Important

It is important to read these instructions carefully and fully before installation. The switch is a safety device and dangerous situations must be avoided. The installation of the switch must be performed by qualified personnel.

Receiving and Unpacking

Check the received goods for possible damaged during transport. In the event of damage the company responsible for the transport must be notified immediately and sign a claim form for it. Please inform Santon International BV about the damage. The content of a package must be checked against the packing list, the individual switches will have their accessories in the box as specified in this Installation instruction document.
The telephone nr. is: +31 10 2832600, our e-mail address is: info@santonswitchgear.com.

This package must contain:
the "TECHNICAL SPECIFICATIONS AND INSTRUCTIONS FOR USE"
the switch(es) marked type: X60.32PKS2E-(A)
foam rubber(s), black plastic nut(s), ,
there are no special accessoiries included

Returns

If for some special reason the switches have to be returned to the factory, please call Santon International first for instructions. Without notification Santon will not accept returned goods.

Attention

Do not install or operate any switch that appears damaged. Failure to follow these instructions can result in equipment damage and possible danger to personnel.

Warranty

Santon International warrants that the switches are free from any defect and will service under normal use for a period of one year from the date of production. Santon International bv limits its obligations to replace or repair a switch determined to have a defect. Under no circumstance will Santon's liability exceed the switch's original sales price. The warranty does not apply to a switch that has been disassembled or has been misused.

Content

Introduction

The Santon Solar DC Safety Switch is to be used between the solar panels and the DC/AC inverter as a switch-disconnector. Also called PV disconnect switch. The switch is capable of switching off the full DC load and even a short circuit current. The switch has been certified according to the UL508 and CSA 22.2 standard and is tested for 200% overload. The switch protects the Inverter, when switched off, from the dangerous DC voltage generated by the solar panels; it isolates the inverter from the PV arrays.

DC disconnect requirements

The switch selection has to be based on the requirements in the NEC or the CEC.

Warning - proper switch selection

Select the required switch rating based on the nominal system current and the local environmental conditions. Also for selecting the proper switch respect the safety factor mentioned in the applicable standards for the selection of switchgear.

Installation

The installation may only be done by skilled personal. Be aware of the high and dangerous DC voltage. The switch may only be used within the limitations of its ratings.

Warning - proper installation

It is not allowed to mount the switch enclosure in direct sunlight. Nor is it allowed to be mounted in chemically aggressive environments.

Warning - live parts - Hazardous Voltage

When installed and in operation the terminals of the switch are live. The switch must be placed in an enclosure to avoid unskilled people reaching these live parts. The enclosure must have a proper warning message on the lid and indicate that only authorized electricians are allowed to open the lid. In case components other than only the switch is mounted in the enclosure, it is strongly advised to mount a shield that isolates the switch. This is strongly advised since PV arrays with connected cables up till the switch terminals always stay under voltage (when the sun is shining).

Electric shock will result in death or serious injury. DO NOT TOUCH unshielded live parts with voltage present.

Warning - cabling

For connecting the cabling on the switch terminals proper UL certified Spade Tongue Terminals must be used. Also, the connecting cables must be properly dimensioned according to the applicable standards. NEC and CEC. With under-dimensioned connection cables the performance of the switch cannot be guaranteed.

Use

In use the switch needs very little maintenance. To extend the life of the switch it is a good habit to check the switch regularly and operate it at least once a year. Operating the switch will clean the contacts.

Switches in profound designed and built installations do not overheat. If a switch becomes overheated, i.e. more than 80 degrees Celsius, it is most likely that there is a fault in the dimensioning - or the installation of the system. It is of great importance to take the installation out of service if any of the components become overheated. Have a certified installer inspect the installation.

Warning - inappropriate use

It is not allowed to throw, let fall, lay objects or stand on the products. It is not allowed to store or use the product in humid environments or at environmental temperatures out of the specified limits.