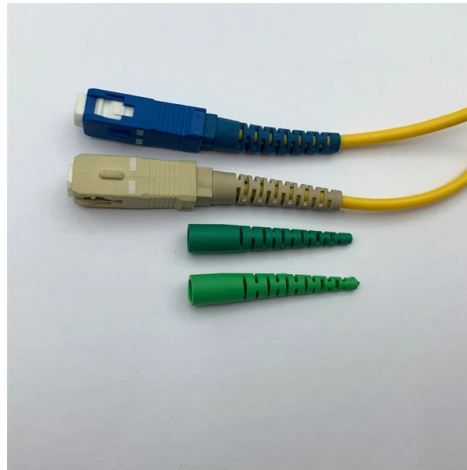


Main distribution box and secondary distribution box



AI Overview

The main distribution box (MDB) serves as the primary power distribution point from the transformer, while secondary distribution boxes (SDBs) distribute power to specific areas or buildings.

Main Distribution Box (Primary Distribution Box) The main distribution box (MDB) is the first point of power distribution after the utility service entrance or transformer. It typically receives low-voltage power (e.g., 0.4kV) from the transformer and distributes it to secondary panels or major loads. Key characteristics include:

- Acts as the central hub for the entire site or building.
- Contains main incoming breakers, busbars, isolating switches, circuit breakers, and residual current devices (RCDs) for protection.
- Usually does not supply power directly to end-use equipment.
- Designed to handle high fault currents and often built as large, floor-standing enclosures.
- May include metering systems and rainproof designs for outdoor installations.

Applications: MDBs are commonly used in large commercial buildings, industrial plants, high-rise residential complexes, and construction sites.

Secondary Distribution Box (Sub-Distribution Box) A secondary distribution box (SDB), also called a sub-distribution board, receives power from the MDB and distributes it to specific areas, floors, or buildings. Key features include:

- Breaks down power from the main feeder into smaller circuits for localized control.
- Equipped with larger three-phase circuit breakers to handle motors, machinery, or multiple circuits.
- Provides granular control, allowing isolation of a specific area without affecting the entire system.
- Can be installed indoors or outdoors, often with powder-coated, rainproof enclosures for safety and durability.

Applications: SDBs are used on different floors of office buildings, departments in factories, or wings of hospitals, ensuring safe and efficient power distribution to localized loads.

Key Differences

Feature	Main Distribution Box (MDB)	Secondary Distribution Box (SDB)
Power Source	Transformer	Main Distribution Box (MDB)
Function	Primary power distribution	Secondary power distribution
Location	Central hub, often outdoors	Localized areas, often indoors
Size	Large, floor-standing	Smaller, wall-mounted
Breakers	Large, high-capacity	Smaller, localized

Article Content

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There are many types of distribution boards, each made for different uses. Some are great for small homes, while others are built for big buildings or

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Generally, first level distribution does not allow direct use of electrical equipment, and second level distribution will be by power equipment because it is three-phase electricity, while third

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Understand distribution boxes (DB boxes) in 5 minutes. Learn about types, components, functions, and uses. Find the perfect DB box for your needs.

secondary distribution box, Class II distribution box - Ayump Electric

Class II distribution box is the distribution box, also known as sub box, which is generally responsible for a power supply area. Main circuit: main isolation + main circuit fuse or circuit breaker; shunt: shunt

Primary and secondary power distribution systems

Primary distribution systems Primary distribution systems consist of feeders that deliver power from distribution substations to distribution

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Learn how to choose a distribution box and understand its internal structure, including MCBs, busbars, neutral bars, earth bars, RCDs, RCBOs,

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Whether you're working on a residential building, a commercial facility, or a large industrial plant, understanding the different types of distribution boxes is

The Meaning and Function of Primary, Secondary, and Tertiary ...

Primary Distribution Box: Serves as the main distribution box for a construction site or project (usually only one). Secondary Distribution Box: Serves each floor or building as needed.

The Meaning and Function of Primary, Secondary, and Tertiary ...

The terms primary, secondary, and tertiary distribution boxes are relative. Let's make an example for clarity: A newly constructed residential area introduces a 10kV power line to a substation. From the

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Conclusion The primary and secondary distribution networks are vital components of the power delivery system. The primary network transports

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