

Level 1 Building Electrical Distribution Box



Article Overview

A Level 1 distribution box, also known as a primary or general distribution box, serves as the main hub for construction or building electricity, distributing power from the transformer to secondary systems while providing safety and monitoring features.

Purpose and Function

A Level 1 distribution box is the primary power distribution point in a building or construction site. It receives electricity from the transformer, typically at low voltage (0.4 kV), and distributes it to secondary distribution boxes or directly to large equipment in construction areas. It is not intended for direct use by household appliances; instead, it manages three-phase power for further distribution. The Level 1 box is designed to ensure safety, monitoring, and control. It usually contains:

- Isolation switches to disconnect power safely
- Circuit breakers for overload and short-circuit protection
- Leakage protection devices to prevent electric shock
- Busbars (often copper) for reliable current distribution
- Measuring systems to monitor voltage, current, and load

Construction and Design

Level 1 distribution boxes are often rainproof and suitable for outdoor use, with a front door for easy access. The main busbar is connected via copper bars to ensure...

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Distribution box

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Distribution boards components

Distribution boards (generally only one in residential premises) usually include the meter (s) and in some cases

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Distribution Boards

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Power distribution inside large buildings

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Distribution Box and Selection Guide: Internal Structure, Components ...

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

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Distribution Box Guide: Types, Components & Solutions

What is a Distribution Box? A distribution box, or DB box, is a circuit breaker enclosure. It is a vital part and central

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