

## C2S48TE-5CAE2M99 (Master)

### C2L48TE-5CAE2M99 (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



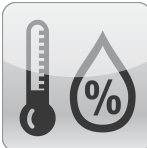
### HDOT Cx

Cx is the future ready UL tested hybrid of the C13 and C19 outlets accommodating both C20 and C14 plugs.



### 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.



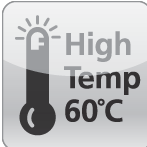
### Per-Inlet Power Sensing

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 Temperature Rating

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



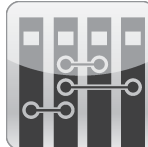
### Color Identification

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



### 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”



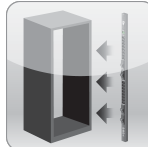
### Branch Current Monitoring

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.



### Flexible Mounting

Includes standard button mounts along with provisions for custom mounting brackets (contact Server Technology for details).



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

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

## Inputs

Input Voltage (V):	415
Input Plug:	NEMA L22-30P
Input Current (A):	30
Input Current Rated (A):	24
Input Power Capacity (kW):	17.3

## Outputs

Connector	Rating
(30) x IEC 60320/C13	North American Rating: $\leq 12A @240V$ L-N (15A Peak)
(18) x Cx	North American Rating: $\leq 16A @240V$ L-N (20A Peak)

The Cx outlet has superior cable retention. Moderate force is required when plugging in a C14 or C20 connector to fully seat the plug and to ensure proper installation. An incorrectly installed plug will be loose and will not provide a reliable connection.

## Branch Circuit Protection

UL489 Compliant 2-pole, 20A trip circuit breakers, six (6) branch, rating:  $\leq 16A$ , 10 kAIC Interrupt Rating

## Physical

Dimensions: 80.0in tall x 2.2in wide x 2.5in deep [2032mm x 56mm x 64mm]

## 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 =  $\pm 10\%$  at 0.1 amp (0.3 - 9.9 amps) and 1 amp (> 9.9 amps) resolution

GUI Current =  $\pm 1\%$  at 0.01 amp resolution (above 0.25 amp)

Voltage =  $\pm 1\%$  at 0.1 volt resolution (nominal  $\pm 10\%$ )

Active Power =  $\pm 1\%$  at 1 watt resolution

Apparent Power =  $\pm 1\%$  at 1 volt-amp resolution

Power Factor =  $\pm 3\%$  at 0.01 resolution

Crest Factor =  $\pm 10\%$  at 0.1 resolution

Energy =  $\pm 1\%$  at 0.1 kilowatt-hour resolution

### **Branch Measurement Accuracy**

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

## **Optional Accessories**

EMTH-2-10 Combination Temperature/Humidity Probe, 10ft (3m)

EMCU-1-1C Environmental Monitor adding:

- Two (2) EMTH-2-10 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-SUS-01 StartUp Stick™ for rapid configuration

