

ACT 471 Surge Seeker Family

A Full-Featured Primary Surge Protection/Filter Device



- ▶ 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 471 Surge Seeker Family is the perfect design to protect your sensitive electrical and electronic environments. This full-featured filter protector protects all phases and modes against transient surges and, with the filter option, is able to reduce induced noise by over 50 dB. **No other company offers as much power quality protection.**

▶ RECOMMENDED LOCATION

- Building Entrance / Cat C
- Primary Surge Protection for a Facility
- Switch Gear
- Motor Control Center

▶ FEATURES AND BENEFITS

- Listed to Type 1 and Type 2
- 200 kAIC rated Fuse or Optional Fused Disconnect
- Up to 300,000 amps per mode modular protection (600,000 per Phase)
- **BEST** built in Filter options in the market
 - Advanced filter targets most common transient surges and damaging medium frequency noises -55dB
- Copper Bus Connected Surge Modules
- Field Replaceable SPD Modules and Fuses
- 10 Modes of Protection (L-N, L-G, N-G, L-L)
 - 7 Modes Discrete (L-N, L-G, N-G)
- Dual Surge Counter Options (Continuous and Resettable)
- Smart Monitoring
 - Diagnostic board tells you Good & Bad Phase protection
- NO / NC Form C Dry Contacts
 - For remote monitoring & control (250V 5A rating)
- Individually Fused and Protected MOV Technology
- NEMA 4 & NEMA 12 Painted Steel Enclosure
- 10 Year Standard Warranty – Options with extended warranty card

MOST ADVANCED MONITORING SYSTEM ON THE MARKET

- Lights (LED) – Green per phase, Red - Alarm
- Audible Alarms
- Relay NO / NC Form C Dry Contacts
- Dual Surge Counters (optional)
- Microprocessor-based Power Quality Meter (optional)
- Logging Capability (optional)
- Event Waveform Capture (optional)

▶ STANDARDS MET

- Listed by ETL for UL 1449 5th Edition
- Noise Filtering – UL 1283
- ANSI/NFPA 70 National Electrical Code

▶ 3RD PARTY TESTED

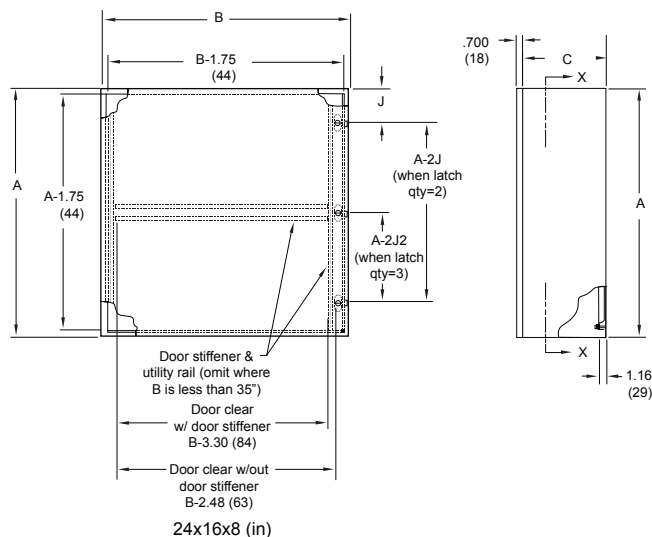
- ACT 471 is tested in all modes at rated currents by independent testing facilities
- Repetitive surge testing per IEEE C62.41.2 C3 combination without any degradation of more than 10% deviation. Greater than 17,000 impulses*

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ACT 471-277Y-240-FA1-M6



TECHNICAL INFORMATION

MECHANICAL SPECIFICATIONS

Dimensions	24x16x8 (in)
Weight (determined by option)	Up to 65 lbs.
Enclosure	NEMA 12/4 Painted Steel
Operating Temp	-40°F to +140°F -40°C to +65°C
Non-condensing Humidity	5% to 95%

ELECTRICAL SPECIFICATIONS

UL Type 1	with fused disconnect option
Connection Method	Parallel
Discrete Protection Modes (7 Modes)	L-N, L-G, N-G
Wired Lugs	Up to 2 AWG
Status Indicators	Working - Green LED's Alarm - Red LED
Dual Alarm Relay Contacts	Form C NC & NO (240V 5A)
Audible Alarm	Turn On/Off Switch
Dual Surge Counters	Continuous & Resettable
Filter (3kHz – MHz)	>-50dB

Part Number	Configuration	MCOV	VPR (Voltage Protection Rating) – IEEE C62 UL 1449 4th Edition			
			L-N	L-G	N-G	L-L
471-120S-XXX-YY	120/240 Vac 3W+G	150V	700	700	700	1000
471-120Y-XXX-YY	120/208 Vac 4W+G	150V	700	700	700	1000
471-277Y-XXX-YY	277/480 Vac 4W+G	320V	1000	1000	1000	1800
471-240D-XXX-YY	240 Vac 3W+G, delta	320V	-	1000	-	1800
471-240H-XXX-YY	120/240 Vac 4W+G, delta HL PHB	150V/320V	700/1000	700/1000	1000	1000/1800
471-480D-XXX-YY	480 Vac 3W+G, delta	600V	-	1800	-	3000

EXAMPLE: ACT 471-277Y-160-D-F-C2-M2

Industrial Series SPD, 277/480 Vac 4W+G, 160 kA/ Mode, Internal Disconnect, EMI/Noise Filter, 2 Surge Counters, V2 option on the Power Quality Meter

