

# Zertifikat

# Certificate



Zertifikat Nr. Certificate No.  
R 50143450

Blatt Page  
0001

Ihr Zeichen Client Reference  
C.C.G

Unser Zeichen Our Reference  
01-KSH- 15030121 001

Ausstellungsdatum  
05.06.2009

Date of Issue  
(day/month/year)

**Genehmigungsinhaber License Holder**  
Dongguan Sanyou Electrical  
Appliances Co., Ltd.  
Bolan Road, Xitou Industrial Zone  
Houjie Town  
Dongguan City, Guangdong 523952  
P.R. China

**Fertigungsstätte Manufacturing Plant**  
Dongguan Sanyou Electrical  
Appliances Co., Ltd.  
Bolan Road, Xitou Industrial Zone  
Houjie Town  
Dongguan City, Guangdong 523952  
P.R. China

**Prüfzeichen Test Mark**

**Geprüft nach Tested acc. to**  
EN 61810-1:2004



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

**Lizenzentgelte - Einheit**  
**License Fee - Unit**

**Relais (Electromechanical Elementary Relays)**

Type Designation	: SLa-x-lyDumrv-w-t	5
	a, x, y, u, m, n, v, w, t= See appendix 1	9
Rated Coil Voltage	: DC 3V; 5V; 6V; 9V; 12V; 15V; 18V; 24V; 48V or 110V	
Rated Coil Power	: 0,9W	
Ambient Temperature	: -40°C to +85°C	
Contact Loads	: See appendix 1	
Electrical Endurance	: 100 000	
Mechanical Endurance	: 1 000 000	
Type of Interruption	: Micro-Disconnection	
Insulation System between Coil and Contact	: Basic Insulation	

Endurance test in accordance with clause 17 of IEC 60730-1:  
See appendix 1.

The labelling requirements acc. to EU Directive 2001/95 have  
to be observed for distribution within the EEA.



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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.

**Zertifizierungsstelle**

**TÜV Rheinland Product Safety GmbH, Am Grauen Stein, D-51105 Köln**  
Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com  
Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

Dipl.-Ing. F. He

# Zertifikat

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Zertifikat Nr. Certificate No.  
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0002

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Appliances Co., Ltd.  
Bolan Road, Xitou Industrial Zone  
Houjie Town  
Dongguan City, Guangdong 523952  
P.R. China

Fertigungsstätte Manufacturing Plant  
Dongguan Sanyou Electrical  
Appliances Co., Ltd.  
Erhuan Road, Xitou Industrial Zone  
Houjie Town  
Dongguan City, Guangdong 523952  
P.R. China

Prüfzeichen Test Mark

Geprüft nach Tested acc. to  
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Zertifiziertes Produkt (Geräteidentifikation)  
Certified Product (Product Identification)

Lizenzentgelte - Einheit  
License Fee - Unit

Relais (Electromechanical Elementary Relays)

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Addition

Name of Factory : See above

Address of Factory : See above



ANLAGE (Appendix): 1 .

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Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com  
Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

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# Zertifikat

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Zertifikat Nr. *Certificate No.*  
R 50143450

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0003

Ihr Zeichen *Client Reference*  
C.C.G

Unser Zeichen *Our Reference*  
01-KSH- 15030121 001

Ausstellungsdatum  
05.06.2009

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

### Genehmigungsinhaber *License Holder*

Dongguan Sanyou Electrical  
Appliances Co., Ltd.  
Bolan Road, Xitou Industrial Zone  
Houjie Town  
Dongguan City, Guangdong 523952  
P.R. China

### Fertigungsstätte *Manufacturing Plant*

Mingguang Sanyou Electronics  
Co., Ltd.  
Mingguang Industrial Zone  
Mingguang City, Anhui 239400  
P.R. China

### Prüfzeichen *Test Mark*

Geprüft nach *Tested acc. to*  
EN 61810-1:2004



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

Lizenzentgelte - Einheit  
*License Fee - Unit*

Relais (Electromechanical Elementary Relays)

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### Addition

Name of Factory : See above

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**Certificate No.** R50143450 0001-0003 **Our Reference** 01-KSH-15030121 001 **Appendix No.** 1

**Constructional Data Form (CDF) All-or-Nothing Electromechanical Relays** Page 1 of 4

License holder : Dongguan Sanyou Electrical Appliances Co., Ltd  
 Bolan Road, Xitou Industrial Zone, Houjie Town, Dongguan City, Guangdong 523952, P.R. China

Factory1 : Dongguan Sanyou Electrical Appliances Co., Ltd  
 (full address) Bolan Road, Xitou Industrial Zone, Houjie Town, Dongguan City, Guangdong 523952, P.R. China

Factory2 : Dongguan Sanyou Electrical Appliances Co., Ltd  
 (full address) Erhuan Road, Xitou Industrial Zone, Houjie Town, Dongguan City, Guangdong 523952, P.R. China

Factory3 : Mingguang Sanyou Electronics Co., Ltd  
 (full address) Mingguang Industrial Zone, Mingguang City, Anhui 239400, P.R. China

