Power Ring Film Capacitor™
500 µF, 500 Vdc

The 700A50795-205 Power Ring assembly is a 500 µF, 500 Vdc dual-winding DC Link Capacitor integrated with a laminar bus. The assembly has an ESR of 410 μΩ at 20 kHz, an ESL less than 12 nH, and a life of more than 10,000 hours at a typical drive cycle for an 80-120 kW inverter.

**Mechanical Specifications**

Dimensions: See layout drawing for details

Bus: Tin plated copper, 1.50 mm thick

Encapsulation: Un-encapsulated

IGBT Connection Type: Thru-hole connections for Infineon HP Drive™

Construction: Dual windings integrated to a laminar bus

Marking:

SBE 700A205 SBE “short form” part number
500 µF ±10% Capacitance value and tolerance
500 Vdc DC voltage rating
yyww-lot#-unit Serial number (date code, lot number, unit number)

**Rating Curve:**

Ripple current versus bus temperature for 10,000 hour life with continuous operation at 450V.

**Electrical Specifications**

SBE Part #: 700A50795-205

Capacitance/Tolerance: 500 µF ±10%

Dielectric: Metallized polypropylene film

ESL at IGBT Terminals: Less than 12 nH

Typical ESR vs. Frequency: 410 μΩ at 20 kHz

Continuous DC Voltage Rating: 500 Vdc up to 85°C (de-rate linearly from 500 Vdc to 300 Vdc from 85°C to 105°C)

Maximum DC Voltage: Units 100% tested at DC voltage of 600 Vdc for 2 minutes at 25°C

Operating Temperature: -40°C to +105°C

Maximum Peak Current: 250 Arms (not to exceed 2 minutes and 85°C hotspot at 500 Vdc)
Layout Details:

Note: HP Drive Module and Cooling Plate Not Included

Contact SBE Inc. to discuss your specific requirements.