

Cable tray jumper wires left and right



Overview

Steel bonding jumpers provide reliable grounding across cable tray gaps, with fasteners included for laminated jumpers.

Key Takeaways

Bonding jumpers on cable trays are generally not required if standard metallic splice plates provide continuous electrical conductivity, but they are necessary for painted, coated, or movable sections. Standard Cable Tray Splice Plates

For most rigid aluminum or steel cable trays, the bolted splice plates connecting the left and right side rails are designed to maintain electrical continuity. Properly installed, these plates meet NEC requirements for grounding and bonding, and additional copper jumpers are not required under normal conditions . Tests have shown that standard splice plates often perform better than separate bonding jumpers in terms of temperature rise and fault current handling .

When Jumpers Are Required

Bonding jumpers become necessary in certain situations:

- Painted or powder-coated trays: Coatings can block electrical continuity, so a flexible copper jumper ensures a reliable path .
- Expansion joints or movable sections: If the tray needs to accommodate thermal expansion or vibration, jumpers maintain continuity across gaps .

- Non-continuous tray sections: When trays are installed in separate segments, a jumper or external equipment grounding conductor (EGC) may be required to bond the sections together .

Installation Considerations

- Ensure tight bolting of splice plates with no paint or debris between metal surfaces. Use serrated nuts or star washers to improve contact .
- For high-vibration environments, jumpers provide additional safety and reduce the risk of loose connections .
- The size of the jumper should be based on the largest breaker feeding the tray if used as an EGC .

Practical Guidance

For typical indoor installations using galvanized steel or aluminum trays, if the splice plates are UL Classified and properly bolted, jumpers on the left and right sides are optional. However, for painted, coated, or movable trays, or where continuity is critical for inspection compliance, installing flexible copper jumpers is recommended to ensure safety and code compliance . In summary, evaluate the tray type, coating, and installation conditions to determine whether left and right side jumpers are necessary. Properly installed standard splice plates often suffice, but jumpers provide extra assurance in challenging conditions.

Article Content

Cable Tray Jumpers

Cable Tray Jumpers 9", 6 AWG THHN Green Wire. 2 hole configuration. 1/4" or 3/8" stud sizes. Connection is weatherproofed with

Cable tray manual

These documents: ANSI/NEMA VE-1, Metal Cable Tray Systems; NEMA VE-2, Cable Tray Installation Guidelines; and NEMA FG-1,

Steel Ladder Tray Bonding Jumper | Ladder Trays | Cable Tray and

Steel bonding jumpers provide reliable grounding across cable tray gaps, with fasteners included for laminated jumpers. Check

INSTALLATION GUIDE

Center hung tray supports allow for quicker and easier cable installation by allowing cables to be deposited into tray systems from

B-Line series Cable Tray Design Considerations

Is your cable tray system optimized for safety, dependability, space and cost savings?
Cable tray (or cable ladder) systems are a

Cable Tray Installation Guidelines for Engineers

Cable trays shall be grounded at least every 15 m (50 ft) and at both ends for Cable Tray Installation Guidelines for Engineers. All

Document DICOS

The cable tray should be supported on both the left and right side rails to the wall or support structure with appropriate hold-down

CABLE TRAY SYSTEMS GUIDE

The galvanized wire then welded and formed into the appropriate basket tray size. Hubbell's pre-galvanized finish performs the same

Cable Tray Technical Guide A practical guide to product selection

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

Cable tray manual

Where cable tray wiring systems with current carrying conductors are installed in a dust environment, ladder type cable trays should

Practices for grounding and bonding of cable trays

A bare copper equipment grounding conductor should not be placed in an aluminum cable tray due to the potential for electrolytic

Grounding Inspection of Steel and Aluminum Cable Tray Systems

For safety reasons, the grounding should be right before the wire is energized. This is true for cable tray, conduit, cable, or any

Ladder Cable Trays | McMaster-Carr

Choose from our selection of ladder cable trays, including cable and hose trays, heavy duty open cable and hose carriers, and more.

Bonding Jumper-Cable Tray) | PDF | Equipment

Do not use splice plate bolt locations to connect jumper to cable tray. Place screw head on inside of cable tray, put jumper on outside

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://coetzerinvestments.co.za>

Technical inquiry: <https://coetzerinvestments.co.za/contact.html>

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

