

Correct Wiring Method for Distribution Box Switches



Article Overview

Distribution box switches are wired by connecting the main supply to the main switch, then to protective devices like RCCBs, followed by branch MCBs, with proper neutral and earth distribution.

Key Components and Their Wiring

Main Switch (Isolator or Main MCB): The incoming phase and neutral lines from the energy meter are connected to the main switch, which serves as the primary control to turn off or on the entire electrical system . For single-phase domestic installations, a double-pole MCB is commonly used as the main switch .

RCCB (Residual Current Circuit Breaker): The output of the main switch is connected to the RCCB, which protects against leakage currents, electric shocks, and insulation failures . The RCCB output then feeds the branch MCBs.

Branch MCBs (Miniature Circuit Breakers): Each branch MCB protects individual circuits such as lighting, sockets, or appliances. Single-pole MCBs are typically used for standard loads, while double-pole MCBs may be used for special or high-power loads . The phase wire from the RCCB is connected to the input of each MCB, and the output is distributed to the respective load.

Neutral and Earth Links: Neutral wires from all loads are connected to a neutral bus bar, while all earth wires, including the metallic body of the distribution box, are connected to an earth bus bar linked to the earth pit .

Wiring Practices...

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