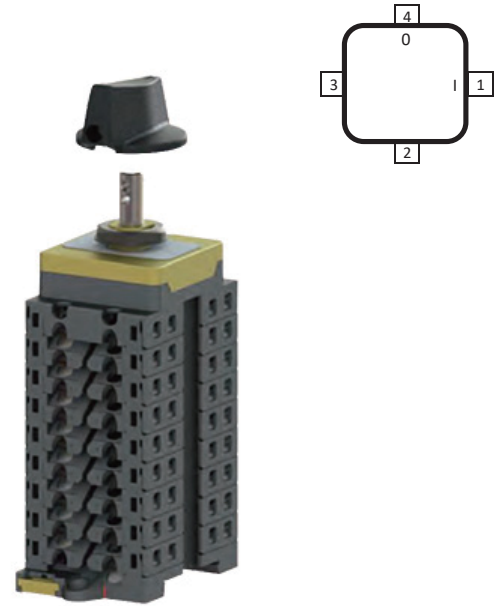
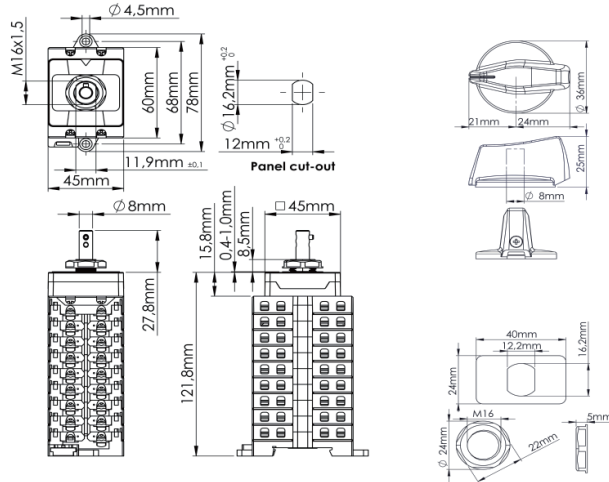




# Data Sheet XBHP+0810/2



General tolerances on linear dimensions:	For the height of a switch is the tolerance always ± 1%				
Dimensions (mm)	0,5 - 3	> 3 - 6	> 6 - 30	> 30 - 120	> 120 - 400
Tolerances unless Otherwise mentioned (mm)	± 0,1	± 0,1	± 0,2	± 0,3	± 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 voltage	Rated current	Unit		
Rated operational voltage	Ue	DC-PV1	1000	800	600	V dc
Rated operational current	Ie	DC-PV1	30	40	50	A dc
Required fine wire cross-section (minimal)*:			6	10	10	mm <sup>2</sup>
Rated operational voltage based on	Ue	DC-PV2	1000	≤800	≤600	V dc
Rated operational current	Ie	DC-PV2	12,5	20	30	V dc
Ie(make) and Ie(break)	4 x Ie	DC-PV2	50	80	120	A dc
Rated operational current	Ie	DC-PV2	3,1	5	7,5	A dc
Ie(make) and Ie(break)	4 x Ie	DC-PV2	12,5	20	30	A dc
Required fine wire cross-section (minimal)*:			2,5	4	6	mm <sup>2</sup>
*IEC60947-1, table 9						
Number of DC poles					8	
Pollution degree					2	
Utilization category DC					DC-PV1 and DC-PV2	
Polarity		No Polarity, "+" and "-" polarities could be interchanged				
Indoor or outdoor Use		Suitable for both indoor and outdoor use				
for enclosed indoor use	IP Code	IP20				
for enclosed outdoor use	IP Code	IP66NW, after installation				
for enclosed outdoor use	Specific dedicated individual enclosure	min. size 340mm x 240mm x100mm				
for enclosed outdoor use	Ithe at 40°C	50A				
for enclosed outdoor use	Ithe solar at 40°C	50A				
for enclosed outdoor use	Ithe solar at 60°C	50A				
for enclosed outdoor use	UV resistance	Yes				
IP rating terminals					IP20	
Tightening torque terminal screws M4 (min. - max.)					0,50 – 0,70	Nm
Method of mounting						
IP rating of the shaft in case of single hole mounting					IP65	
Tightening torque panel mounting nut (min. - max.)					2,0 – 2,5	Nm
Panel thickness between						
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.)					0,50 – 0,70	Nm
Rated impulse withstand voltage	Uimp				8	kV
Insulation voltage	Ui				1000	V
Rated thermal current uninterrupted duty	Iu	DC-PV1 = 50 A	DC-PV2 =		50	A
Rated short-time withstand current (1s)	Icw				700	A
Rated short-circuit making capacity by IEC 60947 1&3	Icm				1,4	kA
Rated conditional short-circuit current	Isc				5	kA
Rated short-circuit making capacity by AS 60947: 2018	Icm				200	A
Minimum required dimensions of enclosures L x W x D* {space envelope}					124 x 47 x 123	mm
* see the drawing for the height of the switch. The number of layers N is:					8	
Weight					ca. 308	g
Allowed ambient temperature (min. - max.)	Tambient				-40 – 70	°C
Allowed storage temperature (min. - max.)	Tstorage				-40 – 85	°C
Relative humidity (max.), without condensation at 20°C	RH				90	%

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

Layer No.	Front Side		Symbol	Rear Side		Positions			
	Left	Right		Left	Right	1	2	3	4
9	+4			+4		I			0
8		-4			-4	I			0
7	-3			-3		I			0
6		+3			+3	I			0
5	+2			+2		I			0
4		-2			-2	I			0
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 type designation ES3....