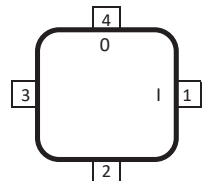
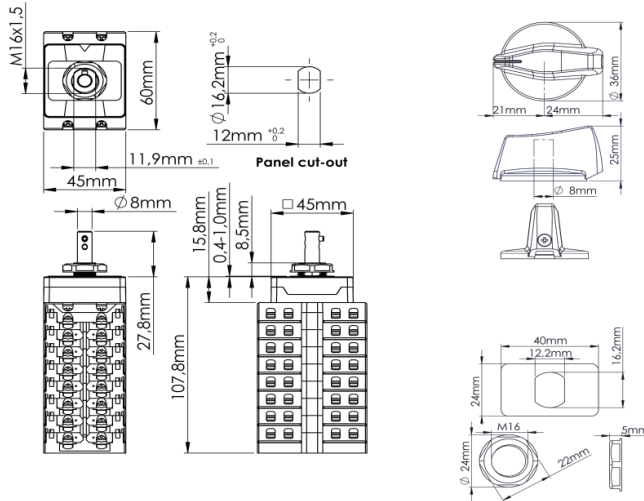




Data Sheet XBHP+3810/2

Certified for IEC 60947 1&3
DC-PV1 and CCC (CQC) and DC-PV2



Attention! This switch may only be mounted with a support at the end of the switch.

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	Rated	I	II	III	IV	Unit
Rated operational voltage	Ue	DC-PV1	848	707	565	424	V ac
Rated operational current	Ie	DC-PV1	20	30	40	50	A
Required fine wire cross-section (minimal)*:			4	6	10	10	mm ²
Rated operational voltage	Ue	DC-PV2	848	707	565	424	V ac
Rated operational current	Ie	DC-PV2	7,5	12,5	20	30	A
Required fine wire cross-section (minimal)*:			2,5	2,5	4	6	mm ²
Number of DC poles			8				
Utilization category DC			DC-PV1 and DC-PV2				
Pollution degree			2				
IP rating terminals			IP20				
Tightening torque terminal screws M4 (min. - max.)			1,5 - 1,7				Nm
Method of mounting			IP65				
IP rating of the shaft in case of single hole mounting			2,0 - 2,5				Nm
Tightening torque panel mounting nut (min. - max.)			1 - 4				mm
Panel thickness between			12 (OFF) and 3 o'clock (ON)				
Positions			Standard A knob with long screw to fix in shaft				
Actuator			Independent manual operation				
Method of operation			1,4				Nm
Actuator operation force (max.)			0,50 - 0,70				Nm
Tightening torque M3 screw in the actuator (min. - max.)			8				kV
Rated impulse withstand voltage	Uimp		848				V ac
Insulation voltage	Ui		50				A
Rated thermal current uninterrupted duty	Iu		700				A
Rated short-time withstand current (1s)	Icw		1				kA
Rated short-circuit making capacity	Icm		5				kA
Rated conditional short-circuit current	Isc		124 x 47 x 118				mm
Minimum required dimensions of enclosures L x W x D* (space envelope)			8				
* see the drawing for the height of the switch. The number of layers N is:			ca. 296				g
Weight			-40 - 70				°C
Allowed ambient temperature (min. - max.)	Tambient		-40 - 85				°C
Allowed storage temperature (min. - max.)	Tstorage		90				%
Relative humidity (max.), without condensation at 20°C	RH						

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

(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.

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 mm².

The recommended Spade Tongue Terminals may have a maximum width of 9 mm (see table for recommendations)

*1 16mm² only with fine stranded wire (or two times 6mm²)

Recommend Manufacturer	Type number	Wire size (AWG)	Wire size (mm ²)	Color
JST		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 mm ²	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	

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