

Server Technology Technical Data Sheet

PRO2™ Switched CDU®

STV-4501: 3.3kW - 7.3kW 1-phase input with
(24)C13 and (6)C19 outlets



August 2015 | Version 1.1

The Server Technology® PRO2 Switched CDU provides control of outlet power and 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 Switched "Master" CDU can be connected to as many as three (with optional module) PRO2 Switched "Link" CDUs to extend the network access to the redundant or secondary power feed without the risks of a daisy chain linking configuration.



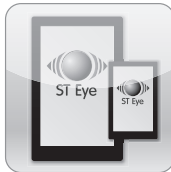
Server Technology
Quality Rack Power Solutions

Features



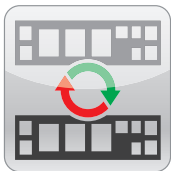
Network Monitoring

The PRO2 hot-swappable network card provides for HTTP(S), SSH, Telnet, SNMP, (S)FTP, SMTP, Syslog, LDAP(S), RS-232 serial, and more.



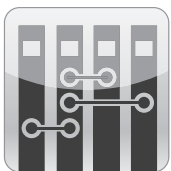
ST Eye Bluetooth Ready

The best CDU LCD is the one in your hand. Attach the ST Eye® Bluetooth module to access power data and system settings. (sold separately)



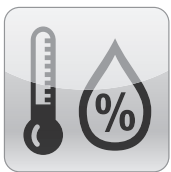
Hot-Swap Network Card

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



Star Multi-Linking

PRO2 provides the ability to link up to four power circuits using one IP address. Primary link provides backup power to network card. (sold separately)



Temperature/Humidity Monitoring

PRO2 Master and Link units each support two external 10' (3m) 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.



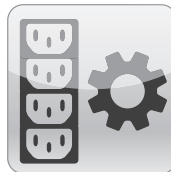
Branch Current Monitoring

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



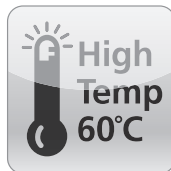
Branch Circuit Protection

PRO2 meets the UL and IEC 60950-1 requirement for branch circuit protection through use of UL489 rated magnetic-hydraulic circuit breakers.



Outlet Control

On PRO2 Switched CDUs, cycle power to individual outlets or groups of outlets to reboot servers. Or, power off unused receptacles.



High Temperature Rating

This product has been tested and approved for safe and reliable operation in 60°C (140°F) data center environments.



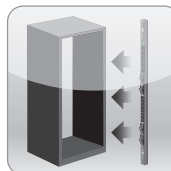
High Retention Locking Outlets

PRO2 receptacles have high retention and are compatible with many locking power cords



Power Pivot™

The 90 degree rotatable power cord allows for standardized deployment at any facility no matter where power must be routed.



Flexible Mounting

PRO2 includes standard button mounts along with provisions for custom mounting brackets (contact ServerTechnology for details).



Color Identification

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



Cisco EnergyWise¹ Compliant

PRO2 meets the requirements set forth by Cisco System, Inc. for its EnergyWise program for monitoring of device energy.

Specifications

North America

Master CDU	Link CDU	Input Plug	Input Current	Input Voltage	Rated Power
STV-4501A	SEV-4501A	IEC C20*	≤ 16A (20 peak)	208-240V, 50/60Hz	3.3 kW @208V
STV-4501C	SEV-4501C	NEMA L6-30P, 10ft, 3-C, 10AWG	≤ 24A (30 peak)	208-240V, 50/60Hz	5.0kW @208V

Global

Master CDU	Link CDU	Input Plug	Input Current	Input Voltage	Rated Power
STV-4501A	SEV-4501A	IEC C20*	≤ 16A	220-240V, 50/60Hz	3.6 kW @230V
STV-4501K	SEV-4501K	IEC 60309 6hr 2P+PE Blue, 3m, H05VV-F, 4.0mm ²	≤ 32A	220-240V, 50/60Hz	7.3 kW @230V

*Order PTCORD separately. Choose L6-20P, CEE 7/7 Schuko, IEC60309 2P+E, or BS1363

Outputs

- Connector: (24) x IEC 60320/C13
- North American Rating (C13): ≤ 12A @208-240V L-L (15A peak)
- Global Rating (C13): ≤ 10A @220-240V L-N
- Connector: (6) x IEC 60320/C19
- North American Rating (C19): ≤ 16A @208-240V L-L (20A peak)
- Global Rating (C19): ≤ 16A @220-240V L-N
- Locking outlets provide high-retention even for non-locking cords

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 0.01 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 = ± 3% at 0.01 amp resolution (above 0.5 amp)

Branch Circuit Protection

- UL489 compliant 2-pole, 20A trip circuit breakers. Two (2) branches, rating: ≤ 16A @208-240V

Specifications Cont.

