

RIVO MULTITRADE OPTICAL SYSTEMS

How to connect the switching power supply and cabinet in the communication equipment room



Overview

In front of each cable that's been punched in, simply plug in a short patch cable from the main switch in the cabinet.

Key Takeaways

Properly connecting a switching power supply to a network cabinet involves grounding, routing input and output cables to PDUs, and following structured cable management for safety and reliability. Preparation and Planning

Before connecting the power supply, assess the cabinet layout and power requirements. Identify the devices to be powered, the number of PDUs needed, and whether dual A/B power feeds are required for redundancy (). Ensure the cabinet has sufficient space for cable routing and ventilation, and plan the entry points for power cables, typically at the top or bottom of the cabinet ().

Grounding

Always connect the ground cable first to the cabinet and power supply. Proper grounding prevents electrical hazards and ensures compliance with safety standards ().

Connecting Input Power

- Route the input power cables from the switching power supply or ATS (Automatic Transfer Switch) to the cabinet. Use rodent-proof meshes or cable bushings to protect cables at entry points ().
- Connect input cables to the PDU (Power Distribution Unit) inside the cabinet. Remove any protective panels on the PDU, insert the cable terminals into the clamps, and tighten screws to the recommended torque to avoid loose connections ().
- Ensure cables are secured along the cabinet frame using cable ties or Velcro straps to prevent strain and maintain airflow ().

Connecting Output Power

- Connect the PDU output ports to the IT equipment using appropriate power cords. If dual PDUs are used, connect one to the A supply and the other to the B supply for redundancy ().
- Label all cables clearly for easy identification and maintenance ().

Cable Management and Safety

- Route cables to avoid blocking airflow and maintain cooling efficiency ().
- Use cable management accessories such as Velcro straps, cable trays, or side panels to organize cables neatly ().
- Follow local electrical codes and safety regulations when selecting cable types, connectors, and routing paths ().

Final Checks

- Verify all connections are secure and properly torqued.
- Ensure the cabinet is grounded and surge protection devices are in place.
- Test the power supply and PDUs before connecting critical equipment to confirm stable power delivery (). By following these steps, you ensure safe, reliable, and maintainable power connections in your communication equipment room, while supporting scalability and compliance with industry standards.

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MV Cables

The cable drum shall be properly mounted on jacks at a suitable location, making sure that the spindle, jack etc. are strong enough

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