

High Frequency Battery Charging



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Richardson Electronics has partnered with top-tier suppliers to bring you high-quality power components that you can trust for your high-frequency battery charging solutions. We focus on Level III DC fast charging, wireless charging, and industrial battery charging applications. As a global operation, our company has grown to include a team of experts with diverse backgrounds that can guide you with your complete battery charging solution. Serving our customers is a value infused in the company culture, and we stand behind every component we deliver.

What We Do Best



Identify & Design-in New,
Disruptive Technologies



Industry Leader in
Power & Microwave
Technologies



Provide Technical
Expertise & Engineered
Solutions



Provide Exceptional
Global Support

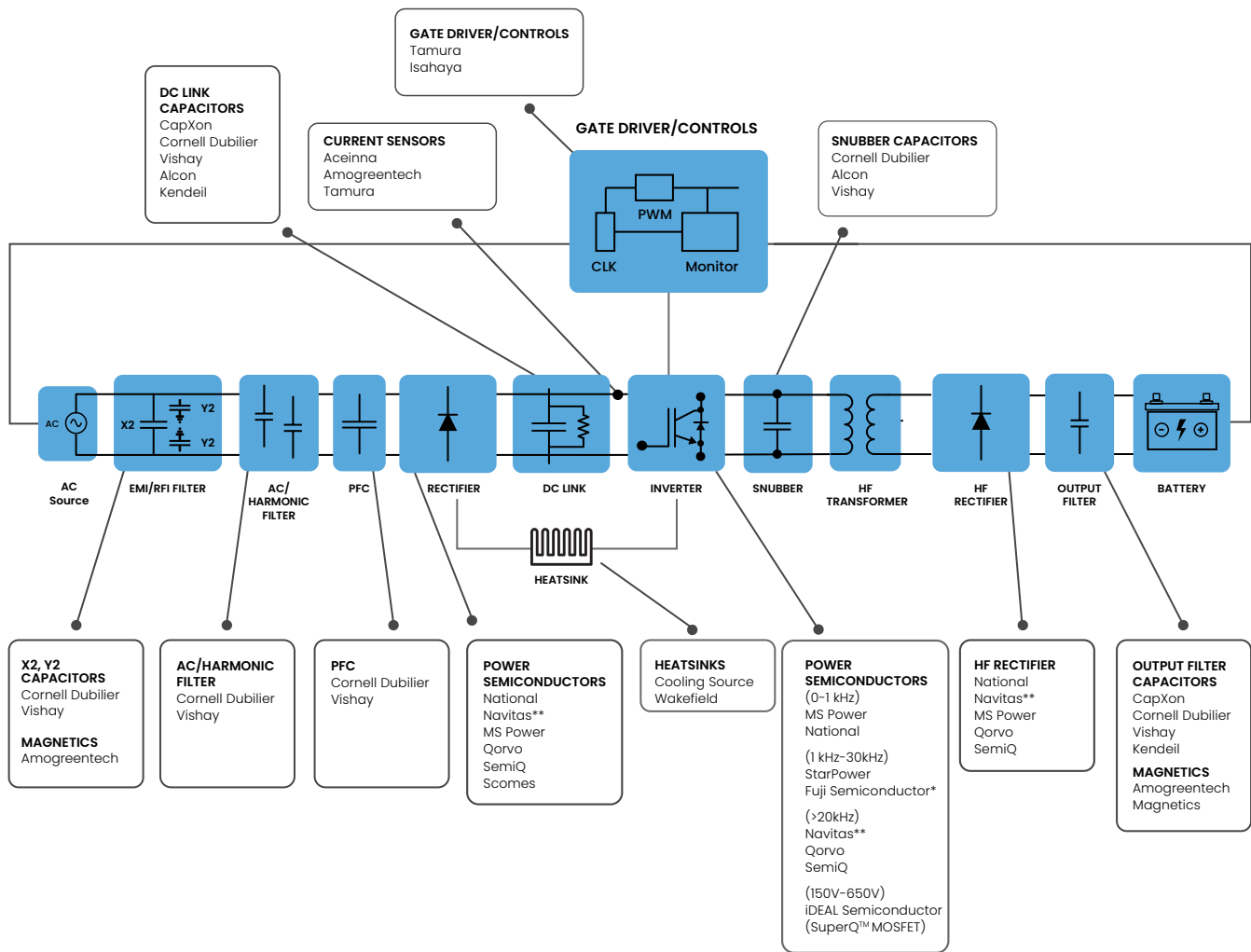


Provide High Quality
Products for Over 75 Years

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POWER & ENERGY - BLOCK DIAGRAM

At Richardson Electronics, our team of experts have created comprehensive block diagrams to help provide a schematic of the components necessary for power management. These block diagrams provide a high-level overview of required components and important working relationships – making them valuable tools for design engineers to make the right choice for their component selection. In addition, we provide solutions and add value through design-in support, systems integration, prototype design, manufacturing, testing, and logistics. Contact us or find the products you need for your design at rellpower.com.



