

What type of circuit breaker should be used in the distribution box



Article Overview

Circuit breakers in distribution boxes include MCBs, MCCBs, ACBs, RCCBs/RCDs, AFCIs, and MPCBs, each designed for specific protection and applications.

Common Types of Circuit Breakers

1. Miniature Circuit Breakers (MCB) MCBs are used in residential and light commercial applications for low-voltage circuits (6–125A). They protect against overcurrent and short circuits and are ideal for individual appliance or lighting circuits in homes and offices . 2. Molded Case Circuit Breakers (MCCB) MCCBs handle higher currents (100–2500A) and are suitable for commercial and industrial installations. They provide adjustable trip settings for overload protection and can interrupt larger fault currents than MCBs . 3. Air Circuit Breakers (ACB) ACBs are designed for heavy industrial systems with currents ranging from 800–6300A. They are typically used in main distribution panels and offer protection against overloads, short circuits, and electrical faults in large-scale installations . 4. Residual Current Circuit Breakers (RCCB/RCD) RCCBs or RCDs detect leakage currents to prevent electric shocks. They do not protect against overcurrent but are essential for personal safety in residential and commercial settings . 5. Arc Fault Circuit Interrupters (AFCI) AFCIs detect arc faults caused by damaged wiring or loose connections, preventing electrical fires. They are increasingly used in modern homes and offices for enhanced fire safety . 6. Motor Protection Circuit Breakers (MPCB) MPCBs are specialized for motor circuits, protecting against overload, short circuit, and phase failure. They are commonly used in industrial motor control panels

Article Content

Circuit breaker

Circuit breakers are commonly installed in distribution boards. Apart from its safety purpose, a circuit breaker is also often used as a

Identifying the Different Types of Circuit Breakers

Circuit breakers protect electrical circuits by stopping the flow of electricity when they detect too much current on the

7 Circuit Breaker Types: Differences, Uses & Selection Guide

MCBs and RCBOs are ideal for residential circuits, MCCBs and ACBs serve industrial power distribution, while VCBs and SF6

Complete Guide For Distribution Boxes Types

Distribution boxes, also known as electrical distribution boards or panels, are pivotal components in electrical systems, ensuring the

Guide to Distribution Boards: Working, Uses, and Types

Distribution boards, also known as breaker panels, electric panels, or fuse boxes, are an integral part of any electrical system. They

Distribution Boards

Distribution boards, often referred to as electrical panels or breaker boxes, serve as the nerve center of any electrical system. Here

Wiring of the Distribution Board with RCD (Single Phase Home Supply)

Electrical Wiring Installation of the Distribution Board with RCD (Single Home Phase Supply From Utility Pole & Energy Meter to the

Different Types of Circuit Breakers: The Full Guide (2025)

Explore the different types of circuit breakers in this complete 2025 guide. Learn their functions, applications, and how

Types of Circuit Breakers

All types of circuit breakers interrupt electrical flow to prevent fires and protect electronic equipment. Use this guide to

Contact Us

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