

Nominee: Server Technology, brand of Legrand

Nomination title: High Density Outlet Technology (HDOT) with Alternating Phase Outlets Rack PDU in Switched and Smart POPS (Per Outlet Power Sensing)

Server Technology's patented Alternating Phase outlet technology on their High Density Outlet Technology (HDOT) PDUs, simplify load balancing and cable management for 3 Phase PDUs, by distributing phased power on a per receptacle basis (rather than in discrete separate outlet banks or groups). This innovation provides tangible benefits in the form of shorter cable runs, resulting in better airflow, easier load balancing, and overall greater efficiencies. Prior to the advent of HDOT, Alternating Phase products were impractical to build due to the low outlet density inherent with discreet commercially available outlets.

The Perfect 3 Phase Load Balancing Solution

Server Technology's Alternating Phase approach to the placement of the outlets on the power distribution unit means that instead of traditional PDUs having the X, Y, and Z phases grouped together: X,X,X; Y,Y,Y; Z,Z,Z, in an Alternating Phase configuration, those phases are grouped X,Y,Z; X,Y,Z; X,Y,Z. Plugging into a different phase is then a matter of inches, not a long power cord run to the bottom of the rack.

Key Benefits:

- **Easier load balancing:** Unbalanced power loads can cause uneven voltage and current measurements, which can be harmful to your equipment and trip your circuit breakers. The Alternating Phase PDU arrangement simplifies load balancing and allows you to alternate phase pairs on a per-outlet basis. The result is less clutter and shorter cords.
- **High native cord retention:** HDOT Alternating Phase PDUs provide high native cord retention of over 12 pounds pull strength, reducing or eliminating the need for custom and costly ancillary locking cord devices.
- **Solutions for high density environments:** HDOT offer the smallest form factor PDU, which significantly increases real estate in the back of the rack by fitting as many as 42 C13's



in a 42U high network managed PDU device—that's over 20 percent smaller than a comparable PDU using standard outlets.

- **Flexibility:** The simple modular PDU design of the HDOT Alt-Phase PRO2 rack PDU allows custom user configuration in four easy steps via the unique Build-Your-Own PDU online configurator. The user-friendly process guides you graphically through selecting voltage, amperage, phase, plug type, input cord orientation, outlet configuration, connectivity, and colour selection. With thousands of configurations possible, the customer is sure to find exactly the right product for their application.

HDOT with Alternating Phase Outlet Rack PDUs in Switched and Smart POPS

The HDOT Alternating Phase PDU, is available in Switched POPS, Smart POPS, Switched only, or Smart only and is the most feature rich rackmount PDU that Server Technology has ever developed, making it the most advanced PDU solution on the market. It provides maximum flexibility, unparalleled uptime, and accurate capacity planning.

- With the HDOT in Switched and Smart POPS, customers no longer need to pick and choose a single solution based on their current needs. The HDOT POPs rackmount PDU addresses the three data centre pain points: capacity planning, power density, and uptime.
- **Capacity planning:** with POPS technology, this PDU provides the capability to securely monitor power per individual outlet/ device. Power information per individual outlet/device includes current, voltage, power (kW), apparent power, crest factor, accumulated energy, and power factor. POPS Switched technology provides the flexibility needed for all data centres and remote sites, including power requirements for high amperage and high-voltage, Branch Circuit Protection, and SNMP traps and email alerts including current monitoring.
- **Uptime:** PRO2 enables communications with a Master unit even when the Master has lost input power, by back-feeding power to the network interface from a Link unit. The network interface is hot swappable in the field without changing the state of the outlets. The firmware in PRO2 allows even more opportunity for configurability and customization, while maintaining a clean and simple-to-use interface.

Not only is the HDOT Alternating Phase Outlets PDU in Switched and Smart POPs relevant across the wider industry, it's relevant through the changes a data centre manager might encounter during the growth and evolution of their facility.

Server Technology has provided a keystone for the three common data centre power pain points: capacity planning, uptime and power density. In addition, this PDU improves the user experience with the unique Alternating Phase for easy load balancing and improved cooling costs.

As the industry grows, the HDOT Switched and Smart POPS PDU's will allow for more devices in the cabinet at a lower cost, with technology to provide power metrics needed to grow the data centre accordingly. Beyond the value of the PDU itself, the product is available through a custom configurator, which allows the user to place the right outlet in the right place. With over 12,000 PDU configurations available to choose from, Server Technology have a HDOT rack PDU to fit every data centre need, 43,700 HDOT PDU units have been shipped.

This PDU is built to help the industry Stay Powered, Be Supported, and Get Ahead.

Why nominee should win

- **Market-leading:** Alternating Phase technology is an innovative patented PDU product feature, not available anywhere else on the market, 43,700 units shipped.
- **Unique modular design:** HDOT Alternating Phase PDUs are available through the Build Your Own PDU configurator, the user can order a PDU with their desired outlet configuration with the right outlets in the right place, 1,040 unique configurations.
- **Power Density:** HDOT offers the smallest form factor PDU, by fitting as many as 42 C13's in a 42U high network managed PDU device - over 20% smaller than a standard outlet PDU.
- **Cost Efficiency:** Alternating Phase outlets allow the user to plug in devices from top-to-bottom or bottom to top without disrupting phase and load balance. This allows for shorter cords, which lowers cooling costs and simplifies cable inventory.