

## SSP1-20-50-275-A



## SSP1 Series Surge Protectors

The Novaris SSP1 range of surge protectors are designed to provide economic protection to AC power circuits where the neutral conductor is earthed in the distribution system. They are in a two port series configuration with load currents up to 63A and with differing levels of surge current rating. They are suitable for the typical 230/240V AC supplies whether TN-C-S or TT configuration and provide all mode protection for where the neutral earth point might be some distance from the SPD.

## Compact Design

Their compact design makes them an ideal choice for space restricted applications.

## All Mode Protection

Protection is provided for all combinations of lines (L-N, L-PE, N-PE) ensuring the maximum level of protection is achieved at all times.

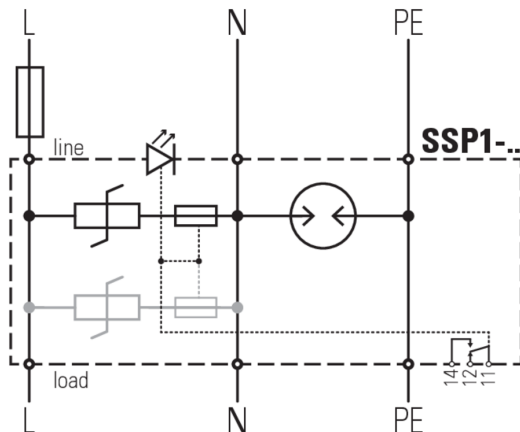
## Safe Metal Enclosure

Novaris surge protection products are housed in safe, all metal enclosures. In the event of a prolonged overvoltage they will not catch fire or explode.

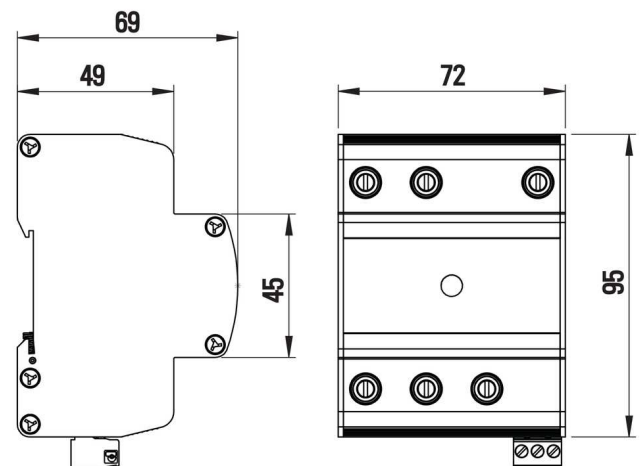
## Installation Independent Performance

Series surge protectors house the shunt (parallel) connection of the protection components internally within the device. This reduces the connection impedance to a minimum to guarantee optimal performance in all installations.

## Wiring



## Dimensions



## Standards

IEC 61643-11  
AS/NZS 1768  
UL 1449  
IEEE 62.41.2

SPD connected to low-voltage power systems - Type 2 + 3  
A.C. power system SPD - Cat C, B, A  
Low voltage SPD - Type 2, Type 3  
Low voltage SPD - Cat B, Cat C

## Product Datasheet

## Electrical Specifications

|                               |                                                                                   |                 |
|-------------------------------|-----------------------------------------------------------------------------------|-----------------|
| Connection type               |  | Series          |
| Modes of protection           |  | L-N, L-PE, N-PE |
| Number of ports               |                                                                                   | 2               |
| Number of phases              |  | 1               |
| Location                      |                                                                                   | Indoor          |
| Nominal voltage               | $U_0$                                                                             | 230VAC          |
| Short circuit withstand level | $I_{SSCR}$                                                                        | 25kA            |
| Maximum backup fuse           |  | 20A             |
| Earth leakage current         | $I_{PE}$                                                                          | <10 $\mu$ A     |

## Electrical (L-N) Specifications

|                                             |           |        |
|---------------------------------------------|-----------|--------|
| Maximum load current                        | $I_L$     | 20A    |
| Maximum continuous voltage AC               | $U_C$     | 275VAC |
| Maximum discharge current (8/20 $\mu$ s)    | $I_{max}$ | 50kA   |
| Nominal discharge current (8/20 $\mu$ s)    | $I_n$     | 20kA   |
| Lightning impulse current (10/350 $\mu$ s)  | $I_{imp}$ | 6.25kA |
| Voltage protection level (3kA 8/20 $\mu$ s) | $U_p$     | <800V  |
| Voltage protection level (In)               | $U_p$     | <1300V |
| Response time                               | $t_A$     | <5ns   |
| Voltage withstand (5s)                      | $U_T$     | 335V   |

## Electrical (N-PE) Specifications

|                                            |           |        |
|--------------------------------------------|-----------|--------|
| Maximum continuous voltage                 | $U_C$     | 255VAC |
| Maximum discharge current (8/20 $\mu$ s)   | $I_{max}$ | 60kA   |
| Lightning impulse current (10/350 $\mu$ s) | $I_{imp}$ | 15kA   |
| Nominal discharge current (8/20 $\mu$ s)   | $I_n$     | 50kA   |
| Voltage protection level (1kV/ $\mu$ s)    | $U_p$     | <700V  |
| Response time                              | $t_A$     | <100ns |
| Voltage withstand (200ms)                  | $U_T$     | 1200V  |
| Follow current interrupt rating            | $I_{fi}$  | 100A   |

## Indication Specifications

|                 |                                                                                     |                                |
|-----------------|-------------------------------------------------------------------------------------|--------------------------------|
| Display         |  | LED power and thermal failure  |
| Alarm           |  | SPDT power and thermal failure |
| Alarm isolation |  | 4kV                            |

## Mechanical Specifications

|                                |                                                                                     |                    |
|--------------------------------|-------------------------------------------------------------------------------------|--------------------|
| Minimum operating temperature  |  | -40°C              |
| Maximum operating temperature  |  | 70°C               |
| Minimum operating humidity     |  | 5%                 |
| Maximum operating humidity     |  | 95%                |
| Mounting method                |  | TS35 DIN Rail      |
| Environmental rating           |  | IP20               |
| Enclosure material             |  | Aluminium          |
| Enclosure finish               |  | Black powdercoat   |
| Terminal capacity - power      |  | 16mm <sup>2</sup>  |
| Terminal screw torque - power  |  | 2Nm                |
| Terminal capacity - alarms     |  | 2.5mm <sup>2</sup> |
| Terminal screw torque - alarms |  | 0.5Nm              |
| Length                         |  | 95mm               |
| Width                          |  | 72mm               |
| Height                         |  | 69mm               |

## Other Specifications

Product Code  SSP1-20-50-275-A

## Shipping Specifications

|                |                                                                                       |                    |
|----------------|---------------------------------------------------------------------------------------|--------------------|
| Weight         |  | 420g               |
| Customs tariff |  | 85363000, 85363010 |