

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50436324

Blatt *Sheet*
0001

Ihr Zeichen *Client Reference*
M.D.

Unser Zeichen *Our Reference*
01-ZWC-50251108 001

Ausstellungsdatum *Date of Issue*
24.05.2019 (day/mo/yr)

Genehmigungsinhaber *License Holder*
Santon International bv
Hekendorpstraat 69,
3079 DX Rotterdam
Netherlands

Fertigungsstätte *Manufacturing Plant*
Santon International bv
Hekendorpstraat 69,
3079 DX Rotterdam
Netherlands

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*
EN 60947-3:2009+A1+A2

Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

Lizenzentgelte - Einheit *License Fee - Unit*

Switch-disconnector (PV Switch-disconnector)

Type Designation: 1) XBC+ 2) XBCH+ (Santon)
(Extension of Type designation see Appendix No.1)

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Ambient Temperature : -40°C to +85°C
Polarity : No polarity
Number of Poles : 2/3/4/6/8 layers(connect code
2/3/4/6/7/8 see Appendix No.1)
Utilization Category : DC-PV1
Rated Voltage/Current (Ue/Ie) : 1) 800V/60A, 1000V/50A
2) 800V/60A, 1000V/50A,
1500V/20A
Conventional Free Air Thermal
Current (Ith) : 60A
Rated Insulation Voltage (Ui) : 1500V
Rated Impulse Withstand
Voltage (Uimp) : 8,0kV

Continued on page 0002

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ANLAGE (Appendix) : 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com
Fax: +49 221 806-3935 http://www.tuv.com/safety



Jie Zhang

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50436324

Blatt *Sheet*
0002

Ihr Zeichen *Client Reference*
M.D.

Unser Zeichen *Our Reference*
01-ZWC-50251108 001

Ausstellungsdatum *Date of Issue*
24.05.2019 (day/mo/yr)

Genehmigungsinhaber *License Holder*
Santon International bv
Hekendorpstraat 69,
3079 DX Rotterdam
Netherlands

Fertigungsstätte *Manufacturing Plant*
Santon International bv
Hekendorpstraat 69,
3079 DX Rotterdam
Netherlands

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*
EN 60947-3:2009+A1+A2

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Switch-disconnector (PV Switch-disconnector)

Continuation from page 0001

Rated Short-time Withstand
Current (Icw) : 700A, 1s
Rated Short-time Making
Capacity (Icm) : 1400A
Degree of Protection : IP20
(IP65, after installation)
Pollution Degree : 3
Suitability for Isolation : Yes

ANLAGE (Appendix): 1

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This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com
Fax: +49 221 806-3935 http://www.tuv.com/safety

Zertifizierungsstelle



Jie Zhang

Santon International bv
Mr. Marc Dalderup Sales en
Marketing Director

Date : 24.05.2019
Our ref. : ZWC 01
Your ref.: M.D.

Hekendorpstraat 69,
3079 DX Rotterdam
Netherlands

Ref : R TÜV-Mark Approval

Type of Equipment : PV Switch-disconnector
Model Designation : See Certificate
Certificate No. : R 50436324 0001
Report No. : 50251108 001

Dear Mr. Marc Dalderup,

The above specified equipment has been tested and found to be in accordance with the relevant requirements.

Please find enclosed your certificate as specified above.

If cancellation of the certificate is submitted by 15 November in a given year, no fee will be charged for the following year.

The certificate is issued with the reservation that the license holder applies all information required in § 6 of the ProdSG related to name and address of the manufacturer or his authorized representative / importer, including their respective contact addresses on the product prior to marketing of the product in the European Economic Area.

With kind regards,

Certification Body


Jie Zhang

cc: Santon International bv

Enclosure

证书的详细资料请登陆www.tuvdotcom.com查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

C E R T I F I C A T E



of Conformity
Low Voltage Directive 2014/35/EU

Registration No.: AN 50436326 0001

Report No.: 50251108 001

Holder: Santon International bv
Hekendorpstraat 69,
3079 DX Rotterdam
Netherlands

Product: Switch-disconnector
(PV Switch-disconnector)

Identification: Type Designation: XBC+ XBCH+ (Santon)

Serial No. : Engineering samples

Remark: Issued in conjunction with TÜV Rheinland license
R 50436324 0001 to 0002.

