

2018 National Standard Thickness of Cable Trays



AI Overview

The 2018 NEMA VE-2 standard specifies cable tray thickness based on material type, tray style, and load/span class, with typical steel tray thicknesses ranging from 12 to 16 gauge (≈ 2.0 – 2.5 mm) for commercial and industrial applications.

Overview of NEMA Standards

The National Electrical Manufacturers Association (NEMA) VE-1 and VE-2 standards define the manufacturing and installation requirements for metal cable trays, including ladder, ventilated trough, solid bottom, and channel types, as well as associated fittings. These standards ensure compliance with the National Electrical Code (NEC) and the Canadian Electrical Code (CEC), providing guidance on material thickness, load/span classes, and structural integrity.

Material Thickness Guidelines

Steel Cable Trays: Typically, steel trays are manufactured in 12 to 16 gauge thickness, depending on the tray width, span, and load class. Heavier-duty trays designed for high-load industrial applications may use thicker steel to meet NEMA load/span requirements.

Aluminum Cable Trays: Aluminum trays are generally lighter and may have slightly thinner walls than steel, but thickness is still determined by the load/span class specified in NEMA VE-2.

Nonmetallic (Fiberglass) Trays: Governed by UL 568 and NEMA FG-1 (rescinded in 2017), these trays have thicknesses designed to meet mechanical and electrical performance requirements, with specific values provided in the manufacturer's datasheets.

Load and Span Considerations

The required thickness of a cable tray is influenced by:

- Tray width and depth
- Maximum allowable span between supports
- Load class (e.g., light, medium, heavy duty)
- Environmental factors such as temperature, corrosion, and vibration

NEMA VE-2 provides tables correlating tray width, material, and load class to the minimum recommended thickness to ensure structural integrity and compliance with...

Article Content

AS/NZS 3000:2018

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-001, Wiring Rules, to supersede AS/NZS 3000:2007, Electrical installations (known as the Australian/

Cable Tray Design and Standards Guide

The document outlines codes and standards that must be followed for design and construction of cable trays and their components. Standards listed include those for materials, rolling and cutting

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

A practical guide to product selection and installation This guide for engineers and installers has been developed by ABB as a practical reference regarding cable tray characteristics, installation, and

Cable Tray Specifications and Compliance | PDF | Specification

The document is a compliance statement for cable trays being used on a construction project. It lists the project details and 14 specification requirements for the cable trays from the architectural

What is the national standard for the thickness of cable tray

The national standard of cable tray thickness refers to the thickness of plates that should be selected for the main structure and fittings of different specifications and materials according to

Cable Tray Width, Dimensions and Specifications as per NEC

Cable Tray Width, Dimensions and Specifications as per NEC Learn about cable tray width dimensions and specifications as per NEC standards. Understand types, sizes, materials, and installation

Full cable tray systems specification document

B. Cable tray systems are defined to include, but are not limited to straight sections of [ladder type] [trough type] [solid bottom type] [channel type] cable trays, bends, tees, elbows, drop-outs, supports

Metal Cable Tray Systems Standard NEMA VE 1-2017

NEMA VE 1-2017 standard for metal cable tray systems. Covers construction, materials, dimensions, load capacity, and testing.

GUIDE CABLE TRAYS TECHNICAL

LEGRAND CABLE TRAYS 5 .LEGRAND TECHNICAL GUIDE The Legrand group product testing laboratories are recognised and approved by the national certification bodies (LCIE, IMQ, etc)

Cable Tray Installation Guide | NEMA VE 2-2018

NEMA VE 2-2018 Cable Tray Installation Guidelines. Learn best practices for cable tray installation, support, and accessories.

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.,

Document DICOS

This harmonized standard was prepared by the CANENA Technical Harmonization Committee for Metal Cable Tray Systems, comprising members from CSA Group, the National Electrical Manufacturers

Cable Tray Specification Overview

This document provides a general specification for cable trays for an electrical project. It outlines technical requirements, codes and standards, site conditions, quality assurance, testing and

Wire Mesh Tray Technical Guide

Per NEC 392, the national electrical code section for cable tray, all cable tray systems must be properly BONDED, per section 259.96. To meet this requirement, Cablofil recommends that UL classified

Wire Mesh Cable Trays Technical Information Detailed, Material ...

Wire Mesh Cable Tray Detailed Information: a. A job site, field adaptable support system primarily for low voltage telecommunication and fiber optic cables. These systems are typically steel wire mesh,

Cable Tray Standards: A Global Overview of Production

Explore the cable tray standards of 30 countries across five continents. Learn about the key regulations and installation practices for cable

Codes and Standards | Cable Tray Institute

This standard specifies the requirements for nonmetallic cable trays and associated fittings designed for use in accordance with the rules of the Canadian Electrical Code (CEC) Part 1, and the National

Cable Tray Dimensions Guide: Standard Sizes, Tray Types & Sizing

Explore standard sizes by tray type, understand width and depth limits, and see how to calculate and choose compliant cable tray sizes for real projects.

Document DICOS

The National Electrical Manufacturers Association (NEMA) Standards and guideline publications, of which the document herein is one, are developed through a voluntary Standards

NEMA BI 50016-2024

Cable tray system design shall 269 comply with National Electrical Code® (NEC®) Article 392, NEMA BI-50015 (formerly VE 1), and NEMA 270 FG 1, and follow safe work practices as described in NFPA

Cable Tray Size Guide: How to Choose the Right

Complete cable tray sizing guide with standard size chart, NEC calculation methods, and real engineering examples. Learn how to select the right cable tray

GUIDE CABLE TRAYS TECHNICAL

This standard specifies the requirements and test methods for cable trays, cable ladders, supports and their accessories to ensure complete safety of installations.

QCS 2010: Cable Tray Specifications | PDF | Cable | Screw

It specifies that cable trays shall be constructed from hot-dipped galvanized mild steel with a minimum thickness of 1.5mm. Tray components must be accurately formed to tolerances with rounded edges.

NEMA Standards Publication VE 2-2018

For Cable Tray Installers: NEMA VE 2-2018 (hereinafter referred to as NEMA VE 2) is intended as a practical guide for the proper installation of cable tray systems.

Codes and Standards | Cable Tray Institute

Purchase UL 568. FG 1, Fiberglass Cable Tray Systems Covers construction and test requirements for continuous, complete nonmetallic systems of ladder, ventilated, solid bottom cable trays, or channel

Cable Tray Specifications and Compliance | PDF | Specification

For each requirement, it states the proposed product details and confirms compliance. The proposed cable trays are constructed from stainless steel or galvanized steel and meet the thickness, material,

Cope Ladder Master Spec

Cable Tray Hold Downs – Cable tray supported on standard 1-5/8 inch strut shall be held down with Cope style hold-down brackets. Such as the 9131 series for ladder type cable trays and 90XX series

Contact Us

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

Website: <https://adicor.eu>

Email: info@adicor.eu

Phone: +33 6 48 37 92 15

Address: 12 Rue de la Paix, 75002 Paris, France

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

