

Zertifikat

Certificate



Zertifikat Nr. Certificate No.
R 50148605

Blatt Page
0001

Ihr Zeichen Client Reference
C.C.G

Unser Zeichen Our Reference
01-KSH- 15023189' 002

Ausstellungsdatum
06.03.2009

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
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	: SMH-1xDMy-z-u	5
	x,y,z,u = See appendix 1	4
Rated Coil Voltage	: DC 5V;6V;9V;12V;18V;24V or 48V	
Rated Coil Power	: 0,50W	
Ambient Temperature	: -40°C to +85°C	
Contact Loads	: 16A 277VAC	
	16A 30VDC	
Electrical Endurance	: 100 000	
Mechanical Endurance	: 2 000 000	
Type of Interruption	: Micro-Disconnection	
Insulation System between Coil and Contact	: Reinforced 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.



9

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 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

Zertifizierungsstelle

Dipl.-Ing. G. Reimann

Zertifikat

Certificate



Zertifikat Nr. Certificate No.
R 50148605

Blatt Page
0002

Ihr Zeichen Client Reference
C.C.G

Unser Zeichen Our Reference
01-KSH- 15023189 002

Ausstellungsdatum
06.03.2009

Date of Issue.
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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.
Erhuan 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) [®]

as page 0001

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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Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

Zertifizierungsstelle

Dipl.-Ing. G. Reimann

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50148605

Blatt *Page*
0003

Ihr Zeichen *Client Reference*
F.T.N.

Unser Zeichen *Our Reference*
01-KSH- 15023189 004

Ausstellungsdatum
30.06.2011

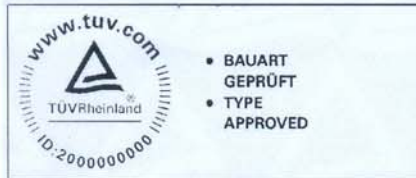
Date of Issue
(day/mo/yr)

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 61810-1:2008



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

Lizenzentgelte - Einheit
License Fee - Unit

Relais (Electromechanical Elementary Relays)

as page 0001

Change

Test Requirement: 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.
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 LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
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



Certificate No. R50148605 0001-0002 **Our Reference** 01-KSH-15023189 002 **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

Factory 1:
 (full address) Dongguan Sanyou Electrical Appliances Co., Ltd.
 Bolan Road, Xitou Industrial Zone, Houjie Town, Dongguan City, Guangdong
 523952, P.R. China

Factory 2:
 (full address) Dongguan Sanyou Electrical Appliances Co., Ltd.
 Erhuan Road, Xitou Industrial Zone, Houjie Dongguan, Guangdong, 523952,
 P. R. China

Type or Model Number : SMH-1xDMY-z-u
 Kind of device: Electromechanical Elementary Relay

Specification (contact-circuit)		
Contact material	AgSnO ₂	
Rated contact voltage	277VAC	30VDC
Rated contact current	16A	16A
cos φ	1	---
L/R	---	0ms
Frequency (Hz)	50	---
Schematics for contact loading *according to Tab 13 of EN 61810-1: 2004	Single-pole: a	Single-pole: a
Kind of contacts		
Number of cycles for electrical endurance / Frequency of operation	100 000 1200 Cycles/h	100 000 1200 Cycles/h
Number of cycles for mechanical endurance / Frequency of operation	2 000 000 18000 Cycles/h	2 000 000 18000 Cycles/h
Duty factor	50%	50%
Type of interruption	Micro-disconnection	Micro-disconnection
Insulation resistance	≥ 1000M Ω	

* Above electrical ratings are also tested in accordance with clause 17-endurance of IEC 60730-1:1999.

TÜV Rheinland Group



07.04.2010

Kenny Shi

Date

Name

Signature

Certificate No. R50148605 0001-0002 Our Reference 01-KSH-15023189 002 Appendix No. 1

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

Specification (coil-circuit)							
Rated coil voltage (Rated coil voltage) <input checked="" type="checkbox"/> DC <input type="checkbox"/> AC	5V	6V	9V	12V	18V	24V	48V
Coil resistance (at 23°C) (Ω)	50	72	162	288	648	1152	4608
Frequency for AC (Hz)	---						
Rated power	0.50W						
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	B						

