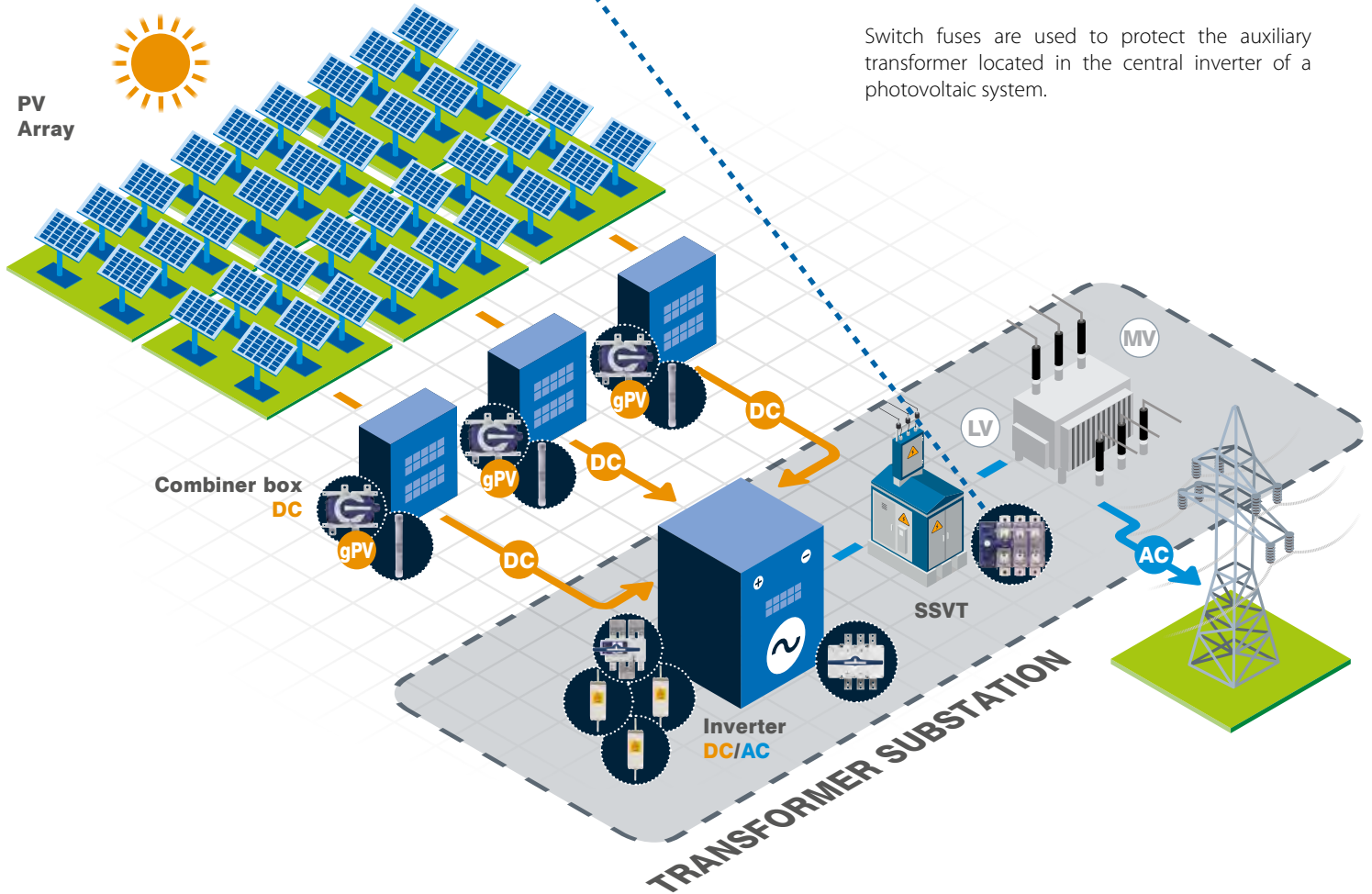




APPLICATION CASE HOW TO PROTECT THE AUXILIARY SERVICES TRANSFORMER (SSVT) IN A PHOTOVOLTAIC INSTALLATION

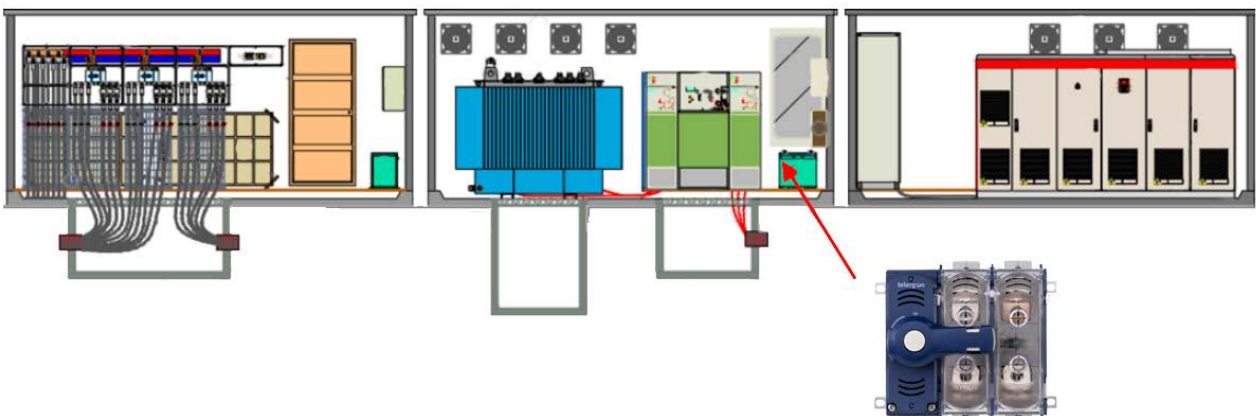
Switch fuses are used to protect the auxiliary transformer located in the central inverter of a photovoltaic system.



INVERTER 1

TRANSFORMER

INVERTER 2



Application

How to protect an auxiliary transformer in a central inverter for photovoltaic applications.

Requirement

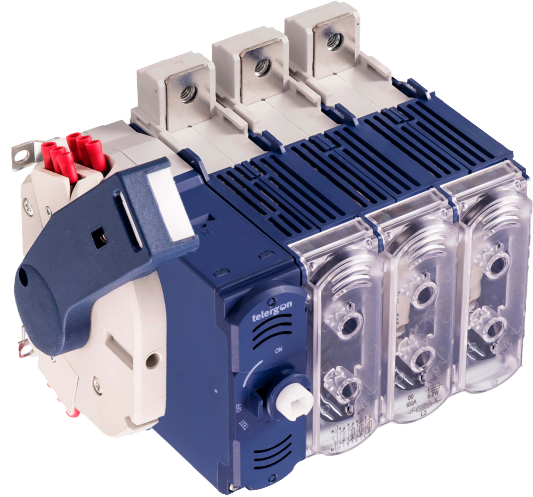
Protect the auxiliary services transformer (SSVT) within a transformer substation that includes a central inverter of a photovoltaic installation. This auxiliary services transformer needs protection against overloads and short circuits, and to be able to automatically disconnect the circuit in case of a fault.

A fuse switch is required to protect at 690V voltage.

A 1000V AC protection may also be required with an off load isolator.

Solution

Switch fuses offer a high level of protection and safety against overloads and short circuits in the SSVT. Telergon M3 range offers a versatile solution with front or side operation, with a high performance and safety. Its compact size allows the solution to be easily and quickly installed on the auxiliary transformer.



