SBE 50kW Power Ring Module™
A Building Block for Scalable String & Powertrain Inverters

Offering:
- Optimized power density
- Integration of the capacitor and bus
- Integrated shared cooling of IGBT, bus and capacitor
- Lowest possible ESL presented at IGBT inputs – less than < 10nH
- Low ESR and low thermal resistance
- DC and IGBT terminal configuration optimizing capacitor effectiveness
  - Very low inductance
  - Increased operating voltage
- Capacitor is not typically current limited
- Reduce cost and weight
- Modular system can be paralleled for higher power (2x for 100kW)
- Applicable for conventional silicon or silicon carbide switching

Components:
- SBE low inductance film capacitors integrated with the bus structure
  - Total capacitance: 100µF at 1100V, 220 µF at 600V or 350µF at 450V
  - Up to 100 A ripple current rating with appropriate thermal conditions
  - < 10nH ESL
  - < 500 micro-Ohm ESR
- Integrated capacitor/bus
  - Low inductance
  - UL recognized
  - Reduced Copper (or aluminum)
- Cooling plate
  - Air cooled for string inverters
  - Liquid cooled for powertrain inverters
- IGBT Module
  - Your Name Here

Rating:
Designed for a 50kW inverter

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SBE reserves the right to amend design data.