

# The power distribution box is placed in the data center

## Article Overview

In a data center, the power distribution box, often a Power Distribution Unit (PDU) or Remote Power Panel (RPP), is typically located near or within the server racks to deliver stable power to IT equipment.

### Overview of Power Distribution

The power distribution box is a critical component in the data center's electrical infrastructure. Power enters the facility from the utility at medium voltage (e.g., 13.8 kV or 34.5 kV) and is stepped down to lower voltages (typically 480V or 208V) using MV/LV transformers located within the data center. This lower-voltage power is then routed through uninterruptible power supplies (UPS) and facility distribution panels to ensure continuous, clean power.

### Role and Location of the Power Distribution Box

The power distribution box, which can be a PDU or RPP, serves as the intermediary between the facility's electrical infrastructure and the IT equipment. Its main functions include:

- Distributing power from a single input source to multiple output receptacles for servers, switches, and storage devices.
- Providing monitoring and control capabilities, including load balancing and protection against power anomalies....

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For more information, pricing, or custom solutions, please contact us:

Website: <https://www.iiss.co.za>

Email: [sales@iiss.co.za](mailto:sales@iiss.co.za)

Phone: +27 63 174 2895

Address: Unit 8, Innovation Park, 15 Rivonia Road, Sandton, Johannesburg, 2196, South Africa

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