ASCO Pulsar Series

We Keep Your Power On®

Transient Voltage Surge Suppressor

ASCO Pulsar

Facility Wide:
Sine Wave Tracking

Protection consists of implementing high-energy, transient clamping devices, often referred to as Sine Wave Tracking Technology. These high-energy suppression products are placed in parallel with panels that are susceptible to both externally and internally generated transients. The wide range of products available within the ASCO Pulsar family ensures that this line offers specific surge protection levels, voltage/phase configurations, and any mode protection requirement at any panel within your facility. Protecting with this parallel line is an excellent first line of defense in limiting high impulse transients to a level that is acceptable to most electronic equipment.

Using surge suppression to control high-voltage transients.

High-voltage transients, such as those caused by lightning or grid switching, are relatively rare. However, they get more attention than low-voltage events because their ability to cause catastrophic damage is so dramatic. Surge suppressors provide protection from spikes by limiting let-through voltage that could destroy down-stream equipment.

Before: High-voltage spikes appearing on the AC sine Wave.

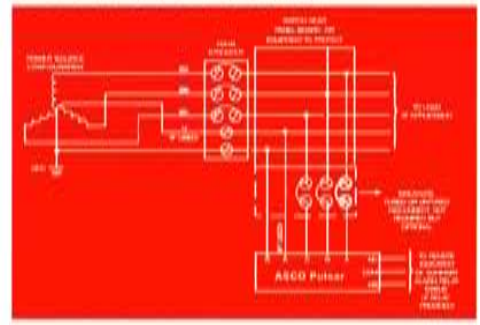
After: Surge suppression limits high-voltage spikes. It's your first line of defense for power quality.

APPLICATION

Asco Pulsar 352 Series
is the ideal SPD for attenuating the level of transients experienced at service entrance and distribution panel locations.

Asco Pulsar 350 Series
offer the ideal physical size and energy handling capability for branch and control panel applications.

RECOMMENDED CONNECTIONS



ASCO Pulsar 352

Modular surge protective device capable of handling the high-impulse, potentially damaging transients commonly found at the service entrance or distribution panels. Its robust design allows for placement and protection in the most severe exposure locations.

FEATURES

- Surge current capactiy – 200,000 to 400,000 Amps per phase
- Replaceable modules ensure protection mode flexibility
- Easy, safe and maintenance free operation
- All voltage and phase configurations
- Life cycle testing (8 x 20µs impulse) Cat C
- Unique MOV/Silver link fuse array enable to deliver the industry's most robust design. Coordination between fuse gauge and MOV ensures repeatable strike performance
- ANS/IEEE C62.41 Category A,B & C3 Compatible
- Status indication includes: audible alarm, form C contact, and internal/external status indication
- ISO 9001 - certified manufacturing and tested
- Optional equipement includes rotary disconnect, surge counter, NEMA 3R, 4 or 4X encloures
- 5 year warranty

ASCO Pulsar 351

A compact surge protective device designed to protect electronic equipment and microprocessor-based systems from transients on distribution and sub-distribution panels, or any medium exposure locations.

FEATURES

- Surge current capacity – 100,000 to 160,000 Amps per phase
- All mode and 2 mode protection option
- Small footprints
- All voltage and phase configurations
- NEMA 4 metal enclosure
- Form C contact for remote indication, LED status indication.
- Easy, safe and maintenance free operation
- ANS/IEEE C62.41 Category A,B & C3 Compatible
- ISO 9001 - certified manufacturing and tested

- Life cycle testing (8 x 20µs impulse) Cat C
- Sand encapsulation
- Thermal protection
- Silver link fusing
- 5 year warranty

ASCO Pulsar 350

Electronic grade surge protective device designed to protect electronic equipment and microprocessor-based systems from transients on sub-distribution panels, branch panels, or equipment located in low exposure locations.

FEATURES

- Surge current capacity – 50,000 to 80,000 Amps per phase
- All mode protection
- NEMA 4 metal enclosure
- All voltage and phase configurations
- LED status indication and form C contact for remote indication
- ANS/IEEE C62.41 Category A,B & C3 Compatible
- ISO 9001 - certified manufacturing and tested
- Life cycle testing (8 x 20µs impulse) Cat C
- Sand encapsulation
- Thermal protection
- Silver link fusing
- 5 year warranty

