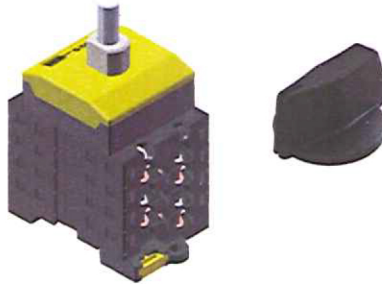


# Data Sheet

Santon X-Type switch XA100.16DL12E-A

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

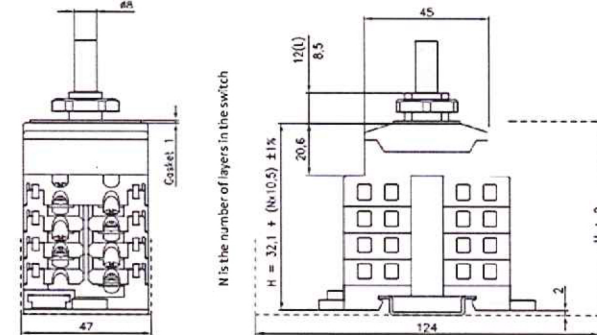
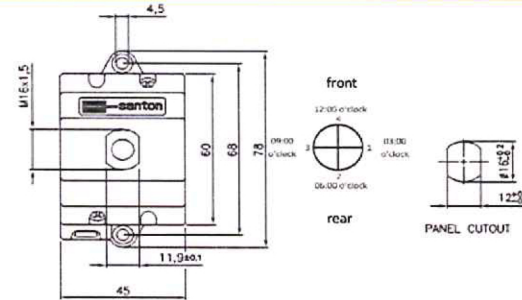


Terminals Scheme				
Layer No.	Front Side Left	Front Side Right	Rear Side Left	Rear Side Right
13	+6		+6	X
12		-6	-6	X
11	-5		-5	X
10		+5	+5	X
9	+4		+4	X
8		-4	-4	X
7	-3		-3	X
6		+3	+3	X
5	+2		+2	X
4		-2	-2	X
3	-1		-1	X
2		+1	+1	X
1				empty

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		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		both bottom and single hole mounting [D]	
number of DC poles			12
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	25	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* (on DIN-rail H = +2mm)		124 x 47 x 168,6	mm
* see the drawing for the height of the switch. The number of layers N is:			
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
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 (for general use)			
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		522	g
accessories:			

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## 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 (minimal): IEC60947-1, table 9	A	2,5 4 4 6	mm <sup>2</sup>
max power dissipation	P	2,9 4,6 7,1 11,7	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: E13288 and CSA: LR7189 (for instance type 165015 from Tyco).

Recommend Manufacturer	Type number	Wire size (AWG)	Wire size (mm <sup>2</sup> )	Color
JST	FV22-Y54A	AWG 16 - AWG 14	1,0 - 2,5 mm <sup>2</sup>	Blue
TE connectivity	C-165012	AWG 16 - AWG 14	1,0 - 2,5 mm <sup>2</sup>	Blue
Vogt	3635c	AWG 16 - AWG 14	1,5 - 2,5 mm <sup>2</sup>	Blue
TE connectivity	C-165015	AWG 12 - AWG 10	3,0 - 6,0 mm <sup>2</sup>	Yellow
Vogt	3652c / 3653c	AWG 12 - AWG 10	3,0 - 6,0 mm <sup>2</sup>	Yellow
Santon (JST)	S2A1256.35	AWG 8 - AWG 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 S2A1256.35) can be ordered under item number S2A1564.00

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

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