

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50116140

Blatt *Page*
0001

Ihr Zeichen *Client Reference*
L.Y.H.

Unser Zeichen *Our Reference*
01-ZJ- 15024686 001

Ausstellungsdatum
05.08.2008

Date of Issue
(day/mo/yr)

Genehmigungsinhaber *License Holder*
Zhejiang HKE Relay Co., Ltd.
28 Jiacun Industry Area
Ningbo, Zhejiang 315135
P.R. China

Fertigungsstätte *Manufacturing Plant*
Zhejiang HKE Relay Co., Ltd.
28 Jiacun Industry Area
Ningbo, Zhejiang 315135
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	: HRM2x-S-y	5
	x = Blank or H	1
	y = DC3V; DC5V; DC6V; DC9V	1
	DC12V; DC24V or DC48V	
Rated Coil Voltage	: DC 3V; 5V; 6V; 9V; 12V; 24V or 48V	
Rated Coil Power	: 0,72W or 0,54W	
Ambient Temperature	: -30°C to +85°C	
Contact Loads	: 250V 16A or 10A or 8A	
	See Appendix	
Electrical Endurance	: 50 000 or 100 000	
	See Appendix	

Continued on page 0002



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ANLAGE (Appendix): 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product fulfills above mentioned requirements, the production 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

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50116140

Blatt *Page*
0002

Ihr Zeichen *Client Reference*
L.Y.H.

Unser Zeichen *Our Reference*
01-ZJ- 15024686 001

Ausstellungsdatum
05.08.2008

Date of Issue
(day/mo/yr)

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Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Relais (Electromechanical Elementary Relays)

Continuation from page 0001

Mechanical Endurance : 10 000 000
Type of Interruption : Micro-Disconnection
Insulation System between
Coil and Contact : Reinforced Insulation

Remark:

- 1) 850°C glow-wire passed without flame.
- 2) 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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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. G. Reimann

Certificate No. R50116140 0001-0002


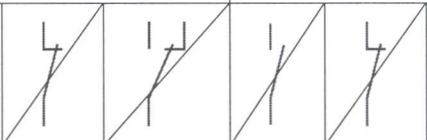
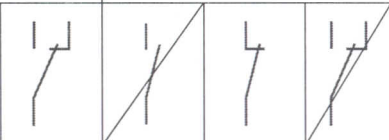
Our Reference 01-ZJ-15024686 001


Appendix No. 1

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

Licenseholder : Zhejiang HKE Relay Co., Ltd.
 28 Jiacun Industry Area, Ningbo, Zhejiang 315135, P.R. China
 Factory : Zhejiang HKE Relay Co., Ltd.
 (full address) 28 Jiacun Industry Area, Ningbo, Zhejiang 315135, P.R. China

Type or Model Number : HRM2x-S-y
 Kind of device: Electromechanical Elementary Relays

Specification (contact-circuit)			
Contact material	AgSnO2		
Rated contact voltage	250VAC	250VAC	250VAC
Rated contact current	16A	Make contact: 16A; Break contact: 10A	8A
cos φ	1.0	1.0	0.4
L/R	—	—	—
Frequency (Hz)	50		
Schematics for contact loading <small>*according to Tab 13 of EN 61810-1: 2004</small>	Make	Change-over	Break
Kind of contacts			
Number of cycles for electrical endurance / Frequency of operation	50,000 1800 cycles / hour		100,000 1800 cycles / hour
Number of cycles for mechanical endurance / Frequency of operation	10,000,000 18000 Operating cycles / hour		
Duty factor	50%		
Type of interruption	Micro-disconnection		
Insulation resistance	≥1000M Ω		

 Gesahen/Revised
 Shanghai 21.04.2009
 TÜV Product safety mbH

TÜV Rheinland Group

21. 04. 2009

Zhang Jie

Date

Name

Signature



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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	3V	5V	6V	9V	12V	24V	48V
Coil resistance (at 23°C) (Ω)	12.5	35	50	112.5	200	800	3200
Frequency for AC (Hz)	--						
Rated power	720mW						
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 (coil-circuit)							
Rated coil voltage (Rated coil voltage) <input checked="" type="checkbox"/> DC <input type="checkbox"/> AC	3V	5V	6V	9V	12V	24V	48V
Coil resistance (at 23°C) (Ω)	17	46	67	150	267	1067	4267
Frequency for AC (Hz)	---						
Rated power	540mW						
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> : 4000VAC/1min <i>contact - contact</i> : ---- <i>across open contact</i> : 1000VAC/ 1min <i>live parts - outside</i> : ----
Minimum creepage distances	<i>coil-contact</i> : 8.0mm <i>contact - contact</i> : ---- <i>across open contact</i> : 4.5mm <i>live parts - outside</i> : ----