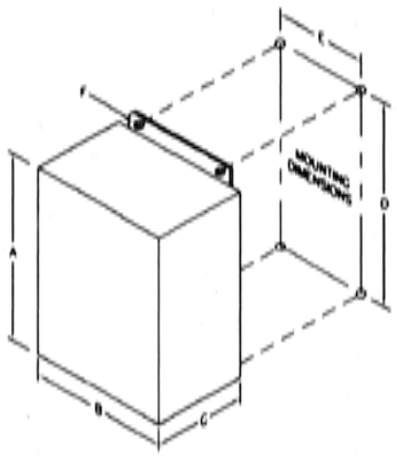
GENERAL TECHNICAL SPECIFICATIONS

Pulsar 352 Series

Operating Voltage Range	+/- 15%
Fault Current Rating (AIC)	200 kAIC
Operating Frequency Range	47 - 63 Hz
Capacity	Continuous
50Ω EMI/RFI Attenuation	50 dB

Response Time	< 0.5 ns
Operating Temperature	-40°C to 50°C
Operating Humidity	0% to 95%
Certifications	UL 1449 2nd edition, 1283CUL
Warranty	5 Year

MODEL	A	B	C	D	E	F
352xxxY400	20	16	9	16.75	12	.31
352xxxD400	16	14	8	16.75	12	.31
352xxxY200	20	16	9	16.75	12	.31
352xxxD200	16	14	8	16.75	12	.31



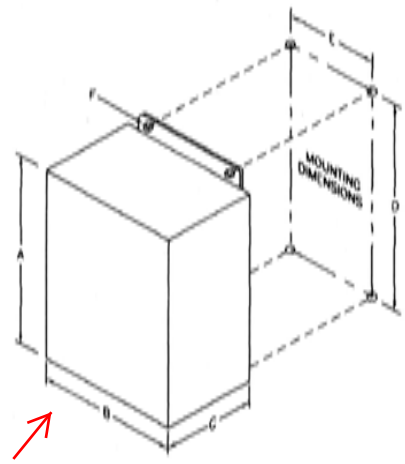
DIMENSIONAL DIAGRAM

Pulsar 351 Series

Operating Voltage Range	+/- 15%
Fault Current Rating (AIC)	65 kAIC
Operating Frequency Range	47 - 63 Hz
Capacity	Continuous
50Ω EMI/RFI Attenuation	40 dB
Dry Contact Rating	125 VAC, 8A, 1.0 pf

Response Time	< 0.5 ns
Operating Temperature	-45°C to 50°C
Operating Humidity	0% to 95%
Certifications	UL 1449 2nd edition, 1283CUL
Warranty	5 Year

MODEL	A	B	C	D	E	F
351xxxY160	6	4	3	6.75	2	.31
351xxxD160	6	4	3	6.75	2	.31
351xxxY100	6	4	3	6.75	2	.31
351xxxD100	6	4	3	6.75	2	.31

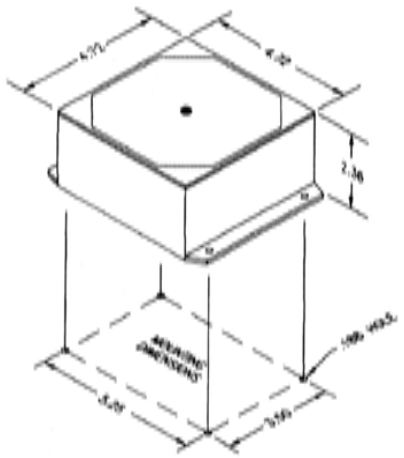


DIMENSIONAL DIAGRAM

Pulsar 350 Series

Operating Voltage Range	+/- 15%
Fault Current Rating (AIC)	14 kAIC
Operating Frequency Range	47 - 63 Hz
Capacity	Continuous
50Ω EMI/RFI Attenuation	40 dB
Dry Contact Rating	125 VAC, 8A, 1.0 pf

Response Time	< 0.5 ns
Operating Temperature	-40°C to 50°C
Operating Humidity	0% to 95%
Certifications	UL 1449 2nd edition, 1283CUL
Warranty	5 Year



DIMENSIONAL DIAGRAM

PERFORMANCE TECHNICAL SPECIFICATIONS

Pulsar 352 Series

Clamping

UL 1449 Classification*	
120/208	
Line to Neutral	400 Volts
Line to Line	800 Volts
Line to Ground	400 Volts
Neutral to Ground	400 Volts
230/400	
Line to Neutral	800 Volts
Line to Line	1,500 Volts
Line to Ground	800 Volts
Neutral to Ground	800 Volts
277/480	
Line to Neutral	800 Volts
Line to Line	1,500 Volts
Line to Ground	800 Volts
Neutral to Ground	800 Volts
480	
Line to Neutral	1,500 Volts
Line to Line	1500 Volts

* *UL classifications for other voltages available upon request.*

Peak Surge Current Capability (8x20µs)