OPTIONS:

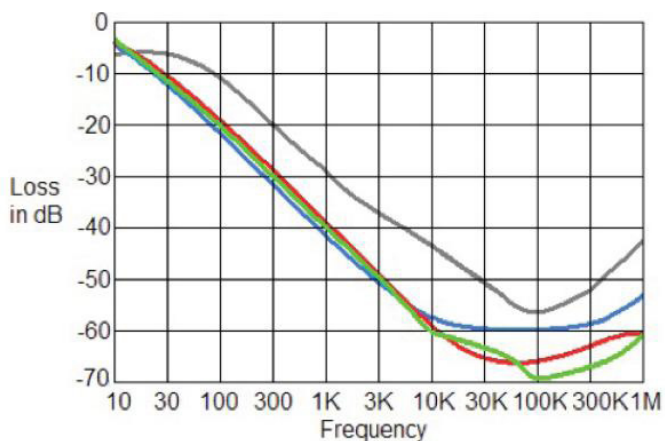
- XXX** Surge Rating (kA) by Mode: 050, 080, 100, 125, 160, 200, 240 or 300
- YY** Enclosure Type: NEMA 12/4 Painted Steel (STANDARD)
Aluminum - **ALM**
Stainless Steel - **SS**
- Internal Disconnect: 600V 100 Amp Quick Fuse - **D**
- Filter(s): EMI/Noise Filter - **F**
Advanced EMI/Noise Filter - **FA1 or FA2**
- Counter(s): Surge Counter - **C1 or C2**
(Continuous or Resettable)
- Microprocessor-based PQ Meter: **M 2-6** number refers to V option
(See ACT M200 specification sheet)

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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



ACT's Advanced Power Filter system is designed to filter frequencies between 3 kHz to 1 Mhz using a broad spectrum band reject filter that out performs most SPD EMI filters on the market. NEMA LS-1 requires evidence of band rejection across a stated spectrum, be sure your EMI filter specification leaves no frequency holes.

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

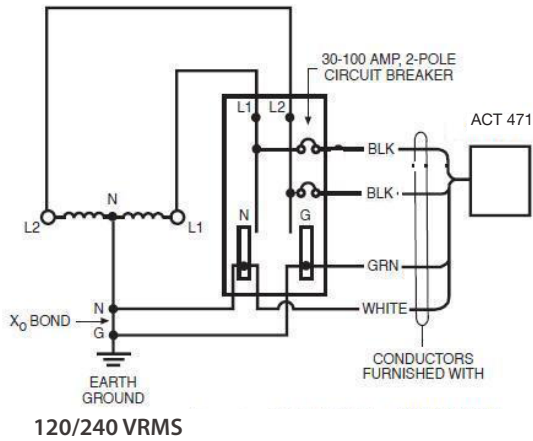
*Tests were conducted with Power Filters installed

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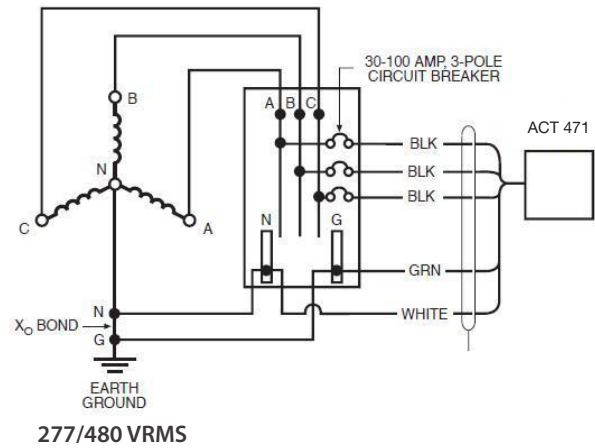
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COMMON ELECTRICAL APPLICATIONS

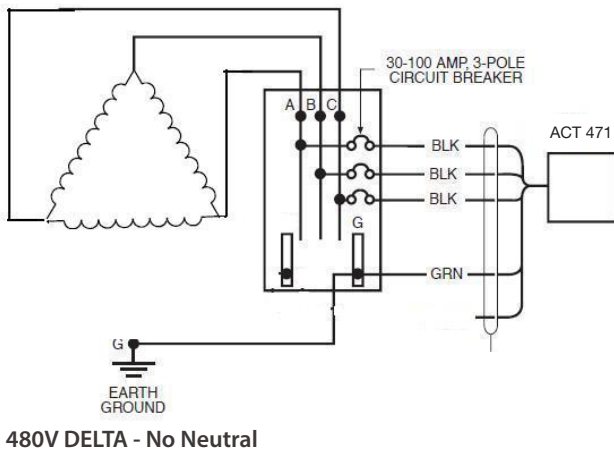
Single Phase, 3-Wire (with Neutral)



3-Phase, 4-Wire WYE



3-Phase, 3-Wire +Ground DELTA



CAUTION:

It is extremely important to know the true voltage on any power panel that a Surge Protection Device is being specified for. If Electrical 1 – Lines do not exist, then it is important for an electrician to verify if the power panel to be protected is 277/480V 4W+G versus 480V 3W+G. While both products look similar, they will only operate correctly if installed in its intended voltage application. Placing any SPD on a 480V Delta system that is not designed for it can cause serious damage to both power filters and SPD devices.