Physical/Environmental

- Dimensions: 69.0" (1753 mm) tall x 2.2" (56 mm) wide x 2.25" (57 mm) deep | Weight: 18 lbs (8.2 kg)
- Shipping Dimensions: 89" x 7" x 4" (226 cm x 18 cm x 11 cm) | Weight: 21 lbs (9.5 kg)
- Highlight Color: Choose Black, White, Red, Green, Blue, Yellow
- Operating Environment: 32°F to 140°F / 0°C to 60°C | 8%RH to 90%RH non-condensing | 6,500ft/2000m 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 and Security

- 10/100 Mbps Ethernet (RJ-45 connector), RS-232 serial (RJ-45 connector)
- Aux connector for connection of Star Multi-Linking module and/or ST Eye™ Bluetooth module
- Two (2) temperature/humidity sensor inputs (4P4C), Link port (RJ-12) – {also on Link CDU}
- Web-browser GUI and command-line-interface (CLI): HTTP/HTTPS, TLSv1, SSHv2, Telnet, SNMPv2c and v3 (GET, SET, Traps), IPv4 and IPv6, LDAPv3/LDAPS, TACACS+, RADIUS, FTP/SFTP

North American Certifications

- cTUVus Mark to UL 60950-1:2007 and CAN/CSA 22.2 No. 60950-1-07 + A1:2011
- EMC to EN 55022 Class A, EN 55024, CISPR 22 Class A
- FCC Class A, Part 15
- RoHS/WEEE

Global Certifications

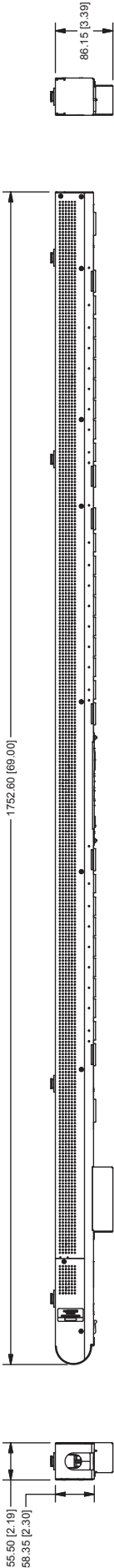
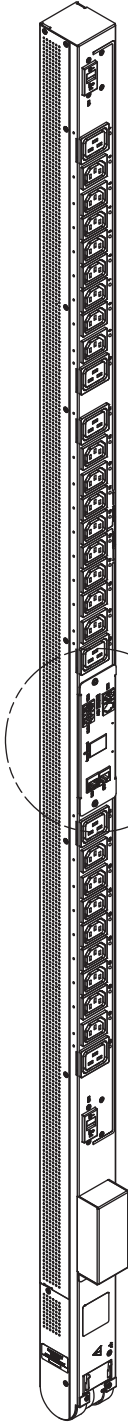
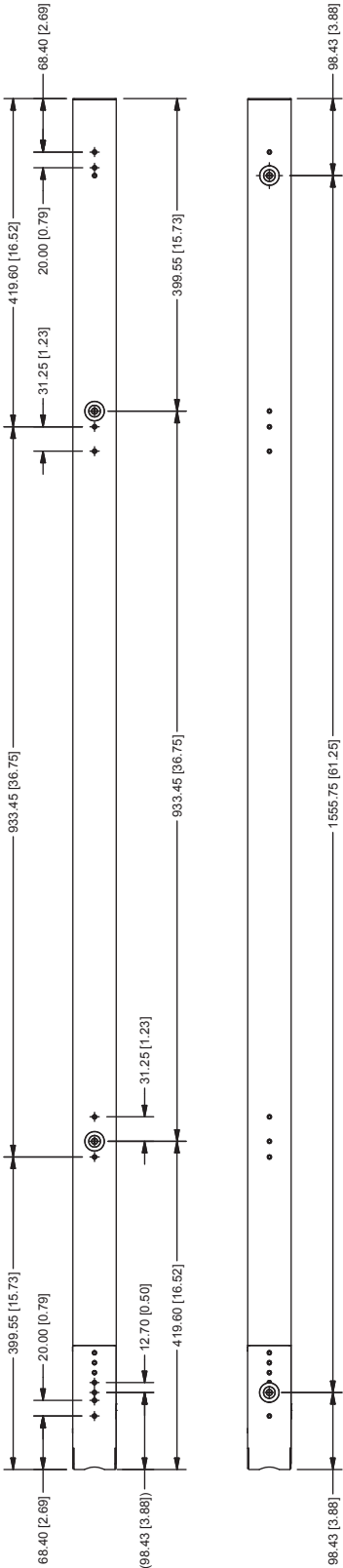
- TUV T-Mark to EN 60950-1:2006 + A11 + A1 + A12
- EMC to EN 55022 Class A, EN 55024, CISPR 22 Class A
- CE Mark
- RoHS/WEEE

