



# TEXCS Series

## Type 1 Surge Protective Device/SPD/TVSS



### Features:

- UL 1449 Third Edition Listed (Sept 2009)
- 100kA per phase rating
- Type 1 SPD –
  - All UL required OCP & Safety Coordination included inside
  - Can be installed line-side or load-side of main disconnect
- 20kA Inominal ( $I_n$ ) (most models)
- 200kA SCCRs (most models)
- UL 96A Lightning Protection Master Label compliant (@20kA  $I_n$ )
- Voltage Specific Design – Highly configurable
- All MOV suppression elements monitored

### Performance Specifications

- Surge Capacities

	<u>L-N</u>	<u>L-G</u>	<u>N-G</u>
100kA/phase	50kA	50kA	50kA
- UL 1449 Third Edition Listed
- UL 1449-3 Type 1 SPD (cUL Type 2 optional)
- UL 1449-3 tested Inominal ( $I_n$ ): 20kA & 10kA
- UL 1449-3 tested SCCR: 200kA & 100kA
- UL 1449-3 Voltage Protection Ratings (VPRs):
  - 208Y/120V: as low as 600V
  - 480Y/277V: as low as 1000V (data table on back)
- Less than 1 nanosecond response time
- Repetitive Impulse: 5,000 hits

### Physical Specifications

- Relative Humidity Range: 0 -95% non-condensing
- Operating Frequency: 47-63Hz (also 400Hz on <480V)
- Operating Temperature: -25°C (-15°F) to +60°C (140°F)
- Weight: 3 lbs (1.4 kg)
- NEMA 4X Polycarbonate enclosure – UL 746C(f1) & UL 94-5VA
- Dimensions: 8" x 3" x 3" (203mm x 76mm x 76mm)
- 3/4" threaded hub - weather resistant 4X
- Pre-wired with 3' (1m) of #10 AWG conductor
- Typical connection: #10 AWG and 30A breaker

### Design Features

- Designed, Manufactured & Tested consistent with:
  - ANSI/IEEE C62.41.1-2002, C62.41.2-2002, and C62.45-2002
  - NEMA LS-1
  - NEC Article 285
  - IEC 61643, CE
- High Energy Parallel Design for Category C3 & C-High applications
- For External Mounting next to Switchgear, Motor Controls Centers or Panelboards
- Individually Fused & Thermally Protected MOVs
- Large-Block 34mm square MOVs
- Solid State Bidirectional Operation

### Diagnostic Monitoring

- 100% monitoring – Every MOV is monitored, incl. N-G
- Green LED Status indicator per phase
- Phase Loss monitoring (toggles LED & dry contacts)
- Electrically isolated circuitry ensures surges do not damage diagnostics
- Optional: Audible Alarm & Form C Dry Contact, (Contact rated 240V, 5A; leads are pre-wired through nipple with #18 AWG)

### Quality, Standards & Validation

- UL 1449 Third Edition, (cUL Type 2 optional)
- UL file: VZCA.E321351 at [www.UL.com](http://www.UL.com)
- RoHS-compliant
- IEC 61643, CE
- 10 year warranty (longer optional)
- Burn-In tested Prior to Shipment
- ISO 9001:2000 Quality Management System
- ISO 17025:2005 Laboratory Qualification
- Made in USA



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# TE XCS 10 4X A

**TE**      **02**      **XCS**      **10**      **4X**      **A**

**Voltage Code for Electrical System**      **Surge Current Rating**      **Options**

**Common North American Systems:**  
**01 = 240/120V Split Phase - 1Ø 3W+Grnd (Fig 1)**  
**02 = 208Y/120V Wye - 3Ø 4W+Grnd (Fig 2)**  
**03 = 240/120V High Leg Delta (B High) (Fig 3)**  
**04 = 480Y/277V Wye - 3Ø 4W+Grnd (Fig 2)**  
**05 = 480V Delta - 3Ø 3W+Grnd (Fig 4) & HRG Wye**  
**08 = 600Y/347V Wye - 3Ø 4W+Grnd (Fig 2)**

