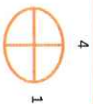
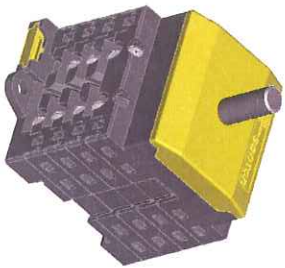


# THE NEW SANTON X-TYPE SWITCH

## TECHNICAL SPECIFICATIONS AND INSTRUCTIONS FOR USE

SANTON X-TYPE SWITCH: X85.1686E-A

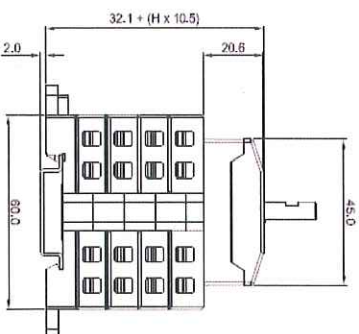
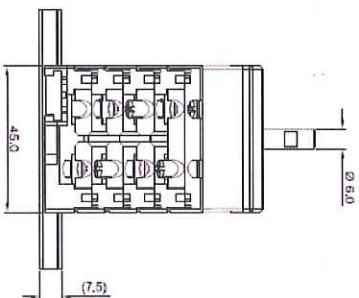
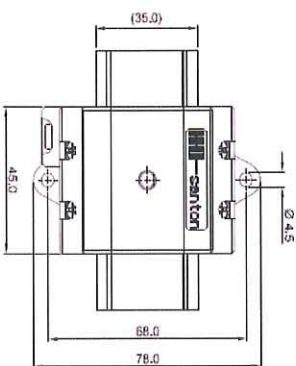
Switch disconnecter for solar application according to IEC 60947-1&3



Marking	Contact scheme		Positions			
	Symbol	Marking	1	2	3	4
12	—/—					
11	—/—					
10	—/—					
9	—/—					
8	—/—					
7	—/—					
6	-3	—/—	-3	X		
5	+3	—/—	+3	X		
4	+2	—/—	+2	X		
3	-2	—/—	-2	X		
2	-1	—/—	-1	X		
1	+1	—/—	+1	X		

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

Technical data	Symbol	Unit
nominal voltage (DC poles)	Ue	850 Vdc
nominal current (DC poles)	Ie	16 Adc
nominal voltage (second rating DC poles, if requested)	Ue	Vdc
nominal current (second rating DC poles, if requested)	Ie	A dc
method of mounting		DIN rail and or Base mounting [B]
number of DC poles		6
utilization category DC		DC-21B
actuator		standard black [A] OFF at 12 hr, ON at 3 hr [E]
positions		Uimp
rated impulse withstand voltage		8 kV
insulation voltage	Ui	1000 V
rated thermal current uninterrupted duty	Iu	16 A
rated short-time withstand current (1s)	Icw	480 A
rated short-circuit making capacity	Icm	1,4 kA
rated conditional short-circuit current		5 kA
max. cut-off current		kA
max power dissipation		2,5 W
method of operation		independent manual operation
minimum required dimensions of enclosures l x w x h*		124 x 47 x 98 mm
* see the drawing for the height of the switch. The number of layers H is:		3
terminal screws M4 need a tightening torque, min. - max.	1,5	1,7 Nm
tightening torque screw in the standard black knob, min. - max.	2,0	2,5 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		-20 and +70 °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		
nominal voltage (AC poles)	Ue	0 VAC
nominal current (AC poles)	Ie	0 AAC
number of DC poles		0
auxiliary contact, nominal current 16A at 250 V, AC15		No auxiliary contact
weight		284 g
accessories:		0



H 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. The terminals can take flexible wires up to 6 mm<sup>2</sup> and fork shoes for wires up to 10 mm<sup>2</sup> (type 3547C from Vogt). 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.

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