

# How do I optimally provide more than 10 kW per cabinet?

APPLICATION NOTE CDU-001

May 2015

## Learn how the Server Technology® Fully-Rated-Branch PDU provides maximum kW per dollar.

### Typical Application

I have been installing L21-30 circuits in my North American data centers for 8 kW cabinets. Some new designs are in process for 11kW cabinets. We are very cost conscious and only need basic levels of remote monitoring. What is the best way to move forward with the selection of a cabinet PDU?

### Our Solution

The Server Technology Fully-Rated-Branch PDU provides nearly 12.5 kW, when balanced. A common design strategy for the cost-conscious is to use 50A connectors on 6AWG cable for the same L21-30 cabinet PDUs in use. This strategy results in just under 10 kW allowed. The breakers in these products are rated, by safety code, to only 80% of their value. That is, 20A breakers are rated for use only to 16A. By using fuses as over-current protection (OCP), each branch of the three-phase 208V circuit can be run to 20A, thus providing a true fully-rated branch.



Plug Type	Phase Type	Line Max (A)	Line Rating (A)	Branches	OCP Rating (A)	OCP Type	Power Available (W)
L6-30P	1-phase 208V	30	24	2	16	Breaker	4992
IEC 60309	1-phase 208V	60	48	3	16	Breaker	4992
L21-30P	1-phase 208V	30	24	3	16	Breaker	8646
CS8365	1-phase 208V	27.71	27.71	3	16	Breaker	9984
<b>CS8365</b>	<b>1-phase 208V</b>	<b>34.64</b>	<b>34.64</b>	<b>3</b>	<b>20</b>	<b>Fuse</b>	<b>12480</b>
CS8365	1-phase 208V	50	40	6	16	Breaker	12480
IEC 60309	1-phase 208V	60	48	6	16	Breaker	17292

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# Stay powered with Server Technology

## Full range of the highest quality data center power management products and solutions

Server Technology's experts produce the highest quality rackmount power distribution and monitoring solutions that help manage power capacity, reduce downtime and improve energy efficiency. Our extensive selection of PDUs is 100% performance tested for reliability and accuracy and is adaptable, enabling quick delivery of solutions that meet customer-specific requirements.



PDU Performance Testing

### Key Intelligent PDU Benefits

- Fused OCP allows for fully-rated branches
- Dual temperature and humidity measurements through plug-and-play probes
- SNMP traps and email alerts
- Master-Expansion linking allows single-IP access to the cabinet pair of PDUs
- Switched units provide network-accessible reboot and on/off power control
- 120V utility outlet (some models)

### Key PowerIQ by Sunbird Benefits

- Custom Views per users for relevant data
- Alarm monitoring and management from the data center level down to the outlet (POPS products)
- Mass configuration of Server Technology PDUs through secure SNAP™ feature
- Cabinet-level redundancy reports
- Identify temperature variation across the data center
- Manage user rights to access and control power
- Convert continual data polling from all cabinets into actionable information in a variety of forms

# About Server Technology®

Server Technology, a brand of Legrand, is leading the engineering and manufacturing of customer-driven, innovative and exceptionally reliable power, access and control solutions for monitoring and managing critical IT assets for continual availability.

Server Technology's power strategy experts are trusted to provide Rack PDU solutions for data centers worldwide ranging from small technology startups to Fortune 100 powerhouses. Because power is all we do, Server Technology can be found in the best cloud and colocation providers, forward thinking labs, and telecommunications operations.

Server Technology customers consistently rank us as providing the highest quality PDUs, the best customer support, and most valuable innovation. We have over 12,000 PDU configurations to fit every data center need and most of our PDUs are shipped within 10 days.



## Rack PDU Buying Guide

Find the best PDU for your data center

[servertech.com/rack-pdu-buying-guide](http://servertech.com/rack-pdu-buying-guide)



## Rack PDU Selector

Over 2000 standard configurations

[servertech.com/product-selector](http://servertech.com/product-selector)



## Build Your Own PDU

Build an HDOT or HDOT Cx PDU in 4 easy steps

[byopdu.servertech.com](http://byopdu.servertech.com)



## Speak to a Power Expert

Get free technical support

[servertech.com/support](http://servertech.com/support)



## How to Buy

Tools to simplify the PDU buying process

[servertech.com/how-to-buy](http://servertech.com/how-to-buy)



## About Us

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