## THE NEW SANTON X-TYPE SWITCH

## TECHNICAL SPECIFICATIONS AND INSTRUCTIONS FOR USE

SANTON X-TYPE SWITCH: X60.16B4E-A



Switch disconnector for solar application according to IEC 60947-1&3



|    | Co      | ntact schen |         | Positions<br>g 1 2 3 4 |  |  |  |  |
|----|---------|-------------|---------|------------------------|--|--|--|--|
| 1  | Marking | Symbol      | Marking |                        |  |  |  |  |
| 12 |         | -/-         |         |                        |  |  |  |  |
| 11 |         | -/-         |         |                        |  |  |  |  |
| 10 |         | -/-         |         |                        |  |  |  |  |
| 9  |         | -/-         |         |                        |  |  |  |  |
| 8  |         | -/-         |         |                        |  |  |  |  |
| 7  |         | -/-         |         |                        |  |  |  |  |
| 6  |         | -/-         |         |                        |  |  |  |  |
| 5  |         | -/-         |         |                        |  |  |  |  |
| 4  | +2      | -/-         | +2      | X                      |  |  |  |  |
| 3  | -2      | -/-         | -2      | Х                      |  |  |  |  |
| 2  | -1      | -/-         | -1      | X                      |  |  |  |  |
| 1  | +1      | -/-         | +1      | Х                      |  |  |  |  |

Contacts are made in "X" marked position.

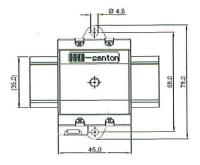
| Symbols | for interconnection: I |  |
|---------|------------------------|--|

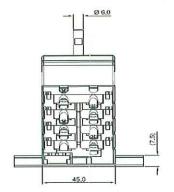
|  | Symbols for interco          | Symbols for interconnection: [ ]  |             |                 |  |  |
|--|------------------------------|-----------------------------------|-------------|-----------------|--|--|
| Technical data   | Symbol                       |                                   |             | Unit            |  |  |
| nominal voltage (DC poles)                                     | Ue                           |                                   | 600         | V dc            |  |  |
| nominal current (DC poles)                                     | le                           |                                   | 16          | A dc            |  |  |
| nominal voltage (second rating DC poles, if requested)         | Ue                           |                                   |             | V dc            |  |  |
| nominal current (second rating DC poles, if requested)         | le                           |                                   |             | A dc            |  |  |
| method of mounting   | DIN rail and or Base         | DIN rail and or Base mounting [B] |             |                 |  |  |
| number of DC poles   |                              |                                   | 4           |                 |  |  |
| utilization category DC  |                              |                                   | DC-21B      |                 |  |  |
| actuator   | standard black [A],          | standard black [A],               |             |                 |  |  |
| positions  | OFF at 12 hr, ON at 3 hr [E] |                                   |             |                 |  |  |
| rated impulse withstand voltage                                | Uimp                         |                                   | 8           | kV              |  |  |
| insulation voltage   | Ui                           |                                   | 600         | ٧               |  |  |
| rated thermal current uninterrupted duty                       | lu                           |                                   | 16          | Α               |  |  |
| rated short-time withstand current (1s)                        | lcw                          |                                   | 480         | Α               |  |  |
| rated short-circuit making capacity                            | Icm                          |                                   | 1,4         | kA              |  |  |
| rated conditional short-circuit current                        |                              |                                   | 5           | kA              |  |  |
| max. cut-off current   |                              |                                   |             | kA              |  |  |
| max power dissipation  |                              |                                   | 1,6         | W               |  |  |
| method of operation  | independent manu             | independent manual operation      |             |                 |  |  |
| minimum required dimensions of enclosures I x w x h*           |                              | 12                                | 4 x 47 x 74 | mm              |  |  |
| * see the drawing for the height of the switch. The number of  | of layers H is:              |                                   | 4           |                 |  |  |
| terminal screws M4 need a tightening torque, min max.          |                              | 1,5                               | 1,7         | Nm              |  |  |
| tightening torque screw in the standard black knob, min m      | ax.                          | 0,5                               | 0,7         | Nm              |  |  |
| minimum required fine wire cross-section: IEC60947-1, table    | 9                            |                                   | 2,5         | mm <sup>2</sup> |  |  |
| ambient temperature allowed between                            |                              |                                   | 5 and + 40  | °c              |  |  |
| storage temperature allowed between                            |                              | - 4                               | 10 and + 80 | *c              |  |  |
| maximum relative humidity, without condensation at 20°C        |                              |                                   | 90          | %               |  |  |
| pollution degree   |                              |                                   | 2           |                 |  |  |
| IP rating terminals  |                              |                                   | IP20        |                 |  |  |
| IP rating gland of the shaft in case of single hole panel moun | ting                         |                                   |             |                 |  |  |
| nominal voltage (AC poles)                                     | Ue                           |                                   | 0           | V AC            |  |  |
| nominal current (AC poles)                                     | le                           |                                   | 0           | A AC            |  |  |
| number of DC poles   |                              |                                   | 0           |                 |  |  |
| auxiliary contact, nominal current 16A at 250 V, AC15          | No auxiliary contac          | No auxiliary contact              |             |                 |  |  |
| weight   |                              |                                   | 221         | g               |  |  |
| accessories:   | 0                            |                                   |             |                 |  |  |
|  | 0                            |                                   |             |                 |  |  |

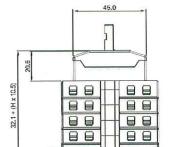
- santon











H is the number of layers in the switch

95,1

## **Mounting instructions**

In the application all ratings have to be respected. When building the switch in an enclosure, the space envelope must be respected. The terminals can take flexible wires up to 6 mm² and fork shoes for wires up to 10 mm² (type 3547C from Vogt). After mounting, the wiring must be checked and the switch must operate smoothly.

The X type switches are designed for a very long life but it is advised to do some simple yearly maintenance.

- Check the installation for signs of overload or overheating. The terminals may not exceed the limit of 85°C under
- By operating the switch a few times (5x) the contacts will clean themselves and the switch will have a longer life.

Dimensions, specifications and data shown could be subject to change without notice.