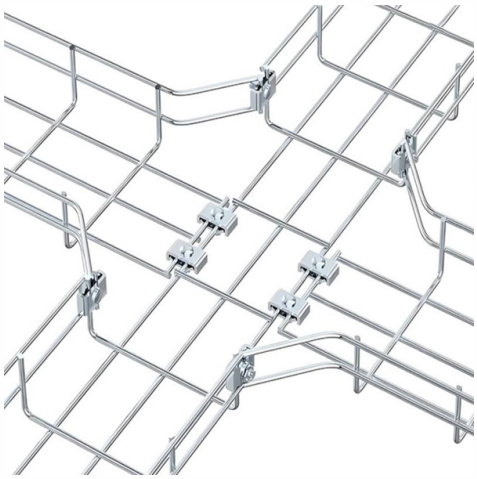
Standard configuration of three-level distribution box factory



Overview

Our Complete 3-Stage Industrial Power Distribution System is a graded power distribution solution customized for industrial scenarios.

Key Takeaways

A three-level distribution system consists of a main distribution box, secondary distribution boxes, and tertiary switch boxes, each with specific equipment, protection, and installation standards.

Overview of Three-

Level Distribution

A three-level distribution system is designed to distribute electrical power hierarchically from the main power source to individual electrical equipment, ensuring safety, control, and protection. The system follows the principle of “one machine, one switch, one leakage, one box”, meaning each piece of equipment is controlled by a dedicated switch and protected by a leakage protector.

First-

Level Distribution Box (Main Distribution Box)Location: Installed near the power source or substation. Function: Receives incoming power, distributes it to secondary distribution boxes, and provides centralized monitoring. Equipment: Main circuit breakerMain leakage protectorVoltmeter and ammeter for monitoringN-line and PE-line terminal boards with proper insulation and grounding Construction: Cold-rolled steel plate, rainproof, dustproof, thickness ≥1.

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5mm, anti-corrosion treated.

Second-

Level Distribution Box (Branch Distribution Box)Location: Installed near power consumption areas or large electrical equipment. Function: Receives power from the main distribution box and distributes it to tertiary switch boxes. Equipment: Branch circuit breakersBranch leakage protectorsConstruction: Cold-rolled steel plate or flame-retardant insulating material, thickness ≥1.

2mm, rainproof, anti-corrosion treated. Design: Inner and outer door design for safety and aesthetics.

Third-

Level Distribution Box (Switch Box)Location: Close to the electrical equipment it controls, typically within 3 meters horizontally. Function: Directly powers individual electrical equipment, ensuring no branching beyond this point. Equipment: Leakage protection switchDedicated switch for each machine or socketDesign Principle: “One machine, one switch, one leakage, one box” to prevent multiple devices from being controlled by the same switch.

Installation and Safety Standards

Distance Requirements: Distribution box to switch box: ≤30 metersSwitch box to fixed equipment: ≤3 meters Separation of Circuits: Power and lighting circuits should be separated, with independent branch circuits and switch boxes. Environmental Safety: Boxes must be installed in safe operational, protective, and maintenance environments. Certification: Products must comply with national standards and pass CCC certification.

Summary

The three-level distribution system ensures hierarchical power distribution, safety, and protection. The main distribution box handles centralized control, the secondary box manages branch circuits, and the tertiary switch box provides direct, protected power to individual equipment. Proper spacing, material standards, and adherence to the “one machine, one switch, one leakage, one box” principle are essential for compliance and operational safety.

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The power distribution from the power input point to the end electrical equipment needs to go through three levels of Powbinet. This architecture uses the main distribution box as the primary hub, with

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As for the equipment inside, there are certain differences: the first level distribution cabinet generally has isolation switches, circuit breakers, leakage protectors, etc., the second level

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Follow key principles: no cross-level wiring, one machine-one switch, ≤30m box spacing, dry/ventilated installation for safe distribution.

Configuration Standards For Distribution Boxes (cabinets) At All Levels

The distribution box (cabinet) is suitable for temporary power supply at the construction site and should meet the requirements of "three-level power distribution, two-level leakage

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Third level distribution box: refers to the final junction box of each electrical appliance, which can be movable and fixed. Remember that the leakage protection switch is the last one, and

three-level distribution system_switchgear_Switchboard_circuit

The three-level distribution system refers to a system that distributes electric power through three levels of distribution devices from the incoming power line at the construction site to

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