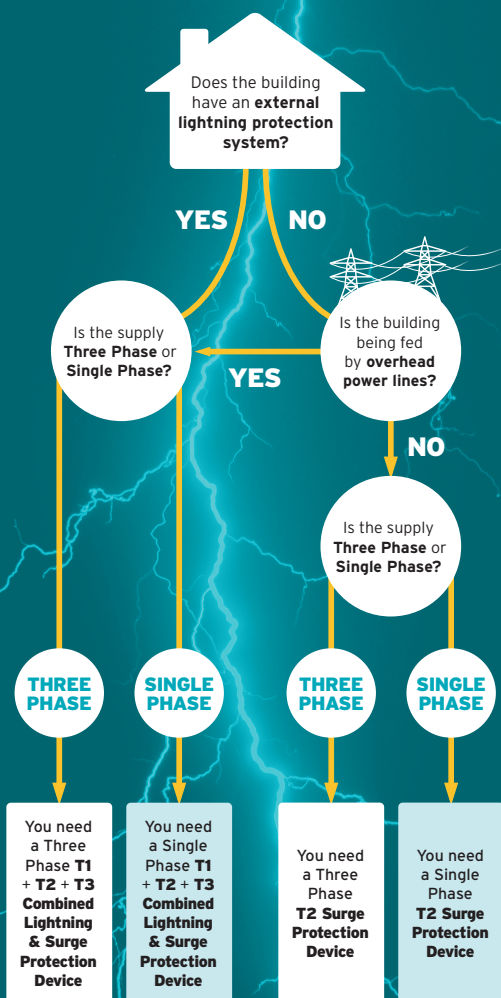




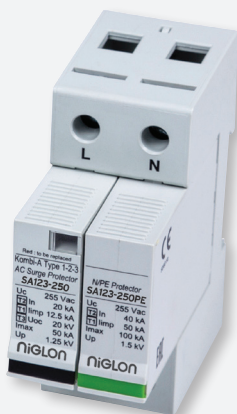
WHICH PROTECTION DEVICE DO I NEED?

Protecting electronic devices has never been so important and surge protection can help. We explain what you need to protect your devices.



Surge Protection Information

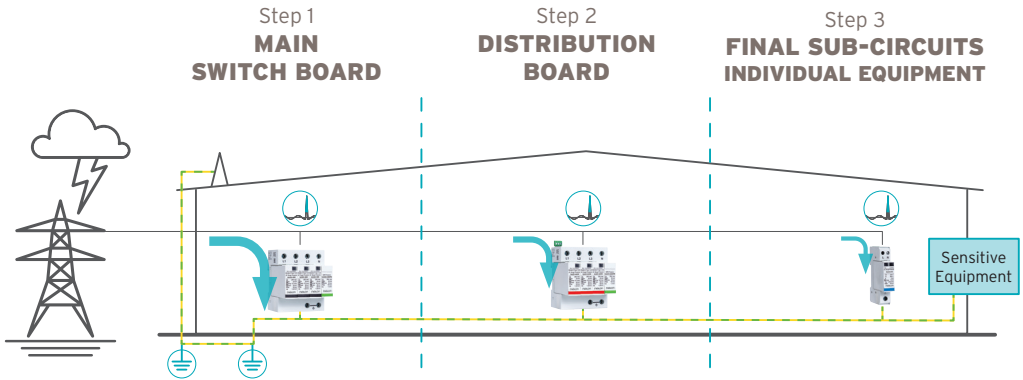
Any surge protection system must be able to withstand the discharged current and provide a U_{res} level (residual voltage) lower than the U_e peak voltage that the equipment can withstand. With most surge protection devices it is not possible to achieve this with just one SPD, especially because the intensity of the surge is not known, and because of the induction of overvoltages when conductors exceed 10m.



Niglon surge protection devices use a patented technology that affords its SPDs a cascade effect in its Type 1 and Type 2 devices. Final sub-circuits may well still require individual surge protection due to the distance from the incoming protection devices.

Classification of Protectors

- BLACK** - Protection - Direct lightning currents (Class I test)
- RED** - Protection - Indirect lightning effects (Class II test)
- BLUE** - Protection - Switching overvoltages (Class III test)



Overvoltage category IEC 60364-4-443	IV	III	II	I
Overvoltage withstand (Ue) values for equipment at 230/400v	6kV	4kV	2,5kV	1,5kV

IEC/EN 61643-11	Type 1 / Class I	Type 2 / Class II	Type 3 / Class III
Definition	Designed for use in incoming power supply panels where the risk of lightning strike is high, in particular in buildings with an external lightning protection system. Must be accompanied by downstream Class II protectors.	Designed for use in distribution panels located downstream of class I protectors or in incoming power supply panels in areas with low exposure to lightning strikes, where the building is not fitted with an external lightning protection system (LPS).	Always installed downstream of a Class II protection designed to protect sensitive equipment or equipment located more than 10m downstream of the Class II SPD.
LPZ IEC 62305-4 protection zone	Lightning Protection Zone 1	Lightning Protection Zone 2	Lightning Protection Zone 3
Class test to IEC/EN 61643-11	10/350µs waveform, Class I test	8/20µs waveform, Class II test	Combined 1.2/50µs-8/20µs waveform Class III test
Surge	Direct impact of a lightning strike (current).	Indirect impact of a lightning strike on the distribution line (overhead lines) or its vicinity (rise of ground potential or induction by coupling of electromagnetic radiation of the strike) or in the event of a switching.	Indirect impact simulated by the current and voltage that can reach the long-distance circuits and individual equipment to be protected.
Discharge capacity (Iimp, Imax)	High	Medium	Low
Voltage protection level (Up)	Coarse	Fine	Very Fine
Niglon Surge Protection Products	<div>SA123</div> <div>SA23</div> <div>SA2</div>		

NB: to provide maximum protection efficiency, it is necessary to create a coordination diagram where high sensitivity equipment is to be protected OR where long distances (greater than 30M) of wire between equipment to be protected and primary SPD.

