

Cable tray 7-character card



Overview

Choose from our selection of cable trays, including over 850 products in a wide range of styles and sizes. Same and Next Day Delivery.

Key Takeaways

A 7-character card in cable tray systems typically refers to a 7-conductor tray cable, used for organizing multiple conductors within a single tray while complying with NEC standards. 7-Conductor Tray Cable

A 7-conductor tray cable is a type of stranded copper cable designed for installation in cable trays, often rated for 600 volts and used in industrial or commercial applications. Each conductor is insulated, and the cable is typically black or color-coded for identification. These cables are installed in single layers within the tray to prevent overheating and ensure proper current distribution.

Cable Tray Types and Selection

Cable trays provide structural support for multiple cables and come in various types, including ladder, trough, channel, wire basket, and pan trays. Selection depends on:

- Cable type and size: Larger cables like 4/0 require careful calculation of tray width and fill percentage.
- Tray width and depth: Standard widths range from 6" to 36", with depths from 2" to 10" depending on the tray type.



- Material: Aluminum, stainless steel, galvanized steel, or fiberglass, chosen based on environmental conditions and load requirements .

NEC Compliance and Installation

When installing multiple conductors in a tray:

- Single-layer installation is required for large cables to avoid exceeding the maximum allowable fill .
- Parallel conductors must be arranged to prevent current imbalance, with no more than one conductor per phase, neutral, or grounded conductor in each grouping .
- Cable splices are permitted only using NEC-approved methods .
- Ampacity adjustments may be required for certain tray types or high-voltage installations .

Labeling and Identification

A "7-character card" may also refer to a labeling system used to identify cables in a tray. Each character can denote:

- Cable type (e.g., power, control, instrumentation)
- Voltage rating
- Number of conductors
- Conductor size
- Tray section or route
- Phase or circuit designation
- Special notes or installation code This system ensures easy identification, maintenance, and compliance with electrical codes.

Summary

A 7-conductor cable in a tray is a common configuration for industrial wiring, and the "7-character card" likely refers to either the cable itself or its identification label. Proper tray selection, NEC-compliant installation, and clear labeling are essential for safety, efficiency, and maintainability in cable management systems .

Article Content

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