

SOLAR POWER

Electrical Protection
Solutions



FERRAZ SHAWMUT IS NOW MERSEN

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SOLAR POWER MERSEN KEEPS IT SAFE & RELIABLE

A global leader with a century of experience, Mersen brings expertise and innovation to your company



Increase system longevity with a wide range of electrical protection solutions for solar power

Solar power designers, integrators, contractors, and equipment manufacturers turn to Mersen for innovative electrical protection products and unmatched technical support. You'll find a dedicated range of products from overcurrent protection to surge protection as well as thermal management for power electronic components. And thanks to our newly developed HelioProtection® product family, faulty circuits are safely isolated and system longevity and reliability are increased allowing for continuous generation of clean and efficient power.



Protect your investment by using components designed for solar applications

Generating electricity from solar energy is an extremely reliable process – as long as it's properly protected! Mersen offers a trusted range of electrical protection solutions that help protect your solar power investment. Any installation, whether it's a stand-alone solar array with a back-up battery system or a grid-connected photovoltaic system, is vulnerable to fault currents and/or lightning. Today, fuses and surge protective devices are the most effective ways of protecting the wiring and electrical equipment in a photovoltaic system. Fuses protect the cables between strings of modules from overcurrent damage. The faulty circuits are isolated, allowing the system to continue generating power. But that protection must be designed, dimensioned, tested and adapted to the specific features of solar power applications. Turn to Mersen, for protection components designed for solar power generation and distribution including fuses, fuse holders, heatsinks, and surge protective devices.



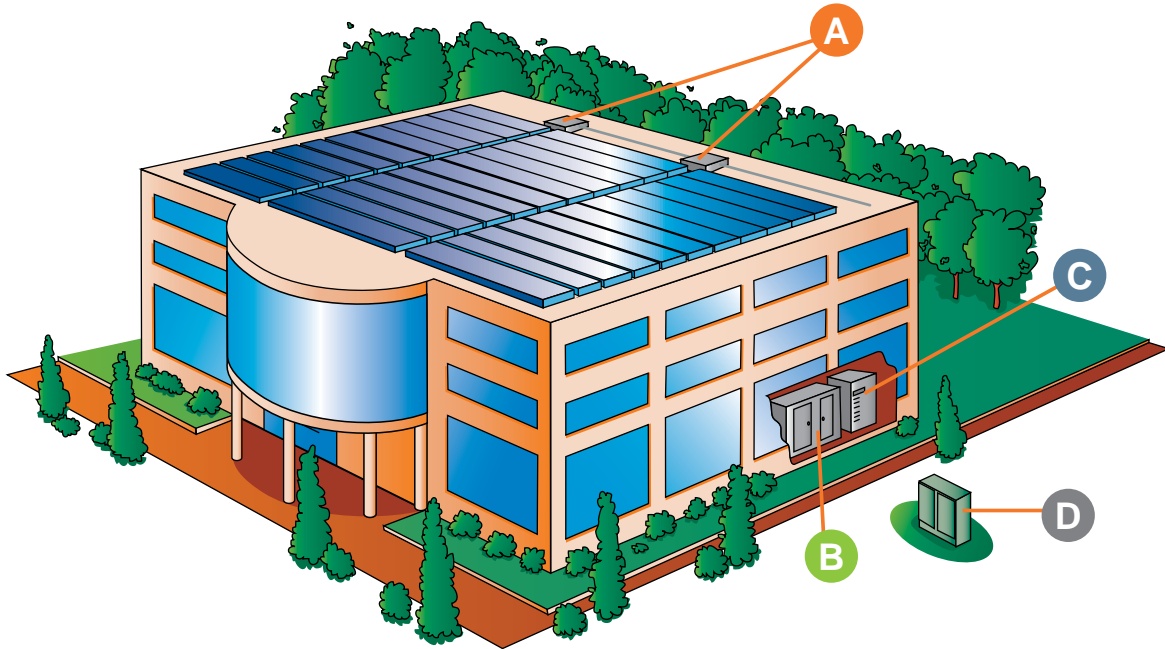
Mersen is the PV Industry Benchmark

- 1st to market with UL 2579 Listed product
- Helped drive the new safety standard
- The only manufacturer serving the PV market with overcurrent, surge protection, and thermal management solutions

Electricity runs the world. Mersen keeps it safe & reliable.



...BY APPLICATION



Circuit Protection Components for Solar Power Applications

A

String Combiner Box / Array Combiner Box

Fuses & fuse holders • Surge protection devices
Disconnect switches • Power distribution blocks

C

AC Electrical Panelboard

Fuses & fuse holders • Surge protection devices
Disconnect Switches

B

Inverter

Fuses & fuse holders • Surge protection devices
Disconnect switches • Power distribution blocks
Thermal management • Contactors

D

Utility Distribution Network

Fuses • Cable limiters

About Mersen's HelioProtection® Brand

The word helio, meaning sun, was derived from Greek mythology and the sun god, Helios. When combined with the safety and reliability of Mersen's electrical protection solutions, HelioProtection defines our commitment to the solar industry. Mersen's HelioProtection brand promises expertise in solar power applications and a premium offering designed for the PV industry.

