

If you manage a central office,
we have a solution for you.

How do I...

Distribute -48VDC power to all the equipment in the rack?

Measure power loads in amps at each DC power output block?

Know when the rack temperature is too high?

Verify power exists at each DC power outlet?

Reboot remote switches, servers and network devices?



Basic -48VDC CDU

Reliable Rack Power Distribution with support for flexible fuse configurations.

Switched -48VDC CDU

Flagship CDU with remote monitoring and management, including reboot commands to connected servers, switches and network equipment plus Temperature & Humidity Monitoring.

Sentry : -48VDC CDU Products

Power Distribution Solutions for the Central Office Rack



Corporate Profile

Server Technology™ designs and manufactures intelligent cabinet power distribution units (CDU's) for enterprise data centers, service providers and branch office locations. Founded in 1984, Server Technology is recognized as a leader in innovative Remote Power Management solutions. Server Technology maintains ISO 9000 certification and our line of Sentry™ power products eliminates unnecessary trips to remote locations and minimizes the impact of locked-up internetworking equipment on business critical networks, combining intelligent power distribution, remote management and power measurement.

Product Family Overview

The complexity of IT equipment in today's data centers and remote branch office locations requires new solutions for building a solid infrastructure. It must support 24/7 operations and reduce the instance of locked-up or failing equipment leading to network downtime; Five nines availability — 99.999% uptime — demands it.

Blade servers and high density computing power requirements continue to increase, creating heat proliferation and more challenges for managing the IT environment. To maintain their competitive advantage, data center managers need solutions that monitor, track and manage servers and IT equipment and the equipment cabinet infrastructure that houses them.

Certifications, Compliance & Warranty

Products contained within this brochure carry the following:

Basic -48VDC Products

Agency Approvals

- > TUV-GS marked to EN 60950
- > cTUVus marked to UL 1950 and CSA C22.2 No. 950-95

NEBS Compliant

- | | |
|-------------------|--|
| GR-63-CORE | GR-63-CORE |
| > Section 4.2 | > Spatial Requirements / Section 2.0 |
| > Section 5.2 | > Thermal Requirements / Section 4.2.3.2 |
| | > Earthquake/Vibration / Section 4.4 |

- | | |
|---------------------|--|
| GR-1089-CORE | GR-1089-CORE |
| > Section 3.2 | > Lightning and AC Fault / Section 4.0 |
| > Section 7 | |
| > Section 9 | |

Switched -48VDC Products

Agency Approvals

- For 4805, 4820, 4805/35 and 4870 XLS Units
- > TUV-GS marked to EN 60950-1:2001
 - > cTUVus marked to UL 60950-1:2003 and CSA C22.2 No. 60950-1-3

NEBS Compliant

- | | |
|-------------------|--|
| GR-63-CORE | GR-63-CORE |
| > Section 4.2 | > Spatial Requirements / Section 2.0 |
| > Section 5.2 | > Thermal Requirements / Section 4.2.3.2 |
| | > Earthquake/Vibration / Section 4.4 |

- | | |
|---------------------|--|
| GR-1089-CORE | GR-1089-CORE |
| > Section 3.2 | > Lightning and AC Fault / Section 4.0 |
| > Section 7 | |
| > Section 9 | |

