

Distribution Box Hierarchy Table

Article Overview

The distribution box hierarchy organizes electrical power flow from medium-voltage sources down to final load points, including RMU, MDB, SDB, and DB levels.

Power Distribution Hierarchy Table

Equipment	Full Name	Voltage Level	Function / Purpose	Typical Location	Common Applications
RMU	Ring Main Unit	Medium Voltage (11-33 kV)	Distributes and switches medium voltage; used in ring networks	Near transformer or substation	Utility and industrial setups
Transformer	Transformer	Medium to Low Voltage	Steps down MV to LV (e.g., 11kV/33kV -> 415V/230V)	After RMU	Commercial and industrial buildings
Switchgear	Switchgear	MV or LV	General switching and protection (breakers, isolators)	Throughout system	Everywhere in power systems
MDB	Main Distribution Board	Low Voltage (415V)	Distributes power to SDBs and DBs; houses main breaker	After transformer	Commercial/large buildings
SDB	Sub Distribution Board	Low Voltage (415V)	Intermediate distribution between MDB and DB	Per floor or section	Buildings, warehouses
DB	Distribution Board	Low Voltage (230V/415V)	Final circuit distribution to lights, sockets, and equipment	Near load points	Homes, offices, flats
Feeder Pillar	Feeder Pillar	Low Voltage	Outdoor power distribution point	Between MDB and load	Street lighting, outdoor loads
PCC	Power Control Center	Low Voltage	Controls heavy loads like motors	Industrial plants	Factories, large machinery
MCC	Motor Control Center	Low Voltage	Controls multiple motors with protection	Near motor-driven systems	Industry, HVAC plants

Hierarchy Flow (Top to Bottom)

- o RMU - Medium voltage switching from utility.
- o Transformer - Steps down voltage to usable LV.
- o Switchgear - Provides protection and control at various levels.
- o MDB - Main LV distribution point for the building.
- o SDB - Sub-distribution board for floors or zones.
- o DB - Final load distribution to equipment and appliances.
- o MCC/PCC/Feeder Pillar - Specific load control or outdoor applications.

Key Notes

- o Distribution Boards (DBs) are equipped with MCBs, RCDs, bus bars, and isolators to safely distribute power to final loads and protect circuits from overloads or faults .
- o SDBs act as intermediate boards, reducing the load on the MDB and providing localized control per floor or section .
- o MDBs serve as the main low-voltage distribution point, often housing the main breaker and meters for monitoring .
- o RMUs and switchgear handle medium-voltage switching and protection, ensuring safe and reliable power delivery from the utility to the building . This table and hierarchy provide a clear overview of how electrical

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power is distributed from high-voltage sources down to individual loads, helping in planning, installation, and maintenance of electrical systems.

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Learn what a power distribution box is, how it works, key components, types, and why it's vital for safe and efficient

This complete guide explains what LV panels, Main Distribution Boards (MDBs), Sub-Main Distribution Boards

SAP S/4HANA Article Master Hi ?, This article blog is about the Article master or Material Master life cycle. In this

In the sales process, customer hierarchies are often necessary and helpful to organize customers along multiple levels for uses such

Integrating the Hierarchy Chart into Power BI reports transforms static data tables into immersive, interactive experiences that

A distribution board (also known as panelboard, circuit breaker panel, breaker panel, circuit breaker, electric panel, fuse box or DB

Creating a hierarchy in an Excel pivot table is a powerful way to organize and analyze your data. By establishing a

This document provides a list of components in an electrical distribution box with their names and associated wiring diagrams. It

What to Look for When Choosing a Distribution Box If you're going to buy a distribution box, there are several things

Using a Hierarchy chart, we can analyze the distribution in hierarchical data by categorizing hierarchies using a color

Discover the key types of distribution boxes with NUOMAK's comprehensive guide. Learn about Main

Learn and explore how to visualize hierarchical data, including advantages, disadvantages, and best

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Electrical Distribution Box Diagrams This document provides a list of components in an electrical distribution box with their names

Distribution Box Types / Distribution Board Types (Quick Comparison) Use the table below to quickly identify which

A distribution box, also called an electrical distribution box, distributes incoming power to

Web: <https://www.millstraining.co.za>

