

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)

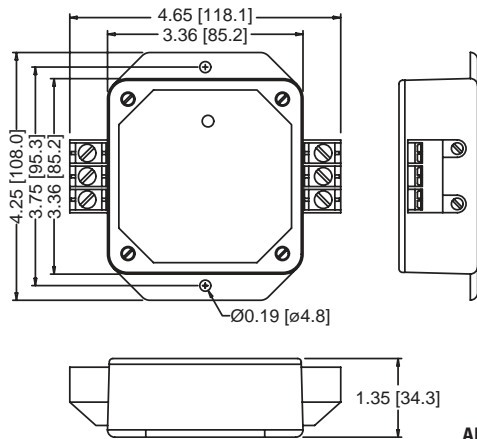
AVAILABLE CONFIGURATIONS

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

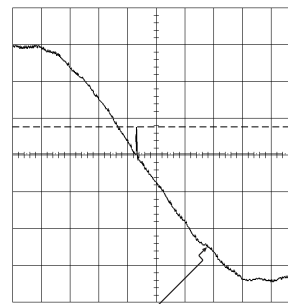
EMI / RFI FILTER ATTENUATION – MIL STANDARD 220B

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]



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

Model Number	System Voltage	System Configuration	Protection Mode	AC MCOV	ANSI/IEEE C62.41.1-2002, C62.41.2-2002, & C62.45-2002 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 L-G N-G
TK-LT48-15A	24-50 VAC 24-65 VDC	1-Phase 2-wire+grnd	L-N L-G N-G	50V 50V 50V	43V 96V 40V	96V 139V 117V	187V 218V 229V	N/A N/A N/A
TK-LT120-15A	48-150 VAC 48-200 VDC	1-Phase 2-wire+grnd	L-N L-G N-G	150V 150V 150V	51V 82V 46V	139V 253V 143V	415V 474V 493V	400V 400V 400V
TK-LT250-15A	120-275 VAC 120-300 VDC	1-Phase 2-wire+grnd	L-N L-G N-G	275V 275V 275V	48V 94V 50V	123V 245V 139V	808V 871V 891V	800V 800V 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.TPSSurge.com for latest revisions.