Cable Tray Specifications and Theoretical Weight Table



Overview

Use this reference table to quickly identify approximate weights per meter for various standard cable tray configurations. Sizing assumes standard industrial designs in galvanized steel and aluminum.

Key Takeaways

Cable tray systems are specified by type, material, width, depth, and span, with theoretical weight and load tables provided to guide design and installation.

Cable Tray Types and Materials

Cable trays are available in several types, each suited for different applications: Ladder Tray: Two longitudinal side members connected by rungs; ideal for heavy power or control cables and long spans. Rung spacing typically 6”, 9”, 12”, or 18” (150–450 mm) and available in aluminum, stainless steel, galvanized steel, or fiberglass. Trough Tray: Solid or ventilated bottom; used for power, control, or instrumentation cables where partial protection is needed.

Channel Tray: One-piece support with solid or ventilated bottom; suitable for light loads or aesthetic applications. Wire Mesh / Basket Tray: Welded steel wire grid; flexible and lightweight, ideal for data and fiber optic cables. Fiberglass / Composite Tray: Non-metallic, corrosion-resistant, UV-stabilized; used in chemical or outdoor environments.

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Theoretical Weight and Load Tables

Cable tray weight and load capacity depend on material, width, depth, and span. Manufacturers provide tables for Safe Working Load (SWL) and deflection limits: Span Support: Maximum span between supports is specified to limit deflection. Continuous spans may allow higher loads than single spans.

Nominal Depths: Common depths include 2” (51 mm), 3” (76 mm), 5” (127 mm), 7” (178 mm), and 9” (229 mm) for ladder and trough trays. Widths: Standard widths are 6”, 9”, 12”, 18”, 24”, 30”, and 36” (150–900 mm), with other widths available for wire basket trays. Weight per Foot: Varies by material and tray type.

For example, aluminum ladder trays are lighter than steel, while fiberglass trays have lower weight but high corrosion resistance. Load vs. Span: Tables indicate maximum cable load per foot for a given span, including allowances for wind, snow, or ice.

Deflection is measured at mid-span, typically limited to L/40 or L/50 of the span.

Standards and Compliance

Cable trays are designed according to international and national standards: NEMA VE 1: Classification based on load per foot and support spacing.

IE

C 61537: Specifies SWL and deflection for ladder-type and non-metallic trays.

UL and C

E: Certification for safety, fire resistance, and material quality.

Practical Considerations

Material Selection: Aluminum for lightweight and corrosion resistance, steel for heavy loads, fiberglass for chemical resistance. Tray Covers: Solid or ventilated covers protect cables and reduce heat buildup. Installation: Connector plates, fasteners, and support assemblies must match tray type and material to maintain load capacity.

For detailed theoretical weight tables and specifications, manufacturers like Legrand, ABB, MP Husky, and Enduro Composites provide downloadable PDFs with complete charts for all tray types, materials, and spans. These tables allow engineers to select the correct tray type, width, and support spacing for the intended cable load.

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Article Content

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 assumes standard industrial designs in galvanized steel and aluminum.

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 of Canadian Electrical Code, Part I and the National Electrical Code®

Cable Tray Size and Weight Chart

The document contains information about cable sizing and tray selection for four areas (A, B, C, D). It lists the cable types, sizes, and quantities for each area.

Cable Tray Sizes and Weights Chart | PDF

The document provides pricing information for ladder cable tray and perforated cable tray in Indian rupees per meter for various tray widths, material thicknesses, and heights.

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

In designing supports for a cable tray system, consideration should be given to the loads associated with future cable additions and any additional loading that may be applied to the cable tray system (e.g.,

Full cable tray systems specification document

The work covered under this section consists of the furnishing of all necessary labor, supervision, materials, equipment, tests and services to install complete cable tray systems as shown on the

Product Specifications: CABLE TRAY

FDG CABLE TRAY ng; Power, Data, and Audio Visual. A quick and easy system to install without the need for specialised tools or equipment, makes it a first choice for Comm solution that works for your

TECHNICAL AND SIZING DATA

We have more than a decade''s worth of experience making and designing quality cable tray and cable management systems. Our knowledgeable production team works closely with each customer to

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26 05 36 Cable Trays for Electrical Systems

Description: This product category covers metal cable trays and metal cable tray systems intended for field assembly and for use in accordance with Article 392 of NFPA 70.

Cable Tray Weight Chart: Accurate Per Meter Weights

Need the cable tray weight chart? Find accurate per-meter weights for steel, aluminum, and FRP trays. Click to explore reliable data for your project needs.

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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 per meter of cable trays with widths ranging from 50mm to 900mm in

Product Specifications: CABLE TRAY

FDG CABLE TRAY FDG Cable Tray is designed to continuously support cable systems including; Power, Data, and Audio Visual. A quick and easy system to install without the need for specialised

CABLE TRAY SYSTEMS GUIDE

CONCENTRATED STATIC LOADS: Some applications may require the cable tray to support the weight of a single, dead object in addition to the cable loads. Specifications typically require this to be

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 loading classes and designations for cable trays according to CSA

B-Line series pan tray catalog

For approximate solid cable tray weights multiply above steel and aluminum weights by 1.064 NA = Not Available

Cable Tray Fill and Load Calculation

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Wire mesh cable tray fill table below shows the number of cables and the load in lbf / lineal foot developed by typical 4 pair and 6 pair cable weighing 20 lb / kft and 40 lb/kft, respectively. Actual

Cable Tray Weight Specifications

The document provides reference material on cable tray weights for different tray series and configurations. It lists the weights of steel and aluminum side rails and bottom runs for various tray

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

Contact Us

Continue your research online:

Website: https://dolphinspreschool.co.za
Technical inquiry: https://dolphinspreschool.co.za/project-desk.html
African project coordination: Waterfall City, Midrand, Gauteng, South Africa

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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