

Article Overview

Cable tray support spacing and specifications depend on tray type, material, load class, and installation environment.

Typical Cable Tray Support Specifications

Tray Type	Material	Load Class / Rating	Maximum Support Span	Notes / Installation Guidelines
Ladder Tray	Steel / Stainless Steel	Light, Medium, Heavy	1.5-3 m (5-10 ft) depending on load	Supports mounted on walls, ceilings, or floors; rung spacing 150-230 mm recommended for instrumentation cables
Solid Bottom Tray	Steel / Aluminum	Light, Medium	1-2.5 m (3-8 ft)	Provides protection against dust and electromagnetic interference; solid cover recommended for heat-sensitive cables
Ventilated Tray	Steel / Aluminum	Light, Medium	1.5-3 m (5-10 ft)	Allows airflow to prevent heat buildup; suitable for power and control cables
Wire Mesh / Channel Tray	Steel / Stainless Steel	Light	1-2 m (3-6 ft)	Ideal for light instrumentation and control cables; flexible routing; supports every 1-2 m

Key Considerations for Cable Tray Supports

- o **Material and Finish:** Steel trays may be pre-galvanized, hot-dip galvanized, or stainless steel (AISI 316L) for corrosion resistance; aluminum trays offer high corrosion resistance and lighter weight .
- o **Load Class:** Defines the maximum weight the tray can carry over a given span. Light, medium, and heavy load classes are used to select support spacing .
- o **Support Spacing:** Determined by tray type, material, and load. Ladder and ventilated trays typically allow longer spans than solid or wire mesh trays .
- o **Mounting Options:** Trays can be mounted on floors, walls, ceilings, or equipment racks. Modular systems allow easy configuration for new or existing installations .
- o **Rung Spacing:** For ladder trays, 6-9 inches (150-230 mm) is recommended to maintain cable support and prevent sagging .
- o **Environmental Conditions:** Consider ambient temperature, humidity, and corrosive environments when selecting material and finish .

References for Detailed Specifications

- o Legrand Cable Tray Technical Guide provides material, finish, and load recommendations .
- o OBO CMS Guide outlines DIN EN 61537 compliance, support elements, and installation practices .
- o Eaton and Hubbell catalogs provide load class tables, support spans, and accessory specifications for ladder and tray systems .
- o ABB Technical Guide details corrosion-resistant materials and environmental considerations . This table and guidelines provide a comprehensive reference for selecting cable tray supports, ensuring proper load handling,

spacing, and compliance with industry standards.

The work covered under this section consists of the furnishing of all necessary labor, supervision, materials, equipment, tests and

Technical information CSA and NEMA loading classes The standard classes of cable trays, as related to their maximum design loads

Many electrical systems employ cable trays. They route cables safely & efficiently. NEC defines minimum cable tray

What is Cable Tray Systems? An electrical cable tray is a type of containment system used to support insulated electrical cables for

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Ventilated trough cable tray is often used when the specifier does not want to use ladder cable tray to support small diameter

Cable Support Systems are well designed to provide necessary support for cable trays, cable ladders and trunkings. Cable supports

Delivering engineered solutions in cable management ABB manufacturers a comprehensive range of cable tray systems and

Eaton

Introduction This publication is intended as a practical guide for the proper and safe* installation of cable ladder systems, cable tray

A practical guide to product selection and installation This guide for engineers and installers has been developed by ABB as a

B. Cable tray systems are defined to include, but are not limited to straight sections of [ladder type] [trough type] [solid bottom type]

Cable trays are components of support systems for power and communications cables and wires. A cable tray

system supports and

Fast installation with dependable support. Everything you need to build a cable management system, including Cablofil wire mesh

Each tray type comes with design and load parameters as guided by IEC 61537. Tray

Not all cable trays are equivalent. The mechanical and electrical characteristics, tests, certifications, overall quality management,

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