



# Watt Hour Meter Base Surge Arrester

**TES 240 MSA**  
Residential/Light Industrial



## DESCRIPTION

Introducing the TES 240 MSA Surge Arrester, installed at wattmeter, locations for residential and light industrial applications. The TES 240 MSA Surge Arrester is specifically designed for long lifetimes even with strong lightning activity and temporary line overvoltage conditions. A tough Surge Arrester for tough line conditions.

## FEATURES

- 40,000 Amp peak capability, each 120 VAC leg
- 210 VAC, continuous 5 minutes, temporary overvoltage clamping capability.
- Lowest, reliable voltage clamping level
- Safety fusing, both 120 VAC legs, patented
- LED "unit good" indicators, both 120 VAC legs
- Fire proof and explosion proof polycarbonate glass-fiber reinforced enclosure with matching mounting connector
- Sealed unit except for mounting connector wiring opening
- For less inductance, #10 AWG tinned wires
- Competitive pricing

## APPLICATIONS

120 VAC-240 VAC Surge Arrester for residential and light industrial usage. Installed at wattmeter, safely clamps and dissipates lightning induced AC line high voltage current impulses going to a residence, apartment or light industrial building. Also protects against AC line temporary overvoltage conditions. Prevents damage to computers, faxes, copiers, VCRs, TVs, stereos or other AC line powered electronic/ electrical equipment.

## ELECTRICAL-ENVIRONMENTAL SPECIFICATIONS

<b>Maximum Peak Surge Current</b> (each 120 VAC leg)	40 KA plus
<b>Maximum Clamping Voltage Level</b> @40 KA (each 120 VAC leg)	840 VDC
<b>Start Clamping Voltage Level</b> @1 ma (each 120 VAC leg)	240 VDC
<b>Accelerated Life Test</b> 13 KV, 1.2/50 $\mu$ sec. open circuit, 5.5 KA, 8/20 $\mu$ sec. short circuit, 100 surge cycles, 6 secs. apart. No failure or arcing allowed.	Surge Arresters still in excellent condition at end of tests. No arcing.
<b>Temporary Overvoltage</b> Continuous, 5 minutes, maximum line voltage without thermal runaway. Must be 185 VAC or greater.	210 VAC

<b>End of Life Failure Mode</b> While in overvoltage induced thermal runaway, apply 7 KA at 120 VAC. Surge arrester must fail safe without faulting the AC line. No arcing allowed.	Surge arrester fails safe—surge element punctures, safety fuse opens, LED turns off, no fire, slight puff of smoke out connector wiring opening. AC line not faulted. No arcing.
<b>Enclosure Flammability</b> (550° C or greater)	960° C, UL 94 V1
<b>Ultra-Violet Resistance</b>	Good UV stability in tropical conditions
<b>Thermal Withstand</b>	80° C
<b>Salt-Fog Corrosion Resistance</b>	Very good
<b>Enclosure Dimensions</b>	2.75" deep X 7" diameter
<b>Recommended "Hole Size" for Mounting Connector</b>	Form 2S or 12S ring or ringless style