The SANTON ASM
Safety Switch
For Photovoltaic Installation

Solar D.C Isolator

2 Pole – ASM-XA100.16D2H-H

4 Pole - ASM-XA100.16D4H-H

Safety
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Data sheet

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AUSTRALIAN SOLAR MANUFACTURING PTY LTD

Issue date 14-02-2013

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Safety Precautions

Please carefully read the following installation and safety instructions. Non- compliance with this instructions may void product warranty.

Purpose of this guide

This guide contains information regarding the installation and safe handling of **SANTON HOLLAND (SANTON)** & **Australian Solar Manufacturing Pty Ltd (ASM)** Photovoltaic **SAFETY SWITCH** (hereafter referred to as “D.C ISOLATOR OR D.C SWITCH"). All instructions should be read and understood before attempting installation. If there are any questions, please contact your dealer or **ASM** for further information. The installer should conform to all safety precautions in the guide when installing this switch. Before installing this D.C Isolator, the installer should become familiar with the mechanical and electrical requirements for photovoltaic systems. Keep this guide in a safe place for future reference

Warning

1. Danger of death through electric shock!
Touching live parts can result in death. All electrical work on the solar D.C isolator must be carried out by a qualified electrician while observing the Australian Standards, national and other regulations. Due to the series/parallel connection of the solar modules, voltage levels may exceed the protective extra-low voltage. Even with low solar radiation almost the full open circuit voltage can be expected from modules. During all installation and wiring work these modules must therefore be covered or disconnected from the consumer load in order to **interconnect D.C switch/isolator**, Otherwise there is a risk of arc formation on lines carrying direct current.

2. Personal Protective Equipment
Safety Protective Equipment shall be used at all times while installing solar D.C Isolator. Safety Equipment shall comply with the Country’s National Safety Standards.

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Warning!

Components in the installations are exposed to high voltages and currents.

Follow these instructions carefully and contact manufacturer if in doubt of Procedures or ratings which may be unclear before installation.
This product must be installed by a licensed electrician within Australia and New Zealand.

The following regulations and standards are considered applicable and Mandatory to read prior to the installation of electrical equipment.
International standards: IEC 60364-7-712 electrical installations of buildings – requirement for special installations or locations – solar photovoltaic (PV) power supply systems
AS/NZS 5033:2012 Installation and safety requirements for photovoltaic (PV) arrays
AS/NZS 3000:2007 WIRING RULES
MIS3002: Microgeneration installation standard – requirements for contractors undertaking the supply, design, installation, set to work commissioning and handover of solar photovoltaic (PV) microgeneration systems.
Local building regulations and local legislation at the time of installation
Guidelines for lightning and overvoltage protection

Note!

It is essential to uphold the limits for voltage and current in all possible operating conditions (refer to technical data page)
Also keep in mind the literature on correct dimensioning and sizing of cables and components.
All installation works must comply to local standards and should be tested in accordance to relevant local legislation at the time of installation.
Maintain product IP Rating at all times with any penetration of cables or conduit, product has been tested to IP65 rating
IEC 60529
Terminal connection – cables should be crimped with spade terminal lug before connecting to switch terminal

Please follow all safety procedure during installation.

Warranty

12 months standard guarantee from date product purchased. Refer to General Terms and condition of sale document for complete description.

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General Notice

General notice for users and installers

Changes or modifications not explained/approved in this manual or by manufacturer voids your authority to operate this equipment

ASM/SANTON shall not be held responsible for any damage caused due to in correct installation of the product and/or the misunderstanding of this manual
ASM/SANTON reserves the right to make any modification to this manual or the information contained herein at any time without notice
No design data such as sample pictures provided in this manual may be modified or duplicated except for the purpose of personal use.
To ensure the recycling of all possible materials and proper disposal treatment of components please return the product to ASM/SANTON at the end –of-life

Disclaimer of liability

Because the use of this manual and the conditions or methods of installation, operation, use and maintenance of photovoltaic products are beyond ASM's control, ASM does not accept responsibility and expressly disclaims liability for loss, damage, or expense arising out of or in any way connected with such installation, operation, use or maintenance. No responsibility is assumed by ASM for any infringement of patents or other rights of third parties, which may result from use of the PV product. No license is granted by implication or otherwise under any patent or patent rights.

The information in this manual is based on ASM's knowledge and experience and is believed to be reliable, but such information including product specification (without limitations) and suggestions does not constitute a warranty, expressed or implied. ASM reserves the right to change the manual, the product, the specifications, or product information sheets without prior notice.

