

## SYSTEM FEATURES



- Slimline design ensures minimum lead-length for maximum performance
- Fail-Safe Design
- Component Level Fusing (CLF), individually fused MOV's for added safety
- NEMA LS1 Compliance – Single pulse tested at independent 3rd party nationally recognized lab
- Form C dry relay contacts
- Audible alarm with silence button
- Hybrid suppression technologies – MOV and Enhanced Transient Filter (ETF)
- UL 1283 Tracking Filter
- Compact Footprint – Makes installation flexible while insuring peak performance
- 30-Year Unlimited Free Replacement Warranty

## PRODUCT SPECIFICATIONS

### GENERAL SPECIFICATIONS

**Maximum Rated Surge Current:** 120kA per phase; 60kA per mode

**Application:** ANSI/IEEE C62.41 Location B & A. Ideal for flush mount in-wall and adjacent panelboards

**Design:** Fusing for safety and hybrid suppression design provides lowest let-through voltage protection for mission critical loads

**Warranty:** 30-Year Unlimited Free Replacement

**Safety Listing:** UL 1449 2nd Edition 2005 Revision (effective 2/9/2007) UL 1283

### ELECTRICAL SPECIFICATIONS

**Mode of Protection:** All Mode. L-N, L-L, L-G, & N-G

**Input Power Frequency:** 40-440Hz (47-64 Hz with enhanced filter option)

**Response Time:** < 1 nanosecond

**Standard Monitoring:** Status indicator lights (one per phase & one service LED); Form C dry contacts for suppressor status; Audible alarm with silence button

**Short Circuit Current Rating:** 200 kAIC short circuit current rating. Component Level fusing (CLF) allows direct bus connection without the need for upstream over-current protection

### MECHANICAL SPECIFICATIONS

**Dimensions(approx.):** 12”H x 4”W x 4”D

**Enclosure:** Compact NEMA 1 steel enclosure allows cable entry from top and both sides for flexible mounting to virtually any panelboard or disconnect application

**Connection:** Pre-wired 24” #10 AWG strand copper conductor

**Mounting:** Mounting feet top and bottom. Flush-mount cover plate and 3/4” Myers hub included

**Operating Environment:** -40° C to 60° C (-40° F to 160° F), 5% to 95% non-condensing humidity

**Weight:** 12 lbs. (5.4 kg)

### AVAILABLE CONFIGURATIONS

Model Number	Description
TK-LP120-1S240-L	120/240VAC, 1ø SPLIT-Phase, 3-wire + grd
TK-LP120-3Y208-L	120/208VAC, 3ø WYE, 4-wire + grd
TK-LP120-3Y480-L	277/480VAC, 3ø WYE, 4-wire + grd
TK-LP120-3D240-L	120/240VAC, 3ø high-leg DELTA, 4-wire + grd (B phase must be 208V)

### AVAILABLE OPTION

- Enhanced Transient Filter: add suffix “-F”  
Example: TK-LP120-3Y208-FL

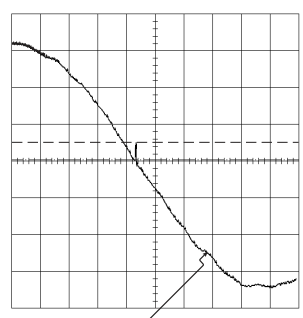
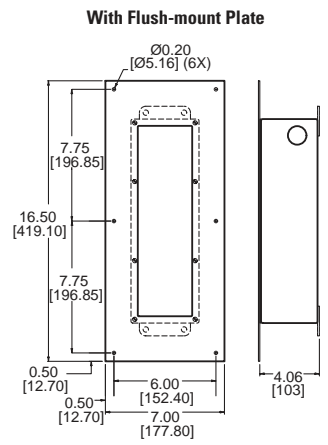
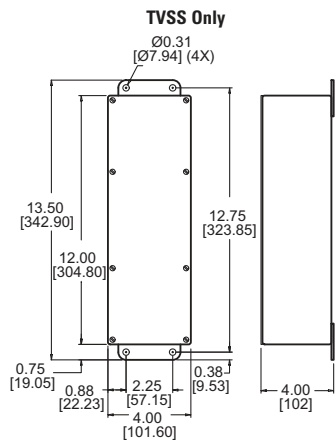
### EMI / RFI FILTER ATTENUATION – MIL STANDARD 220B

Frequency	Attenuation
1kHz	1 dB
10kHz	14 dB
100kHz	42 dB
1MHz	22 dB
10MHz	6 dB
100MHz	2 dB
Max. Attenuation Frequency	57 dB @ 142 kHz



Made in U.S.A.

# LowProfile® LP120



Peak Let-Through Voltage Level - 29V  
Reference Level Zero Crossing of AC Sine Wave

For 120/208V Configuration  
ANSI/IEEE C62.41.1  
Category A1 Ring Wave  
2000V, 67A Test Plot  
L-N Mode, Dynamic,  
180° Phase Angle,  
6" Leads, Positive Polarity  
1 msec/div Horizontal  
500 Mega samples/sec  
55V/div Vertical

All measurements in inches [mm]

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	MCOV	UL 1449 2nd Edition			Suppressed Voltage Ratings
					ETF Models A1 Ring Wave 2kV, 67A 180° Phase Angle	ETF Models A3 Ring Wave 6kV, 200A 180° Phase Angle	All Models B3 Ring Wave 6kV, 500A 90° Phase Angle	
TK-LP120-1S240-L	120/240V	1-Phase 3-wire+grnd	L-N	150V	29V	56V	437V	400V
			L-G	150V	46V	81V	592V	400V
			L-L	300V	39V	88V	612V	800V
			N-G	150V	40V	112V	324V	400V
TK-LP120-3Y208-L	120/208V	3-Phase WYE 4-wire+grnd	L-N	150V	29V	56V	437V	400V
			L-G	150V	46V	81V	592V	400V
			L-L	300V	39V	88V	612V	800V
			N-G	150V	40V	112V	324V	400V
TK-LP120-3Y480-L	277/480V	3-Phase WYE 4-wire+grnd	L-N	320V	34V	66V	670V	800V
			L-G	320V	54V	115V	785V	800V
			L-L	640V	40V	83V	1020V	1500V
			N-G	320V	39V	94V	324V	800V
TK-LP120-3D240-L	120/240V	3-Phase high-leg DELTA 4-wire+grnd	L-N	150V	27V	56V	437V	400V
			H-N	320V	52V	71V	670V	800V
			L-G	150V	52V	81V	592V	400V
			H-G	320V	52V	119V	785V	800V
			L-L	300V	39V	88V	612V	800V
			H-L	470V	39V	78V	1020V	1500V
N-G	150V	40V	112V	325V	400V			

ETF = Enhanced Transient Filter (-F suffix). All tests performed with 6" lead length, positive polarity.

All voltages are peak values (±10%) measured from the zero reference point at the phase angles referenced above using a 10 µs/div display rate and 500 MS/s sampling rate.

Specifications subject to change without notice, see web site, www.TPSurge.com for latest revisions.



For Technical Support  
TEL: (800)604-9980 www.TPSurge.com