Power Ring Film Capacitor™
260μF, 750 Vdc

The 700A26797-292 Power Ring assembly is a 260 µF, 750 Vdc dual-winding DC Link Capacitor integrated with a laminar bus that connects with two Infineon HybridPACK™ Drive modules. The assembly has an ESR of 900 μΩ at 20kHz, an ESL of less than 8nH and a life of more than 10,000 hours at a typical drive cycle running two 80-120kW inverter stages. With bus side cooling, the assembly can support up to 1000A DC bus current for 10 seconds.

Electrical Specifications
SBE Part #: 700A26797-292
Capacitance/Tolerance: 260 μF ±10%
Dielectric: Metallized polypropylene film
ESL at IGBT Terminals: Less than 8 nH
Typical ESR vs. Frequency: 900 μΩ at 20 kHz
Continuous DC Voltage: 750 Vdc up to 85°C (derate linearly from 750 Vdc to 500 Vdc from 85°C to 105°C)
Maximum DC Voltage: Units 100% tested at DC voltage of 950 Vdc for 2 minutes at 25°C
Operating Temperature: -40°C to +105°C
Maximum DC Bus Current: 1000A (not to exceed 10 seconds at 750 Vdc with active bus cooling)

RMS Current Rating

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

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: Stud connections for Infineon HybridPACK™ Drive Module
Construction: Dual windings integrated to a laminar bus
Marking:
SBE 700A292 SBE “short form” part number
260 μF ±10% Capacitance value and tolerance
750 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.

Connection Scheme:

Unlike our traditional connection seen on the 700A186, where the SBE assembly drops onto the top of the IGBT, the 700A292 uses pre-installed stud connections to line up the IGBT from below. This allows the customer to install the SBE module first onto the cold plate, which places the bus directly in contact with the plate, which is our preferred method of cooling. Spacer bushings are used to adjust height.