



# SURE/FIRE® UNIVERSAL VAC PROTECTOR

## 120 VAC Surge Suppressor/Filter With Ground Transient Protection Line Cord Version

( International 230/240 VAC Versions Available Upon Request )

### BRAVO STOCK CODE: UVAC2

### Product Specifications

<b>DATE (DDMMYY):</b>	28-1-05		<b>TYPE</b>	10 Amp VAC Line Cord
<b>STATUS:</b>	PRELIMINARY		<b>MODEL</b>	UVAC2
<b>ENGINEER:</b>	D WEAVER		<b>REV.</b>	01
<b>MANAGER:</b>	D WEAVER		<b>PAGES</b>	4

**1 Introduction**

This specification defines the performance characteristics of a VAC ground transient filter designated as UVAC2, which is assembled as a 10 Amp rated line cord, which also includes surge suppression on live and neutral wires.

**2 Specification**

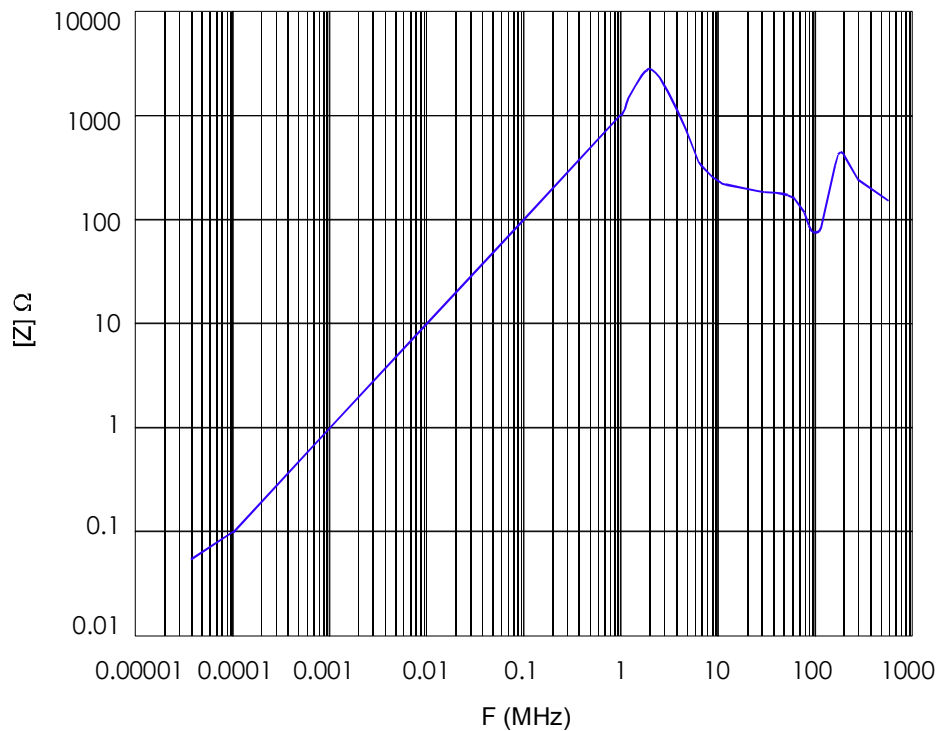
(see drawing, page 4)

**3 Performance**

**3.1 Impedance (GROUND LINE)**

The following graph shows impedance measured over a frequency range from 40Hz to 600MHz. The Impedance should be less than 0.1 Ohm at the 60 Hz mains cycle and peak above 1MHz.

[Z] vs Freq.



### 3.2 Inductance

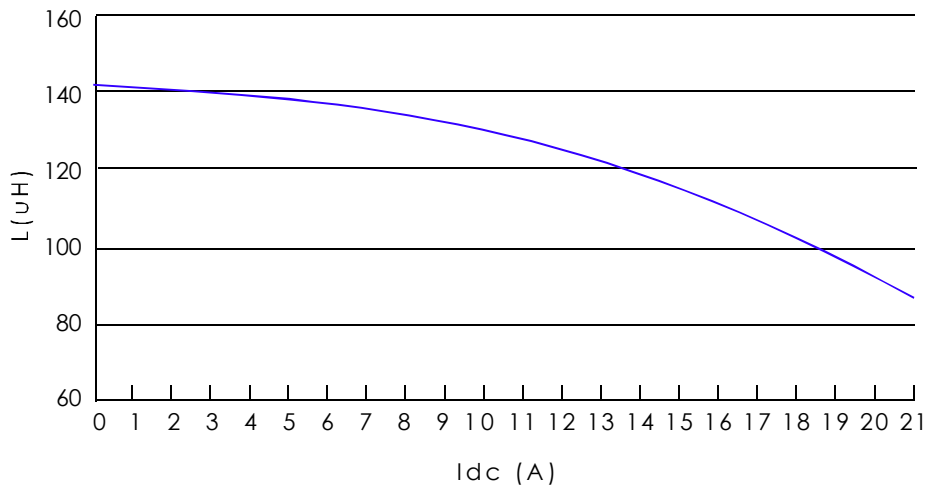
#### 3.2.1 Common Inductance

- Available for 120 VAC Applications with maximum continuous current of 20A
- Utilizes a multi-stage surge suppression circuit that provides 60,000 amps of surge suppression
- EMI/RFI filtering from 0.1HZ to 100MHz
- Power conditioning maintains clean power +/- 15% of nominal power input

#### 3.2.2 L vs Current

The following progressive plot shows the effect of the current on the inductance value of the assembly. The device should operate safely up to 20A. The inductance should not decrease to less than 100uH with a 15A resistive load.

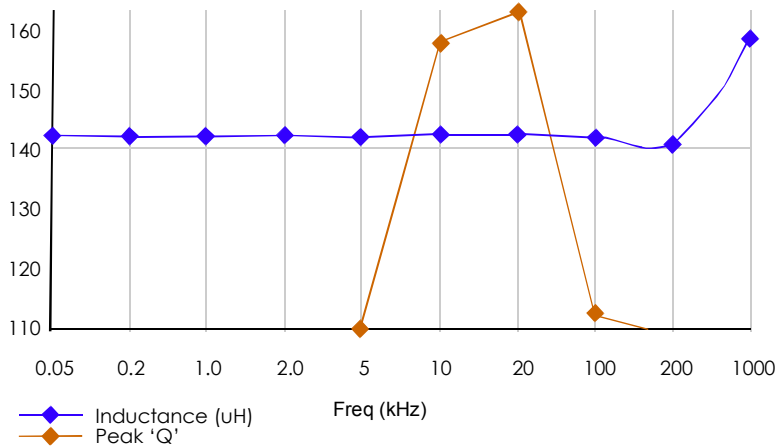
L vs Idc



#### 3.2.3 L vs Frequency

The following plot shows the effect of frequency on L and Q. A peak Q of >150 should be recorded between 20~100kHz.

L and Q vs Freq.



### **3.3 Construction**

The continuous attenuator circuit is wound and configured using a 1.8mm solid copper conductor. The lead wires are 12AWG UL1015. All joins in the wire are made by mechanical in-line splices. Splice points are covered with Mylar tape prior to final assembly. When ground circuit is inserted into the case the whole assembly is potted using an epoxy 9001 A+B compound. The finished product is shown.