Specification (general)																	
Overvoltage category	II																
Pollution degree	2																
Test voltages	coil-contact : 5000VAC/ 1min contact - contact : ---- across open contact : 1000VAC/ 1min live parts - outside : ----																
Minimum creepage distances	coil-contact : 8,0mm contact - contact : ---- across open contact : 2,0mm live parts - outside : ----																
Minimum clearances	coil-contact : 3,2mm contact - contact : ---- across open contact : 0,6mm live parts - outside : ----																
Insulation: <i>U_i = 320V, OV-cat. II Material gr. III, Poll. deg. 2</i>	<table border="0"> <tr> <td>coil-contact</td> <td>: <input type="checkbox"/> basic</td> <td><input checked="" type="checkbox"/> reinforced</td> <td><input type="checkbox"/> NA</td> </tr> <tr> <td>contact - contact</td> <td>: <input type="checkbox"/> basic</td> <td><input type="checkbox"/> reinforced</td> <td><input checked="" type="checkbox"/> NA</td> </tr> <tr> <td>across open contact</td> <td>: <input type="checkbox"/> Interruption</td> <td><input checked="" type="checkbox"/> Micro</td> <td><input type="checkbox"/> Full</td> </tr> <tr> <td>live parts - outside</td> <td>: <input type="checkbox"/> basic</td> <td><input type="checkbox"/> reinforced</td> <td><input checked="" type="checkbox"/> NA</td> </tr> </table>	coil-contact	: <input type="checkbox"/> basic	<input checked="" type="checkbox"/> reinforced	<input type="checkbox"/> NA	contact - contact	: <input type="checkbox"/> basic	<input type="checkbox"/> reinforced	<input checked="" type="checkbox"/> NA	across open contact	: <input type="checkbox"/> Interruption	<input checked="" type="checkbox"/> Micro	<input type="checkbox"/> Full	live parts - outside	: <input type="checkbox"/> basic	<input type="checkbox"/> reinforced	<input checked="" type="checkbox"/> NA
coil-contact	: <input type="checkbox"/> basic	<input checked="" type="checkbox"/> reinforced	<input type="checkbox"/> NA														
contact - contact	: <input type="checkbox"/> basic	<input type="checkbox"/> reinforced	<input checked="" type="checkbox"/> NA														
across open contact	: <input type="checkbox"/> Interruption	<input checked="" type="checkbox"/> Micro	<input type="checkbox"/> Full														
live parts - outside	: <input type="checkbox"/> basic	<input type="checkbox"/> reinforced	<input checked="" type="checkbox"/> NA														
Ambient temperature	-40°C ~ +85°C																
Minimum mounting distance	H: 1mm V: 1mm																
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																

TÜV Rheinland Group

Ges. in Shanghai
TÜV Product Safety GmbH
1001-153139 K66

07.04.2010

Kenny Shi

Date

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Certificate No. R50148605 0001-0002 **Our Reference** 01-KSH-15023189 002 **Appendix No.** 1

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

Terminals

Terminal designation	Coil terminals; contact terminals
Type of terminals	<input type="checkbox"/> Screw terminals and screwless terminals <input checked="" type="checkbox"/> Flat quick-connect terminations 4.8mmX0.5mm <input checked="" type="checkbox"/> Solder terminals 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%/ Tin
Required preparation of the conductor	1

Plastic Parts

Part	Material name	Type designation	RTI (minimum)	Material Group
Base	PBT	RG301(r1)	130	IIIa
	PBT	4130(a)	120	IIIa
	PBT	D202G30@	140	IIIa
	PBT	1403G6	140	IIIa
Case	PBT	RG301(r1)	130	IIIa
	PBT	4130(a)	120	IIIa
	PBT	D202G30@	140	IIIa
	PET	FR530	155	IIIa
	PBT	1403G6	140	IIIa
Bobbin	PBT	RG301(r1)	130	IIIa
	PBT	4130(a)	120	IIIa
	PBT	D202G30@	140	IIIa
	PBT	1403G6	140	IIIa

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07.04.2010

Kenny Shi

Date

Name



[Handwritten Signature]
Signature



Certificate No. R50148605 0001-0002 Our Reference 01-KSH-15023189 002 Appendix No. 1

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

SMH-1xDMy-z-u

x stands for rated coil voltage (VDC): 05; 06; 09; 12; 18; 24 or 48

D stands for rated coil power: 0.5W

M stands for contact form A (make)

y stands for terminal type: Blank means standard type , P means PCB type. .

z stands for insulation system for UL standards: Blank means standard type, B means Class B, F means class F.

u stands for special parameter: Blank means standard type, letter or number means special requirements which not effect constructions.

Remark:

First issue: base on 15023189 002, on 06.03.2009.

Second and latest issue: adding alternate material of plastic part base on 15023189 003, on 07.04.2010.

TÜV Rheinland Group


 Gesell.
Shanghai...
TÜV Product Safety GmbH
KSH-15023189-002

07.04.2010

Kenny Shi

Date

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