

# ACT Surge Stryker 455 Family

## 7-Mode Hardwired Primary AC Surge Protection Device



▶ The Full Featured Surge Stryker Family is a high performance surge protector designed for critical panel locations. The SPD incorporates high-energy MOVs with the best performing AC filter on the market to provide protection against transients originating from induced lightning strikes, utility switching and facility power noise.

Real-time diagnostics include LED fault indicators for each phase, as well as an optional alarm that includes red LED, dual Form C dry contacts for remote indication and an audible alarm, so you always know the Surge Stryker Protector is at full capacity.

Housed in a rugged NEMA 12/4X enclosure, these devices are suitable for harsh indoor or outdoor applications. The ACT 455 Family is available for all voltages and configurations up to 480Vac.

### ▶ AC PANEL PROTECTION

- Available in 080, 100, 160, 200 kA per modes (160, 200, 320, 400 kA per phase)
- All modes of protection
- 200 kAIC Fault Current Rating
- Advanced EMI/RFI Noise Filtering (-45dB) 3kHz - 1MHz
- 5-Year warranty (10-year optional)
- 3rd Party Tested - 5,000 (C3 20 kV/10 kA)
- Optional 30amp fuse allows direct connect to power bus

### ▶ CHARACTERISTICS

Surge Handling (Imax)	Up to 200 kA/mode 400kA/phase
All Mode Protection (7 modes)	L-N, L-G, N-G, L-L
Response Time	<5 nanoseconds
Green LED Indicators	Yes
EMI/RFI Noise Rejection (option)	-45dB and -55dB (see chart)
Surge Counter (s) (Option)	4-digit resettable transient counter
Optional Alarms (Red LED, Audible, Relay)	Yes
Remote Signalling	Form C dry contacts – NC & NO

### ▶ STANDARDS & GUIDELINES

Listed by ETL for UL 1449 3rd edition	USA
ANSI/IEEE C62.41	USA
Tested to UL 1283 Power Filters	

### ▶ RECOMMENDED LOCATION

- Type 1 & Type 2 Location
- Cell Sites, Well Pumps / Cat C
- Distribution Equipment / Cat B
- Branch Panels / Cat B
- Point of Use / Cat A
- Residential / Cat C

**EXAMPLE:**     **ACT455-277Y-100-F-A-C1**  
Wall mounted protector at 100kA/mode,

#### FEATURES:

Surge Rating (kA) by Mode:	080, 100, 160, 200
Enclosure Type:	Painted Steel NEMA 12/4X – Standard no option code Stainless Steel - SSENC
Optional Alarms	Alarm LED, Remote Relay & Audible – A
Optional Filter	-45 dB EMI / Noise Filter – F -55 dB Advanced EMI / Noise Filter – FA
Optional Counter(s)	Surge Counter(s) – C1 (resettable)
Optional Fuseable Disconnect	Built-in 600V 30Amp fuse – FSE
Optional Mounting	Bottom Fed – BF

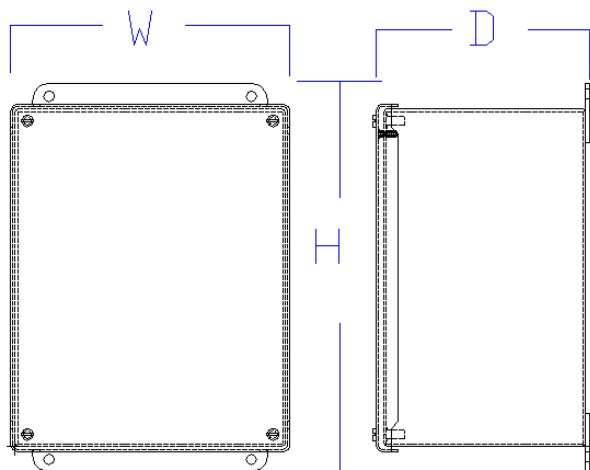
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Part Number	ConConfiguration	MCOV	IEEE C62 8x20uS 500 A – UC 2nd Edition				IEEE C62 8x20uS 3000 A – UC 3rd Edition			
			L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L
455-120S	120/240 Vac 3W+G	150V	500	500	500	1000	700	700	700	1400
455-120Y	120/208 Vac 4W+G	150V	500	500	500	1000	700	700	700	1400
455-277Y	277/480 Vac 4W+G	320V	800	800	800	1600	1000	1000	1000	2000
455-240D	240 Vac 3W+G, delta	320V/550V	-	800	-	1600	-	1000	-	2000
455-240H	120/240 Vac 4W+G, delta HL PHB	150V/ 240V	500/800	500/800	500	1000	700/1000	700/1000	700	1400
455-480D	480 Vac 3W+G, delta	550V/1200V		1600		3200		2500		3200

