

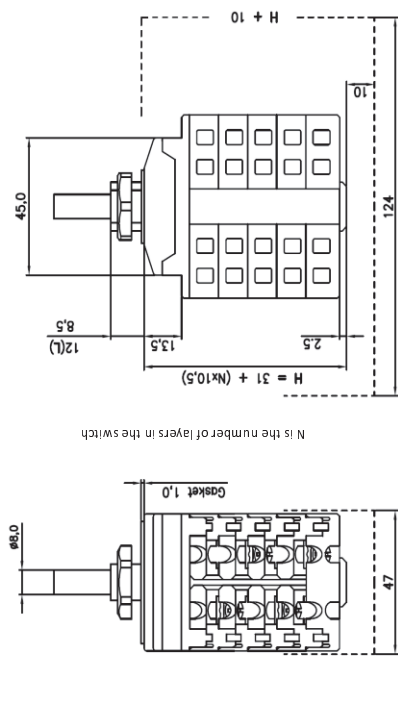
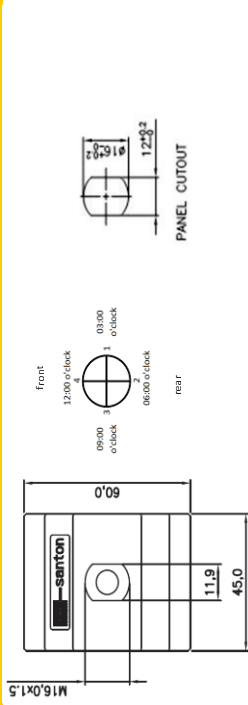
Switch disconnector for solar application according to IEC 60947-1&3 by Dekra (KEMA) and CCC (CCC)



| Layer No. | Terminals Scheme |                  |                |                 |
|-----------|------------------|------------------|----------------|-----------------|
|           | Front Side Left  | Front Side Right | Rear Side Left | Rear Side Right |
| 2         | -1               | -1               | -1             | X               |
| 1         | +1               | +1               | +1             | X               |

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     | 16  | A dc            |
| rated operational voltage (second rating DC poles, if requested)                             | Ue     | 850   | V dc            |
| rated operational current (second rating DC poles, if requested)                             | Ie     | 20  | A dc            |
| rated operational voltage (third rating DC poles, if requested)                              | Ue     | 800   | V dc            |
| rated operational current (third rating DC poles, if requested)                              | Ie     | 25  | A dc            |
| rated operational voltage (fourth rating DC poles, if requested)                             | Ue     | 650   | V dc            |
| rated operational current (fourth rating DC poles, if requested)                             | Ie     | 32  | A dc            |
| method of mounting   |        | reverse single hole mounting IP65 [R] terminals access from bottom side         |                 |
| number of DC poles   |        | 2   |                 |
| utilization category DC  | DC-21B |   |                 |
| actuator positions   |        | standard black, with thread through the shaft [D] OFF at 1.2 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              |
| method of operation  |        | independent manual operation  |                 |
| minimum required dimensions of enclosures L x W x H*   |        | 124 x 47 x 52   | mm              |
| * see the drawing for the height of the switch. The number of layers N is:                   |        | 2   |                 |
| knob operation force   |        | max. 1,4  | Nm              |
| tightening torque terminal screws M4, min. - max.  |        | 1,2   | Nm              |
| tightening torque panel mounting nut, min. - max.  |        | 2,0   | Nm              |
| tightening torque M3 screw in the standard black knob, min. - max.                           |        | 0,5   | Nm              |
| ambient temperature allowed between storage temperature allowed between                      |        | -40 to +70  | °C              |
| storage temperature allowed between maximum relative humidity, without condensation at 20 °C |        | -40 to +80  | °C              |
| pollution degree   |        | 90  | %               |
| IP rating terminals  |        | 2   |                 |
| IP rating gland of the shaft in case of single hole panel mounting                           |        | IP20  |                 |
| rated operational voltage (AC poles)   | Ue     | IP65  |                 |
| rated operational current (AC poles)   | Ie     |   | V ac            |
| number of AC poles (for general use)   |        |   | A ac            |
| minimum required fine wire cross-section: IEC60947-1, table 9                                |        |   | mm <sup>2</sup> |
| auxiliary contact(s): AC15   |        | No auxiliary contact  |                 |
| weight   |        | 157   | g               |
| accessories:   |        | -   |                 |



N is the number of layers in the switch

**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. After mounting, the wiring 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.

| Connection details  | Description | Symbol | Values  | Unit |                 |
|---|-------------|--------|---------|------|-----------------|
| Rated operational current (DC poles)                            | Ie          | 16     | 20 25   | 32   | A dc            |
| Required fine wire cross-section (minimum): IEC60947-1, table 9 | A           | 2.5    | 4 6     | 6    | mm <sup>2</sup> |
| max power dissipation   | P           | 0.5    | 0.8 1.2 | 1.9  | W               |

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: E13285 and CSA: LR7489 (for instance type 16S015 from Tyco).

| Recommend Manufacturer | Type number     | Wire size (AWG) | Wire size (mm <sup>2</sup> )                 | Color  |
|------------------------|-----------------|-----------------|--|--------|
| JST                    | AVG 16 - AVG 14 | AWG 16 - AVG 14 | 1.0 - 2.5 mm <sup>2</sup>                    | Blue   |
| TE connectivity        | C-16S012        | AWG 16 - AVG 14 | 1.0 - 2.5 mm <sup>2</sup>                    | Blue   |
| Vege                   | 3635C           | AWG 16 - AVG 14 | 1.5 - 2.5 mm <sup>2</sup>                    | Blue   |
| TE connectivity        | C-16S015        | AWG 12 - AVG 10 | 3.0 - 6.0 mm <sup>2</sup>                    | Yellow |
| Vege                   | 3652C / 3653C   | AWG 12 - AVG 10 | 3.0 - 6.0 mm <sup>2</sup>                    | Yellow |
| Santon (JST)           | 52A125635       | AWG 8 - AVG 10  | 10.5 mm <sup>2</sup> - 16 mm <sup>2</sup> *1 | *2     |

\*1 16mm<sup>2</sup> only with fine stranded wire / two times 6mm<sup>2</sup> is also possible  
\*2 Optional: A yellow sleeve for the Spade Tongue Terminal (Santon 52A125635) can be ordered under item number 52A1564.00

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