

SPECIFICATION

Type: V6-S-DC12V Relay

1. 线圈参数

1.1 额定电压	12VDC.
1.2 线圈电阻	$720\ \Omega \pm 10\%$ at 23°C.
1.3 额定电流	$16.7\text{mA} \pm 10\%$ at 23°C.
1.4 吸合电压	9.0VDC Max.
1.5 释放电压	1.2VDC Min.
1.6 最大线圈电压	15.6VDC(130%额定电压)
1.7 额定功耗	200mW

2. 触点参数

2.1 触点形式	1 Form A-常开型
2.2 触点材质	Ag Alloy
2.3 触点负载	Resistive: 10A 250VAC, 15A 125VAC Horsepower: 1/2HP 120VAC
2.4 最大切换电压	30VDC / 250VAC
2.5 最大切换电流	16A
2.6 最大切换功率	4000VA, 480W
2.7 最小切换电流电压	100mA, 5VDC
2.8 接触电阻 (初始值)	Max. $100\text{m}\ \Omega$ at 6VDC 1A
2.9 电气耐久性	常温下 100,000 次 (10A 250VAC, 1800 次/h) 常温下 30,000 次 (15A 125VAC, 1800 次/h) 试验后,介质耐压值应不小于初始值的 75%。
2.10 机械耐久性	空载条件下 10,000,000 次(18,000 ops/h)

3. 其他性能

3.1 绝缘电阻	Min. $1000\text{M}\ \Omega$ at 500VDC
3.2 介质耐压(漏电流: 1mA)	
(1) 触点间	750VAC, 1 min, 50/60Hz
(2) 触点与线圈间	2,500VAC, 1 min, 50/60Hz
3.3 吸合时间	Max. 15 ms.
3.4 释放时间	Max. 8 ms.
3.5 工作温度	-40 to +85°C
3.6 储存条件	
(1) 储存温度	-40 to +85°C
(2) 环境	贮存于无腐蚀性气体的场所, 如硫化氢气体或有盐份的空气中。 贮存于产品不受阳光直射的场所, 不受雨淋的场所。

- 3.7 温升
线圈
在 85℃环境温度下，触点施加 15A 负载，线圈用 110%额定电压进行激励，用电阻法测线圈温升应不超过 55K。
- 3.8 端子强度
拉力和推力
继电器结构和性能应无任何异常当用1kg的拉力和推力推拉继电器端子10s。
- 3.9 可焊性
在锡温为 260±5℃的锡炉中浸渍 5±1s，端子应有 95%区域被锡覆盖。
- 3.10 耐焊接热
在锡温为 260±5℃的锡炉中浸渍 10±1s 后将继电器在常温常湿下恢复 1.5 小时，继电器结构和性能应无任何异常。如果是手工焊锡，必须在 350±10℃的锡温下浸渍 3.5±0.5s 。
接触电阻应小于 100mΩ。
- 3.11 寒冷
继电器在-40±3℃温度下放置 2 小时后将其在常温常湿下恢复 1.5 小时，继电器结构和性能应无任何异常。
接触电阻应小于 100mΩ。
- 3.12 干热
继电器在 85±2℃温度下放置 16 小时后将其在常温常湿下恢复 1.5 小时，继电器结构和性能应无任何异常。
接触电阻应小于 100mΩ。
- 3.13 耐湿热
继电器在 90-95% RH 湿度，40±2℃温度下放置 48 小时后将其在常温常湿下恢复 1.5 小时，继电器结构和性能应无任何异常。
绝缘电阻应不小于 100 MΩ，接触电阻应小于 100mΩ。
- 3.14 振动
(1) 强度
继电器在 1.5 mm 双振幅，10~55~10Hz 的频率下每个方向（X、Y、Z）振动 2h， 共 6h，继电器结构和性能应无任何异常
- (2) 稳定性
(激励)
触点打开时间不超过 1ms 或更长时间当继电器在 1.5 mm 双振幅，10~55~10Hz 的频率下每个方向（X、Y、Z）经受 5 分钟的振动， 共 30 分钟。
- 3.15 冲击
(1) 强度
继电器在 1,000m/s² 加速度，时间为 6ms 的条件下每个方向（X、Y、Z）经受 3 次冲击，共 18 次冲击，继电器结构和性能应无任何异常
- (2) 稳定性
(激励)
触点打开时间不超过 1ms 或更长时间当继电器在 100m/s² 加速度，时间为 11ms 的条件下每个方向（X、Y、Z）经受 3 次冲击，共 18 次冲击。

