

## C2S24HP-YCLN5D0 (Master)

### C2L24HP-YCLN5D0 (Link)

The Server Technology® PRO2 Smart PDU provides local LED input current monitoring, allowing IT personnel to determine safe levels of loading on a per-phase basis while installing equipment into the rack/cabinet. The integral PIPS® technology provides billing-grade accurate measurement of current, voltage, active power, apparent power, power factor, crest factor, and accumulated energy at the input. These power data points, along with temperature and humidity measurements (provided via optional probes), are accessible through the built-in Web and CLI interfaces as well as through SNMP. The PRO2 Smart “Master” PDU can be connected to as many as three (with optional module) PRO2 Smart “Link” PDU to extend the network access to the redundant or secondary power feed without the risks of a daisy chain linking configuration.

## Key Features



### Network Monitoring

Gain access to valuable data through connections including HTTP(S), SSH, Telnet, SNMP, (S)FTP, SMTP, Syslog, LDAP(S), RS-232 serial, and more.



### Star Multi-Linking

Provides the ability to link up to four power circuits using one IP address. Primary link provides backup power to network card.



### Auto-Flip Current Display

Easy-to-read LEDs display current per phase to help prevent overloads and simplify three-phase load balancing in high-density cabinets. “Smart”



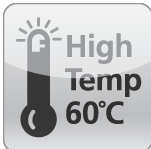
### Branch Current Monitoring

PRO2 monitors current at each breaker branch and provides SNMP-based alerts and emails on high usage that risks a tripped circuit.



### Alternating-Phase Outlets

3-phase power is wired in an alternating fashion per outlet for simplified load balancing, reduced cord lengths, and better airflow.



### High Temperature Rating

This product has been tested and approved for safe and reliable operation in 60 °C data center environments.



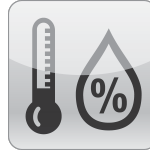
### Cisco EnergyWise<sup>1</sup> Compliant

Meets the requirements set forth by Cisco Systems, Inc. for its EnergyWise program for monitoring of device energy.



### Hot-Swap Network Card

Network access is ensured when power is lost to the Master unit with backup power provided by the primary link unit.



### Temperature/Humidity Monitoring

Master and Link units each support two external 10' (3m) T/H probes. Receive SNMP-based alerts and email notifications.



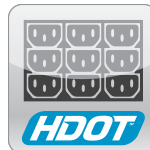
### Per-Inlet Power Sensing

Meets ANSI C12.1 for billing-grade accuracy of Current per phase. PIPS includes voltage, active power, apparent power, power factor, and energy.



### Branch Circuit Protection

This PDU meets the UL and IEC 60950-1 requirement for branch circuit protection through use of UL489 rated magnetic-hydraulic circuit breakers or UL248 fuses.



### High Density Outlet Technology

The highest outlet density available in a network connected PDU. Meets IEC C13 and C19 specifications, plus high native retention and UL94V-0 flame rating.



### Color Identification

Choose from six colors to designate circuits for rack PDUs in the data center. Color options include Blue, Red, Green, White, Yellow, and Black.

## Inputs

|                            |              |
|----------------------------|--------------|
| Input Voltage (V):         | 208          |
| Input Plug:                | NEMA L21-30P |
| Input Current (A):         | 30           |
| Input Current Rated (A):   | 24           |
| Input Power Capacity (kW): | 8.6          |

## Outputs

| Connector            | Rating  |
|----------------------|---|
| (24) x IEC 60320/C13 | North American Rating: ≤ 12A @208V L-L (15A Peak) |

## Branch Circuit Protection

UL498 Compliant 2-pole, 20A trip circuit breakers, three (3) branch, rating: ≤ 16A, 5 kAIC Interrupt Rating

## Physical

Dimensions: 3.5in tall x 17.2in wide x 10.0in deep [89mm x 437mm x 254mm]

## Environmental

**Operating Environment:** 32°F to 140°F / 0°C to 60°C | 8%RH to 90%RH non-condensing | 6,500ft/2km elevation

**Storage Environment:** -40°F to 185°F / -40°C to 85°C | 8%RH to 90%RH non-condensing | 50,000ft/15km elevation

Quiescent / Unloaded Power Draw: < 10W for all configurations

## Communications & Security

10/100 Mbps Ethernet (RJ-45 connector), RS-232 serial (RJ-45 connector)

Two (2) temperature/humidity sensor inputs (4P4C), Link port (RJ-12) - {also on Link PDU}

