

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50142420

Blatt *Page*
0001

Ihr Zeichen *Client Reference*

C.C.G

Unser Zeichen *Our Reference*

01-KSH- 15029903 001

Ausstellungsdatum

16.12.2008

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*

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 : SJ-x-lyDuvw-t-z (SANYOU) 5
x,y,u,v,w,t,z = See appendix 1 7

Rated Coil Voltage : DC 3V;5V;6V;9V;12V;18V or 24V

Rated Coil Power : 0,45W

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
(Reinforced Insulation for u=M)

Continued on page 0002



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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.

Zertifizierungsstelle

Dipl.-Ing. G. Reimann

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

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Relais (Electromechanical Elementary Relays)

Continuation from page 0001

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

Rated Voltage : AC 250V
Rated Current : 10A for make contact
3A for change-over contact

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



ANLAGE (Appendix): 1

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Dongguan City, Guangdong 523952
P.R. China

Fertigungsstätte *Manufacturing Plant*

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Zertifiziertes Produkt (Geräteidentifikation)
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Lizenzentgelte - Einheit
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Relais (Electromechanical Elementary Relays) [®]

as page 0001-0002

Addition

Name of Factory : See above

Address of Factory : See above



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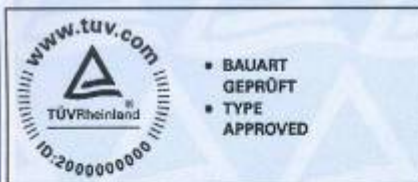
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Bolan Road, Xitou Industrial Zone
Houjie Town
Dongguan City, Guangdong 523952
P.R. China

Fertigungsstätte *Manufacturing Plant*
Mingguang Sanyou Electronics
Co., Ltd.
Mingguang Industrial Zone
Mingguang City, Anhui 239400
P.R. China

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as page 0001-0002

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Dipl.-Ing. G. Reimann



Certificate No. R50142420 0001-0004 Our Reference 01-KSH-15029903 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: SJ-x-1yDuvw-t-z
 Kind of device: Electromechanical Elementary Relay

Specification (contact-circuit)

Contact material	AgSnO ₂ or AgCdO			
Contact configuration	Make		Change-over	
	v=blank	v=H		
Rated contact voltage	250VAC	250VAC	250VAC	28VDC
Rated contact current	5A	10A	3A	3A
cos φ	1,0		1,0	--
L/R	--		--	0ms
Frequency (Hz)	50/60		50/60	--
Schematics for contact loading <small>*according to Tab 13 of EN 61810-1: 2004</small>	Single-pole contact: a		Change-over contact: o	
Kind of contacts				
Number of cycles for electrical endurance / Frequency of operation	100,000 1,200 Cycles/h		100,000 1,200 Cycles/h	
Number of cycles for mechanical endurance / Frequency of operation	1,000,000 18000Cycles/h		1,000,000 18000Cycles/h	
Duty factor	50%		50%	
Type of interruption	Micro-disconnection		Micro-disconnection	

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03.12.2008

Kenny Shi

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

Insulation resistance	≥100M Ω (500VDC)
* Endurance according to IEC 60730-1 (ratings, number of cycles, frequency of operation)	Above Electrical ratings(10A, 250VAC, 100,000 cycles of make contact and 3A, 250VAC, 100,000 cycles for change-over contact) 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	18	24
Coil resistance (at 20°C) (Ω) ± 10%	20	55	80	180	320	720	1,280
Frequency for AC (Hz)	---						
Rated power	0,45w						
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						

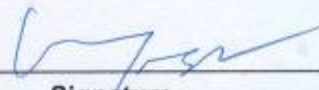
Specification (general)

Overvoltage category	II	
Pollution degree	2	
Test voltages	Make	Change-over
	<i>coil-contact:</i> 4,000VAC(50/60Hz)for 1min <i>contact - contact:</i> --- <i>across open contact:</i> 1,000VAC(50/60Hz)for 1min <i>live parts - outside</i> : ---	<i>coil-contact:</i> 2,500VAC(50/60Hz)for 1min <i>contact - contact:</i> --- <i>across open contact:</i> 1,000VAC(50/60Hz)for 1min <i>live parts - outside:</i> ---
Minimum creepage distances	<i>coil-contact</i> : 7,0mm(make)/ 5,6mm(change-over) <i>contact - contact</i> : --- <i>across open contact</i> : 2,0mm(make)/ 2,0mm(change-over) <i>live parts - outside</i> : ---	
Minimum clearances	<i>coil-contact</i> : 7,0mm(make)/ 5,6mm(change-over) <i>contact - contact</i> : --- <i>across open contact</i> : 0,30mm(make)/ 0,25mm(change-over) <i>live parts - outside</i> : ---	

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Constructional Data Form (CDF) All-or-Nothing Electromechanical Relays Page 3 of 4

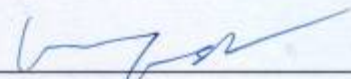
Insulation: <i>U_i = 250V, OV-cat. II</i> <i>Material gr. IIIa, Poll. deg. 2</i>	Make	<i>coil-contact</i> : <input type="checkbox"/> basic <input checked="" type="checkbox"/> reinforced <input type="checkbox"/> NA <i>contact - contact</i> : <input type="checkbox"/> basic <input type="checkbox"/> reinforced <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
	Change-over	<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 type="checkbox"/> Flat quick-connect terminations <input checked="" type="checkbox"/> Solder terminals PCB solder pin 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	62%/---Copper Alloy
Required preparation of the conductor	1

Plastic Parts

Part	Material name	Type designation	RTI (minimum)	Material Group
Cover	PBT	3316	140	IIIa
Bobbin	PBT	3316	140	IIIa
Base	PBT	3316	140	IIIa





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

Type Nomenclature:

SJ-x-1yDuvw-t-z

Basic designation: SJ

x stands for sealed type: 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):03;05;06;09;12;18;24

D stands for rated coil power: 0,45w

u stands for contact type: blank means change-over contact; M means normal open contact;

v stands for contact load: blank means standard type 5A capacity; H means 10A high contact capacity type when u=M;

w stands for contact material: blank means AgSnO₂; 1 means AgCdO;

t stands for insulation (system) class: F means class F ;B means class B; blank means general type

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

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