

# LIGHTNING ELIMINATORS

WWW.LECGLOBAL.COM

## SP-vDC-AM Surge Protectors

State-of-the-Art High Performance Protection for DC Circuits

### What is the Hazard?

Electrical storms pose a special threat to DC powered equipment and DC power lines. This would include equipment connected to batteries, photovoltaic cells, battery chargers and DC buses.

Lightning can induce electrical surges and transients of incredible destructive force, having thousands of volts and hundreds of joules, in a span of a few microseconds. Other harmful transients are man-made: utility switching, in-house switching, motors and machinery. All of these transients can degrade and damage unprotected equipment.

### SP-vDC-AM Surge Protectors are the Solution

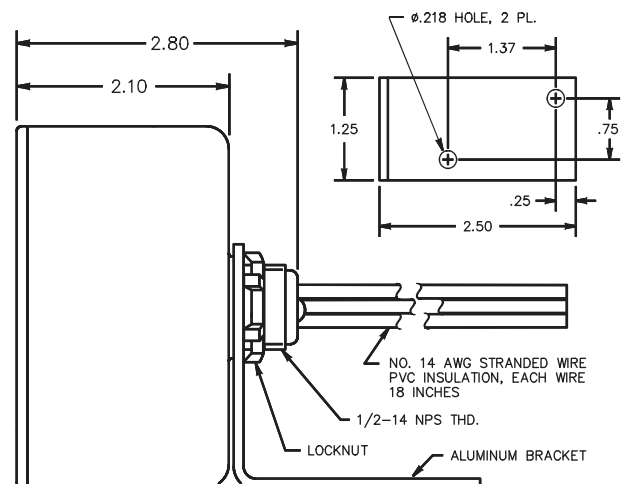
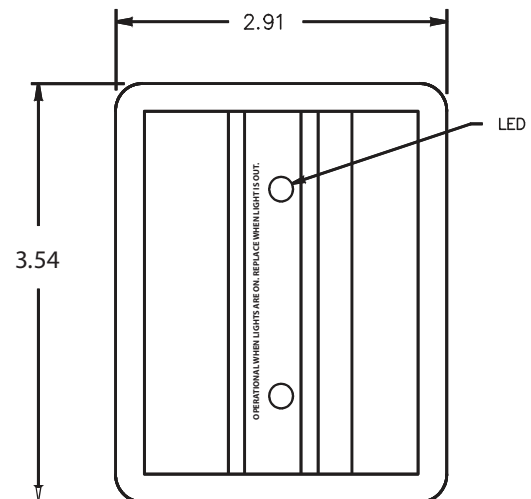
There is a device that provides absolute protection for DC equipment, the SP-vDC-AM by LEC. The SP-vDC-AM protects all modes (L-L, L-G) against both the high-energy, fast-rising transients and the slower high-energy impulses.

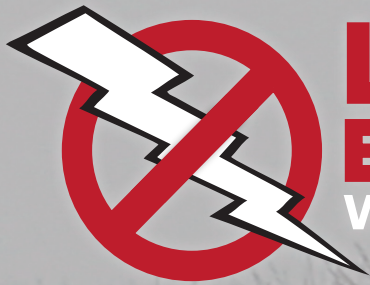
### System features and benefits

- SPD Category and Type – Full weather permanently connected.
- Technology – Matrix of individually fused Metal Oxide Varistors.
- Application – For direct connection to power buses, load centers or equipment input/ outputs. May be used on grounded (+ or -) or floating power systems, for dc or low voltage ac (up to 400 Hz).

- Features – LEDs for L-L and L-G protection modes indicate proper functioning of each element.

### Dimensions





# LIGHTNING ELIMINATORS

WWW.LECGLOBAL.COM

## Specifications

**Model Number** SP-30-VDC-AM SP-60-VDC-AM SP-90-VDC-AM SP-150-VDC-AM

**Maximum Continuous Operating Voltage U<sub>max</sub>**

	30 Vdc	60 Vdc	90 Vdc	150 Vdc
	25 Vac	45 Vac	65 Vac	110 Vac*

**Varistor Voltage at 1 mA dc**

	40 V	80 V	120 V	200 V
--	------	------	-------	-------

**Suppression Voltage, L-N, N-G using ANSI/IEEE C62.41 Waveshapes**

200 A	100 kHz	95 V	135 V	185 V	290 V
500 A	100 kHz	115 V	155 V	205 V	315 V
500 A	8/20 μs	90 V	130 V	180 V	290 V
3 kA	8/20 μs	145 V	170 V	245 V	360 V
5 kA	8/20 μs	180 V	200 V	280 V	425 V
10 kA	8/20 μs	255 V	260 V	355 V	510 V

**Surge Energy Capability**

10/1000 μs, total

	240 J	670 J	1020 J	1680 J
--	-------	-------	--------	--------

**Max Surge Current, I<sub>sn max</sub>**

	25 kA	50 kA	50 kA	50 kA
--	-------	-------	-------	-------

**Surge Life, 3 kA, 8/20 μs**

	800 x	3000 x	3000 x	3000 x
--	-------	--------	--------	--------

**Component Response Time**

	<1 ns
--	-------

**Operating Temperature**

	-40° to +80° C
--	----------------

**Operating Altitude**

	1500 ft / 5000 m
--	------------------

**Shipping Weight**

	1.5 lbs / .7 kg
--	-----------------

CE Compliant with Directive 73/23/EEC, EN 60950 (\*Model SP-150-VDC-AM is not intended for use on 110-120 Vac power systems.)

## Characteristics

**Connection Means**

Mounts through 1/2" knockout or by it's bracket, connects in parallel with load

Upstream Overcurrent Device	None Required
-----------------------------	---------------

Protection Modes	L-L, L-G
------------------	----------

Leakage, L-G at MCOV	50 μA dc, 500 μA ac
----------------------	---------------------

## Consulting and Technical Support

We are a full-service firm aligned to solve your most complex challenges in surge suppression, grounding, and lightning protection. Call us today at **+1-303-447-2828** to learn how our solutions can maximize your operation's potential.