



东莞市中汇瑞德电子股份有限公司
DongGuanChurod Electronics Co., Ltd.

RELAY SPECIFICATION

继电器规格书

(File No.: 001000 / Version: 00 / Issued Date: Apr. 18th, 2022)

Product Description (品名) **CHS01-V-112LA2,241**

Safety Model Name (安规型号) **CHS01-V-112LA2**

Part Number (编码)

Customer Name(客户型号)

Customer Approval (客户批准)

STAMPING AREA (盖章处)

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Issued (发行)	Checked (审核)	Approved (承认)
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SAFETY STANDARD 安全标准	
UL certificate	E341422
UL 证书	

COIL CHARACTERISTICS 线圈特性

Coil resistance	160±10% Ω
线圈电阻	
Rated voltage	12VDC
额定电压	
Max. allowable voltage	130% of rated coil voltage
最大允许电压	
Rated power	900mW
额定功率	
Operate voltage	≤9.0VDC
吸合电压	
Release voltage	≥0.6VDC
释放电压	

CONTACT RATINGS 触点规格

Contact configuration	1 Form A (SPST)
触点结构	
Contact material	Ag Alloy
触点材料	
Initial contact resistance	≤100mΩ at 6VDC/1A
初始接触电阻	
Rated switching voltage (Normally Open)	277VAC
额定切换电压 (常开触点)	
Rated switching voltage (Normally Close)	-
额定切换电压 (常闭触点)	
Rated current (Normally Open)	40A
额定电流 (常开触点)	
Rated current (Normally Close)	-
额定电流 (常闭触点)	
Rated switching power (Normally Open)	11,080VA
额定切换功率 (常开触点)	
Rated switching power (Normally Close)	-
额定切换功率 (常闭触点)	
Minimum applicable load (Normally Open)	5VDC 100mA
最小使用负载 (常开触点)	
Minimum applicable load (Normally Close)	-
最小使用负载 (常闭触点)	

Operate time	≤15ms, excluding bounce time
吸合时间	≤15ms, 不含触点抖动时间
Release time	≤15ms, excluding bounce time
释放时间	≤15ms, 不含触点抖动时间
Mechanical endurance	1 Million cycles, 300 cycles/minute
机械寿命	
Electrical endurance (Resistive Load)	40A, 277VAC, 30k cycles, 6 cycles/minute
电气寿命 (阻性负载)	

INSULATION PERFORMANCE 绝缘性能

Dielectric strength	1500VAC 1 minute, between open contacts
介电强度	1500VAC 1 分钟 (断开触点间)
	4000VAC 1 minute, between coil to contacts
	4000VAC 1 分钟 (线圈与触点间)
Impulse withstand voltage	3KV (1.2/50μs), between coil to contacts
耐浪涌电压	3KV (线圈与触点间)
Insulation resistance	≥1000MΩ at 500VDC, between open contacts and coil to contacts
绝缘电阻	≥1000MΩ at 500VDC (断开触点间及线圈与触点间)
Insulation systems (UL)	155 (F)
绝缘系统	
Insulation type	Basic insulation
绝缘类型	基本绝缘

ENVIRONMENT PERFORMANCE 环境性能

Category of protection (IEC61810-1)	RT II (Flux tight)
密封类型	防助焊剂渗入型
Operating temperature	-40~85°C
工作温度	
Operating humidity	20~85%RH
工作湿度	
Storage temperature	-40~85 °C
储藏温度	
Storage humidity	20~85%RH
储藏湿度	
Vibration resistance	(1) Capability to function during vibration No opening or closing of any closed or opened contact circuit respectively exceed 10μs when the relay is subjected to vibration of 10~55Hz and 1.5mm dual amplitude in each of three mutually perpendicular axes for 10 minutes respectively, while it is in operate condition and in release condition.
耐振动	

抗误动作能力

动作/释放状态下，继电器在三个轴向耐受频率10~55Hz及振幅1.5mm的振动各10分钟,触点误动作不超过10微秒。

(2) Capability to function after vibration

No trouble on structure and characteristics after the relay is subjected to vibration of 10~55Hz and 1.5mm dual amplitude in each of three mutually perpendicular axes for 2 hours respectively.

振动耐久能力

继电器在三个轴向耐受振幅1.5mm及频率10~55Hz的振动各2小时，产品构造和性能无异常发生。

(1) Capability to function during shock

No opening or closing of any closed or opened contact circuit respectively exceed 10 μ s when the relay is subjected to shock of 98.1m/s² for 11ms in both directions of each of three mutually perpendicular axes for 3 times respectively, while it is in operate condition and in release condition.

抗误动作能力

动作/释放状态下，继电器在三轴六方向耐受加速度98.1m/s²及作用时间11毫秒的冲击各3次，触点误动作不超过10微秒。

(2) Capability to function after shock

No trouble on structure and characteristics after the relay is subjected to shock of 981m/s² for 6ms in both directions of each of three mutually perpendicular axes for 3 times respectively.

冲击耐久能力

继电器在三轴六方向耐受加速度981m/s²及作用时间6毫秒的冲击各3次，产品构造和性能无异常发生。

No trouble on structure and characteristics after placed at -40°C for 240 hours and 2 hours recovery in standard atmospheric conditions.

