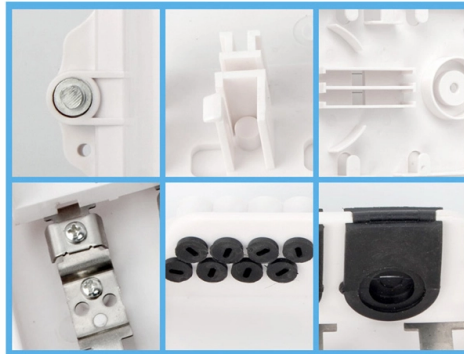


Copper busbars placed in the distribution box



Overview

Choose from our selection of copper bus bars, including over 650 products in a wide range of styles and sizes.

Key Takeaways

Copper busbars are metallic strips located inside the distribution box, typically behind the circuit breakers, serving as the main conductive paths for power distribution.

In a distribution box (also called a breaker panel), copper busbars are the primary conductive elements that carry electricity from the main incoming supply to the individual circuit breakers. They are usually flat or rectangular strips of copper, chosen for their excellent conductivity and durability. The busbars are often mounted vertically or horizontally along the back or sides of the panel, depending on the design.

Typical Placement

- **Main Busbar:** Located directly behind or adjacent to the main breaker, this busbar distributes power to all branch circuit breakers.
- **Neutral Busbar:** A separate copper bar, often mounted along the side of the panel, collects all neutral wires from the circuits.

- **Ground Busbar:** Another copper bar, usually near the neutral busbar, connects all grounding wires for safety . The busbars are usually covered with insulating material or protective barriers to prevent accidental contact and short circuits . In larger or industrial panels, multiple busbars may be arranged in double-bus, ring, or sandwiched configurations to handle higher currents and improve reliability .

Safety Considerations

- Always turn off the main power before inspecting or working near busbars.
- Avoid direct contact with copper busbars, as they carry high current and can cause severe electric shock .
- Use insulated tools and wear protective equipment when performing maintenance.

Summary

Copper busbars in a distribution box are the central conductive strips that connect the main power supply to all circuit breakers. They are typically located behind the breakers, with separate bars for neutral and ground connections, and are often insulated for safety . Proper identification and handling are essential for safe electrical work.

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