

Where should cable trays be grounded



Article Overview

All metallic cable trays must be grounded to the building's grounding system to ensure safety and compliance with NEC standards.

Key Grounding Principles

Metallic cable trays, whether steel, aluminum, or wire mesh, must be electrically continuous and connected to the facility's grounding system. This provides a low-impedance path for fault currents, protecting personnel and equipment from electric shock, fire hazards, and equipment damage due to overvoltage or insulation failure .

Grounding Locations and Methods

- **Connection to Building Grounding System:** Each cable tray system should be securely bonded to the building's main grounding electrode system. This ensures that any fault current is safely directed to ground .
- **Bonding at Splice Points:** All tray sections and fittings must maintain electrical continuity. Bonding jumpers should be used where mechanical connections alone do not guarantee a continuous conductive path . This is critical for wire mesh trays and other modular systems.
- **Equipment Grounding Conductor (EGC):** In some installations, the cable tray itself can serve as the EGC if it meets NEC requirements, including minimum metal cross-sectional area for the expected fault current . If an EGC conductor is installed in or on the tray, it should be bonded to each or alternate tray sections using grounding clamps to prevent mechanical displacement during fault conditions .
- **Material Considerations:**
- **Aluminum trays:** Avoid using bare copper conductors due to potential electrolytic...

Article Content

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NEC Standards for Cable Trays: Grounding, Fill Capacity

Grounding is one of the most critical NEC considerations when installing metallic cable trays. To comply with code

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Grounding & Bonding Wire Mesh Cable Trays

Learn grounding and bonding requirements for wire mesh cable tray systems. Stay NEC compliant while safely

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Equipment Grounding Conductors for Cable Tray Systems

Cable tray have excellent safety and dependability records, because of the result of cable tray's unique features plus

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Practices For Grounding and Bonding of Cable Trays

The document discusses grounding and bonding practices for metallic and non-metallic cable trays. Metallic cable trays must be

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Cable Trays and Reels - Is cable tray bonded or grounded?

When firmly attached to building steel with threaded connections and galvanized components cable tray installations are adequately

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Grounding Inspection of Steel and Aluminum Cable Tray Systems

The grounding inspection should start with the installation and should continue until all tray sections are connected together, either

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Cable Tray Installation Rules (NEC 392) - Electrical Trader

All metallic cable trays must be grounded as outlined in NEC Article 250.96, even if the tray isn't being used as an

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Does aluminum cable tray need to be grounded?

The question of whether aluminum cable trays need to be grounded is a crucial aspect of electrical installations, as it

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Cable Tray Grounding: Electrical and Non-Power Conductors

Cable tray systems that contain signal and communication circuits should be grounded and, in some situations

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The Importance of Grounding in Cable Trays and How to Do It?

Grounding in cable trays allows electrical leakage from the outer surfaces of the conductors to be channeled into the

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Practices for grounding and bonding of cable trays

All metallic cable trays shall be grounded as required in Article 250.96 regardless of whether

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Cable Tray Grounding Wire: What You Need to Know

Discover the best practices for Cable Tray Grounding Wire installation. Learn key

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How to Properly Ground and Bond Structured Cabling Systems| CMW

What Should Be Grounded? If it's metal and part of your structured cabling system, it probably needs bonding. Here's a

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Practices for Grounding and Bonding of Cable Trays

Metallic Cable Trays Cable tray may be used as the Equipment Grounding Conductor (EGC) in any installation where

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Earthing or Bonding a Metallic Cable Tray: What the Regs Really Say ...

If you must earth a tray for functional reasons (static discharge, RFI), do it at one end only. Bonding both ends can form

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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

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Grounding & Bonding Wire Mesh Cable Trays

However, while wire mesh trays offer mechanical and thermal advantages, proper grounding and bonding are critical

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Understanding Cable Tray Grounding: A

This comprehensive guide delves into the complexities of cable tray grounding, offering in

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Cable Tray Grounding: Power, Instrumentation, and Telecommunications

Where cable tray systems contain only signal and communication circuits that operate at low energy levels, power grounding per

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What Are Equipment Grounding Conductors (EGC) for Cable Trays?

Due to this fact, the steel trays tend to be larger or thicker to manage the same power. Aluminum Trays: These are

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NEC Standards for Cable Trays: Grounding, Fill Capacity

The flexibility and scalability of cable trays make them an ideal choice for environments where cable density and

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Grounding Inspection of Steel and Aluminum Cable Tray Systems

Regardless of which type of equipment grounding system used, cable tray systems must be electrically continuous and effectively

Contact Us

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