Web-browser GUI and command-line interface (CLI): HTTP/HTTPS, TLSv1.2, SSHv2, Telnet, SNMPv2c and v3 (GET, SET, Traps), IPv4 and IPv6, LDAPv3/LDAPS, TACACS+, RADIUS, FTP/SFTP

## Certifications

### North American:

cTUVus Mark to UL 60950-1:2007 R10.14

CAN/CSA-C22.2 No. 60950-1-07+A1:2011+A2:2014

FCC Part 15 Subpart B Sections 15.107 and 15.109, Class A

## Measurement Accuracy

### Input Measurement Accuracy:

LED Current = ± 10% at 0.1 amp (0.3 - 9.9 amps) and 1 amp (> 9.9 amps) resolution

GUI Current = ± 1% at 0.01 amp resolution (above 0.25 amp)

Voltage = ± 1% at 0.1 volt resolution (nominal ± 10%)

Active Power = ± 1% at 1 watt resolution

Apparent Power = ± 1% at 1 volt-amp resolution

Power Factor = ± 3% at 0.01 resolution

Crest Factor = ± 10% at 0.1 resolution

Energy = ± 1% at 0.1 kilowatt-hour resolution

## Branch Measurement Accuracy

Current =  $\pm 3\%$  at 0.01 amp resolution (above 0.5 amp)

## Optional Accessories

EMTH-1-1 Combination Temperature/Humidity Probe, 10ft (3m)

EMCU-1-1B Environmental Monitor adding:

- Two (2) EMTH-1-1 temperature/humidity ports (one probe included)
- One (1) EMWS-1-1 water sensor port (probe sold separately)
- Four (4) dry contact (NO/NC) monitoring points
- One (1) 8-bit analog-to-digital converter (0 to 5VDC)

KIT-PRO2LINK-01M or -01D provides ability to link (2) additional PRO2 units

KIT-STEYE-01 or -10 provides access to key metrics through Bluetooth

KIT-SUS-01 StartUp Stick™ for rapid configuration

SPM (Sentry® Power Manager):

- Monitor and manage multiple PDUs from a single point
- Monitor and manage alarm conditions
- Create reports and trends on stored data
- Analyze power usage per phase
- Optional appliance or virtual version
- VMware Ready<sup>2</sup>

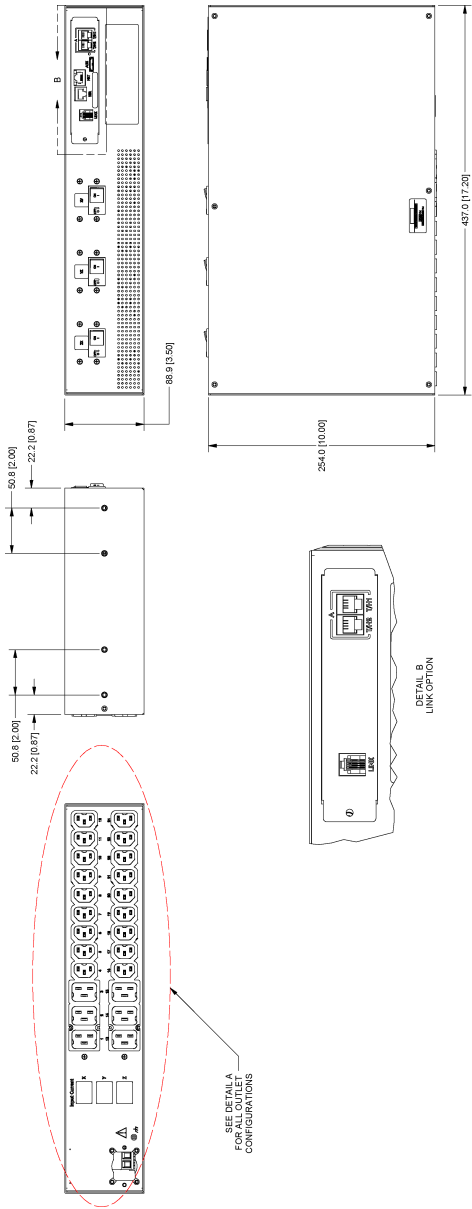
Mounting Brackets

- mounting brackets included
- See the Mounting Bracket Guide for further suggestions
- Custom mounting options available. Contact your local Server Technology representative

