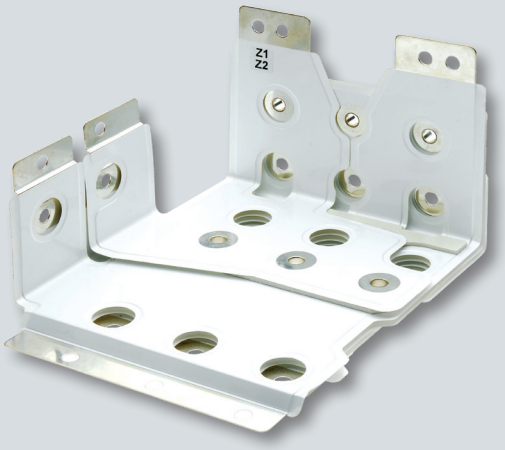
Ferraz Shawmut | Eldre | Idealec | FTCAP

# MHi-T™ LAMINATED BUS BARS FOR HIGH TEMPERATURE APPLICATIONS




**MHi-T105™**
**MHi-T130™**
**MHi-T180™**

# MHi-T™ LAMINATED BUS BARS FOR HIGH TEMPERATURE APPLICATIONS

## Built to take the Heat!

Today's customers are turning to Wide Band Gap (WBG) technologies such as SiC and GaN based power modules to increase power densities in their drives and inverters designs. Due to their inherent nature, WBG modules in turn introduce an increased level of heat into their laminated bus bars connectors. Increased temperature rises on standard laminated bus bars may cause partial or complete breakdown of the bonding agent (glue) of the insulation, causing the insulation to lift and separate from the conductor surface, creating potential unsafe shock or short circuit faults. Mersen aims to address this increased temperature rise in WBG power modules by designing bus bars with higher temperature tolerances.

Using a combination of polyaramid dielectric insulation and high temperature adhesive, and through a long series of testing and qualification steps, today's Mersen MHi-T High Temperature Bus Bars are designed and manufactured to respond to an increasing demand for higher power levels in power converters.

While traditional laminated bus bars are limited to a working temperature of 105°C, Mersen MHi-T bus bar line up allows for an increased working temperatures up to 130°C and 180°C.

**Features and Benefits**

- Insulation materials expertise and qualification procedure cycle used across all Mersen bus bar sites
- Three solutions already available @ 105, 130 & 180°C:
  - MHi-T105™
  - MHi-T130™
  - MHi-T180™
- A fully qualified and standard compliant insulation film offer:
  - REACH and RoHS
  - CTI (400V)
  - UL94 - Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances V0 certified
  - EN45545-2 - Fire testing of materials and components for trains, Certified HL3 Class for R1 and R7

**Electrical performances**

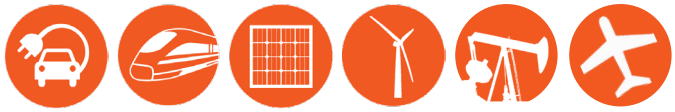
- Insulation film CTI: 175-250V / Class 3 (Determined by UL)
- Electrical breakdown: >8kV

**High operating temperature**

- Operating temp.: -50°C to 180°C (Up to 200°C peak)
- According to UL tests: Insulation film RTI (220°C)

**Applications**

- Motor Drives, Rail, Photovoltaic, Wind, Aeronautics, UPS and Oil & Gas



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