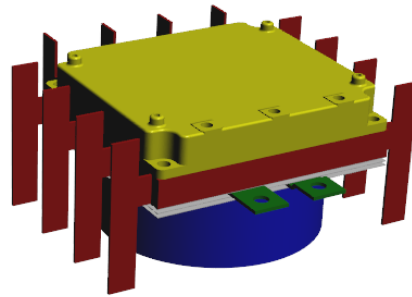
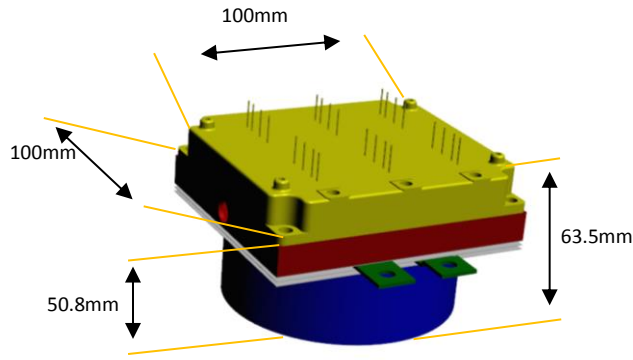


SBE 50kW Power Ring Module™

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 $< 10\text{nH}$
- 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

Rating:

Designed for a 50kW inverter

Components:

- **SBE low inductance film capacitors integrated with the bus structure**
 - Total capacitance: $100\mu\text{F}$ at 1100V, $220\mu\text{F}$ at 600V or $350\mu\text{F}$ at 450V
 - Up to 100 A ripple current rating with appropriate thermal conditions
 - $< 10\text{nH}$ 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



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SBE reserves the right to amend design data.