



AgileStack™ Evaluation Kit

100kW DC-AC Inverter/ DC-DC Converter

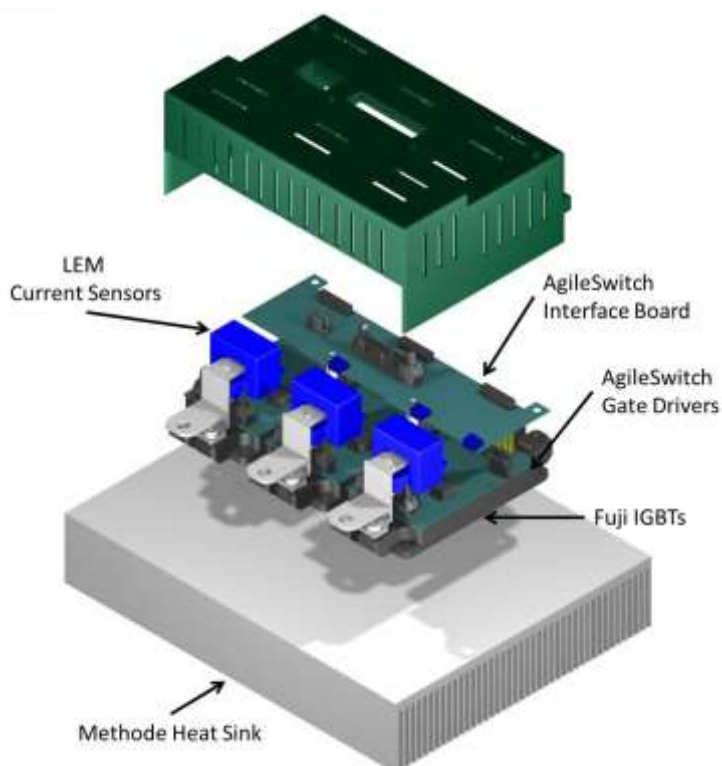
Evaluation Kit Description

The AgileStack™ is the industry's first, and only, fully configurable power conversion module that features AgileStack Communications™ technology to control, protect and monitor over 45 points of operating and fault conditions and Stack BlackBox™ technology to store on-board fault data in the event of catastrophic failure.

The AgileStack Evaluation Kit allows out of the box evaluation of the AgileStack, National Instruments General Purpose Inverter Controller (GPIC) and SBE Power Ring Film Capacitors and includes:

- (1) AgileStack (AgileSwitch Gate Drive/Interface Boards, EconoDual IGBT Modules, Current Sensors, High Performance Extruded Heat Sink)
- (1) National Instruments (NI) Single-Board RIO GPIC Evaluation Kit (NI sbRIO-9606 with NI 9683 GPIC Mezzanine Card, AgileStack Evaluation Demonstration Software, 45-day LabVIEW Embedded Platform Evaluation Software)
- (1) GPIC to AgileStack Interface Board and cables
- (1) SBE Power Ring Film Capacitor Bank
(PC shown above not included)