TÜV Rheinland Group

Gegeben/Reviewed
 Shanghai 21.04.2009
 TÜV Product safety GmbH

21. 04. 2009	Zhang Jie	
Date	Name	Signature

Certificate No. R50116140 0001-0002 Our Reference 01-ZJ-15024686 001 Appendix No. 1

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

Minimum clearances	coil-contact : 8.0mm contact - contact : ---- across open contact : 0.3mm live parts - outside : ----
Insulation: <i>U_i = 250V, OV-cat. II Material gr. III, Poll. deg. 2</i>	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"/> basic <input type="checkbox"/> reinforced <input checked="" type="checkbox"/> NA live parts - outside : <input type="checkbox"/> basic <input type="checkbox"/> reinforced <input checked="" type="checkbox"/> NA
Ambient temperature	-30°C ~ +85°C
Minimum mounting distance	H: 5mm V: 5mm
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	Movable spring terminal; Stationary spring terminal; Coil terminal
Type of terminals	<input type="checkbox"/> Screw terminals and screwless terminals <input type="checkbox"/> Flat quick-connect terminations <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	EPCS-S; QSn6.5-0.1(PCu)
Required preparation of the conductor	1

Plastic Parts

Part	Material name	Type designation	RTI (minimum)	Material Group
Base	PA46	TE250F6	140	IIIa
	PBT	PBT-RG301	130	IIIa
Case	PBT	TV4-260SF	140	IIIa
	PBT	PBT-RG301	130	IIIa
Bobbin	PBT	TV4-260SF	140	IIIa
	PBT	PBT-RG301	130	IIIa



Produktsicherheit und -qualität

Product Safety and Quality



Certificate No. R50116140 0001-0002 Our Reference 01-ZJ-15024686 001 Appendix No. 1

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

Card	PPS	R-7-02	130	IIIa
	PBT	PBT-RG301	130	IIIa

TYPE NOMENCLATURE:

HRM2 x - S - y

x stands for rated coil power: Black: 0.72W or H: 0.54W

y stands for rated coil voltage: DC3V, DC5V, DC6V, DC9V, DC12V, DC24V or DC48V

Remark:	First issue: 28. 07. 2008 This Certificate is based on test report: - 15024686 001	Second and latest issue: 21. 04. 2009 Add alternate plastic material base on test report: - 15024686 002
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TÜV Rheinland Group

21. 04. 2009

Zhang Jie

Date

Name

Signature



 Gasphen-Relais
 Shanghai 21.04.2009
 TÜV Product safety GmbH

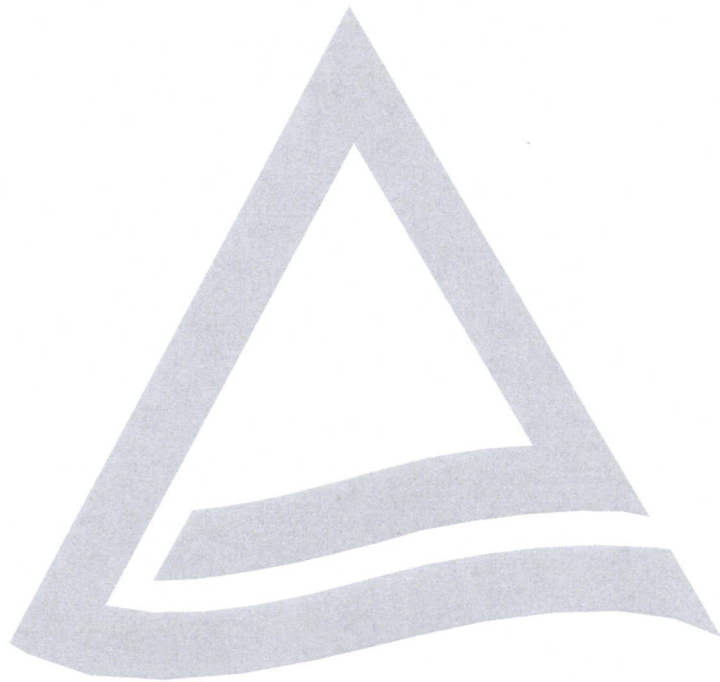
PHOTO DOCUMENTATION

15024686 001

for

**Electromechanical Elementary Relay
HRM2x-S-y**

Zhejiang HKE Relay Co., Ltd.



This documentation consists of 4 pages (excluding this cover page).