*Fuji Semiconductor is only available in the Americas at this time

**Navitas is only available in North America at this time

Power Semiconductor		
Product	Product Ranges	Suppliers
Diode Rectifier Discrete Module	12A-13,500A, 200V-6500V	Scomes MS Power National
SCR Thyristor Discrete Module	16A-6500A, 200V-8500V	MS Power National
IGBT IPM DIPIPM PIM	10A-3600A, 600V-1700V	Fuji Semiconductor Starpower
Superjunction MOSFET	8A-95A, 600V	Fuji Semiconductor
SuperQ™ MOSFET	150V-650V, RDS _{ON} : 3 - 160mohm	iDEAL Semiconductor
SiC Cascode SiC MOSFET Discrete	7-1000mohm, 650-6500V	Navitas Qorvo SemiQ
SiC Cascode SiC MOSFET Module	40A-400A, 1200V-1700V	Navitas Qorvo SemiQ
SiC JFET	25-1100mohm, 650V-1700V	Qorvo
SiC Diode Discrete Module	1-300A 650-3300V	Navitas Qorvo SemiQ
DC Link Capacitors (Aluminum Electrolytic & Power Film)		
Product	Product Ranges	Suppliers
Aluminum Electrolytic Solid Conductive Polymer Hybrid Conductive Polymer	.47uf-1.5F, 5V-600V	CapXon Cornell Dubilier Kendeil Alcon
Terminal Type: Axial Radial Flatpack Snap Screw SMD		
Power Film	1uf-100,000uf, 1uf-50,000uf	Cornell Dubilier Kendeil Alcon Vishay
Terminal Type: Box Screw Low Profile Module Custom		
AC Filter/Harmonic Film Capacitors		
Product	Product Ranges	Suppliers
Configurations: Oil Dry	1uf-4000uf, 240VAC-1400VAC	Cornell Dubilier Vishay
Cases: Box Oval Cylindrical Welded		
Output Type: Single Phase Three Phase		
PFC (Power Factor Correction) Film Capacitors		
Product	Product Ranges	Suppliers
Configurations: Oil Dry	.5KVAR-325KVAR, 240VAC-4800VAC	Cornell Dubilier Vishay
Cases: Cylindrical Welded		
Output Type: Single Phase Three Phase		
EMI/RFI Capacitors		
Product	Product Ranges	Suppliers
X1/X2 Film Capacitors Y1/Y2 Film Capacitors	1nf-40uf, 240VAC-480VAC	Cornell Dubilier Vishay
Terminal Type: Box		
Snubber Capacitors		
Product	Product Ranges	Suppliers
Polypropylene Film	1nf-45uf, 160V-3000V	Cornell Dubilier Alcon Vishay
Terminal Types: Axial Box Oil Filled Direct Mount		
DC Output Capacitors (Aluminum Electrolytic & AC Film)		
Product	Product Ranges	Suppliers
Aluminum Electrolytic Solid Conductive Polymer Hybrid Conductive Polymer	33uf-2.7F, 10V-600V	CapXon Cornell Dubilier Kendeil Alcon
Terminal Type: Axial Radial Snap Screw SMD		
AC Film	1uf-4000uf, 240VAC-1400VAC	Cornell Dubilier Alcon Vishay
Terminal Types: Box Screw		

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POWER & ENERGY - PRODUCT RANGE & SUPPLIERS

Current Sensors		
Product	Product Ranges	Suppliers
Flux Gate	6A-150A	Amogreentech Tamura
Hall Effect Open	3A-1500A	
Hall Effect Closed	6A-2000A	
Split Type (Ferrite)	60A-400A	
High Accuracy & Low Ratio Error (Nanocrystalline)	5A-120A	
Excellent Linearity & Precision (Amorphous Nanocrystalline)	40A-120A	
Advanced AMR Current Sensors	±5A-65A	Aceinna
Gate Driver DC-DC Converters Hybrid IC's		
Product	Product Ranges	Suppliers
DC-DC Converter (for customers to design own gate drive) Gate Driver Module (need to add gate resistors) Gate Driver complete solution IGBT Mountable Type	15A-3600A Class IGBT & SiC Modules	Isahaya Tamura
Thermal Management		
Product	Suppliers	
Board Level Extrusion Bonded Fin Folded Fin Skived Fin Swaged Fin Stamped Fin Heat Pipe Assembly CPU Coolers Liquid Cold Plates Die Casting Fabricated Complete Solution Thermal Analysis Capabilities Thermal Interface Material (TIM) Thermal Grease SCR & Diode Clamp Systems Custom Fabrication	Amogreentech Cooling Source National Wakefield	
Magnetics		
Product	Suppliers	
Materials: Fe Amorphous Nanocrystalline Fe Based Metal Cores	Amogreentech	
Components: Inductor AC Choke DC Choke Common Mode Choke PFC Choke Output Choke EMI Filter Reactor		
Filter Design: Inductor CMC Capacitor		

Richardson Electronics has been an industry-leader in providing high-quality products and outstanding engineering support for over 75 years. Our extensive global distribution network and world-class partners provide our customers with innovative technologies, products and services.

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