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ISOMAXX VACUUM BRAZED COLD PLATES



PATENTED ENHANCED COOLING SOLUTION FOR LATEST PRIMEPACK™ IGBT GENERATION

ISOMAXX: PATENTED ENHANCED COOLING SOLUTION FOR LATEST PRIMEPACK™ IGBT GENERATION

As today's market needs for more efficient electrical power conversion designs grow, so do the technological advancements from power electronic module manufacturers. The new generation of PrimePACK[™] IGBT modules now boast an increased power dissipation compared to previous generations. Inverter manufacturers are also looking to minimize foot print in their design by condensing their power conversion designs and running IGBTs at higher switching frequencies. This increased level of optimization in power conversion designs, raises a new set of challenges for effective cooling of power modules. The fact of the matter remains that traditional heat sink designs cannot meet these stringent cooling requirements.



PrimePACK™

Module No. 2 ... Module No. n

Introducing Mersen's patented IsoMAXX Vacuum Brazed Cold Plates

Engineers at Mersen have designed the revolutionary IsoMAXX vacuum brazed cold plate to provide an efficient cooling pattern below the newest PrimePACK[™] IGBT modules.

Customer Benefits are many:

- Unsurpassed thermal performance: compared to traditional cold plates
- **Optimized pressure drop:** compared to existing cold plates designs
- Unparalleled Thermal homogeneity: chip-to-chip (all chips at the same T°) and module-to-module on a multi-module cooling plate
- **Compact design:** As there will be no minimum clearance distance between

modules, designers can mount modules closer to each to reduce overall inverter footprint

- Modular solution: covers all PrimePACK[™] types, regardless of the number of modules on the cold plate
- Cost competitive



(**) Thermal resistance based on PrimePACK heat source specificity: power applied on about half of module surface, with 40% Ethylen Glycol mixed

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Module No. 1