Please consult your dealer or the manufacturer concerning the warranty of your product. If you have any further questions, your dealer will gladly assist you.

Refer to document – “General terms and condition of sale” as terms of trade and liability.

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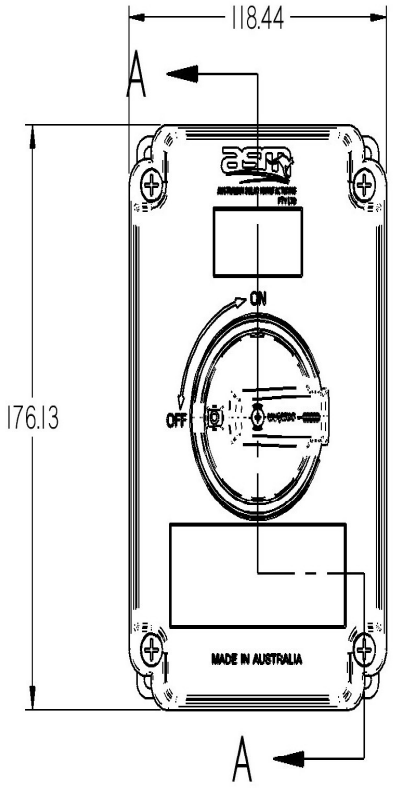

