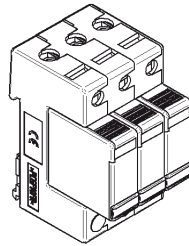


SCHALT

Installation Instructions for surge arrester Type 2 (SPD class II)

for the DC side of photovoltaic systems

Type	SUA 600	2+1-pole
	SUA 1000	2+1-pole



Technical data:

max. backup fuse	80 A gL/gG
Operating temperature range ϑ	- 40 °C ... + 80 °C
Protection class	IP 20
Cross section for connection	min 1,5 mm ² single-/flexible wire max. 35 mm ² stranded wire 25 mm ² flexible wire
Dimension	3Mods.
Mounting	35 mm DIN rail EN 50022
Torque	4,5 Nm
Test standard	DIN VDE 0675 Teil 6-11 EN 61643-11 IEC 61643-1

SUA		600	1000
max. continuous voltage (DC)	U_C	600 V -	1000V -
nom. discharge current $t_{(8/20\mu s)}$	I_n	20 kA	20 kA
max. discharge current $t_{(8/20\mu s)}$	I_{max}	40 kA	40 kA
Voltage protection level at I_n	U_p	< 1,8 kV	< 3,0 kV
	U_p	< 1,3 kV (at 5KA)	< 1,7 kV (at 5KA)

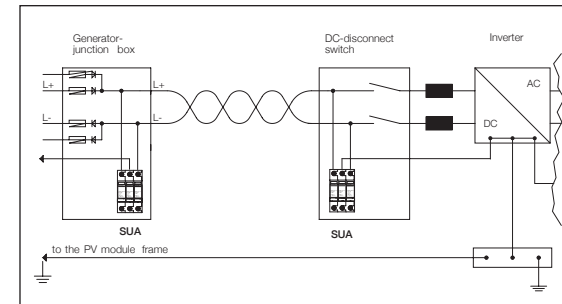
Application:

The multi-pole surge arresters of the SUA 600/1000 series are specially designed for the use at the DC side of photovoltaic systems. The max. continuous voltage U_C of the arrester has to be chosen in regard to the maximum open circuit voltage of the PV generator.

The AC side of the inverter has to be protected, according to the lightning protection zones concept based on EN 62305, with a multi-pole surge arrester type 2 or type 1.

The following illustrations show the complete surge protective measure for photovoltaic systems as a function of the power supply system.

Connection DC side:



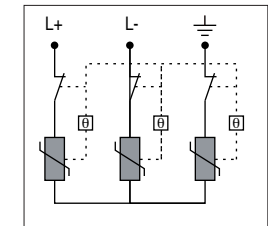
Mounting location:

The preferred mounting location for the SUA 600/1000 arresters is the generator junction box or in front of the DC input of the inverter.

Operation and fault indicator:

In the case of arrester overload the thermal monitoring device disconnect the surge protective device without affecting the operation of the connected photovoltaic system and "RED" is indicated in the inspection window. The arrester should be replaced immediately. Check the operating status regularly.

Basic circuit diagram:



Safety regulations:

Only install an arrester that is in perfect condition and inspect the arrester for damages or other defects before the installation. Opening of the arrester or any damage of the device will cancel the arrester warranty. Arresters may only be installed by an authorized electrician in compliance with IEC regulations and national standards.