

BUYING TIPS: PDUs



POWER DISTRIBUTION UNITS are one of the most integral components of a modern data center infrastructure. Here's how to make sure you have the best protection for your environment.

Know Your Needs

One of the biggest mistakes you can make in purchasing a PDU is getting one that isn't as capable as you need it to be.

That's why one of the first steps is knowing how many amps are needed to support your devices, says Ken Koty, sales engineer at PDU Cables (866/631-4238; www.pducables.com). "You also need to know how much power the devices in the rack will draw, being mindful that you have the right voltage and amperage numbers."

If you don't know what your power consumption needs are, bring in an expert who can help you determine them.

Understand The PDU Options

There are several different types of PDUs. A basic PDU provides continuous power to the equipment it's connected to, offering simple power distribution and branch circuit protection to your most critical devices.

The next step up, metered PDUs, offer monitoring and management features such as a current meter to keep an eye on load levels and avoid potential overloads. An

onboard LED displays the amps being drawn by devices.

A switched PDU lets you control each outlet individually at local or remote locations, often via a Web interface, with the ability to turn individual outlets on or off and reboot unresponsive equipment if necessary.

Koty says your uptime goals influence the PDU you purchase. "Inexpensive basic rackmount PDUs may distribute power effectively, but they offer little if any understanding or control of the critical energy flow."

Check For Quality

You want the best quality you can afford for reliability and performance to power your mission-critical applications, plus you want to make sure you purchase a PDU from a company that provides tech support and services after the sale.

To know whether you're buying a quality PDU, look under the hood, says Alex North, director of business development at BayTech (800/523-2702; www.baytech.net). Most rack PDUs look similar. "Evaluators need to open up the hood of all PDUs they are considering and use sound engineering-based judgment to evaluate the method of power distribution the manufacturer employed in the strip."

Consider Mounting & Outlets

Verify ahead of time where your PDU will be located and the type of rack you have so you know how your PDU needs to be mounted.


Koty notes that horizontal PDUs take up rack space normally reserved for equipment. "If you can't reserve horizontal space in the rack for the PDU, consider a vertically mounted PDU."

Make sure PDUs have the correct outlets and outlet counts, says Andy Grav, technical sales engineer at HM Cragg (800/672-7244; www.hmcragg.com). Koty says you also need to know which types of plugs devices use so you buy

PDUs with appropriate receptacles. Be sure to also measure the distance from your PDU to the power source so you know how long the power cord needs to be.

Think Intelligent

The need to purchase a PDU with some type of intelligent features—monitoring, management, or some form of control—is almost a given in most of today's enterprise data center environments.

Grav says today's lights-out data centers are using switched and managed PDUs. "Both of these options allow the end users to monitor the data center from a distance while still having control of the equipment," he says. 

CHECKLIST

Bob Parente, sales engineer at Server Technology (800/835-1515; www.servertech.com), recommends asking these questions when selecting a PDU:

What is the expected maximum power needed to the rack and what voltage can be supplied to the rack?

Does the expected max power include planned power redundancy and growth?

Will each rack be designed for power redundancy with a standard A and B Input feed configuration? What racks are being used (mounting considerations)?

What types of devices are being connected in the rack? Do you know the power factor for the devices within the rack? How many and what types of outlets are required?