Optional Accessories

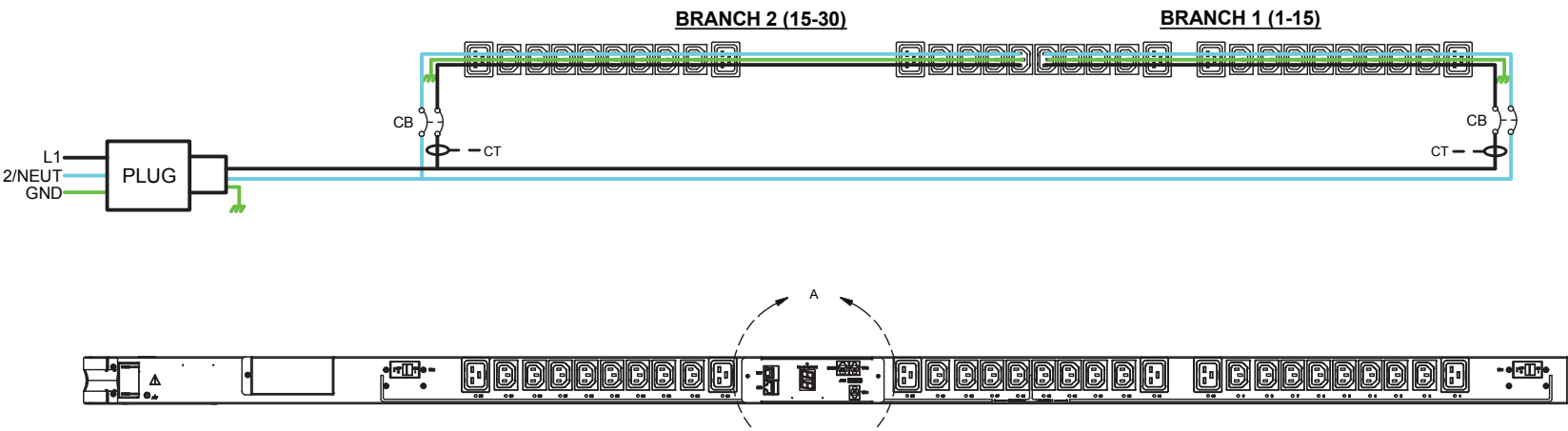
- EMTH-1-1 Combination Temperature/Humidity Probe, 10ft (3m)
- EMCU-1-1B Environmental Monitor adding:
 - Two (2) EMTH-1-1 temperature/humidity ports (one probe included)
 - One (1) EMWS-1-1 water sensor port (probe sold separately)
 - Four (4) dry contact (NO/NC) monitoring points
 - One (1) 8-bit analog-to-digital converter (0 to 5VDC)
- KIT-PRO2LINK-01M Star Multi-Linking module provides ability to link (2) additional expansion units.
- KIT-STEYE-10 Bluetooth module with Android and IOS support.
- 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 Ready²
- 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