Sentry : -48VDC Products

Sentry -48VDC CDU Applications

Application Example I

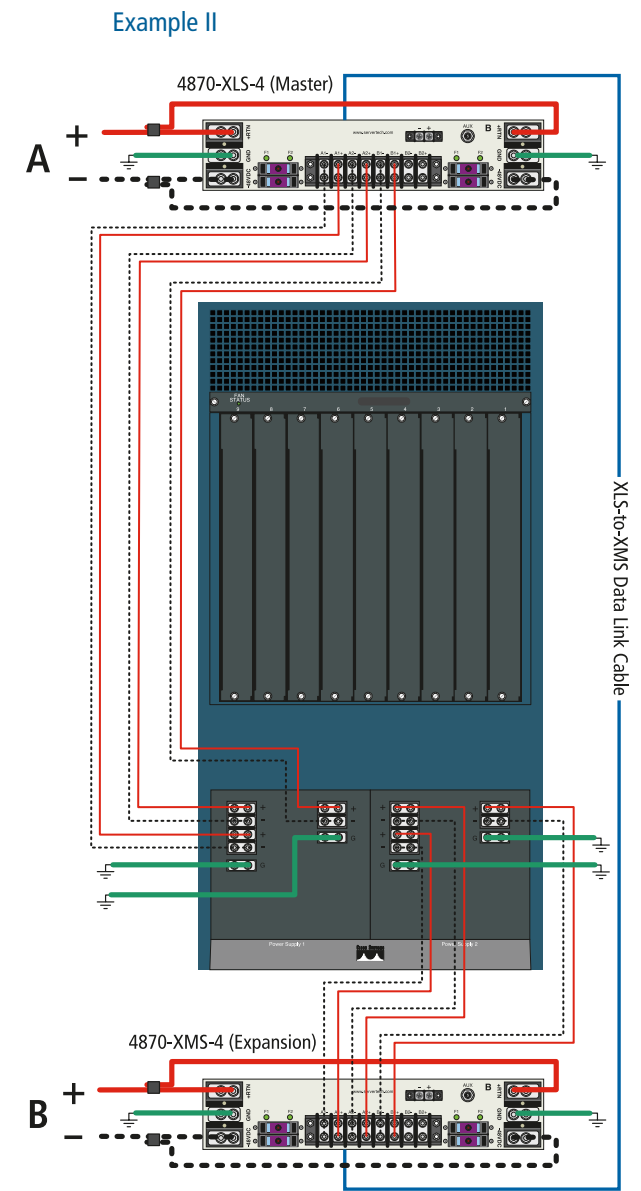
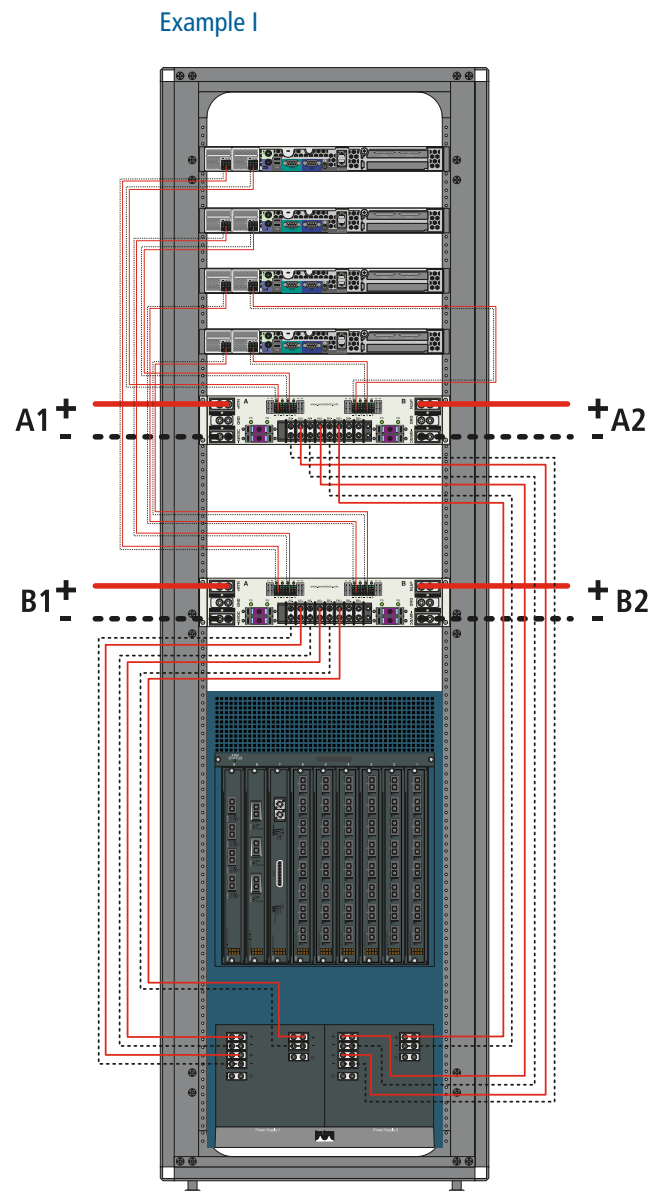
Master 4805/35-XLS-12 and an expansion 4805/35-XMS-12 connected to a Cisco router as well as several other low current -48VDC devices.

