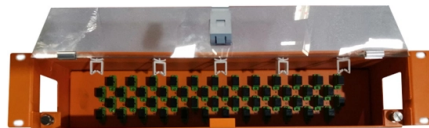


How to wire a distribution box with multiple input and output circuits



Summary of Content

A distribution box is wired by connecting the main supply to a main switch or MCB, then distributing power through RCCBs and individual MCBs to multiple output circuits, ensuring proper labeling, organization, and safety checks.

Step-by-Step Wiring Process

1. Main Supply Connection The phase and neutral lines from the energy meter or utility supply are first connected to the main isolator or main MCB. This acts as the primary switch to control the entire distribution box . For single-phase systems, a double-pole MCB is commonly used as the main switch . 2. Protective Devices From the main switch, the phase line is connected to an RCCB (Residual Current Circuit Breaker) to protect against leakage currents and electric shocks . The neutral line is connected to a neutral bus bar. The RCCB ensures safety by isolating the circuit during fault conditions. 3. Branch Circuit Connections Each output circuit is connected to a separate MCB. Single-pole MCBs are typically used for standard loads, while double-pole MCBs may be used for special or high-power loads . The phase line from the RCCB is connected in parallel to all MCBs, and the neutral line is connected to the neutral bus bar. 4. Wiring Layout and Organization

- Direction: Wiring from the main breaker to branch MCBs is usually routed on the left side, and outgoing wires to loads are routed on the right .
- Binding: Use plastic ties to keep wires organized, straight, and free from tangles. Maintain uniform spacing for neatness and safety .

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Distribution Box Wiring Steps

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