**10 = 100kA/Phase**

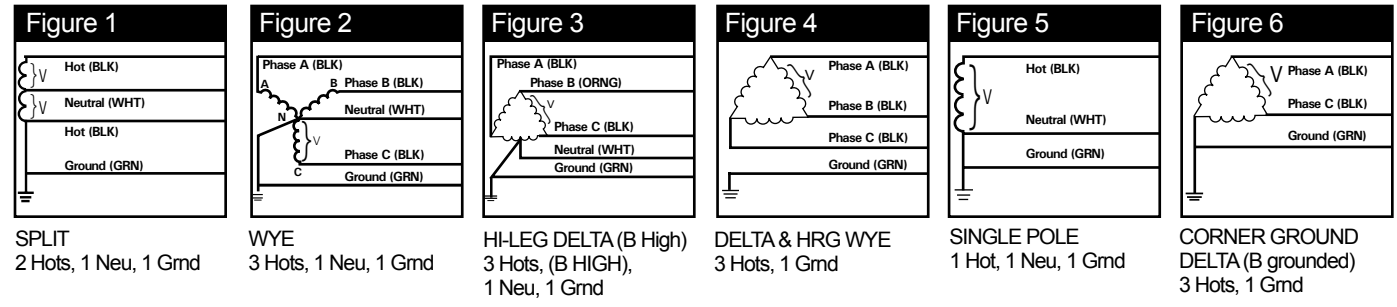
**A = Audible Alarm & Dry Contacts**  
 Form C, 240V, 5A (pre-wired)  
**E = Remote Indicator LED on 3' Cable**  
 (pre-wired through nipple)  
**2 = Type 2 SPD bearing cUL Mark**

Delete Options - Consult Factory for Order Code  
 Delete L-N Protection (reduces kA rating)  
 Delete L-G Protection (reduces kA rating)  
 Delete N-G Protection (reduces kA rating)

**Other Available Systems - Confirmation encouraged:**  
 15 = 254/127V Split Phase - 1Ø 3W+Grnd (Fig 1)  
 18 = 480/240V Split Phase, or Two legs of Wye (Call)  
 21 = 220Y/127V Wye - 3Ø 4W+Grnd (Fig 2)  
 41 = 520Y/300V Wye - 3Ø 4W+Grnd (Fig 2)  
 42 = 415Y/240V Wye - 3Ø 4W+Grnd (Fig 2)  
 43 = 400Y/230V Wye - 3Ø 4W+Grnd (Fig 2)  
 44 = 440Y/250V Wye - 3Ø 4W+Grnd (Fig 2)  
 51 = 480V B Corner Gmd Delta, 3Ø 3W+Grnd (Fig 6)  
 06 = 240V Delta - 3Ø 3W+Grnd (Fig 4)  
 61 = 240V B Corner Gmd Delta, 3Ø 3W+Grnd (Fig 6)  
 07 = 380Y/220V Wye - 3Ø 4W+Grnd (Fig 2)  
 09 = 600V Delta - 3Ø 3W+Grnd (Fig 4) & HRG Wye  
 91 = 600V B Corner Gmd Delta, 3Ø 3W+Grnd (Fig 6)  
 11 = 120V Single Phase (Fig 5)  
 12 = 240V Single Phase (Fig 5) - Not split phase  
 13 = 127V Single Phase (Fig 5)  
 14 = 300V Single Phase (Fig 5)  
 16 = 277V Single Phase (Fig 5)  
 17 = 480V Single Phase (1 Hot, 1 Neu, 1 Gmd) (Fig 5)

**Enclosure Rating**  
**4X = NEMA 4X Non-Metallic (size 8" x 3"x 3")**

Available Accessory (order separately)  
 FMKITC = Flush Mount Kit  
 RM = Remote Monitor



## Performance Data

Common North American Systems	UL 1449 THIRD Edition (Sept 2009) Test Data							
	Voltage Protection Ratings (VPR - 3kA)							
	L-N	L-G	N-G	L-L	Type	In	SCCR	MCOV
01 = 240/120V Split Phase	600	700	500	1000	Type 1	20kA	100kA	150
02 = 208Y/120V 3Ø Wye	600	700	500	1000	Type 1	20kA	200kA	150
03 = 240Y/120V B High Leg Delta	600/1200	700/1200	500	1000	Type 1	20kA	200kA	150 / 320
04 = 480Y/277V 3Ø Wye	1200	1200	1000	1800	Type 1	20kA	200kA	320
05 = 480V 3Ø Delta	-	1800	-	1800	Type 1	10kA	200kA	550
08 = 600Y/347V 3Ø Wye	1500	1500	1500	2500	Type 1	10kA	200kA	420

**Other Available Systems:**  
 Please see supplementary data sheet, contact us at [info@aptvss.com](mailto:info@aptvss.com),  
 or confirm at [www.UL.com](http://www.UL.com) using CCN of VZCA

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