



Benefits:

- UL 1449 Fourth Edition Listed
- 160kA – 1,000kA per phase ratings (80kA-500kA per mode)
- All UL required OCP & Safety Coordination included inside
 - Type 1 SPDs intended for Line or Load Side of Main Disconnect
 - Type 2 SPDs intended for Load Side of Main Disconnect
- 20kA Inominal
- 200kA SCCR
- UL 96A Lightning Protection Master Label compliant
- Redundant Replaceable Module Design
- Optional Rotary Disconnect Switch
- Voltage Specific Design – Highly configurable
- All MOV suppression elements monitored
- All Modes of Protection
- 10 Year Parts, 5 Year Labor Warranty (longer optional)

Performance Specifications

Surge Capacities	L-N	L-G	N-G
160kA Per Phase (80kA Per Mode)	80kA	80kA	80kA
250kA Per Phase (125kA Per Mode)	125kA	125kA	125kA
320kA Per Phase (160kA Per Mode)	160kA	160kA	160kA
400kA Per Phase (200kA Per Mode)	200kA	200kA	200kA
500kA Per Phase (250kA Per Mode)	250kA	250kA	250kA
750kA Per Phase (375kA Per Mode)	375kA	375kA	375kA
1000kA Per Phase (500kA Per Mode)	500kA	500kA	500kA
UL 1449 Fourth Edition Listed Type 1 or Type 2			
UL 1449 Fourth Edition tested Inominal (I _n): 20kA			
UL 1449 Fourth Edition tested SCCR: 200kA			
UL 1449 Fourth Edition Voltage Protection Ratings (VPRs):			
– 208Y/120V: as low as 700V			
– 480Y/277V: as low as 1000V (data table on back)			
EMI/RFI Filtering Noise Rejection:			
– 63dB Maximum – UL 1449 Type 2 SPD (UL 1283)			
– 25dB Maximum – UL 1449 Type 1 SPD			
Less than 1 nanosecond response time			

Diagnostic Monitoring

100% monitoring – Every MOV is monitored, incl. N-G
Green LED Status indicator per phase (Redundant LEDs on modules)
Red LED service indicator
Built-in Automated Test Function, Audible Alarm with Silence Switch
Form C Dry Contacts, Two Sets, 250V, 5A
Optional Surge Counter & Dual Surge Counters; 6 digit, w/test & reset
Available Active Surge Monitor (ASM), see pub. DS-70137 & SL-70109

Physical Specifications

Relative Humidity Range: 0 – 95% non-condensing
Operating Frequency: 47-63Hz
Operating Temperature: -35°C - +80°C
Standard NEMA 1/12/3R/4 Steel Enclosure
Size/Weight vary by Surge Capacity & Disconnect Switch:
– Min: 16" x 12" x 9" (406mm x 305mm x 229mm), 35lbs (16kg)
– Max: 20" x 20" x 9" (508mm x 508mm x 229mm), 85lbs (39kg)
Lug size: #14 - #1/0 AWG (Opt. Disconnect: #8 - #1/0 AWG)
Typical connection: #4 AWG and 30-70A circuit breaker

Design Attributes

Designed, Manufactured & Tested consistent with:
– ANSI/IEEE C62.41.1-2002, C62.41.2-2002, C62.45-2002, C62.62-2010, C62.72-2016, IEEE SA 1100-2005 (Emerald Book)
– NEC® Article 285
– NEC® Articles 620.51(E), 645.18, 670.6, 695.15, 700.8 & 708 requiring SPDs
– UL 96A and NFPA 780 Lightning Protection
High Energy Parallel Design for Category C High applications
For External Mounting on Electrical Distribution Equipment, Switchgear, Switchboards, Motor Control Centers, Panelboards, Transfer Switches, etc.
Individually Fused & Thermally Protected MOVs
Robust 25mm round Phenolic Coated MOV Construction
Solid State Bidirectional Operation

