

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.

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

▶ RECOMMENDED LOCATION

- 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

▶ AC PANEL PROTECTION

- Available in 050, 080, 100, 160, 200, 300 kA per modes
- 7 modes of discrete protection (L-N, L-G, N-G)
- 10 modes of protection (L-N, L-G, N-G, L-L)
- 200 kAIC Fault Current Rating
- Advanced EMI/RFI Noise Filtering (-45dB) 3kHz - 1MHz
- 5-Year warranty (10-year optional)
- 3rd Party Tested - 15,000 (C3 20 kV/10 kA)
- Optional 30amp fuse allows direct connect to power bus

▶ CHARACTERISTICS

Surge Handling (Imax)	Up to 300 kA/mode 600 kA/phase
7 Modes of Discrete Protection	L-N, L-G, N-G
10 Modes of Protection	L-N, L-G, N-G, L-L
Response Time	<5 nanoseconds MOV Technology
Green LED Indicators	Yes
EMI/RFI Noise Rejection (option)	-45dB and -55dB (see chart)
Surge Counter (s) (option)	8-digit resettable transient counter
Alarms	
Red LED (option)	Yes
Remote Signalling	Form C dry contacts – NC & NO
Audible (option)	With Shut-off Switch

▶ STANDARDS & GUIDELINES

Listed by ETL for UL 1449 4th edition	USA
ANSI/IEEE C62.41	USA
Listed by ETL for UL 1283 Power Filters	USA
3rd Party to IEC61643-11 CE Mark International	

▶ FEATURES AND OPTIONS

EXAMPLE: ACT 455-277Y-100-F-A-C1

Surge Rating (kA) by Mode:	050, 080, 100, 125, 160, 200, 300
Surge Rating (kA) by Phase:	100, 160, 200, 250, 320, 400, 600
Enclosure Type:	Painted Steel NEMA 12 Standard no option code Stainless Steel - SS
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), C2 (Dual-fixed and resettable)
Optional External Fused Disconnect *	600V 30Amp fuse – D
Optional Mounting	Top Feed – T

*See ACT 455-D Cut Sheet

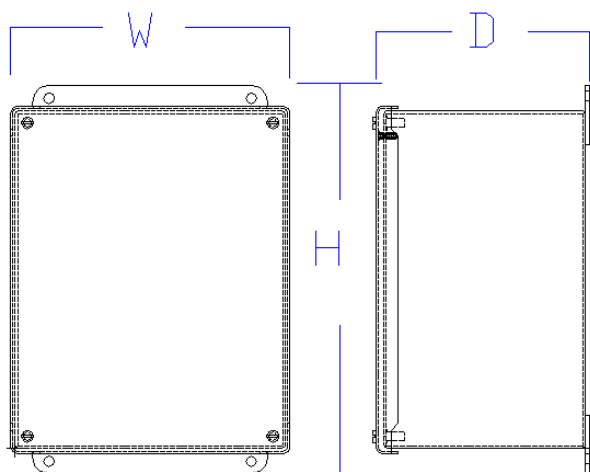
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Part Number	Configuration	MCOV	VPR (Voltage Protection Rating) IEEE C62 – UL 1449 4th Edition			
			L-N	L-G	N-G	L-L
455-120S-XXX	120/240 Vac 3W+G	150V	700	700	700	1000
455-120Y-XXX	120/208 Vac 4W+G	150V	700	700	700	1000
455-277Y-XXX	277/480 Vac 4W+G	320V	1000	1000	1000	1800
455-240D-XXX	240 Vac 3W+G, delta	320V	-	1000	-	1800
455-240H-XXX	120/240 Vac 4W+G, delta HL PHB	150V/320V	700/1000	700/1000	1000	1000/1800
455-480D-XXX	480 Vac 3W+G, delta	600V	-	1800	-	3000

