All Factory Electrical Distribution Boxes

Overview

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

Key Takeaways

Factory electrical distribution boxes are strategically located throughout the facility, including main distribution boards, sub-distribution boards, control panels, and specialized boxes near machinery, lighting, and outdoor areas. Main Distribution Board (MDB)The Main Distribution Board acts as the central hub for the factory's electrical system. It is typically located in a dedicated electrical room or control room near the incoming utility supply.

The MD

B distributes power to all sub-panels and major equipment, housing main circuit breakers, bus bars, and protective devices to ensure overall system safety.

Sub-

Distribution Boards (SDB)Sub-Distribution Boards are installed in different sections of the factory, such as production lines, workshops, or storage areas. They receive power from the MDB and distribute it to localized circuits, including lighting, machinery, and auxiliary equipment.

SD

Bs are often wall-mounted or floor-standing depending on space and load requirements.

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

Control Distribution Boxes

Control distribution boxes are placed near specific machinery or automated systems. These boxes integrate relays, contactors, timers, and other control components to manage equipment operation safely. They are commonly found in assembly lines, CNC machine areas, and robotic workstations.

Lighting Distribution Boxes

Lighting distribution boxes are installed throughout the factory, including production floors, corridors, and outdoor areas. They manage lighting circuits and often include dedicated protection devices to prevent overloads.

Power Distribution Boxes

Power distribution boxes supply electricity to heavy machinery, compressors, and other high-load equipment. These are typically located close to the equipment they serve to minimize voltage drop and improve safety. They may be floor-standing or wall-mounted depending on factory layout.

Meter Panels

Meter panels are installed in utility rooms or near the main electrical entry point. They monitor energy consumption for different sections of the factory, helping with billing, energy management, and load balancing. Outdoor and Specialized BoxesPole-mounted or outdoor distribution boxes are used for external lighting, security systems, or outdoor machinery.

Manual and automatic transfer switches are installed near backup generators or critical systems to ensure uninterrupted power supply. Mounting and Material ConsiderationsWall-mounted boxes are common for easy access and space efficiency. Floor-standing boxes are used for larger loads or multiple circuits.

Metal enclosures are preferred in industrial areas for durability, while plastic enclosures are used in lighter-duty or corrosion-sensitive environments.

Summary

In a factory, distribution boxes are strategically placed to ensure safe, efficient, and reliable power distribution. Key locations include the main electrical room (MDB), production areas (SDBs), near machinery (control and power boxes), lighting circuits, and outdoor areas. Proper placement, mounting, and protective devices are essential for operational safety and maintenance efficiency.

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

Article Content

Distribution Box Guide: Types, Components & Solutions

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

Electrical Distribution Boxes for Power Distribution | Wieland

Electrical distribution boxes for modular power distribution and installation. Flexible distribution solutions for industrial and building electrical infrastructure.

Understanding Distribution Boxes:A Comprehensive Guide

Understanding its significance, this article covers what a distribution box is, how it functions, its structure, the various types available, and how it

Ultimate Guide To Distribution Boxes Db Boxes Types

This ultimate guide explains what a distribution box does, its internal components, common types, real-world applications, and how to select the right DB Box for

E-Abel | Electrical Enclosures & Control Panels Manufacturer ...

E-Abel specializes in custom electrical enclosures, control panels, and distribution boxes, delivering turnkey industrial and OEM solutions worldwide. From digital design to final assembly, we

PowerBox Factory

PowerBox factory offers a vast range of PDUs, distro boxes, racks, panels, adapters, cable extensions and splitters to safely manage power distribution, all designed and built to be fully compliant with the

Distribution Box Manufacturer

DOHO has a large selection of distribution boxes that are tailored to your specific requirements as one of the world''s leading power distribution box manufacturers.

distribution box factory

Discover our comprehensive range of distribution boxes designed to meet diverse needs. From standard distribution boxes to specialized configurations, SX

Distribution enclosure, Distribution box

Find your distribution enclosure easily amongst the 112 products from the leading brands (RITTAL, HARTING, MARECHAL, ...) on DirectIndustry, the industry

The Ultimate Guide to Distribution Box Types

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

Discover the key types of distribution boxes with NUOMAK''s comprehensive guide. Learn about Main Distribution Boards (MDB), Consumer Units, Transfer Switches, and more to choose the perfect

Electrical Distribution Boxes for Power Distribution | Wieland

The Wieland distribution boxes, ic compliance to IEC 61439, together with our installation connector systems, in compliance to IEC 61535, as well as its system components form the nervous system of

Understanding Distribution Boxes: A Comprehensive Guide

A distribution box, also known as a power distribution box or electrical distribution box, is used to distribute electrical power safely to multiple circuits. It helps organize, protect, and control

Home Technogroup

Technogroup is one of the largest suppliers of GRP/FRP products, providing comprehensive solutions across key sectors, including Energy, Electrical, and Water. With three state-of-the-art factories, we

Distribution Box vs Control Box vs Junction Box: Key Differences and ...

Learn the differences between distribution boxes, control boxes, and junction boxes. Discover their functions, applications, and how E-abel provides customized electrical enclosure

Industrial 3 Phase Electrical Distribution Box Guide

Explore the essentials of industrial 3 Phase Electrical Distribution Box for efficient power management in commercial settings. Get expert insights now.

Power Distribution Boxes

Features of Power Distribution Boxes Our power distribution boxes feature advanced safety mechanisms, including circuit breakers, surge protection, and

Electrical Control Panels & Distribution Boxes: Sizes,

Introduction Electrical control panels and distribution boxes are the backbone of modern electrical systems. From powering homes and industrial

10 Distribution Board Types Explained [July 2026]

Key Takeaways A distribution board safely distributes electrical power from a main source to various circuits and areas within a building. There are 10

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

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.

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved