

## Device protection ED210... and ED410-400

Surge protection devices for 1- or 3-phase applications.



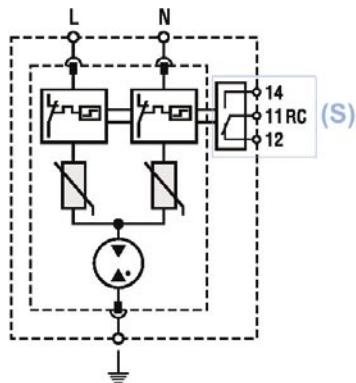
### Application

ED210... products are device protection units developed to protect single-phase circuits of electrical installations supplied by 230VAC, 12VDC, 24VDC or 48VDC against surges generated by lightning or industrial environment. The SPD is pluggable for easy exchange

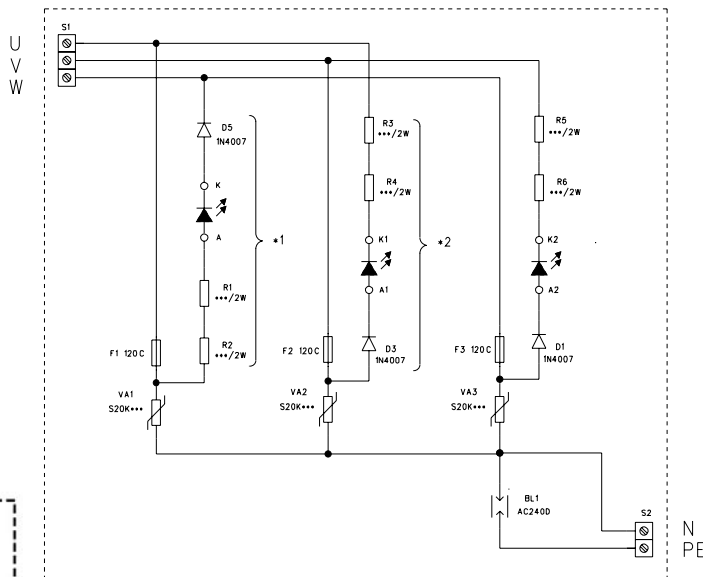
when fault occurs. This is indicated in a window on top of the unit. The SPD's has protection against both common mode and differential mode voltage. ED410 is a 3-phase version. ED210S-230 is a 1-phase version with remote alarm. The SPD's shall be installed close to the equipment.

Technical data	ED210-12DC	ED210-24DC	ED210-48DC	ED210...230	ED410
Nominal voltage	12V	24V	48V	230V	230/400V
Type of system	-	-	-	TT-TN	TT-TN
Max. Continuous operating Voltage $U_c$	15V	28V	85V	275V	230/400V
Nominal discharge current (8/20 $\mu$ s-20 times)	10kA	10kA	2kA	10kA	5kA
Max discharge current (8/20 $\mu$ s) $I_{MAX}$	20kA	20kA	6kA	20kA	10kA
Indication of voltage/fault	-/Red	-/Red	-/Red	-/Red	Green/-
Leakage current $I_c$	-	-	<0,1mA	<0,1mA	<2mA
Reaction time	1ns	1ns	25ns	100ns	<25ns
Residual voltage at nom. discharge current 8/20 $\mu$ s	60V	96V	200V	<0,95kV	ca 1kV
Connection	1,5-6 mm <sup>2</sup>	1,5-6 mm <sup>2</sup>	1,5-6 mm <sup>2</sup>	1,5-25 mm <sup>2</sup>	6-16 mm <sup>2</sup>
Operating Temperature	-40/+80°C	-40/+80°C	-40/+80°C	-40/+80°C	-40/+80°C
Plastic material	UL94V0	UL94V0	UL94V0	UL94V0	UL94V0
Max current (without prefuse)	10A	10A	10A	100A	63A

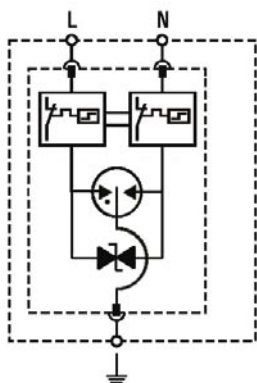
**ED210-230**



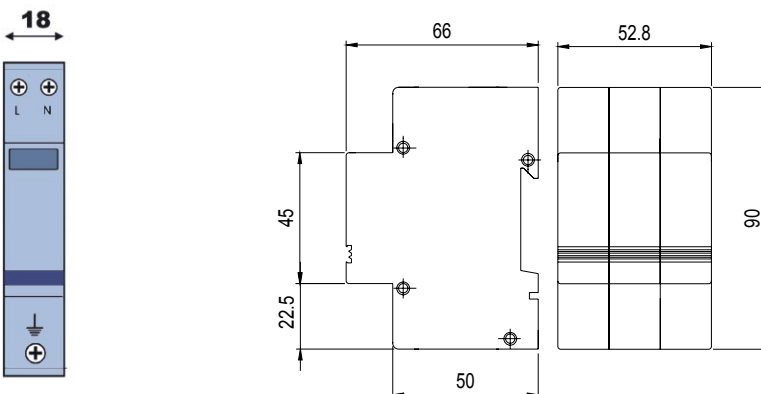
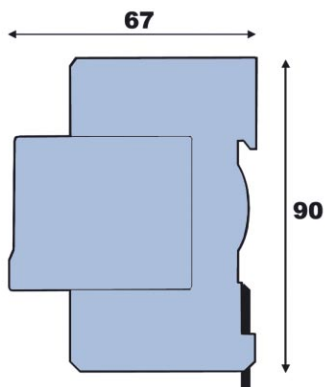
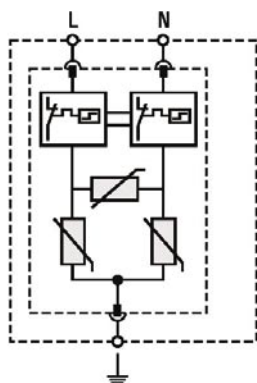
**ED410**



**ED210-12/24DC**



**ED210-48DC**



**Surge protection device ED210... and ED410-400**

Specification	article	E-number
SPD for 12V DC, complete	<b>ED210-12DC</b>	52 708 95
SPD for 24V DC, complete	<b>ED210-24DC</b>	52 708 53
SPD for 48V DC, complete	<b>ED210-48DC</b>	52 708 97
SPD for 12V DC, plug part	<b>EDM210-12DC</b>	52 708 96
SPD for 24V DC, plug part	<b>EDM210-24DC</b>	52 708 13
SPD for 48V DC, plug part	<b>EDM210-48DC</b>	52 708 98
SPD for 230V, complete	<b>ED210-230</b>	52 708 52
SPD for 230V, plug part	<b>EDM210-230</b>	52 708 12
SPD for 230V, complete with remote alarm	<b>ED210S-230</b>	52 708 92
SPD for 230V, complete 3-phase	<b>ED410-400</b>	52 708 68