Dual power in-feeds ensure that a loss of either the A in-feed or the B in-feed will still allow the router and other devices to operate on a single supply until the problem is resolved. This provides redundancy and allows for system maintenance without service interruption.

Application Example II

Master Sentry 4870-XLS and an expansion Sentry 4870-XMS connected to a Cisco 7609 router with dual power supplies.

Each router power supply contains three inputs. Two in-feed sources with an H-Tap provide power to the 4870 units. Point of failure and maintenance concerns are eliminated by wiring one supply to the XLS and one to the XMS allowing removal or replacement of either Sentry unit without interrupting operation of the router.



Sentry : Basic -48VDC CDU

Rugged, Reliable Rack Power Distribution for -48VDC Applications

Key Features

Two 50-200A DC Power Input Feeds

> (A-Feed & B-Feed) Supports dual power supply routers and networking gear

Multiple DC Outlet Circuits

> Protected by GMT or TPA fuses as required

Outlet Circuit Protection

> Fast acting fuse with positive visual indication of a blown fuse

Variable Amperage / Changeable Fuses

> Match the fuse value to the amp rating of each device

Fuses

> Rated as a disconnect switch and therefore can be hot swappable for -48 VDC products

Fail-Safe

> Model allows either the A or B power in-feed to support the load if a power loss occurs on one input

Outputs

> Up to (24) output terminal connections

Other

> 2U 19" chassis fits equipment cabinets or racks

> NEBS Compliant

Basic -48VDC CDU Overview

The Sentry Basic -48VDC Rack Power Distribution Unit (CDU) provides fuse protected reliable power distribution to routers, servers and other network devices for mission critical networks. CLEC's, ILEC's and ISP's use Sentry -48VDC CDU's to power equipment in remote sites, co-location facilities and network operations centers. Key applications include power distribution for a rack with -48VDC powered switches and high-amp network equipment.

The Sentry -48VDC products provide power distribution in a compact 2U, 19" rack-mount enclosure.

The exclusive patented power input/grounding assembly has a NEBS compliant dual-stud chassis ground connection, which accepts a dual-hole compression lug. In accordance with NEBS compliance, the compression lug supports a ground wire one size larger than the input cable.



Fused Power Output Protection*

Each low and high current output are individually protected by their own fuse. A variety of current capacities are available. Low current GMT fuses have a visual indicator when blown. The fuses are rated as disconnect switches therefore they may be hot-swappable without removing power to input-feeds.



Dual 50-200A DC Power Input Feeds

Distribute 50-200 amps of power through low and high current outputs. Each output circuit is designed with their own over-current protection.

Accessories

> Included: Standard 19" mounting brackets
> HDW-MBXT-2U: 23" 2U mounting brackets
> HDW-MBXT-1U: 23" 1U mounting brackets for PDU420-0-1

Replaceable Fuses

All fuses are sold separately. Fuses and their values must be specified at time of order.

GMT (Low Current)	TPA (High Current)
> FUSE-GMT-3/4/G	> FUSE-TPA-10
> FUSE-GMT-1.0A/G	> FUSE-TPA-15
> FUSE-GMT-1.5A/G	> FUSE-TPA-20
> FUSE-GMT-2A/G	> FUSE-TPA-25
> FUSE-GMT-3A/G	> FUSE-TPA-30
> FUSE-GMT-5A/G	> FUSE-TPA-40
> FUSE-GMT-7.5A/G	> FUSE-TPA-50
> FUSE-GMT-10A/G	
> FUSE-GMT-15A/G	

*Available GMT Fuse Values: 0.75, 1, 1.5, 2, 3, 4, 5, 7.5, 10, or 15 Amps maximum

