CTC union ®

SP-POE-01A/SP-POE-01
Power Over Ethernet 1-Port Surge Protector

The SP-POE-01A is a single port, Ethernet surge protector designed to protect all 8 lines used in a standard CAT5e cable. The product is compatible with 10/100Base-T(X) networks and 48V Power-over-Ethernet systems. The Standard 802.3af allows the methods of implementing PoE: The SP-POE-01A applies data to the pairs (pins 1/2 and pins 3/6) and power to the unused pairs (pins 1/2 and pins 3/6). The SP-POE-01A offered protection is provided on all 8 Ethernet pins (53V clamping on Data pins 1,2,3,6 and 53V clamping on POE pins 1,2,3,6). Network connections are made via standard female RJ45 connectors. Grounding is accomplished via a ground wire.

Features

- 10/100Mbps data rate
- Compatible with 48V power over Ethernet systems
- 53V Data / PoE clamping voltage

- 5KA surge discharge current
- CAT5 and CAT5e compatible. All 8 pins protected.
- Shielded RJ45 jacks and metal enclosure for EMI noise suppression

Specifications

Voltage	Data 5V ; PoE 48V
Clamping Voltage	53V Data (Pins 1,2,3,6) 53V PoE (Pins 1,2,3,6)
Max Surge Discharge Current	5KA (8/20uS)
Peak Pulse Current	100A (10/1000uS)
Pins Protected	Data : 1, 2, 3, 6 PoE : 1, 2, 3, 6 (SP-POE-01A)
	Data : 1, 2, 3, 6 PoE : 4, 5, 7, 8 (SP-POE-01)
Insulation Lost	< 0.5dB (10Mbps)

Data Rate	10/100 Mbps
Response Time	line/line <1 ns; line/ground < 100ns
Operating Temperature	-20 ~ +75°C
Storage Temperature	-40 ~ +85°C
Operating Humidity	0% ~ 95% non condensing
Dimensions (D x W x H)	38 x 106 x 26 mm (1-port)
Weight	75 g (1-port)
Certification	IEC 61643-21:2000

Ordering Information

Model Name	Description
SP-POE-01A	1-port RJ45 10/100Base-TX PoE Ethernet Surge Protector (Data: 1,2,3,6. PoE: 1,2,3,6)
SP-POE-01	1-port RJ45 10/100Base-TX PoE Ethernet Surge Protector (Data: 1,2,3,6. PoE: 4,5,7,8)

SP – POE –□□□
Example: SP – POE – 01A

SP-GPOE-01/SP-GPOE-24
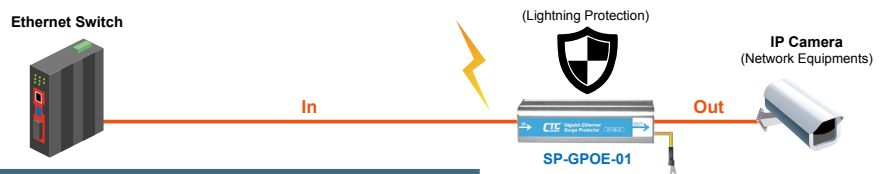## Single Port, Gigabit Ethernet PoE Surge Protector

The SP-GPOE-01 is a single port, Gigabit Ethernet PoE surge protector designed to protect all 8 lines used in a standard CAT5e cable. The product is compatible with 1000Base-T networks and 48V Power-over-Ethernet systems. The Standard IEEE 802.3at/af allows the methods of implementing PoE: The SP-GPOE-01 applies data and PoE power to the pairs (pins 1/2 , 3/6, 4/5, 7/8) .The SP-GPOE-01 offers protection is provided on all 8 Ethernet pins (63V clamping on data and PoE pins 1, 2, 3, 4, 5, 6, 7, 8). Network connections are made via standard female RJ45 connectors. Grounding is accomplished via a ground wire.

