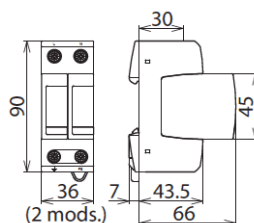
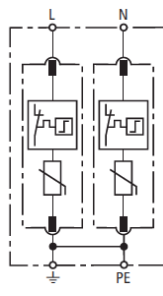
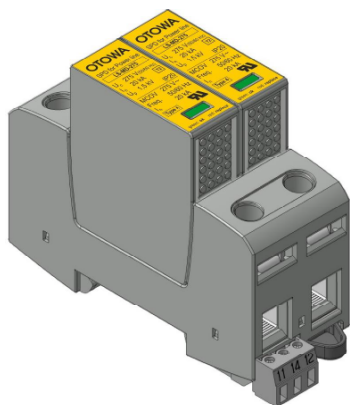


## OTOWA Power line Class II ( Type2) SPD LS-N for TN system

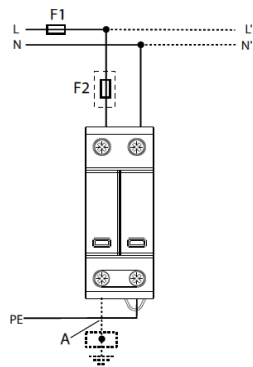
**Modular SPD for use in single-phase TN systems; with floating remote signalling contact.**



- Prewired complete unit consisting of a base part and plug-in protection modules.
- High discharge capacity due to heavyduty zinc oxide varistors.
- High reliability due to "Thermo Dynamic Control" SPD monitoring device.
- Easy replacement of protection modules without tools due to module locking system with module release button.
- Vibration and shock-tested according to EN 60068-2.

Type	LS-N2720S
SPD according to EN 61643-11/IEC 61643-11	type2 class II
Nominal a.c. voltage (Un)	230V (50 / 60 Hz)
Max. continuous operating a.c. voltage (Uc)	275V (50 / 60 Hz)
Nominal discharge current (8/20 $\mu$ s) (In)	20kA
Max.discharge current (8/20 $\mu$ s) (Imax)	40kA
Voltage protection level (Up)	$\leq 1.5kV$
Voltage protection level at 5kA (Up)	$\leq 1.0kV$
Response time (tA)	$\leq 25ns$
Max. mains-side overcurrent protection	125 A gG
Short-circuit withstand capability for max. mains-side overcurrent protection (Iscrr)	50 kA rms
Temporary overvoltage (TOV) (Ut) -Characteristic	335V / 5sec. -withstand
Temporary overvoltage (TOV) (Ut) -Characteristic	440V 120min. -safe failure
Operating temperature range (Tu)	-40°C ~ +80°C
Operating state / fault indication	green / red
Number of ports	1
Cross-sectional area (min.)	1.5mm <sup>2</sup> solid / flexible
Cross-sectional area (max.)	35mm <sup>2</sup> stranded / 25mm <sup>2</sup> flexible
For mounting on	35mm DIN rails acc. to EN 60715
Enclosure material	thermoplastic, Gray UL 94 V-0
Place of installation	Indoor installations
Degree of protection	IP 20
Capacity	2 module(s) DIN 43880
Approvals	KEMA, UL
Type of remote signalling contact	changeover contact
a.c. switching capacity	250V / 0.5A
d.c. switching capacity	250V / 0.1A ; 125V / 0.2A ; 75V / 0.5A
Cross-sectional area for remote signalling terminals	max. 1.5mm <sup>2</sup> solid / flexible

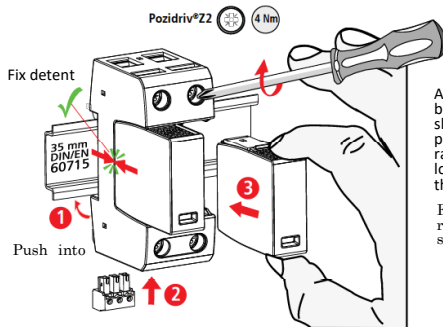
## Connection



LS-N2720S	
F1	$F1 \leq 125 \text{ A gG}$
F2	$F1 > 125 \text{ A gG}$
	$F2 \leq 125 \text{ A gG}$

