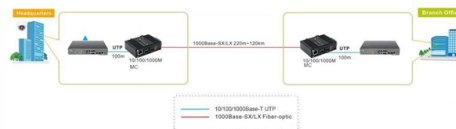


Explosion-proof server rack system for backbone network



AI Overview

Explosion-proof server racks are specialized enclosures designed to protect critical networking and server equipment in hazardous environments, combining heavy-duty construction, pressurization, and compliance with industrial safety standards.

Key Features

- Construction and Materials:** Explosion-proof server racks are typically made from 304 stainless steel with weatherproof seals to prevent ignition of flammable gases or dust in hazardous zones. They often include reinforced frames and heavy-duty steel panels to withstand mechanical stress and environmental hazards.
- Safety and Compliance:** These racks comply with explosion-proof standards and may require an air purge system to maintain positive pressure inside the enclosure, reducing the risk of sparks or ignition. Many models are certified for Zone 1 or Zone 2 hazardous areas and meet CE, RoHS, and ISO9001 standards.
- Seismic and Vibration Protection:** For backbone networks in industrial or earthquake-prone areas, explosion-proof racks can also be seismic-rated (Zone 4), ensuring stability during vibrations or seismic events. Reinforced mounting points and strain relief bars support heavy cabling and prevent equipment damage.
- Cooling and Ventilation:** Maintaining proper temperature is critical. Explosion-proof racks often integrate pressurized cooling systems or require external air lines to ensure electronics remain within safe operating temperatures while minimizing ignition risks.
- Compatibility and Customization:** Most explosion-proof racks are designed for standard 19-inch rack-mounted servers and networking equipment, with options for custom sizes, depths, and configurations to accommodate backbone network switches, routers, and storage devices.

Installation Considerations

- Air Purge System:** Ensure a continuous air supply to maintain positive pressure inside the enclosure.
- Cable Management:** Use strain re...

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