

Surge Protective Device



Features:

- UL 1449 Fourth Edition Listed
- 50kA 8 x 20µs
- All UL required OCP & Safety Coordination included inside
 - Type 1 SPDs intended for Line or Load Side of Main Disconnect
- 200kA SCCR (most models)
- Complies with UL 96A 12th Edition master label requirements for lightning protection systems
- Voltage Specific Design: Performs better than 'one-size fits all'
- Tri-Mount Installation for more mounting flexibility:
 - Same unit mounts on Pipe Nipple, Bracket or DIN-Rail
- Visual Diagnostics: Easy to See; Easy to Understand
- 10-year limited warranty

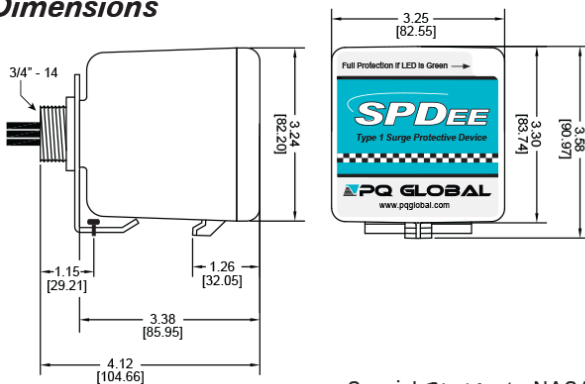
Performance Specifications

- 50kA 8 x 20µs Per Mode
- UL 1449 tested Inominal: 20kA (highest available)
- UL 1449 tested SCCR: 200kA (most models)
- Individually Fused & Thermally Protected MOVs
- UL 1449 Voltage Protection Ratings (VPRs):
 - 600V for 120V, 120/240, 208Y/120
 - 1000V for 277V, 480Y/277V
- Repetitive Impulse: 5000 - 3kA - 8 x 20µs; 1000 - 10kA - 8 x 20µs
- Data table on backpage
- N-G protection
- Dry Contact connection leads exit through nipple via #18 AWG

Physical Specifications

- Relative Humidity Range: 0 - 95% non-condensing
- Operating Frequency: 47 - 63Hz
- Peak Operating Temperature: +85°C (185°F)
- Typical Operating Temperature: -25°C (-13°F) to +60°C (140°F)
- Response Time: < 1nanosecond
- Solid State Bi-directional Operation
- NEMA 4X Polycarbonate Enclosure—UL746C(f1), UL 94-5VA
- Pre-wired with 3' (1m) of #10 AWG conductor
- Typical Connection: #10 AWG to 30A breaker

Dimensions



Special *Thank You* to NASA/SATOP for design assistance & validation

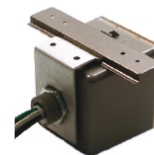
Green = Go Visual Diagnostic Monitoring

- Green LED = OK, Out = replace
- LED Visible from Multiple Sides & Angles - Better Viewing
- Every MOV is Monitored as opposed to 'power is present'

Tri-Mount Installation



Std. 3/4" - 14 Nipple



DIN-Rail Mount (rail not incl.)



Bracket Mount for flat surfaces

Quality, Standards & Validation

- 10 year warranty (longer optional)
- UL 1449 4th Edition file: VZCA.E321351 at www.UL.com, cUL
- Type 1: UL 1449 Fourth Edition, CSA 22.2 No. 269.1
- ANSI/IEEE C62.41.1-2002, C62.41.2-2002, C62.45-2002, C62.62-2010 and C62.72-2016
- NEMA LS-1
- IEC 61643, CE
- Burn-In tested prior to shipment
- ISO 9001:2008 Certified Quality Management System
- ISO 17025:2005 Certified Test Lab
- RoHS-compliant

SPDEE MODEL NUMBER CONFIGURATOR & OPTIONS

S **50** **A** **NQ**
(Default)

Surge Current Rating

50 = 50kA/Phase

EXAMPLE:

S50A277V3YND

50kA, 277V, 3 pole (480Y/277V) with N-G protection, dry contacts and audible alarm

Voltage

120V
127V
240V
277V
480V

System

1P = One Pole, Single Phase
2P = Two Pole, Split Phase
3Y = Three Pole Wye
3D = Three Pole Delta

SPDEE Performance Data

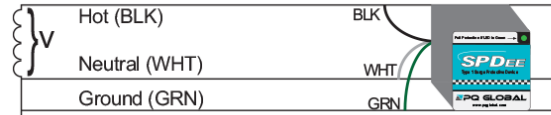
MODEL	System Voltage & Config	UL 1449 Fourth Edition Voltage Protection Rating VPR 3000A				I _n	SCCR	MCOV
		L-N	L-L	N-G	L-G			
		S50A120V1PNQ	120V	700	600			
S50A127V2PNQ	120V/240V	700	1200	600	1200	20kA	200kA	150
S50A127V3YNQ	208Y/120V	700	1200	600	1200	20kA	200kA	150
S50A120V1PNQ	127V	700	600	1200	20kA	100kA	180	
S50A127V2PNQ	127/254V	700	1200	600	1200	20kA	100kA	180
S50A127V3YNQ	220Y/127V	700	1200	600	1200	20kA	100kA	180
S50A240V1PNQ	240V-1 pole	1200	1000	1800	20kA	200kA	320	
S50A240V3DQ	240V Delta - 3 pole	1500	1200	20kA	200kA	320		
S50A277V3YNQ	480Y/277V	1200	2000	1000	1800	20kA	200kA	320
S50A480V3DQ	480V Delta - 3 pole	3000	1800	20kA	200kA	550		

SPDEE Application Guide

SYSTEM CONFIGURATION

INSTALLED >10'(3m) FROM SERVICE ENTRANCE OR TRANSFORMER
Downstream of N-G Bond - N-G protection suggested

1 Pole - Single



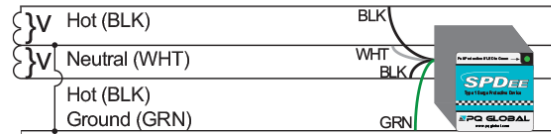
Voltage

V= 120V
V= 127V
V= 240V
V= 254V

Model Number

S50A120V1PNQ
S50A120V1PNQ
S50A240V1PNQ
S50A240V1PNQ

2 Pole - Split Phase



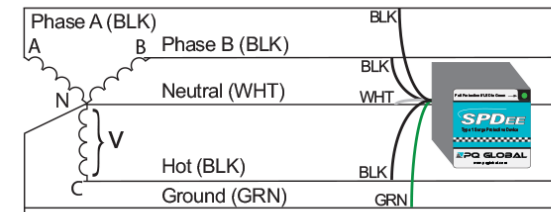
Voltage

V= 120V (120/240V)
V= 127V (127/254V)

Model Number

S50A127V2PNQ
S50A127V2PNQ

Wye



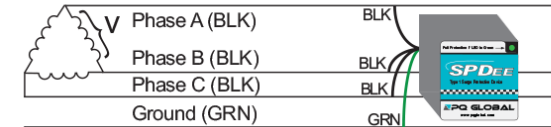
Voltage

V= 120V (208Y/120V)
V= 127V (220Y/127V)
V= 220V (380Y/220V)
V= 277V (480Y/277V)

Model Number

S50A127V3YNQ
S50A127V3YNQ
S50A277V3YNQ
S50A277V3YNQ

Delta



Voltage

V= 240V
V= 480V

Model Number

S50A240V3DQ
S50A480V3DQ

Corner Grounded Delta?

Use same models & connect one SPD black & green to ground (diagnostics will function correctly)