LS-N2720S				
F1 A gG	S <sub>2</sub> / mm <sup>2</sup>	S <sub>3</sub> / mm <sup>2</sup>	S <sub>4</sub> / mm <sup>2</sup>	F2 A gG
25	4	6	6	---
35	4	6	6	---
40	4	6	6	---
50	6	6	6	---
63	10	10	10	---
80	10	10	10	---
100	16	16	16	---
125	16	16	16	---
> 125	16	16	16	125

## Installing the fixing base

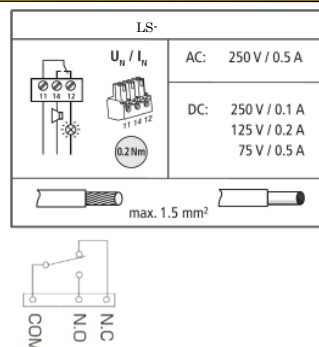


[Fixing]

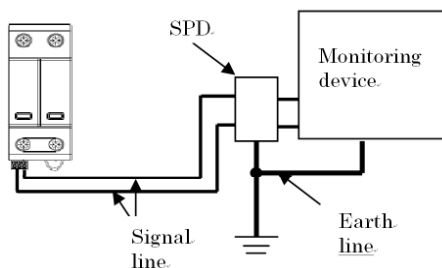
After positioning the fixing base on DIN rail, pull the slider of the fixing base and push the fixing base into DIN rail. Release the slider, locking the fixing base on to the rail.

Fix the detent to DIN rail and push into slider side of fixing base

## Deterioration contact terminal



## Protection of monitoring device



Installation example is shown in above diagram. If monitoring device is far from the SPDs, install the SPD adjacent to the monitoring device to protect it from the lightning surge that invades from signal line.

Recommended SPD for protection	
Voltage on signal line	Applied SPD
AC100V	LS-S1515S × 2 or LT-C12G801W
AC200V	LS-N2720S or LT-C12G801W
DC12V	SL-SPM12
DC24V	SL-SPM24
DC48V	SL-SPM48

## Regular maintenance

During the lightning season and after lightning strikes, maintain the SPD as follows.

Before maintenance, switch off the isolating switch for inspection (or Earth Leakage Current Breaker (ELCB) ) on the electric input side of the SPD.

### <Pass criteria for SPD>

Replace the SPD main unit if the SPD is under follow condition.  
(If the fixing base has also changed color or shape, replace the fixing base.)

#### ○Appearance check

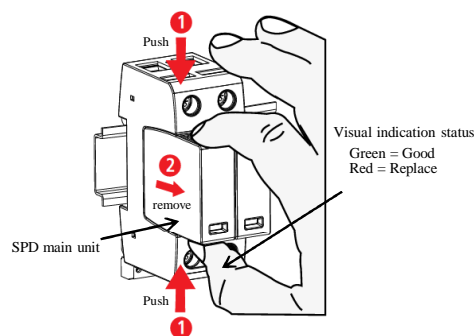
- The plastic housing has changed color or shape.
- Status indicator color.

(After status indicator change red, the SPD cannot be reused.)

#### ○Leakage current check

- Earth Leakage Circuit Breaker (ELCB) has operated any times. (After replacing SPD, confirm the ELCB has no operation.)

Replace the SPD main unit



## Specifications of UL 1449 3rd edition

Type - LS-S - S	LS-N2720S		
Rated Voltage [V] (50/60 Hz)	230		
Mode	L-N	L-G	N-G
MCOV [V]	275	275	275
MLV [V]	2270	1790	1790
I <sub>n</sub> [kA]	20		
Max. Ambient Temp.	+80°C		
Conductors	AWG 4-14 Cu Solid or Stranded		
	Torque 35-45 Lbs-in		
Remote indicator	AWG 14-22 Cu		
	Torque 3 Lbs-in		
SPD classification	US:Type 4 Component assemblies		