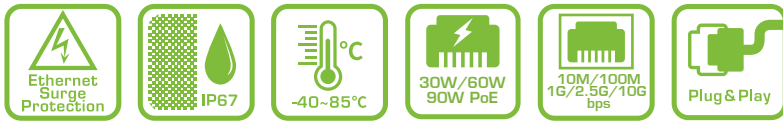


# SD series

802.3af/802.3at/802.3bt  
PoE Surge Protectors

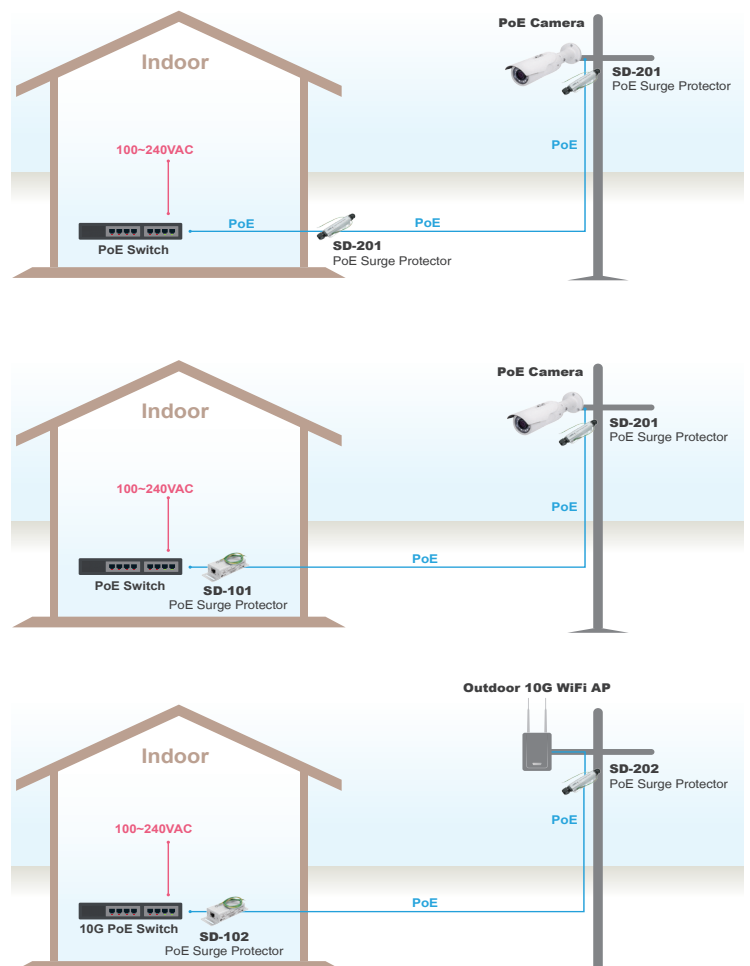


The SD series is a surge protector keeping PoE switches, PoE PDs, and any IP device safe from lightning & other forms of electrical interference such as power surges and spikes over networking cables. There are two sub-models classified as harden-graded surge protectors operating between -40°C and 85°C during harsh weather conditions & plug-and-play surge protectors defending the surge up to 20KV. The SD-101 is deployed beside PoE switches, inside junction boxes or power boxes. Besides general specifications of SD-101/SD-102, the SD-201/SD-202 has IP67/IK10 rated metal enclosure to protect outdoor IP devices such as IP cameras and wireless APs.

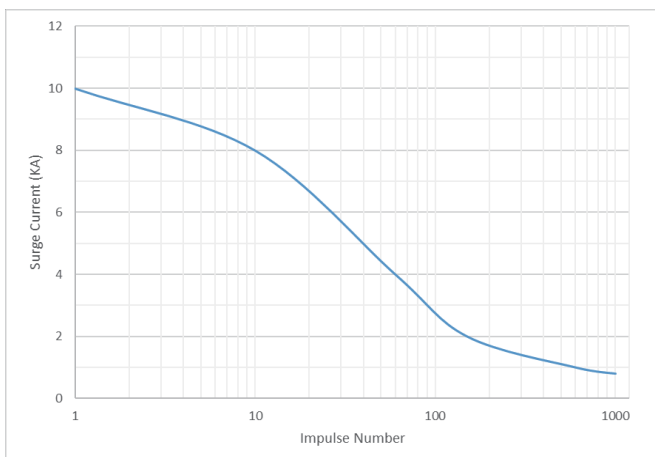
## Features

- Supports 10M/100M/1G/2.5G bps Ethernet (SD-101/SD-201)
- Supports 10M/100M/1G/2.5G/10G bps Ethernet (SD-102/SD-202)
- IEEE 802.3 bt/at/af compliant
- Protects eight wires of networking cable including PoE
- Protects up to 20KV surge
- Failure Indicator LED
- IP67- rated metal enclosure (SD-201/SD-202 only)
- Operating temperature from -40°C to 85 °C