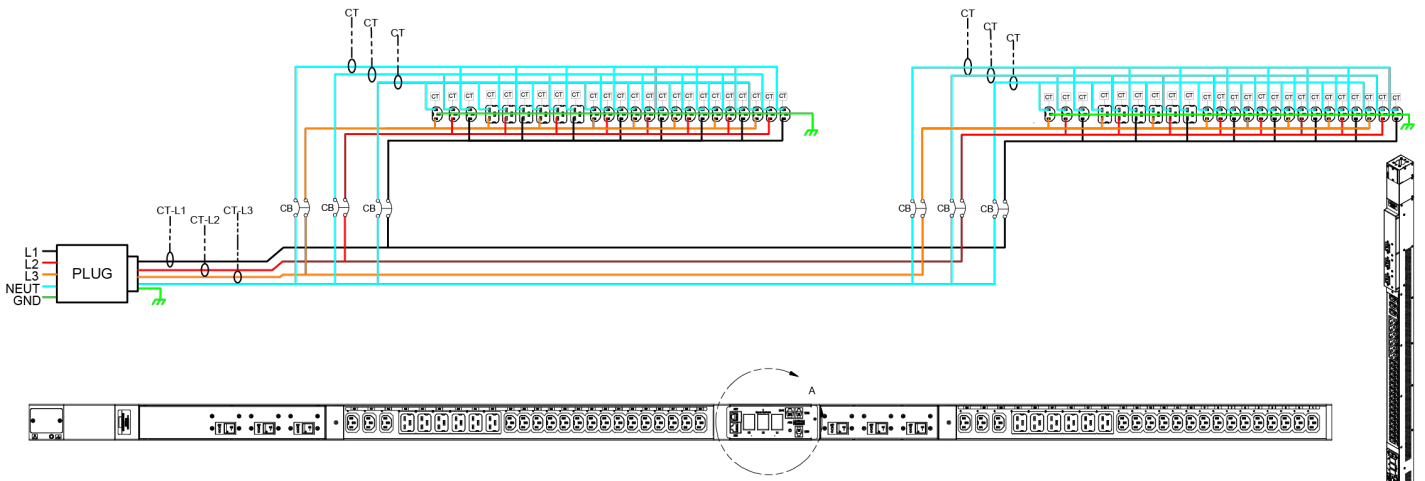
Mounting Brackets

- Buttons (KIT-0020) included for tool-less mounting (see diagram)
- 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

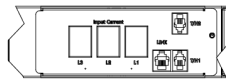
- EZip
- Cable Sleeve





Part Number	Expansion	Certification	Input	Output
Master		Rating Standard	Rating	Input Type
C2abbcE-4NAE2dee	C2abbcE-4NAE2dee	TUVGS	230/400V 3P+N+PE, 50/60Hz; 16A	IEC 60309 16A
C2abbcE-4PAE2dee	C2abbcE-4PAE2dee	TUVGS	230/400V 3P+N+PE, 50/60Hz; 32A	IEC 60309 32A
C2abbcE-5BAE2dee	C2abbcE-5BAE2dee	cTUVus and/or cULus	240/415V 3P+N+PE, 50/60Hz; 16A	NEMA L22-20P
C2abbcE-5CAE2dee	C2abbcE-5CAE2dee	cTUVus and/or cULus	240/415V 3P+N+PE, 50/60Hz; 24A	NEMA L22-30P
C2abbcE-5NAE2dee	C2abbcE-5NAE2dee	cTUVus and/or cULus	240/415V 3P+N+PE, 50/60Hz; 16A	IEC 60309 20A
C2abbcE-5PAE2dee	C2abbcE-5PAE2dee	cTUVus and/or cULus	240/415V 3P+N+PE, 50/60Hz; 24A	IEC 60309 30A
				Total Output Rating
				230V, 50/60Hz; <= 48A
				240V, 50/60Hz; <= 96A
				240V, 50/60Hz; <= 48A
				240V, 50/60Hz; <= 72A
				240V, 50/60Hz; <= 48A
				240V, 50/60Hz; <= 72A
				Output
				IEC 60320: C19 <= 16A each, C13 <= 10A each
				IEC 60320: C19 <= 16A each, C13 <= 10A each
				IEC 60320: C19 <= 16A each, C13 <= 12A each
				IEC 60320: C19 <= 16A each, C13 <= 12A each
				IEC 60320: C19 <= 16A each, C13 <= 12A each
				IEC 60320: C19 <= 16A each, C13 <= 12A each
				Branch Circuit Rating
				6 branches, each <= 16A
				6 branches, each <= 16A
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				6 branches, each <= 16A

Note: "a" designates the product type; "bb" designates total number of outlets; "c" represents the type of outlet; "d" represents orientation; "ee" designates code for number of Cx or C19 outlets in each of the two outlet modules



DETAIL A  
C2X EXPANSION VIEW

## 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>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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