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with Annex I of Council Directive 2014/35/EU, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex IV of the Directive.

Certification Body

Date 24.05.2019

Jie Zhang

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

CE The CE marking may be used if all relevant and effective EC Directives are complied with. CE

Santon International bv
Mr. Marc Dalderup, Sales en
Marketing Director

Date : 24.05.2019
Our ref. : ZWC 01
Your ref.: M.D.

Hekendorpstraat 69,
3079 DX Rotterdam
Netherlands

Ref : AN Certificate of Conf. Low Voltage D.

Type of Equipment : PV Switch-disconnector
Model Designation : See Certificate
Certificate No. : AN 50436326 0001
Report No. : 50251108 001

Dear Mr. Marc Dalderup,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body


Jie Zhang

CC: Santon International bv

Enclosure

证书的详细信息请登陆www.tuvdotcom.com查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

Certificate No. R 50436324 0001-0002 **Our Reference** 01-ZWC-50251108 001 **Appendix No.** 1

Constructional Data Form (CDF) for PV Switch-disconnector

Page 1 of 6

License holder: Santon International BV
(full address): Hekendorpstraat 69, 3079 DX Rotterdam, Netherlands
Factory: Santon Holland BV
(full address): Hekendorpstraat 69, 3079 DX Rotterdam, Netherlands
Type or Model Number: XBC+, XBCH+ (Extension of Type designation refer to page 4)
Kind of device: PV Switch-disconnector

Type designation		XBC+	
Ambient temperature		-40°C~+85°C (the maximum operation temperature is +70°C without de-ratings. The de-ratings for above +70°C, please refer to the Guidance of the manufacturer)	
Contact material		Moving Contact / Static contact: T3 /T3	
Interrupting medium		Air	
Number of poles		2/3/4/6/8 layers (refer to wiring diagrams on page 6)	
Utilization category		DC-PV1	
Rated operational voltage Ue (V)		800V DC	1000V DC
Rated operational current Ie (A)	Connect code: 2	60A	50A
	Connect code: 3	60A	50A
	Connect code: 4	60A	50A
	Connect code: 6	60A	50A
	Connect code: 7	60A	50A
	Connect code: 8	60A	50A
Rated frequency		DC	
Insulation voltage Ui		1500 V	
Conventional free air thermal current Ith		60 A	
Conventional enclosed thermal current Ithe		N/A	
Rated short-time withstand current Icw		700 A, 1s	
Rated short-time making capacity Icm		1,4kA	
Rated conditional short-circuit current Icn		N/A	
Short circuit protective device		//	
Rated Impulse withstand voltage		8,0 kV	

TÜV Rheinland Group

24.05.2019

Date

Signature

License holder

Name

Company Stamp and Signature

Certificate No. R 50436324 0001-0002 **Our Reference** 01-ZWC-50251108 001 **Appendix No.** 1

Constructional Data Form (CDF) for PV Switch-disconnector

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Overvoltage category	II
IP code	IP20 (IP65, after installation)
Pollution degree	2
Suitability for isolation	Yes
Polarity	No polarity, "+" and "-" polarities could be interchanged.

Type designation	XBCH+		
Ambient temperature	-40°C~+85°C (the maximum operation temperature is +70°C without de-ratings. The de-ratings for above +70°C, please refer to the Guidance of the manufacturer)		
Contact material	Moving Contact / Static contact: T3 /T3		
Interrupting medium	Air		
Number of poles	2/3/4/6/8 layers (refer to wiring diagrams on page 7)		
Utilization category	DC-PV1		
Rated operational voltage Ue (V)	800V DC	1000V DC	1500V DC
Rated operational current Ie (A)	Connect code: 2	60A	50A
	Connect code: 3	60A	50A
	Connect code: 4	60A	50A
	Connect code: 6	60A	50A
	Connect code: 7	60A	50A
	Connect code: 8	60A	50A
Rated frequency	DC		
Insulation voltage Ui	1500 V		
Conventional free air thermal current Ith	60A		
Conventional enclosed thermal current Ithe	N/A		
Rated short-time withstand current Icw	700 A, 1s		
Rated short-time making capacity Icm	1,4kA		
Rated conditional short-circuit current Icn	N/A		
Short circuit protective device	//		
Rated Impulse withstand voltage	8,0 kV		

TÜV Rheinland Group

License holder

24.05.2019

Date

Signature

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Constructional Data Form (CDF) for PV Switch-disconnector

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Overvoltage category	II
IP code	IP20 (IP65, after installation)
Suitability for isolation	Yes
Pollution degree	2
Polarity	No polarity, "+" and "-" polarities could be interchanged.

