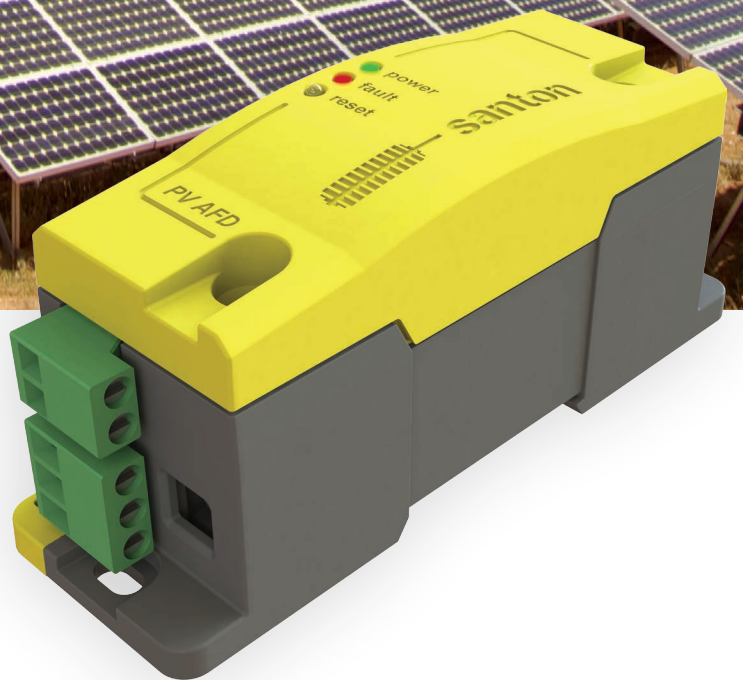


THE SANTON ARC FAULT DETECTION UNIT

FOR PHOTOVOLTAIC INSTALLATIONS

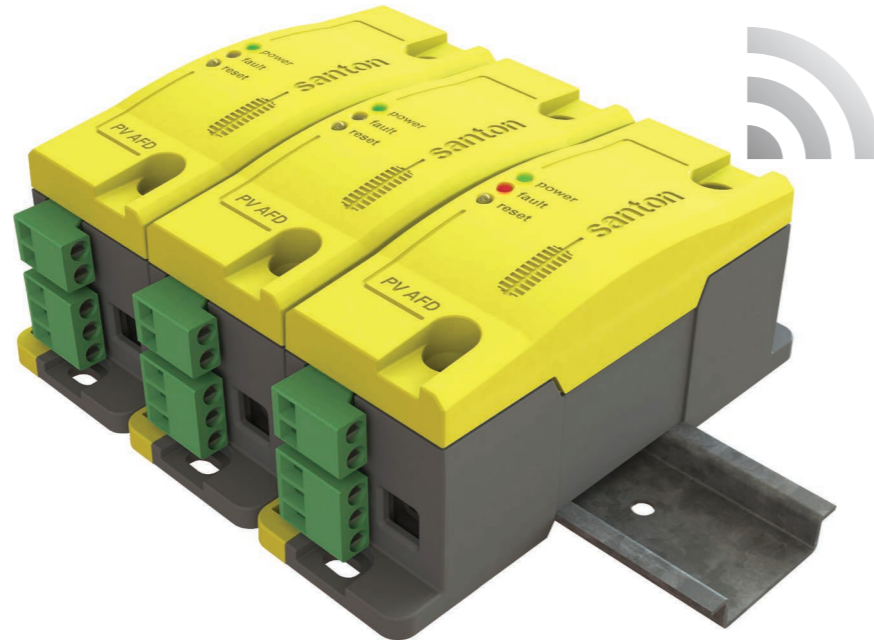


THE SANTON

ARC FAULT

DETECTION UNIT

THE ARC FAULT DETECTION UNIT (ADU) OFFERS EXTRA SAFETY, EFFICIENCY AND CONVENIENCE TO PV SYSTEMS. THE ELECTRONIC DEVICE DEVELOPED SPECIFICALLY FOR PV SYSTEMS DETECTS ARC FAULTS IN THE ELECTRICAL CIRCUIT AND GIVES BOTH VISUAL AND ACOUSTIC FEEDBACK THE MOMENT AN ARC FAULT OCCURS.



