

Why SiC for Motor Drive 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

Overvoltage & Undervoltage Solutions for AC Drives:

Bonitron solutions can enhance processes and increase uptime for AC drives and motors in any industry.

- Braking transistors, braking resistors, line regeneration, DC bus ride thru, single/3-phase power supplies, chargers and dischargers, energy storage

DC Link Capacitors (Power Film & Aluminum Electrolytic):

Film: 100VDC-3000VDC, 0.001 μ F-2700 μ F
 Terminal Type: screw, box, axial, board mount
 Manufacturers: CDE / KEMET / Kendell
 Electrolytic: 3VDC-550VDC, 1 μ F-2.7F
 Terminal Type: screw, snap, flatpack, radial, axial
 Manufacturers: CDE / Illinois Capacitor / KEMET / Kendell / UCC / Gentaq

EMI/RFI Filter Products:

X1/X2 & Y1/Y2 Capacitors:

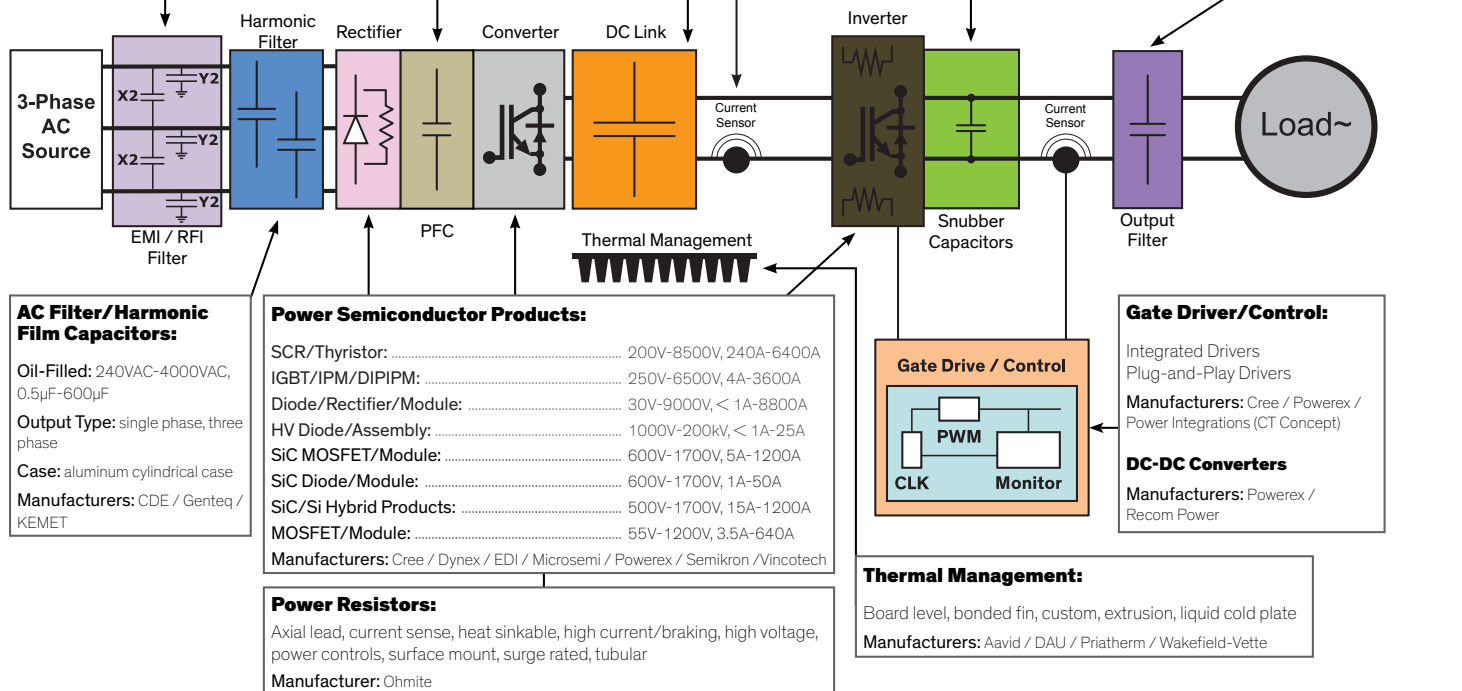
Film Cap: Up to 760VAC, 0.001 μ F-8.2 μ F
 Terminal Type: box
 Manufacturer: CDE / KEMET

