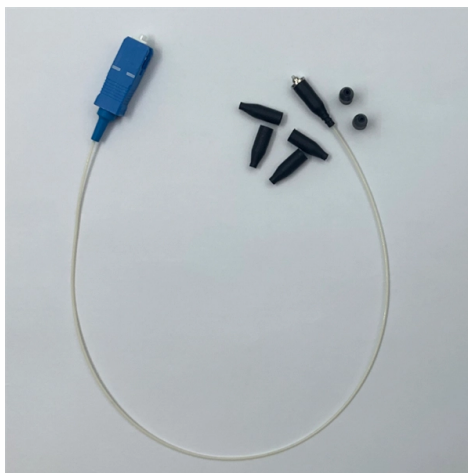


380V distribution box standard level 3



Overview

Three Phase Distribution Box 380V: Complete Selection Guide for. Comprehensive guide to three phase distribution box 380V systems for industrial applicat.

Key Takeaways

A 380V Level 3 distribution box is a tertiary low-voltage distribution unit designed for three-phase systems, typically used to supply power to small machinery, tools, and temporary lighting at construction sites or industrial facilities.

A Level 3 distribution box (tertiary distribution box) is the final stage in a three-tier power distribution system, receiving power from a Level 2 distribution box and supplying it directly to end-use equipment. It is commonly used for small construction machinery, handheld tools, and temporary lighting at construction sites or for localized industrial applications . The 380V rating refers to the nominal line-to-line voltage in a three-phase system, which is standard in many industrial and commercial applications worldwide. This voltage is compatible with 400V or 415V systems due to IEC standard tolerances, allowing safe operation across different regional grids .

Key Selection Criteria

- **Rated Current of Main Switch:** Choose the main switch rating based on the outgoing current from the Level 2 distribution box. For example, if the Level 2 box outputs 63A, select a 63A main switch; for 100A output, select a 100A main switch. The final specification should match actual on-site operating conditions .



- **Socket and Circuit Configuration:** Determine whether outgoing circuits require industrial sockets, waterproof 5-hole sockets, AC30 sockets, or terminal blocks. For three-phase equipment requiring a neutral line, use 5-core sockets; for equipment without neutral, 4-core sockets are sufficient. It is recommended to reserve circuits for both three-phase and single-phase supply for emergency use .
- **Compliance and Safety:** Ensure the distribution box meets relevant standards for low-voltage distribution (up to 1000V AC) and includes protection mechanisms such as overload, short-circuit, and leakage protection. Modular designs allow flexible installation and safe operation .

Applications

- **Construction Sites:** Powering electric tools like concrete vibrators, impact drills, angle grinders, and small welders.
 - **Small Machinery:** Supplying power to small mixers, steel bar cutters, and water pumps.
 - **Temporary Lighting:** Providing lighting for foundation pits, corridors, and night construction areas.
 - **Localized Industrial Use:** Terminal power distribution points close to equipment for convenience and safety .
- #### Installation and Maintenance
- **Wiring:** Use copper wiring for higher current capacity and ensure tidy, straight layouts for easy maintenance.
 - **Mounting:** Can be surface-mounted or flush-mounted depending on site requirements.
 - **Protection:** Include surge protection and follow graded lightning protection principles if installed outdoors .

Summary

A 380V Level 3 distribution box is a critical component for tertiary power distribution, providing safe, flexible, and localized power supply for construction and industrial applications. Proper selection of rated current, socket configuration, and compliance with safety standards ensures reliable operation and protection of connected equipment .

Article Content

Choose & Install Low Voltage Distribution Boxes Practical Guide

Select and install low voltage distribution boxes . This guide covers sizing, mounting, cable management, maintenance

Electrical Cable Size Calculator and BS7671 Wire Sizing Chart

Try our free Electrical Cable Size Calculator online, Select Phase, Voltage, Power, Amps and Length to find the Core Size, no

Modular 380V Gck Power Distribution Box for Urban Building

This modular 380V GCK power distribution box adopts standard combined module design with freely expandable circuits. The

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

