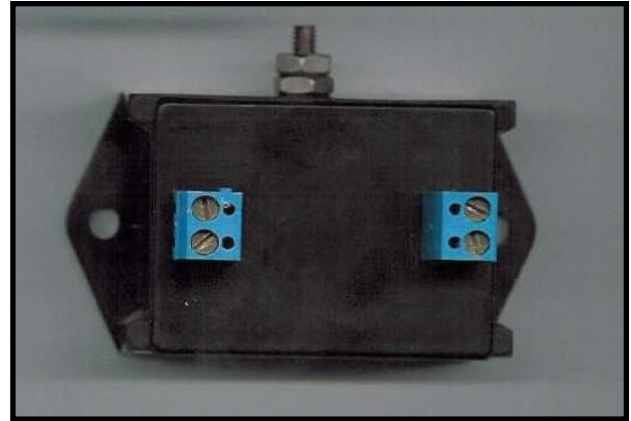


**Specifications for Fire Alarm**

**Zone Protectors**

- Connection: Terminal Board
- Technology: Hybrid Circuit  
Multi-Stage Design  
Full Heat sinking
- Response: < 5 Nanoseconds
- Operating Temperature: -40<sup>0</sup>C +85<sup>0</sup>C
- Operating Environment: Weather Proof
- Voltage: Voltage Sensitive
- Current: Non Load-Bearing  
No Follow -On Current
- Clamping Point: 15 or 30 or 64 Volts
- Power Dissipation: 2,000,000 Volt Amps / Line  
4,000,000 Volt Amps / Line Pair
- Lines Protected: 1 Pair ("B" Zone)  
2 Pair ("A" Zone)
- UL 497 listed . Tested to ANSI/IEEE B-3 Impulse

Fire Alarm Protectors FA 12V B and 30VB are surge protectors for "B" type zones or loops of either 12-volt or 24-volt. Protectors are 3-stage with primary and secondary protection that will greatly reduce false alarms caused by lightning and will protect the equipment. Units are encapsulated with a heat dissipating epoxy, which greatly enhances component performance.



**Fire Alarm**

*Class A is 2 Pair, Class B is 1 Pair*

FA 12VA	12V"A" Zone Protector .2 Pair
FA 12V B	12V"B" Zone Protector .1 Pair
FA30VA	24V"A" Zone Protector .2 Pair
FA30VB	24V"B" Zone Protector .1 Pair
FA30VB-BH	24V+ 3 amps "BH" Bells Horns .1Pair
FA60VB	34.8V+"B" Zone Protector .1 Pair
FA60VB-NC	34.8V+ 3amps "B-NC" Bells Horns .1 Pair

**In-line Series Hybrid Three Stage AC Surge Suppressor**

**LS-E120HWCP20CB**

This Unique Product is designed to provide superior transient voltage surge protection & noise reduction for Branch Circuits, Fire Alarms, PLC, NC/CNC, Controls, Card Access, Gate Access, Telemetry, (2)units in a 120/120 240 single phase application for PLC or Computer related PC board power supply drawing no more the 20 amps per line. This unit will eliminate a high degree of noise coming in the AC power, caused by HVAC, Pumps, Motors and other noisy equipment that can cause false alarms especially on Fire Alarm panels, or harmful effects affecting the performance of the PC board.

**Specifications – Operating**

Maximum Operating Voltage	135 Volts
Follow on current	none
Circuit Breaker	20 amps
Connection	In-Line series Hardwired
Operating Temperature	-20 • to 60 • C
Maximum Surge Current	(8 x 20us) 300KVA
Maximum Surge Voltage	(1.2 x50us) 20K Volts
TVSS Device ETL File	4009979
UL 14493 <sup>rd</sup> ed MCOV Rating	150 Volts L/N, L/G
Clamping Point	138 Volts RMS, 198V Peak
Clamping Response Time	<5 nanoseconds
Maximum Line Amperage	20 Amps @ 120 VAC 45/60Hz



VPR Rating	L-N 600V, L-G 500V
SCCR	100KA
Power Dissipation (8x 20us)	3000 Joules, or 12,000KVA
Failure Mode	Fails Safe (open) UL 1449 3rd edition
Reverse Polarity Mode	Fails Safe (open) UL 1449 3 <sup>rd</sup> edition
Dimensions	Depth: 2.5", Width: 4.5" Length 5"
Mounting	(4) .5" tabs & (2) ½" nipples
Installation	P/N/G(3)wire Line in,(3)wire load out
Weight	Approximately 2.0 Pounds
6000V @ 3000amps	8 x20 us 220V Peak P/N,
ANS/IEEE Cat. B3	265VPK P/G, 207 VPK N/G
Conforms to ANSI/UL Standards 1449 3 <sup>rd</sup> Edition Type 2 SPD	