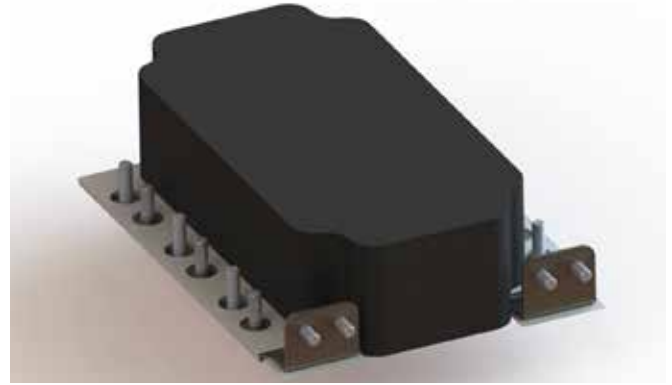


Power Ring Film Capacitor™ 500µF, 500 Vdc

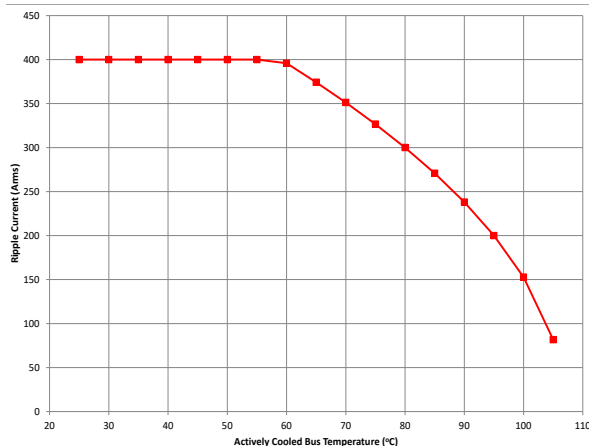
The 700A50795-293 Power Ring assembly is a 500 µF, 500 Vdc dual-winding DC Link Capacitor integrated with a laminar bus that connects with two Infineon HybridPACK™ Drive modules. The assembly has an ESR of 410 µΩ at 20kHz, an ESL of less than 8nH and a life of more than 10,000 hours at a typical drive 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 #:	700A50795-293
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 (derate 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 DC Bus Current:	1000A (not to exceed 10 seconds at 500 Vdc with active bus cooling)