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

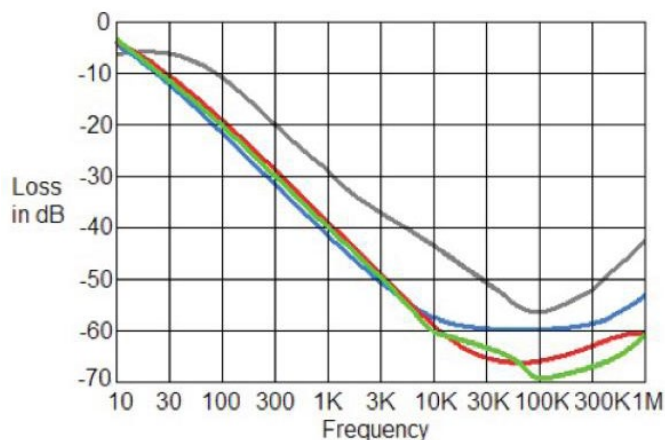
- ▶ Power Quality is more important today than ever before and that means not just any surge protector can be relied on to protect your sensitive equipment. The ACT 455 Family of surge protectors is the perfect design to protect your sensitive electrical and electronic environments.



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	36" 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.

Blue and Grey lines represent popular competitors.

DIMENSIONAL SPECIFICATIONS

Dim	ACT 455 – with Special Options*		Dim	ACT 455 – 50, 80, 100, 125, 160, 200	
H	15.50	(393.7)	H	10.00	(254)
W	12.00	(304.8)	W	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	25 lbs
Standard Enclosure	Painted Steel NEMA 12
Operating Temp	-40C to +65C
Non-condensing Humidity	5% to 95%
Bottom Fed is Standard – Top Fed is Option Code – T	
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 4th 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

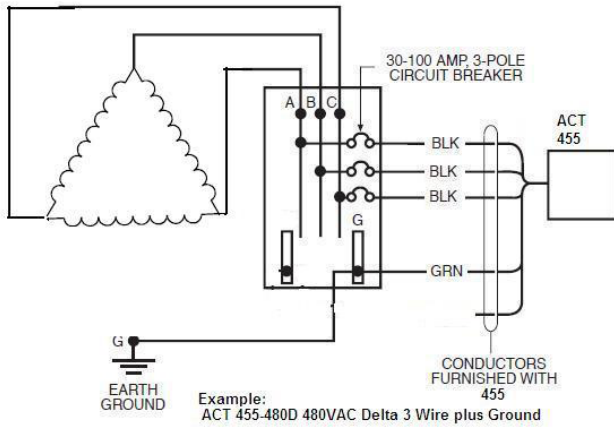


FIG. 2: Single Phase, 3-Wire (With Neutral)

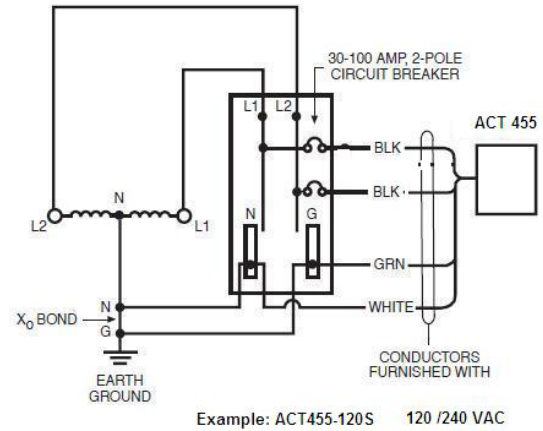


FIG. 3: 3-Phase, 4-Wire WYE

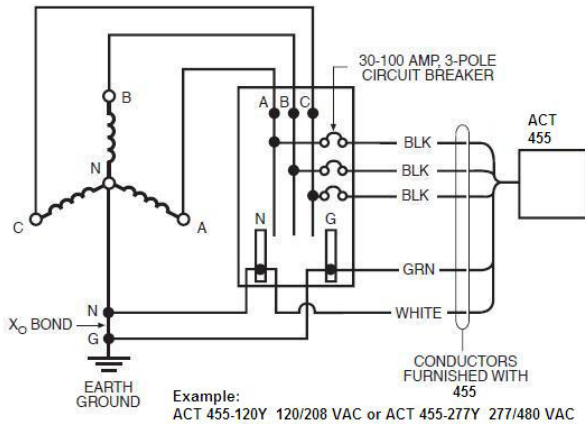


FIG. 4: 1-Phase, 2-Wire (Normal)

