L-com® Global Connectivity

Weatherproof High Power 10/100 Base-T CAT5 Lightning and Surge Protector
Model: AL-CAT5SHPW

Applications

- 10/100 Base-T Ethernet equipment
- Wireless access points, router and servers
- PoE switches
- IP, network or web cameras

Features

- 3- stage protection with failsafe architecture
- Power-Over-Ethernet (PoE) compatible
- Easy access shielded RJ45 jacks and removable terminal strips
- Weatherproof ABS enclosure with gasketed cover

RoHS Compliant

Description

The AL-CAT5SHPW CAT5 three-stage Lightning Protector provides superior lightning and surge protection for both indoor and outdoor 10/100 Base-T networks. In addition, the unit is compatible with Power-over-Ethernet (PoE) devices. Integral to the design is protection for the two Ethernet data pairs and the PoE DC power feed.

In the data path, the first stage of protection is a differential gas discharge tube. Stage two is a pair of current limiting series resistors and the final stage is a high speed, low capacitance diode clamp array. In the power path, the first stage is comprised of a differential gas discharge tube. Stage two is a dual low pass filter and the final stage is a triple array of bi-directional clamping diodes. The unit supports normal and reverse polarity PoE.
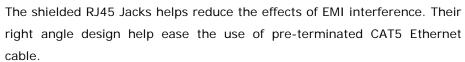
Failsafe Architecture

The Advantage of this three stage surge protector design is the added level of protection due to its large power rating and safety due to its failsafe architecture. In the event of a catastrophic surge event, the series resistors will fuse and the shunt diodes will short. This will safely disconnect the line from the datacom equipment.

The AL-CAT5SHPW CAT5 Lightning Protector is compatible with Wireless Access Points, Access Servers and Outdoor Routers, with or without Power-over-Ethernet (PoE) functionality. A ground clamp provides a tie point for earth ground. For maximum protection from lightning on long cable runs, two units can be used, one at each end of the cable.

Rugged Design and Ease of Use

This unit features a weatherproof ABS enclosure with gasketed cover and concealed mounting holes. For convenience terminal strips and shielded RJ45 Jacks are provided on the input and output for convenience. To ease installation, the terminal strips can be removed.

The shielded RJ45 Jacks helps reduce the effects of EMI interference. Their right angle design help ease the use of pre-terminated CAT5 Ethernet cable.

Specifications

Electrical Specifications

Ethernet Connectors	(2) Shielded RJ-45 Jacks and (2) Removable Terminal Strips
Data Lines	Pair 1: Pins 1/2, RJ-45 T1/T2, Terminal Strip Pair 2: Pins 3/6, RJ-45 T3/T4, Terminal Strip
CAT-5 Power Pinout Supports normal and reverse polarity	+/- VDC: Pins 4/5, RJ-45 T5/T6, Terminal Strip +/- VDC: Pins 7/8, RJ-45 T7/T8, Terminal Strip
Data Clamping Voltage	58 Volts
PoE Clamping Voltage	58 Volts
PoE Mode Support	Mode B for power

Mechanical Specifications

Enclosure Material	ABS
Enclosure Color	Dark Gray
Ground Lug	10 AWG Max.
Operating Temperature	-40 C (-40 F) to +80 C (+176 F)
Weight	.38 lb. (.17 kg)
Dimensions (WxHxL)	6.3 x 3.15 x 2.17 (inches) 160.6 x 80 x 55 (mm)
RoHS Compliant	Yes

LINE SIDE

EQUIPMENT SIDE

RJ-45

RJ-45

TERMINAL STRIP

TERMINAL STRIP

DIODE CLAMP ARRAY

EARTH GROUND