

Specific AC Surge Protection Panels

Serie M



These AC surge protection panels have been especially designed for the standards, the AC networks and the installation conditions used in the USA

They are available for different types of AC configurations, in several discharge capabilities and are equipped with features (plug-in SPD module, audible alarm...). AC Surge protection panels, single or 3-Phase, available in several discharge capabilities ($I_{max} = 80, 100, 160$ and 200 kA) and built in NEMA 4 enclosures.

Surge protection diagram is based on high energy MOVs and filtering capacitors in order to provide very high discharge currents, low residual voltages and EMI/RFI filtering operation. In compliance with UL1449 standard, the operation safety, in case of end of life, is given by internal disconnectors linked to status indicators and a remote signalling circuit.

- AC Surge protection Panels
- RFI filter
- Comply US AC networks
- Common & differential mode protection
- Signaling and remote signalling
- UL1449 2ed. & IEC 61643-1 compliance

Characteristics

Series	M80	M100	M160	M200
Max. discharge current by phase (1)	80 kA	100 kA	160 kA	200 kA
Type of Network				
120/240 Vac Split Phase 3Ph+PE	M80-120T	M100-120T	M160-120T	M200-120T
120/208 Vac Wye 3Ph/N+PE	M80-120Y	M100-120Y	M160-120Y	M200-120Y
220/380 Vac Wye 3Ph/N+PE	M80-220Y	M100-220Y	M160-220Y	M200-220Y
277/480 Vac Wye 3Ph/N+PE	M80-277Y	M100-277Y	M160-277Y	M200-277Y
240/415 Vac Wye 3Ph/N+PE	M80-240Y	M100-240Y	M160-240Y	M200-240Y
120/120/240 Vac Hi-Leg Delta 3Ph/N PE	M80-240DCT	M100-240DCT	M160-240DCT	M200-240DCT
240 Vac Delta 3Ph+PE	M80-240D	M100-240D	M160-2s40D	M200-240D
347/600 Vac Wye 3Ph/N+PE	-	-	M160-347Y	M200-347Y
480 Vac Delta 3Ph+PE	-	-	M160-480D	M200-480D
Protection modes	L/N - L/PE - N/PE - L/L			
Admissible short-circuit current	200 kA			
RFI filtering	- 40 dB			
Standards compliance	UL1449 - IEC 61643-1			
Safety				
Thermal disconnector	internal to each surge protector			
Electrical disconnector	internal to each panel			
Failure indicators	by Led			
Failure indicators in option	audible alarm and remote signalling			
Mechanical characteristics				
Housing material	Metal - NEMA 4			
Operating temperature	-40/+85 °C			
Mounting	Wall mounting by screws (not supplied)			
Connection to AC network	on screw terminal			
Dimensions (Haut. x Larg. x Prof.)	203 x 152 x 89 mm (8» x 6» x 3.5»)			
Specific features				
Disconnection switch	no			
Replaceable internal surge protectors	no			

1) The 8/20µs discharge current values are given following the north american process

Voltage specifications

Version	Network	max Voltage (Uc)	Residual voltage (V) follow. UL1449@500 A			
			L-N	L-PE	N-PE	L-L
Mxxx-120T	120/240 Vac Split Phase 3Ph+PE	150Vac	400	400	500	800
Mxxx-120Y	120/208 Vac Wye 3Ph/N+PE	150Vac	400	400	500	800
Mxxx-220Y	220/380 Vac Wye 3Ph/N+PE	320Vac	1000	1000	1000	1800
Mxxx-277Y	277/480 Vac Wye 3Ph/N+PE	320Vac	1000	1000	1000	1800
Mxxx-240Y	240/415 Vac Wye 3Ph/N+PE	320Vac	1000	1000	1000	1800
Mxxx-240DCT	120/120/240 Vac Hi-Leg Delta 3Ph/N PE	150/320Vac	1000	1000	1000	1000
Mxxx-240D	240 Vac Delta 3Ph+PE	320Vac	-	1000	-	1800
Mxxx-347Y	347/600 Vac Wye 3Ph/N+PE	550Vac	1500	1500	1500	3000
Mxxx-480D	480 Vac Delta 3Ph+PE	500Vac	-	1500	-	3000

AC Surge protection Panels

SP Series



These AC surge protection panels have been especially adapted to US standards, AC networks and installation conditions. They are available in various configurations (single, 3-phase...), various types (Type 1, Type 2) and equipped with different features.

