### SFD1-20-100-275



### Single Phase Surge Filters

Novaris DIN mount Surge Filter are suitable for installation in circuits up to 32A. The SFD range has been engineered to protect sensitive loads.

### Compact Design

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

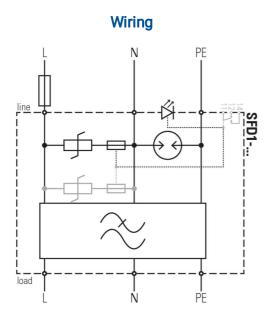
### All Mode Protection

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.

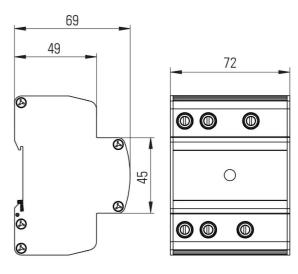
Novaris surge protection products are housed in safe, all metal enclosures. In the event of a prolonged overvoltage they will not catch fire or explode.

### Three Stages of Protection

Novaris surge filters have 2 stages of varistor protection separated by a low pass LC filter. This 3 stage combination reduces the effects of high frequency noise and transients to provide the highest level of protection to sensitive



# **Dimensions**



### **Standards**

IEC 61643-11:2011 AS/NZS 1768:2007 UL 1449 3rd edition IEEE 62.41.2:2002

SPD connected to low-voltage power systems - Type 1+2 A.C. power system SPD - Cat C, B

Low voltage SPD - Type 2 Low voltage SPD - Cat B

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# Product Datasheet

### **Electrical Specifications**

| Connection type               | ¥               | Series          |
|-------------------------------|-----------------|-----------------|
| Modes of protection           | ħ               | L-N, L-PE, N-PE |
| Number of ports               |                 | 2               |
| Number of phases              | ≔               | 1               |
| Location                      |                 | Indoor          |
| Nominal voltage               | U <sub>o</sub>  | 230VAC          |
| Short circuit withstand level | ISSCR           | 25kA            |
| Maximum backup fuse           | <b>=</b>        | 20A             |
| Earth leakage current         | I <sub>PE</sub> | <10µA           |

### Electrical (L-N) Specifications

| Maximum load current                  | I <sub>L</sub>   | 20A           |
|---------------------------------------|------------------|---------------|
| Maximum continuous voltage AC         | U <sub>c</sub>   | 275VAC        |
| Maximum voltage drop (% of Uo)        |                  | <1%           |
| 3dB frequency @ 50Ω                   |                  | 800Hz         |
| Maximum discharge current (8/20 μs)   | l <sub>max</sub> | 100kA         |
| Nominal discharge current (8/20 µs)   | I <sub>n</sub>   | 40kA          |
| Lightning impulse current (10/350 µs) | l <sub>imp</sub> | 12.5kA        |
| Voltage protection level (3kA 8/20µs) | U <sub>p</sub>   | <600V         |
| Voltage protection level (In)         | U <sub>p</sub>   | <2000V        |
| Response time                         | t <sub>A</sub>   | Instantaneous |
| Voltage withstand (5s)                | U <sub>T</sub>   | 335V          |

## Electrical (N-PE) Specifications

| Maximum continuous voltage            | $\mathbf{U}_{\mathrm{c}}$ | 255VAC |
|---------------------------------------|---------------------------|--------|
| Maximum discharge current (8/20 μs)   | l <sub>max</sub>          | 60kA   |
| Lightning impulse current (10/350 µs) | l <sub>imp</sub>          | 15kA   |
| Nominal discharge current (8/20 µs)   | I,                        | 50kA   |
| Voltage protection level (1kV/µs)     | U <sub>p</sub>            | <1200V |
| Voltage protection level (In)         | U <sub>p</sub>            | <1500V |
| Response time                         | t <sub>A</sub>            | <100ns |
| Voltage withstand (200ms)             | U <sub>T</sub>            | 1200V  |
| Follow current interrupt rating       | I <sub>fi</sub>           | 100A   |

# **Indication Specifications**

**Display** LED power and thermal failure

### **Mechanical Specifications**

| Minimum operating temperature | P        | -40°C            |
|-------------------------------|----------|------------------|
| Maximum operating temperature | ı        | 70°C             |
| Minimum operating humidity    | <b>%</b> | 5%               |
| Maximum operating humidity    | •        | 95%              |
| Mounting method               | Æ        | TS35 DIN Rail    |
| Environmental rating          | ŵ        | IP20             |
| Enclosure material            | •        | Aluminium        |
| Enclosure finish              | •        | Black powdercoat |
| Terminal capacity - power     | 0        | 16mm²            |
| Terminal screw torque - power | G        | 2Nm              |
| Length                        | 2        | 96mm             |
| Width                         | <b>+</b> | 72mm             |
| Height                        | 1        | 69mm             |
|                               |          |                  |

### Other Specifications

Product Code SFD1-20-100-275

# **Shipping Specifications**

| Weight         | Â | 625g     |
|----------------|---|----------|
| Customs tariff | * | 85354010 |

