

## SYSTEM FEATURES



- Service Entrance Protection – Your first line of defense against surges and lightning
- Fail-Safe Design
- Component Level Fusing
- True Modular Design – allows fast and easy field module replacement
- Bolt-on modular design allows for secure, low impedance connections.
- NEMA LS1 Compliance – single pulse tested at independent 3rd party lab (NEMA LS1, 2.2-9 and 3-9)
- Three suppression technologies to choose from: MOV, SAD, and Tracking Filter (UL 1283 Listed) – allows hundreds of hybrid or customizable configurations
- UL 1283 Tracking Filter
- Compact Footprint – makes installation flexible
- 30-Year Unlimited Free Replacement Warranty

## PRODUCT SPECIFICATIONS

### GENERAL SPECIFICATIONS

**Maximum Rated Surge Current:** 200kA per phase; 100kA per mode  
**Application:** ANSI/IEEE C62.41 Location C & B. Ideal for service entrances, distribution panels and high exposure areas  
**Design:** Parallel Hybrid Modular. Each fail-safe module comes with component level fusing and multi-pulse back-up protection  
**Warranty:** 30-Year Unlimited Free Replacement  
**Safety Listing:** UL 1449 2nd Edition, cUL, UL 1283 Filter

### ELECTRICAL SPECIFICATIONS

**Modes of Protection:** All Modes. 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 protection summary LED); Form C dry relay contacts for suppressor and commercial-power status  
**Short Circuit Current Rating:** 100 kAIC using 200A max. breaker or fuse (not provided)

### MECHANICAL SPECIFICATIONS

**Dimensions (approx.):** 13.69”H x 12.40”W x 7.94”D (348 mm H x 315 mm x 202 mm D)  
**Enclosure:** High-impact non-metallic, NEMA 4X (IP 56)  
**Connection:** Hardwired via internal lugs #10 AWG – #2 AWG (5.26 mm<sup>2</sup> – 33.6mm<sup>2</sup>)  
**Mounting:** Multi-point mounting feet, cable entry from three sides: top, bottom and right.  
**Operating Environment:** -40° C to 70° C (-40° F to 160° F)  
 5% to 95% non-condensing humidity  
**Weight:** (approx.) depending on configuration – pounds (kilograms): 22 lbs (9.77 kg) – 30 lbs (13.33 kg)

### AVAILABLE CONFIGURATIONS

Model Number	Description
TK-SE200-1P120	120V, 1Ø 2-wire + grd
TK-SE200-1P240	240V, 1Ø 2-wire + grd
TK-SE200-1S240	120/240V, 1Ø SPLIT-PHASE, 3-wire + grd
TK-SE200-3Y208	120/208V, 3Ø WYE, 4-wire + grd
TK-SE200-3Y380	220/380V, 3Ø WYE, 4-wire + grd
TK-SE200-3Y480	277/480V, 3Ø WYE, 4-wire + grd
TK-SE200-3D240	120/240V, 3Ø high-leg DELTA, 4-wire + grd (B phase must be 208V)
TK-SE200-240NN	240V, 3Ø DELTA, 3-wire + grd
TK-SE200-380NN	380V, 3Ø DELTA, 3 wire + grd
TK-SE200-480NN	480V, 3Ø DELTA, 3-wire + grd

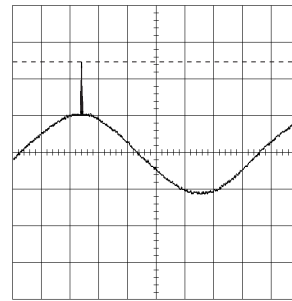
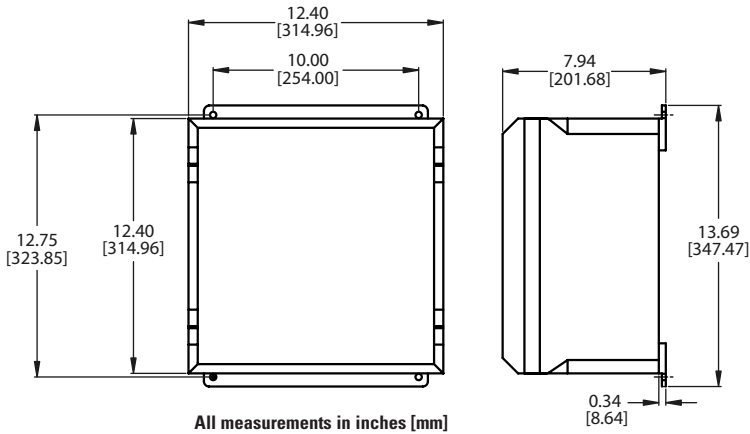
### AVAILABLE OPTIONS

