

# Types of Distribution Boxes Used



## Overview

What Is a Distribution Box?

Types, Components & How A distribution box, also called an electrical distribution box, distributes incoming power to Distribut.

## Key Takeaways

Distribution boxes come in various types, including main and sub-distribution boards, single-phase and three-phase boxes, indoor and outdoor enclosures, and specialized control or lighting boxes. Overview

A distribution box (DB box) is a central hub that distributes electrical power from a main supply to multiple circuits while protecting against overloads and short circuits. They house components like circuit breakers, fuses, busbars, RCCBs, and isolators to ensure safety and efficient power management .

Common Types of Distribution Boxes

### 1. Main Distribution Board (MDB)

- Primary control panel for an entire building or facility.
  - Receives high-voltage supply and distributes it to sub-distribution boards and major loads.
  - Used in large commercial buildings, industrial plants, and high-rise complexes .
- ### 2. Sub Distribution Board (SDB)
- Receives power from the MDB and distributes it to smaller circuits.

- Common in residential buildings, offices, and smaller commercial setups . 3. Single-Phase DB Box

- Designed for residential properties or small commercial loads.

- Handles lower power requirements and simpler circuit layouts . 4. Three-Phase DB Box

- Used in industrial or large commercial facilities requiring higher power capacity.

- Supports heavy machinery and complex electrical systems . 5. Lighting Distribution Box

- Dedicated to managing lighting circuits with appropriate protection.

- Ensures safe operation of lighting systems in buildings . 6. Power Distribution Box

- Supports sockets, equipment, and heavy electrical loads.

- Common in workshops, factories, and commercial spaces . 7. Control Distribution Box

- Integrates control components like relays, contactors, and timers.

- Used in automation and industrial control systems . 8. Meter Panel

- Houses meters for monitoring electricity consumption.

- Often installed in residential or commercial buildings . 9. Panel Fuse Bank / Unitized Panel

- Contains multiple fuses or breakers in a compact unit.

- Provides modular protection for circuits . 10. Transfer Switch

- Allows switching between main power and backup generators.

- Essential for critical facilities requiring uninterrupted power . 11. Indoor vs Outdoor Boxes

- Indoor boxes: Wall-mounted or flush-mounted for residential and commercial interiors.

- Outdoor boxes: Pole-mounted or weatherproof enclosures with IP ratings for dust and water protection . 12. Material-Based Types

- Metal enclosures: Durable, often used in industrial settings.

- Plastic enclosures: Lightweight, corrosion-resistant, suitable for residential or light commercial use .

Selection Considerations

When choosing a distribution box, consider:

- Installation environment (indoor/outdoor)
- Electrical load and number of circuits
- Phase type (single or three-phase)
- Enclosure material (metal or plastic)
- IP protection rating for dust and water resistance
- Special features like smart monitoring or control modules . By understanding these types and their applications, you can select the right distribution box to ensure safety, efficiency, and long-term reliability in any electrical system.

## Article Content

Complete Guide For Distribution Boxes Types

The correct choice and installation of distribution boxes are crucial for electrical safety, efficiency, and reliability. This guide provides

## Contact Us

Continue your research online:

Website: <https://alfa-pro.co.za>

Technical inquiry: <https://alfa-pro.co.za/contact.html>

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

