect® RFID Electronic Lock Kit

Integrate cabinet access control along with power management and environmental monitoring under a single network connection, one user interface and one user database for dramatically reduced deployment savings. Fully compatible with DCIM software. Available on vertical Monitored, Monitored Pro, Switched and Switched Pro eConnect PDUs that have Field-Replaceable Controller Modules with AUX ports..



#### Power IQ<sup>®</sup> (PIQ) for eConnect

Power IQ<sup>®</sup> is a data center energy, power, environmental and access control monitoring software that provides out-of-the-box support for eConnect PDUs, Networked Control Module as well as devices from many other manufacturers.



# Attaches to the USB port in the PDUs.

**USB** Temperature and Humidity Sensor



#### **Extended Limited Warranties**

Extended Limited Warranties on CPI-Branded Electronic products, available for two additional years beyond the expiration of the Original Warranty Period (3 years).

Contact CPI Customer Service, or visit <u>chatsworth.com/warranty</u> for more information.



## Field-Replaceable Controller Module

Field-replaceable controller module for eConnect® Power Distribution Unit (PDU). Compatible with eConnect Monitored, Monitored Pro, Switched or Switched Pro eConnect PDUs. Allows replacement of controller module while maintaining power to critical loads. Ability to use an SD-card to transfer PDU configuration.



## Order locks and PDUs preinstalled into your cabinet. Add power. Make it easy.

For a complete list of eConnect PDU models, visit chatsworth.com/power



| Part<br>Number | Description  | Shipping<br>Weight<br>Ib (kg) |
|----------------|--|-------------------------------|
| 14666-001      | eConnect <sup>®</sup> RFID Electronic Lock Kit<br>For ZetaFrame Cabinets | 3 (1.4)                       |

Note: Order your ZetaFrame cabinet with eConnect PDUs and RFID Electronic Lock Kit preinstalled.

| Power IQ for eConnect Software and License,<br>With 1-Year Maintenance Plan |                    |                |                    |  |  |
|---|--------------------|----------------|--------------------|--|--|
| Part<br>Number  | Number of Licenses | Part<br>Number | Number of Licenses |  |  |
| 36603-001   | Up to 10 Devices   | 36603-020      | Up to 200 Devices  |  |  |
| 36603-002   | Up to 20 Devices   | 36603-030      | Up to 300 Devices  |  |  |
| 36603-005   | Up to 50 Devices   | 36603-040      | Up to 400 Devices  |  |  |
| 36603-010   | Up to 100 Devices  | 36603-050      | Up to 500 Devices  |  |  |

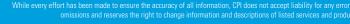
| Additional Accessories |                                     |                               |  |  |
|------------------------|-------------------------------------|-------------------------------|--|--|
| Part<br>Number         | Description                         | Shipping<br>Weight<br>Ib (kg) |  |  |
| 14665-001              | USB Temperature and Humidity Sensor | 3 (1.4)                       |  |  |

| Part<br>Number            | Description   |  |  |
|---------------------------|---|--|--|
| L1-2YEXTWAR-ELECTRONICS-C | 2-Year Warranty Extension for PDUs with MSRP up to \$1700       |  |  |
| L2-2YEXTWAR-ELECTRONICS-C | 2-Year Warranty Extension<br>for PDUs with MSRP \$1701 - \$3400 |  |  |
| L3-2YEXTWAR-ELECTRONICS-C | 2-Year Warranty Extension<br>for PDUs with MSRP > \$3400        |  |  |

| Part<br>Number | Description  | Shipping<br>Weight<br>Ib (kg) |
|----------------|--|-------------------------------|
| 14676-001      | eConnect Controller 4 (MCM4)<br>for Vertical eConnect PDUs | 1 (0.5)                       |

Note: Compatible with PDU P/Ns: EA-3xxx, EA-4xxx, EA-5xxx, EA-6xxx.

Simplify ordering, shipping and installation by requesting eConnect PDUs to be installed in CPI's ZetaFrame Cabinets before they leave the factory. Request Redundancy Pack for easy identification of primary and secondary units.



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