

Weight conversion of cable tray supports



Article Overview

Cable tray support weight depends on tray type, material, dimensions, cable fill, and support spacing, and can be calculated and converted between metric and imperial units using standard formulas or online calculators.

Calculating Cable Tray Weight

The total weight of a cable tray system includes:

- Tray dead load: The weight of the tray itself, determined by its material (e.g., mild steel 7850 kg/m³, stainless steel 8000 kg/m³, aluminum 2700 kg/m³) and geometry (width, side rail height, sheet thickness, or wire diameter) ().
- Cable load: The combined weight of all cables installed in the tray, which can exceed the tray's own weight ().
- Support reaction: The load each support must bear, typically calculated as half the uniform span load for ladder trays or based on trapeze/hanger configurations (). To calculate tray weight per unit length:
 - Determine the cross-sectional area of the tray metal.
 - Multiply by the material density.
 - Adjust for perforations (subtract 10–35% for perforated trays) or wire mesh patterns ().
 - Multiply by the tray length to get total weight.

Unit Conversion...

Article Content

Nov 13, 2025

Cable Tray Load and Support Calculations | PDF

The document provides specifications for cable tray and cable weights, support spacing, and live load factors. It includes calculations

Aug 26, 2025

Cable weight and flexibility in context of cable tray capacity ...

Cable trays are used to support cables in various environments, including industrial plants, office buildings, and

Aug 29, 2025

Cable Tray Weight Calculator

Use this cable tray weight calculator to estimate tray dead load, cable fill weight, and support loading for ladder,

Apr 04, 2026

Cable Tray Weight Calculator for Tray Load Planning

Use this cable tray weight calculator to estimate tray load, cable mix weight, support reactions, fill area, and safety

Sep 15, 2025

Tray and Ladder Sizing by Cable Capacity Calculator - IEC

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

Oct 01, 2025

Cable Tray Weight and Support Calculations | PDF | Mechanical

The document provides information on cable tray sizing including cable types and weights, tray sizes and weights, bending moment

Feb 09, 2026

TECHNICAL AND SIZING DATA

Complete technical support and service for Unitray product lines. Custom sizing and non-standard tray lengths are available.

Oct 04, 2025

EzyCalculator

EzyCalculator is an interactive online tool designed to help you calculate safe loads to spans for steel, aluminium and FRP strut and

Aug 06, 2025

Cable Tray Sizes and Weights Chart | PDF

Cable Tray Sizes and Weights Chart The document provides pricing information for ladder cable tray and perforated cable tray in

Nov 09, 2025

Cable Tray Weight Specifications | PDF | Computers

This document provides specifications for medium duty perforated and solid cable trays. It lists the part numbers, widths, and weights

Apr 09, 2026

Cable Tray Sizing & Load Calculations Made Simple

Step 2: Choose Tray Type and Width For heavy power cables or long spans, ladder trays typically perform best. For

Jan 05, 2026

GUIDE CABLE TRAYS TECHNICAL

In accordance with its continuous improvement policy, Legrand reserves the right to change the specifications and illustrations

Jul 12, 2026

Cable Load Calculation Guide | PDF | Technology & Engineering

The document discusses how to calculate the load capacity of cable trays and ladders. The load is determined by the weight of

Jul 29, 2025

GUIDE CABLE TRAYS TECHNICAL

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

Aug 17, 2025

Cable Tray Weight Calculator

Cable tray weight is a baseline load for supports, hangers, trapeze frames, anchors, and connection hardware. A typical run may

Aug 21, 2025

IEC 61537 Cable Support Systems Guide

Chapter 14 Cable Support Systems.pdf - Free download as PDF File (.pdf), Text File (.txt) or view presentation slides online. The

Apr 11, 2026

Cable tray weight and VGM calculate

For accurate results, use our cable tray weight calculator which considers tray dimensions, material type, and coating specifications.

May 01, 2026

Cable Tray Weight Calculator | Steel, SS & Aluminum

Use this reference table to quickly identify approximate weights per meter for various standard cable tray configurations. Sizing

Sep 12, 2025

Cope Ladder Master Spec

For example, Class 20C applies to cable tray required to span 20 feet (6090 mm) between supports while supporting cable static

Jun 14, 2026

Cable Tray Load Calculation and Sizing: Your Easy Guide

Worried about cable tray capacity? Learn simple cable tray load calculation steps. This

May 21, 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

Jan 05, 2026

Cable Tray Load Calculation Guide

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

Oct 25, 2025

EE12: CABLE TRAY ANALYSER / CALCULATOR

Distance Required Between Each Cable: mm Spare Required in the tray [%]: % Width of the Cable Tray You Have:

Jan 12, 2026

TECHNICAL AND SIZING DATA

Even though a 900 mm wide tray has six (6) times the volume of a 150 mm wide tray, it cannot carry any more cable weight. When

Jan 25, 2026

SELECTION OF CABLE TRAYS

The cable volume is an important criterion for the selection of the correct cable support system; for which

May 27, 2026

Cable Tray Fill Calculator — IEC 61537 | ECalPro

Cable tray fill percentage calculator per IEC 61537. Multi-cable derating factors, ventilated/non-ventilated tray types,

Mar 13, 2026

Cable Tray Sizing Calculation Excel Sheet (Size & Weight)

Download a Cable Tray and Conduit Sizing Excel Sheet for Free, cable tray size, area, width, length and weight.

Apr 11, 2026

Non-Metallic Cable Tray Load Guidelines | PDF | Snow | Cable

This document provides information on selecting cable tray classes and load capacities. It includes tables that define the standard

Nov 23, 2025

Cable Tray Weight Calculator

Compute tray weight from dimensions, thickness, and material density. Include covers, perforation, joints, and safety factor options.

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.iiss.co.za>

Email: sales@iiss.co.za

Phone: +27 63 174 2895

Address: Unit 8, Innovation Park, 15 Rivonia Road, Sandton, Johannesburg,
2196, South Africa

This document is for informational purposes only. Specifications subject to
change without notice.