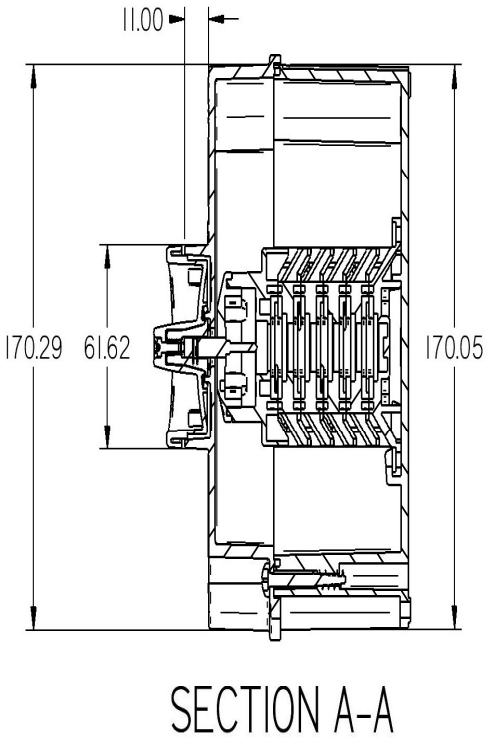

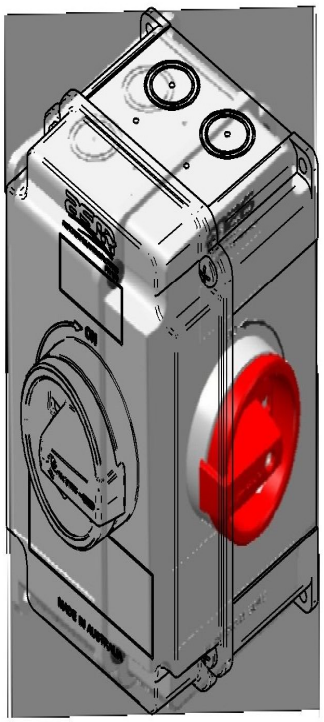

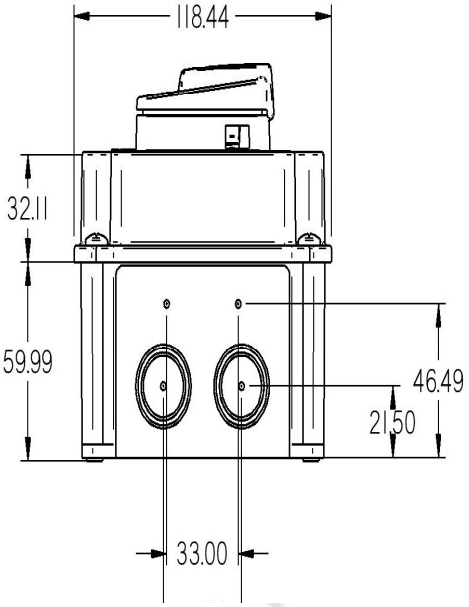

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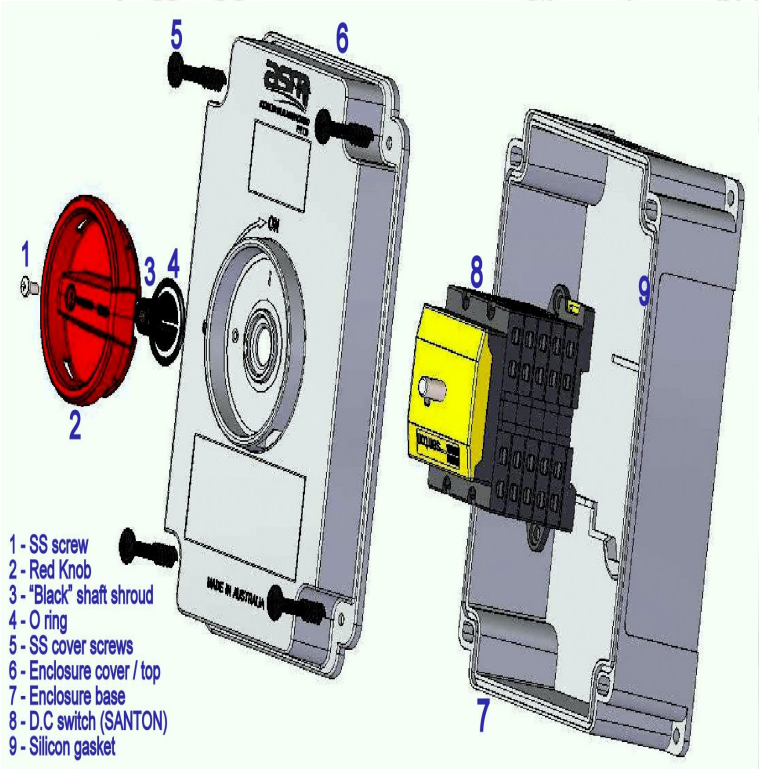
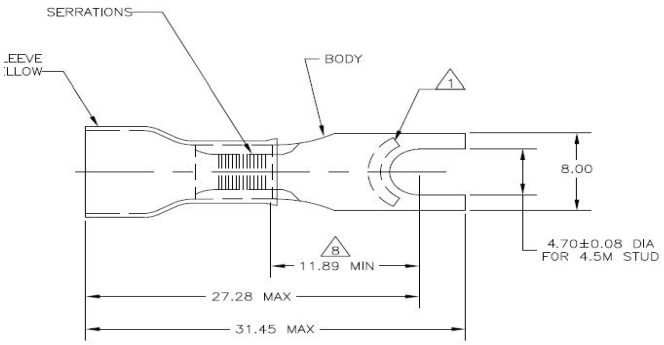
Installation manual

Installation requirement

Check and remove switch from sealed packaging box, make sure all parts are fixed and no parts are lose within the switch, check if any parts are missing or has come off through vibration or transportation.





Steps to follow while installing or dismantling

1. (1) -Turn SS screw on knob anti clockwise – 2 x 360° while pushing downwards to release shaft shroud
2. (2) - Make sure knob is in "OFF" position, pull knob out from shaft, please make sure SS screw, shaft shroud and o ring is intact.
3. (5) - Unscrew 4 x SS (M5 X 35) screw of cover, lift cover from base
4. (9) - Make sure base gasket in intact or in position
5. (8) - Unclip din mount SANTON D.C switch from its position
6. Hole saw incoming conduit entry (top & bottom) 20mm-25mm
7. Mount base to wall or surface using 4 x mounting holes provided on base (external) mount –IP Rating 65
8. Feed through conduit and cables, leave length of cable inside at least from bottom entry to top of switch (approx.150mm)
9. Cable size to switch -2.5mm² - 6mm² SDI Solar cable as per AS/NZS 5033
10. **Crimp copper lugs to each end of cable, use proper crimping tool and crimp lug – "SPADE TERMINAL" or also known as "Fork Terminal" – use TYCO "Yellow"**
11. Connect cables with terminated lugs to switch following technical drawings below making sure termination torque as per data sheet – **1.2Nm – 1.3Nm**
12. Seal every drilled conduit entry with fire rated or high temperature silicone to prevent spread of fire to other parts of installation if internal switch for some reason or termination becomes lose causing ARCING
13. Check and make sure base gasket is in place and intact
14. Place cover on base and tightened 4 x SS screw with battery drill at torque setting making sure cover is closed properly, different drill will have different torque impact, please start with lower torque and then increase torque setting to complete tightening.
15. Check knob "O RING" ,"SS SCREW" & "BLACK SHAFT SHROUD" is intact
16. Fit knob into position making sure shaft is in 'OFF" position, push knob downwards making sure it's sitting fully on to surface before tightening SS screw to shaft, do not over tightened this screw.
17. Maintain IP65 Ratings of enclosure at all times

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