RMS Current Rating



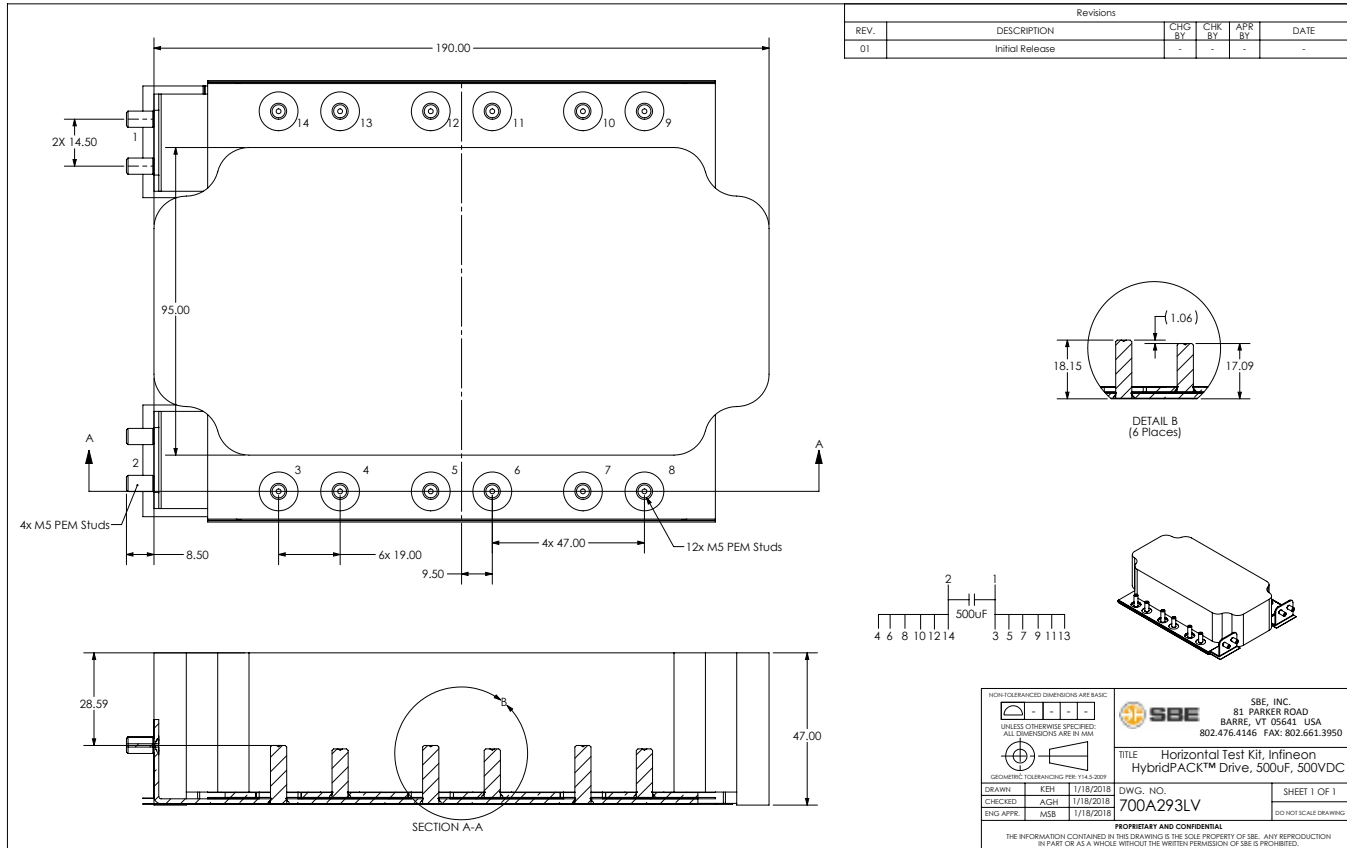
Ripple current versus actively cooled bus temperature for 10,000 hour life for continuous operation at 450V.

SBE reserves the right to amend design data

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:	<table border="0"> <tr> <td>SBE</td> <td>SBE company identification</td> </tr> <tr> <td>700A293</td> <td>SBE "short form" part number</td> </tr> <tr> <td>500 µF ±10%</td> <td>Capacitance value and tolerance</td> </tr> <tr> <td>500 Vdc</td> <td>DC voltage rating</td> </tr> <tr> <td>yyww-lot#-unit</td> <td>Serial number (date code, lot number, unit number)</td> </tr> </table>	SBE	SBE company identification	700A293	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)
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Layout Details:

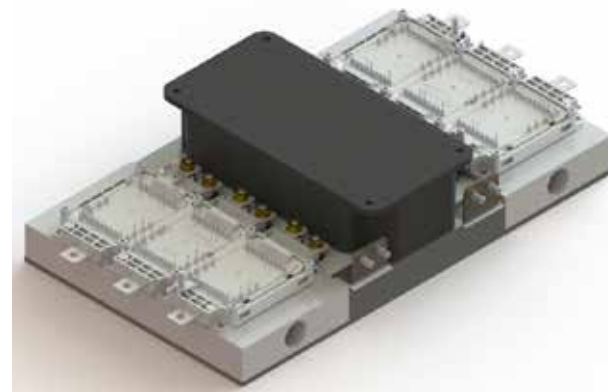
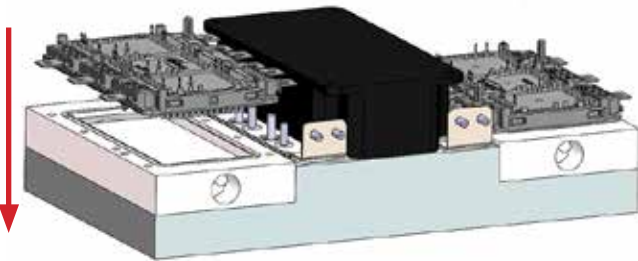


Contact SBE Inc. to discuss your specific requirements.

Connection Scheme:

Unlike our traditional connection seen on the 700A186, where the SBE assembly drops onto the top of the IGBT, the 700A293 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.



SBE reserves the right to amend design data