

# SSP3 - Series Surge Protectors



## Series Surge Protectors - Three 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.

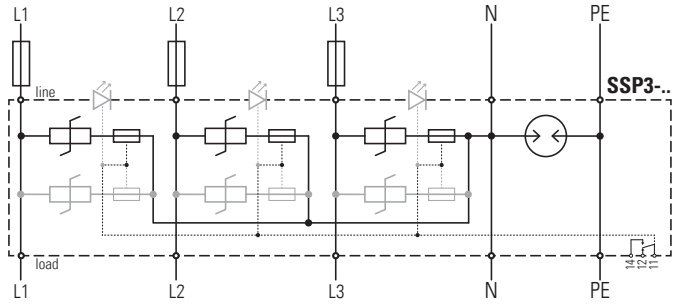
### Safe Metal Enclosure

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.

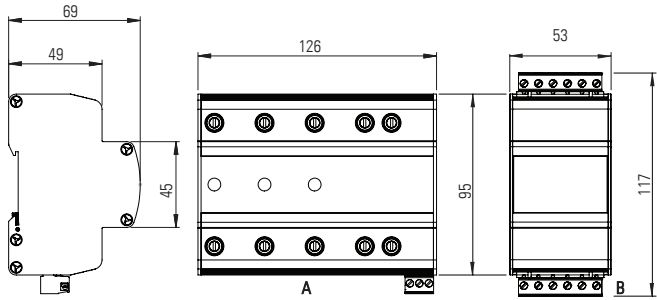
### Installation independent performance

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
<b>Max Load Current</b>						
10 A	—	SSP3-10-10-275	—	—	-A (Passive NC)	-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	SSP3-10-10-275	SSP3-20-50-275	SSP3-20-100-275	SSP3-32-50-275	SSP3-32-100-275	SSP3-63-50-275	SSP3-63-100-275
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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	3	3	3	3	3	3	3
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 (gL/gG)	10 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
Maximum load current	$I_L$	10 A	20 A	20 A	32 A	32 A	63 A
Maximum voltage Drop (% of $U_o$ )	$\Delta U$	0	0	0	0	0	0
Maximum discharge current (8/20 $\mu$ s)	$I_{max}$	10 kA	50 kA	100 kA	50 kA	100 kA	50 kA
Lightning impulse current (10/350 $\mu$ s)	$I_{imp}$	–	–	–	–	–	–
Nominal discharge current (8/20 $\mu$ s)	$I_n$	5 kA	20 kA	40 kA	20 kA	40 kA	20 kA
Voltage protection level @ 3 kA 8/20 $\mu$ s	$U_p$	< 800 V	< 800 V	< 800 V	< 800 V	< 800 V	< 800 V
Voltage protection level @ $I_n$	$U_p$	< 1300 V	< 1300 V	< 1700 V	< 1300 V	< 1700 V	< 1300 V
Response time	$t_A$	< 5 ns	< 5 ns	< 5 ns	< 5 ns	< 5 ns	< 5 ns
Temporary overvoltage (TOV)	$U_T$	440 V / 5 sec (Withstand)					

### N-PE

Maximum continuous voltage	$U_c$	255 V	255 VAC	255 VAC	255 VAC	255 VAC	255 VAC
Maximum discharge current (8/20 $\mu$ s)	$I_{max}$	25 kA	60 kA	60 kA	60 kA	60 kA	60 kA
Lightning impulse current (10/350 $\mu$ s)	$I_{imp}$	–	–	–	–	–	–
Nominal discharge current (8/20 $\mu$ s)	$I_n$	10 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Voltage protection level @ 1 kV/ $\mu$ s	$U_p$	< 1200 V	< 700 V	< 700 V	< 700 V	< 700 V	< 700 V
Voltage protection level @ $I_n$	$U_p$	< 1500 V	< 1300 V	< 1300 V	< 1300 V	< 1300 V	< 1300 V
Response time	$t_A$	< 100 ns	< 100 ns	< 100 ns	< 100 ns	< 100 ns	< 100 ns
Temporary overvoltage (TOV)	$U_T$	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	$I_n$	100 A	100 A	100 A	100 A	100 A	100 A
Earth leakage current		< 10 $\mu$ A	< 10 $\mu$ A	< 10 $\mu$ A	< 10 $\mu$ A	< 10 $\mu$ A	< 10 $\mu$ A

### Indication

Display	–	LED status per phase
External alarm		Active alarm optional
Display / Alarm function	Passive NC	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	2.5 – 16 mm <sup>2</sup>	2.5 – 16 mm <sup>2</sup>	2.5 – 16 mm <sup>2</sup>	2.5 – 16 mm <sup>2</sup>	2.5 – 16 mm <sup>2</sup>	2.5 – 16 mm <sup>2</sup>	2.5 – 16 mm <sup>2</sup>
Terminal capacity – alarms	0.5 – 2.5 mm <sup>2</sup>	0.5 – 2.5 mm <sup>2</sup>	0.5 – 2.5 mm <sup>2</sup>	0.5 – 2.5 mm <sup>2</sup>	0.5 – 2.5 mm <sup>2</sup>	0.5 – 2.5 mm <sup>2</sup>	0.5 – 2.5 mm <sup>2</sup>
Terminal screw torque – power	2.0 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	0.5 Nm
Environmental / Location	IP 20 / Indoor	IP 20 / Indoor	IP 20 / Indoor	IP 20 / Indoor	IP 20 / Indoor	IP 20 / Indoor	IP 20 / Indoor
Dimensional Drawing	A						
Device width	126 mm						
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 <sup>rd</sup> edition	Low voltage SPD - Type 2, Type 3						
IEEE 62.41.2:2002	Low voltage SPD - Cat B, Cat C						

### Shipping

Weight	200 g	690 g	750 g	690 g	750 g	690 g	750 g
Customs Tariff	85354010	85354010	85354010	85354010	85354010	85354010	85354010