

## SYSTEM FEATURES



- Provides surge protection against harmful transient voltages that exceed the nominal operating voltage of AC critical dedicated control loads
- Ideal for protecting the PLC's, Building management systems, OEM & systems integration controls and other microprocessor-based loads
- Compact, fail-safe design allows flexible installation into electrical/control panels
- Dual Component-Level Fusing (CLF) standard
- Enhanced Transient Filter (ETF) standard
- Improved filter performance with a series inductor
- 15-year Unlimited Free Replacement Warranty
- Reduce lockups, glitches and reprogramming issues

## PRODUCT SPECIFICATIONS

### GENERAL SPECIFICATIONS

**Maximum Rated Surge Current:** 100kA per phase; 50kA per mode

**Application:** ANSI.IEEE C62.41 Location C, B & A

**Design:** Ultra compact, fail-safe design

**Warranty:** 15-Year Unlimited Free Replacement

**Safety Listing:** Recognized under UL 1449 4th Edition as a type 4 SPD for Type 2 locations, and under UL 1283 as an electromagnetic filter. Unit contains no serviceable parts.

✓ RoHS Compliant

### ELECTRICAL SPECIFICATIONS

**Input Power Frequency:** 40-68Hz

**Maximum Continuous Operating Current:** 30 amps

**Series Inductor:** Enhances EMI/RFI filter attenuation

**Modes of Discrete Suppression Circuitry:**  
All modes L-N, L-G & N-G

**Response Time:** < 1 nanosecond

**Standard Monitoring:** Status indicating light

**Short Circuit Current Rating:** 65kAIC short circuit current rating with a 30 amp max breaker

### MECHANICAL SPECIFICATIONS

**Enclosure:** High-impact robust non-metallic

**Connection Method:** Hard-wired via box terminals #22AWG - #8 AWG

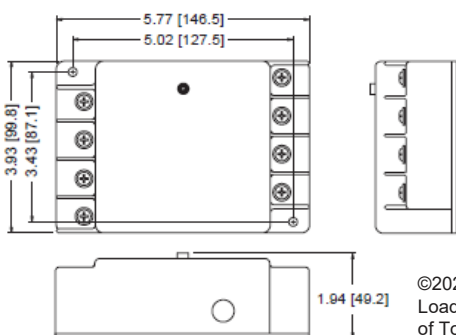
**Mounting Method:** Multi-point mounting feet.

**Operating Temperature:** -40° C to 60° C (-40° F to 140° F)

**Weight:** 2.3 lbs. (1.04 kg)

**Dimensions:** 3.93"H x 5.77"W x 1.94"D

All measurements in inches [mm]



### LTL PERFORMANCE SPECIFICATIONS

ANSI/IEEE C62.41.1-2002, C62.41.2-2002, & C62.45-2002 Measured Limited Voltage

Model Number (Working Voltage)	Mode	A1 Ring Wave	A3 Ring Wave	B3/C1
		2kV, 67A 180° Phase Angle	6kV, 200A 180° Phase Angle	Impulse Wave 6kV, 3kA 90° Phase Angle
<b>TK-LTL120P-30A</b>	L-N	35V	93V	396V
L-N MCOV: 150V	L-G	357V	317V	376V
120V 1-Phase, 2W+G	N-G	277V	331V	360V
<b>TK-LTL220P-30A</b>	L-N	41V	110V	750V
L-N MCOV: 300V	L-G	515V	563V	662V
240V 1-Phase, 2W+G	N-G	505V	576V	662V
<b>TK-LTL277P-30A</b>	L-N	40V	121V	883V
L-N MCOV: 320V	L-G	494V	744V	798V
277V 1-Phase, 2W+G	N-G	584V	752V	775V
<b>TK-LTL120S-30A</b>	L-N	36V	91V	401V
L-N MCOV: 150V	L-G	339V	394V	787V
120/240V 2-Phase, 3W+G	N-G	82V	188V	850V
	L-L	320V	349V	394V
<b>TK-LTL220S-30A</b>	L-N	40V	130V	739V
L-N MCOV: 300V	L-G	470V	677V	1430V
220/380V 2-Phase, 3W+G	N-G	98V	210V	1468V
	L-L	397V	626V	710V
<b>TK-LTL277S-30A</b>	L-N	43V	127V	865V
L-N MCOV: 320V	L-G	648V	760V	1680V
277/480V 2-Phase, 3W+G	N-G	78V	231V	1720V
	L-L	696V	696V	810V

All voltages are peak values (+10%) from the zero reference point at the phase angles referenced above using a 10 µs/div display rate and 500MS/s sampling rate. Specifications subject to change without notice, see web site [www.tpsurge.com](http://www.tpsurge.com) for latest revisions.

### EMI/RFI FILTER ATTENUATION—MIL STANDARD

Frequency	Attenuation
1kHz	4dB
10kHz	11dB
100kHz	31dB
1MHz	32dB
10MHz	20dB
20MHz	15dB
Max. attenuation	54dB @ 1MHz

