

Can cables be run outside of cable trays



Overview

Despite widespread misinterpretation in the industry, standard tray-rated cable cannot run outside of the cable tray per the National Electrical Code (NEC) Sec. If a cable must run outside of a tray for any length, a tray cable rated for “exposed-run” (ER) must. Tray cables (TC, TC-ER, and similar types) are specially designed for use in cable tray systems, which support multiple runs of cable across industrial and commercial buildings. In many cases there is more than one type of cable for a particular application, for instance both cables rated as tray cable (TC) and cables rated as metal clad (MC) can be used for. Are they using the Exception to (7) rule which allows TC-ER cables to extend without continuous support upto 6ft?

What is the point of having an -ER (-Exposed Run) classification per UL 1277 where the cable has to meet impact and crush tests similar to MC cables if it can only run a max of 6ft. But here is where tray cable does demand a few minutes of your attention: NEC Article 336 is the code section that governs every tray cable installation in the country, and its rules directly affect what you should be quoting. Order the wrong cable type for an exposed run, and your contractor gets. This Wire Wisdom addresses some of the most frequently asked questions regarding a supplemental rating for type TC, ITC and PLTC tray cables —the ER rating for cables used in exposed or extended runs. Cable tray is the preferred wiring method for industrial facilities, data centers, and large commercial buildings where routing dozens or

Article Content

Distributor's Guide to NEC Article 336: TC vs. TC-ER Rules

Outside a raceway or cable tray system: Standard Type TC cable must remain inside a tray or conduit. It cannot run between the tray and the equipment; that is the specific job of TC-ER.

Tray-Rated Cable 101

Despite widespread misinterpretation in the industry, standard tray-rated cable cannot run outside of the cable tray per the National Electrical Code (NEC) Sec. 336.10 (7) from 2014. If a cable must run ...

Use of TC-ER cable outside cable trays | Information by Electrical ...

Is there any way a TC-ER cable can be installed without any tray anywhere and is simply installed on a wall using special brackets? I ask because I am seeing new proprietary flat cables that ...

Exposed Run Tray Cables

Cables with an ER rating, on the other hand, can extend outside the tray if given adequate protection and support. Thus, in some applications, the use of ER-rated cables can eliminate the cost of ...

Exposed Run Tray Cable: Features, Uses, and Benefits Explained

Using traditional tray cable outside conduit, trays, or other raceways may not seem like a big deal, but it could run you afoul of the NEC. All non-ER cabling has to be protected if it leaves the tray.

A Guide to Installing and Supporting Electrical Cable Trays

This guide covers the critical steps, from selecting the right electrical cable tray and performing accurate cable fill calculations to managing a safe cable pull through and ensuring all bonding and grounding ...

Types of Cable Typically Used in Cable Tray

The cable must be secured at intervals not exceeding six feet. TC cables are not permitted to be installed outside of a cable tray system or raceway with only two exceptions (1) in outdoor locations ...

Cable Tray Fill Rules (NEC 392)

Common industry practice (driven by ISA and IEEE standards, not NEC) is to run power cables and instrument/signal cables in separate trays, mounted on opposite sides of the cable tray ...

What is Exposed Run Tray Cable?

According to the NEC, exposed run cables must be installed between a cable tray and any electrical equipment. Most ER-rated cables don't have any ...

Do Tray Cables Need to Be in Conduit? A Complete Guide

TC-ER-rated cables can be installed in exposed runs outside the cable tray, up to 6 feet between the cable tray and connected equipment, and without conduit—provided that the cable is secured and ...

1910.305

Cable assemblies and flexible cords and cables shall be supported in place at intervals that ensure that they will be protected from physical damage. Support shall be in the form of staples, cables ties, ...

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