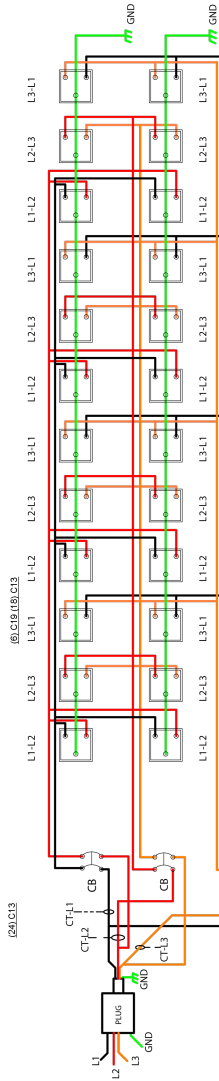
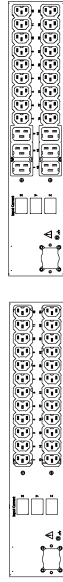
Cable Retention Devices for non-locking cords

- EZip
- Cable Sleeve

# Drawings

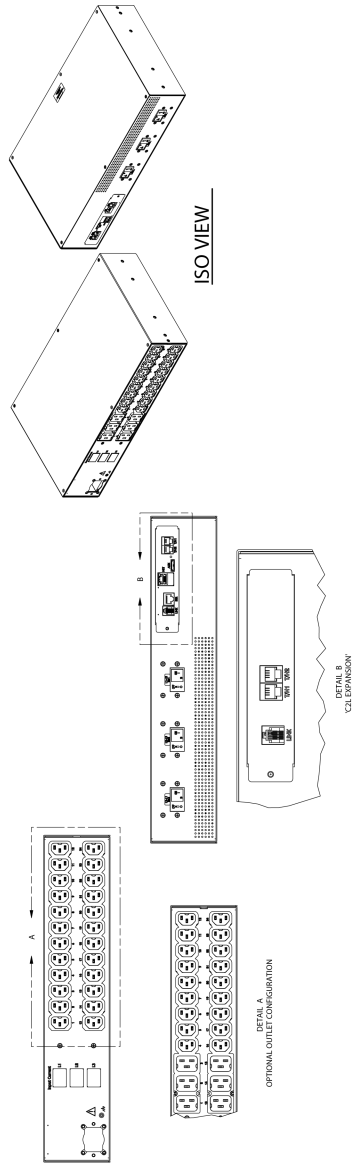


OPTIONAL OUTLET CONFIGURATIONS



| Part Number       | Configuration    | Notes                     | Link Type    | Total Output Rating   | Output Type and Rating                  | Branch Circuit Rating |
|-------------------|------------------|---------------------------|--------------|-----------------------|---|-----------------------|
| C12-2HP-DCL-NSD-X | 1-20A and/or 15A | 208V 2P-P&E, 50/60Hz, 10A | INDIAL12-20P | 208V, 50/60Hz @ 27.7A | IEC-60320 C12 @ 16A each, C11 @ 2A each | 3 Branches each @ 16A |
| C12-2HP-DCL-NSD-X | 1-20A and/or 15A | 208V 2P-P&E, 50/60Hz, 20A | INDIAL12-30P | 208V, 50/60Hz @ 41.5A | IEC-60320 C12 @ 16A each, C11 @ 2A each | 3 Branches each @ 16A |
| C12-2HP-DCL-NSD-X | 1-20A and/or 15A | 208V 2P-P&E, 50/60Hz, 10A | INDIAL12-20P | 208V, 50/60Hz @ 27.7A | IEC-60320 C12 @ 16A each, C11 @ 2A each | 3 Branches each @ 16A |
| C12-2HP-DCL-NSD-X | 1-20A and/or 15A | 208V 2P-P&E, 50/60Hz, 20A | INDIAL12-30P | 208V, 50/60Hz @ 41.5A | IEC-60320 C12 @ 16A each, C11 @ 2A each | 3 Branches each @ 16A |

Note: 'x' also applies total number of CT to outlets (0, 2 or 6), split evenly between branches.



## Additional Information

**Warranty:** Server Technology offers a standard 2-year limited parts & labor warranty. Extended support is available at the time of purchase. See the Support Options on the website, or contact your local Server Technology representative for more information.

**Patents:** Information on Server Technology patents is available on the website at:

[www.servertech.com/products/patents](http://www.servertech.com/products/patents)

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<sup>1</sup> Cisco EnergyWise is a U.S. registered trademark of Cisco Technology, Inc.

<sup>2</sup> VMware and VMware Ready is a registered trademark or trademark of VMware, Inc. in the United States and/or other jurisdictions.

<sup>3</sup> "Global" models are typically for use in countries outside of North America. Contact your Server Technology representative for more information about which models are appropriate for your application.

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