

How are cable tray support calculations made

Overview

Cable tray support quantity can be calculated using a simple formula: $\text{Support Quantity} = \text{Total Length} \div \text{Support Spacing} + 1$ $20 \div 2 + 1 = 11$ supports In a typical project, a 20-meter cable tray with 2-meter spacing requires 11 supports. 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 and ensuring all bonding and grounding requirements are met. IEC 61537 covers cable tray and cable ladder systems for the support and accommodation of cables, while NEC Article 392 governs cable. The all-in-one desktop software for cable tray sizing, fill rate analysis, bracket design, seismic verification, and thermal expansion calculations. Fully compliant with IEC, BS, NEC, VDE, and AREI standards. This calculator features an interactive interface with advanced visualizations. Save your cable tray sizing calculator results as branded PDF. Correct sizing prevents sagging, overheating, and premature failure. You don't need a PhD—just a consistent method. This step-by-step approach helps you determine width, depth, support spacing, and allowable load with confidence.



Article Content

Sep 04, 2025

Cable Tray Fill Calculations per NEC 392 — ElectraKit

Calculate cable tray fill per NEC 392 — ladder, solid-bottom, and ventilated trough trays with sizing examples and code requirements.

Feb 13, 2026

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 and ensuring all bonding and grounding ...

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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 examples for effective cable tray support ...

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Guide to cable support systems

The load capacity of the cable trays according to the support width can be read off in the diagram using load curves – here, shown as an example for a cable tray with the tray widths 100 to 600 mm.

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SimulATe — Professional Cable Tray & Support Calculation Software

The all-in-one desktop software for cable tray sizing, fill rate analysis, bracket design, seismic verification, and thermal expansion calculations. Fully compliant with IEC, BS, NEC, VDE, and AREI ...

Jun 07, 2026

Cable Tray Sizing & Load Calculations Made Simple

Pick a span (often 1.5–3 m) and verify the uniform load rating exceeds your cable weight plus a safety factor. Check deflection limits to protect terminations and fibre.

Jan 08, 2026

Free Cable Tray Sizing Calculator — IEC, AS/NZS, NEC, BS

Calculate cable tray fill ratio, weight loading, and derating factors for multi-standard compliance. This calculator features an interactive interface with advanced visualizations. Open the full calculator for ...

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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.

Dec 19, 2025

Cable Tray Raceway Fill and Load Calculations

Once the load/foot has been determined, the weight on each cable tray support can be determined by multiplying the load/foot by the number of feet between supports.

Aug 18, 2025

Cable Tray Load Calculation Guide | PDF | Snow | Structural Load

This document provides guidelines for determining load factors that should be considered when designing support systems for Snap Track cable tray systems. It discusses dead loads, live loads, ...

Contact Us

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