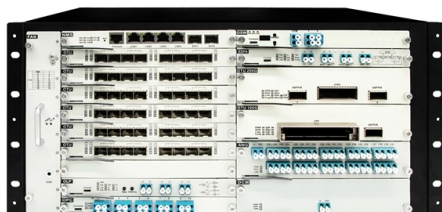


# Dimensional Specifications for Vertical Cable Tray Supports



## 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 cable tray supports are designed according to DIN 4102 Part 12, with widths of 200–600 mm, maximum cable weight of 20 kg/m, and fastening spacing up to 1.2 m.

## Standard Dimensions and Material

Vertical cable ladders and trays, such as the STL, STM, and STIC series, are available in widths ranging from 200 mm to 600 mm and are manufactured from galvanized or stainless steel to ensure durability and corrosion resistance. The rail height and material thickness are specified to support the intended cable load while maintaining structural integrity. These supports can be mounted directly to walls or via internal/external wall connection angles (WWU 150/8 or WWI 80) with a maximum fastening spacing of 1.2 m.

## Load Capacity and Support Requirements

The maximum permissible cable dead weight for these vertical supports is 20 kg/m. For continuous vertical runs exceeding 3500 mm, additional support is required to prevent cable kinking or slipping. This can be achieved through a lateral offset of at least 300 mm or a sealed strain relief housing tested for fire protection.

## Rung and Tray Specifications

Cable ladder rungs are spaced to accommodate cable bending radii and prevent drooping. For large power cables, rung spacing of 9 inches or wider is recommended, while smaller instrumentation cables may use 6–9 inches (150–230 mm) spacing. Pre-punched holes on side rails allow for easy attachment of accessories without drilling, and solid or ventilated tray bottoms can be selected based on cable type and environmental requirements.

## Compliance and Standards

Vertical supports are designed to meet DIN 4102 Part 12 for fire-resistant installations (E30, E60, E90) and are compatible with cables that have valid general test certificates from building authorities. Horizontal test results are applicable to vertical arrangements if proper support is provided at transition points.

## Summary of Key Specifications

Widths: 200–600 mm  
Material: Galvanized or stainless steel  
Maximum cable weight: 20 kg/m  
Fastening spacing:  $\leq 1.2$  m  
Rung spacing: 150–230 mm (instrumentation),  $\geq 9$  inches (power cables)  
Support for vertical runs  $>3500$  mm: lateral offset  $\geq 300$  mm or strain relief housing  
Mounting: Direct wall or via connection angles (WWU 150/8, WWI 80)  
Compliance: DIN 4102 Part 12, fire-resistant classes E30, E60, E90  
These specifications ensure structural stability, fire safety, and proper cable management for vertical cable tray installations in industrial and commercial environments.

## 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 TRAY SYSTEMS GUIDE

Some applications may require the cable tray to support the weight of a single, dead object in addition to the cable loads. Specifications typically require this to be applied at the midpoint of the span between

### 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®

Cable Tray Dimensions Guide: Standard Sizes, Tray Types & Sizing

Explore standard sizes by tray type, understand width and depth limits, and see how to calculate and choose compliant cable tray sizes for real projects.

Cable Tray Technical Guide A practical guide to product selection and ...

Cable tray length is selected based on the load to be supported, the distance between the supports (also referred to as the span), and handling and installation constraints.

Full cable tray systems specification document

The drawings which constitute a part of these specifications indicate the general route of the cable tray systems. Data presented on these drawings is as accurate as preliminary surveys and planning can

Cable Tray Design and Standards Guide

The document outlines codes and standards that must be followed for design and construction of cable trays and their components. Standards listed include those for materials, rolling and cutting

Vertical Cable Ladders

The standard support construction of vertical cable ladders STL, STM and STIC in accordance with DIN 4102 Part 12 for vertical cable laying with circuit integrity maintenance classes E30, E60 and E90 are

Cable tray manual

Some of these criteria include the required load that the cable tray must support, the distance between the cable tray supports, and ease of handling and installation.

B-Line series Cable Tray Design Considerations

Our wind certification report provides you with list of acceptable B-Line series cable tray supports, fittings and covers based off of the environmental conditions, cable loading, and type of cable tray in your

LEGRAND CABLE TRAYS TECHNICAL GUIDE

Not all cable trays are equivalent. The mechanical and electrical characteristics, tests, certifications, overall quality management, recommendations mentioned in this technical guide only apply to our

GUIDE CABLE TRAYS TECHNICAL

In accordance with its continuous improvement policy, Legrand reserves the right to change the specifications and illustrations without notice. All illustrations, descriptions and technical information

Cable Tray Technical Guide A practical guide to product selection and ...

A practical guide to product selection and installation This guide for engineers and installers has been developed by ABB as a practical reference regarding cable tray characteristics, installation, and

Full cable tray systems specification document

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

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,

IEC Standard for Cable Tray: Complete Technical Guide

IEC Standard for Cable Tray: Complete Technical Guide The International Electrotechnical Commission (IEC) provides detailed guidelines for

Cable tray manual

Ventilated trough cable tray is often used when the specifier does not want to use ladder cable tray to support small diameter multiconductor control and instrumentation cables.

CABLE TRAY

**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

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