## Applications







## Surge Current vs Impulse Number




## Specifications

	SD-101	SD-102	SD-201	SD-202
<b>Specifications</b>				
Number of Ports	1	1	1	1
Pass Through Data Rates	10M/100M/1G/2.5G bps	10M/100M/1G/2.5G/10G bps	10M/100M/1G/2.5G bps	10M/100M/1G/2.5G/10G bps
Transmission Media	Cat. 5e,6 UTP/STP	Cat. 5e,6 UTP/STP	Cat. 5e,6 UTP/STP	Cat. 5e,6 UTP/STP
PoE Support	802.3af / 802.3at / 802.3bt	802.3af / 802.3at / 802.3bt	802.3af / 802.3at / 802.3bt	802.3af / 802.3at / 802.3bt
Max Discharge Current (8/20us)	10KA	10KA	10KA	10KA
Maximum Operation DC Voltage	60VDC	60VDC	60VDC	60VDC
Maximum Operation DC Current	1A for 2 pair, 2A for 4 pair, 95W maximum	1A for 2 pair, 2A for 4 pair, 95W maximum	1A for 2 pair, 2A for 4 pair, 95W maximum	1A for 2 pair, 2A for 4 pair, 95W maximum
Line to Ground Protection Level (10/700us)	20KV	20KV	20KV	20KV
Line to Line Protection Level (10/700us)	4KV	4KV	4KV	4KV
Clamping Voltage (Line to GND)	600V	600V	150V	150V
Clamping Voltage (Line to Line)	20V	20V	20V	20V
Insertion Loss @ 10MHz/100MHz	1db	1db	1db	1db
Return Loss @ 10MHz/100MHz	-20db	-20db	-20db	-20db
Response Time	1ns	1ns	1ns	1ns
<b>Mechanical Specifications</b>				
Dimensions (L x W x H)	80 x 40 x 25 mm	80 x 40 x 25 mm	186.2 x 50 x 32 mm	186.2 x 50 x 32 mm
Weight	0.18KG	0.18KG	0.27KG	0.27KG
Connectors	RJ45 x 2	RJ45 x 2	PG16 (RJ45) x 2 Cable gauge: 4.3-6.4 mm	PG16 (RJ45) x 2
<b>Environmental Specifications</b>				
Weather Rating	-	-	IP67	IP67
Operating Temperature	-40°C~ 85°C (-40°F~ 185°F)	-40°C~ 85°C (-40°F~ 185°F)	-40°C~ 85°C (-40°F~ 185°F)	-40°C~ 85°C (-40°F~ 185°F)
Storage Temperature	-40°C~ 85°C (-40°F~ 185°F)	-40°C~ 85°C (-40°F~ 185°F)	-40°C~ 85°C (-40°F~ 185°F)	-40°C~ 85°C (-40°F~ 185°F)
Operating Humidity	5% ~ 95% non-condensing	5% ~ 95% non-condensing	5% ~ 95% non-condensing	5% ~ 95% non-condensing
<b>Certifications</b>				
EMC	CE, FCC, VCCI, C-Tick	CE, FCC, VCCI, C-Tick	CE, FCC, VCCI, C-Tick	CE, FCC, VCCI, C-Tick
Surge	ITU-T K.21 IEC-61643-21 IEC-61000-4-5 TIA-968-A (FCC Part68)	ITU-T K.21 IEC-61643-21 IEC-61000-4-5 TIA-968-A (FCC Part68)	ITU-T K.21 IEC-61643-21 IEC-61000-4-5 TIA-968-A (FCC Part68)	ITU-T K.21 IEC-61643-21 IEC-61000-4-5 TIA-968-A (FCC Part68)

## Ordering Information

Surge Protectors			
	<p><b>SD-101</b></p> <ul style="list-style-type: none"> <li>Indoor 1 Port</li> <li>10M/100M/1G/2.5G bps</li> <li>20KV Surge Protector</li> </ul>		<p><b>SD-201</b></p> <ul style="list-style-type: none"> <li>Outdoor 1 Port</li> <li>10M/100M/1G/2.5G bps</li> <li>20KV Surge Protector</li> </ul>
Surge Protectors			
	<p><b>SD-102</b></p> <ul style="list-style-type: none"> <li>Indoor 1 Port</li> <li>10M/100M/1G/2.5G/10G bps</li> <li>20KV Surge Protector</li> </ul>		<p><b>SD-202</b></p> <ul style="list-style-type: none"> <li>Outdoor 1 Port</li> <li>10M/100M/1G/2.5G/10G bps</li> <li>20KV Surge Protector</li> </ul>

## Optional Accessories

	<p><b>CH-110-V2</b></p> <ul style="list-style-type: none"> <li>19", 1U 8-bay rack mount chassis</li> <li>for SD-101/SD-102 use</li> </ul>
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