Products marked with the HelioProtection brand name have been tested and certified to the latest industry standards for use in photovoltaic applications and guarantee the level of performance required by the PV industry. Not only is Mersen the industry benchmark when it comes to standards compliance, we voluntarily subject our products to strict quality monitoring backed by extensive electrical, mechanical and climatic tests.



HelioProtection® Brand Promise

- Expertise in solar power applications
- Premium offering for the PV industry
- Delivering safety & reliability

...BY PROTECTION TYPE

Overcurrent Protection Solutions

A HP6M – 600VDC PV Rated Fuses

- Designed for string level PV protection
- Ideal for combiner box applications
- 600VDC, 30A maximum
- UL Listed to standard 2579
- IEC 60269-6 Approved



A HP10M – 1000VDC PV Rated Fuses

- Designed for string level PV protection
- Ideal for combiner box applications
- 1000VDC, 30A maximum
- UL Listed to standard 2579
- IEC 60269-6 Approved



A HP6J – 600VDC PV Rated Fuses

- Designed for array level and inverter input protection
- 600VDC, 400A maximum
- UL Listed to standard 2579



A A150X – 1000VDC Fuses

- Ideal for re-combiner and inverter input applications
- 1000VDC, 1000A maximum
- Self-certified



A UltraSafe™ Fuse Holders

- Finger-safe fuse holders for combiner box applications
- 1000VDC, 30A maximum
- UL Certified to standard 4248



A Open Style Fuse Holders

- Ideal for re-combiner and inverter input applications
- Various wire terminations available
- UL Certified to standard 4248



A FEB – In-line Fuse Holders

- Ideal for PV string protection outside the combiner box
- Weatherproof and UV Rated
- UL Certified to standard 4248



A GPM – Panel Mount Fuse Holders

- Ideal for custom combiner applications or small inverter protection
- Weatherproof options available
- UL Certified to standard 4248



B PSC Square Body Fuses

- For protection of semiconductor and capacitor devices in the inverter
- Worldwide acceptance
- UL Certified to standard 248



B gRB Pin Indicating Fuses

- Indicating fuses ideal for inverter ground fault protection circuits
- Use with US27 finger-safe fuse holders
- UL Certified to standard 248 and 4248



C AJT – 600VAC Branch Circuit Fuses

- General purpose protection for the AC side of the system
- 600VAC, 600A maximum
- UL Listed to standard 248



D Medium Voltage General Purpose Fuses

- Protection for transformers and distribution equipment
- Current-limiting
- UL Certified per ANSI/IEEE standards



D CP – 600VAC Cable Limiters

- Reliable protection for underground cable distribution networks
- 600VAC, 1000 kcmil maximum
- UL Listed to standard 248



A DFC – Dead Front Fuse Covers

- Finger-safe covers for use with open style fuse holders
- Prevent shock hazards
- Available with blown fuse visual indication



...BY PROTECTION TYPE

Overvoltage Protection Solutions

A ST – Modular Surge Protection Device

- B • AC and DC configurations available
- C • TPMOV® technology saves cost and installation time, adds reliability



A STP – Pluggable Surge Protection Device

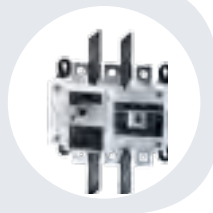
- B • AC and DC configurations available
- C • TPMOV technology saves cost and installation time, adds reliability
- Tool-free, plug replacement module



Disconnect Switch Solutions

A SXDC – PV Disconnect Switch

- B • 1000VDC IEC Rated
- C • 600VDC UL Rated
- Designed for solar applications



B SC – Non-Fusible Disconnect Switch

- C • 600VAC UL Rated
- Compact footprint



B FB – Fusible Disconnect Switch

- C • 600VAC UL Rated
- Compact footprint



B Modular DC Contactors

- For switching of DC loads
- High voltage, high ampere capabilities



Thermal Management Solutions

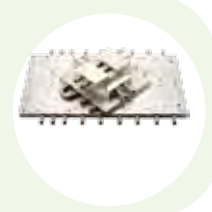
B Air Cooled Heatsinks

- Ideal for thermal control of sensitive components used in the inverter
- High performance, very rugged



B Liquid Cooled Heatsinks

- Ideal for thermal control of sensitive components used in the inverter
- Copper and aluminum options available



Wire Management Solutions

A FSPDB – Finger-Safe Power Blocks

- B • Ideal for combining string circuits
- Finger-safe design eliminates shock hazards
- 1000VDC rated, UL Certified



A Open Style Power Blocks

- B • Ideal for combining string circuits
- Various configurations and terminal options available
- 600VDC rated, UL Certified





A WORLD LEADER
in the field of solar power
electrical protection

A GLOBAL PLAYER

Since its foundation in 1892, MERSEN has built an international reputation by creating subsidiaries on all continents. Today with industrial and commercial plants scattered in more than 30 countries, agencies and

representatives in more than 70 countries and 250 commercial contacts throughout the world, MERSEN offers its customers everywhere reliable, high technology products and services backed by its expert technicians.

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