

## Power Ring Film Capacitor 425 $\mu$ F, 900 Vdc

The 700D42799-407 Power Ring is a 900 Vdc, 425  $\mu$ F DC Link Capacitor with an ESR of 180 micro-Ohms at 20 kHz and an ESL of less than 5 nH.



### Electrical Specifications

**Part #:** 700D42799-407

**Capacitance/Tolerance:** 425  $\mu$ F  $\pm$ 10%

**DC Voltage Rating:** 900 Vdc

**Dielectric/Construction:** Metallized polypropylene.  
Single section design

**Dielectric Withstand Voltage:** Units 100% tested at DC potential of 1125 Volts for two minutes at 25°C

**ESL:** Less than 5 nH in a suitable laminar bus structure

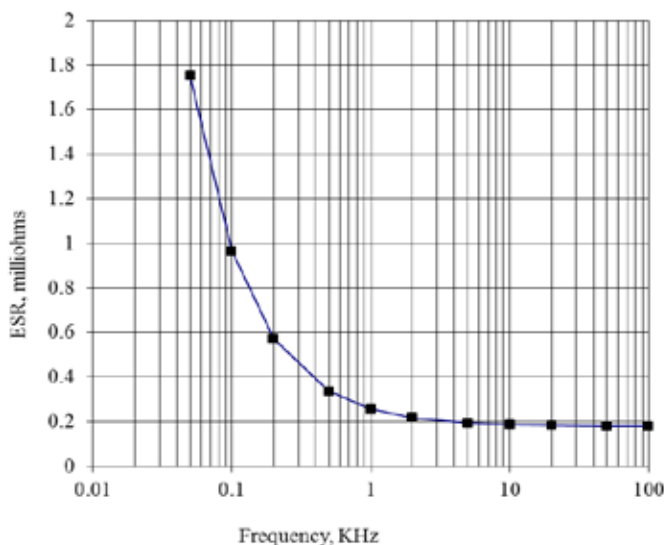
**Thermal Resistance:** 0.92°C/W (case side cooling only)  
0.44°C/W (case and bus side cooling only)

**Operating Temperature:** -40°C to +85°C at full DC voltage rating

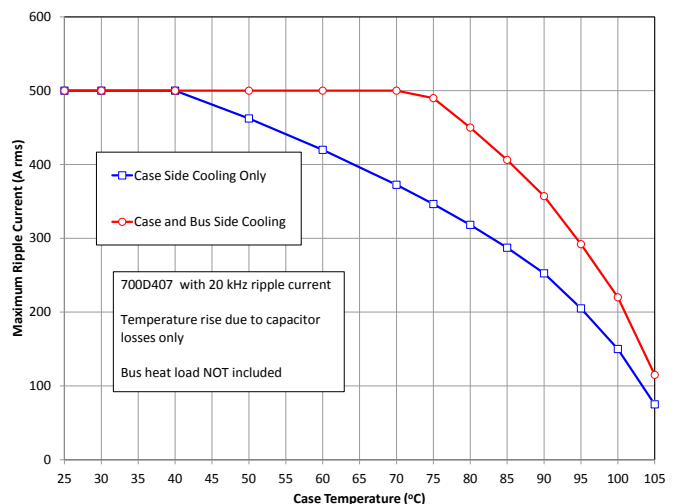
**Voltage, Temperature De-rating:** De-rate voltage linearly to 700 Volts from +85°C to +107°C, with respect to hotspot temperature

**System Fault Current Rating:** 10,000 Amps maximum (external to the capacitor)

### Typical ESR vs. Frequency:



### RMS Current Rating:



Advanced Conversion reserves the right to amend design data

## Mechanical Specifications

**Dimensions:** See layout drawing for details  
**Terminals:** Tin plated copper, 0.032" thick  
**Encapsulation:** Molded polymeric case, potted with RTV silicone

**Marking:** APCS company identification  
 700D407 Unique part number  
 425  $\mu$ F  $\pm$ 10% Capacitance value and tolerance  
 900 Vdc DC voltage rating  
 yyyy-lot#-unit Serial number (date code, lot number, unit number)

## Layout Details:

Contact Advanced Conversion to discuss your specific requirements.

**NOTES:**  
 1. All Hole Positions Inspected  
 2. All Dimensions Inspected Unless Marked As Reference

Revisions					
REV.	DESCRIPTION	CHG BY	CHK BY	APP BY	DATE
01	Initial Release	-	-	-	-
02	Standardized Layout View	AGH	MCS	MSB	12/14/2010

**Dimensions and Features:**  
 - 7X 45.0° chamfered edges  
 - 22.5° chamfered edges  
 -  $\phi$  6.868 Bolt Circle  
 -  $\phi$  8.465 Bolt Circle  
 -  $\phi$  9.252 Bolt Circle  
 -  $\phi$  8.746 Bolt Circle  
 - 16X M5X0.8 - 6H THRU 28 In-lbs MAX Torque  
 - 4X  $\phi$  .197 $\pm$ .005 THRU Accepts 1/4" Plastite Screw 40 In-lbs MAX Torque  
 - 16 Surfaces with .040 chamfer  
 - Detail A Scale 1:1 showing dimensions: 1.000, .500, .280, .663

**Surface Finish and Tolerances:**  
 - .010 A B C  
 - .020 A B C  
 - .020 A B C  
 - .040 A B C  
 - .010 A B C  
 - .020 A B C

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**TITLE:** Power Ring Capacitor, 425 $\mu$ F, 900VDC  
**DWG. NO.:** 700D407LV

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**DATE:** 11/12/2010  
**BY:** M138  
**CHECKED:** DMB  
**DATE:** 11/12/2010  
**BY:** MCS  
**DATE:** 1/28/2010

DO NOT SCALE DRAWING SEE A REV 02 SHEET 1 OF 1

#700D407-03/21

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