

Aluminum Alloy Channel-Type Combined Cable Tray



Overview

Aluminum Cable Tray systems are lighter than steel cable tray and Certified CSA Cable Tray, UL listed, NEMA and certified.

Key Takeaways

Aluminum alloy channel cable trays are lightweight, corrosion-resistant systems available in solid or ventilated designs, with various widths and fittings to suit industrial and commercial installations.

Aluminum channel cable trays are typically fabricated from Aluminum Association Alloy 6063 for extruded components and Alloy 5052 for fabricated parts, providing a balance of high strength, corrosion resistance, and thermal performance suitable for harsh or coastal environments. These alloys are often anodized to enhance durability and prevent corrosion.

Tray Designs

Aluminum channel trays are available in two main bottom types:

- Solid Bottom: Provides full support for cables, ideal for sensitive or high-density cable runs where protection from dust or debris is required.



- **Ventilated Bottom:** Features perforations or slots to allow airflow, improve heat dissipation, and facilitate cable tie installation. Ventilated trays often have burr-free oblong holes and slots for securing cables .

Standard Widths and Load Capacity

Channel trays come in nominal widths of 1.5, 3, 4, and 6 inches, with a minimum loading depth of approximately 1.25 inches . Aluminum trays are lightweight, reducing structural load and easing installation, yet they can support additional concentrated loads on side rails or rungs beyond standard load classes .

Fittings and Configurations

Fittings allow for directional changes, size adjustments, and bends in the tray system. Options include:

- Horizontal and vertical bends with zero or custom radii (e.g., 12 in., 24 in.)
- Tee, cross, and reducer fittings for branching or connecting trays
- Snap-in splice plates for easy assembly and field modifications

Applications and Advantages

Aluminum alloy channel trays are ideal for industrial, commercial, and coastal installations due to their:

- Lightweight construction for easier handling and reduced labor costs
- Superior corrosion resistance compared to steel, especially in outdoor or high-humidity environments
- Thermal management for high-density cable runs, improving safety and cable longevity
- Electromagnetic shielding in sensitive installations These trays are CSA and UL certified, meeting NEMA standards for safety and performance . In summary, aluminum alloy channel cable trays offer versatile, durable, and lightweight solutions for cable management, with options for solid or ventilated bottoms, multiple widths, and a variety of fittings to accommodate complex routing and environmental requirements.

Article Content

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Perforated Cable Tray — Aluminum, Galvanized, 304 SS | TechLine Mfg

TechLine Mfg perforated angle and channel cable trays in hot-dip galvanized, aluminum, and 304 stainless steel. UL Classified

Aluminum Alloy Cable Tray is Lightweight to Install

Aluminum alloy cable trays have good strength, beautiful appearance, large carrying capacity. Also, they are designed into several

CABLE TRAY SYSTEMS GUIDE

The total load supported by the cable tray, uniformly distributed. This will be the combined weight of all of the cables or tray contents,

Channel cable tray specification document

2.05 General: Except as otherwise indicated, provide ventilated metal channel cable trays, of types, classes and sizes indicated with

Aluminum Cable Tray

An aluminum alloy cable tray is a lightweight, durable, and cost-effective system used to support and organize electrical and data

Types of Cable Trays: Ladder, Perforated, Basket, Solid & Channel

Cable trays support insulated electrical cables in industrial and commercial settings. There are several types of cable

Thomas & Betts

Cable tray wiring systems offer significant advantages over conduit pipe and other wiring systems. Cable tray is less expensive, more

Aluminium Cable Trays | EAE Electric

EAE's aluminum cable trays and cable ladder solutions stand out with their superior corrosion resistance, lightweight design, and

Metallic Cable Tray | PDF Catalogues | ABB Electrification Canada

Browse our T&B galvanized metallic cable tray systems. More adaptable and easier to maintain than conduit pipe,

Snap Track Cable Tray — UL Classified Channel System | TechLine Mfg

Snap Track is TechLine Mfg's UL Classified channel-type cable tray system for industrial plants - faster install, fewer supports.

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