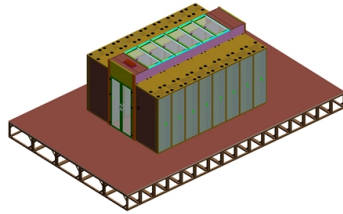


Standard for Equipped Distribution Boxes



Article Overview

Equipped distribution boxes must meet strict standards for enclosure, wiring, protection, grounding, and compliance with NEC, IEC, or local codes to ensure safe and reliable power distribution.

Enclosure and Material Requirements

Distribution boxes should be made of durable materials such as steel or high-quality insulating plates, with wooden enclosures generally not recommended. The enclosure must protect internal components from dust, water, and mechanical damage, with IP or NEMA ratings selected according to indoor or outdoor use. Steel enclosures typically require a minimum thickness of 1.5–2.0 mm, with back panels at least 3.0 mm for structural integrity. Doors and panels should be robust, and mounting lugs must be provided for secure installation.

Installation and Placement

- Height: Fixed distribution boxes are usually installed with the bottom edge 1.3–1.8 meters above the ground, while mobile boxes can be 0.6–1.5 meters.
- Location: Install in dry, well-ventilated areas close to the power source to minimize voltage drop and heat accumulation. Avoid humid, corrosive, or poorly ventilated environments.
- Fixing: Use firm mounting brackets or screws to prevent tilting or movement due to vibration or collision.
- Spacing: Maintain proper distances between boxes and equipment; for example, a distribution box should be within 30 meters of a switch box, and switch boxes should...

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