

SSP1 - Series Surge Protectors



Series Surge Protectors - Single Phase

Novaris SSP protectors are suitable for installation in circuits up to 63A. The SSP range has been engineered to provide excellent performance in an economical package.

Compact design

Their compact design makes them an ideal choice for space restricted applications.

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.

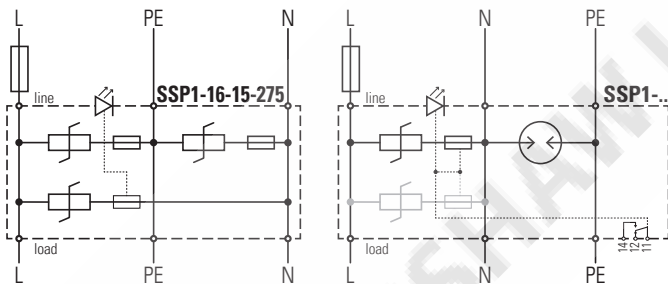
Safe Metal Enclosure

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

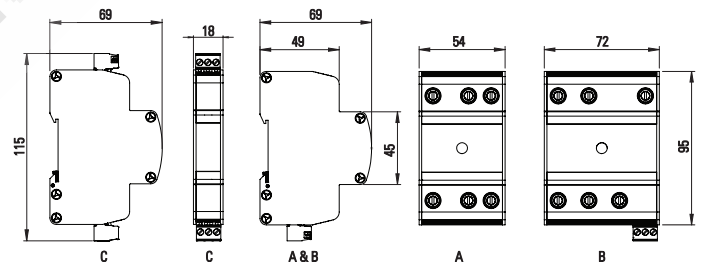
Installation independent performance

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.

Diagram / Installation



Dimensions



Ordering Information

	Low exposure		Medium exposure		Options	
	Single Phase	Three Phase	Single Phase	Three Phase	SPDT alarm contact	Polycarbonate enclosure
Max Load Current						
16 A	SSP1-16-15-275	—	—	—	—	-P
20 A	SSP1-20-50-275	SSP3-20-50-275	SSP1-20-100-275	SSP3-20-100-275	-A	-P
32 A	SSP1-32-50-275	SSP3-32-50-275	SSP1-32-100-275	SSP3-32-100-275	-A	-P
63 A	SSP1-63-50-275	SSP3-63-50-275	SSP1-63-100-275	SSP3-63-100-275	-A	-P

Product Specifications

Model		SSP1-16-15-275	SSP1-20-50-275	SSP1-20-100-275	SSP1-32-50-275	SSP1-32-100-275	SSP1-63-50-275	SSP1-63-100-275
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Electrical Specifications

Connection type		Series	Series	Series	Series	Series	Series	Series
Modes of protection		L-N, L-PE, N-PE	L-N, L-PE, N-PE	L-N, L-PE, N-PE	L-N, L-PE, N-PE	L-N, L-PE, N-PE	L-N, L-PE, N-PE	L-N, L-PE, N-PE
Phases		1	1	1	1	1	1	1
Nominal voltage	U_o	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC
Short circuit withstand level	I_{SCCR}	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
Maximum backup fuse (g/L/gG)		16 A	20 A	20 A	32 A	32 A	63 A	63 A

L-N

Maximum continuous voltage	U_c	275 VAC	275 VAC	275 VAC	275 VAC	275 VAC	275 VAC	275 VAC
Maximum load current	I_L	16 A	20 A	20 A	32 A	32 A	63 A	63 A
Maximum voltage Drop (% of U_o)	ΔU	0	0	0	0	0	0	0
Maximum discharge current (8/20 μ s)	I_{max}	15 kA	50 kA	100 kA	50 kA	100 kA	50 kA	100 kA
Lightning impulse current (10/350 μ s)	I_{imp}	—	—	6.25 kA	—	6.25 kA	—	6.25 kA
Nominal discharge current (8/20 μ s)	I_n	6 kA	20 kA	40 kA	20 kA	40 kA	20 kA	40 kA
Voltage protection level @ 3 kA 8/20 μ s	U_p	< 800 V	< 800 V	< 800 V	< 800 V	< 800 V	< 800 V	< 800 V
Voltage protection level @ I_n	U_p	< 1000 V	< 1300 V	< 1700 V	< 1300 V	< 1700 V	< 1300 V	< 1700 V
Response time	t_A	< 5 ns	< 5 ns	< 5 ns	< 5 ns	< 5 ns	< 5 ns	< 5 ns
Temporary overvoltage (TOV)	U_T	440 V / 5 s (Withstand)						

