Data Sheet XBC＋0610／2


| General tolerances on linear dimensions： | For the height of a switch is the tolerance always $\pm 1 \%$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dimensions（mm） | 0，5－3 | ＞3－6 | ＞6－30 | ＞30－120 |  | －400 |
| Tolerances unless Otherwise mentioned（mm） | $\pm 0,1$ | $\pm 0,1$ | $\pm 0,2$ | $\pm 0,3$ |  | 0，5 |
| The tolerances for the Santon datasheet are according to ISO 1101，ISO 8015，ISO 27681 class m，unless stated otherwise． |  |  |  |  |  |  |
| Technical data Symbol | Ratings： |  |  | 1 | 11 | Unit |
| Rated operational voltage Ue | Ue |  |  | 1000 | 800 | V dc |
| Rated operational current le |  |  |  | 50 | 60 | A dc |
| Required fine wire cross－section（minimal）： 10 16 $\mathrm{~mm}^{2}$ <br> IIEC60947－1，table 9    |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Number of DC poles |  |  |  | 6 |  |  |
| Pollution degree |  |  |  | 2 |  |  |
| Utilization category DC |  |  |  | DC－PV1 |  |  |
| IP rating terminals |  |  |  | IP20 |  |  |
| Tightening torque terminal screws M4（min．－max．） |  |  |  | 1，5 | －1，7 | Nm |
| Method of mounting |  |  |  |  |  |  |
| IP rating of the shaft in case of single hole mounting |  |  |  | IP65 |  |  |
| Tightening torque panel mounting nut（min．－max．） |  |  |  | 2，0 | － 2,5 | Nm |
| Panel thickness between |  |  |  | 1 | － 4 | mm |
| Positions 12 （OF |  |  | 3 o＇clock |  |  |  |
| Actuator |  | Standard A knob with long screw to fix in shaft |  |  |  |  |
| Method of operation |  | Independent manual operation |  |  |  |  |
| Rated impulse withstand voltage |  | Uimp |  |  | 8 | kV |
| Insulation voltage |  | Ui |  |  | 1000 | V |
| Rated thermal current uninterrupted duty |  | lu |  |  | 60 | A |
| Rated short－time withstand current（1s） |  | Icw |  |  | 700 | A |
| Rated short－circuit making capacity |  | lcm |  |  | 1 | kA |
| Rated conditional short－circuit current |  | Isc |  |  | 5 | kA |
| Minimum required dimensions of enclosures L $\times \mathrm{W} \times \mathrm{D}^{*}$ \｛space envelope |  |  |  | $124 \times 4$ | 47×102 | mm |
| ＊see the drawing for the height of the switch．The number of layers N is： |  |  |  |  | 6 |  |
| Weight |  |  |  |  | ca． 253 | g |
| Allowed ambient temperature（min．－max．） |  | Tambient |  |  | －40－70 | ${ }^{\circ} \mathrm{C}$ |
| Allowed storage temperature（min．－max．） |  | $\mathrm{T}_{\text {storage }}$ |  |  | －40－85 | ${ }^{\circ} \mathrm{C}$ |
| Relative humidity（max．），without condensation at $20^{\circ} \mathrm{C}$ |  | RH |  |  | 90 | \％ |


| Recommend Manufacturer | Type number | Wire size（AWG） | Wire size $\left(\mathrm{mm}^{2}\right)$ | Color |
| :--- | :---: | :---: | :---: | :---: |
| JST | FVD2－YS4A | AWG 16－AWG 14 | $1,0-2,5 \mathrm{~mm}^{2}$ | Blue |
| TE connectivity | C－165012 | AWG 16－AWG 14 | $1,0-2,5 \mathrm{~mm}^{2}$ | Blue |
| Vogt | $3635 c$ | AWG 16－AWG 14 | $1,5-2,5 \mathrm{~mm}^{2}$ | Blue |
| TE connectivity | C－165015 | AWG 12－AWG 10 | $3,0-6,0 \mathrm{~mm}^{2}$ | Yellow |
| Vogt | 3652c $/ 3653 c$ | AWG 12－AWG 10 | $3,0-6,0 \mathrm{~mm}^{2}$ | Yellow |
| Santon（JST） | 52A1256．35 | AWG 8－AWG 10 | $10,5 \mathrm{~mm}^{2}-16 \mathrm{~mm}^{2}{ }^{*} 1$ | $* 2$ |


（ $\mathrm{I}=$ Contact is closed， $\mathrm{O}=$ Contact is open）

## Mounting instructions

In the application all ratings according to the datasheet have to be respected．After mounting，the wiring must be checked and the switch must operate smoothly．When building the switch in an enclosure，the space envelope must be respected according to the applicable standards．In case mounting the switch with a rear bracket using the optional four screw holes in the bottom plate，please take into account the required air\＆creeping distances with respect to the live parts according to the applicable standard（IEC／UL）． 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 $85^{*} \mathrm{C}$ under full load． －By operating the switch a few times（ $5 x$ ）the contacts will clean themselves and the switch will have a longer life． Connection
The terminals，can take copper wires up to 6 mm 2 ． The recommended Spade Tongue Terminals may have a maximum width of 9 mm （see table for recommendations）

## Warning

Verify that all connections（including bridging link connections）are suitable for the rated current，prepared to ensure only conductive parts are clamped and tightend to the manufacturer＇s required torque before energization．
＊1 $16 \mathrm{~mm}^{2}$ only with fine stranded wire（or two times $6 \mathrm{~mm}^{2}$ ） ＊2 To insulate the cable lugs，you can use the insulating spouts of the ES series from CEMBRE with the type designation ES3．．．．