- 4 命名:
 $\frac{V6}{a} - \frac{S}{b} - \frac{DC12V}{c}$
 a: 继电器系列号
 b: 封装型式
 S: 塑封型
 c: 线圈电压 DC5V
- 5 印字
 印字图号 Y-V6-S8
 外壳颜色 黑色
 印字类型 激光印字
- 6 外形尺寸, 安装脚位, 接线图 图号. HKE4.520.176
- 7 安全认证
 UL NO.E164730
 CSA NO. 1460119
 TUV NO. 50116138
 CQC08002027612

8S-9A-A

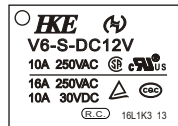


图1 1:1

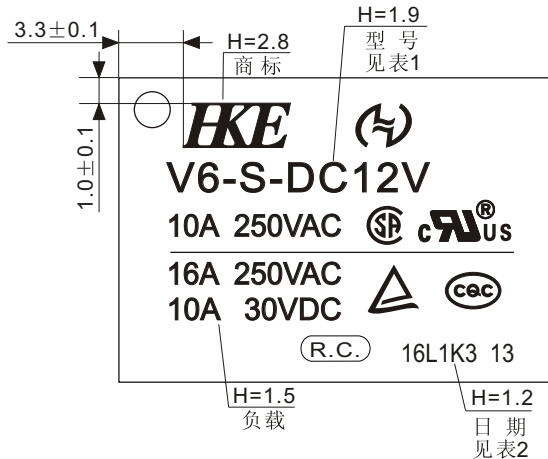


图2 2.5:1

表 1

V6	S	DC12V
型号	塑封型式 S: 塑封型	线圈电压: DC3V、DC5V、DC6V、DC9V DC12V、DC24V、DC48V

表 2

16	L	1	K	3
年份	月份: A:1月 E:5月 I:9月 B:2月 F:6月 J:10月 C:3月 G:7月 K:11月 D:4月 H:8月 L:12月	星期: 1:第1星期 2:第2星期 3:第3星期 4:第4星期	MAKER	1: 生产一部, 2: 生产二部 3: 生产三部, 6: 生产六部 7: 生产七部, 8: 生产八部

技术要求:
1. “13”代表此为制造说明书H-V6-2913的产品;
2. 单线印字, 线条、字迹应清晰、美观。

产品编号

V6

旧底图总号

底图总号

日期

签名

标记 数量 更改单号 签名 日期

设计 审核 工艺

标准化 批准

V6外壳标志图
V6 Marking

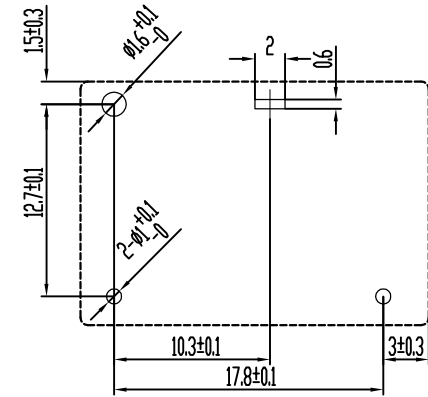
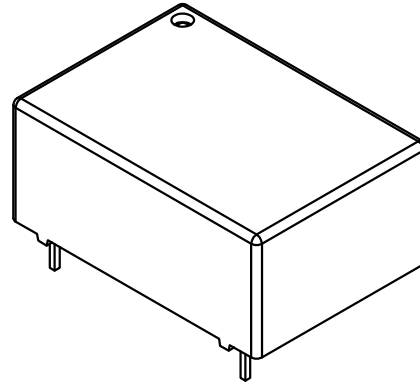
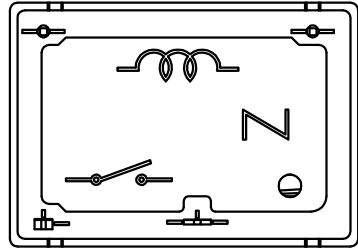
HKE