N-PE

Maximum continuous voltage	U_c	275 VAC	255 VAC	255 VAC	255 VAC	255 VAC	255 VAC	255 VAC
Maximum discharge current (8/20 μ s)	I_{max}	15 kA	60 kA	60 kA	60 kA	60 kA	60 kA	60 kA
Lightning impulse current (10/350 μ s)	I_{imp}	—	15 kA	15 kA	15 kA	15 kA	15 kA	15 kA
Nominal discharge current (8/20 μ s)	I_n	6 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Voltage protection level @ 1 kV/ μ s	U_p	—	< 700 V	< 700 V	< 700 V	< 700 V	< 700 V	< 700 V
Voltage protection level @ I_n	U_p	< 1000 V	< 1300 V	< 1300 V	< 1300 V	< 1300 V	< 1300 V	< 1300 V
Response time	t_A	< 5 ns	< 100 ns	< 100 ns	< 100 ns	< 100 ns	< 100 ns	< 100 ns
Temporary overvoltage (TOV)	U_T	440 V / 5 s	1200 V / 0.2 s	1200 V / 0.2 s	1200 V / 0.2 s	1200 V / 0.2 s	1200 V / 0.2 s	1200 V / 0.2 s
Follow current interrupt rating	I_{fi}	—	100 A	100 A	100 A	100 A	100 A	100 A
Earth leakage current		< 500 μ A	< 10 μ A	< 10 μ A	< 10 μ A	< 10 μ A	< 10 μ A	< 10 μ A

Indication

Display		LED status	LED status					
External alarm		—	Active alarm optional					
Display / Alarm function		—	Power fail safe, thermal overload, SPDT voltage free contact					
Alarm isolation		—	4 kV					

Mechanical Specifications

Operating temperature		-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Humidity Range		5 to 95% non-condensing						
Terminal capacity – power		0.5 – 2.5 mm²	2.5 – 16 mm²	2.5 – 16 mm²	2.5 – 16 mm²	2.5 – 16 mm²	2.5 – 16 mm²	2.5 – 16 mm²
Terminal capacity – alarms		–	0.5 – 2.5 mm²	0.5 – 2.5 mm²	0.5 – 2.5 mm²	0.5 – 2.5 mm²	0.5 – 2.5 mm²	0.5 – 2.5 mm²
Terminal screw torque – power		0.5 Nm	2.0 Nm	2.0 Nm	2.0 Nm	2.0 Nm	2.0 Nm	2.0 Nm
Terminal screw torque – alarm		–	0.5 Nm	0.5 Nm	0.5 Nm	0.5 Nm	0.5 Nm	0.5 Nm
Environmental / Location		IP 20 / Indoors	IP 20 / Indoors	IP 20 / Indoors	IP 20 / Indoors	IP 20 / Indoors	IP 20 / Indoors	IP 20 / Indoors
Dimensional Drawing		C	A without alarm, B with alarm					
Device width		18 mm	54 mm without alarm, 72 mm with alarm					
Mounting		TS35 DIN rail / Panel mount						
Enclosure / Colour		Metal / Black						

Standards

IEC 61643-11:2011		SPD connected to low-voltage power systems - Type 2 + 3						
AS/NZS 1768:2007		A.C. power system SPD - Cat C, B, A						
UL 1449 3 rd edition		Low voltage SPD - Type 2, Type 3						
IEEE 62.41.2:2002		Low voltage SPD - Cat B, Cat C						

Shipping

Weight		200 g	315 g	335 g	315 g	335 g	395 g	415 g
Customs Tariff		85354010	85354010	85354010	85354010	85354010	85354010	85354010