

Data Sheet Santon X-Type switch **X100 40P4H-A-D**

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

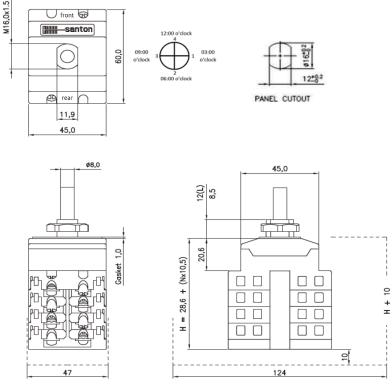




Terminals Scheme									
Layer	Front Side		Complete	Rear Side		On Positions			
No.	Left	Right	Symbol	Left	Right	1	2	3	4
6			_/_	+2					Χ
5		l	_/_		+2				Χ
4	-2		_/_	-2					Χ
3		-1	_/_		-1				Χ
2		-	_/_	+1					Χ
1		l	_/_		+1				Х

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

rated operational voltage (DC poles) rated operational current (DC poles) rated operational current (DC poles) rated operational current (DC poles), if requested) rated operational current (second rating DC poles, if requested) rated operational current (second rating DC poles, if requested) rated operational current (third rating DC poles, if requested) rated operational current (third rating DC poles, if requested) rated operational voltage (third rating DC poles, if requested) rated operational voltage (fourth rating DC poles, if requested) rated operational voltage (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational current (fourth rating DC poles, if requested) rated operational sole operations rated demandal operation rated short-circuit making capacity rated short-circuit making capacity rated short-circuit making capacity rated conditional short-circuit current independent manual operation minimum required dimensions of enclosures L x W x H* {space envelope} * see the drawing for the height of the switch. The number of layers N is: 6 knob operation force max. 1,4 Nm tightening torque panel mounting nut, min max. 1,	Technical data	Symbol Merit		Unit
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storage temperature allowed between -40 to +80 °C maximum relative humidity, without condensation at 20°C 90 % pollution degree 2	tightening torque M3 screw in the standard black knob, min max.	0,5	0,7	Nm
maximum relative humidity, without condensation at 20°C 90 % pollution degree 2	ambient temperature allowed between		- 25 to + 70	°C
pollution degree 2	storage temperature allowed between		- 40 to + 80	°C
F	maximum relative humidity, without condensation at 20°C		90	%
IP rating terminals	pollution degree		2	
IFZU	IP rating terminals		IP20	
IP rating gland of the shaft in case of single hole panel mounting	IP rating gland of the shaft in case of single hole panel mounting		IP65	
rated operational voltage (AC poles) Ue V ac		Ue		V ac
rated operational current (AC poles) le A ac	rated operational current (AC poles)	le		A ac
number of AC poles (for general use)	number of AC poles (for general use)			
minimum required fine wire cross-section: IEC60947-1, table 9 mm²	minimum required fine wire cross-section: IEC60947-1, table 9			mm²
auxiliary contact(s), Ac15 No auxiliary contact	auxiliary contact(s), Ac15		No auxiliar	y contact
auxiliary contact ratings	auxiliary contact ratings			
weight - 284 g	, -	-	284	g
accessories: -	-	-		Ü



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.

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 85oC 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		Unit			
Rated operational current (DC poles)	le	40	-	-	-	A dc
Required fine wire cross-section (minimal): IEC60947-1, table 9	А	2x6	-	-	-	mm²
max power dissipation	Р	6,4	-	-	-	W

The terminals, without interconnection can take copper wires up to 6 $\mbox{mm}^{2}.$

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. $\label{eq:csa}$

The registration numbers are UL: E13288 and CSA: LR7189 (for instance type 165015 from Tyco).

Registerd Spade Tongue Terminals

Recommend Manufacturer	Type number	Wire size (AWG)	Wire size (mm²)	Color
JST	FVD2-YS4A	AWG 16 – AWG 14	1,0 – 2,5 mm²	Blue
TE connectivity	C-165012	AWG 16 – AWG 14	1,0 – 2,5 mm ²	Blue
Vogt	3635c	AWG 16 – AWG 14	1,5 – 2,5 mm²	Blue
TE connectivity	C-165015	AWG 12 - AWG 10	3,0 - 6,0 mm ²	Yellow
Vogt	3652c / 3653c	AWG 12 - AWG 10	3,0 - 6,0 mm ²	Yellow
Santon (JST)	52A1256.35	AWG 8 - AWG 10	10,5mm ² -16mm ² *1	*2

^{*1 16}mm² only with fine stranded wire or two 6mm² is also possible

^{*2} Optional: A yellow finger safe sleeve for the Spade Tongue Terminal (Santon 52A1256.35) can be ordered under item number 52A1564.00