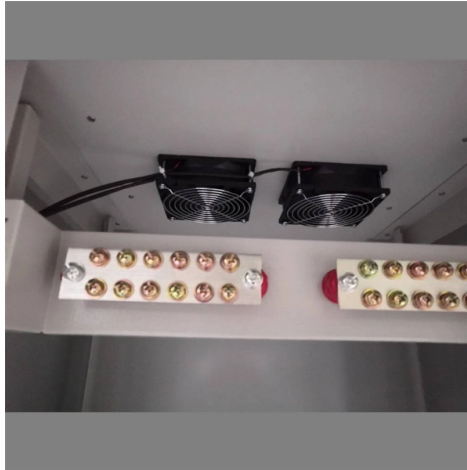


What are the technical requirements for mesh cable trays



AI Overview

Mesh cable trays must meet strict standards for load-bearing capacity, corrosion resistance, deflection limits, and electrical continuity to ensure safe and reliable cable management.

Material and Corrosion Resistance

Mesh cable trays are typically made from high-strength steel, stainless steel, or aluminum, with coatings such as electro-galvanization or powder coating to prevent corrosion . The coating should be smooth, uniform, and fully adhered, passing tests like the 48-hour neutral salt spray test to ensure durability in industrial or outdoor environments . Stainless steel trays often use AISI 316L for enhanced resistance to chlorides and chemical exposure . Materials must withstand ambient temperatures from -20°C to $+120^{\circ}\text{C}$ without compromising structural integrity .

Load-Bearing Capacity and Deflection

The load-bearing capacity depends on tray width, height, wire diameter, and cross-sectional design . Deflection under full load should not exceed $\text{span}/200$; for example, a 2-meter span should have a maximum deflection of 10 mm . Proper design ensures that trays can support power, control, and data cables without sagging or mechanical failure .

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