Integrated Capacitor/bus assembly
550 μF, 500 Vdc with DuPont Teijin
PEN HV™ film for operation to 125°C

The 906A55795-107 Power Ring assembly is a 550 μF, 500 Vdc dual-winding DC Link Capacitor integrated with a laminar bus.
The assembly has an ESR of 635 μΩ at 20kHz, an ESL of less than 8nH and a life of more than 10,000 hours at a typical drive cycle for an 80-120 kW inverter.

Electrical Specifications
SBE Part #: 906A55795-107
Capacitance/Tolerance: 550 μF ±10%
Dielectric: Metallized high temp film
ESL at IGBT Terminals: Less than 8 nH
Continuous DC Voltage: 500 Vdc up to 125°C (derate linearly from 500 Vdc to 300 Vdc from 125°C to 150°C hotspot)
Typical ESR vs. Frequency: 635 μΩ at 20 kHz
Maximum DC Voltage: Units 100% tested at DC voltage of 625 Vdc for 2 minutes at 25°C
Operating Temperature: -40°C to +125°C
Maximum Peak Current: 250 Arms (not to exceed 2 minutes and 130°C hotspot at 500 Vdc)
Operating Ranges (Typical Drive Cycle): 450 V < Vdc < 550 V
75 Arms < I_ripple < 150 Arms
50°C < T_{coolant} < 125°C

Mechanical Specifications
Dimensions: See layout drawing for details
Bus Structure: Tin plated copper, 0.060” (1.50 mm) thick
Packaging: Polycarbonate enclosure encapsulated with RTV
IGBT Connection Type: Thru-hole connections for Infineon HYBRIDPACK™ Drive Module
Construction: Dual windings integrated to a laminar bus

RMS Current Rating

Ripple current versus average case temperature to achieve 10,000 hour life for continuous operation.
Marking:

- **SBE**: SBE company identification
- **906A107**: SBE “short form” part number
- **550 µF ±10%**: Capacitance value and tolerance
- **500 Vdc**: DC voltage rating
- **yyww-lot#-unit**: Serial number (date code, lot number, unit number)

Layout Details:

Contact SBE Inc. to discuss your specific requirements.