

Parameters of 6063 Tubular Busbar



AI Overview

6063 aluminum tubular busbars are lightweight, corrosion-resistant, and conductive components widely used in medium- and high-voltage power distribution systems.

Material Composition 6063 aluminum alloy belongs to the Al-Mg-Si series, with key elements including magnesium (0.45–0.9%) and silicon (0.2–0.6%), with the remainder being aluminum and trace impurities such as iron and copper (). This composition provides a balance of strength, corrosion resistance, and workability.

Mechanical Properties Tensile Strength (T6 temper): Approximately 190–230 MPa Yield Strength: Around 145–200 MPa Elongation: 8–12% Density: 2.69–2.7 g/cm³, making it lighter than copper ()

Electrical and Thermal Properties Electrical Conductivity: ~28–34 MS/m (≈55% IACS), sufficient for high-current applications () Thermal Conductivity: ~200–220 W/m·K, enabling efficient heat dissipation in power systems ()

Dimensions and Profiles 6063 tubular busbars are available in rectangular, round, or tubular profiles, with tubular being preferred for certain high-voltage applications (). Typical dimensions include: Width: 10–200 mm Thickness: 0.15–40 mm Maximum Length: Up to 6 meters Custom sizes: Available through extrusion, sawing, or machining ()

Surface Treatments and Plating Tin plating: Improves oxidation resistance and solderability Silver plating: Enhances conductivity and reduces contact resistance Insulation coatings: Powder coating, epoxy resin, or insulating varnish Insulation sleeves: PVC, heat-shrink tubing, or silicone rubber ()

Standards Compliance 6063 aluminum busbars conform to multiple international standards, including: ASTM B317, ASTM B236 IEC 60105 ISO 209-1, 2 DIN EN 755-2, EN 573-3 ()

Applications 6063 tubular busbars are widely used in: Transformers, switchgear, and substations Medium- and high-voltage power distribution Architectural and decorative busbar applications () These parameters make 6063 tubular busbars a cost-effective, lightweight, and reliable choice for electrical power systems, balan...

Article Content

Electrical Aluminum Bus Circle 6063 T6_Aluminium Busbar

6063 aluminum bar is known primarily as an architectural grade of aluminum due to its attractive, smooth finish. It exhibits the same strength, light weight and anti-corrosion properties as other

6063 Aluminum Busbar | High-Strength and Conductive

6063 aluminum busbar possesses high strength, high hardness, and excellent electrical conductivity, making it particularly suitable for transformers, switchgear,

6063 Bus Pipe Linecard

TW Metals is your trusted supplier of 6063-T6 with the largest inventory of seamless aluminum bus pipe in the nation. We stock a diverse range of diameters of 6063-T6 Aluminum bus pipe.

Aluminum Alloy Tubular Busbar

With the addition of rare earth and rare metal zirconium, the 6Z63 (6063-ZR) high strength heat-resistant aluminum alloy tubular bus provides safe operation at

Aluminium Tubular Busbar 6101, 6063

Aluminium tubular busbar refers to the seamless aluminium Tube Pipe which is extruded from pure aluminium or aluminium alloy to be hollow along its longitudinal length. The common alloys of

6063 T4 T6 Electrical Aluminum Busbar | HC Aluminum

The main elements in the chemical composition of 6063 aluminum busbars are magnesium and silicon. They exhibit excellent processing performance, welding capability, extrusion properties, and

Aluminum Tubular Busbar | Signi Aluminium

Aluminum Tubular Busbar Author:Frank Time:2023-05-05 Our company's main business: aluminum alloy tubular busbar, Conductive aluminum tube, ALUMINIUM PIPE BUS, 6063 (6063G)

High-Performance Aluminum Tubular Busbars for Efficient Power ...

Aluminum tubular busbars are the ideal solution for modern electrical applications. Designed for efficiency and high performance, these busbars ensure stable power transmission while reducing

6063 Aluminum Tubular Pipe Supplier | Chalco Aluminum

Chalco's 6063-T6 aluminum magnesium seamless busbar tube is a top product known for its high heat resistance. It operates safely in temperatures ranging from 150°C to 200°C, maintaining over 88% of

6063 T6 Aluminum Tubular Busbar_Henan Chalco Aluminium

The use of 6063 T6 Aluminum Tubular Busbar 6063 T6 Aluminum Tubular Busbar is a commonly used power transmission tube busbar, which is mainly used in power transmission and substation systems.

6063 T5 T6 T52 Aluminum Flat Busbar

Our 6063 aluminum bus bars includes 6063 T5 aluminum bus bar, 6063 T6 aluminum flat bar, and 6063-t52 aluminum flat bar. Good bending performance, 45 degree bending without cracking, can

aluminium tubular busbar

Aluminium tubular bus bar is one of the leading products of the bus, and it is one of the key equipment (materials) in the power transmission and transformation system. It plays a vital role

Formulas calculating the reactance of tubular busbars and their ...

The necessity of calculating reactance of busbars is discussed firstly. High-voltage overhead or cable transmission lines are mostly constructed by flexible conductors, where their

Technical Data Tube

Technical Data A L L O Y D E S C R I P T I O N Silicon alloy. One of the most popular of the Heat Treatable alloy group. Excellent corrosion resistance a weldability. Finer grain structure than 6061

6063 T6 Aluminum Tubular Buspipe

Busbars made of seamless 6063 aluminum tubing with a voltage range of 400V to 72kV. These are utilized for power equipment, substation transformers, and conductor connections in

Aluminum Seamless Bus Pipe | AFL Global

Seamless bus pipe is generally made of 6063-T6 alloy in ANSI Schedule 40 pipe because of its excellent mechanical and electrical properties. The 6061-T6 alloy tubular bus is used where high

Technical Data Tube

Stress-corrosion cracking ratings are based on service experience and laboratory tests of specimens exposed to the 3.5% sodium chloride alternate immersion test. A= No known instance of failure in

6063 Aluminum Flat Bus Bar | Signi Aluminium

6063 Aluminium Flat Bus Bar Author:Frank Time:2023-05-05 The chemical composition of 6063 aluminum busbar is the most important part of the production of high-quality aluminum alloys.

Formulas calculating the reactance of tubular busbars and their ...

The quantitative study of this problem has to be based on establishing equivalent circuits of main wiring, when there rarely are formulas to calculate the reactance of tubular busbars.

Aluminum Bus Ampacity Reference Tables | PDF

The document contains three tables that provide specifications for aluminum bus and recommended damper cables. Table 1 lists physical properties for aluminum grades 6063-T6 and 6061-T6. Table 2

6063 Aluminum Flat Bar/Busbar--EC Grade | Chalco Aluminum

6063 T4, T6 aluminum flat busbar with high-performance, excellent conductivity, corrosion resistance; services include tin-plating, bending, and precision cutting. Ideal for power transmission, electronic

Contact Us

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