SIEMENS

TPS-ASA1 and TPS-ESA3 Series

Secondary Surge Arrester

Performance Specifications

- TPS-ASA1 (120/240)
  - Peak Surge Current: 25,000 Amps (8x20 μs)
  - MCOV: 175VAC rms (Line to Ground)
- TPS-ESA3 (277/480)
  - Peak Surge Current: 25,000 Amps (8x20 μs)
  - MCOV: 550VAC rms (Line to Ground)
- Response Time: <5 Nanoseconds
- Current Drain: <100uA

Environmental Specifications

- Suitable for Indoor and Outdoor Installation
- Operation Temperature: -40° C to +85° C

Standard Configuration

- Enclosure is black molded flame retardent plastic housing which is weatherproof and UV resistant.
- 18" Stranded 12 AWG Color Coded Leads
- Threaded 1/2" NPT Conduit Nipple with Lock Nut
- TPS-ASA1 Unit Weight: 7.5 ounces
  - Shipping Weight: 8.5 ounces per arrester
    6.75 lbs. per carton (12)
    28.5 lbs. per case (48)
- TPS-ESA3 Unit Weight: 8.5 ounces
  - Shipping Weight: 9.5 ounces per arrester
    7.5 lbs. per carton (12)
    31 lbs. per case (48)

Design Features

- Designed, Manufactured, & Tested consistent with:
  - ANSI: C62.11-1987
  - UL: OWHX Secondary Surge Arrester
  - UL Listed (File #E121169)
- TPS-ASA1 Commercial and Residential Applications
- TPS-ESA 3 Industrial and Commercial Applications
- Metal Oxide Varistors (MOV) each Line to Neutral/ Ground
- Encapsulation: UL Component Recognized Epoxy Potting Material
- Reliable Solid State Protection
- Automatic Recovery, Self Restoring

Quality

- One Year Warranty
- Maintenance Free

Optional Mounting Bracket Available

Model Number	Mounting Bracket Part Number
TPS-ASA1 TPS-ESA3	7438

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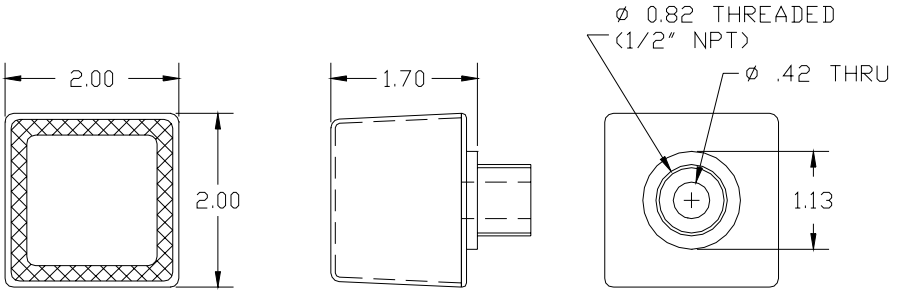
TPS-ASA1 Single Phase / TPS-ESA3 Three Phase

Electrical Specifications

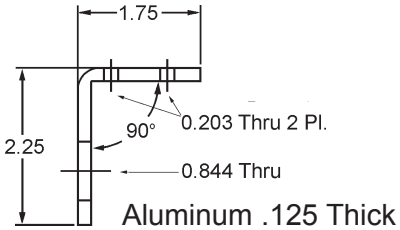
Part Number	Service Voltage AC	Phase	Wire Configuration	TYPICAL CLAMP VOLTAGE 8 x 20 µs Current Wave (Line to Ground)			
				1.5kA	5kA	10kA	20kA
TPS-ASA1	120/240 175V Max (RMS)	Single	Line 1 (Black) Line 2 (Black) Neutral/Ground (White)	500V[1] 600V[2]	700V[1] 975V[2]	850V[1] 1450V[2]	1500V[1] 2700V[2]
TPS-ESA3	277/480V 480V 550V Max (RMS)	Three	Line 1 (Black) Line 2 (Black) Line 3 (Black) Neutral/Ground (White)	1450V[1] 1550V[2]	1650V[1] 2000V[2]	1850V[1] 2450V[2]	220V[1] 3950V[2]

[1] 1" Lead Length [2] 18" Lead Length

Dimensions



Optional Mounting Bracket



Aluminum .125 Thick

Description

The TPS-ASA1 and TPS-ESA3 are MOV (Metal Oxide Varistor) based hardwired Secondary Surge Arresters, often referred to as a Lightning Arrester. The device is designed to protect electrical equipment from damaging effects of Spikes (+) and Notches (-) caused by lightning, utility switching, insulation arcing, electrical motor cycling, and other large or sudden changes in electrical power flow on incoming AC power lines.

The TPS-ASA1 is a two pole, split phase, three wire arrester intended to protect 120/240 VAC systems and has three 18" long, 12 AWG multi-stranded leads that are color coded for ease of installation.

The TPS-ESA3 is a three pole, three phase, four wire arrester intended to protect 480 VAC systems and has four 18" long, 12 AWG multi-stranded leads that are color coded for ease of installation.

The epoxy encapsulated arrester is designed to be easily installed in any position indoors or outdoors utilizing the integral 1/2" NPT threaded nipple and supplied metal lock nut. The housing is molded from flame retardant plastic that is both weather and UV resistant, and complies with the UL standard for strength and flame resistance properties. The arrester is sealed with UL component recognized epoxy potting compound.

The Siemens Surge Arrester is ideal protection for outdoor lighting and **pole lamps**, **panelboards**, **oilfield pumps**, **workshops**, **irrigation** and **sump pumps**, **refrigeration systems**, **farm equipment** including **milking machines** and **poultry processing equipment**, **electric motors** and **controls**, **heat pumps** and **air conditioning equipment** and many other electrical devices. These devices utilize a single MOV per pole to reduce the potential load balancing/sharing problems during operation.