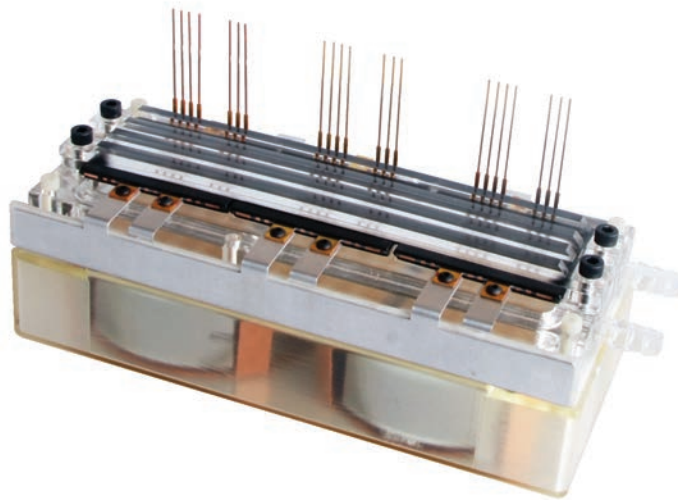


Danfoss/SBE Vertically Integrated Inverter Topology



Offering:

- Integration of the capacitor and bus
- Shared cooling for highest performance (capacitor, bus structure and IGBT)
- Direct cooling of the bus structure
- Lowest possible ESL (Equivalent Series Inductance) presented at the IGBT inputs - less than 20 nH
- DC and IGBT terminal configuration optimizing capacitor effectiveness
 - Isolating the battery from ripple current
 - Getting uniform current distribution in the capacitor
- Smaller volume and lower weight (higher power density)
- Reduced cost without sacrificing reliability
- Market ready for transportation, alternative energy, distribution
- Scalable to higher power levels
- Fast turn-around time

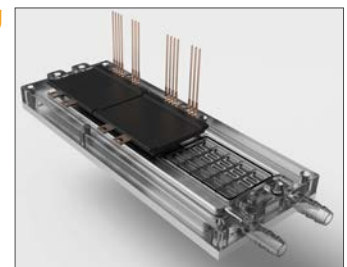
Ratings: Designed for 400V 80kW inverter



SBE Inc.
81 Parker Road
Barre, Vermont 05641-9106, USA
www.sbelectronics.com

Components:

- **SBE low inductance film capacitors integrated with the bus structure**
 - Total capacitance: 500 μF at 600 V or 750 μF at 400 V
 - Up to 200 A ripple current rating with appropriate thermal conditions
 - < 10 nH ESL
 - 250 Micro-Ohm ESR
- **Low inductance laminated bus**
 - UL Certified
 - Low inductance
 - High temperature laminated insulation
 - Aluminum for reduced weight
- **Danfoss ShowerPower® cooling**
 - Light weight, plastic package
 - Low cost
 - Highly efficient, Rth J-water ~0.6 kW for a power semiconductor of 1 cm²
 - Low flow rate, 2-4 l/min
 - Low pressure drop, 20-50 mbar
- **Danfoss transfer molded IGBT module, 600A, 650V**
 - Highest power density
 - Automotive reliability, 200°C, shock and vibration
 - Low module stray inductance, approx. 20 nH
 - Scalable



Danfoss Silicon Power GmbH
Heinrich-Hertz-Str. 2,
24837 Schleswig, Germany
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Danfoss and SBE reserve the right to amend design data

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