- Enhanced Transient Filter (-F suffix)
- SAD: Silicon Avalanche Diode (-S suffix)
- Enhanced Transient Filter and SAD (-H suffix)
- Audible Alarm with alarm silence button (-A suffix)
- Surge Counter & Audible Alarm (-B suffix)

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

Frequency	Attenuation
1kHz	2 dB
10kHz	21 dB
100kHz	42 dB
1MHz	18 dB
10MHz	3 dB
100MHz	2 dB
Max. Attenuation Frequency	54 dB @ 71 kHz





Peak Let-Through Voltage Level - 416V  
Reference Level Zero Crossing of AC Sine Wave

For 120/208V Configuration

ANSI/IEEE C62.41.1  
Category B3/C1 Impulse Wave  
6000V, 3000A Test Plot

L-N Mode, Dynamic,  
90° Phase Angle,  
6" Leads, Positive Polarity  
2 msec/div Horizontal  
500 Mega samples/sec  
160V/div Vertical

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

Model Number	System Voltage	System Configuration	Protection Mode	MCOV	ANSI/IEEE C62.41.1-2002, C62.41.2-2002, & C62.45-2002 Measured Limited Voltage			UL SVR UL 1449 2nd Edition Suppressed Voltage Ratings*
					ETF Models	All Models	All Models	
					A1 Ring Wave 2kV, 67A 180° Phase Angle	B3/C1 Impulse Wave 6kV, 3kA 90° Phase Angle	C3 Impulse Wave 20kV, 10kA 90° Phase Angle	
TK-SE200-1P120	120V	1-Phase 2-wire+grnd	L-N	150V	80V	416V	549V	400V/330V
			L-G	150V	114V	560V	500V/500V	
			N-G	150V	73V	560V	500V/500V	
TK-SE200-1P240	240V	1-Phase 2-wire+grnd	L-N	300V	64V	805V	971V	800V/600V
			L-G	300V	796V	821V	955V	800V/800V
			N-G	300V	60V	912V	1280V	900V/900V
TK-SE200-1S240	120/240V	1-Phase 3-wire+grnd	L-N	150V	80V	416V	549V	500V/330V
			L-G	150V	114V	427V	560V	500V/500V
			L-L	300V	106V	768V	912V	800V/600V
			N-G	150V	73V	560V	800V	700V/700V
TK-SE200-3Y208	120/208V	3-Phase WYE 4-wire+grnd	L-N	150V	80V	416V	549V	500V/330V
			L-G	150V	114V	427V	560V	500V/500V
			L-L	300V	106V	768V	912V	800V/700V
			N-G	150V	73V	560V	800V	600V/600V
TK-SE200-3Y380	220/380V	3-Phase WYE 4-wire+grnd	L-N	300V	64V	805V	971V	800V/600V
			L-G	300V	796V	821V	955V	900V/900V
			L-L	600V	83V	1472V	1691V	1500V/1200V
			N-G	300V	60V	912V	1280V	1000V/1000V
TK-SE200-3Y480	277/480V	3-Phase WYE 4-wire+grnd	L-N	320V	64V	848V	1045V	900V/700V
			L-G	320V	796V	821V	981V	900V/900V
			L-L	640V	83V	1552V	1760V	1800V/1200V
			N-G	320V	60V	912V	1280V	1000V/1000V
TK-SE200-3D240	120/240V	3-Phase high-leg DELTA 4-wire+grnd	L-N	150V	80V	416V	549V	500V/330V
			H-N	300V	64V	806V	971V	800V/600V
			L-G	150V	114V	427V	560V	500V/500V
			H-G	300V	796V	821V	955V	900V/900V
			L-L	300V	106V	768V	912V	800V/700V
			H-L	450V	95V	1472V	1691V	1500/1200V
TK-SE200-240NN	240V	3-Phase DELTA 3-wire+grnd	L-G	300V	448V	821V	955V	900V/900V
			L-L	300V	90V	768V	912V	800V/700V
TK-SE200-380NN	380V	3-Phase DELTA 3-wire+grnd	L-G	460V	665V	1131V	1344V	1500V/1500V
			L-L	600V	76V	1472V	1691V	1500V/1200V
TK-SE200-480NN	480V	3-Phase DELTA 3-wire+grnd	L-G	550V	427V	1365V	1595V	1800V/1800V
			L-L	640V	81V	1552V	1760V	1800V/1200V

ETF = Enhanced Transient Filter (-F suffix). All tests performed with 6" (152 mm) 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 Mega/sec sampling rate.

\* UL SVR: XXX/YYY where XXX represents SVR value for MOV only unit and YYY represents SVR value for SAD (Silicon Avalanche Diode) unit

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