AGILESTACK™ COMPONENTS



Specs: www.agileswitch.com/download.page

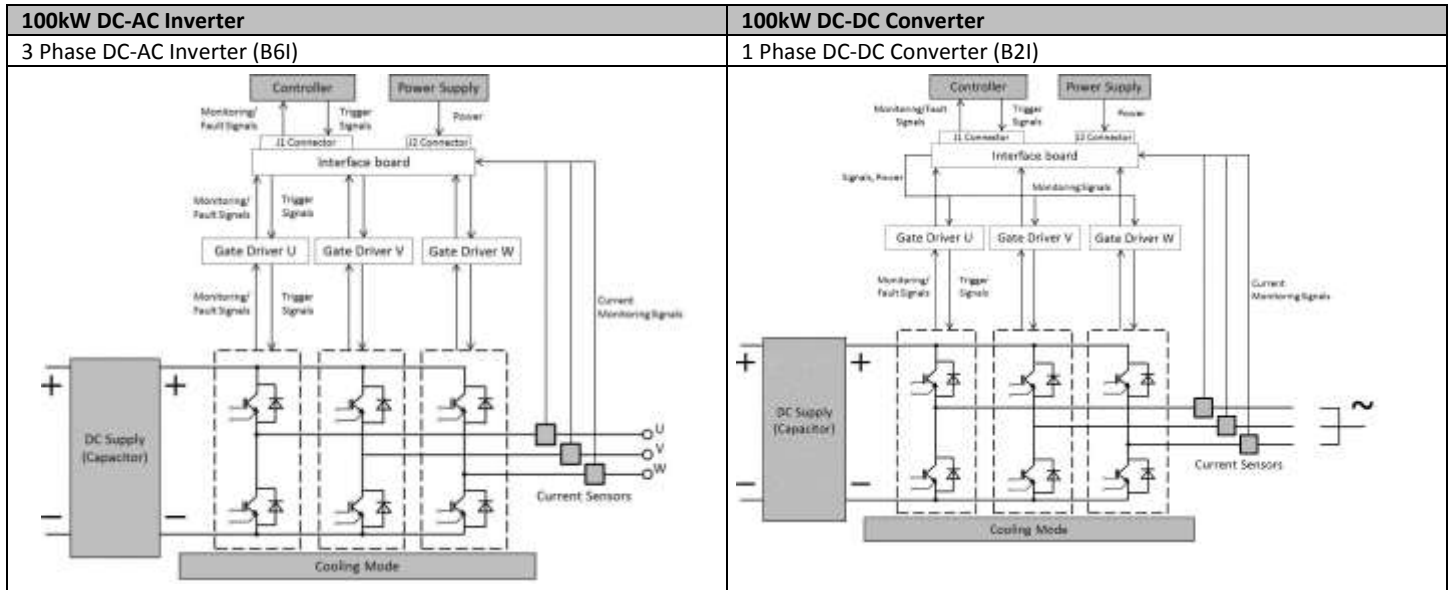
The NI Single-Board RIO GPIC Evaluation Kit Features:

- Fully instrumented turnkey control demonstration software with network user interface, live scope display, and configurable control settings.
- 10 kHz waveform graphing and data logging with live status display and automatic fault capture (up to 116 kS/s)
- Support for external isolated phase voltage and grid voltage sensors with configurable sensor gain, offsets and filtering
- Datalog and fault log viewing and analysis with Microsoft Excel, The MathWorks, Inc. MATLAB®, NI DIAdem, and NI LabVIEW (including 3-phase power quality analysis)
- Open source reference design software with 45-day evaluation of complete NI LabVIEW power converter design toolchain
- Specs: <ftp://ftp.ni.com/evaluation/powerdev/GPIC.pdf>

SBE Power Ring Film Capacitor™ Features:

- Extremely low internal losses (ESR) and low equivalent series inductance (ESL)
- Industry-leading ESR/ESL characteristics
- Extreme current pulse survival
- Highest possible ripple current rating per micro-Farad
- Inverter topology design for optimized current rating and reduced coolant need
- High temperature polypropylene film capacitor designs
- Specs: <http://www.sbelectronics.com/products/integrated-modules-test-kits/>

TOPOLOGY



KEY DATA OVERVIEW

Collector-Emitter Voltage	1200V
Max Current	400A
Current Sensors	LEM – HASS 400-S
IGBT Modules	FUJI Electric – DualXT – 2MBI450VN-120-50
Gate Drive Boards	AgileSwitch – EDEM2S
Interface Board	AgileSwitch – INEX2S
Heat Sink	Methode – High Performance Extruded
DC Link Capacitors	SBE – Power Ring Film Capacitors™
Controller	National Instruments – Single-Board RIO General Purpose Inverter Controller (GPIC)
Stack-Controller	GPIC to AgileStack Interface Board

PRODUCT OFFERING



Part Number	AEK-001	AEK-002, AEK-003, AEK-004	AEK-005, AEK-006, AEK-007
SBE Capacitors	No	450V/1000uF 700V/600uf 900V/375uf	450V/1000uF 700V/600uf 900V/375uf
NI Controller	No	No	Yes

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