

Features:

- UL 1449 Third Edition Listed
- 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 (L-N/L-G, N-G)
100kA/phase
- 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 applications, the highest exposure to surge activity
- 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
- RoHS-compliant
- IEC 61643, CE
- 10 year warranty
- Burn-In tested Prior to Shipment
- ISO 9001:2000 Quality Management System
- ISO 17025:2005 Laboratory Qualification
- Made in USA



TE XCS Model Number Configurator & Options

TE 02 XCS 10 4X A M

Voltage Code for Electrical System

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)

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 Grnd Delta, 3Ø 3W+Grnd (Fig 6)
- 06 = 240V Delta - 3Ø 3W+Grnd (Fig 4)
- 61 = 240V B Corner Grnd 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 Grnd 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 Grnd) (Fig 5)

Surge Current Rating

10 = 100kA/Phase

Enclosure Rating

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

Options

- A = Audible Alarm & Dry Contacts
Form C, 240V, 5A (pre-wired)
- E = Remote Indicator LED on 6' 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)

Available Accessory (order separately)

- FMKITC = Flush Mount Kit
- RM = Remote Monitor

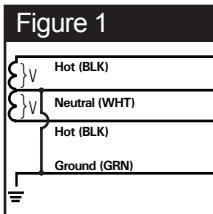


Figure 1
SPLIT
2 Hots, 1 Neu, 1 Grnd

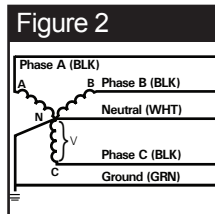


Figure 2
WYE
3 Hots, 1 Neu, 1 Grnd

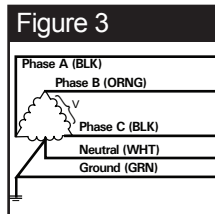


Figure 3
HI-LEG DELTA (B High)
3 Hots, (B HIGH),
1 Neu, 1 Grnd

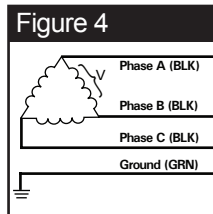


Figure 4
DELTA & HRG WYE
3 Hots, 1 Grnd

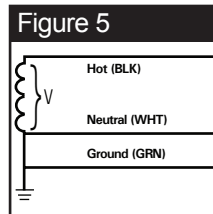


Figure 5
SINGLE POLE
1 Hot, 1 Neu, 1 Grnd

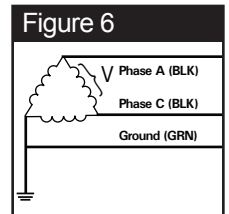


Figure 6
CORNER GROUND
DELTA (B grounded)
3 Hots, 1 Grnd

Performance Data

| Common Voltages | 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 |
| 07 = 380Y/220V Wye | 1200 | 1200 | 1000 | 1800 | Type 1 | 20kA | 200kA | 320 |
| 21 = 220Y/127V Wye | 600 | 700 | 600 | 1000 | Type 1 | 20kA | 200kA | 180 |

Other Available Systems:

Please see supplementary data sheet, contact us at info@pqglobal.com, or confirm at www.UL.com using CCN of VZCA

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