

CERTIFICATE

KEMA no.: 97.4789.08

Issued to:

Applicant:

Santon Holland B.V.
Willingestraat 2
ROTTERDAM, The Netherlands

Manufacturer/Licensee:

Santon Holland B.V.
Willingestraat 2
ROTTERDAM, The Netherlands

Product : main switches and disconnectors

Trade names : SANTON, SAHO

Types/models : C20H..

The product and any acceptable variation thereto is specified in the Annex to this certificate and the documents therein referred to.

KEMA hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to the standard EN 60947-3;1992
- an inspection of the production location according to CCA Group Operational Document CCA 204
- a certification agreement with the number 901095.

KEMA hereby grants the right to use the KEMA certification mark



The KEMA-KEUR certification mark may be applied to the product as specified in this certificate for the duration of the KEMA-KEUR certification agreement and under the conditions of the KEMA-KEUR certification agreement.

This certificate is issued on: April 17, 1998

C.M. Boschloo
Certification Manager

© Integral publication of this certificate is allowed

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ACCREDITED BY
THE DUTCH COUNCIL
FOR ACCREDITATION



SPECIFICATION OF THE CERTIFIED PRODUCT**Product data**

product	:	main switches and disconnectors	
trade names	:	SANTON, SAHO	
types	:	C20H..	
rated insulation voltage	:	440 V~ pollution degree 3 - 2)	
rated thermal current	:	250 A enclosed	
ratings/utilization category(Ue-Ie)	:	250 V	<u>DC-21A</u> 175 A (40 kW)
		440 V	<u>AC-23A</u> 175 A (108 kW)
rated frequency	:	50-60 Hz	
rated short-time withstand current (Icw)	:	5,0 kA - 1,0 s	
rated short-circuit making capacity (Icm)	:	7,65 kA peak	
rated impulse withstand voltage	:	6 kV	
method of operation	:	independent manual operation	
switching positions	:	4 (2 times on and off)	
number of poles	:	1-4 poles	
operational performance	:	category A	
without current	:	7000 operating cycles	
with current	:	1000 operating cycles	
mechanical durability	:	20 000 operating cycles	
connection	:	cable lugs	
enclosure	:	insulation material, type 9K7 inside dimensions 371 * 371 * 241 mm enclosure IP 55 - 67	

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Additional information

Type reference of type C20H.. : see pages 3 and 4.

Markings:

Trade name, type designation and the complete electrical ratings are shown on the body.

TESTS**Test requirements**

EN 60947-3;1992.

Test results

The test results are laid down in NTR-NL 3696 and TRF no. 97.4789.58.

Remarks

This certificate replaces certificate 92.5274.12

Conclusion

The examination proved that all test requirements were met.

Tested by : M.T.H. van Gemen

Checked by : L.J.W. van Megen

**FACTORY-LOCATION**

Santon Holland B.V.

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Type coding system for packet switches

The type code starts with a combination of the following symbols:

S	=	semi independent manual operation for AC current. If the "S" fails then the switch has independent manual operation for both AC and DC current.
BC	=	bottom mounting.
RP	=	panel mounting.
A	=	replaces the above mentioned C or P for switches with "FASTON" terminals.
C	=	both bottom and panel mounting (for switches with $I_{the} > 40$ A).

The code continues with one of the following symbols for the I_{the} :

1	=	16 A
1H	=	25 A
3	=	40 A
6H	=	63 A
10H	=	100 A
20H	=	250 A

Then the number of poles:

1	=	1 pole
2	=	2 poles
3	=	3 poles
4	=	4 poles

Then the number of isolation discs:

2	=	the switch contains 2 isolation discs
3	=	the switch contains 3 isolation discs
4	=	the switch contains 4 isolation discs, and so on.

Then symbols for the diagram.

If there is more than one symbol, they are separated by "/":

	=	the on - off switch, four positions, 0-1-0-1 (no symbol)
A	=	changeover switch, without zero position 1-2-1-2, may not be used for switching supplies!
B	=	changeover switch, with zero position 0-1-0-2
C	=	stepswitch, with zero position 0-1-2-3
D	=	stepswitch, without zero position 1-2-3-4
E	=	group switch 0-1-(1+2)-(1+2+3)
GB	=	group switch 0-1-(1+2)-2
J	=	group switch 0-(A par. with B)-B-(A in series with B)
TA	=	blocked, switch has 3 positions
TB	=	blocked, switch has 2 positions
TC	=	blocked, switch has 4 positions

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In case of a combination with an accessory the code continues after a "/" with 4 characters. With such a unique 4 digit code the whole switch is determined (not the enclosure) and other parts of the code in front of the 4 digit code may be left out.

Then symbols for a glass fiber reinforced Citadel enclosure (outside dimensions) may follow:

0K	=	82 x 80 x 75,5 mm
1K	=	100 x 100 x 132 mm
2K	=	100 x 100 x 160 mm
5K	=	160 x 160 x 148 mm
6K	=	160 x 160 x 110 mm
7K	=	160 x 160 x 188 mm
8K	=	210 x 210 x 188 mm
9K	=	400 x 400 x 320 mm

Then the IP rating:

5	=	IP55
6	=	IP66
7	=	IP67

Finally symbols for knobs and padlocking:

	=	(no symbol) standard black knob, no padlocking.
K	=	yellow plastic padlocking plate with red knob.
G	=	grey plastic padlocking plate with grey knob.
R	=	stainless steel padlocking plate, with black standard knob, lockable in horizontal and vertical position.
R1	=	stainless steel padlocking plate, with black standard knob, lockable in vertical position.
R2	=	stainless steel padlocking plate, with black standard knob, lockable in vertical position.

Example 1:

SBC1H35/01PA 1K6 = packet switch with semi independent manual operation, bottom mounting, Ith = 25 A, 3 poles, 5 isolation discs, in 1K Citadel enclosure with standard knob and IP66 protection.

Example 2:

01PA 1K6 = the same switch as example 1.

Example 3:

01PA = the same switch as example 1, suitable to build in the 1K enclosure but supplied without enclosure.

C20H42C/TA = packet switch with independent manual operation, bottom and panel mounting, Ith = 250 A, 4 poles, 21 discs, stepswitch with zero position and blocked to 3 positions 0-1-2.

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