Third Party Testing

Single Impulse Tested - Third Party Verified (former NEMA LS-1 style). To Each Mode's Rating Up To Surge Generator Limit Of 200kA	
Life Cycle Surge Testing (Repetitive Impulse Testing):	
160kA-240kA	15,000 IEEE C High 20kV, 10kA impulses Per Mode 30,000 IEEE C High 20kV, 10kA impulses Per Phase
320kA-500kA	30,000 IEEE C High 20kV, 10kA impulses Per Mode 60,000 IEEE C High 20kV, 10kA impulses Per Phase
750kA-1000kA	45,000 IEEE C High 20kV, 10kA impulses Per Mode 90,000 IEEE C High 20kV, 10kA impulses Per Phase

Quality, Standards & Validation

Type 1 UL 1449 Fourth Edition
Type 2 (Opt.) UL 1449 Fourth Edition, UL 1283, cUL for Canada
UL file: VZCA.E324279
Burn-in tested prior to shipment
ISO 9001:2008 Quality Management System
ISO 17025:2005 Laboratory Qualification

Model 560 Ordering Options

Connection	Monitoring	Surge Current Per Phase	Base Catalog Number	Enclosure		
				AxB	B	D
Lugs	Lights, Alarm, Contacts	160kA	510 Unit or 560□□□□P16ACAG□0	16" x 12"	17.25"	9.5"
		200kA	560□□□□P20ACAG□0			
		250kA	560□□□□P25ACAG□0			
		320kA	560□□□□P32ACAG□0			
		400kA	560□□□□P40ACAG□0			
	Counter, Lights, Alarm, Contacts	160kA	560□□□□P16ACCG□0	16" x 12"	17.25"	9.5"
		200kA	560□□□□P20ACCG□0			
		250kA	560□□□□P25ACCG□0			
		320kA	560□□□□P32ACCG□0			
		400kA	560□□□□P40ACCG□0			
	Dual Counter, Lights, Alarm, Contacts	160kA	560□□□□P16ACDG□0	16" x 12"	17.25"	9.5"
		250kA	560□□□□P25ACDG□0			
		320kA	560□□□□P32ACDG□0			
		400kA	560□□□□P40ACDG□0			
		500kA	560□□□□P50ACDG□0			
	Active Surge Monitor (ASM)	160kA	560□□□□P16ACCG□0	16" x 16"	17.25"	10"
		200kA	560□□□□P20ACCG□0			
		250kA	560□□□□P25ACCG□0			
		320kA	560□□□□P32ACCG□0			
		400kA	560□□□□P40ACCG□0			
Disconnect	Lights, Alarm, Contacts	160kA	560□□□□P16ACTG□0	16" x 16"	17.25"	9.5"
		250kA	560□□□□P25ACTG□0			
		320kA	560□□□□P32ACTG□0			
		400kA	560□□□□P40ACTG□0			
		500kA	560□□□□P50ACTG□0			
	Counter, Lights, Alarm, Contacts	160kA	560□□□□P16ATAG□0	20" x 16"	21.25"	10"
		200kA	560□□□□P20ATAG□0			
		250kA	560□□□□P25ATAG□0			
		320kA	560□□□□P32ATAG□0			
		400kA	560□□□□P40ATAG□0			
	Dual Counter, Lights, Alarm, Contacts	130kA	560□□□□P13ATCL□0	16" x 16"	17.25"	10"
		160kA	560□□□□P16ATCL□0			
		200kA	560□□□□P20ATCL□0			
		250kA	560□□□□P25ATCL□0			
		320kA	560□□□□P32ATCL□0			
	Active Surge Monitor (ASM)	160kA	560□□□□P16ATCG□0	20" x 16"	21.25"	10"
		200kA	560□□□□P20ATCG□0			
		250kA	560□□□□P25ATCG□0			
		320kA	560□□□□P32ATCG□0			
		400kA	560□□□□P40ATCG□0			
Dual Counter, Lights, Alarm, Contacts	160kA	560□□□□P16ATDG□0	20" x 20"	21.25"	14"	
	250kA	560□□□□P25ATDG□0				
	320kA	560□□□□P32ATDG□0				
	400kA	560□□□□P40ATDG□0				
	500kA	560□□□□P50ATDG□0				
Active Surge Monitor (ASM)	160kA	560□□□□P16KATG□0	24" x 20"	21.25"	18"	
	250kA	560□□□□P25KATG□0				
	320kA	560□□□□P32KATG□0				
	400kA	560□□□□P40KATG□0				
	500kA	560□□□□P50KATG□0				
Dual Counter, Lights, Alarm, Contacts	160kA	560□□□□P16ATTG□0	10" x 16"	21.25"	10"	
	250kA	560□□□□P25ATTG□0				
	320kA	560□□□□P32ATTG□0				
	400kA	560□□□□P40ATTG□0				
	500kA	560□□□□P50ATTG□0				
Active Surge Monitor (ASM)	160kA	560□□□□P16KATG□0	20" x 20"	21.25"	14"	
	250kA	560□□□□P25KATG□0				
	320kA	560□□□□P32KATG□0				
	400kA	560□□□□P40KATG□0				
	500kA	560□□□□P50KATG□0				
Dual Counter, Lights, Alarm, Contacts	160kA	560□□□□P16KATTG□0	24" x 20"	21.25"	18"	
	250kA	560□□□□P25KATTG□0				
	320kA	560□□□□P32KATTG□0				
	400kA	560□□□□P40KATTG□0				
	500kA	560□□□□P50KATTG□0				

