

Non-standard distribution box enclosure



Overview

EBOX Inside salespeople at electrical distribution centers need a reliable source for non-standard or custom Distribution Box and Selection Guide: Internal.

Key Takeaways

Non-standard distribution boxes are customized electrical enclosures designed to meet specific technical, environmental, and operational requirements beyond standard configurations. Design and Technical Requirements

Non-standard distribution boxes are engineered to provide high technical performance, ensuring reliable operation of electrical systems. Their design considers mechanical and electrical properties, including stiffness, strength, electromagnetic isolation, grounding, noise protection, and heat dissipation through natural ventilation or heat pipes. They are also designed to resist vibration, impact, corrosion, moisture, fouling, and electromagnetic interference, ensuring stable operation in demanding environments .

Usability and Safety

These enclosures prioritize operator safety and ease of use, facilitating installation, maintenance, and operation. Safety features may include protective barriers, grounding systems, and ergonomic access to internal components. Non-standard boxes are also designed for efficient production, assembly, commissioning, packaging, and transportation, making them practical for industrial deployment .

Materials and Environmental Protection

Non-standard boxes often use stainless steel or high-quality sheet metal, providing resistance to harsh conditions such as chemical exposure, extreme temperatures, and outdoor environments. Some designs are suitable for hazardous zones (Zone 1, 2, 21, 22), offering protection against dust, water, and explosive atmospheres. Customization allows for specific dimensions, flanges, mounting plates, and internal layouts to accommodate unique equipment or installation requirements .

Compliance and Standardization

While customized, non-standard distribution boxes still adhere to relevant standards and codes, such as IEC 61439, IEC 60670, UL/NEC, or regional electrical regulations. They can be serialized and standardized within a product line to ensure consistency and quality control .

Applications

Non-standard distribution boxes are used in industrial, commercial, and specialized applications where standard enclosures cannot meet space, load, or environmental requirements. They are ideal for machinery, solar installations, outdoor setups, or areas with extreme environmental conditions, providing tailored solutions for complex electrical distribution needs . In summary, non-standard distribution boxes offer customized, robust, and safe solutions for electrical distribution, combining technical performance, environmental protection, and operational convenience to meet specialized requirements.

Article Content

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Size all enclosures to accommodate the largest size cable or piece of equipment that may ultimately be installed for 600-Amp and

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