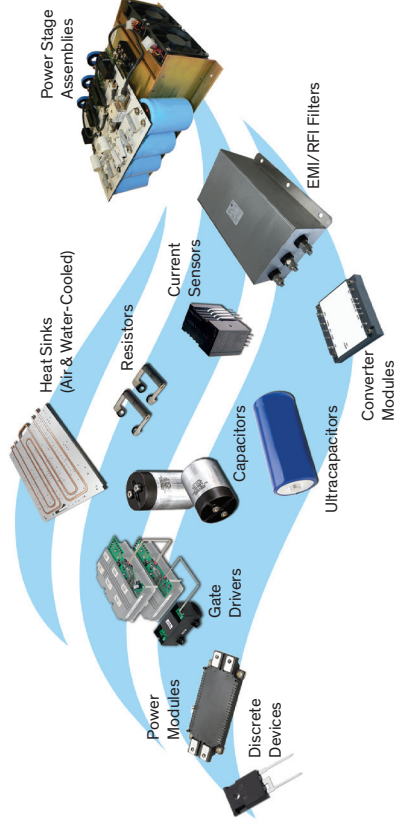
Modules:

DC Filter: 75VDC-1200VDC, 3A-2500A at 150 kHz
 AC Filter: 250VAC-600VAC, 1A-2000A at 150 kHz
 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-4000VAC, 0.5 μ F-600 μ F
 Output Type: single phase, three phase
 Case: aluminum cylindrical case
 Manufacturers: CDE / Gentaq / KEMET





FROM COMPONENTS TO INTEGRATED POWER SOLUTIONS

Providing

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

POWER SEMICONDUCTORS	Silicon Carbide Diodes	Rectifiers/ Thyristors	IGBTs	MOSFETs	Silicon Carbide MOSFETs/Modules	Silicon Carbide/Silicon Hybrid Power Modules
CREE	D & M	—	—	—	D & M	—
Dynex	—	M	M	—	—	—
Electronic Devices, Inc.	—	D & M	—	—	—	—
Microsemi	D & M	D & M	D & M	D & M	D & M	D & M
Powerex*	—	D & M	D & M	M	M	M
Semikron	—	D & M	M	M	—	—
Vincotech	—	M	M	M	M	M

D = Discrete, M = Module

THERMAL MANAGEMENT	Board Level	Bonded Fin	Extruded	Liquid Cold Plate	Custom	Thermal Accessories ^a
Aavid	—	•	•	•	•	—
DAU	—	•	—	•	•	—
Priatherm	•	•	•	•	•	—
Wakefield-Vette	•	•	•	•	•	•

^a Thermal Accessories include precision clamps, thermal interface material and wedgelocks.

POWER CAPACITORS	Power Film	Aluminum Electrolytic	AC & DC Oil-Filled	Mica	Ultracapacitors
Cornell Dubilier (CDE)	•	—	•	•	—
General Electric	—	—	•	—	—
Genteq	—	•	•	—	—
Illinois Capacitor	•	•	—	—	•
Kemet	•	•	•	—	•
Kendell	•	•	—	—	—
Maxwell**	—	—	—	—	•
United Chemi-Con	—	•	—	—	—
VinaTech	—	—	—	—	•

POWER RESISTORS AND CURRENT SENSORS	Axial Lead	Heat Sinkable	Surface Mount	Tubular	Open Loop Current Sensors	Closed Loop Current Sensors	Flux-Gate Current Sensors
Ohmite	•	•	•	•	—	—	—
Tamura	—	—	—	—	•	•	•

POWER SOLUTIONS FOR VARIABLE FREQUENCY DRIVES (VFDs)	Industrial Power Filter	Industrial Power Supply	Overvoltage Products	Regulator for VFDs	Switching Regulator Module	Undervoltage Products
Bonitron	•	•	•	•	•	•

EMI/RFI FILTER PRODUCTS	AC Filter Modules			DC Filter Modules			Discretes (X & Y Capacitors)	
Astrodyne TDI (Radius Power)	•	•	•	•	•	•	—	—
Kemet	—	—	—	—	—	—	•	•
Cornell Dubilier (CDE)	—	—	—	—	—	—	•	•

GATE DRIVERS, CONVERTERS AND CONTROL DEVICES	AC-DC Modules	DC-DC Modules	Switching Regulators	LED Driver Modules	SIC MOSFET Gate Drivers	IGBT Gate Drivers	Custom Gate Drivers	Medical & Military Power Supplies/Systems
Analog Devices, Inc. (ADI)	—	—	•	•	—	IC	—	—
CREE	—	—	—	—	M	—	—	—
Power Integrations (CT-CONCEPT)	—	—	—	—	—	M	M	—
Powerex*	—	•	—	—	—	M	—	—
RECOM Power	•	•	•	•	—	—	—	•
Semikron	—	—	—	—	—	M	—	—

M = Modules only, IC = Integrated Circuits only