Features

- 1000Mbps data rate
- Compatible with 48V power over Ethernet systems
- 63V PoE clamping voltage

- 1.5KA surge discharge current
- CAT5 and CAT5e compatible. All 8 pins protected.
- Integral mounting feet and separate ground wire
- Shielded RJ45 jacks and metal enclosure for EMI noise suppression

Specifications

Operating Voltage	UN	63V
Max. continuous operating voltage peak current line to line (8/20us)	Imax	1.5KA
Max. continuous operating voltage peak current line to ground (8/20us)	Imax	1.5KA
Voltage protection level (line to line)	UP	≤ 120V
Voltage protection level (line to ground)	UP	≤ 120V
Insertion Loss		< 0.5dB
Data rate		10/100/1000Mbps

NM Surge response time	≤ 1ns
Connector	RJ45
Data lines protected	1-8
Operating Temperature	-40 ~ 80°C
Dimensions	38 x 106 x 26mm (1-port) 73 x 183 x 44mm (24-port)
Weight	75g (1-port), 1.4kg (24-port)
Certification	IEC 61643-21:2000

Ethernet Switch

(Lightning Protection)

In   Out

SP-GPOE-01

IP Camera (Network Equipments)

Ordering Information

Model Name	Description
SP-GPOE-01	Single Port, 1000Base-T GE PoE Surge Protector (Data & PoE: 1, 2, 3, 4, 5, 6, 7, 8)
SP-GPOE-24	24-port RJ45 10/100/1000Base-TX PoE Etherent Surge Protector (Data & PoE: 1, 2, 3, 4, 5, 6, 7, 8)

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Surge Protector   SP-POE-01A/SP-POE-01 & SP-GPOE-01/SP-GPOE-24

SP-GE-01/SP-GE-24
Gigabit Ethernet 1–Port Surge Protector

The SP-GE-01 Series is designed to work on Category 5e Gigabit Ethernet (GE) transmission lines as well as Category 6 applications. They are ideal to protect expensive equipment against surges and transients entering a building on exposed transmission lines. Available in both Single unit and Rack mountable surge protectors with female to female RJ-45 connectors.

Features

- Ethernet 10/100/1000Base-T Data line protection
- Exceeds CAT 5 & 6 Transmission Values
- Fast energy absorption when over-voltage occurs

- Low series resistance and minimal capacitance values to preserve the data information

Specifications

Operating Voltage	Un 5V
Max. continuous operating voltage	Uc 6V
Peak Current Normal Mode (line to ground, 8 /20uS)	In 2.5KA
Peak Current Common Mode (line to line, 8/20uS)	In 300A
Voltage protection level (line to ground,10/700uS)	Up <=500V
Voltage protection level (line to line,10/700uS)	Up <=30V
NM Surge Response Time (ns)	tA <1ns

Transmission Speeds	Vs 10/100/1000Mbps
Bandwidth / Insertion Loss	fG 250Mhz ; Ae < 0.5dB
Connector / Data Lines Protected	RJ45 ; 8
Operating Temperature	-40 ~ 80℃ degree
Dimensions	38 x 106 x 38 mm (1-port) 73 x 480 x 44 mm (24-port)
Weight	75g (1-port); 1.4kg (24-port)
Certification	IEC 61644-1

Ordering Information

Model Name	Description
SP-GE-01	1-port RJ45 10/100/1000Base-T Ethernet Surge Protector (pin 1,2,3,4,5,6,7,8)
SP-GE-24	24-Port RJ45 10/100/1000Base-T Ethernet Surge Protector (pin 1,2,3,4,5,6,7,8)

SP – GE – □□
Example: SP – GE – 01

SP-ETH-01/SP-ETH-24
Fast Ethernet 1–Port Surge Protector

A surge protector is an appliance designed to protect electrical devices from voltage spikes. A surge protector attempts to regulate the voltage supplied to an electric device by either blocking or by shorting to ground voltages above a safe threshold. The SP-ETH-01 will ensure the reliable operation of RJ-45 twisted pair based networking equipment running Ethernet. Single unit and rack mountable surge protectors are both available.

Features

- Ethernet 10/100Base-TX Data line protection
- Fast energy absorption when over-voltage occurs

- Low series resistance and minimal capacitance values to preserve the data information

Specifications

Un	5V
Uc	6.8V
Isn(discharge current)	2.5KA
Imax	5KA
Ures	< 30V
tA (Response time)	< 1ns
Protected Cores	SP-ETH-01-8: 8 pins SP-ETH-24: 8 pins
Attenuation in dB	< 0.5dB (100MHz)

Capacitance	< 40pF
Dimensions	38 x 106 x 38 mm (1-port) 73 x 480 x 44 mm (24-port)
Weight	75g (1-port) ; 1.40kg (24-port)
Certification	IEC 61644-1

Ordering Information

Model Name	Description
SP-ETH-01	1-port RJ45 10/100Base-TX Ethernet Surge Protector (pin 1,2,3,4,5,6,7,8)
SP-ETH-24	24-Port RJ45 10/100Base-TX Ethernet Surge Protector (pin 1,2,3,4,5,6,7,8)

Port Number
SP – ETH – □□
Example: SP – ETH – 01