

Calculation Rules for Vertical Cable Tray Supports



Overview

Cable tray support quantity can be calculated using a simple formula: Support Quantity = Total Length ÷ Support Spacing + 1 $20 \div 2 + 1 = 11$ supports In a typical project, a 20-meter cable tray with 2-meter spacing requires 11 supports.

Establishing partnerships with customers is a top priority for OBO, and OBO staff are available to support customers in all aspects of their projects, including products, installation and planning advice. This is because we not only supply our customers with products and solutions, which. This publication is intended as a practical guide for the proper and safe* installation of cable ladder systems, cable tray systems, channel support systems and associated supports. Cable ladder systems and cable tray systems shall be manufactured in accordance with BS EN 61537, channel support. The National Electrical Code (NEC) is the ultimate authority for any cable tray installation. Specifically, NEC Article 392 governs the use, installation, and construction specifications for these systems.



Article Content

Jul 19, 2025

GUIDE CABLE TRAYS TECHNICAL

Specifies requirements for metal cable trays and associated fittings designed for use in accordance with the rules of Canadian Electrical Code, Part I and the National Electrical Code®

Sep 04, 2025

Cable Tray Raceway Fill and Load Calculations

Resources For Electrical & Electronic Engineers Cable Tray Raceway Fill and Load Calculations Cable tray / raceway is integral part of any cable management

Jun 09, 2026

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

SOLID-BOTTOM CABLE TRAY Providing additional cable protection, solid-bottom cable tray is sometimes preferred to support and protect numerous small instrumentation and control cables.

May 05, 2026

Beama Best Practice Guide | Installation Of The System | Cable ...

The following recommendations are intended to be a practical guide to ensure the safe and proper installation of cable ladder and cable tray systems and channel support and other support systems.

Apr 12, 2026

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3.4. Basis of calculations and performance Cable support systems are generally designed with at least 50 % reserve space available for each tray.

May 14, 2026

Cable tray manual

Ventilated trough cable tray is often used when the specifier does not want to use ladder cable tray to support small diameter multiconductor control and instrumentation cables.

Jan 01, 2026

Document DICOS

Vertical adjustable splice plates should be designed and placed to maximize the rigidity of the cable tray, unless vertical adjustable splice plates are part of a system specifically designed for other placement,

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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

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Cable Tray Sizing Calculator | IEC 61537 & NEC 392 Guide

Use this cable tray sizing calculator to check fill %, select tray size, and comply with IEC 61537 & NEC 392 with formulas, example and checklist.

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Vogle Electric Generating Plant (VEGP) Units 3 and 4 Updated ...

Cable Trays and Cable Tray Supports This appendix provides the design criteria for seismic Category I cable trays and their supports. Seismic Category II cable trays and their supports are also designed

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GENERAL INFORMATION

As demonstrated in the previous paragraph, Optical Cable Corporation's cable can be installed in vertical rises for great distances. However, due to the practical nature of installing cable, the weight

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

Vertical-tray supports shall provide secure means, other than friction, for fastening cable trays to supports. 9.7.4 Supports shall be located so that connectors between horizontal straight sections of

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Cable Support Distances

For flexible systems, where the cable is not directly fixed to the support system, for example a J hanger installation, calculations need to be undertaken to determine the required distance between the cable

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Chapter 14 Cable Support systems

Cable separation within cable management systems More use of protection by location than is typical in US installations. The use of basket tray is typical for light weight last meter cable runs in onshore

Dec 25, 2025

Guide to cable support systems

DIN VDE 0639 P1 (Cable support systems) offers a formula for the calculation of a maximum approved cable load. The formula contains the specific cable load which was the subject of the previous

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Best Practice Guide to Cable Ladder and Cable Tray Systems

This guide covers cable ladder systems, cable tray systems, channel support systems and associated supports intended for the support and accommodation of cables and possibly other electrical

Aug 28, 2025

IEC Standard for Cable Tray: Complete Technical Guide

One of the most recognized frameworks globally is the IEC standard for cable tray systems. This standard ensures safety, durability, and performance

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Cable Tray Spacing Standards for Installation and Safety

Key Factors Impacting Cable Tray Spacing Understanding cable tray spacing is key to meeting safety regulations and maintaining system

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CABLE TRAY

WARNING!—Do not use a cable tray as a walkway, ladder, or support for people; cable tray is a mechanical support system for cables and raceways. Using cable trays as walkways can cause

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Cable tray manual

Some of these criteria include the required load that the cable tray must support, the distance between the cable tray supports, and ease of handling and installation.

Aug 26, 2025

Cable Tray Load Calculation Guide

The document summarizes the load calculations for various structural elements of a building, including: 1) Cable tray loads accounting for the weight and number of

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Free Cable Tray Fill Calculator | NEC & IEC Compliant Sizing | Shielden

Easily calculate cable tray fill ratios with our free tool. Supports mixed cable sizes, NEC 40% rules, and metric/imperial units. Download your PDF report instantly.

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A Guide to Installing and Supporting Electrical Cable Trays

This guide covers the critical steps, from selecting the right electrical cable tray and performing accurate cable fill calculations to managing a safe cable pull through

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Cable Support Distances

Cable Support Distances Although BS 7671 touches on the subject of cable supports, it does not detail specifically what these support distances should be. Section 522.8 (Other Mechanical Stresses (AJ))

Mar 16, 2026

Complete cable tray manual for electrical engineers and

The fact that a cable can easily enter and exit cable tray anywhere along its route, allows for some unique opportunities that provide highly flexible

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How to Calculate the Cable Tray Support Quantity

Learn how to accurately calculate cable tray support quantities in electrical installation projects. Our guide covers methods, tools, and practical

Aug 28, 2025

Best Practice Guide to Cable Ladder and Cable Tray Systems

Cable ladder systems and cable tray systems are designed for use as supports for cables and not as enclosures giving full mechanical protection. They are not intended to be used as ladders, walk ways

Contact Us

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