ARC FAULTS

An arc fault occurs when for example loose or corroded connections make intermittent contact and cause sparking or arcing between the connections. This arcing results in heat, which will break down the insulation of the wire and in most cases is the trigger for a fire. By detecting arc faults and resolving the cause at an early stage, fire and a lot of consequential damage can be prevented.

DETECTION PER MPPT

The ADU not only detects arcs, but also indicates the MPPT circuit in which the arc has been detected in. Therefore the ADU makes sure maintenance can take place efficiently and without wasting valuable time locating an arc fault. Checking the ADU devices regularly ensures that the installation is free of arc faults and running safely and without loss due to damaged cabling.

SAFETY RESET

As soon as the problem causing the arc fault has been resolved, the ADU can/may be reset. If the problem has not been resolved correctly and the arc fault occurs again the arc fault indicator will immediately light up again.

EASY TO INSTALL (AND TO USE)

The ADU has a DIN rail design for easy installation in new and existing installations. Monitoring your installation for arc faults has never been easier, thanks to the Santon Arc fault Detection Unit.

INTEGRATION WITH EXTERNAL SAFETY SYSTEMS

The ADU can easily be combined with external safety systems, increasing safety even more. For example, it makes it possible to automatically isolate the specific part of an installation where the arc fault occurs at the very moment it does.

CHOOSE THE WORLD'S LEADING DC SAFETY COMPANY

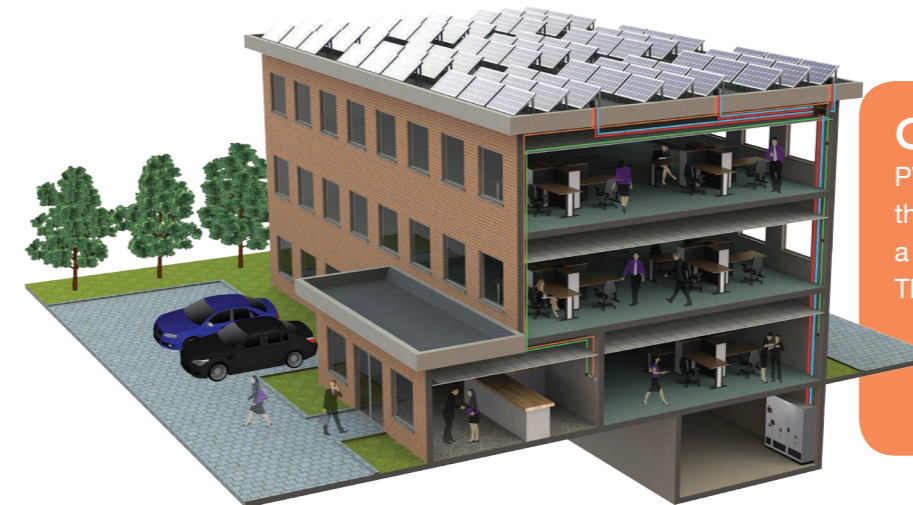
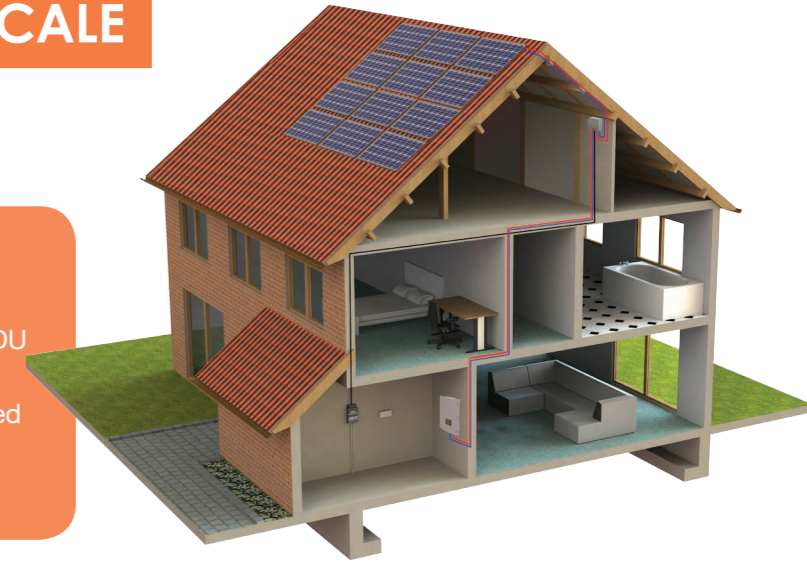
With over 80 years of experience in developing DC switchgear for many different companies in many different (and heavy) industries all over the world, Santon has proven itself to be a leading DC switchgear company.

