

## PRELIMINARY VERSION

### Power Ring Film Capacitor™ 400 µF, 450 Vdc

The 700A40794-185 Power Ring assembly is a 400 µF, 450 Vdc dual-winding DC Link Capacitor integrated with a laminar bus. The assembly has an ESR of 440 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.



#### Electrical Specifications

**SBE Part #:** 700A40794-185

**Capacitance/Tolerance:** 400 µF ±10%

**Dielectric:** Metallized polypropylene film

**ESL at IGBT Terminals:** Less than 12 nH

**Typical ESR vs. Frequency:** 440 µΩ at 20 kHz

**Continuous DC Voltage Rating:** 450 Vdc up to 85°C (de-rate linearly from 450 Vdc to 300 Vdc from 85°C to 105°C)

**Maximum DC Voltage:** Units 100% tested at DC voltage of 560 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

**Encapsulation:** Un-encapsulated

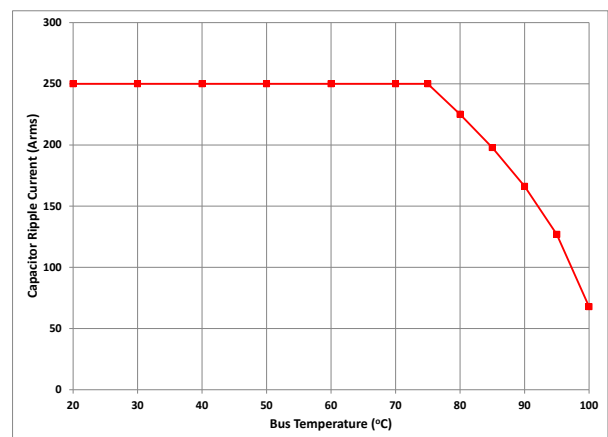
**IGBT Connection Type:** Thru-hole connections for Infineon HP Drive™

**Construction:** Dual windings integrated to a laminar bus

#### Marking:

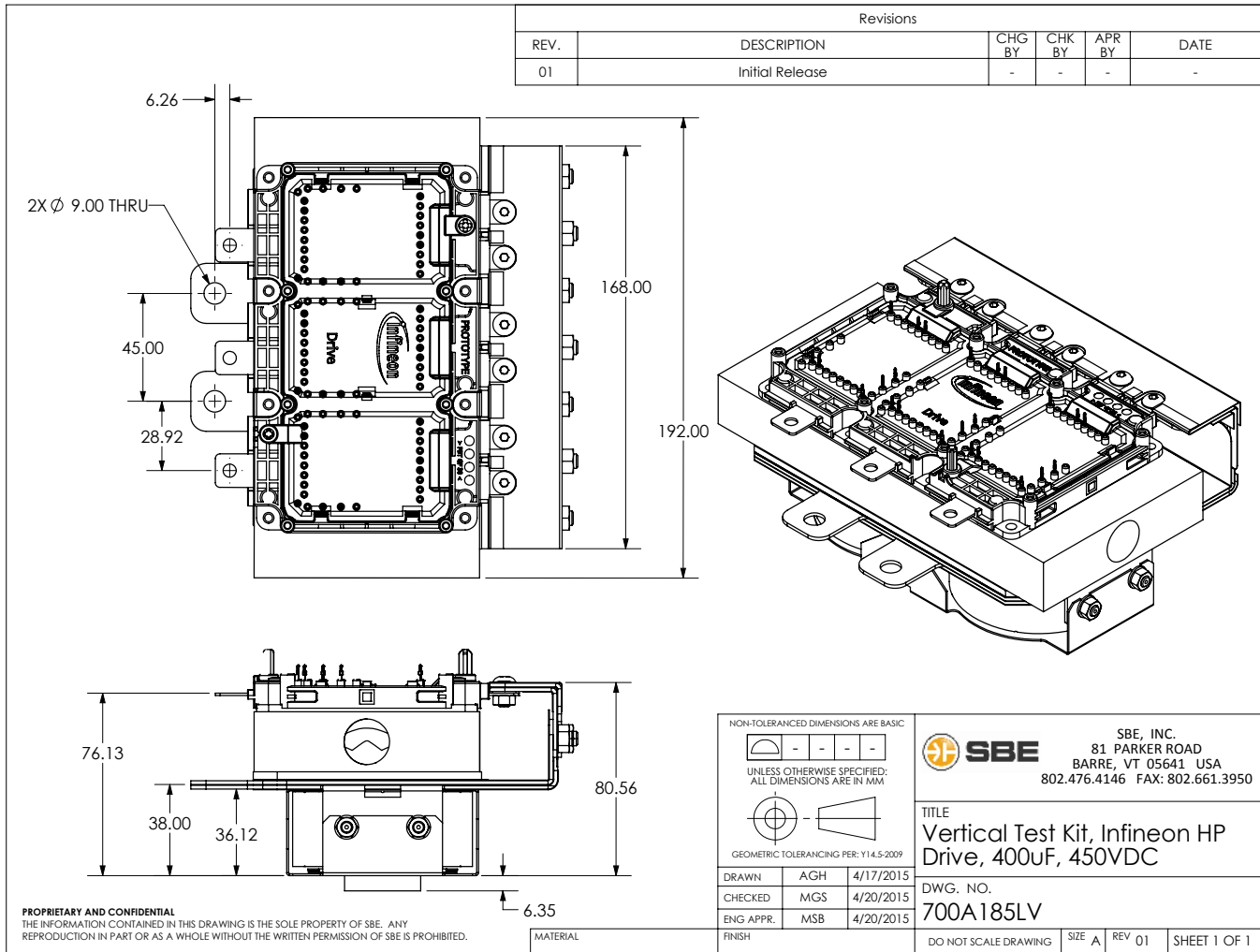
SBE	SBE company identification
700A185	SBE "short form" part number
400 µF ±10%	Capacitance value and tolerance
450 Vdc	DC voltage rating
yyww-lot#-unit	Serial number (date code, lot number, unit number)

#### Rating Curve:



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

## Layout Details:



**Note:** HP Drive Module and Cooling Plate Not Included

Contact SBE Inc. to discuss your specific requirements.