

FWP-A

Type 1+2 AC Surge Protective Device

Type 1 + 2 SPD's have characteristics of type 1 but also type 2, they are capable of discharging a very high lightning current (T1 10/350μs) and they have as well a low residual voltage (Up). They are installed in the main distribution switchboard but also in subdistribution board. Because of their power, Type 1 + 2 SPD's can let pass through a too high residual voltage, if the announced Up is not compatible with the withstand voltage of the equipment to protect or if the cable length to the equipment is longer than 10m.



Features

- Patented QuickSafe® technology
- Pluggable
- Safety Reserve system
- Improved safety
- Din rail mounting
- Back up protection up to 160 A Fuse or 125 A Mcb

Specifications

Key characteristics	
Protection mode	L-N/L-PE/N-PE
Number of protected lines	1-4
Test class	I-II
Integrated thermal disconnect	Yes
End of life indicator	Yes
Safety reserve	Yes

Specifications

Electrical characteristics		
Nominal discharge current	I_n (8/20)	20kA
Maximal discharge current	I_{max} (8/20)	40kA
Impulse current	I_{imp} (10/350)	7kA
maximal continuous operating voltage	U_c	275/385/420V
Type of current/frequency		a.c.50/60Hz
Voltage protection level at I_n	$U_{p(L-PE)}$	1,2kV
Voltage protection level at I_n	$U_{p(L-N)}$	-
Voltage protection level at I_n	$U_{p(N-PE)}$	-
Short circuit withstand	I_{SCCR}	100kA
Total current	I_{TOTAL}	20kA
Follow current interrupted	I_f	-/-kA
Ground residual current	I_{PE}	< 350 μ A
TOV withstand(L-N:5s/N-PE:200 ms)	UT	337V
Voltage Combination Wave	U_{oc}	20kV
Required thermal/back up protection		
Curve B or C Circuit breaker		$\leq 125A$
gG-gL fuse		$\leq 160A$
Comments		
Mechanical characteristics		
Dimensions	HxWxD	89x18x69mm
Wire range:Solid wire		2.5...25mm ²
Wire range:Stranded wire		12.5mm ²
Stripping length		Per 1mm
Packing quantities		piece
Miscellaneous characteristics		
Maximal altitude		2000m
Weight		150g
Response time		25ns
Fire resistance according to UL 94		< V-0

FRS-A

Type 1 AC Surge Protective Device

- Large discharge energy
- No leakage
- No follow current
- Modular installation
- High safety coefficient
- Long service life
- Strong environmental resistance
- Voltage protection level is less than 2500V



PV Fuse Description

- FRS-A series voltage limiting type/voltage switching type primary power surge protectors are designed according to IEC and EN 61643 standards, and applied to surge protection at the first stage of the power supply system. Products are standard 35mm rail mounting methods.
- FRS-A series voltage limiting type/voltage switching type primary power surge protectors with high flow capacity, single module impact current up to 50kA (10/350s), can prevent all kinds of lightning surge. Products are applied to the power supply of the equipment system in the higher risk area of lightning strike. The first surge protection can be used in single phase/three-phase power supply line.

The scope of products

- Main power distribution panel in buildings
- Overhead distribution box in buildings
- Outdoor distribution cabinet/distribution box

Product capability parameter

Model	FRS-A15	FRS-A25	FRS-A50
SPD port	2 Poles	3 Poles	4 Poles
SPD category	Voltage limited type	Voltage limited type	Voltage limited type
Test category	Class I test	Class I test	Class I test
Un	220/380VAC; 50/60Hz		
Uc	275/385/420VAC; 50/60Hz		
Insulation resistance	>100MΩ	>100MΩ	>100MΩ
Iimp (10/350μs)	15kA	25kA	50kA
Up (1.2/50μs)	1.5kV	1.5kV	1.8kV
tA	≤100ns	≤100ns	≤100ns
Size	144×90×66	144×90×66	144×90×66
Sectional area of wires	6~25 mm ²	6~25 mm ²	6~25 mm ²
Installation method	35 mm standard rail (EN50022/DIN46277-3)		
Working environment temperature	-40 ~ 85℃		
Sheathing materia	Plastic,accord with UL94 V-0		
Protection level	IP20		
Authehtication	CQC CE Type test		