浙江汇港电器有限公司

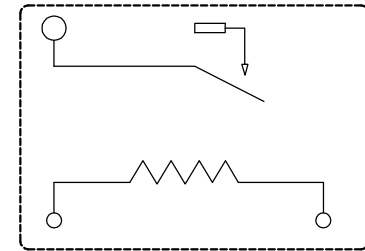
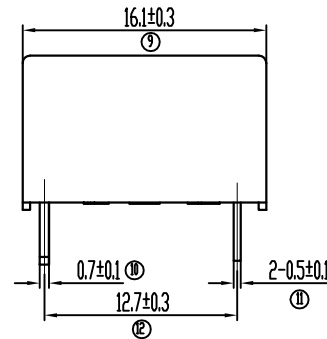
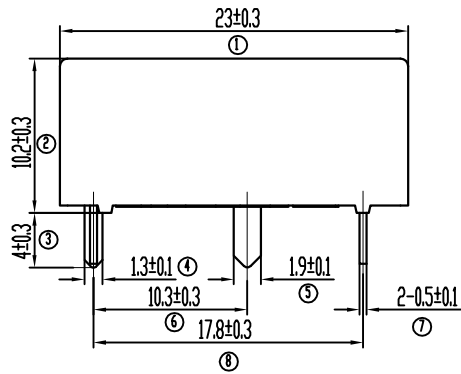
阶段 标记 质量 比例

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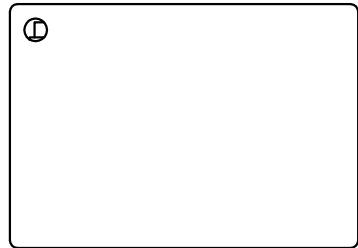
Y-V6-S8



安装孔尺寸



接线图



产品编号

V6

旧底图总号

底图总号

日期 签名

标记	数量	更改单号	签名	日期
设计				
审核				
工艺				
标准化				
批准				

V6继电器外形图

宽脚(降温升)

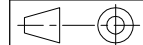
HKE.

浙江汇港电器有限公司

视图标准

质量

比例



3:1

共 1 页

第 1 页

HKE4.520.176.1

版本号: 00



质量管理体系认证证书

证书编号: 00114Q25666R5M/3302

兹证明

浙江汇港电器有限公司

组织机构代码: 73697591-9

中国浙江省宁波市鄞州区云龙镇甲村(架山)162号

建立的质量管理体系符合标准:

ISO9001:2008

GB/T 19001-2008

通过认证范围如下:

电磁继电器的设计、组装生产和服务

首次发证日期: 2008年8月15日 本次发证日期: 2014年7月3日 有效期至: 2017年7月2日

在一个监督周期后, 本证书必须与CQC签发的监督审核合格通知书合并使用方可有效。查询证书有效状态请登陆 www.cqc.com.cn。
本证书信息可在国家认证认可监督管理委员会官方网站 (www.cnca.gov.cn) 上查询



王克娇

Signed by: Wang Kejiao



中国质量认证中心

中国·北京·南四环西路188号9区 100070
<http://www.cqc.com.cn>



环境管理体系认证证书

证书编号: 00115E21618R4M/3302

兹证明

浙江汇港电器有限公司

中国浙江省宁波市鄞州区云龙镇甲村(架山)162号

建立的环境管理体系符合标准:
ISO14001:2004 GB/T24001-2004

通过认证范围如下:

电磁继电器的设计、生产及相关管理活动

首次发证日期: 2003年12月3日 本次发证日期: 2015年6月23日 有效期至: 2018年6月22日
在一个监督周期后, 本证书必须与CQC签发的监督审核合格通知书合并使用方可有效。查询证书有效状态请登陆www.cqc.com.cn。



Signed by: Wang Kejiao



中国质量认证中心

中国·北京·南四环西路188号9区 100070
<http://www.cqc.com.cn>

Zertifikat

Certificate



Zertifikat Nr. Certificate No.
R 50116138

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0001

Ihr Zeichen Client Reference
L.Y.H.

