

How much wider should the cable tray hanger be than the cable tray itself

Article Overview

Cable tray hanger frames are typically slightly wider than the cable tray itself, usually by the thickness of the side rails plus a small clearance for mounting hardware.

Standard Practice

Cable trays have a nominal inside width, which determines cable capacity, while the outside width is slightly larger due to the side rail thickness. Hanger frames or brackets are designed to support the tray securely and accommodate this extra width. In practice, the hanger frame width is generally 2 to 4 inches wider than the tray's nominal width, depending on the tray type, side rail height, and mounting method. This ensures proper load distribution and allows for secure fastening without interfering with cable installation.

Factors Affecting Hanger Width

- o Side Rail Thickness: Ladder or perforated trays have side rails that add to the overall tray width.
- o Mounting Hardware: Nuts, bolts, and threaded rods require additional clearance, which is factored into hanger frame design.
- o Tray Type and Load: Heavier trays or those carrying high cable loads may require wider hangers for stability.
- o Installation Method: Ceiling, wall, or beam mounting may influence the hanger width to ensure proper alignment and support.

Practical Example

For a 6-inch wide cable tray, the hanger frame might be 8 to 10 inches wide, allowing for side rails and mounting hardware. Similarly, a 12-inch tray could use a hanger frame 14 to 16 inches wide, depending on the bracket design and installation requirements.

Key Takeaway

Hanger frames are intentionally wider than the cable tray to accommodate side rails, mounting hardware, and ensure structural stability. The exact width difference varies by tray type, side rail dimensions, and installation method, but a typical allowance is 1 to 2 inches on each side beyond the tray's outside width. This ensures safe, code-compliant, and practical installation.

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Learn how to install cable trays correctly. Get the ultimate step-by-step guide on setting up a seamless and reliable

Cable Support Distances Although BS 7671 touches on the subject of cable supports, it does not detail specifically what these

Wider rung spacings and wider cable tray widths decrease the overall strength of the cable tray. Specifiers should be aware that

The total sum of the cross-sectional areas of all the single conductor cables to be installed in the cable tray must be equal to or less

Aluminum cable tray also provides a higher fault current capacity than steel tray. 7.4.1 The use of galvanized steel cable tray is

How to design cable tray? Most projects are roughly defined at the start of cable tray design. For projects that are not

2.2 Structural characteristics When considering the installation of the cable supports system it is imperative to avoid the cutting or

This guide covers cable ladder systems, cable tray systems, channel support systems and associated supports intended for the

Cable ladder and cable tray systems The following recommendations are intended to be a practical guide to ensure the

RS cable trays with an edge height of 60 mm are used in widths of 100 to 300 mm. The couplers are made with two internal RVV 60

Typically has a ventilated or solid bottom and is available in widths of 3 to 6 inches. NEC Article 392 covers the installation,

Explore the essential cable tray support spacing requirements for safe and efficient

The radius for cable ladder and cable tray fittings is usually determined by the bending radius and stiffness of the cables installed on

The general rule is to increase the safety margin by 25%. This additional strength ensures the system remains

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In accordance with its continuous improvement policy, Legrand reserves the right to change the specifications and illustrations

This guide covers the critical steps, from selecting the right electrical cable tray and performing accurate cable fill calculations to

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