Specifications of Vertical Support Arms for Cable Trays



Overview

Guide to cable support systems The load capacity of the cable trays according to the support width can be read off in the diagram using load curves – here.

Key Takeaways

Vertical support arms for cable trays are typically made of steel or stainless steel, comply with standards like BS 6946 and DIN EN 61537, and are designed to support cable trays under mechanical and environmental loads.

Material and Construction

Vertical support arms are generally fabricated from low carbon steel or stainless steel to ensure strength and durability under load and environmental conditions. They may feature pre-galvanized coatings (ASTM A653M G90/G60) or hot-dip galvanization (ASTM A123 or BS EN ISO 1461: 2009) for corrosion protection. I-beam or channel constructions are common, providing rigidity and resistance to bending.

Dimensions and Compatibility

Standard lengths for metal framing channels are typically 3000 mm with a tolerance of ±3. 2 mm, though custom lengths are available. Side rail flanges vary depending on NEMA class: 1-1/8" for Class 1, 2" for Class 2, 2 3/8" for Class 3, and 2 3/4" for Class 4.

Vertical support arms are compatible with cable trays, cable ladders, and mesh trays, and are designed to accommodate multiple NEMA classes.

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Load Capacity and Standards

Vertical support arms must withstand mechanical loads from cables, wind, ice, and short-circuit forces. They are manufactured according to BS 6946 for channel support systems and DIN EN 61537 for cable support systems, ensuring safe working loads and structural integrity. Test loads are typically three times the safe working load to ensure safety under dynamic conditions.

Installation

Supports can be anchored to concrete using M10, M12, or M16 anchors, depending on load requirements. C-channel or I-beam supports allow flexible attachment points via continuous slots or pre-drilled holes. Proper installation requires alignment, bracing, and spacing to prevent sagging and maintain cable tray integrity.

Additional Considerations

Surface treatments and coatings should be selected based on environmental exposure (indoor, outdoor, corrosive environments),. Vertical support arms are part of a system approach, meaning they should be used with compatible fittings, braces, and trays to ensure safety and performance. For heavy-duty applications, I-beam construction with added bracing improves load distribution and cable management.

By adhering to these specifications, vertical support arms provide reliable, safe, and durable support for cable tray systems in industrial and commercial installations.

Article Content

Guide to cable support systems

The load capacity of the cable trays according to the support width can be read off in the diagram using load curves – here, shown as an example for a cable tray with the tray widths 100 to 600 mm.

Cable Management Support Systems

Cable Support Systems are well designed to provide necessary support for cable trays, cable ladders and trunkings. Cable supports are manufactured according to common standards from high quality

GUIDE CABLE TRAYS TECHNICAL

NEMA VE 1-2017 Specifies requirements for metal cable trays and associated fittings designed for use in accordance with the rules of Canadian Electrical Code, Part I and the National Electrical Code®

Trof Vertical Supports

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They can either be bolted directly onto coupler plates at splices points or bolted anywhere along a cable tray by field-drilling side rails. Electro-galvanized support brackets for vertical cable tray runs using

Vertical Support Bracket-Pregalv (2D,,8W,,2L)

Features Unique support keeps tray secure vertically. Fold-over tabs secure tray: no additional hardware needed es 2 supports for tray widths of 18" or more. Use on 6" and wider tray.

Cantilever Arms

These brackets are used to provide extra support to a horizontal run of channel. In addition to the cantilever arms listed, there are many other specialist support brackets for use with cable tray or

Vertical Cable Support Elbow | Ladder Trays | Cable Tray and Reels ...

The aluminum I-beam design of ITray is perfect for industrial installations with large diameter cables in long span situations, minimizing total tray width and creating a smooth transition between straight

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.,

Cable Tray Installation Accessories

This article will delve into the various auxiliary materials and accessories essential for effective cable tray installation, drawing insights from the provided document to highlight their

Cable Tray Systems & Support Brackets | TechLine Mfg

Vertical straight lengths should be supported at intervals dictated by the building structure not to exceed 20 Ft. centers. A support should be located 2 Ft. on each side of an expansion connection.

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 protect numerous small instrumentation and control cables.

CABLE TRAY

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WARNING!—Do not use a cable tray as a walkway, ladder, or support for people; cable tray is a mechanical support system for cables and raceways. Using cable trays as walkways can cause

GUIDE CABLE TRAYS TECHNICAL

In accordance with its continuous impro-vement policy, Legrand reserves the right to change the specifications and illus-trations without notice. All illustrations, descriptions and technical information

Document DICOS

Vertical adjustable splice plates should be designed and placed to maximize the rigidity of the cable tray, unless vertical adjustable splice plates are part of a system specifically designed for other placement,

Cable Tray Installation Accessories

Explore essential cable tray installation accessories for secure, stable, and safe cable management systems: hoisting frames, cross arms, wall brackets, connectors, grounding etc.

KwikRail cable tray specification Document

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

B-Line series Cable Tray Design Considerations

As an industry leader in cable tray, Eaton offers one of the widest ranges of cable management solutions available in the market today with its B-Line series portfolio. With unmatched quality and service, we

Seismic analysis and design of electrical cable trays and support ...

The design aspects of electrical cable trays and support systems are discussed from the seismic and structural standpoint. The effects of the inherent flexibility of commonly used cable trays

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This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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