

How do I provide up to 34kW in a rack with only one pair of PDUs?

APPLICATION NOTE HDOT Cx-005

July 2018

Learn how to power high-density IBM/Lenovo NeXtScale System* devices.

Typical Application

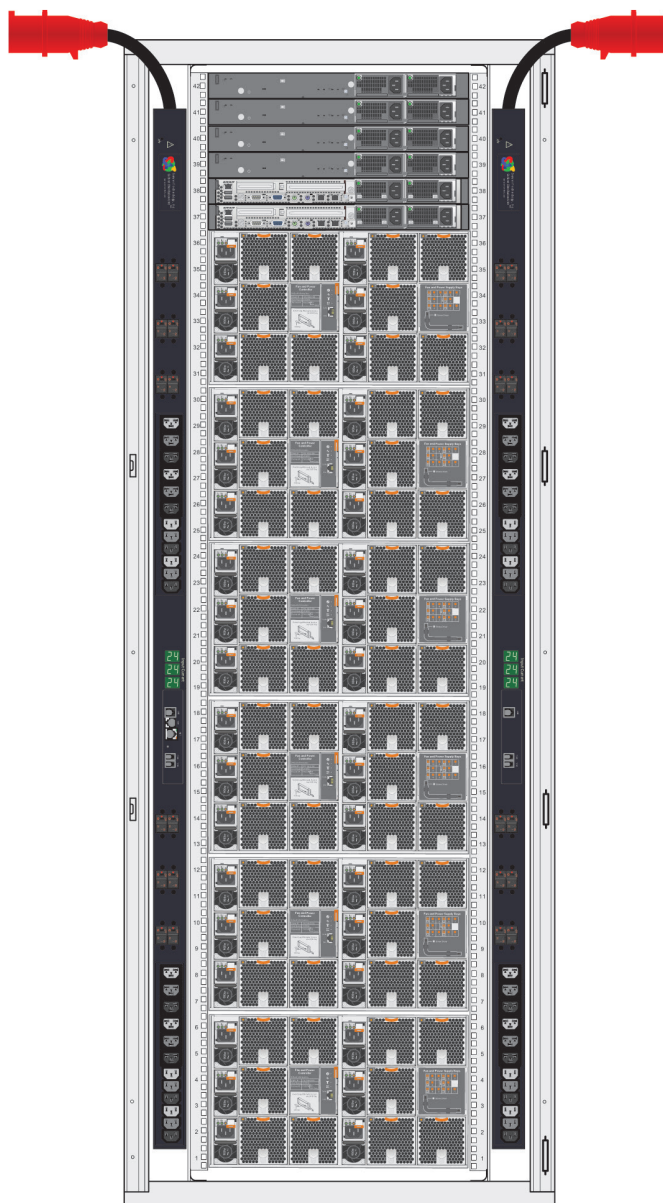
I am designing cabinets for high-density Hadoop clusters running on IBM/Lenovo NeXtScale chassis. Each cabinet has six chassis with 80 Plus Titanium rated 1300 watt power supplies - six supplies per chassis running N+N - and some miscellaneous 1U devices. I need a solution to distribute up to 27 kW of power in these cabinets and provide for system power usage and temperature monitoring.

Our Solution

This HDOT® Cx PDU is configured with 24 C13 outlets on an alternating-phase layout and an IEC 60309 60A North American rated plug. In an N+N redundant deployment, available power is about 34.5 kW when balanced. This alternating-phase design makes balancing easy with color-coded outlets. The Smart PIPS® metrics provide +/- 1% accuracy on typical power measurements and can be rolled into DCIM software for capacity planning and efficiency analysis.



Pictured right is a C1S24TB-5QAE2766 Smart Master PDU with a C1L24TB-5QAE2766 Link PDU. Choose from six highlight colors and a variety of outlet and plug combinations. Add up to four EMTH-1-1 for monitoring of temperature and humidity.



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About High Density Outlet Technology



HDOT® Cx Smart PDUs Maximize Density

Overview

Server Technology's High Density Outlet Technology (HDOT®) PDUs meet the needs of a wide range of data center equipment cabinets. High power densities and reduced cabinet space require new and innovative products like Server Technology's own patented outlet technology that provides 2-in-one Cx outlet for C14 and C20 cables in a drastically reduced footprint. Additional features include high native cord retention that eliminates the need for custom and costly ancillary locking cord devices. Manufactured with robust high temperature materials carrying a UL94 V-0 flame rating makes these outlets ideally suited for harsh data center environments.



Key HDOT® Cx Benefits

- 2-in-one Cx outlet for C14 and C20 cables
- Maximum possible outlet density in an Intelligent PDU
- High native cord retention, reducing the need for additional locking devices
- Color-coded alternating-phase outputs for easy cabling
- Certified for at least 60°C (140°F)

Key SMART PDU Benefits:

- PIPS® (Per Inlet Power Sensing) high-accuracy measurements of current, voltage, power, and other key power metrics
- Environmental measurements through plug-and-play probes
- SNMP traps and email alerts
- Master-Expansion linking allows single-IP access to the cabinet full of PDUs

Build Your HDOT® Cx PDU in Four Easy Steps at byopdu.servertech.com

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