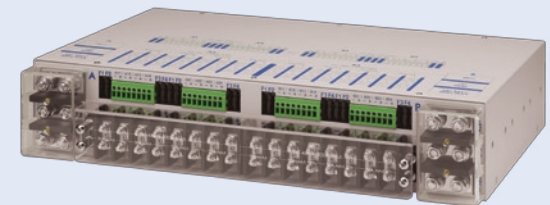
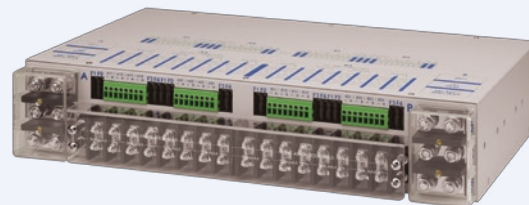
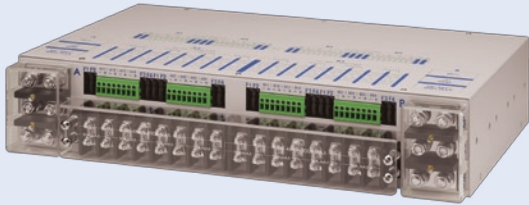
**Available TPA Fuse Values: 25, 30, 40, or 50 Amps maximum

***Fail-Safe: If A or B feed fails, the remaining operational feed will power the entire load

Sentry : Basic CDU

Horizontal Rack Mounted Enclosures

Model	PDU400-0-2	PDU400-0-3	PDU400-F-2 (Fail-Safe)**
Inputs	(2) 100A (+/-/G), -48VDC	(2) 200A (+/-/G), -48VDC	(2) 100A (+/-/G), -48VDC
Amps (A)	200A	400A	200A
Rack kW	9.6kW	19.2kW	9.6kW
Outputs	Low Current: (16) 0.5-15A* High Current: (8) 5-50A**	Low Current: (16) 0.5-15A* High Current: (8) 5-50A**	Low Current: (16) 0.5-15A* High Current: (8) 5-50A**
Dimensions	2U / 10" (254mm) Depth	2U / 10" (254mm) Depth	2U / 10" (254mm) Depth



Sentry : Switched -48VDC CDU

Rugged, Reliable Rack Power Distribution for -48VDC Applications

Key Features

Remote Power Management

> Combines intelligent power distribution and remote power control into a single 2U, 19" rack-mount enclosure

Qty (2) 100-Amp DC Power Input Feeds

> (A Feed & B Feed) Supports dual power supply routers and networking gear

Multiple DC Outlet Circuits

> Protected by GMT or TPC fuses

Outlet Circuit Protection

> Fast acting fuse with positive visual indication of a blown fuse

Variable Amperage and Interchangeable Fuses

> Match the fuse value to the amp rating of each outlet circuit

IP Access

> For Remote Power On/Off or Reboot

Communications and Security

> 10/100 BaseT Ethernet, HTTP/HTTPS, SSLv3/TLSv1, SNMPv2, SSHv2, Telnet, LDAPv3, TACACS+ & serial port access

Alerts

> Provide automated SNMP-based alarms or email alerts for power and environmental conditions

Modem Support

> Optional integrated secure global modem

Environmental Monitoring

> Two optional Temperature & Humidity probes

Load & On Sense

> Real time current draw reporting, in amps, for each outlet

> Power verification at each DC input and each DC output

Expansion Units

> Sentry -48VDC XLS links to an XMS -48 VDC unit

Other

> Logging with Syslog support

> Multiple sessions supported

Switched -48VDC CDU Overview

The Sentry Switched -48VDC Rack Power Distribution Unit (CDU) minimizes the impact of locked-up routers, servers and other network devices for mission critical networks. CLEC's, ILEC's and ISP's use Sentry -48VDC CDU's to manage equipment in remote sites, co-location facilities and network operations centers. Remote devices that are locked-up can be easily rebooted without the need to send a technician to the site. Key applications include power distribution and remote management for a cabinet with -48VDC powered switches and high-amp network equipment.

The Sentry -48VDC Switched products provide power distribution and remote power management in a compact 2U, 19" rack-mount enclosure. Other features include always-on technology for the highest level of fault tolerance, grouping of outputs to ensure that multiple supply devices come up at the same time across A and B power feeds, and linking for cost savings and doubling the number of outputs available on a single IP address.

Each power output terminal is protected by a GMT fuse, TPC fuse or circuit breaker, available in a wide range of capacities.



