

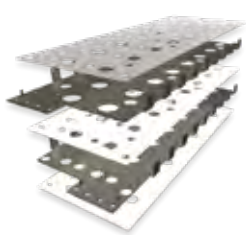
## EXTENDED SOLUTIONS FOR POWER MANAGEMENT : MERSEN OFFERS PERIPHERAL PRODUCTS USED TO OPTIMIZE OPERATION AND INCREASE SAFETY AND RELIABILITY OF POWER CONVERSION SYSTEMS.

In today's world, many industrial electrical applications require conversion of one form of power to another such as AC to DC, DC to AC or DC to DC. These power conversions utilize power electronics to perform the conversion in drives, inverters or converter products.

Mersen solutions for power management offer a broad range of cooling products to cool the power electronics, bus bars to manage the interconnectivity of power electronics and specially designed fuses to protect the power electronics from destructive current faults.

### WHAT IS LAMINATED BUS BAR?

Laminated bus bar is an engineered component consisting of layers of fabricated copper separated by thin dielectric materials, laminated into a unified structure. Sizes and applications range from surface mounted bus bars the size of a fingertip to multilayer bus bars that exceed 20 feet in length. Laminated bus bar solutions are routinely used for low volumes up through tens of thousands per week.



### LEVERAGING OVER 65 YEARS OF EXPERIENCE

With the addition of Eldre in USA and France to the Mersen family in 2012, Mersen added laminated busbars to its extensive portfolio of products. Along with other solutions for power management such as cooling and fuses, Mersen has created a powerful bundled product offering for the protection and management of power electronics.

### WHY CHOOSE LAMINATED BUS BAR?

Bus bars reduce system costs, improve reliability, increase capacitance, and eliminate wiring errors. They also lower inductance and lower impedance. Plus, the physical structure of bus bars offers unique features in mechanical design. For example, complete power distribution subsystems can also act as structural members of a total system. Multilayer bus bars offer a structural integrity that wiring methods just can't match.

### WE CAN HELP YOU WITH ANY DESIGNS OR SPECIFICATIONS

We at Mersen provide FREE consultation for our customers to be able to directly discuss their design requirements with our expert application and product specialists. We take pride in striving to provide fast response time, usually within one business day to customers enquiries. We provide one on one design and engineering support to arrive at the best fit solution every time.

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Белгород (4722)40-23-64  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
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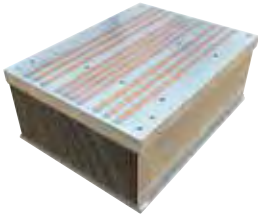
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**EXTENDED SOLUTIONS FOR POWER MANAGEMENT**

**HIGH-PERFORMANCE COOLING SOLUTIONS FOR POWER ELECTRONICS**

Mersen integrates its extensive cooling expertise and patented heat sink technology into power electronics applications to make them more efficient, reliable, and profitable. Our unique knowledge of air, phase change, and liquid cooled heat sinks enables Mersen to help customers find the right customized thermal protection solution for their unique applications.



**AIR COOLING SOLUTIONS**

Mersen’s air cooled Fabfin® heat sink stands out from ordinary extruded heat sinks because of its higher fins, giving it excellent performances. Using a swaging process means a variety of its higher fins and increased height-to-space ratio types of fins can be used.



**LIQUID COOLING SOLUTIONS**

Power electronics components (SiC, IGBTs, thyristors) need a cooling solution that is both effective and reliable, especially when installed in a confined space. To ensure maximum reliability, Mersen has mastered vacuum brazing technology for liquid cooled solutions to achieve guaranteed water tightness with no seams, robustness, corrosion free, and excellent thermal performance.



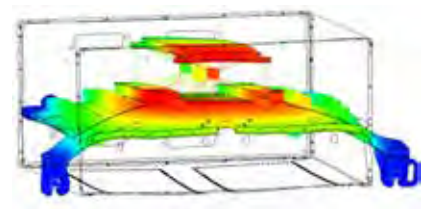
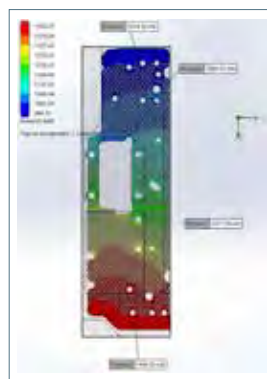
Heat Pipe Assembly

**HEAT PIPES FOR INSTANTANEOUS COOLING ACTION**

The high heat losses from press-pack or IGBT power devices can easily be conveyed outward via heat pipe cooling units. A heat pipe is a device that uses “phase change” to efficiently conduct large amounts of heat between two solid surfaces.

**FROM DESIGN, TO PROTOTYPE, TO PRODUCTION**

Mersen is ready to assist customers throughout the development of the solution they need: from the earliest stages of identifying needs right through production and logistics at the end of the process. Participation in thermal research groups and design work on several demanding thermal applications all over the globe, means we can offer the widest variety of adapted competitive designs. Mersen is capable of completing thermal testing for all air cooled products and heat pipe assemblies in-house using their new thermal lab.



Design / Thermal hydraulic simulation / Mechanical simulation

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