



## Features

- Long maintenance-free life
- Direct upgrade equivalent replacements for carbon arresters
- Extremely fast and repeatable response to transients
- Equal performance on both positive and negative surges



This series is currently available but not recommended for new designs.

- “Back-up” air gap and fail-short mechanism
- Listed per UL 497

## 2022 Series – Well-Type Gas Tube Protectors

Bourns 2022-60-A and 2022-84-A Gas Tube Protectors provide high reliability protection against overvoltage transients. Both models provide a built-in “back-up” air gap in the unlikely event the gas tube vents or loses its hermetic seal. Both units are direct replacements for carbon-type arresters.

The 2022-60-A 1/2” design is a completely contained protector assembly compatible with ATT, Reliable Electric, Northern Telecom (CookElectric) and protected terminal blocks.

The 2022-84-A 7/16” design is a completely contained protector assembly compatible with Western Electric/ATT building entrance and OSP terminal protected terminal blocks.

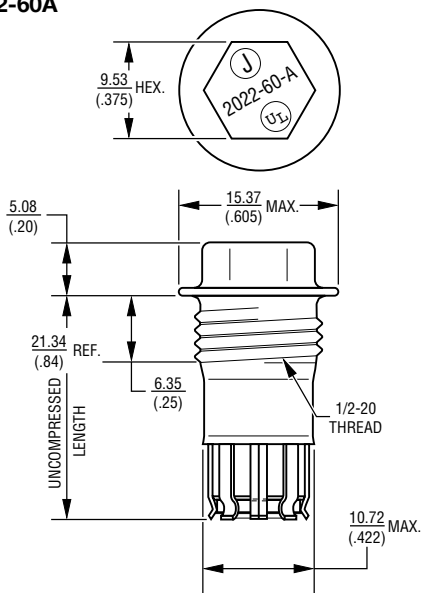
### Characteristics

Test Methods per IEEE C62.31, UL 497, RUS PE-80, CSA C22.2, Telcordia GR 974 and 1361.

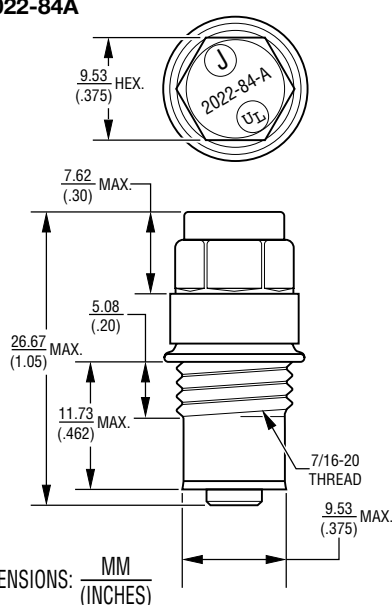
DC Breakdown @ 100 V/sec .....	300-500 V
Impulse Breakdown	
100 V/μsec .....	600 V
10 kV/μsec .....	850 V
100 V/μsec, vented .....	1000 V
Insulation Resistance @ 100 V .....	>10 <sup>9</sup> Ω
Capacitance @ 1 kHz .....	<15 pF
DC Extinguishing @ 52 V, 135 V, 150 V .....	<150 msec
Impulse Life Characteristics	
3000x 10 A .....	10/1000 μsec
300x 100 A .....	10/1000 μsec
100x 300 A .....	10/1000 μsec
400x 500 A .....	10/1000 μsec
25x 2 kA .....	10/250 μsec
20 kA .....	8/20 μsec
AC Life Characteristics	
20x 10 A .....	1 sec
60x 1 A .....	1 sec
65 A .....	11 cycles

### Product Dimensions

#### 2022-60A



#### 2022-84A



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$



**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

REV. D 03/23

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).