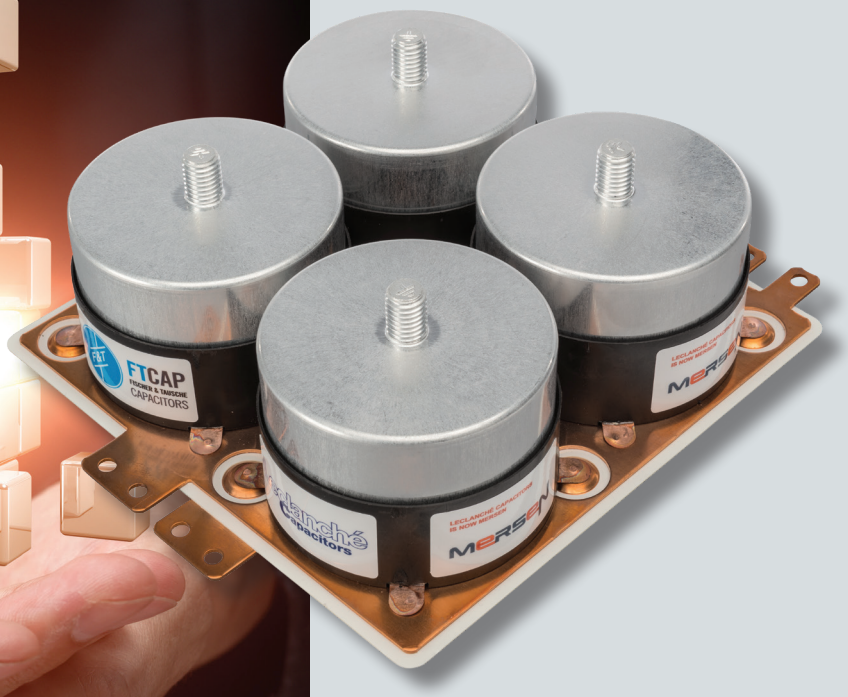
Ferraz Shawmut | Eldre | Idealec | FTCAP

LASER-WELDED CAPACITOR AND BUS BAR SUB-ASSEMBLY

NEW FOR 2021

- REDUCED INDUCTANCE
- INCREASED CAPACITANCE
- FULLY TESTED SUB-ASSEMBLY



LOW INDUCTANCE CAPACITOR-BUS BAR ASSEMBLY

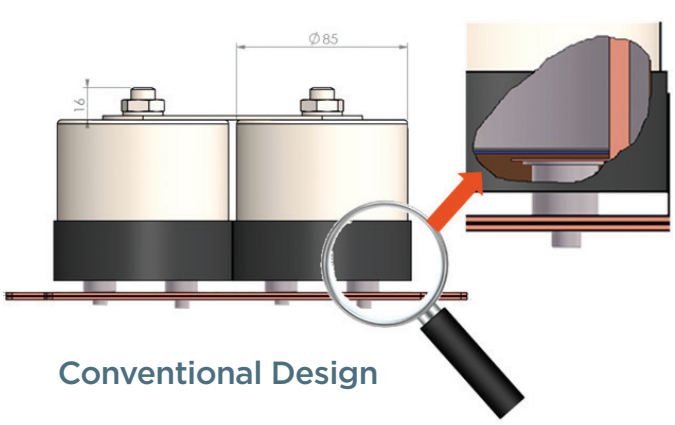
Optimized and compact design

New for 2021, Mersen is introducing an optimally designed and assembled capacitor and bus bar sub assembly called Fischerlink 2.0. Traditionally capacitors are connected to bus bars by screw or solder connections which may cause increased inductance in the sub-assembly. Mersen Fischerlink 2.0 uses laser welding to connect capacitor terminals to bus bars, thus improving the overall performance of the assembly and reducing the footprint.

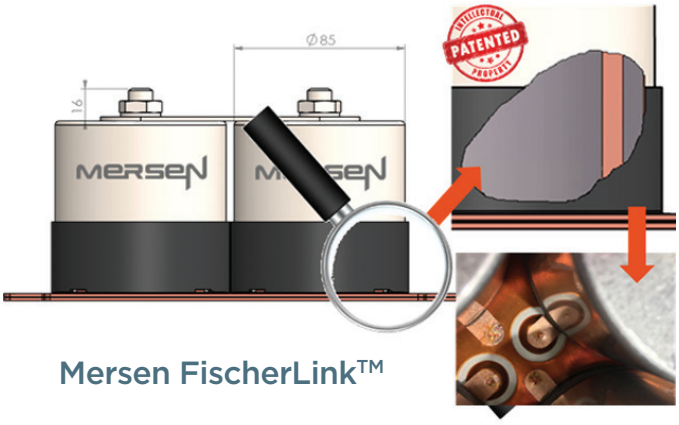
Laser welding connections has several advantages compared to traditional screw or solder mounting methods. Laser welding reduces the inductance and increases capacitance. Additionally the capacitance per volume can be increased up to 20%. Since the assembly is done by Mersen, all parts are 100% tested before delivery providing customer an additional degree of piece of mind. The sub-assembly of capacitor and bus bar rolled into one single part number offers additional savings in administrative costs.

Design performance comparison example

Design Proposal of capacitor bank using 4 capacitors with Ø = 85 mm and height = 60 mm per capacitor	Capacitance in total of capacitor bank using 4 capacitors Standard design	Capacitance in total of capacitor bank using 4 capacitors FischerLink 2.0	Capacitance Increase from Conventional Design to FischerLink 2.0
800 Vdc	780 µF	900 µF	~ 15 %
900 Vdc	620 µF	720 µF	~ 16 %
1000 Vdc	500 µF	580 µF	~ 16 %
1100 Vdc	400 µF	470 µF	~ 17 %
1200 Vdc	340 µF	400 µF	~ 17 %



Conventional Design



Mersen FischerLink™