

SFD2-32-100-275-A - Two Phase DIN Mount Surge Filters



Application

The Novaris SFD2 range of surge filters are designed for 2 line applications such as floating AC lines or DC applications. The SFD2 range can filter up to 32A of AC or DC current to provide premium protection for sensitive loads. Common applications include DC power supplies, floating circuits for rail applications and single phase IT systems.

Multistage Protection

The SFD2 uses 3 stages of protection to provide an extremely low let through voltage. The first stage is provided by a delta configuration of metal oxide varistors to provide clamping between the lines and earth. The second stage is a low pass filter that provides instantaneous protection against high frequency spikes. 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 SFD2 employs a unique design that prevents earth leakage and wrong side failures. 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 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.

Relevant Standards

- IEC 61643-11:2011 - SPD connected to low-voltage power systems - Type 2+3

Technical Information Sheet

- AS/NZS 1768:2007 - A.C. power system SPD - Cat C, B, A
- UL 1449 3rd edition - Low voltage SPD - Type 2, 3
- IEEE 62.41.2:2002 - Low voltage SPD - Cat B

Specifications

Electrical

Specification		Value	Status
Connection type		Series	Confirmed
Modes of protection		L-PE, L-L	Confirmed
Number of phases		2	Confirmed
Nominal voltage	U_o	230VAC	Confirmed
Short circuit withstand level	I_{SSCR}	25kA	Confirmed
Maximum backup fuse		32A	Confirmed
Earth leakage current	I_{PE}	<10 μ A	Confirmed

Electrical (L-N)

Specification		Value	Status
Maximum load current	I_L	32A	Confirmed
Maximum continuous voltage	U_c	275VAC	Confirmed
Maximum Continuous Voltage DC	U_c	380VDC	Confirmed
Maximum voltage drop (% of U_o)		<1%	Confirmed
Maximum discharge current (8/20 μ s)	I_{max}	100kA	Confirmed
3dB frequency @ 50 Ω		900Hz	Confirmed
Nominal discharge current (8/20 μ s)	I_n	40kA	Confirmed
Lightning impulse current (10/350 μ s)	I_{imp}	12.5kA	Confirmed
Voltage protection level (3kA 8/20 μ s)	U_p	<600V	Confirmed
Voltage protection level (In)	U_p	<800V	Confirmed
Response time	t_A	Instantaneous	Confirmed
Voltage withstand (5s)	U_T	440V	Confirmed

Electrical (N-PE)

Specification		Value	Status
Maximum continuous voltage	U_c	480VAC	Confirmed
Maximum discharge current (8/20 μ s)	I_{max}	40kA	Confirmed
Lightning impulse current (10/350 μ s)	I_{imp}	12.5kA	Confirmed
Nominal discharge current (8/20 μ s)	I_n	40kA	Confirmed
Voltage protection level (1kV/ μ s)	U_p	<700V	Status missing
Response time	t_A	<100ns	Confirmed
Voltage protection level (In)	U_p	<1000V	Confirmed
Voltage withstand (200ms)	U_T	1200V	Confirmed

Indication

Specification		Value	Status
Display		LED power and thermal failure	Confirmed
			

Technical Information Sheet

Alarm		SPDT power and thermal failure	Confirmed
Alarm isolation		4kV	Confirmed

Mechanical

Specification		Value	Status
Minimum operating temperature		-40°C	Confirmed
Maximum operating temperature		70°C	Confirmed
Minimum operating humidity		5%	Confirmed
Maximum operating humidity		95%	Confirmed
Mounting method		TS35 DIN Rail	Confirmed
Environmental rating		IP20	Confirmed
Enclosure material		Aluminium	Confirmed
Enclosure finish		Black powdercoat	Confirmed
Terminal capacity - power		16mm ²	Confirmed
Terminal screw torque - power		2Nm	Confirmed
Terminal capacity - alarms		2.5mm ²	Confirmed
Terminal screw torque - alarms		0.5Nm	Confirmed
Length		95mm	Confirmed
Width		120mm	Confirmed
Height		69mm	Confirmed

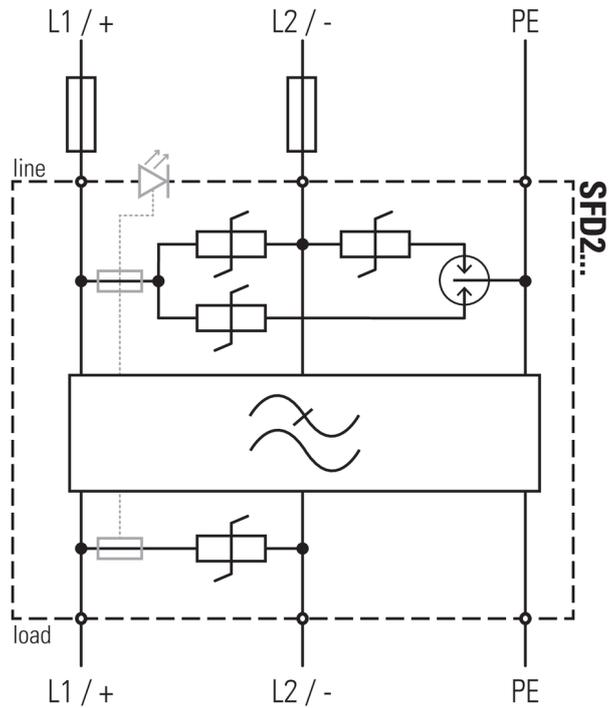
Other

Specification		Value	Status
Product Code		SFD2-32-100-275-A	Confirmed

Shipping

Specification		Value	Status
Weight		850g	Confirmed
Customs tariff		85354010	Confirmed

Schematic/Wiring



Dimensions

