

## HSF3-40-100-275

**Hybrid Surge Filter**

The Novaris HSF is a hybrid surge filter with primary and secondary hybrid surge protection components plus a low pass filter. The hybrid design means the filter can continuously withstand phase to phase voltage between its phase and neutral terminals yet its performance equals that of other Novaris surge filters. This makes it ideal for applications where voltage regulation is poor and power line faults common.

**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.

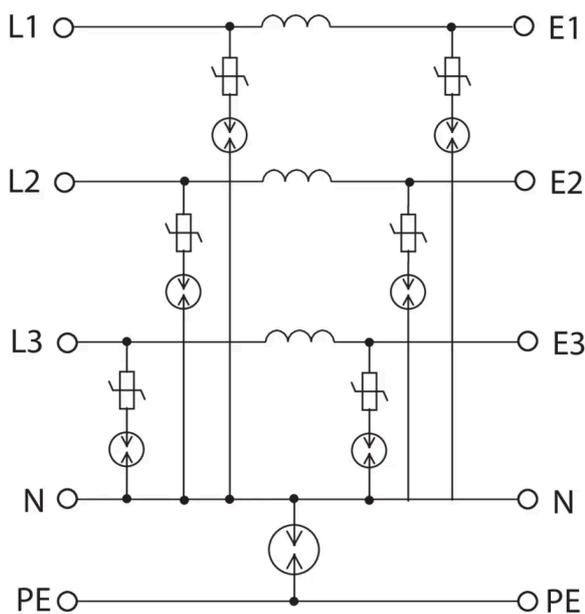
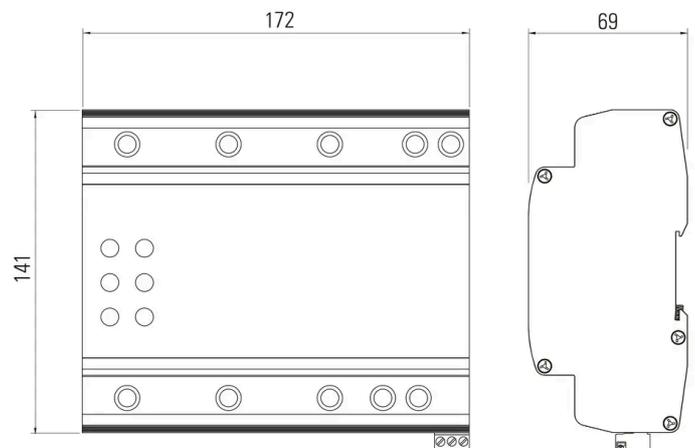
**Safe Metal Enclosure**

Novaris surge protection products are housed in safe, all metal enclosures. Under extreme fault conditions they will not catch fire or explode.



*Image for illustrative purposes only*

The colour of the grommets will change starting from 2026. All phases will be black, neutral will be black, and earth will be green

**Wiring****Dimensions**

## Product Datasheet

### Electrical Specifications

Connection type		Series
Modes of protection		L-N, L-PE, N-PE
Number of ports		2
Number of phases		3
Location		Indoor
Nominal voltage	$U_0$	230VAC
Short circuit withstand level	$I_{sCCR}$	50kA
Maximum backup fuse		40A

### Electrical (L-N) Specifications

Maximum load current	$I_L$	40A
Maximum continuous voltage AC	$U_c$	480VAC
Maximum voltage drop (% of $U_0$ )		<1%
Maximum discharge current (8/20 $\mu$ s)	$I_{max}$	100kA
Nominal discharge current (8/20 $\mu$ s)	$I_n$	40kA
Lightning impulse current (10/350 $\mu$ s)	$I_{imp}$	12.5kA
Voltage protection level (3kA 8/20 $\mu$ s)	$U_p$	<650V
Response time	$t_A$	Instantaneous
3dB frequency @ 50 $\Omega$		$\leq$ 88.5kHz

### Electrical (N-PE) Specifications

Maximum continuous voltage	$U_c$	255VAC
Maximum discharge current (8/20 $\mu$ s)	$I_{max}$	60kA
Nominal discharge current (8/20 $\mu$ s)	$I_n$	50kA
Lightning impulse current (10/350 $\mu$ s)	$I_{imp}$	15kA
Voltage protection level (1kV/ $\mu$ s)	$U_p$	<700V
Voltage protection level (In)	$U_p$	<1300V
Response time	$t_A$	<25ns
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		141mm
Width		172mm
Height		69mm

### Standard Specifications

IEC 61643-11	SPD connected to low-voltage power systems - Type 1, 2
AS 1768	AC power system SPD - Cat C, B
UL 1449	Low voltage SPD - Type 2
IEEE 62.41.2	Low voltage SPD - Cat B

### Shipping Specifications

Weight		2kg
Customs tariff		85363000, 85363010

### Other Specifications

Product Code		HSF3-40-100-275
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