

# STV-6541K (Master)

### SEV-6541K (Link)

The Server Technology® PR02 Switched POPS PDU 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® 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 Switched POPS "Master" PDU can be connected to as many as three (with optional module) PR02 Switched 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**



### **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. "Switched POPS"



### 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 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 Retention Locking Outlets

Receptacles have high retention and are compatible with P-Lock type power cords.



# Flexible Mounting

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



### 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' (3 m) 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 Current Monitoring**

PR02 monitors current at each breaker branch and provides SNMP-based alerts and emails on high usage that risks a tripped circuit.



### Outlet Control

On Switched rack PDUs, 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  $^{\circ}\text{C}$  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.

# Inputs

Input Voltage (V):	230
Input Plug:	IEC 230V/32A 2P+PE 6Hr
Input Current (A):	32
Input Current Rated (A):	32
Input Power Capacity (kW):	7.3

# Outputs

Connector	Rating
(18) x IEC 60320/C13	Global Rating: ≤ 10A @230V L-N
(6) x IEC 60320/C19	Global Rating: ≤ 16A @230V L-N

### **Branch Circuit Protection**

UL489 Compliant 2-pole, 20A trip circuit breakers, two (2) branch, rating: ≤ 16A, 5 kAIC Interrupt Rating

# **Physical**

Dimensions: 64.0in tall x 1.75in wide x 3.5in deep [1626mm x 45mm x 89mm]

# **Environmental**

**Operating Environment:**  $32^{\circ}$ F to  $140^{\circ}$ F /  $0^{\circ}$ C to  $60^{\circ}$ C | 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 | 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

### Global

TUV T-Mark to EN 60950-1:2006+A11+A1+A12+A2
EMC to EN55024 (2010) and EN55032 (2012)
CE Compliant
RoHS, European Hazardous Materials Directive (Recast) 2011/65/EU
WEEE Compliant

# **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 (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 =  $\pm$  10% at 0.1 resolution Energy =  $\pm$  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 =  $\pm$  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-1-1 Combination Temperature/Humidity Probe, 10ft (3m)

EMCU-1-1B Environmental Monitor adding:

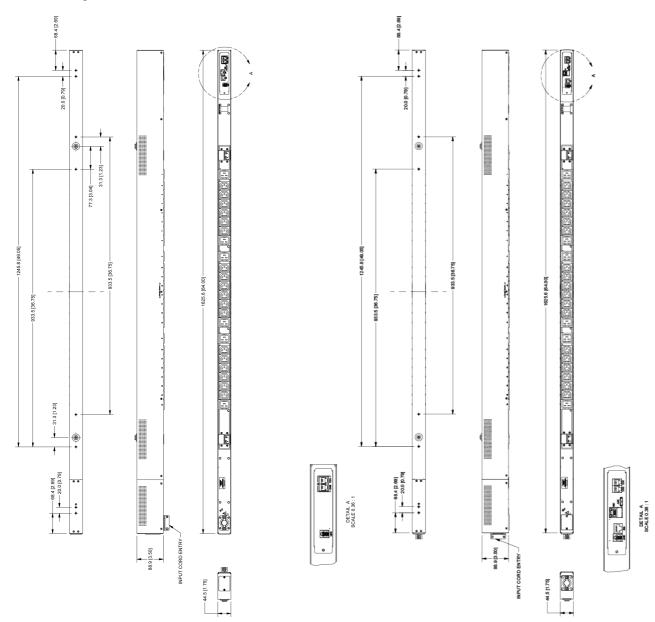
- Two (2) EMTH-1-1 temperature/humidity ports (one probe included)
- One (1) EMWS-1-1 water sensor port (probe sold separately)
- Four (4) dry contact (NO/NC) monitoring points
- One (1) 8-bit analog-to-digital converter (0 to 5VDC)

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

KIT-SUS-01 StartUp Stick™ for rapid configurationMounting 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

# Drawings



# 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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- <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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