

Power Ring Film Capacitor 17 μ F, 8,000Vdc

The 775D176980-102 Power Ring is a 8,000Vdc, 17 μ F high voltage pulse capacitor.



Electrical Specifications

Part #: 775D176980-102

Capacitance/Tolerance: 17 μ F \pm 10%

DC Voltage Rating: 8,000Vdc

NOTE: This capacitor is specifically designed to withstand repetitive pulse discharges at high pulse currents with longer life than exhibited by more typical metallized High Voltage film capacitors. However, this capacitor is not recommended for applications requiring continuous voltage (constant charge) unless de-rated to 4,000Vdc Maximum. For a technical explanation and further information on the intended uses for this design please contact SBE engineering.

Dielectric/Construction: Patented pulse technology Metallized Polypropylene film. Series-section design, non-inductively wound.

Dielectric Withstand Voltage: Units 100% tested at DC potential of 9,000Vdc for two minutes at 25°C.

Peak-to-Peak Voltage: 10,000 V Max

When operated at this peak-to-peak voltage the capacitor can be expected to withstand \sim 5,000 discharges.

Further reducing this value to 7,500 V peak-to-peak will increase discharge life on the order of 10 times.

Further reducing this value to 5,600 V peak-to-peak will increase this discharge life more than 1,000 times.

Reducing the Q of the discharge circuit will improve shot life for all cases. End of life for the above estimates is 10% capacitance reduction.

Insulation resistance: 5,000 M Ω Min at +25°C

ESR @ 10 kHz: < 0.5 m Ω Min at +25°C, typical

ESL: \sim 50 nH, minimum inductance connection. The actual capacitor loop inductance will depend on the application interconnect design.

Operating Temperature: -40°C to +85°C

Peak Current Rating: 34,500 Amps repetitive

Mechanical Specifications

Diameter: 8.50" (215.9 mm)

Height: 3.35" (85 mm)

Core: Hollow phenolic core with 2.0" I.D. Meets UL-94HB Specs.

Terminals: Tin plated copper strap, 0.062" thick by 2.5" wide.

Encapsulation: Outer tape wrap and white epoxy potting.

unit using the core will help to provide stress relief for the terminals.

Marking:

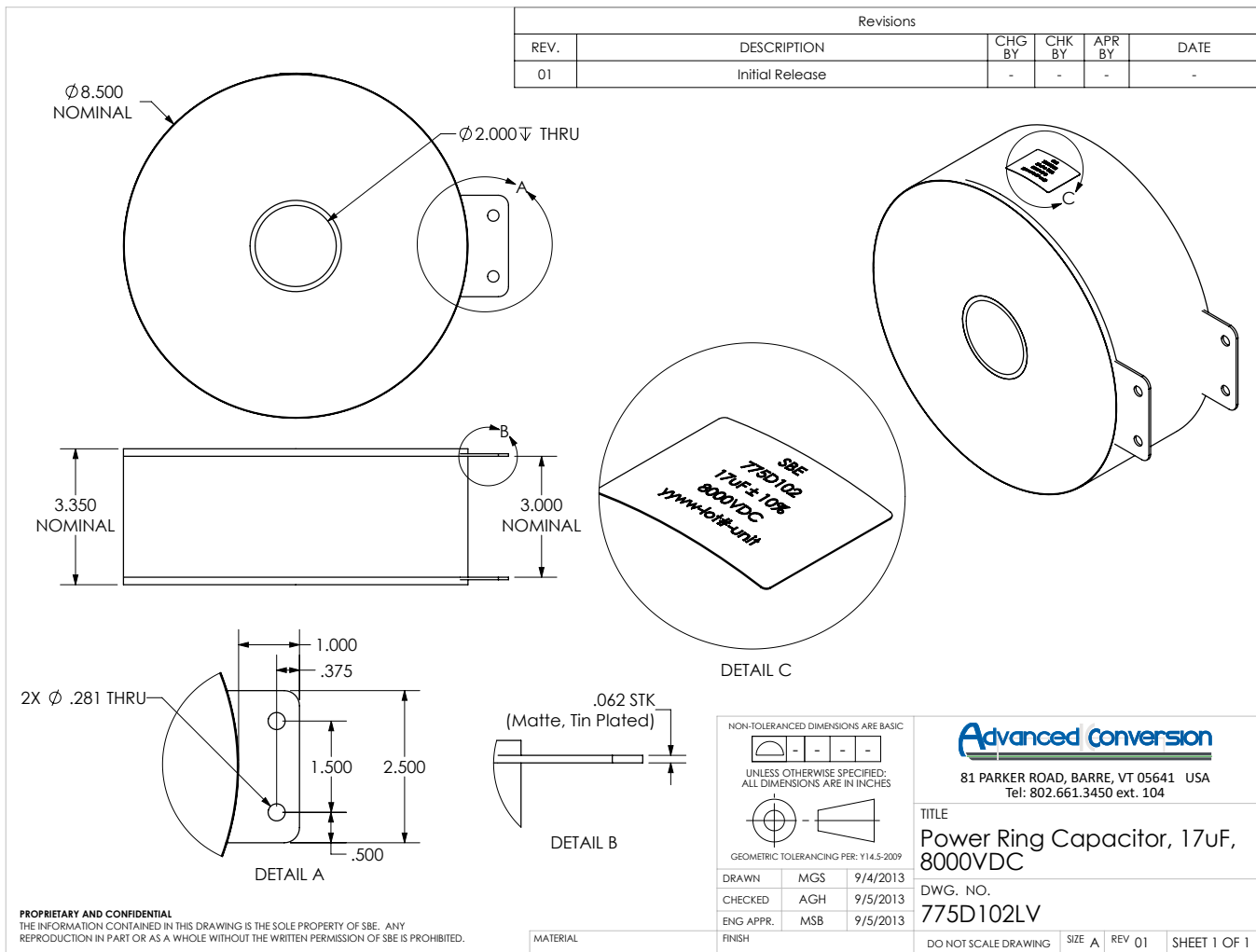
APCS
775D102
17 μ F \pm 10%

8,000Vdc
yyww-lot#-unit

company identification
"short form" part number
Capacitance value and tolerance
DC voltage rating
Serial number (date code, lot number, unit number)

Mechanical Mounting: If possible mounting of this

Layout Details:



Contact Advanced Conversion to discuss your specific requirements.

Advanced Conversion reserves the right to amend design data

#775D102-03/21