

Article Overview

Cable trays typically use M8 high-tensile bolts with nuts and washers, with 8 hardware sets per joint for standard GI or perforated trays.

Bolt Types and Sizes

For standard perforated or GI cable trays, the following specifications are commonly used:

- o Bolt Size: M8 (metric 8 mm diameter) high-tensile bolts .
- o Length: Minimum 75 mm for wall-mounted supports; length may vary depending on tray thickness and support structure .
- o Hardware Sets: Each joint between two cable tray sections typically uses 8 sets of bolts, nuts, and washers when using coupler plates .
- o Nut Type: Serrated flange locknuts are recommended for splice connections to prevent loosening .
- o Washers: Flat washers are used to distribute load and protect the tray surface. High-strength washers are preferred for structural integrity .

Splice and Coupler Plates

- o Splice Plates: Made of high-strength steel, meeting ASTM A1011 HSLAS, Grade 50, Class 1 .
- o Bolt Arrangement: 8 bolts per splice plate for standard straight sections; wedge lock 4-bolt or 2-bolt KwikRail connections are UL-classified as equipment ground conductors .
- o Rung Spacing: Straight sections typically have rungs spaced 6, 9, or 12 inches apart; radius fittings use 9-inch spacing at the center .

Installation Notes

- o Wall-Mounted Supports: MS angles (50 x 50 mm, 6 mm thick) are fastened with M8 bolts at ~1-meter intervals .
- o Bridge Supports: MS C-channels (150 x 75 mm, 5.7 mm thick) welded to angles use high-tensile bolts for tray attachment .
- o Insulation: G-10 or FRP sheets may be used at supports to isolate the tray from metal structures, with M8 bolts securing the insulation .
- o Material Considerations: Bolts and hardware should match the tray material (galvanized steel, stainless steel, or aluminum) to prevent galvanic corrosion .

Summary Table

Component	Specification	Notes
Bolt	M8 high-tensile	Minimum 75 mm length for wall supports
Nut	Serrated	

Cable tray bolt dimensions

flange locknut Prevents loosening in splice connections Washer Flat washer Distributes load, protects tray surface Hardware Sets 8 per joint For coupler plate connections Splice Plate ASTM A1011 HSLAS, Grade 50 High-strength steel, 8 bolts per plate Rung Spacing 6, 9, 12 inches 9 inches for radius fittings

These specifications ensure mechanical stability, electrical continuity, and compliance with UL/NEMA standards for cable tray installations. Proper selection of bolt type, length, and material is critical for safe and durable cable management systems.

to cables when correctly inserted. Screwed connections are generally isometric threads fully compliant with standards in accordance with the

Eaton

OZ-Gedney Type CTGC Cable Tray Ground Clamp, Conductor Size: 6 AWG - 250 KCMIL, Aluminum Or Copper Conductor, Clamp:

NEMA VE 1-2017 Specifies requirements for metal cable trays and associated fittings designed for use in accordance with the rules

All the technical information developed by the 1973 NEC's Technical Subcommittee on Cable Tray for Article 318 - Cable Trays was

INTRODUCTION The B-Line series Cable Tray Manual was produced by our technical staff. We recognize the need for a complete

Wire Mesh Cable Tray System for Channeling of Cable Wiring A Simple-to-Install basket cable tray for safe and proper installation of

Cable Tray Square Splice Washer Square Splice Washer, Use With CE 30 and EZ BN 1/4 To Splice Any Two Sections of Wire Mesh

Wire Mesh Cable Tray Installation Notice: Bends, Risers, T Junctions, Crosses and Reducers can be made from wire mesh cable

Specifically designed to provide a rapid and secure fixing when erecting cable trays. The fixed washer to

The M6 x 16mm cable tray bolt & flange nut set provides secure fastening support for cable trays and

Cable Support Systems are well designed to provide necessary support for cable trays, cable ladders and trunkings. Cable supports

Cable tray bolt dimensions

Our cable tray bolts are zinc plated have a cross-slot head and come with serrated flange nuts.

Some applications may require the cable tray to support the weight of a single, dead object in addition to the cable loads.

The document outlines steps for laying cables, including installing supports, fixing the tray, laying cables with proper spacing, and

Cable Tray Bolts & Flange Nuts (DIN6923) Zinc CROSS fically designed to provide a rapid and secure fixing when erect Product

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