

Article Overview

The load a wall-mounted cable tray can support depends on the tray type, span between supports, cable weight, and environmental factors, with typical support spacing ranging from 6 to 20 feet depending on tray length and load.

Key Considerations for Wall-Mounted Cable Trays

1. Load Components The total load on a wall-mounted cable tray includes:

- o Cable weight: Sum of all installed cables along the tray length.
- o Tray weight: The self-weight of the cable tray system.
- o Environmental loads: Wind, snow, ice, or seismic forces if applicable, especially for outdoor installations .

2. Support Span and Bracket Placement

- o Short-span trays (typically indoor, non-industrial) are supported every 6-8 feet.
- o Intermediate-span trays are supported every 10-12 feet.
- o Long-span trays can be supported every 14-20 feet, with 20 feet being common.
- o Extra-long spans may exceed 20 feet, often used outdoors to reduce the number of supports .
- o The support span is the distance between wall brackets; the tray length should be equal to or longer than the support span. Only one splice plate should be placed between supports to maintain structural integrity .

3. Material and Tray Type

- o Cable trays are typically made of steel, stainless steel, or aluminum, with galvanization or coatings for corrosion protection .
- o Tray types include solid-bottom, ventilated, ladder, or mesh trays, each with different load capacities. Ladder and mesh trays are common for wall mounting due to their strength and ventilation.

4. Standards and Testing

- o IEC 61537 and BS EN 61537 define mechanical strength, load testing, and installation requirements for cable trays .
- o Trays must be tested to withstand the maximum expected load, including cables and environmental forces. Safe working load is typically derived from these tests.

5. Practical Installation Tips

Cable tray wall support load

- o Ensure brackets are anchored to a structurally sound wall capable of supporting the combined load.
- o Consider thermal expansion and contraction, especially for long spans or outdoor installations .
- o Avoid using cable trays as walkways or for supporting personnel, as they are designed only for cable loads .

Summary

To determine the wall support load for a cable tray:

- o Calculate the total weight of cables and tray per unit length.
- o Include environmental loads if applicable.
- o Select a tray type and material rated for the calculated load.
- o Choose support spacing according to span type (short, intermediate, long, extra-long).
- o Follow IEC 61537 or relevant national standards for testing and installation .

Proper design ensures safety, prevents tray deformation, and maintains reliable cable management over the system's lifetime.

In designing supports for a cable tray system, consideration should be given to the loads associated with future cable additions and

This guide covers cable ladder systems, cable tray systems, channel support systems and associated supports intended for the

Wyr-Grid's Cable Tray Load Rating Report Limits on deflection from cable loading are set forth in EN 61537:2007. The safe working

The wire basket cable trays shall be installed at a temperature between -5°C to +60°C to make sure the material have better

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

This document provides details on installing cable trays and their support systems. It includes diagrams showing how to mount cable

Cable tray length is selected based on the load to be supported, the distance between the supports (also referred to as the span),

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

Cable tray wall support load

Standard Support Construction Of The Cable Tray RS With the RS 60 cable tray installation system, we offer you the last installation

The document discusses different beam configurations that can be found in cable tray installations, including simple beams,

Cable tray systems are essential for supporting and routing instrument cables in industrial and commercial installations. Proper load

A professional guide to installing electrical cable tray systems per NEC Article 392. Covers support,

2.2 Structural characteristics When considering the installation of the cable supports system it is imperative to avoid the cutting or

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

Discover efficient cable tray support structures for optimal cable management. Learn about

Providing reliable support and alignment these accessories ensure proper load distribution elevation and

Web: <https://in-au.co.za>