Unser Zeichen Our Reference
01-ZJ- 15024684 001

Ausstellungsdatum
24.11.2008

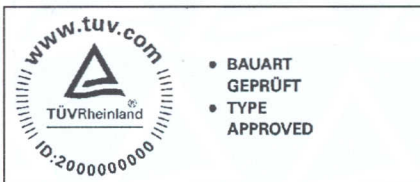
Date of Issue
(day/mo/yr)

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	: V6-S-x	5
	x = (See appendix)	1
Rated Coil Voltage	: DC 3V; 5V; 6V; 9V; 12V; 24V or 48V	
Rated Coil Power	: 0,2W	
Ambient Temperature	: -40°C to +85°C	
Contact Loads	: 1) 16A 250VAC 2) 10A 30VDC	
Electrical Endurance	: 1) 10 000 2) 50 000	
Mechanical Endurance	: 10 000 000	
Type of Interruption	: Micro-Disconnection	
Insulation System	between Coil and Contact: Basic Insulation	

Continued on page 0002



6

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 50116138

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0002

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

Unser Zeichen *Our Reference*
01-ZJ- 15024684 001

Ausstellungsdatum
24.11.2008

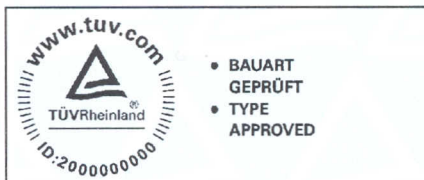
Date of Issue
(day/mo/yr)

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)

Continuation from page 0001

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

Rated Voltage : 250VAC
Rated Current : 16(3)A
Number of Automatic Cycles: 10 000

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



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

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



PRODUCT CERTIFICATE

No.: CQC08002027612

NAME AND ADDRESS OF THE APPLICANT

ZHEJIANG HKE RELAY CO., LTD
JIACUN INDUSTRY AREA 28, NINGBO ZHEJIANG 315135

NAME AND ADDRESS OF THE MANUFACTURER

ZHEJIANG HKE RELAY CO., LTD
JIACUN INDUSTRY AREA 28, NINGBO ZHEJIANG 315135

NAME AND ADDRESS OF THE FACTORY

ZHEJIANG HKE RELAY CO., LTD(V002493)
JIACUN INDUSTRY AREA 28, NINGBO ZHEJIANG 315135

NAME, MODEL AND SPECIFICATION

RELAY

V6 系列 触点负载: 16A 250VAC 线圈电压: 3VDC 5VDC 6VDC 9VDC 12VDC 24VDC 48VDC
环境温度: -40°C~85°C 电寿命: 20000周期 机械耐久性: 50000周期 系列描述见附

THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS

GB/T21711.1-2008

CERTIFICATION MODEL

Type Testing of the Product + Initial Factory Inspection + Follow up Factory Inspection

This is to certify that the above mentioned products have qualified for the requirements of
implementation rules for CQC mark certification.

The validity of the certificate depend on the follow up inspection by the certification body at
regular intervals.

