

Power Surge Protection



- UL 1449 3rd Edition approved
- Critical protection from voltage transients
- Plug-in or hardwired solution utilizing Metal Oxide Varistor (MOV) protection
- SM Series Alarms when Equipment is unprotected
- VSS 120/VSS 240 Series provides downed power line protection

Alpha's surge protection devices provide reliable protection of power supplies and related equipment from the damaging powerline disturbances common to cable TV and broadband applications. The LA and ISA Series incorporate Metal Oxide Varistors (MOVs) that effectively limit voltage surges and absorb excessive energy levels. Housed in durable polymer casings with standard electrical plugs, the LA Series plugs directly into any electrical outlet, while the ISA is factory wired into the service entrance.



Surge Protection

Operating Voltage:	120V Models					240V Models	120/240V Models	
Model Selection	Good	Better	Best	Best	Best	Good	Best	Best
Series Model:	LA-P+ 120	LA-P-120T	LA-P-120SM	VSS-120-15 ²	VSS-120-20 ²	LA-P+240	ISA 120/240 ¹	VSS240 ²
Outlet Type / Pass Thru:	/ NO	/ YES	/ YES	/ YES	/ YES	/ NO	Hardwired / NA	/ YES
Remote Status Monitoring ³ :	No	No	Yes	No	No	No	No	No
Protection:	L / N / G	L / N / G	L / N / G	L / N / G	L / N / G	L1 / L2 / G	L / N / G	L1 / L2 / G
Operating Temperature:	-40° to 55°C (-40 to 131°F)	-40° to 55°C (-40 to 131°F)	-40° to 55°C (-40 to 131°F)	-40° to 55°C (-40 to 131°F)	-40° to 55°C (-40 to 131°F)	-40° to 55°C (-40 to 131°F)	-40° to 55°C (-40 to 131°F)	-40° to 55°C (-40 to 131°F)
LED Indicator:	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

UL 1449 3 rd Edition Specifications								
Voltage Let Through Protection Rating:	700Vp	500Vp	600Vp	500Vp	500Vp	1200Vp	700Vp / 1200Vp	500Vp
Nominal Discharge Current Rating	3kA	3kA	5kA	20kA	20kA	3kA	10kA	20kA
Maximum Continuous Operating Voltage (MCOV):	150Vac	130Vac	175Vac	275Vac	275Vac	320Vac	150Vac / 300Vac	275Vac

- Notes:
- ¹ The ISA surge protection devices are factory wired on the load side of the service entrance and available for field replacement. These arrestors should be installed by a licensed electrician.
 - ² UL1449 3rd edition not required
 - ³ The DSM3x transponder is capable of monitoring the status of the LA-P-120SM

COAX Protectors

Ideally suited to protect costly status-monitoring transponders, digital set top boxes, cable modems and satellite receivers in the headend as well as high-end HDTV sets from potentially damaging surges. The patented coaxial gas tube surge protector is equipped with an integral fail-safe mechanism. Listed to UL 497, CSA Listed Certified and Complies with 1999 National Electric Code.

- Patented In-Line[®] Coaxial Gas Tube Surge Protection
- Provide Lightning and Surge Protection for Distribution, Customer Premises and Headend Equipment
- Improves Broadband Network Reliability and Reduces Service Outages
- Power Passing
- Listed to UL 497, CSA Listed Certified & Complies with NEC

Part Number	Description
162-029-10	Female/Female connector configuration, "F" type connector
162-027-10	Male/Female connector configuration, "F" type connector
162-028-10	Female/Female connector configuration, "F" type connector with integral ground block

COAX Protector Specifications		
Part Number	162-029-10/162-027-10	162-028-10
RF Performance	DC – 1.0 GHz	1.0 GHz to 1.5 GHz
Characteristic Impedance	75 Ohms	75 Ohms
Insertion Loss (includes flatness)	< 0.1 dB	< 0.2 dB
Return Loss	> 30 dB	> 20 dB
Protection		
DC Breakdown @2000 V/s	150V to 300V	
Impulse Breakdown @ 100 V/μs	< 450V	
Insulation Resistance	> 100 MegOhms	
Surge Life:[*]		
10 A, 10/1000μs	> 1500 Surges	
100 A, 10/1000μs	> 100 Surges	
1000 A, 10/1000μs	> 10 Surges	
5000 A, 8/20μs	> 10 Surges	
AC Life:		
5A, 1000 Vac, 1 s	> 5 Operations	
1A, 1000 Vac, 1 s	> 60 Operations	
Failshort:		
30A, 1000 Vac	> 15 min.	
Operating Temperature	-40° to 65°C (-40° to 149°F)	

^{*}All specifications for service life only

For more information visit www.alpha.com

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