SAFETY FOR DOMESTIC,

COMMERCIAL OR LARGE SCALE

DOMESTIC INSTALLATIONS

One single ADU can already protect your home against the risk of arc faults. Combination of the ADU with the Santon Domestic Firefighter safety Switch results in a situation in which the risk of a fire caused by arc faults is eliminated. The ADU can easily be installed in new or existing PV installations.



COMMERCIAL INSTALLATIONS

PV systems nowadays typically are more powerful than a few years back. Solar power has become a reliable source of power for commercial use. The increase in power also means an increase in risk of arc faults and thus an increase in the demand for safety precautions. The ADU is indispensable for any commercial installation.

LARGE SCALE INSTALLATIONS

Large scale installations are often located in remote areas. Efficiency is key and any loss of power means loss of income. Having your installation checked by the ADU is far more efficient and thorough than checking it during the maintenance intervals. With the ADU detecting arc fault within the PV system, maintenance can now be done more efficient than ever before.



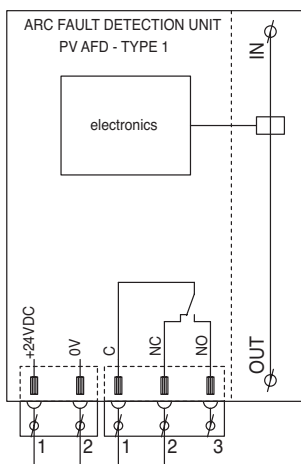
SPECIFICATIONS

String specifications	
Max. string voltage / current	1000VDC / 40A
Number of poles	1 pole (positive or negative)
Min. cable diameter cage clamp	2,5mm ² / AWG14
Max. cable diameter cage clamp	10mm ² / AWG8
Power specifications	
Power supply	24VDC (±10%)
Current consumption (passive)	60mA
Current consumption (active)	120mA
Max. cable diameter connector (2P)	2,5mm ² / AWG14
Alarm specifications	
Alarm relay load (resistive)	0,3A at 125VAC; 1A at 30VDC
Min. arc detection level	100VDC - 1A
Max. cable diameter connector (3P)	2,5mm ² / AWG14
Arc fault detection (according)	UL1699 - Sub B - PV AFD Type 1
Other	
Protection degree	IP20 / NEMA 1
Operating temperature range	-20°C till +70°C
Storage temperature range	-40°C till +85°C
Humidity (RH)	Max. 90% at +20°C
Weight (approx.)	120g

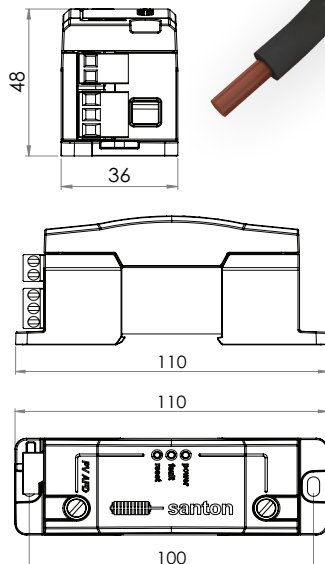
1. STRING CONNECTION
2. DIN RAIL CLIP
3. EXTERNAL SIGNAL CONNECTION
4. +24VDC CONNECTION
5. RESET BUTTON
6. VISUAL ARC FAULT INDICATOR
7. POWER ON INDICATION
8. ACOUSTIC ARC FAULT SIGNAL



WIRING SCHEME



DIMENSIONS (mm)



ALSO AVAILABLE! THE SANTON DOMESTIC FIREFIGHTER SAFETY SWITCH

The Santon Domestic Firefighter safety Switch (DFS) completely isolates PV panels remotely as soon as the regular AC power is switched off. The DFS can easily be combined with the ADU and is developed for installation up to 1000VDC.

For more information ask your local supplier or visit www.santonswitchgear.com



info@santonswitchgear.com, www.santonswitchgear.com



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