

## IFD2-20-12-30



## Two Phase DIN Mount Surge Filters

The Novaris IFD2 range of surge filters is designed for protecting floating AC or DC power supplies. Applications include DC power supplies, balanced circuits for rail applications and single phase IT systems.

## Multistage Protection

The IFD2 uses 3 stages of protection to provide a low let through voltage. The first stage comprises a delta configuration of metal oxide varistors to provide clamping between both lines and between each line and earth. The second stage is a low pass filter providing instantaneous protection against high frequency impulses. The third stage is a line to line metal oxide varistor to provide an extra level of protection against primary and load side surges.

## No Earth Leakage

The IFD2 configuration results in zero earth leakage under normal operating conditions. The earth reference for the product is isolated using a spark gap. This means even in the event of a short circuit failure within the device, no current will pass to earth.

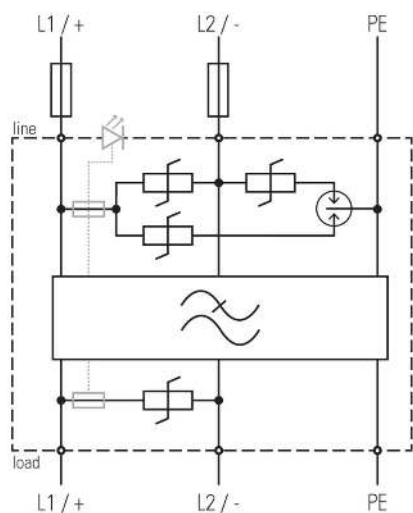
## Safe Metal Enclosure

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

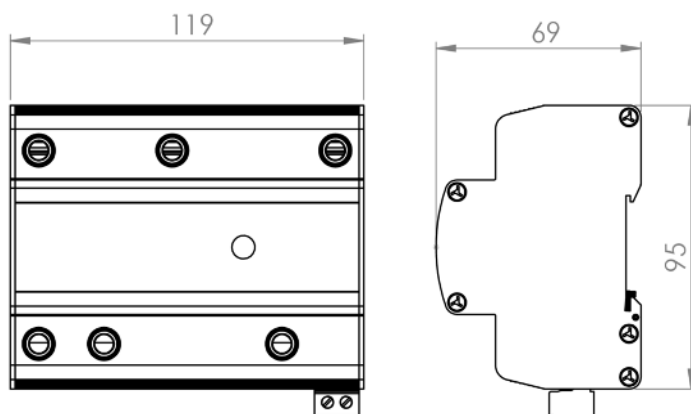
## Installation Independent Performance

Series surge protectors such as the SSP and IFD range 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 61643-11:2011  
AS/NZS 1768:2007  
UL 1449 3rd edition  
IEEE 62.41.2:2002

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

## Product Datasheet

## Electrical Specifications

Connection type		Series
Modes of protection		L-PE, L-L
Number of ports		2
Number of phases		2
Location		Indoor
Nominal voltage	$U_0$	24VAC
Maximum backup fuse		20A
Earth leakage current	$I_{PE}$	<10 $\mu$ A

## Shipping Specifications

Weight		950g
Customs tariff		85354010




## Electrical (L-L) Specifications

Maximum continuous voltage AC	$U_c$	30VAC
Maximum continuous voltage DC	$U_c$	38VDC
Maximum discharge current (8/20 $\mu$ s)	$I_{max}$	12kA
Nominal discharge current (8/20 $\mu$ s)	$I_n$	8kA
Voltage protection level (3kA 8/20 $\mu$ s)	$U_p$	<180V
Response time	$t_A$	<5ns












## Electrical (L-PE) Specifications

Maximum discharge current (8/20 $\mu$ s)	$I_{max}$	12kA
Nominal discharge current (8/20 $\mu$ s)	$I_n$	8kA
Voltage protection level (3kA 8/20 $\mu$ s)	$U_p$	<280V
Response time	$t_A$	<5ns
Voltage protection level (In)	$U_p$	<1000V

## Indication Specifications

Display		LED power and thermal failure
Alarm		Passive
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		118mm
Height		69mm

## Other Specifications

Product Code		IFD2-20-12-30
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