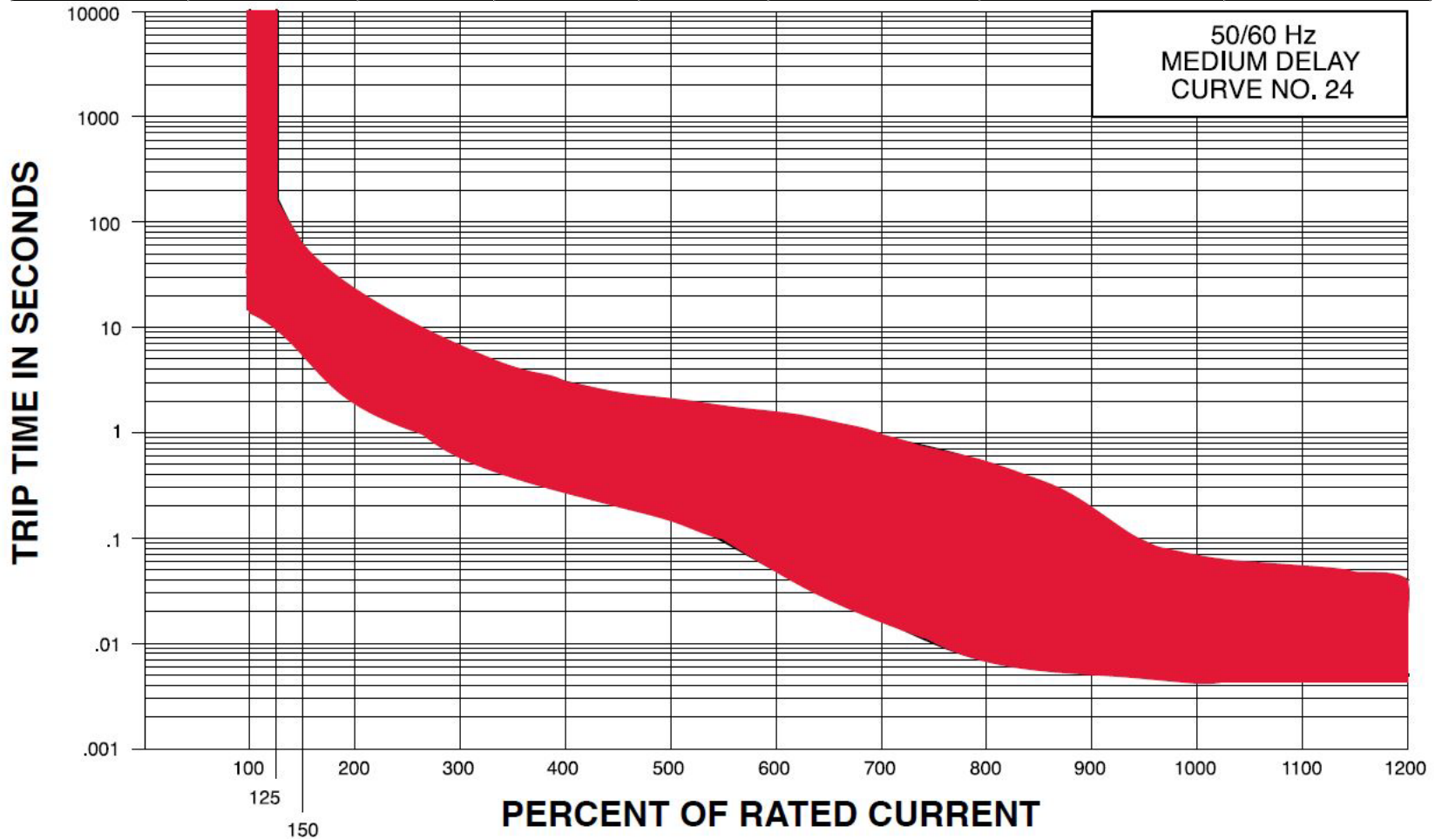
Dimensional Specifications



Wiring and Breaker Trip Curve



Part Number		Certification	Input		Output		
Master	Expansion	Rating Standard	Rating	Input Type	Total Output Rating	Outlet Type and Ratings	Branch Circuit Rating
C2W30VY-2ABA2SD8 (STV-4501A)	C2X30VY-2ABA2SD8 (SEV-4501A)	cTUVus and/or cULus	208-240V 2P+PE, 50/60Hz; 16A	IEC C20	240V, 50/60Hz; <= 16A	IEC 60320: 6xC19 <= 16A each, 24xC13 <= 12A each	2 branches, each <= 16A
		TUVGS	230V 2P+PE, 50/60Hz; 16A	IEC C20	240V, 50/60Hz; <= 16A	IEC 60320: 6xC19 <= 16A each, 24xC13 <= 10A each	2 branches, each <= 16A
C2W30VY-2CBA2SD8 (STV-4501C)	C2X30VY-2CBA2SD8 (SEV-4501C)	cTUVus and/or cULus	208-240V 2P+PE, 50/60Hz; 24A	NEMA L6-30P	240V, 50/60Hz; <= 24A	IEC 60320: 6xC19 <= 16A each, 24xC13 <= 12A each	2 branches, each <= 16A
C2W30VY-EPBA2SD8 (STV-4501K)	C2X30VY-EPBA2SD8 (SEV-4501K)	TUVGS	230V 2P+PE, 50/60Hz; 32A	IEC 60309 32A	240V, 50/60Hz; <= 32A	IEC 60320: 6xC19 <= 16A each, 24xC13 <= 10A each	2 branches, each <= 16A



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

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1 Cisco EnergyWise is a U.S. registered trademark of Cisco Technology, Inc.

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



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