

Distribution Box Fabrication and Configuration



Article Overview

Distribution boxes are fabricated through precise metal processing and assembly, then configured with electrical components to ensure safe, reliable power distribution.

Fabrication Process

Material Selection and Preparation: The process begins with selecting high-quality raw materials such as galvanized steel, stainless steel, or plastic composites depending on indoor or outdoor use. Sheets are tested for thickness, hardness, and corrosion resistance, and protective coatings like powder paint or galvanization are applied to enhance durability and aesthetics . **Cutting and Forming:** CNC laser cutting and punching machines shape the metal sheets with high precision. Bending, stamping, and hole-making are performed using hydraulic or CNC press brakes to form the box's sides, back, and top . Accuracy is critical to ensure proper alignment for components and seals. **Surface Treatment:** After forming, the enclosure undergoes surface finishing such as powder coating, painting, or galvanization to prevent corrosion and improve appearance . **Assembly:** The enclosure is assembled using spot welding, fasteners, or reinforced frames. Holes for circuit breakers, switches, cable entries, and mounting hardware are precisely punched or drilled . This ensures that all components fit securely and the box maintains structural integrity.

Configuration and Customization...

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Distribution Box: Types and Functions | Axis-Electricals

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