

Requirements for the spacing of rivets on cable trays



AI Overview

Rivets on cable trays should be spaced to maintain structural integrity, typically following the tray manufacturer's support spacing guidelines, which range from 1.5 to 3 meters for horizontal runs and 6 to 10 feet for standard trays. General Guidelines Rivet spacing depends on the type of cable tray, load, and installation orientation. For horizontal runs, supports (and rivets securing the tray) are generally placed every 1.5 to 3 meters to prevent sagging and allow maintenance access, while vertical or angled runs may require closer spacing to secure cables and reduce mechanical stress. Heavy-duty or long-span trays can extend support spacing up to 20 feet, but this must be verified against the manufacturer's load capacity chart. Specific Considerations Vertical or angled runs: Cables should be fastened to transverse members of the tray to prevent movement. Rivets or fasteners should be placed at intervals that maintain cable stability, especially at bends or transitions. Rung or perforated trays: For wire-mesh or ladder-type trays, a rung spacing of 150-230 mm (6-9 inches) is recommended to support instrumentation or control cables and maintain proper bend radius. Strain relief: For long vertical runs exceeding 32 meters, strain relief sections should be incorporated, which may affect rivet placement. Typically, one fixing is offset per strain relief section to reduce tension on the cables. Environmental factors: Corrosion, vibration, and mechanical loads may require closer rivet spacing or additional fasteners, especially in industrial or outdoor environments. Best Practices Always follow the tray manufacturer's instructions for support and fastener spacing. Ensure rivets are compatible with the tray material (e.g., steel, stainless steel, or aluminum) to prevent galvanic corrosion. At bends, transitions, or where cables enter equipment, rivets should be placed to provide str...

Article Content

Cable Support Distances

This provides distances for cables based on their diameter and cable type. Prysmian was instrumental in providing this information and an extract is provided in this document.

Cable tray manual | PDF

This document provides information on cable tray wiring systems, including safety benefits, dependability, space savings, and cost savings compared to conduit wiring systems. It discusses

Cable Tray Installation Rules (NEC 392) – Electrical Trader

Prohibited Areas: Cable trays cannot be used in hoistways or enclosed spaces and must remain accessible. Grounding: Metallic trays can serve as equipment grounding conductors (EGC) if

Cable Tray Technical Guide A practical guide to product selection and ...

As per the NEC, the maximum allowable rung spacing is 9 inches (230 mm) when cable tray carries single-conductor cables of 1/0 to 4/0 AWG (American Wire Gauge) (Appendix I).

B-Line series Cable Tray Design Considerations

As an industry leader in cable tray, Eaton offers one of the widest ranges of cable management solutions available in the market today with its B-Line series portfolio. With unmatched quality and service, we

BS7671 – IET Wiring Regulations 18th Edition

When fixing cables to exposed surfaces vertically and horizontally, the spacing of metal fixings should be approximately 250-400mm. HellermannTyton does not recommend that plastic

Safely Installing, Maintaining and Inspecting Cable Trays

Securing cables will maintain proper spacing between cables, keep cables in the trays, and confine the cables to specific locations within trays. Those designing and installing the system must determine

CABLE TRAY

Supports for cable trays should provide strength and working load capabilities sufficient to meet the load requirement of the cable tray wiring system. Consideration should be given to the loads associated

Cable Tray Support Spacing: Key Guidelines Explained

Explore the essential cable tray support spacing requirements for safe and efficient installations. Learn NEC guidelines for perforated, ladder, and wire

Document DICOS

Attaching a channel cable tray by using the method illustrated in Figure 3-88 maintains the electrical requirements, and the bolted mechanical connection while providing a practical method for dropping

Cable Tray Clearance Standards

This document outlines clearance requirements for cable trays. It provides a table with clearance dimensions labeled a through k for typical and special clearance cases.

Cable Tray Spacing Standards for Installation and Safety

Discover the essential cable tray spacing requirements for safe and efficient installation. Learn key standards, horizontal and vertical spacing, and more.

Ecuadorian Standard for Cable Trays

1.1 This standard establishes the requirements that cable trays and raceways must meet. the troughs, the associated mounting elements for the support of cables, insulated conductors, and

Cable Tray Design and Standards Guide

Design and construction requirements specify that cable trays must be ladder or perforated type depending on cable, fabricated from hot rolled steel sheet. Tray dimensions, hole spacing, and

Cable Tray Technical Guide A practical guide to product selection and ...

Cable Tray Technical Guide A practical guide to product selection and installation This guide for engineers and installers has been developed by ABB as a practical reference regarding cable tray

Safely Installing, Maintaining and Inspecting Cable Trays

OSHA Regulations and Industry Consensus Standards that Apply to Cable Trays The use and installation of cable trays is covered by legally enforceable OSHA regulations in 29 CFR

Criteria for Sizing, Designing, Installing and Supporting of Cable-Tray ...

2.1 This standard applies to all cable-tray installations. While directed towards Air Products' owned and operated facilities, it shall be considered the minimum requirements for any facility design. For sale of

The FOA Reference For Fiber Optics

The final four requirements from the contractor, testing, troubleshooting, documentation and restoration, need to be discussed before the project ever begins. Every fiber optic project requires insertion loss

Cable fixing and the 18th Edition IET Wiring Regulations

When fixing cables to exposed horizontal surfaces, the spacing of metal fixings should be approximately every 300mm. For vertical running cables that are exposed, a metal clip every 400mm

Wire Duct, Raceway & Tray

Wire Duct, Raceway & Tray Protect your employees and equipment from harm by using wire ducts, raceways and trays for cable containment and organization. Easily integrated into existing systems,

NEMA BI 50016-2024

Foreword 267 For cable tray installers: NEMA BI-50016-2024 (hereinafter referred to as NEMA BI-50016) is intended 268 as a practical guide for the proper installation of cable tray systems. Cable

Contact Us

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