-40°C中放置240小时并在标准大气条件下恢复2小时后继电器构造和特性无异常。

Shock resistance

耐冲击

Cold resistance

耐低温



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Thermal resistance 耐高温	No trouble on structure and characteristics after placed at 85°C for 240 hours and 2 hours recovery in standard atmospheric conditions. 85°C中放置240小时并在标准大气条件下恢复2小时后继电器构造和特性无异常。
Humidity resistance 耐湿度	No trouble on structure and characteristics after placed at 40°C&95%RH for 240 hours and 2 hours recovery in standard atmospheric conditions. 40°C及95%相对湿度中放置240小时并在标准大气条件下恢复2小时后继电器构造和特性无异常。
Thermal shock resistance 耐冷热冲击	No trouble on structure and characteristics after endure 100 cycles of cyclic temperature and 2 hours recovery in standard atmospheric conditions, which the temperature cycle consists of -40°C for 0.5 hour and 85°C for 0.5 hour. -40°C和85°C中各放置0.5小时为一个温度周期，循环100次，在标准大气条件下恢复2小时后继电器构造和特性无异常。
Terminal robustness 引出端强度	No trouble on structure and characteristics after endure axial pushing/pulling force of 10N for 10 seconds. 继电器引出端承受10牛顿的轴向压入、拨出力，延时10秒，构造和性能无异常。

MARKING 产品标识

Position of marking 标识位置	Top of relay cover 外壳天面
Cover color 外壳颜色	Black 黑色
Marking Type 标记类型	Laser 激光
Trade mark 商标	

MOUNTING INFORMANTION 安装信息

Solderability	260±5°C for 5±0.5 seconds
可焊性	
Resistance to soldering heat	260±5°C for 10±1 seconds
耐焊接热	350±10°C for 3.5±0.5 seconds
Standard direction	Relay PCB terminals downward
标准方向	继电器 PCB 型引出端朝下
Terminals assignment and outline dimensions	Refer to APPENDIX
引出端脚位和外形尺寸	请参考附件

ENGINEERING NOTES 注意事项

Unless otherwise explicitly stated, the standard environment conditions for measurement or testing are listed as followings:

除非特别申明，测量或试验的标准环境条件如下：

(1) Ambient temperature is 23±5°C;

环境温度为 23±5°C;

(2) Atmospheric pressure is 96±10% kPa;

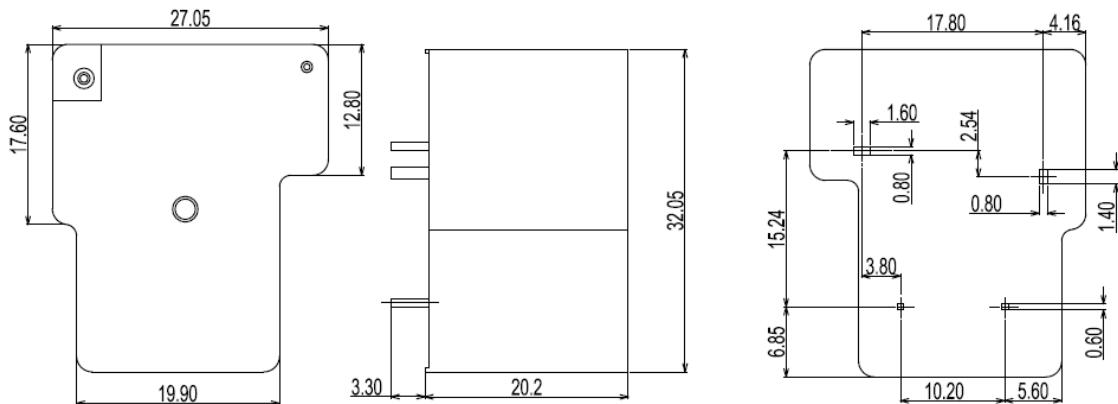
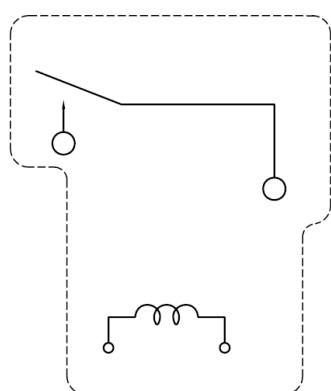
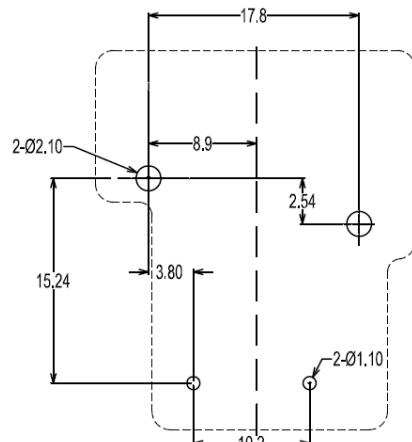
大气压力为 96±10% kPa;

(3) Relative humidity is 50%±25% RH.

相对湿度为 50%±25% RH.

(4) The maximum temperature rise of the coil is 70K, and that of the terminal is 45K.

线圈温升最大 70K, 端子温升最大 45K.

Outline dimension
外形尺寸图

Wiring diagram (Bottom View)
接线图 (底视图)

Mounting dimensions (Bottom View)
安装孔尺寸图 (底视图)


Note: All unspecified tolerance (including outline dimension and PC board dimension) according to following listing

备注: 产品外形尺寸未标注尺寸公差及PC板未注尺寸公差按以下表执行。

产品外形尺寸未注尺寸公差		PC板未注尺寸公差
Outline dimensions hadn't specified tolerance		PC board dimensions hadn't specified tolerance
外形尺寸 Outline dimensions	公差 Tolerance	
≤ 0.3	± 0.1	
≤ 1	± 0.2	
≤ 5	± 0.3	
> 5	± 0.5	± 0.1