IN MOST PHOTOVOLTAIC SYSTEMS, THE DC ISOLATOR IS INTEGRATED INTO THE DC/AC POWER INVERTER. AFTER SWITCHING OFF THE DC ISOLATOR, THE CABLES BETWEEN THE DC SOLAR MODULES AND DC/AC POWER INVERTER RUNNING THROUGH THE BUILDING ARE STILL SUBJECT TO UP TO 1000 V DC. IN THE EVENT OF A FIRE, FIREFIGHTERS ARE EXPOSED TO A VERY SERIOUS SOURCE OF POTENTIAL DANGER. THE SANTON DOMESTIC FIREFIGHTER SAFETY SWITCH (DFS) PROVIDES THE SOLUTION. IT DIRECTLY DISCONNECTS THE DC CURRENT IN CLOSE PROXIMITY TO THE SOLAR MODULES AND CREATES A SAFER SITUATION FOR FIREFIGHTERS.

5 REASONS TOチョイス THE SANTON DOMESTIC FIREFIGHTER SAFETY SWITCH

1. GAIN VALUABLE TIME IN CASE OF A FIRE
The DFS works according to standard international firefighter routines, resulting in valuable time being gained in case of a fire. This routine starts by shutting down all AC power in a house. As soon as this AC power is shut down, the DFS will automatically switch off and isolate all PV modules. Firefighters only have to follow their regular routine and do not have to waste valuable time eliminating the risk of the PV modules on the roof!

2. COMPLETELY ISOLATE PV MODULES
The DFS is powered by a motorized X-type switch and can therefore be located directly at the PV modules. This minimizes the amount of cabling with dangerous high voltage and leads to a completely powerless situation in the house, maximizing safety when needed.

3. AUTO RESET
A power down situation can occur at any time and for many reasons. The DFS has an auto reset function. The DFS automatically switches off if the regular AC power is down and automatically switches on when the regular AC power is on again. No manual reset is necessary every time the power has been down!

4. CONTAINS THE WORLD’S MOST POPULAR DC SWITCH
The DFS is equipped with the Santon X-type switch, which is the most popular DC switch for PV applications. The Santon ‘snap-action’ spring mechanism, with its response time of only 3 milliseconds, reduces the electric arc. In combination with the self-cleaning contacts, this increases durability and safety. Therefore the Santon X-type switch has been selected by many inverter manufacturers as their no. 1 DC switch.

5. CHOOSE THE WORLD’S LEADING DC SWITCHGEAR 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. With the Santon Domestic Firefighter safety Switch, all knowledge and experience come together for you to keep your home, family and valuables safe.

Choose the best firefighter switch available - the Santon Domestic Firefighter safety Switch.
1. Manual AC Power Shut Down
The first step for any firefighter in fighting a fire is to shut down the main AC power circuit. This makes it possible to start extinguishing the actual fire without the risk of electrocution. Santon developed the Domestic Firefighter safety Switch according to this standard international safety routine. This prevents firefighters from having to take any extra action in case of a fire, maximizing their and your safety in the event of a fire.

2. Automatic DC Power Shut Down
As soon as a firefighter shuts down the main AC circuit, the DFS will detect this. If this power down situation lasts longer than 5 seconds, the DFS will automatically switch to the OFF position. Since the DFS is located close to the PV modules, the high voltage DC current from the PV modules will be completely isolated, which leaves a safe situation for the firefighters when fighting a fire in the house.
1. ROBUST ENCLOSURE
IP65 watertight / UV resistant / Designed for optimal switch access and ease of installation

2. SAFETY SEAL
Possible placement of safety seal for controlled maintenance

3. MOTOR-DRIVEN X-TYPE SWITCH
Santon’s reliable X-type switch / Switch disconnection within 3m/sec / minimum arc / maximum lifetime

4. MECHANICAL POSITION INDICATION
Visual feedback of the switch position (GREEN/OFF and RED/ON)

5. TEMPERATURE SENSOR
The DFS will automatically switch to the off position in case the temperature rises above 100°C

6. POWER SUPPLY (UPS)
Power supply unit for remotely operating the switch

7. POWER CONNECTION
AC power connection for charging the power backup and for optional integration with a fire alarm system

8. PRESSURE EQUALISING VALVE
Avoids condensation inside the enclosure and ensures maximum endurance and lifetime

9. KNOCK OUTS
The DFS is supplied with 10 x 12mm knockouts

10. CABLE GLANDS OR MC4 CONNECTORS
The DFS can be ordered pre-wired with MC4 connectors or with separately delivered cable glands M12

Also available!
The Arc Fault Detection Unit
Fire in general can be caused by many things. Within PV installations however, electric arcs pose the biggest risk. Damage, erosion or bad wiring can easily cause electric arcs, which are responsible for the majority of all accidents involving electrical failures.

The Santon Arc fault Detection Unit (ADU) detects electric arcs and gives acoustic and visual feedback for you to take appropriate action and resolve the issue before it escalates.

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