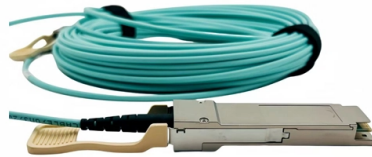
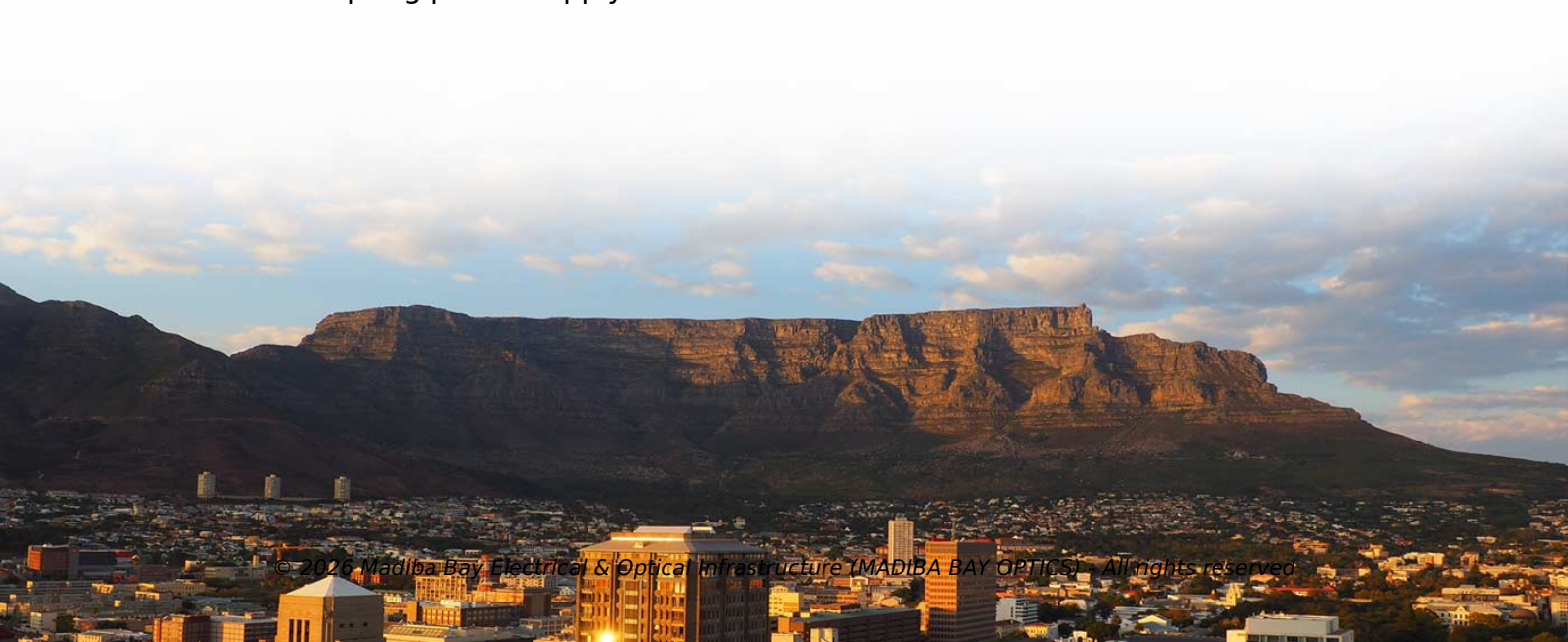


Low-loss operation and maintenance of hot-swappable power distribution units



Overview

Hot-swappable modules let you perform maintenance, replace, or upgrade any unit without shutting off power. You avoid downtime and keep your equipment safe. The system supports ongoing power needs and future. Data centers and servers need uninterrupted operation—downtime for maintenance or upgrades risks service disruption and lost uptime. This feature improves reliability, as you can swap out parts instantly. Implementing redundancy strategies like N+1 or 2N+1 enhances reliability, providing backup power sources to minimize downtime. Real-time monitoring and. Eaton offers Hot-Swap PDUs, which make any UPS hot-swappable, as well as Hot-Swappable Modular UPS Systems, which integrate a detachable Hot-Swap PDU. 3) provides real-time telemetry: input/output voltage, current roller manages inrush current limiting, soft-start sequencing, and reversible Insertion and Removal (L/N+N). Critically, the hot-swap capability delivers unique value: it enables data centers to safely insert, remove, or replace the PDB while the system remains energized, without disrupting power supply to other devices.



Article Content

48-V/+48-V hot-swap applications

Realizing the needs of hot-swap applications, Texas Instruments has put a great deal of effort into providing solutions for a variety of

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Hot swappable power supplies are often paired with redundant configurations where multiple power sources are in place. If one

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This can be resolved with a hot-swap controller (Figure 1), which carefully controls the inrush current to ensure a safe

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The hot-swap controller will also continually monitor the supply current after power-up for protection against short circuits and

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The selection of MOSFETs is critical, with criteria including voltage rating that matches the PDB's high-voltage input, low on

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Smart Power Distribution Unit with modular hot-swap design ensures uninterrupted power

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An external maintenance bypass reroutes power around the UPS, allowing for maintenance or repairs without interrupting the power

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