

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

Superior Switch Solutions

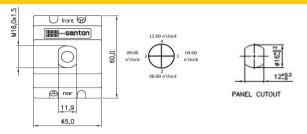


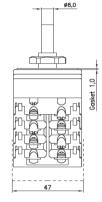


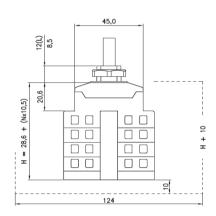
Terminals Scheme									
Layer	Fron	t Side	Symbol	Rear	Side	Oı	ı Po	sitic	ns
No.	Left	ft Right Symbol Left Rig		Right	1	2	3	4	
6			_/_	+2					Х
5		l	_/_		+2				Х
4	-2		-/-	-2					Х
3		-1	-/-		-1				Х
2			-/-	+1					Х
1			-/-		+1				Х

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

Technical data	Symbol I	Vlerit		Unit
rated operational voltage (DC poles)	Ue		1000	V dc
rated operational current (DC poles)	l e		40	A dc
rated operational voltage (second rating DC poles, if requested)	Ue			V dc
rated operational current (second rating DC poles, if requested)	le			A dc
rated operational voltage (third rating DC poles, if requested)	Ue			V dc
rated operational current (third rating DC poles, if requested)	l e			A dc
rated operational voltage (fourth rating DC poles, if requested)	Ue			V dc
rated operational current (fourth rating DC poles, if requested)	l e			A dc
method of mounting	single hole mou side	unting IP65 [P] ten	minals access from	n top
number of DC poles			4	
utilization category DC	DC-21B			
actuator	standard black	[A],		
positions	OFF at 9 hr, ON	l at 12 hr [H]		
rated impulse withstand voltage	Uimp		8	kV
insulation voltage	Ui		1000	V
rated thermal current uninterrupted duty	lu		40	Α
rated short-time withstand current (1s)	lcw		700	Α
rated short-circuit making capacity	I cm		1,4	kΑ
rated conditional short-circuit current			5	kΑ
method of operation	independent m	nanual operation		
minimum required dimensions of endosures L x W x H* {space envelope}			124 x 47 x 94	mm
* 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 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			- 25 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			I P20	
IP rating gland of the shaft in case of single hole panel mounting			I P65	
rated operational voltage (AC poles)	Ue			V ac
rated operational current (AC poles)	le			A ac
number of AC poles (for general use)				
minimum required fine wire cross-section: IEC60947-1, table 9				mm2
auxilliary contact(s), AC15			No aux il ia	ry conta
auxiliary contact ratings				,
weight			284	g
accessories:	_			







Viounting 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 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

connection details							
Description	Symbol	Values			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	P	6.4				W	

The terminals, without interconnection can take copper wires up to 6 mm2.

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).

Registerd Spade Tongue Terminals

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Recommend Manufacturer	Type number	Wire size (AWG)	Wire size (mm²)	Color				
JST	FVD2-YS4A	AWG 16 - AWG 14	1,0 - 2,5 mm ²	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	Ye ll ow				
Vogt	3652c / 3653c	AWG 12 - AWG 10	3,0 - 6,0 mm²	Ye ll ow				
Santon (IST)	52A1256.35	AWG 8 - AWG 10	10 5mm² 16mm² *1	*2				

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

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

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