

# C2SG48TE-DFME2M99 (Primary)

### C2LG48TE-DFME2M99 (Link)

The Server Technology® PR02 Smart POPS 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® and POPS® technology provides billing-grade accurate measurement of current, voltage, active power, apparent power, power factor, crest factor, and accumulated energy at the input and at each output. 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 PR02 Smart POPS "Primary" PDU can be connected to as many as three (with optional module) PR02 Smart POPS "Link" PDUs to extend the network access to the redundant or secondary power feed without the risks of a daisy chain linking configuration.

### **Key Features**



#### HDOT C

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



### **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.



#### Hot-Swap Network Card

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



#### 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



#### Temperature/Humidity Monitoring

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



### **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.



### 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.



### Per-Outlet Power Sensing

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



### **Branch Current Monitoring**

Monitors current at each breaker branch and provides SNMPbased alerts and emails on high usage that risks a tripped circuit



### 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.



### **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  $^{\circ}$ C data center environments.



### Flexible Mounting

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



### 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
Frequency	50/60 Hz
Input Plug:	CS83653P+G50A
Input Current (A):	50
Input Current Rated (A):	40
Input Power Capacity (kW):	14.4

### **Outputs**

Connector	Rating			
(30) x IEC 60320/C13	North American Rating: ≤ 12A @208V L-L (15A Peak)			
(18) x Cx	North American Rating: ≤ 16A @208V L-L (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**

UL 489, CSA C22.2 No. 5 & IEC/EN 60947-2 Compliant 2-pole, 20A trip circuit breakers, six (6) branch, rating: ≤ 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:**  $32^{\circ}F$  to  $140^{\circ}F/0^{\circ}C$  to  $60^{\circ}C \mid 8\%RH$  to 90%RH non-condensing | 6,500ft/2km elevation **Storage Environment:**  $-40^{\circ}F$  to  $185^{\circ}F/-40^{\circ}C$  to  $85^{\circ}C \mid 8\%RH$  to 90%RH non-condensing | 50,000ft/15km elevation Quiescent / Unloaded Power Draw: < 10W for all configurations

# **Communications & Security**

10/100/1000 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:

Safety (TUVR certified, cTUVus mark)

UL Std. 60950-1, 62368-1

CAN/CSA-C22.2 No. 60950-1, CAN/CSA-C22.2 No. 62368-1

EMC

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

CAN ICES-003, Class A

# **Measurement Accuracy**

### **Input Measurement Accuracy:**

Input Measurement Accuracy

LED Current =  $\pm$  10% at 0.1 amp (0.5 - 9.9 amps) and 1 amp (> 9.9 amps) resolution

GUI Current =  $\pm 1\%$  at 0.01 amp resolution (above 0.5 amp)

Voltage =  $\pm 1\%$  at 0.1 volt resolution (no minal  $\pm 10\%$ )

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 = ± 10% at 0.1 resolution

Energy = ± 1% at 0.1 kilowatt-hour resolution

### **Output Measurement Accuracy**

GUI Current =  $\pm 1\%$  at 0.01 amp resolution (above 0.15 amp)

Voltage =  $\pm 1\%$  at 0.1 volt resolution (no minal  $\pm 10\%$ )

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 = ± 10% at 0.1 resolution

Energy =  $\pm$  1% at 1 watt-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

 $KIT\text{-}SUS\text{-}01\ StartUp\ Stick^{\text{TM}}\ for\ rapid\ configuratio\ nMo\ unting\ Brackets$ 

- Buttons (KIT-0020) included for tool-less mounting (see diagram)
- See the Mounting Bracket Guide for further suggestions
- $\hbox{-} Custom\,mounting\,options\,available.} Contact\,your\,local\,Server\,Technology\,representative$

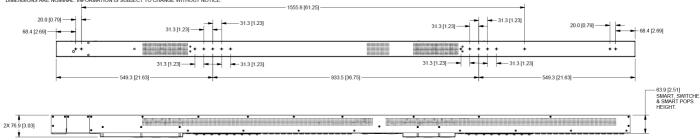
Cable Retention Devices for non-locking cords

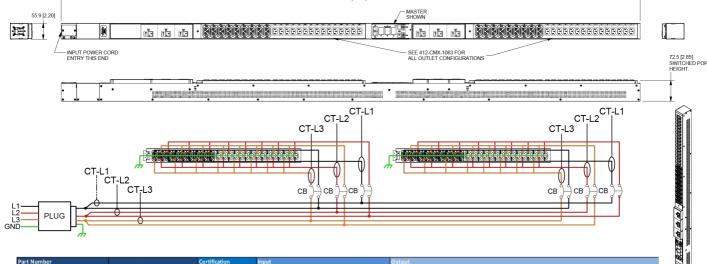
- EZip
- Cable Sleeve

# **Drawings**

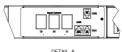
NOTES

- 1. DIMENSIONS ARE IN MILLIMETERS AND [] BRACKETS ARE IN INCHES
- DIMENSIONS ARE NOMINAL. INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.





Part Number		Certification	Input		Output			
Master	Expansion	Rating Standard	Rating	Input Type	Total Output Rating	Outlet Type and Ratings	Branch Circuit Rating	
C2abbcE-DFME2dee	C2abbcE-DFME2dee	cTUVus and/or cULus	208V 3P+PE, 50/60Hz; 40A	CS8365	208V, 50/60Hz; <= 69.2A	IEC 60320: C19 <= 16A each, C13 <= 10A each	6 branches, each <= 16A	
C2abbcE-DQME2dee	C2abbcE-DQME2dee	cTUVus and/or cULus	208V 3P+PE, 50/60Hz; 48A	IEC 60309	208V, 50/60Hz; <= 83.1A	IEC 60320: C19 <= 16A each, C13 <= 10A each	6 branches, each <= 16A	
C2abbcE-YQME2dee	C2abbcE-YQME2dee	cTUVus and/or cULus	120/208V 3P+N+PE, 50/60Hz; 48A	IEC 60309	208V, 50/60Hz; <= 83.1A	IEC 60320: C19 <= 16A each, C13 <= 10A each	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

"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.

Information in this document is current as of time of publishing. Contact your Server Technology representative for the most up-to-date information. This datasheet was generated on: 22-Sep-2021

Interested in learning more about how Server Technology can help you manage and distribute power in your datacenter? Visit us online at: www.servertech.com/products/

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