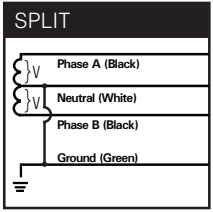
Choose Voltage Code

Indicate UL Type 1 or 2

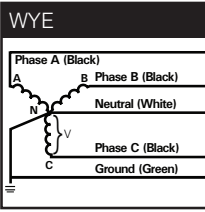
Voltage Code

120/240V Split Phase	120S
208Y/120V Wye	120Y
240V Delta	240D
120/240V Delta High Leg	240H
480Y/277V Wye	277Y
480V Delta	480D

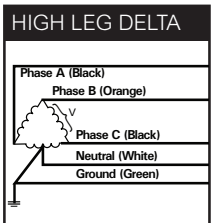
Note - Additional system voltages are available, please contact factory.



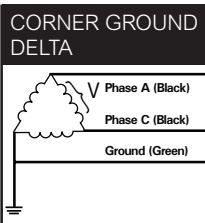
2 Phases, 1 Neutral, 1 Ground



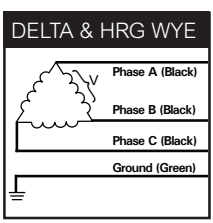
3 Phases, 1 Neutral, 1 Ground



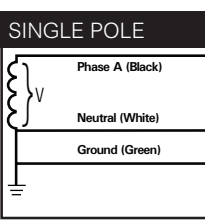
(B High) 3 Phases, (B High) 1 Neutral, 1 Ground



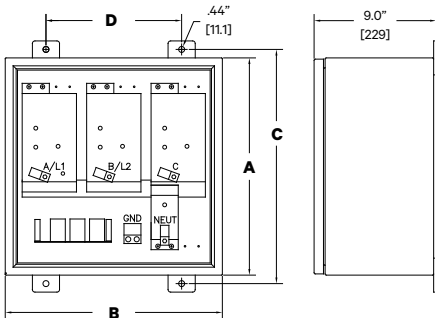
(B grounded) 2 Phases, 1 Ground



3 Phases, 1 Ground



1 Phase, 1 Neutral, 1 Ground



Performance Data

Common Power Systems	UL 1449 Fourth Edition Test Data						
	Voltage Protection Ratings (VPR - 3kA)				I _n	SCCR	MCOV
	L-N	L-G	N-G	L-L			
120S = 240/120V Split Phase	700V	700V	700V	1000V	20kA	200kA	150
120Y = 208Y/120V 3Ø Wye	700V	700V	700V	1000V	20kA	200kA	150
240H = 240/120V B High Leg Delta	700/1200V	700/1200V	700V	1000/1500V	20kA	200kA	150 / 320
277Y = 480Y/277V 3Ø Wye	1000V	1200V	1000V	1800V	20kA	200kA	320
480D = 480V Delta	—	1800V	—	1800V	20kA	200kA	552

Optional rotary disconnect switch may increase VPRs