

## SYSTEM FEATURES



- Provides surge protection against harmful transient voltages that exceed the nominal operating voltage of AC and DC critical dedicated control loads
- Ideal for protecting the PLCs, fire alarm panels, CNC control systems, POS, 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
- Recognized under UL 1449 2nd Edition as TVSS, UL 1283 as Electromagnetic Filter and cUL
- 15-Year Unlimited Free Replacement Warranty

## PRODUCT SPECIFICATIONS

### GENERAL SPECIFICATIONS

**Maximum Rated Surge Current:** 30kA per phase  
**Application:** ANSI/IEEE C62.41 Location C, B & A  
**Design:** Ultra compact, fail-safe design with dual component-level fusing  
**Warranty:** 15-Year Unlimited Free Replacement  
**Safety Listing:** Recognized under UL 1449 2nd Edition TVSS, cUL, UL 1283 Filter

### ELECTRICAL SPECIFICATIONS

**Modes of Protection:** All modes. L-N, L-G, & N-G  
**Input Power Frequency:** 47-64 Hz  
**Maximum Continuous Operating Current:** 15 amps  
**Response Time:** < 1 nanosecond  
**Standard Monitoring:** Status indicating light  
**Short Circuit Current Rating:** 100kAIC short circuit current rating with a 15 amp max Class T fuse

### MECHANICAL SPECIFICATIONS

**Dimensions:** 4.25"H x 4.65"W x 1.35"D  
**Enclosure:** ABS Plastic UL94-5VA  
**Connection:** Hard-wired via box terminals 22 AWG – 12 AWG conductor  
**Mounting:** Multi-point mounting feet  
**Operating Environment:** -40° C to 70° C (-40° F to 160° F); 5% to 95% non-condensing humidity  
**Weight:** 1 lbs (0.45 kg)

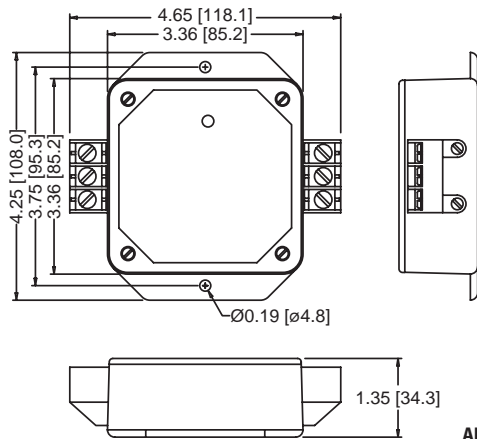
### AVAILABLE CONFIGURATIONS

Model Number	Voltage	Configuration
TK-LT24-15A	24V AC or DC	1Ø 2-wire + grd
TK-LT48-15A	48V AC or DC	1Ø 2-wire + grd
TK-LT120-15A	120V AC or DC	1Ø 2-wire + grd
TK-LT250-15A	250V AC or DC	1Ø 2-wire + grd

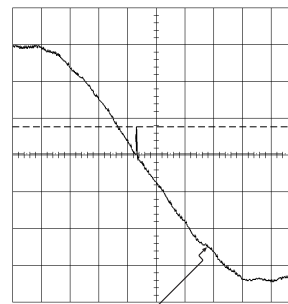
### EMI / RFI FILTER ATTENUATION – MIL STANDARD 220B

Frequency	Attenuation
1kHz	1 dB
10kHz	12 dB
100kHz	30 dB
1MHz	32 dB
10MHz	20 dB
20MHz	23 dB
Max. attenuation	33 dB @ 372kHz





All measurements in inches [mm]



AC Sine Wave

Peak Let-Through Voltage Level - 46V  
 Reference Level Zero Crossing of AC Sine Wave

For 120V Configuration

ANSI/IEEE C62.41.1  
 Category A1 Ring Wave  
 2000V, 67A Test Plot

L-N Mode, Dynamic,  
 180° Phase Angle,  
 Positive Polarity  
 1 msec/div Horizontal  
 500 Mega samples/sec  
 55V/div Vertical

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

Measured Limited Voltage

UL SVR

Model Number	System Voltage	System Configuration	Protection Mode	AC MCOV	Measured Limited Voltage			UL SVR
					All Models A1 Ring Wave 2kV, 67A 180° Phase Angle	All Models A3 Ring Wave 6kV, 200A 180° Phase Angle	All Models B3/C1 Impulse Wave 6kV, 3kA 90° Phase Angle	UL 1449 2nd Edition Suppressed Voltage Ratings
TK-LT24-15A	5-30 VAC 5-38 VDC	1-Phase 2-wire+grnd	L-N	30V	46V	81V	157V	N/A
			L-G	30V	71V	101V	190V	N/A
			N-G	30V	41V	89V	181V	N/A
TK-LT48-15A	24-50 VAC 24-65 VDC	1-Phase 2-wire+grnd	L-N	50V	43V	96V	187V	N/A
			L-G	50V	96V	139V	218V	N/A
			N-G	50V	40V	117V	229V	N/A
TK-LT120-15A	48-150 VAC 48-200 VDC	1-Phase 2-wire+grnd	L-N	150V	51V	139V	415V	400V
			L-G	150V	82V	253V	474V	400V
			N-G	150V	46V	143V	493V	400V
TK-LT250-15A	120-275 VAC 120-300 VDC	1-Phase 2-wire+grnd	L-N	275V	48V	123V	808V	800V
			L-G	275V	94V	245V	871V	800V
			N-G	275V	50V	139V	891V	800V

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