Ladder Cable Tray Specifications and Dimensions

Article Overview

Ladder cable trays are standardized by width, side rail height, rung spacing, and length, with variations depending on load capacity and installation standards.

Standard Dimensions

Widths: Ladder trays are available in nominal widths of 150 mm, 203 mm, 300 mm, 450 mm, 600 mm, 750 mm, and 900 mm for general applications, with some manufacturers offering up to 1067 mm for specialized installations . Side Rail Heights: The side rail height determines load capacity and structural strength. Typical heights include 65 mm (shallow), 93.5 mm (intermediate), 131 mm (high), and 150 mm (tallest/heavy-duty) . Aluminum trays may have heights of 66 mm, 90 mm, 128 mm, 137 mm, and 175 mm depending on CSA or UL standards . Rung Spacing: Standard rung spacing options are 150 mm (6"), 225 mm (9"), and 300 mm (12"), with NEMA ladders commonly using 333.3 mm between rungs . Lengths: Straight sections are typically 3 m (3000 mm) or 6 m (6000 mm), with longer spans of 9.1 m and 12.2 m available for special applications . Material Thickness: Ladder trays are manufactured from aluminum or steel, with thickness varying by duty class to support the intended cable load. Aluminum alloys like 6063-T5 are common for structural strength, while accessories may use 5052-H34 .

Design Considerations

o Load Capacity: Side rail height and material thickness are more critical than width for supporting heavy cables. Wider trays reduce cable stacking and improve heat dissipation .
o Ventilation: Ladder trays have open rungs to allow airflow, which is essential for power and large-diameter cables .
o Cable Fill: Proper sizing requires calculating the total cable cross-sectional area and applying fill factors (typically 50-60%) to avoid overcrowding .
o Standards Compliance: IEC 61537, NEMA, and CSA standards guide tray selection for mechanical strength, electrical continuity, and ventilation .

Summary

When selecting a ladder cable tray, consider width, side rail height, rung spacing, length, material, and load requirements. Standardized dimensions allow compatibility with fittings, splices, and supports, ensuring safe, ventilated, and code-compliant installations for industrial, commercial, or data center applications .

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The document discusses aluminum cable ladder products from series 2, 3, 4, and 5. It provides information on straight sections,

Standards classifications, dimensions and construction for Metsec cable ladder systems. For any further enquiries, please contact

NEMA VE 1-2017 Specifies requirements for metal cable trays and associated fittings designed for use in accordance with the rules

The Ladder Tray features light, rugged, tubular steel construction. It is designed for mechanical support and strain relief in long runs

The document contains specifications for cable ladder and tray systems including dimensions, materials, and part numbers. It lists

These guidelines will be particularly useful for the design, specification, procurement, installation and maintenance of these systems.

Discover reliable ladder cable trays designed for heavy-duty cable management, ensuring durability, strength, and easy installation in

Proper tray and ladder sizing ensures safe, efficient, and maintainable electrical installations in all engineering applications. IEC

Both the "pounds per foot" and "how often the tray is supported" must be completed if the NEMA Class is unknown. 4. Siderail

Cable Ladder Specifications: A. CABLE TRAY DESIGN Cable Tray shall be made of straight sections, fittings and accessories as

A. The fiberglass ladder-type cable tray system shall be manufactured - pultrusion, compression molded, resin transfer molded

Our cable ladder rack systems are designed to work with cable ladder cable trays and other items for the

Steel straight ladder tray sections with 6" side rails, available in 6"-36" widths and 10"-24" lengths. Compliant with NEMA 12C, 20B,

Cable Support Systems are well designed to provide necessary support for cable trays, cable ladders and trunkings. Cable supports

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Cable Ladder Trays (Welded & Swaged) Cable Ladder Trays, are designed to meet most requirements of cable and electrical wire

When vertically stacking ladder trays always maintain adequate clearance above each tray run to allow for the installation of the

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