

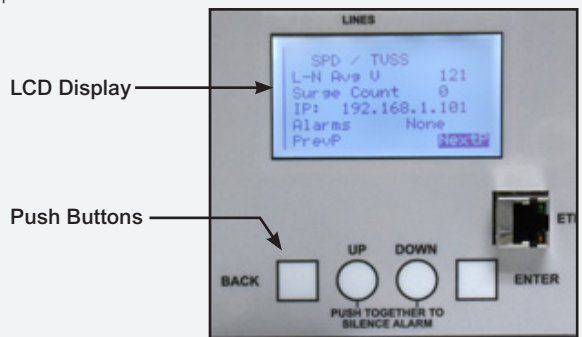


ASCO Surge Protection makes it easy to monitor your electrical system by installing its Active Surge Monitor package within its SPDs. ASM enabled SPDs are the flagship product to be featured in Schneider Electric's EcoStruxure™ architecture.

This web-based, enabled accessory allows the end-user real time voltage measurements, logged events and premium power protection. Understanding the severity, type and timing of the event allows you to analyze events and ultimately better manage your electrical system.

Monitoring System Technical Specifications	
<b>Voltage</b>	<b>Phase to Phase Neutral to Ground/PE Phase to Neutral</b>
Accuracy	±1%
Range	80V-600V
Average, Unbalance, Crest Factor Included	
<b>Frequency</b>	<b>Included</b>
Accuracy	±1%
Range	45-67 Hz
<b>Voltage Total Harmonic Distortion (VTHD)</b>	<b>Line-to-Neutral Line-to-Line</b>
Range	60-850 Hz
<b>Harmonics</b>	<b>Line-to-Neutral Line-to-Line</b>
Range	Fundamental – 13th
RMS	±1%
<b>SPD Health Status</b>	<b>Percent Remaining</b>
I/O	Included
Relay Outputs	Class 2 - 24VDC / 24VAC at 2 Amps
RJ-45 Port	Ethernet
<b>Events</b>	<b>Power Quality &amp; System</b>
Event Logging	8GB / 2000+ Events
Date/Time Stamp with Duration/Magnitude	Included - All events
Surge Counter (Category C, B, A), Sag Counter, Swell Counter, with reset	Included
<b>Sample Rates</b>	
Surge Sample Rate	250 kHz (4,166 Samples per cycle @ 60 Hz)
Other Measurable Events	10 kHz (167 Samples per cycle @ 60 Hz)
Display	LCD 128x64
Communications	MODBUS TCP Serial MODBUS Ethernet Form C

Features and Benefits
<b>Power Quality</b>
Ability to monitor voltage at connected panel and track system anomalies such as transients, surges, swells and VTHDs, to mitigate the destructive effects of these anomalies.
<b>Real Time Measurements</b>
Storage of over 2000 events/reports allows for historical analysis.
<b>Event Logging</b>
User configurable alarm thresholds, time/date stamp, duration and magnitude of events offers multiple data points for trend analysis.
<b>Communications</b>
Three access channels - Ethernet, MODBUS TCP or Serial MODBUS - allow for easy access to data.
<b>Embedded Web Page</b>
Convenient access to present and past event data from any device with internet connection.
<b>System Analysis</b>
Manage power system with statistical summaries & reporting software, for proactive system analysis.
<b>Email Notifications</b>
Set automatic email notifications to alert one or more users with anomalies recorded, offering real-time updates.
<b>LCD Display with Push Buttons</b>
Offers local interface with push button navigation for user friendly operation.



## Embedded Web Pages

**ASCO** Active Surge Monitor  
Surge Protection that Monitors, Measures and Manages

Measurements Events Configuration About

L-N Voltages				
	RMS	Crest	VTHD	Frequency
L1 - N	119 V	1.426	1.2	60 Hz
L2 - N	120 V	1.423	0.92	
L3 - N	120 V	1.428	4.6	
N - G	6 V			
L - N (AVG)	119 V			

L-L Voltages				
	RMS	Crest	VTHD	Frequency
L1 - L2	206			60 Hz
L2 - L3	207			
L3 - L1	206			
L - L (AVG)				

Disruptions		Count
Surge		0
Swell		0
Sag		0
Alarms		PASS

Reset

SPD Health		Health
L1 - N Module		100 %
L2 - N Module		100 %
L3 - N Module		100 %
L1 - G Module		100 %
L2 - G Module		100 %
L3 - G Module		100 %
N - G Module		100 %

Copyright © 2016 ASCO Power Technologies, All Rights Reserved

**ASCO** Active Surge Monitor  
Surge Protection that Monitors, Measures and Manages

Measurements Events Configuration About

EVENTS					
	Timestamp	Event Type	Phase Affected	Duration	Severity / % Deviation
1	2/11/2014 8:58:3.105	Swell	L3-L1	100ms	32%
2	2/11/2014 8:58:3.105	Swell	L1	100ms	32%
3	2/11/2014 8:58:3.2	Power On	N/A	N/A	N/A
4	2/10/2014 14:23:23.405	Power Outage	N/A	N/A	N/A
5	2/10/2014 14:23:23.305	Sag	L3-L1	200ms	34%
6	2/10/2014 14:23:23.305	Sag	L1	200ms	33%
7	2/10/2014 14:16:9.105	Swell	L3-L1	100ms	24%
8	2/10/2014 14:16:9.105	Swell	L1	100ms	23%
9	2/10/2014 14:16:9.2	Power On	N/A	N/A	N/A
10	2/22/2014 12:18:40.505	Power Outage	N/A	N/A	N/A

**ASCO** Active Surge Monitor  
Surge Protection that Monitors, Measures and Manages

Measurements Events Configuration About

Surge Counts		
Severity	New	Total
CAT C	0	0
CAT B	0	0
CAT A	0	0

Reset

LN Sag/Swell Counts		
Mode	SAG Count	SWELL Count
L1 - N	5	2

Copyright © 2016 ASCO Power Technologies, All Rights Reserved

**ASCO** Active Surge Monitor  
Surge Protection that Monitors, Measures and Manages

Measurements Events Configuration About

Harmonics Quick View						
	3rd	5th	7th	9th	11th	13th
L1 - N	4.9	1.2	1.1	0.97	0.23	0.29

Copyright © 2016 ASCO Power Technologies, All Rights Reserved

## ASCO Product Compatible with ASM



Model 440  
Model 445



Model 460  
Model 465



Model 560  
Model 570