

Model: AL45G-POE

High Power Weather-Proof 10/100/1000-T CAT5/CAT6 Lightning Surge Protector

Features:

- Two-Stage protection
- Anti-Dust IP50 Aluminum enclosure
- Gasketed cover and concealed mounting holes
- Ground clamp provided on outside of enclosure
- **Support 10/100/1000 Giga Ethernet**
- **Power-over-Ethernet (PoE) compatible**
- Power and Signal line protection
- Common mode protection – Line to Ground
- High-energy , High-speed capabilities
- Low shunt capacitance
- All 8-pins protected



Applications:

- Computer Control Rooms
- Educational Institutions
- Sever Farms
- Commercial Offices
- Manufacturing Facilities
- Transmitter and Receiver Stations

Companion Products:

- IP network Camera
- VoIP Telephone
- Wireless Access Points
- Wireless Access Control
- Wireless Outdoor Mesh Router

AL45G-POE is a Lightning Protector provides superior lightning and surge protection over 10/100/1000 Base-T networks. It also ensures PoE(Power-over-Ethernet) to be pass through under the same protection.

In the data path, the first stage of protection is a differential gas discharge tube, follows by a high speed, low capacitance diode clamp array. In the power path, the first stage is



comprised of a differential gas discharge tube, and the final stage is a triple array of bi-directional clamping diodes.

The advantage of AL45G-POE surge protector design is the added level of protection due to its large power rating and fast discharge time.

AL45G-POE 's CAT5 Lightning Protector is compatible with Wireless Giga Ethernet Wireless Access Point , Access Servers and Outdoor Mesh Router, Outdoor AP . 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.

Electrical Specification

Connectors	2 x Modular RJ-45 Female Jacks and
Protection Mode : All mode	Line-Ground Line-Line
Data Lines	Pair 1 : Pin 1/2 , RJ45 Pair 2 : Pin 3/6, RJ45
CAT-5/6 Power Pin-out	Supports normal and reverse polarity +/- VDC: Pins 4/5,RJ45 +/- VDC: Pin 7/8, RJ45
Data Clamping Voltage (Pins 1,2,3,6)	64 Volts
PoE Clamping Voltage (Pin 4,5,7,8)	64 Volts
Maximum Characteristics Data	TURN-ON @ 10mA + 9Vdc +- 10% UL 497B Strike Voltage Breakdown +8.4 To +9.6Vdc Resistance : 1 Ω+- 20% Data Rate : Up to 1000 Mbps
Maximum Characteristics DC	Turn-On (@10mA) : +- 64Vdc +- 10% UL 497B Strike Voltage Breakdown (100Vdc/SEC



	RISE) : +-52.8 To+-43.2.0 Vdc Resistance : .05Ω+-20%
--	---

Surge

DC spark-over voltage	230V ±20%
At100V/μs-for 99% of measured value-typical values of distribution	<400V <350V
At 1kV/μs-for 99% of measured values –typical values of distribution	≤ 800V
Nominal impulse discharge current(wave8/20μs)	10kA
Single impulse discharge current (wave8/20μs)	10kA
Nominal alternating discharge current (50Hz, 1s)	10A
Alternating discharge current (50Hz,9cycles)	10A
Insulation resistance at 100Vdc	> 1 GΩ
Capacitance at 1 MHz	<1.5pF
Transverse delay time	0.2μs
Arc voltage at 1A	-35V
Glow to arc transition current	-1A
Glow voltage	-200V

Grounding

Grounding	10-32 Stud with wire clamp
-----------	----------------------------

Mechanical Specification

Enclosure	Anti-Dust Aluminum, IP50
Operating Temperature	-20 ° C - +70 ° C
Storage Temperature	-20 ° C - +65 ° C
Weight	120g
Dimensions	8.4(L) x8.1(W) * 2.2(H) cm

TheTVS diode array will meet the surge requirements of IEC 61000-4-2 (Formerly IEC 801-2), Level 4, “Human Body Model” for air and contact discharge.



LanReady Technologies, Inc.
3F., No.166, Sinhu 2nd Rd., Neihu District, Taipei City 114, Taiwan
TEL: 886-2-2796-8188 FAX: 886-2-2796-8158 Http://www.lanready.com

Network on Demand Network on Demand Network on Demand Network on Demand Network on Demand Network on Demand

Transient protection for data line	IEC61000-4-2(ESD) +- 10 kV(air),+-10 kV (contact) IEC61000-4-4(EFT) 10A (5/50ns) IEC61000-4-5(Lightning) 10A(8/20us)
Small SO-14 Surface mount package	Yes
Protects	Eight I/O Lines
PoE Working Voltages	12V ~ 64VDC
Low leakage current	Yes
Low operating and clamping voltages	Yes
Solid-state silicon avalanche technology	Yes