7 Mode 455 Model Numbers		
Model No.	System Voltage	Service Configuration
455-120-XXX	120 VAC	1 PHASE, 2 WIRE, W/GROUND
455-240-XXX	240 VAC	1 PHASE, 2 WIRE, W/GROUND
455-120S-XXX	120/240 VAC	1 PHASE, 3 WIRE SPLIT PHASE, W/GROUND
455-120Y-XXX	120/208 VAC	3 PHASE, 4 WIRE WYE, W/GROUND
455-220Y-XXX	220/380 VAC	3 PHASE, 4 WIRE WYE, W/GROUND
455-277Y-XXX	277/480 VAC	3 PHASE, 4 WIRE WYE, W/GROUND
455-240H-XXX	120/240 VAC B PHASE IS 208V	3 PHASE, HIGH-LEG DELTA, W/GROUND
455-240D-XXX	240VAC	3 PHASE, 3 WIRE DELTA, W/GROUND
455-380D-XXX	380 VAC	3 PHASE, 3 WIRE DELTA, W/GROUND
455-480D-XXX	480 VAC	3 PHASE, 3 WIRE DELTA, W/GROUND

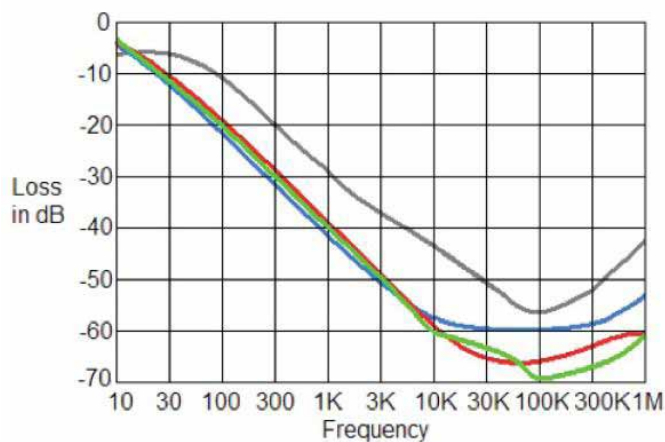
- ▶ Power Quality is more important today than ever before and that means not just any surge protector can be relied on to protect your sensitive equipment. The ACT 455 Family of surge protectors is the perfect design to protect your sensitive electrical and electronic environments.



## TECHNICAL INFORMATION

### ELECTRICAL SPECIFICATIONS

Connection Method	Parallel
Discrete Protection Modes (7)	L-N, L-G, N-G
Protection Modes (10 Modes)	L-N, L-G, L-L, N-G
Pre-Wired	30" Stranded #10 AWG
Status Indicators	Green LED
Optional EMI Filter	-45 dB Noise Reduction
Optional Advanced EMI Filter	-55 dB Noise Reduction
Optional Alarm Relay Contacts	Form C NC & NO
Optional Red LED	Indicates Red when unit is in alarm
Optional Audible Alarm with Silence Switch	Piezo Buzzer



Red & Green lines represent the Advanced Filter Option when compared to leading filter manufacturers.

### DIMENSIONAL SPECIFICATIONS

Dim	ACT 455 – with Special Options*		Dim	ACT 455 – 80, 100, 160, 200	
H3	15.50	(393.7)	H3	10.00	(254)
W1	12.00	(304.8)	W1	8.00	(203.2)
D	6.20	(157.5)	D	6.00	(154.2)

\*With Advanced Filter Option AND Fused Disconnect ordered together.  
ALL MEASUREMENTS IN INCHES (MM)

### MECHANICAL SPECIFICATIONS

Weight	15 lbs
Standard Enclosure	Painted Steel NEMA 12 / 4X
Operating Temp	-40C to +65C
Non-condensing Humidity	5% to 95%
Top Fed Standard with Bottom Fed Optional – BF	
100% Sanded for Increased Safety	