18th Edition
COMPLIANT 

► Type 2 - 1P+N, 230V AC



15kA

Standard of Compliance - **EN 61643-11, IEC 61643-11, UL1449**

Max Discharge Current - **Max withstand by pole at 8/20μs I_{max} 15kA**

Certified -   

List No.	Description	Earth Type	Module No.	Pack Qty
SA23-215	1P+N, 230V AC I _{max} 15kA	TN	1	1

► Type 2 - 1P+N, 230V AC



40kA

Standard of Compliance - **EN 61643-11, IEC 61643-11, UL1449**

Max Discharge Current - **Max withstand by pole at 8/20μs I_{max} 40kA**

Certified -  

List No.	Description	Earth Type	Module No.	Pack Qty
SA2-240	1P+N 230V AC I _{max} 40kA	TN	1	1

► Type 2+3 - 1P+N, 230V AC



40kA

Standard of Compliance - **EN 61643-11, IEC 61643-11, UL1449**

Max Discharge Current - **Max withstand by pole at 8/20μs I_{max} 40kA**

Certified - 

List No.	Description	Earth Type	Module No.	Pack Qty
SA23-240S	1P+N, 230V AC 40kA, c/w signaller	TN	2	1

► Type 1+2+3 - 1P+N, 230V AC



50kA

Standard of Compliance - **EN 61643-11, IEC 61643-11, UL1449**

Max Discharge Current - **Max impulse current by pole withstand 10/350μs I_{max} 50kA - 12,5kA I_{imp}**

Certified - 

List No.	Description	Earth Type	Module No.	Pack Qty
SA123-250	1P+N, 230V AC 50kA	TT/TN	2	1



► **Type 2 -**
3P+N, 415V AC



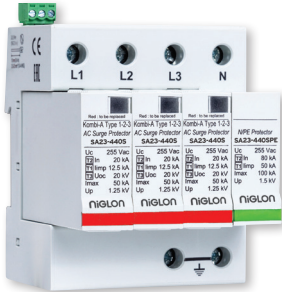
15kA

Standard of Compliance - **EN 61643-11, IEC 61643-11, UL1449**
Max Discharge Current - **Max withstand by pole at 8/20µs I_{max}**
15kA

Certified - **ERC**

List No.	Description	Earth Type	Module No.	Pack Qty
SA23-415	3P+N, 415V AC I _{max} 15kA	TN	2	1

► **Type 2+3 -**
3P+N, 415V AC



40kA

Standard of Compliance - **EN 61643-11, IEC 61643-11, UL1449**
Max Discharge Current - **Max withstand by pole at 8/20µs I_{max}**
40kA

Certified - **ERC**

List No.	Description	Earth Type	Module No.	Pack Qty
SA23-440S	3P+N, 415V AC 40kA, c/w signaller	TNS	4	1

► **Type 2**
- 3P+N 415V



40kA

Standard of Compliance - **EN 61643-11, IEC 61643-11, UL1449**
Max Discharge Current - **Max withstand by pole at 8/20µs I_{max}**
40kA

Certified - **ERC**

List No.	Description	Earth Type	Module No.	Pack Qty
SA2-440	3P+N 415V AC I _{max} 40kA	TN	2	1

► **Type 1+2+3 -**
3P+N, 415V AC



50kA

Standard of Compliance - **EN 61643-11, IEC 61643-11, UL1449**
Max Discharge Current - **Max impulse current by pole withstand**
10/350µs I_{max} 50kA - 12.5kA I_{imp}

Certified - **ERC**

List No.	Description	Earth Type	Module No.	Pack Qty
SA123-450	3P+N, 415V AC 50kA	TT/TNS	4	1

18th Edition
COMPLIANT 

► 3 Module, Insulated Enclosure



Standard of Compliance - **EN 61643-11, IEC 61643-1**

Specification - **IP55**

Protection Zones - **BS EN 62305-4**

List No.	Description	Earth Type	Pack Qty
SAE3-23-215	1 Module 1P+N 15kA I _{max} SPD (SA23-215)	TN	1

► 5 Module, Insulated Enclosure



Standard of Compliance - **EN 61643-11, IEC 61643-1**

Specification - **IP55**

Protection Zones - **BS EN 62305-4**

List No.	Description	Earth Type	Pack Qty
SAE5-23-415	2 Module 3P+N 15kA I _{max} SPD (SA23-415)	TN	1

► 2 Module, Metal Enclosure



Standard of Compliance - **BS EN 60898 & 61008**

Amendment 3 Compliant

Specification - **IP2X**

Protection Zones - **BS EN 62305-4**

List No.	Description	Earth Type	Pack Qty
SAE2M-23-215	1 Module 1P+N 15kA I _{max} SPD (SA23-215)	TN	1

► 6 Module, Metal Enclosure



Standard of Compliance - **BS EN 60898 & 61008, IP2X,**

Amendment 3 Compliant

Specification - **IP2X**

Protection Zones - **BS EN 62305-4**

List No.	Description	Earth Type	Pack Qty
SAE6M-23-415	2 Module 3P+N 15kA I _{max} SPD (SA23-415)	TN	1