These panels are based on CITEL DS range modular surge protectors and are built with metallic housings (NEMA 4/12). They are in compliance with the relevant UL and IEC standards.

They are equipped with internal fuses to provide protection in case of short circuit currents and disconnection from AC network. Featuring failure indicators (Leds, buzzers) and remote signal.

- **Single & 3-phase surge protection Panels**
- **Comply US AC networks**
- **Common & Differential mode protection**
- **Fault indicator & remote signal**
- **Comply UL1449 2ed. & IEC 61643-1**

Characteristics

Series	SP120	SP165	SP200	SP330	SP400
Max. discharge current I _{max} (8/20μs) by phase (1)	120 kA	165 kA	200 kA	300 kA	400 kA
Courant de choc limp (10/350μs) by phase (1)	60 kA	60 kA	60 kA	60 kA	60 kA
Type of AC Network					
120/240 Vac Split Phase 3Ph+PE	SP120-120T	SP165-120T	SP200-120T	SP330-120T	SP400-120T
120/208 Vac Wye 3Ph/N+PE	SP120-120Y	SP165-120Y	SP200-120Y	SP330-120Y	SP400-120Y
277/480 Vac Wye 3Ph/N+PE	SP120-277Y	SP165-277Y	SP200-277Y	SP330-277Y	SP400-277Y
240/415 Vac Wye 3Ph/N+PE	SP120-240Y	SP165-240Y	SP200-240Y	SP330-240Y	SP400-240Y
240 Vac Delta 3Ph+PE	SP120-240D	SP165-240D	SP200-240D	SP330-240D	SP400-240D
347/600 Vac Wye 3Ph/N+PE	SP120-347Y	SP165-347Y	SP200-347Y	SP330-347Y	SP400-347Y
480 Vac Delta 3Ph+PE	SP120-480D	SP165-480D	SP200-480D	SP330-480D	SP400-480D
Dimensions (H x L x D in mm)	280x230x115	381x381x190	381x381x190	381x381x190	381x381x190
Protection mode	L/N - L/PE - N/PE - L/L				
Admissible short-circuit current	200 kA				
Standards compliance	UL1449 -IEC 61643-1				
Safety					
Thermal disconnecter	internal on each surge protector				
Electrical disconnecter	internal on each panel				
Failure indicators	Light indicator				
Failure indicators in option	audible alarme and remote signal				
Mechanical characteristics					
Housing material	Metal - NEMA 4/12				
Operating temperature	-40/+85 °C				
Mounting	Wall mounting by screws (not supplied)				
Connection to AC network	on screw terminal 35 mm ² max.				
Specific features					
Disconnection switch	in option				
Replaceable internal surge protectors	yes				

1) The 8/20μs discharge current values are given following the north american process

Voltage specifications

Version	Network	max. Voltage (Uc)	Residual voltage (V) following UL1449@500 A					Residual voltage (V) following UL449@10 kA				
			SP120	SP165	SP200	SP330	SP400	SP120	SP165	SP200	SP330	SP400
SPxxx-120T	120/240 Vac Split Phase 3Ph+PE	150Vac	385	435	435	415	415	605	585	585	575	575
SPxxx-120Y	120/208 Vac Wye 3Ph/N+PE	150Vac	385	435	435	415	415	605	585	585	575	575
SPxxx-277Y	277/480 Vac Wye 3Ph/N+PE	330Vac	735	850	850	820	820	975	955	955	925	925
SPxxx-240Y	240/415 Vac Wye 3Ph/N+PE	330Vac	645	745	745	710	710	865	840	840	820	820
SPxxx-240D	240 Vac Delta 3Ph+PE	330Vac	645	745	745	710	710	865	840	840	820	820
SPxxx-347Y	347/600 Vac Wye 3Ph/N+PE	550Vac	970	935	935	905	905	1350	1310	1310	1210	1210
SPxxx-480D	480 Vac Delta 3Ph+PE	550Vac	1415	1440	1440	1410	1410	1570	1500	1500	1480	1480