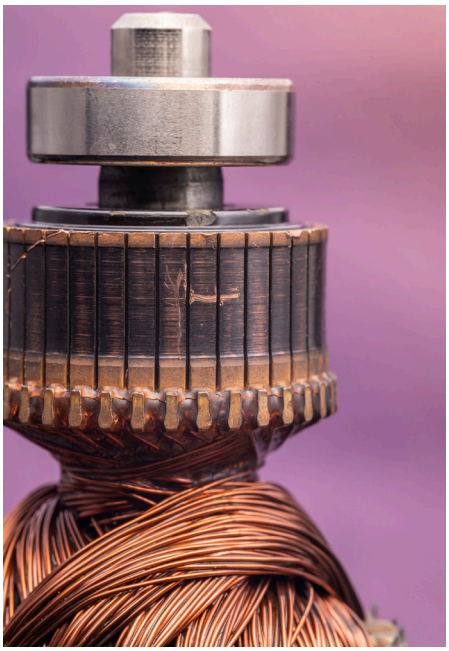
High Current Low Inductance Motion Control Hybrid Vehicle Drive Electronics

Design Note #131



Hybrid Vehicle Drive electronics is made possible using OTEC's high current low inductance modular stacked control design.

"Bus bar based interconnectivity was a stroke of genius. We never would have thought of that approach ourselves. OTEC brought creative and practical insight into the design process."

– Power System Product Manager
Advanced product development

High Current Low Inductance Control

High current low inductance motion control is made possible using OTEC's modular power control design. Conceived from the ground up to incorporate low inductance high current bus bar interconnections, with optically isolated driver circuitry and proven high voltage isolation to over a kilovolt. Low inductance with high isolation voltages on this module make rapid commutation voltage controls a reality.

Hybrid Vehicle Drive Electronics

Hybrid vehicle drive electronics and systems designed for hybrid vehicle drive research rely upon rugged, replaceable high current drive electronics with low inductance and configurable output stages. Rated for automotive temperature and operating environments, modular hybrid vehicle drive electronics featuring powerful low inductance IGBT devices makes competitive motor controls a reality.

Industry Standard IGBT Stacks

Comprised of multiple industry standard IGBT devices stacked into customizable configurations, OTEC's high current low inductance modular system is easily configured and serviced. Designed to support two-pack, four-pack and six-pack configurations, user cost was a driving design factor.

Traction Inverter and DC-DC Power Control

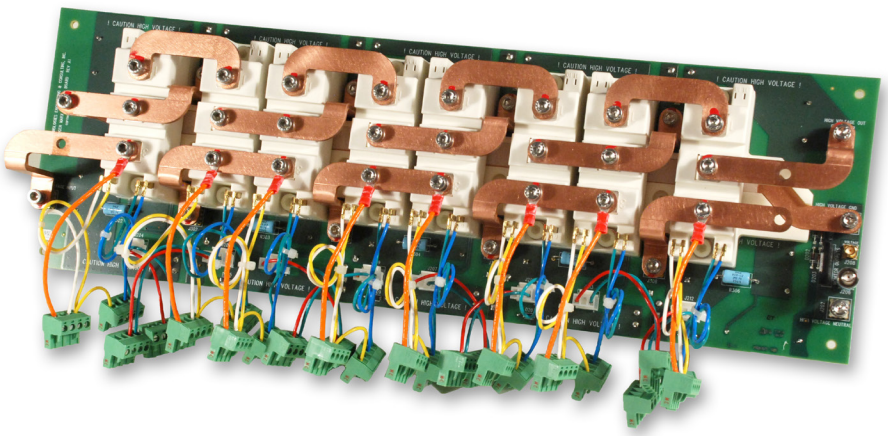
Modular high current low inductance stacks from OTEC find perfect application in traction inverter drives and DC-DC power control. Available in a wide variety of IGBT styles both with and without blocking diodes allows configuration for the highest possible efficiency.

Half, Full, H-Bridge Configurations

Modular high current low inductance stacks from OTEC may be configured into various high voltage and current bridge configurations. Half bridge, full bridge, H-Bridge and three phase configurations are all supported.

Orchid Technologies: Hybrid Vehicle Drive

The development of custom electronic products for our OEM clients is OTEC's entire business. The design of Hybrid Vehicle Drive Electronics with rapid design cycles, demanding technical requirements, and unforgiving schedules sets us apart. Call Orchid Technologies today!



OTEC

Orchid Technologies Engineering & Consulting, Inc.

Custom Engineering From Concept to Production

147 Main Street, Maynard, MA 01754 www.orchid-tech.com 978-461-2000 fax: 978-461-2003