Technical data

IEC-EN-UNE 60947-1 IEC-EN-UNE 60947-3					
Fuse type				NH00 BS-A3 NFC 22x58	
Electrical features	Thermal current in ambient at 35°C (and temporarily 40 °C)	I _{th}	A	125	
	Rated insulation voltage	U _i	V _{ac}	1.000	
	Rated impulse withstand voltage		U _{imp}	kV	8
			U _e 690 V AC22B	A	125
	Power losses in fuses ^{*(1)}		NH/DIN	W	9
			BS	W	11.3
			NFC	W	11.4
Rated breaking capacity	400 V; cos φ = 0,35÷0,45	A	1000		
Rated making capacity	400 V; cos φ = 0,45	A	1250		
Short circuit behavior	Conditional short-circuit current ^{*(3)}	NH/DIN	kA rms	100	
		BS	kA rms	80	
	Maximum cut - off current		kA (peak)	16.5	
Mechanical data	Durability, number of operating cycles ^{*(4)}		Cycles	8.000	
	Maximum weight		kg	1.3	

^{*(1)} Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation.

^{*(2)} Other voltages and / or utilization categories. Please consult.

^{*(3)} With a protective device limiting the cut - off current and the joule integral to the indicated values.

^{*(4)} According to the standards, for other values please consult.

^{*(5)} The minimum sections are for the rated current of the equipment, in lower amperage fuses the minimum cable may be lower too.

^{*(e1)} Larger sections are allowed through the use of phase barriers.