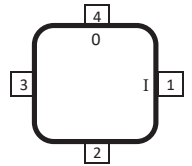
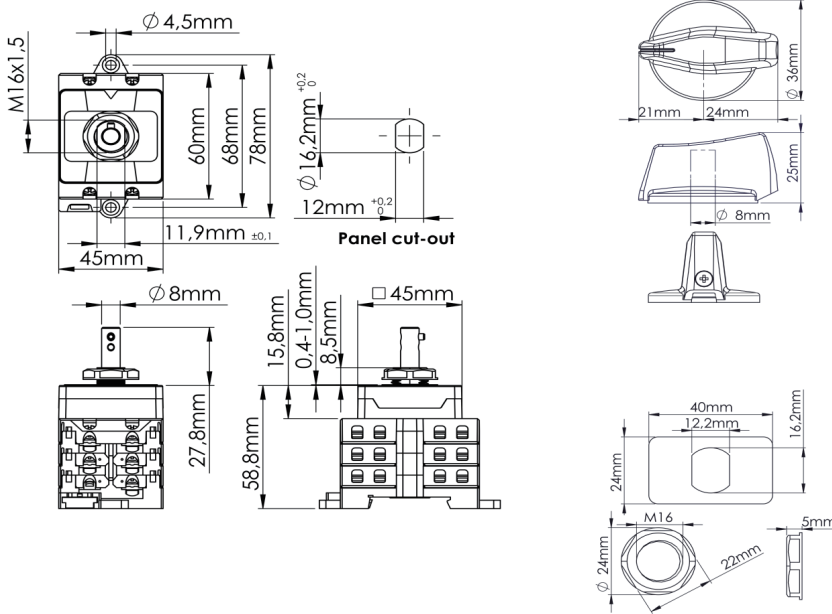




# Data Sheet XBCH+0210/2



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	> 120 - 400
Tolerances unless Otherwise mentioned (mm)	$\pm 0,1$	$\pm 0,1$	$\pm 0,2$	$\pm 0,3$	$\pm 0,5$

The tolerances for the Santon datasheet are according to ISO 1101, ISO 8015, ISO 2768 1 class m, unless stated otherwise.

Technical data	Symbol Ratings		I					II			III		Unit
	Ue	DC-PV1	1500	1400	1300	1200	1100	1000	800	V dc			
Rated operational voltage	Ue	DC-PV1	1500	1400	1300	1200	1100	1000	800	V dc			
Rated operational current	Ie	DC-PV1	20	26	32	38	44	50	60	A dc			
Overload power PV 1 is 1,5 x normal power for 5 operations so overload power			30					75	90	A dc			
Required fine wire cross-section (minimal)*:			4	6	6	10	10	10	16	mm <sup>2</sup>			
calculated rating													
Rated operational voltage	Ue	DC-PV2	1500			1200		1000	800	V dc			
Rated operational current	Ie	DC-PV2	12			18		25	40	A dc			
Overload power PV 2 is 4,0 x normal power for 5 operations so overload power			48			72		100	160	A dc			
Required fine wire cross-section (minimal)*:			2.5			2.5		4	10	mm <sup>2</sup>			
*IEC60947-1, table 9													
Number of DC poles											2		
Pollution degree											2		
Utilization category DC											DC-PV1 and DC-PV2		
IP rating terminals											IP20		
Tightening torque terminal screws M4 (min. - max.)											1,5 - 1,7 Nm		
Method of mounting											IP65		
Tightening torque panel mounting nut (min. - max.)											2,0 - 2,5 Nm		
Panel thickness between											1 - 3 mm		
Positions											12 (OFF) and 3 o'clock (ON)		
Actuator											Standard A knob with long screw to fix in shaft		
Method of operation											Independent manual operation		
Actuator operation force (max.)											1,4 Nm		
Tightening torque M3 screw in the actuator (min. - max.)											0,45 - 0,55 Nm		
Rated impulse withstand voltage											8 kV		
Insulation voltage											1500 V		
Rated thermal current uninterrupted duty											60 A		
Rated short-time withstand current (1s)											700 A		
Rated short-circuit making capacity											1,4 kA		
Rated conditional short-circuit current											5 kA		
Minimum required dimensions of enclosures L x W x D* {space envelope}											124 x 47 x 60 mm		
*see the drawing for the height of the switch. The number of layers N is:											2		
Weight											ca. 143 g		
Allowed ambient temperature (min. - max.)											Tambient -25 - 70 °C		
Allowed storage temperature (min. - max.)											Tstorage -40 - 85 °C		
Relative humidity (max.), without condensation at 20°C											RH 90 %		

Terminals Scheme										
Layer No.	Front Side		Symbol	Rear Side		Positions				
	Left	Right		Left	Right	1	2	3	4	
9										
8										
7										
6										
5										
4										
3	-1			-1		I				0
2		+1			+1	I				0
1			Empty							

(I = Contact is closed, 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°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

The terminals, can take copper wires up to 6 mm<sup>2</sup>. 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 16mm<sup>2</sup> only with fine stranded wire (or two times 6mm<sup>2</sup>)
- \*2 To insulate the cable lugs, you can use the insulating spouts of the ES series from CEMBRE with the typedesignation ES3-XX

note: subject to change without any notice, JDA pay no responsibility

Recommend Manufacturer	Type number	Wire size (AWG)	Wire size (mm <sup>2</sup> )	Color
JST	FVD2-YS4A	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)	52A1256.35	AWG 8 - AWG 10	10,5mm <sup>2</sup> -16mm <sup>2</sup> *1	*2