Power Ring Film Capacitor™
500 µF, 500 Vdc

The 700A50795-186 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 8 nH, and a life of more than 10,000 hours at a typical drive cycle for an 80-120 kW inverter.

Electrical Specifications

SBE Part #: 700A50795-186
Capacitance/Tolerance: 500 µF ±10%
Dielectric: Metallized polypropylene film
ESL at IGBT Terminals: Less than 8 nH
Typical ESR vs. Frequency: 410 μΩ at 20 kHz
Continuous DC Voltage: 500 Vdc up to 85°C (de-rate linearly from 500 Vdc to 300 Vdc at 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)

Mechanical Specifications

Dimensions: See layout drawing for details
Bus: Tin plated copper, 1.50 mm thick
Packaging: Polycarbonate enclosure encapsulated with RTV
IGBT Connection Type: Thru-hole connections for Infineon HP Drive™
Construction: Dual windings integrated to a laminar bus
Marking:

- SBE company identification
- 700A186 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 case temperature for 10,000 hour life with continuous operation at 450V.
Layout Details:

For proper installation of this product view our guide at:

Contact SBE Inc. to discuss your specific requirements.