Terminals /connection:

Type designation	XBC+, XBCH+
Number of poles	2/3/4/6/8 layers
Terminal designation, main circuit	Refer to wiring diagrams
Type of terminal, main circuit	Screw terminal
Rated cross sectional area, main circuit	1,0-16 mm ²
Type of conductor	Flexible or rigid
Number of conductors per terminal	1
Required preparation of the conductor	Yes
Stripping length (mm), main circuit	8 mm
Tightening torque, main circuit (Nm)	1,2 Nm M4
Material/plating terminal, main circuit	T3
Material/plating of the screw	Steel, Zink plating

Plastic insulating parts:

Part name	Manufacturer	Material name	CTI (V)	Glow wire	Material Group
Base	Santon	PA66	600	960°C	I
Cover	Santon	PA66	600	960°C	I
Knob	Santon	PA66	600	960°C	I
	Santon	PC	175	650°C	III
Shaft piece	Santon	PA66	600	960°C	I
Rotating disc	Santon	PA66	600	960°C	I

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Constructional Data Form (CDF) for PV Switch-disconnector

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Extension of Type designation: XBC+, XBCH+ series

XBC+ A B C D I E
 I II III IV V VI VII - XXX/X

I XBC+ type: 1000 V/50 A; 800 V/60 A
 XBCH+ type: 1500 V/20 A, 1000 V/50A, 800 V/60 A

II Mounting method
 0 = double mounting, Bottom and panel mounting,
 3 = panel mounting

III Poles
 2 = 2 poles;
 3 = 3 poles, (2 times + and 1 time -);
 4 = 4 poles,
 6 = 6 poles,
 7 = 6 poles (4 times + and 2 time -);
 8 = 8 poles

IV Mechanism /Bridge configuration
 1 = OFF position on 9 hour and ON position on 12 hour

V Shaft length
 0 = length 20mm
 9 = according to customer specified request, with additional code -xxx/x (this is not possible for sample for test as this is only on customer demand)

VI hyphon

VII Actuator
 Blank = without actuator
 1 = knob D type or E type , standard black knob, on position at 03:00 and off position at 12:00
 2 = knob D type or E type, standard black knob with shaft clamp, on position at 03:00 and off position at 12:00
 3 = knob F type, standard red knob with shaft clamp, on position at 03:00 and off position at 12:00
 4 = knob D type, standard red knob with shaft clamp, on position at 03:00 and off position at 12:00
 5 = knob G type, knob with padlock possibility with handle in black color, on position at 03:00 and off position at 12:00
 6 = knob new O type, knob with padlock possibility with handle in red color, on position at 03:00 and off position at 12:00
 7 = knob H type, knob with padlock possibility with handle in red color, on position at 03:00 and off position at 12:00
 8 = knob new O type, knob with padlock possibility with handle in black color, on position at 03:00 and off position at 12:00

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Constructional Data Form (CDF) for PV Switch-disconnector

Page 5 of 6

Knobs can be D, E, F, G H. or O All knobs are made in same material. D is standard black or Red knob, E means standard black knob with shaft clamp; F means standard red knob with shaft clamp; G means knob with padlock possibility with handle in black color; H means knob with padlock possibility with handle in red color. O means knob with padlock possibility in red or black color



D Type black or red

O knob red or black



E type



F type



G type



H type

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Constructional Data Form (CDF) for PV Switch-disconnector

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The respective wiring diagrams approved by type tests for the supply and load terminals see below:

XBC+, XBCH+, DC-PV1		Load Diagram
Connect code	Circuit Type	
2	2 layers, with 1 load	
3	3 layers, with 2 load, 2 '+', 1 '-', ie= '-' current	
4	4 layers, with 2 load	
6	6 layers, with 3 load	
7	6 layers, with 4 load, 2 '+', 1 '-', ie= '-' current	
8	8 layers with 4 load	

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24.05.2019

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Name

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