

# Technical Information Sheet

## HSF3-40-100-275



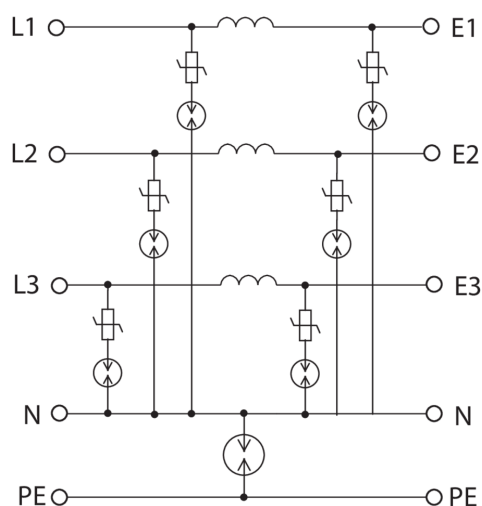
### Hybrid surge filter

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.

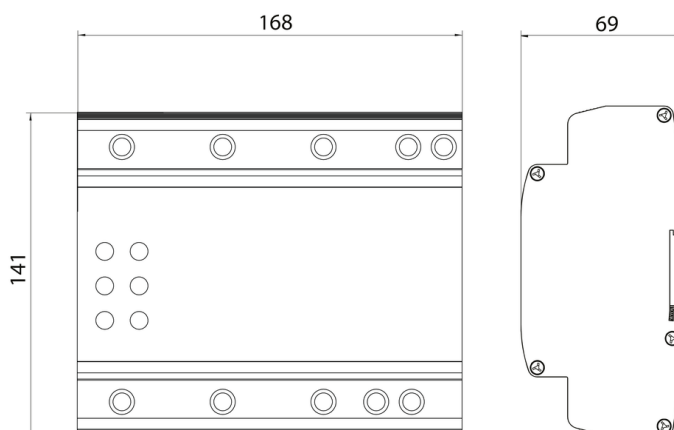
**Safe Metal Enclosure.** Novaris surge protection products are housed in safe, all metal enclosures. Under extreme fault conditions they will not catch fire or explode.

### Wiring



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

### Dimensions



### Standards

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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## Specifications

### Electrical Specifications

Connection type		Series
Modes of protection		L-N, L-PE, N-PE
Number of phases		3
Nominal voltage	$U_0$	230VAC
Short circuit withstand level	$I_{SSCR}$	25kA




### Electrical (L-N) Specifications

Maximum load current	$I_L$	40A
Maximum continuous voltage	$U_c$	275VAC
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
















### 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 protection level (In)	$U_p$	<1300V
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		168mm
Height		69mm

### Other Specifications

Product Code  HSF3-40-100-275

### Shipping Specifications

Weight  500g