MODEL : 352xxxx400	
Phase :	400,000 Amps
L – N :	200,000 Amps
L – L :	200,000 Amps
L – G :	200,000 Amps
N – G :	200,000 Amps
MODEL : 352xxxx200	
Phase :	200,000 Amps
L – N :	100,000 Amps
L – L :	100,000 Amps
L – G :	100,000 Amps
N – G :	100,000 Amps

Pulsar 351 Series

Clamping

UL 1449 Classification*	
120/208	
Line to Neutral	400 Volts
Line to Line	800 Volts
Line to Ground	400 Volts
Neutral to Ground	400 Volts
230/400	
Line to Neutral	800 Volts
Line to Line	1,500 Volts
Line to Ground	800 Volts
Neutral to Ground	800 Volts
277/480	
Line to Neutral	800 Volts
Line to Line	1,500 Volts
Line to Ground	800 Volts
Neutral to Ground	800 Volts
480	
Line to Neutral	800 Volts
Line to Line	1,500 Volts

* *UL classifications for other voltages available upon request.*

Peak Surge Current Capability (8x20µs)

MODEL : 351Mxxxx160	
Phase :	160,000 Amps
L – N :	80,000 Amps
L – L :	80,000 Amps
L – G :	80,000 Amps
N – G :	80,000 Amps
MODEL : 351xxxx100	
Phase :	100,000 Amps
L – N :	100,000 Amps
L – L :	100,000 Amps
L – G :	100,000 Amps
N – G :	100,000 Amps

Pulsar 350 Series

Clamping

UL 1449 Classification*	
120/208	
Line to Neutral	400 Volts
Line to Line	800 Volts
Line to Ground	400 Volts
Neutral to Ground	400 Volts
120/240	
Line to Neutral	400 Volts
Line to Line	800 Volts
Line to Ground	400 Volts
Neutral to Ground	400 Volts
230/400	
Line to Neutral	800 Volts
Line to Line	1,500 Volts
Line to Ground	800 Volts
Neutral to Ground	800 Volts
277/480	
Line to Neutral	800 Volts
Line to Line	1,500 Volts
Line to Ground	800 Volts
Neutral to Ground	800 Volts
480	
Line to Neutral	1,500 Volts
Line to Line	1500 Volts

* *UL classifications for other voltages available*

Peak Surge Current Capability (8x20µs)

MODEL : 350xxxx80	
Phase :	80,000 Amps
L – N :	40,000 Amps
L – L :	40,000 Amps
L – G :	40,000 Amps
N – G :	40,000 Amps
MODEL : 350xxxx50	
Phase :	50,000 Amps
L – N :	25,000 Amps
L – L :	25,000 Amps
L – G :	25,000 Amps
N – G :	25,000 Amps

ORDERING INFORMATION

Pulsar 352 Series — 1 2 3 6

Pulsar 351 Series — 1 2 4

Pulsar 350 Series — 1 2 5

1 VOLTAGE CODE

Nominal Voltage Level			Model Identification
L-N	L-L	L-G	
120	N/A	120	120
120	208	120	120
120	240	120	120
230	400	230	230
N/A	240	240	240
277	480	277	277
N/A	480	480	480

Other voltages available, please consult factory.

2 PHASE CONFIGURATION

Phase Configuration	Model Identification
Single Phase 2 Wires + Gnd (Line & Neutral)	N
Single Phase 2 Wires + Gnd (Line & Line)	L
Single (Split) Phase 3 Wires + Gnd	S
Three Phase Wye 4 Wires + Gnd	Y
Three Phase Delta 3 Wires + Gnd	D
Three Phase Delta Hi-Leg 4 Wires + Gnd	H

3 SURGE CAPACITY (FOR 352 ONLY)

Surge Capacity Per Phase (L-N + L-G)				Model Identification
400kA				
L-N	L-G	N-G		400
200	200	200		
200kA				
L-N	L-G	N-G		200
100	100	100		

4 SURGE CAPACITY (FOR 351 ONLY)

Surge Capacity Per Phase (L-N + L-G)				Model Identification
160kA				
L-N	L-G	N-G		160
80	80	80		
100kA				
L-N	L-G	N-G		100
100	100	100		

5 SURGE CAPACITY (FOR 350 ONLY)

Surge Capacity Per Phase (L-N + L-G)				Model Identification
80kA				
L-N	L-G	N-G		80
40	40	40		
50kA				
L-N	L-G	N-G		50
25	25	25		

6 OPTIONS (FOR 352 ONLY)

Option	Model Identification
Rotary Disconnect	D
Surge Counter	SC
NEMA 12 Standard	
NEMA 3R Enclosure	3R
NEMA 4 Enclosure	4
NEMA 4X Enclosure	4X