

# Data Sheet

Santon X-Type switch X100.32DL2E-A

Switch disconnecter for solar application according to IEC 60947-1&3 by Dekra (KEMA) and CCC (CQC)



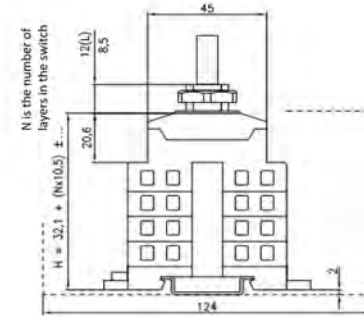
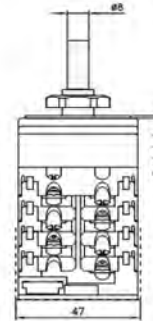
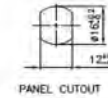
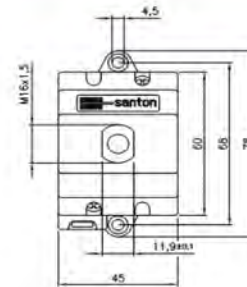
| Terminals Scheme |            |       |           |       |              |
|------------------|------------|-------|-----------|-------|--------------|
| Layer No.        | Front Side |       | Rear Side |       | On Positions |
|                  | Left       | Right | Left      | Right |              |
| 4                |            |       |           |       |              |
| 3                |            |       |           |       |              |
| 2                |            |       |           |       |              |
| 1                |            |       |           |       |              |

|   |    |       |    |   |
|---|----|-------|----|---|
| 4 | -1 |       | -1 | X |
| 3 |    |       | +1 | X |
| 2 |    |       | +1 | X |
| 1 |    | empty |    |   |

Contacts are made in "X" marked position.  
Symbols for interconnection: {

| Technical data  | Symbol | Merit                                    | Unit                 |
|---|--------|--|----------------------|
| rated operational voltage (DC poles)  | Ue     |  | 1000 V dc            |
| rated operational current (DC poles)  | Ie     |  | 32 A dc              |
| rated operational voltage (second rating DC poles, if requested)                    | Ue     |  | 0 V dc               |
| rated operational current (second rating DC poles, if requested)                    | Ie     |  | 0 A dc               |
| rated operational voltage (third rating DC poles, if requested)                     | Ue     |  | 0 V dc               |
| rated operational current (third rating DC poles, if requested)                     | Ie     |  | 0 A dc               |
| method of mounting  |        | both bottom and single hole mounting [D] | long gland           |
| number of DC poles  |        |  | 2                    |
| utilization category DC   |        | DC-21B                                   |                      |
| actuator  |        | standard black [A]                       |                      |
| positions   |        | OFF at 12 hr, ON at 3 hr [E]             |                      |
| rated impulse withstand voltage   | Uimp   |  | 8 kV                 |
| insulation voltage  | Ui     |  | 1000 V               |
| rated thermal current uninterrupted duty  | Iu     |  | 32 A                 |
| rated short-time withstand current (1s)   | Icw    |  | 750 A                |
| rated short-circuit making capacity   | Icm    |  | 1,4 kA               |
| rated conditional short-circuit current   |        |  | 5 kA                 |
| max power dissipation   |        |  | 2,0 W                |
| method of operation   |        | independent manual operation             |                      |
| minimum required dimensions of enclosures L x W x H*                                |        |  | 124 x 47 x 74 mm     |
| * see the drawing for the height of the switch. The number of layers N is:          |        |  | 4                    |
| Enclosure depth from inside bottom to outside top, required for the switch and knob |        |  | 107 mm               |
| knob operation force  |        | max.                                     | 1,4 Nm               |
| tightening torque terminal screws M4, min. - max.                                   |        |  | 1,5 - 1,7 Nm         |
| tightening torque panel mounting nut, min. - max.                                   |        |  | 2,0 - 2,5 Nm         |
| tightening torque M3 screw in the standard black knob, min. - max.                  |        |  | 0,5 - 0,7 Nm         |
| minimum required fine wire cross-section: IEC60947-1, table 9                       |        |  | 6 mm <sup>2</sup>    |
| ambient temperature allowed between   |        |  | - 20 to + 70 °C      |
| storage temperature allowed between   |        |  | - 40 to + 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 mounting                 |        |  | IP65                 |
| rated operational voltage (AC poles)  | Ue     |  | V ac                 |
| rated operational current (AC poles)  | Ie     |  | A ac                 |
| number of AC poles  |        |  |                      |
| minimum required fine wire cross-section: IEC60947-1, table 9                       |        |  | mm <sup>2</sup>      |
| auxiliary contact(s), AC15  |        |  | No auxiliary contact |
| auxiliary contact ratings   |        |  |                      |
| weight  |        |  | 221 g                |
| accessories:  |        |  |                      |

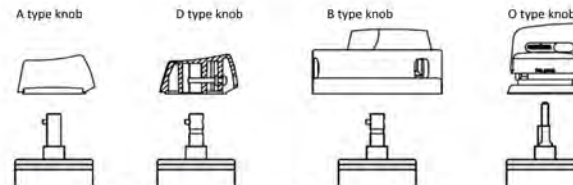


### Mounting instructions

In the application all ratings have to be respected. When building the switch in an enclosure, the space envelope must be respected according to the applicable standards. The terminals, without interconnection can take copper wires up to 6 mm<sup>2</sup>. The recommended Spade Tongue Terminals may have a maximum width of 9 mm. For CSA and UL applications, registered Spade Tongue Terminals must be used. The registration numbers are UL: E13288 and CSA: LR7189 (for instance type 165015 from Tyco). After mounting, the wire ring must be checked and the switch must operate smoothly.

### Maintenance

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 full load.  
- 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.