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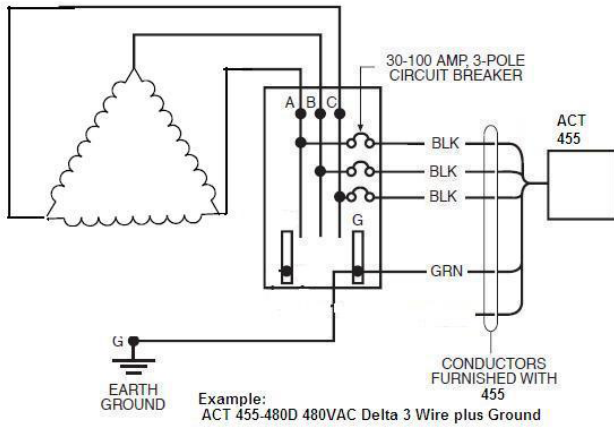
### ▶ PRODUCT SURGE TEST DATA

Voltage Configuration	Protection Mode	MCOV	A1 Ring Wave	B3 Ring Wave	B3/C1 Combo	C3 Combo	UL1449 3rd edition
			2kV/67A	6kV/500A	6kV/3kA	20kV/10kA	6kV/ 3kA
1P 240V	L-N	320V	46.7	460	932V	1100V	1000 V
	L-G	320V	46.5	472	950V	1200V	1000 V
	N-G	320V	52	468	950V	1150V	1000 V
120/240	L-N	150V	46	460	528V	1000V	700V
	L-G	150V	46.5	472	534V	1050V	700V
	N-G	150V	52	468	580V	1075V	700V
120/240 with 240V High Leg	L-N	150V	46	460	528V	1000V	700V
	L-N High	320V	46.7	547	932V	1100V	1000 V
	N-G	150V	52	468	580V	1075V	700V
120/208	L-N	150V	46	460	528V	1000V	700V
	L-G	150V	46.5	472	534V	1050V	700V
	N-G	150V	52	468	580V	1075V	700V
220/380	L-N	320V	46.7	547	932V	1100V	1000 V
	L-G	320V	47.2	520	950V	1200V	1000 V
	N-G	320V	53	560	950V	1150V	1000 V
277/480	L-N	320V	46.7	547	932V	1100V	1000 V
	L-G	320V	46.5	520	950V	1200V	1000 V
	N-G	320V	52	560	950V	1150V	1000 V
240D	L-G	320V	58	547	950V	1105V	1000 V
	L-L	640V	64	1100	1820V	2390V	1800V
380D	L-G	550V	58	1058	1741V	1924V	1800V
	L-L	1100V	82	2100	2331V	3250V	2500V
480D	L-G	550V	58	1058	1741V	1924V	1800V
	L-L	1100V	82	2100	2331V	3250V	2500V

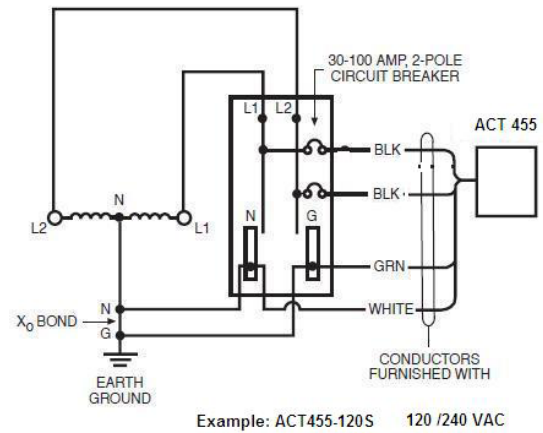
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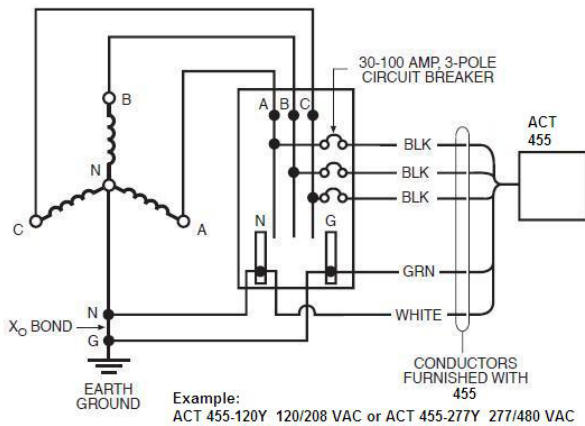
**Figure 1 3 Phase Delta 3W +Ground**



**FIG. 2: Single Phase, 3-Wire (With Neutral)**



**FIG. 3: 3-Phase, 4-Wire WYE**



**FIG. 4: 1-Phase, 2-Wire (Normal)**

