

Normal wiring in the distribution box



Article Overview

A distribution box safely distributes incoming power to multiple circuits using MCBs, RCCBs, neutral and earth bars, with proper wire sizing, color coding, and protective devices.

Key Components

A standard distribution box includes:

- Main Circuit Breaker (MCB): Acts as the main switch, typically double-pole for single-phase systems, rated according to total load (e.g., 63A for domestic use) .
- Residual Current Circuit Breaker (RCCB): Provides protection against leakage currents and electric shocks, usually rated at 30mA for domestic installations .
- Branch MCBs: Single-pole or double-pole breakers for individual circuits such as lighting, sockets, or air conditioning .
- Neutral Bar: Distributes the neutral wire to all outgoing circuits .
- Earth Bar: Connects all protective earth wires to ensure grounding .
- Busbars and DIN Rails: Facilitate organized mounting and connection of breakers and protective devices .

Wiring Layout

- Incoming Supply: Connect the phase and neutral wires from the main supply to the input terminals of the main MCB .
- Main MCB to RCCB: The output of the main MCB is connected to the input of the RCCB to provide overall protection .
- RCCB to Branch MCBs: The output of the RCCB feeds the branch MCBs, which the...

Article Content

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Distribution Boards

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

Contact Us

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