Why SiC for Welding Applications?

- Lower losses than IGBT solutions result in reduced thermal requirement
- Increased efficiency leads to lifelong savings by reducing operating costs
- Higher operating frequency allows for reduced size of inductors and capacitors
- More compact system with reduced overall size and weight

Custom Medium and High Power DC/AC Film Capacitors:

- Wide range of sizes, capacitance values and voltage ratings (up to 100kVdc)
- Design support for long lifetime/high ripple current products
- Ideal for longer life requirements in applications greater than 550VDC.

Extensive Thermal Capabilities:

- No other Wakefield-Vette distribution channel stocks more extrusions
- Quick turns on samples and smaller runs
- Comprehensive thermal analysis
- Complete fabricated heat sink support, including machining and plating
- Compact, high power density liquid cold plate solutions

---

**DC Link Capacitors (Power Film & Aluminum Electrolytic):**

- **Film**: 100-3000Vac, 0.001uF-2000uF
- **Terminal Type**: screw, box, axial, board mount
- **Manufacturers**: CDE / KEMET / Kendeil
- **Electrolytic**: 3V-550Vac, 1uF-270,000uF
- **Terminal Type**: screw, snap, flatpack, radial, axial
- **Manufacturers**: CDE / Illinois Capacitor / KEMET / Kendeil / UCC / Genteq

**EMI/RFI Filter Products:**

- **X1/X2 & Y1/Y2 Capacitors**:
  - **Film Cap**: Up to 760Vac, 0.001uF-46uF
  - **Terminal Type**: box
  - **Manufacturer**: CDE / KEMET
- **Modules**:
  - **DC Filter**: 75V-1200V, 3A-2500A at 150kHz
  - **AC Filter**: 250Vac-600Vac, 1A-2000A at 150kHz
  - **Type**: single phase, three phase (Delta/Wye), IEC INLET/PEM, medical, military, tempest, custom.
  - **Manufacturer**: Astrodyne TDI (Radius Power)

**Power Factor Correction (PFC) Film Capacitors**:

- **Oil Filled**: 240Vac-1200Vac, 1.9uF-600uF
- **Output Type**: single phase, three phase
- **Case**: aluminum cylindrical case
- **Manufacturer**: Tamura

**Power Semiconductors**:

- **SCR/Thyristor**: 200V-8500V, 240A-6400A
- **IGBT/IPM/DIP/IPM**: 250V-6500V, 4A-3500A
- **Diode/Rectifier/Module**: 30V-9000V, <1A-8800A
- **HV Diode/Assy**: 1000V-2000V, <1A-25A
- **SIC MOSFET/Module**: 600V-1700V, 5A-1200A
- **SIC Diode/Module**: 600V-1700V, 1A-50A
- **SIC/Si Hybrid Products**: 500V-1700V, 15A-1200A
- **MOSFET/Module**: 55V-1200V, 3.5A-640A
- **HV Diode/Assy**: 1000V-2000V, <1A-25A
- **SIC Diode/Module**: 600V-1700V, 1A-50A
- **SIC/Si Hybrid Products**: 500V-1700V, 15A-1200A
- **MOSFET/Module**: 55V-1200V, 3.5A-640A
- **Manufacturer**: Cree / Dynex / EDI / Microsemi / Powerex / Semikron / Vincotech

**Power Resistors**:

- **Axial**: power controls, current sense, surface mount, heat sinkable, surge rated, high current braking, tubular, high voltage
- **Manufacturer**: Ohmite

**Gate Driver/Control**:

- **Integrated Drivers**
- **Plug-and-Play drivers**
- **Manufacturers**: Cree / Powerex / Power Integrations (CT Concept)

**DC-DC Converters**

- **Manufacturers**: Powerex / Recom Power
**FROM COMPONENTS TO INTEGRATED POWER SOLUTIONS**

Providing

- Global distribution with local presence
- Design support from prototype to production
- Latest products from market-leading suppliers

<table>
<thead>
<tr>
<th>Power Semiconductors</th>
<th>Silicon Carbide Diodes</th>
<th>Rectifiers/Thyristors</th>
<th>IGBTs</th>
<th>MOSFETs</th>
<th>Silicon Carbide MOSFETs/MoMOSFETs</th>
<th>Silicon Carbide/Silicon Hybrid Power Modules</th>
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D = Discrete, M = Module

**Thermal Management**

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<th>Board Level</th>
<th>Bonded Fin</th>
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*Thermal Accessories include precision clamps, thermal interface material and wedgelocks.

**Power Capacitors**

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<th>Power Solutions for Variable Frequency Drives (VFDs)</th>
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<th>Overvoltage Products</th>
<th>Regulator for VFDs</th>
<th>Switching Regulator Module</th>
<th>Undervoltage Products</th>
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**EMI/RFI Filter Products**

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<tr>
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<th>AC Filter Modules</th>
<th>DC Filter Modules</th>
<th>Discretes (X &amp; Y Capacitors)</th>
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<tr>
<td>Astrodyn TDI (Radius Power)</td>
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**GATE DRIVERS, CONVERTERS AND CONTROL DEVICES**

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<th>AC-DC Modules</th>
<th>DC-DC Modules</th>
<th>Switching Regulators</th>
<th>LED Driver Modules</th>
<th>SiC MOSFET Gate Drivers</th>
<th>IGBT Gate Drivers</th>
<th>Custom Gate Drivers</th>
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M = Modules only IC = Integrated Circuits only

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**NOTE:** All of our supplier agreements are global except:

- Powerex: North/South America: IGBTs, MOSFET Modules, Diode/Rectifier Modules. NASA/Italy/Spain/Israel: Discrete SCR, Thyristor and Diode/Rectifier components.
- Maxwell Americas, Asia-Pac (excluding Japan, Korea, Australia, New Zealand)