



## Single Phase

SF102DIN/x  
SF105DIN/x  
SF110DIN/x  
SF120DIN/x

## Three Phase

SF305DIN/x  
SF310DIN/x  
SF320DIN/x

## FINAL CIRCUIT / EQUIPMENT SURGE PROTECTION

For final circuit and / or equipment level protection these DINsafe surge filters provide excellent protection for critical equipment up to 20A per phase. Models are available for all wiring systems worldwide.

### All Mode Protection

All models feature all mode protection. Ensuring protection for all combinations of lines (L-N, L-E, N-E) ensuring the maximum level of protection is achieved at all times.

### Multistage Transient Protection

Models featuring multistage transient protection deliver greater levels of protection through a staged approach. The primary stage absorbs the majority of the surge energy. The remaining stages provide accurate clamping and a degree of redundancy.

### Surge Current Fusing

Surge current fuses allow components to absorb maximum energy but in the event of a component failure the fuse will open to isolate the damaged component.

### Thermal Sensing

Sustained overvoltages can cause components to overheat and degrade. Thermal sensing warns of this condition without disconnecting the protection.

### LED Status Display

LED indicators are provided on models to indicate operating status.

### External Alarms

Models featuring external alarms have voltage free changeover contacts for remote status indication.

### DIN 43880 Compliant

Protection devices housed in DIN 43880 compliant enclosures allow for convenient installation on DIN rail fittings commonly used in switchboards worldwide.

### 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.

- ◆ All mode protection
- ◆ Multistage transient protection
- ◆ Surge current fusing
- ◆ Thermal sensing
- ◆ LED status display
- ◆ External alarms
- ◆ DIN 43880 compliant
- ◆ Safe metal enclosure

**Ordering Guide**

SF x y DIN /z  
SF x y DIN - 40 /z

x= **Phases:** 1, 2, 3  
y= **Load current Amps:** 2, 5, 10, 20  
z= **LED Indication (2A, 5A):** /L

LED indicators are available on 2 and 5 Amp versions to indicate operating status.

**External alarm:** /A

Models are available with an inbuilt alarm relay that provides a clean change over contact. This may be used to remotely monitor the status of the unit and will also indicate power failure

**Polycarbonate enclosure:** /P

Use a suitably rated polycarbonate enclosure for mounting external to the MSB in damp and dusty conditions. A clear lid allows protection status to be easily viewed.

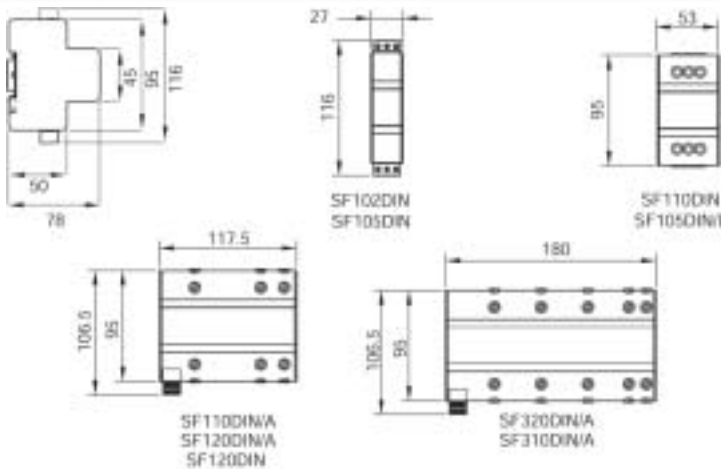
e.g. SF120DIN-40/A

**Application**

The **DINsafe** range of low current surge filters are an economical solution for the protection of all low current applications. Typical applications include process control systems, CCTV camera equipment, telemetry, data acquisition, and alarm circuitry. Versions are available with voltage ratings from 30VAC up to 240VAC.

Series connected surge filters are capable of providing superior protection to any shunt connected surge protector. Novaris is expert in the design and construction of surge filters and has units suitable for almost any application ranging from 2A to 2000A per phase. For further information on the Novaris product range please contact Novaris or visit our website at [www.novaris.com.au](http://www.novaris.com.au).

**Dimensions**



**Safety**

The Siemens Metal Oxide Varistor (MOV) Handbook states:

*Overload may result in package rupture and expulsion of hot material. For this reason a varistor should be physically shielded from adjacent components eg. by a suitable metal case.*

**DINsafe** surge filters are enclosed in all-metal enclosures and circuit components are not encapsulated in any form of epoxy resin.

**Specifications**

Description: Low current surge filter  
 Protection modes: All modes (L-N, L-E & N-E)  
 Protection stages: MOV/LC Filter/MOV  
 Connection type: Series  
 Nominal voltage:  
     SF1yDIN/z 220 / 230 / 240VAC RMS  
     SF3yDIN/z 380 / 400 / 415VAC RMS  
 Working voltage:  
     SF1yDIN/z 200 → 280VAC RMS  
     SF3yDIN/z 346 → 485VAC RMS  
     Other voltages available on request.  
 Max. load current: 2A → 20A  
 Max voltage drop: <2V at full load  
 Working frequency: 40 → 60Hz  
 Working temperature: -40 → 85°C  
 Working humidity: 0 → 90%  
 Peak surge handling per mode(8/20µs): 8 → 40kA  
 Let-through voltage for 6kV, 3kA (8/20µs) pulse:  
     L-N < 750V  
     L-E < 750V  
     N-E < 500V

Note: Lower voltage models have lower let-through voltages.

Standards compliance: IEEE C62.41 cat. A, B  
 AS1768-2003 cat. A, B  
 BS6651-1999 cat. A, B  
 CP33-1996 cat. A, B  
 IEC 1000-4-5-1995  
 UL1449 Second Edition

Response time: Instantaneous  
 Earth leakage current: < 500µA  
 Display: LED  
 Alarms: Changeover contact on one segment failure or thermal overload.

Alarm Isolation: 4KV to active circuitry

Product	Weight	Terminal Capacity
SF102DIN	0.35kg	2.5mm <sup>2</sup> Polarised plugs
SF105DIN	0.35kg	2.5mm <sup>2</sup> Polarised plugs
SF105DIN/L	0.45kg	4mm <sup>2</sup>
SF110DIN	0.45kg	4mm <sup>2</sup>
SF110DIN/A	1.05kg	16mm <sup>2</sup>
SF120DIN	1.05kg	16mm <sup>2</sup>
SF120DIN/A	1.15kg	16mm <sup>2</sup>
SF310DIN/A	1.55kg	16mm <sup>2</sup>
SF320DIN/A	1.55kg	16mm <sup>2</sup>

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