Type or Model Number: SLA-x-1yDumnv-w-t

Kind of device: Electromechanical Elementary Relay

**Specification (contact-circuit )**

Contact material	AgSnO <sub>2</sub> or AgCdO					
Contact configuration	Make	Break	Change-over			
			NO	NC		
Rated contact voltage	240VAC	240VAC	240VAC	240VAC		
Rated contact current	30A	15A	20A	10A		
cos φ	1	1	1	1		
L/R	--		--			
Frequency (Hz)	50/60		50/60			
Schematics for contact loading <small>*according to Tab 13 of EN 61810-1: 2004</small>	Single-pole: a; b		Change-over: o			
Kind of contacts						
Number of cycles for electrical endurance / Frequency of operation	100,000 1200Cycles/h					
Number of cycles for mechanical endurance / Frequency of operation	1,000,000 18,000Cycles/h					
Duty factor	50%					
Type of interruption	Micro-disconnection					
Insulation resistance	≥1,000M Ω (500VDC)					

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25.05.2009

Kenny Shi

Date

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**Constructional Data Form (CDF) All-or-Nothing Electromechanical Relays** Page 2 of 4

\* Endurance according to IEC 60730-1 (ratings, number of cycles, frequency of operation)

Above Electrical ratings(make: 30A,240VAC,100,000 cycles; Break:15A, 240VAC, 100,000 cycles; Change-over:20A, 240VAC for NO and 10A, 240VAC for NC, 100,000 cycles) are also tested in accordance with clause 17-endurance of IEC 60730-1:1999

**Specification (coil-circuit)**

Rated coil voltage (Rated coil voltage) <input checked="" type="checkbox"/> DC <input type="checkbox"/> AC	03	05	06	09	12	15	18	24	48	110
Coil resistance (at 20°C) (Ω) ±10%	10	27	40	90	160	250	360	640	2560	1340 0
Frequency for AC (Hz)	---									
Rated power	Abt:0,9W									
Operative range	<input checked="" type="checkbox"/> class 1: 80% to 110% of rated coil voltage <input type="checkbox"/> class 2: 85% to 110% of rated coil voltage <input type="checkbox"/> other:									
Thermal insulation class	F									

**Specification (general)**

Overvoltage category	II
Pollution degree	2
Test voltages	<i>coil-contact</i> : 2,500VAC( 50/60Hz) for 1min <i>contact - contact</i> : --- <i>across open contact</i> : 1,500VAC( 50/60Hz) for 1min <i>live parts - outside</i> : ---
Minimum creepage distances	<i>coil-contact</i> : 5,0mm <i>contact - contact</i> : --- <i>across open contact</i> : 6,7mm <i>live parts - outside</i> : ---
Minimum clearances	<i>coil-contact</i> : 3,0mm <i>contact - contact</i> : --- <i>across open contact</i> : 0,6mm <i>live parts - outside</i> : ---

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Insulation: <i>U<sub>i</sub> = 250V, OV-cat. II</i> <i>Material gr. IIIa, Poll. deg. 3</i>	<i>coil-contact</i> :	<input checked="" type="checkbox"/> basic	<input type="checkbox"/> reinforced	<input type="checkbox"/> NA
	<i>contact - contact</i> :	<input type="checkbox"/> basic	<input type="checkbox"/> reinforced	<input checked="" type="checkbox"/> NA
	<i>across open contact</i> :	<input checked="" type="checkbox"/> micro	<input type="checkbox"/> full	<input type="checkbox"/> NA
	<i>live parts - outside</i> :	<input type="checkbox"/> basic	<input type="checkbox"/> reinforced	<input checked="" type="checkbox"/> NA
Ambient temperature	-40°C ~ +85°C			
Minimum mounting distance	H: 3 mm V: 3 mm			
Relay technology category	<input type="checkbox"/> RT 0	<input type="checkbox"/> RT I	<input checked="" type="checkbox"/> RT II	
	<input type="checkbox"/> RT III	<input type="checkbox"/> RT IV	<input type="checkbox"/> RT V	

**Terminals**

Terminal designation	N/A
Type of terminals	<input type="checkbox"/> Screw terminals and screwless terminals <input checked="" type="checkbox"/> Flat quick-connect terminations <input checked="" type="checkbox"/> Solder terminals PCB solder terminal Maximum permissible steady-state temperature indicated by manufacturer: 160°C <input type="checkbox"/> Sockets <input type="checkbox"/> Alternative termination types
Material/plating of the terminal	52% copper /Ni
Required preparation of the conductor	1

**Plastic Parts**

Part	Material name	Type designation	RTI (minimum)	Material Group
Cover	PBT	420SEO	130	IIIa
Bobbin	PBT	420SEO	130	IIIa
Base	PBT	420SEO	130	IIIa

Type Nomenclature:

SLa-x-1yDumnv-w-t

Basic designation: SL series

a stands for types; a means A, C or I (Differences: enclosure and contact terminals position)

x stands for sealed type.; blank means open type(for SLA only); S means standard sealed type; SH means sealed type washable.

1 stands for number of poles: 1 pole.

y stands for rated coil voltage(VDC):05;06;09;12;15;18;24;48 or 110.

D stands for rated coil power: D means 0,9w.

u stands for contact type: blank means change-over; M means make contact; B means break contact.

m stands for terminal type of SLA: blank means standard type; J means there is no No.6 terminal.

n stands for cover type of SLC: blank means standard type; K means protection quick-connect type.

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v stands for contact material: blank means AgSnO<sub>2</sub>; 1 means AgCdO

w stands for insulation class(UL): F means class F ;B means class B; blank means general type.

t means special parameter: blank means standard type; letter or number means special requirement which not affect constructions.

Remark:

Open type only for SLA type; Protection quick-connect type only for SLC type.

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25.05.2009

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