President:


Wang Kejiao



CHINA QUALITY CERTIFICATION CENTRE

Section 9, No. 188, Nansihuan Xilu, Beijing 100070 P.R. China
<http://www.cqc.com.cn>

C 0007721



产品认证证书

附录:

第 1 页 共 1 页

证书编号: CQC08002027612

纸号: 7721

型号命名方法:

V6 - S - X
1 2 3

- 1 产品主型号: V6
- 2 封装形式: S—密封型
- 3 线圈电压: DC3V;DC5V;DC6V;DC9V;DC12V;DC24V;DC48V

注: 此附录与证书同时使用时有效。

主任: _____



中国质量认证中心

中国·北京·南四环西路 188 号 9 区 100070

<http://www.cqc.com.cn>



NRNT2.E164730 Switches, Industrial Control - Component

[Page Bottom](#)

Switches, Industrial Control - Component

[See General Information for Switches, Industrial Control - Component](#)

ZHEJIANG HKE RELAY CO LTD

E164730

28 JIA CUN INDUSTRY AREA

NINGBO, ZHEJIANG 315135 CHINA

Relays, Model(s) AC, followed by 3, followed by S, followed by DC, followed by 5V, 6V, 9V, 12V, 18V or 24V, followed by A

Relays, Model(s) CMP6-S or F6-S, followed by DC5V, 6V, 9V, 12V, or 24V, may be followed by P

Relays, Model(s) CMP7 or CMP8, followed by Nil or S, followed by DC5V, DC6V, DC24V, DC9V, DC12V, DC24V, DC48V, followed by A or C

Relays, Model(s) CMP8(AT)-S followed by DC5V, DC6V, DC9V, DC12V, DC24V or DC48V, followed by A

Relays, Model(s) HCP, followed by 1, 2 or 3, followed by blank or S, followed by DC, followed by 5V, 6V, 9V, 12V, 18V, 24V, 36V, 48V, followed by A or C, HRA, may be followed by H, may be followed by S, HRB1-S, followed by DC3V, DC5V, DC6V, DC9V, DC12V or DC24V, HRM, may be followed by 1 or 2, may be followed by H, may be followed by S

Relays, Model(s) HRM, may be followed by 3, may be followed by H or L, may be followed by S, may be followed by DC3-DC48, may be followed by T.

Relays, Model(s) HRM4, may be followed by H, may be followed by S, followed by DC3-DC24 incl

Relays, Model(s) HRM4, may be followed by H, may be followed by S, may be followed by DC3 - DC48, followed by SP, HRMF, followed by DC3V, DC5V, DC6V, DC9V, DC12V, DC18V, DC24V or DC48V

Relays, Model(s) HRS, may be followed by 3 or 4, may be followed by H, may be followed by A, may be followed by S, followed by DC3-DC48 incl

Relays, Model(s) HRS1, may be followed by K, may be followed by B or H, may be followed by 3, may be followed by S, followed by DC, followed by XX, where XX is coil voltage, HRS2, may be followed by B or H, may be followed by S

Relays, Model(s) HRS2H, followed by S, followed by 3 VDC through 48 VDC, may be followed B, N or T

Relays, Model(s) HRS3, may be followed by N, may be followed by H, followed by S, followed by DC3V, DC5V, DC6V, DC9V, DC12V, or DC24V, may be followed by A or C

Relays, Model(s) HRS3-S, followed by DC3V, DC5V, DC6V, DC9V, DC12V or DC24V, followed by A or C

Relays, Model(s) HRS3T, may be followed by N, may be followed by H, followed by S, followed by DC, followed by 3V, 5V, 6V, 9V, 12V or 24V, followed by A or C

Relays, Model(s) HRS4, may be followed by T, may be followed by F, may be followed by H, followed by S, followed by DC, followed by 3V, through 60V may be followed by A

Relays, Model(s) HRS4E, followed by Blank or H; followed by Blank or S; followed by DC3V, DC5V, DC6V, DC9V, DC12V, DC18V, DC24V or DC48V; followed by X or G

Relays, Model(s) L7, may be followed by S, followed by DC6V, DC12V, DC24V, DC48V, DC100V, DC110V, AC6V, AC12V, AC24V, AC48V, AC100V, AC120V, AC220V, AC240V, followed by 1A or 2A, followed by 2P or 2Q


Relays, Model(s) V6, may be followed by S, followed by DC3V, DC5V, DC6V, DC9V, DC12V, DC18V, DC24V or DC48V

Relays, open type, Model(s) AC5, may be followed by N, may be followed by S, followed by DC, followed by 5V, 6V, 9V, 12V, 18V or 24V

Relays, open type, Model(s) F5, may be followed by H, followed by DC, followed by 3V, 5V, 6V, 9V, 12V, 18V, 24V or 48V, followed by P1,P2 or P3

Relays, open type, Model(s) HCP4, may be followed by S, followed by DC, followed by 5V, 6V, 9V, 12V, 18V, 24V, 36V, or 48V, followed by A or C.

