

High-density high-temperature resistant busbars available in stock

Article Overview

High-density, high-temperature resistant busbars are available from suppliers like Mersen, Rogers (ROLINX), Molex, RHI, and Exxelina, with temperature ratings up to 1000°C and compact, laminated designs for high-current applications.

Key Suppliers and Products

Mersen MHi-T(TM) Bus Bars Mersen offers high-temperature busbars designed for Wide Band Gap (WBG) power modules, capable of withstanding working temperatures up to 130°C and 180°C. They use polyaramid dielectric insulation and high-temperature adhesives to maintain structural integrity and prevent insulation breakdown under high thermal stress, making them suitable for SiC- and GaN-based power electronics applications . **Rogers ROLINX(R) Laminated Busbars** ROLINX busbars are laminated copper or aluminum layers separated by dielectric materials, engineered for high power density and low inductance. They are widely used in EV/HEV, rail, renewable energy, and industrial drives, offering compact, high-current solutions with excellent thermal and electrical performance . **Molex Busbars** Molex provides rigid, flexible, and laminated busbars with high-current capacity and thermal stability. Their busbars are designed for high-power, high-density, and elevated-temperature environments, with options for copper or aluminum conductors, multiple insulation types, and plating finishes. Molex also supports customized designs and liquid-cooled solutions for advanced thermal management . **RHI High-Temperature Busbars** RHI specializes in busbars with mica tape, ceramic composite tape, and ceramic-enhanced silicone rubber coatings, capable of withstanding extreme temperatures up to 1000°C. These busbars are suitable for new energy systems requiring high current and robust insulation . **Exxelina SVM Laminated Busbars** Exxelina offers laminated busbars with multiple copper layers and high-performance insulation (FR4, G10, flame glass UL 94 V-0), designed for high-current, high-density applications in power electronics, renewable energy, aerospace, and automotive sectors. Their busbars provide compact designs, enhanced thermal performance, and reliability in demanding environments .

Considerations for Selection

- o **Temperature Rating:** Choose busbars rated for the maximum operating temperature of your system (up to 1000°C for extreme cases).
- o **Material:** Copper is preferred for high conductivity; aluminum may be used for weight-sensitive applications.
- o **Insulation:** Options include mica, ceramic composites, polyaramid, and silicone-based coatings for high-temperature resistance.
- o **Form Factor:** Laminated busbars reduce inductance and improve thermal management, while flexible busbars allow vibration tolerance and easier routing.



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o Customization: Many suppliers offer tailored solutions for specific current ratings, geometries, and integration with connectors or cooling systems. These suppliers provide in-stock and customizable high-density, high-temperature busbars suitable for demanding industrial, automotive, and renewable energy applications.

Liquid-cooled busbar solutions integrate dedicated coolant channels directly into high-current busbar assemblies to efficiently

Delve deep into the relationship between high-temperature solutions and electrical busbars, exploring how these two

Power Conversion Busbars are designed primarily for medium--high AC voltage, low inductance applications

This paper discusses the advantages and limitations of cable connections, rigid bus bar connection and flexible bus bar connections

With outstanding technical expertise and advanced manufacturing techniques, we provide you with a very large variety of customized

High-density installations where multiple conductors run in parallel particularly benefit from

High-Quality Conductive Materials: Opt for high-purity oxygen-free copper (electrolytic copper) for superior conductivity and thermal

Using a combination of polyaramid dielectric insulation and high temperature adhesive, Mersen's MHi-T(TM) High Temperature Bus

CERTIFICATIONS AND TESTS pproved to IEC EN 61439-6. Part 6 refers specifically to busbar Suitable for extreme temperatures (

Our high-temperature laminated busbars are not only a breakthrough in materials and processes, but also the cornerstone of next

While traditional laminated bus bars are limited to a working temperature of 105°C, Mersen's MHi-T bus bars allow for

Explore RHI's high-performance rigid copper busbars--designed for efficiency, durability, and safety. Learn about specifications,

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Introduce Busbars, or conductive busbars, are an indispensable component in electrical systems. They act as

Heat-resistant expanded-diameter busbars employ special heat-resistant alloy materials, enabling stable

Use high temperature resistant insulating coatings (such as epoxy resin and fluoroplastic coatings) to reduce the risk

Because they have low electrical resistance and high current capacity, busbars can handle high amperage with

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