

# NEW! AgileSwitch Silicon Carbide IPM

For 50-200kW DC-AC Inverters/ DC-DC Converters

## PRODUCT DESCRIPTION

AgileSwitch Silicon Carbide (SiC) Evaluation Kits are fast, powerful, and compact. They dramatically reduce the development time required to implement SiC Power Modules in DC-AC Inverters, DC-DC Converters and other power circuits.

## KEY BENEFITS

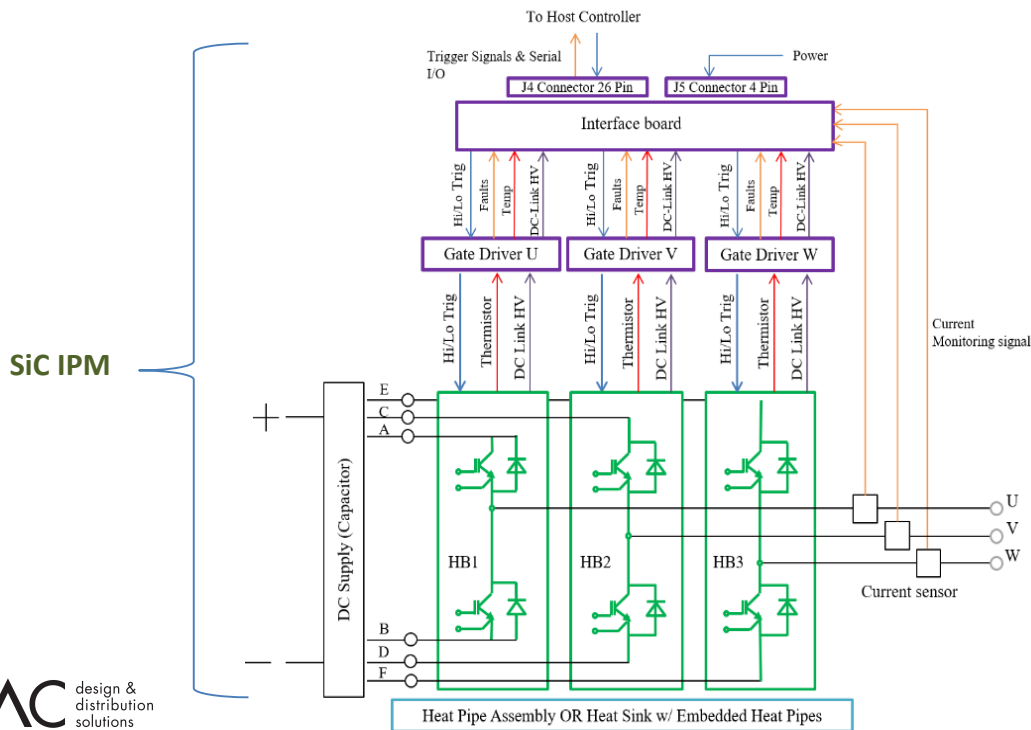
- Fast – up to 100kHz
- Powerful – up to 200kW
- Compact – Small 15" x 24" footprint (200kW IPM)
- Cool – SiC Optimized cooling systems
- Fully software configurable
- Patented Multi-Level Shutdown

## APPLICATIONS

DCAC, DCDC, ACAC, ACDC

- Solar/PV Inverters
- Wind Turbines
- UPS/Battery Storage
- HEV/EV
- Motor Drives
- Induction Heating
- Frequency Conversion

## BASIC TOPOLOGY



## Contact Authorized Distributor

### NAC Semi

1790 Commerce Ave N

St Petersburg, FL 33716

Tel: +1 (727) 828-0187 (US)

Email: [powerFAE@nacsemi.com](mailto:powerFAE@nacsemi.com)

Web: <http://www.nacsemi.com/Products/agileswitch>

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Project Support Provided By:



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## Evaluation Kit Options

### 1200V/300A GATE DRIVER KIT

This individual gate driver kit is fully programmable and designed for experimenting with SiC modules as well as immediately moving to production with the standalone gate driver.

Includes:

- (1) EDEM3 – AgileSwitch SiC Gate Driver
- (1) ROHM BSM300D12P2E001 SiC MOSFET (1200V/300A)
- (1) Device Programmer Kit



### 150kW/25kHz HEAT SINK (Embedded Heat Pipes) \*

In a compact footprint, this IPM is designed as a direct replacement for common IGBT-based power stacks and offers higher switching frequency and power output in an SiC optimized air-cooled heat sink package.

Includes:

- (3) 1200V/300A Gate Driver Kits
- (1) INEX3A3 – AgileSwitch SiC Interface Board
- (3) High speed current sensors and bus bars
- (1) Mersen 1100VDC/510uF Film Capacitor Bank w/ Bracket & Snubbers
- (1) Mersen hollow fin heat sink with embedded heat pipes

\*There is a trade-off between output power and switching frequency.



### 200kW/30kHz HEAT PIPE ASSEMBLY

This IPM allows testing SiC modules in a fully optimized air cooled environment. It is designed to allow the highest levels of power output, switching frequency and efficiency available with these modules without moving to chill plate and cooling systems assemblies.

Includes:

- (3) Gate Driver Kits
- (1) INEX3A3 – AgileSwitch SiC Interface Board
- (3) High speed current sensors and bus bars
- (1) Mersen 1100VDC/510uF Film Capacitor Bank w/ Bracket & Snubbers
- (1) Mersen Heat Pipe Assembly
- (1) DC or AC Fan with Shroud

\*There is a trade-off between output power and switching frequency.