Relays, open type, for use in industrial application, Model(s) LH-DC12V-Q-2C

Marking: Company name or tradename "E164730" or trademark  and model designation.

Last Updated on 2010-01-10

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DESCRIPTIONPRODUCT COVERED:

USR, CNR - Relays, Series V6, may be followed by S, followed by DC, followed by 3 through 48, followed by V.

GENERAL:

These devices are magnetically operated relays with SPST contacts. The relays are provided with a dust cover. They are intended to be used in industrial applications where the suitability of the combination has been determined by Underwriters Laboratories Inc.

ELECTRICAL RATINGS:

General Use Ratings						
Contact Parameters 1A Contacts, General Use		Electrical Endurance	Coil Parameters			
Voltage (V)	Current (A)		Voltage (V dc)	Winding diameter (mm)	No. of Turns	Resistance at 20°C (Ω)
250 125 125	10	100k cycles (105°C)	3	0.12	1510	45
			5	0.95	2630	125
			6	0.085	3230	180
	13	100k cycles (105°C)	9	0.065	4250	400
			12	0.06	6050	720
			24	0.04	11600	2800
	15	30k cycles (85°C)	48	0.03	21000	9200
Contact Parameters 1A Contacts, Tungsten, and TV						
125	10 TV-5	25k cycles 25k cycles	3	0.12	1510	45
			5	0.95	2630	125
			6	0.085	3230	180
			9	0.065	4250	400
			12	0.06	6050	720
			24	0.04	11600	2800
			48	0.03	21000	9200

NOMENCLATURE:

V6
-
S
-
DC5V
I

II

III

- I. Basic Designation - V6
- II. S indicates sealed type
- III. Coil Voltage DC3V through DC48V

ENGINEERING CONSIDERATIONS (Not for Field Representative's Use)

Special Consideration - The following items are considerations that were used when evaluating this product.

USR - Indicated evaluation to UL 508, Seventeenth Edition, the Standard for Industrial Control Equipment

CNR - Indicated evaluation to CSA 22.2 No. 14-95, the Standard for Industrial Control Equipment for Use in Ordinary Locations.

Conditions of Acceptability -

1. These devices should be used within their Recognized ratings as specified above.
- *2. These relays employ a Class F insulation system and were tested in **surrounding air** temperature as indicated below. If mounted in an environment where the temperature exceeds what is given below, then consideration should be given to repeating the temperature test.

<u>*Model</u>	<u>Maximum Surrounding Air Temperature</u>
V6	85°C
V6	105°C (10A 250VAC/13A 125VAC)

3. The solder and/or pressure connector terminals are to be factory wired only and the suitability of the connections including spacings between factory connectors shall be determined in the end-use.

CONSTRUCTION DETAILS:

The product shall be constructed in accordance with the following description.

Spacings - Spacings of not less than indicated in the table below shall be maintained through air and over the surface. Spacings of insulating materials are maintained between any uninsulated live part and an uninsulated live part of opposite polarity, uninsulated grounded part other than the enclosure, or exposed metal part. The spacings were evaluated per Table 36.1 of UL 508, Seventeenth Edition, except where specifically indicated below.

Model	Minimum acceptable spacings in Devices with Limited Ratings
V6	1.6 mm through-air, 3.2 mm over-surface

Tolerances - Unless specified otherwise, all indicated dimensions are nominal.

Corrosion Protection - All parts are of corrosion resistant material or are plated or painted as corrosion protection.

Marking - Permanently applied to the devices, includes Recognized Company's name, catalog number, and electrical ratings.