Fused Power Output Protection*

Each low and high current output are individually protected by their own fuse. A variety of current capacities are available. Low current GMT fuses have a visual indicator when blown. The fuses are rated as disconnect switches therefore they may be hot-swappable without removing power to input-feeds.



Dual 50-200A DC Power Input Feeds

Distribute 50-200 amps of power through low and high current outputs. Each output circuit is designed with their own over-current protection.



Environmental Monitoring

External probes, with 3-meter cable, capable of measuring temperature & humidity. Receive SNMP-based or email alert notifications when conditions exceed defined thresholds.



IP Access, Security & Communications

Web interface, SSL, SSH, Telnet, SNMP and RS-232 access, 10/100 Base T-Ethernet, SSLv3/TLSv1, SNMPv2, TACACS+, LDAP, LDAPS, DHCP, SMTP/Email, and Syslog.

Accessories

- > **Included:** Standard 19" mounting brackets
- > **HDW-MBXT-2U:** 23" 2U mounting brackets
- > Integrated Global Secure Modem 56kbps (XLS models) Not available on 4870-XLS-44.
- > **Temp & Humidity Probe:** EMTH-1-1 Temperature & Humidity Probe, 10'(3m).

Replaceable Fuses

All fuses are sold separately. Fuses and their values must be specified at time of order.

GMT (Low Current)

- > FUSE-GMT-3/4/G
- > FUSE-GMT-1.0A/G
- > FUSE-GMT-1.5A/G
- > FUSE-GMT-2A/G
- > FUSE-GMT-3A/G
- > FUSE-GMT-5A/G
- > FUSE-GMT-7.5A/G
- > FUSE-GMT-10A/G
- > FUSE-GMT-15A/G

TPC (High Current)

- > FUSE-TPC-10
- > FUSE-TPC-15
- > FUSE-TPC-20
- > FUSE-TPC-25
- > FUSE-TPC-30
- > FUSE-TPC-40
- > FUSE-TPC-50
- > FUSE-TPC-60
- > FUSE-TPC-75

*GMT Fuse Values: 0.75, 1, 1.5, 2, 3, 5, 7.5, 10, or 15A max

**TPC Fuse Values: 25, 30, 40, 50, 60 or 75A max

***Custom circuit breaker values: **4820:** 5, 10, 15, 20 & 25A

Sentry : Switched CDU

Horizontal Rack Mounted Enclosures

Model	4805-XLS-16	4805/35-XLS-12	4870-XLS-4
Inputs	(2) 100A (+/-/G), -48VDC	(2) 100A (+/-/G), -48VDC	(2) 100A (+/-/G), -48VDC
Amps (A)	200A	200A	200A
Rack kW	9.6kW	9.6kW	9.6kW
Outputs	Low Current: (16) 10A* High Current: None	Low Current: (8) 10A* High Current: (4) 70A**	Low Current: None High Current: (4) 70A**
Dimensions	2U / 16" (406mm) Depth	2U / 16" (406mm) Depth	2U / 16" (406mm) Depth



Model	4820-XLS-8	4870-XLS-44
Inputs	(2) 100A (+/-/G), -48VDC	(4) 70A (+/-/G), -48VDC
Amps (A)	200A	280A
Rack kW	9.6kW	13.4kW
Outputs	Low Current: None High Current: (8) 25A***	Low Current: None High Current: (4) 70A**
Dimensions	2U / 10" (254mm) Depth	2.5U / 16" (406mm) Depth





HEADQUARTERS - NORTH AMERICA

Server Technology, Inc.
1040 Sandhill Drive
Reno, NV 89521
United States
+00 (1) 775 284 2000 Tel
+00 (1) 775 284 2065 Fax
sales@servertech.com
www.servertech.com
www.servertechblog.com

EMEA

Server Technology Intl.
Sienna Court
The Broadway
Maidenhead
Berkshire
SL6 1NJ
United Kingdom
+44 (0) 1628 509053 Tel
+44 (0) 1628 509100 Fax
salesint@servertech.com

APAC

Server Technology, Inc.
37th Floor, Singapore Land Tower
50 Raffles Place
Singapore 048623
+65 (0) 6829 7008 Tel
+65 (0) 6234 4574 Fax
salesint@servertech.com