

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 PLCs, fire alarm panels, CNC control systems, electric access readers, POS, building management systems, OEM & systems integration controls and other microprocessor-based loads
- Compact, fail-safe design allows flexible installation into electrical/control panels
- Enhanced Transient Filter (ETF) standard
- Improved filter performance with a series inductor
- Recognized under UL 1449 2nd Edition 2005 Revision as TVSS, UL 1283 as Electro-magnetic Filter
- 15-Year Unlimited Free Replacement Warranty

PRODUCT SPECIFICATIONS

GENERAL SPECIFICATIONS

Maximum Rated Surge Current: 45kA per phase
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 2nd Edition 2005 Revision TVSS, UL 1283 Filter. Unit contains no serviceable parts

ELECTRICAL SPECIFICATIONS

Modes of Protection: All modes. L-N, L-L, L-G, & N-G
Input Power Frequency: 47-64 Hz
Maximum Continuous Operating Current: 20 amps
Series Inductor: Enhances EMI/RFI filter attenuation
Response Time: < 1 nanosecond
Standard Monitoring: Status indicating light
Short Circuit Current Rating: 65kAIC short circuit current rating with a 25 amp max Class J fuse or breaker

MECHANICAL SPECIFICATIONS

Dimensions: 3.93"H x 5.77"W x 1.94"D
Enclosure: High-impact robust no-metallic
Connection: Hard-wired via box terminals 22 AWG – 8 AWG conductor
Mounting: Multi-point mounting feet
Operating Environment: -40° C to 60° C (-40° F to 140° F); 5% to 95% non-condensing humidity
Weight: 2.25 lbs (1.02 kg)

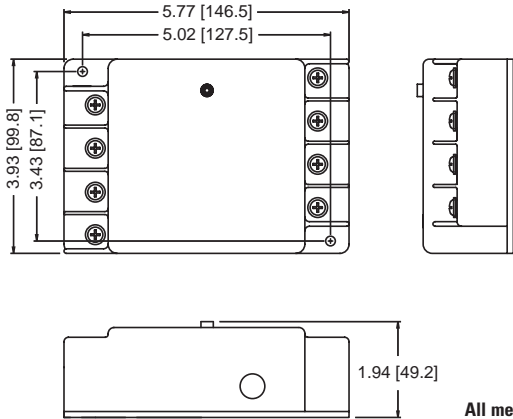
AVAILABLE CONFIGURATIONS

Model Number	Configuration
TK-LTL120P-20A	120V, 1Ø 2-wire + grd
TK-LTL220P-20A	220V, 1Ø 2-wire + grd
TK-LTL277P-20A	277V, 1Ø 2-wire + grd
TK-LTL120S-20A	120/240V, 2Ø 3-wire + grd
TK-LTL220S-20A	220/380V, 2Ø 3-wire + grd
TK-LTL277S-20A	277/480V, 2Ø 3-wire + grd

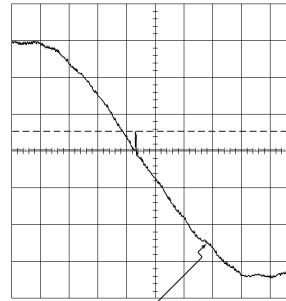
EMI / RFI FILTER ATTENUATION – MIL STANDARD 220B

Frequency	Attenuation
1kHz	2 dB
10kHz	11 dB
100kHz	63 dB
1MHz	58 dB
10MHz	44 dB
100MHz	24 dB
Max. attenuation	65 dB @ 105kHz





All measurements in inches [mm]



AC Sine Wave

Peak Let-Through Voltage Level - 35V
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

UL 1449 2nd Edition

Model Number	System Voltage	System Configuration	Protection Mode	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 2 nd Edition 2005 Revision Suppressed Voltage Ratings
TK-LTL120P-20A	120V	1-Phase 2-wire+grnd	L-N	150V	35V	93V	369V	400V
			L-G	150V	357V	317V	376V	400V
			N-G	150V	277V	331V	360V	400V
TK-LTL220P-20A	220V	1-Phase 2-wire+grnd	L-N	275V	41V	110V	750V	700V
			L-G	275V	515V	563V	662V	800V
			N-G	275V	505V	576V	662V	700V
TK-LTL277P-20A	277V	1-Phase 2-wire+grnd	L-N	320V	40V	121V	883V	900V
			L-G	320V	494V	744V	798V	900V
			N-G	320V	584V	752V	775V	900V
TK-LTL120S-20A	120/240V	1-Phase 3-wire+grnd	L-N	150V	36V	91V	401V	400V
			L-G	150V	339V	394V	787V	800V
			L-L	300V	82V	188V	850V	800V
			N-G	150V	320V	349V	394V	500V
TK-LTL220S-20A	220/380V	3-Phase WYE 4-wire+grnd	L-N	275V	40V	130V	739V	800V
			L-G	275V	470V	677V	1430V	1500V
			L-L	550V	98V	210V	1468V	1500V
			N-G	275V	397V	626V	710V	800V
TK-LTL277S-20A	277/480V	3-Phase WYE 4-wire+grnd	L-N	320V	43V	127V	865V	900V
			L-G	320V	648V	760V	1680V	1800V
			L-L	640V	78V	231V	1720V	1800V
			N-G	320V	696V	696V	810V	800V

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