™

宁 波 信 创 智 电 器 有 限 公 司

NINGBO XINCHAUGNZHI ELECTRIC APPLIANCE CO.,LTD

产品规格书

Product specification

客户名称 Customer：_____

品　　名 Product Name：继电器 RELAY

产品型号 Product model：SCH-T90-1A-12S（防爆）

日　　期 Date：2020-08-31

生产地Place of production：中国浙江余姚经济开发区凤仪路 86 号

No.86 Feng yi Road, Yuyao Economic Development Zone, Zhejiang, China 联系人

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版本 Version：初版

拟制 Make	审核 Check	批准 Approved	客户承认 User Approved
黄荣华	白雄飞	黄成贵	

变更版记录 Revisions

顾客 Customer			产品型号 Part No.		
变更版 Version No.	变更日期 Change Date		变更内容 Description	原因 Reason	负责人 By
颁布日期 Issue Date			新样品要求编号 N.S.O No.		
批准 Approved	审核 Check	设计 Design	样品号 Sample No.	规格号 Specification No.	

产品规格书 Relay Specification Sheet

顾客 Customer：_____

1. 品种 Type Model

1.1 种类 Kinds：小型大功率继电器 Miniature high power relay

1.2 型号 Type：SCH-T90/(1A 1B 1C)

1.3 触点形式 Contact Arrangement: 1A 1B 1C

1.4 触点材料 Contact Material: $AgSnO_2$

2. 安全标准 Safety Standard

国际安全认证 Foreign Standard： Recognized by UL file No.E476814

TUV file No. R50319391

CQC file No. CQC15002132852

3.线圈额定参数 Coil Rating (at 23℃)

线圈电压 Coil voltage VDC	吸合电压 Pick up Voltage VDC	释放电压 Release voltage VDC	最大电压Max voltage VDC	额定电流 Nominal Current (mA)	线圈电阻 Coil Resistance Ω (1±10%)	线圈功耗 Coil power consumption W
5	≦3.75	≧0.5	6.5	185	27	0.9
6	≦4.50	≧0.6	7.8	150	40	0.9
9	≦6.75	≧0.9	11.7	93	97	0.9
12	≦9.00	≧1.2	15.6	75	160	0.9
18	≦13.5	≧1.8	23.4	50	360	0.9
24	≦18.00	≧2.4	31.2	36	660	0.9
36	≦27.0	≧3.6	46.8	25	1440	0.9
48	≦36.0	≧4.8	62.4	19	2560	0.9

线圈电压 Coil voltage VDC	吸合电压 Pick up Voltage VDC	释放电压 Release voltage VDC	最大电压Max voltage VDC	额定电流 Nominal Current （mA）	线圈电阻 Coil Resistance Ω （1±10%）	线圈功耗 Coil power consumption W
5	≦3.75	≧0.5	6.5	238	21	1.2
6	≦4.50	≧0.6	7.8	200	30	1.2
9	≦6.75	≧0.9	11.7	132	68	1.2
12	≦9.00	≧1.2	15.6	100	120	1.2
18	≦13.5	≧1.8	23.4	67	270	1.2
24	≦18.00	≧2.4	31.2	50	480	1.2
36	≦27.0	≧3.6	46.8	33	1080	1.2
48	≦36.0	≧4.8	62.4	25	1920	1.2

注意:1,使用的线圈电压低于线圈额定电压时将会损害继电器的工作.
2,吸合,释放电压仅供检测用,不是设计的使用指标.

Caution:1,The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
2,Pick up and release voltage are for test purposes only and are not be used as design criteria.

4.触点参数 Contact Specification

4.1 触点额定负载 Contact Rating：1A 型 Type 30 A 240 Va.c.

1B 型 Type 30 A 240 Va.c.

1C 型 Type NO 30 A 240 Va.c./NC 20 A 240 Va.c.

4.2 最大切换电流 Max. Contact Current: 1A 型 Type 30 A

1B 型 Type 30 A

1C 型 Type NO 30 A/NC 20 A

4.3 最大切换电压 Max. Contact Voltage: 250 Va.c./ 30 Vd.c.

4.4 最大切换功率 Max. Allowable Capacity：7200VA 560W

5. 性能 Performance

5.1 接触电阻 Contact Resistance：100mΩ (at 24VDC 1A)

5.2 动作时间 Operate Time： Max. 15ms

5.3 释放时间 Release Time： Max. 10ms

5.4 寿命 Life

⑴ 电气寿命 Electrically

结构形式 Version	触点形式 contact arrangement	触点负载 Contact Rating 阻性负载 Resistive Load	环境温度 Ambient Temperature	通断比 ON：OFF	电耐久性 Electrical Endurance
塑封型 Wash tight	1A	30A 240Va.c	常温 Room Temperature	1 s:9 s	$5x10^4$(ops)
	1B	30A 240Va.c		9 s:1 s	$5x10^4$(ops)
	1C	NO:30A 240Va.c		1 s:9 s	$1x10^4$(ops)
		NC:20A 240Va.c		9 s:1 s	$1x10^5$(ops)

⑵ 机械寿命 Mechanically

结构形式 Version	环境温度 Ambient Temperature	通断比 ON：OFF	机械耐久性 Mechanical Endurance
1A/1B/1C	常温 Room Temperature	0.1s:0.1s	1×10^7 次（ops）

5.5 介质耐压 Dielectric Strength(漏电流 Leak Current: 1mA)

⑴ 断开触点间 Between Contacts: 1500Va.c.(50/60 Hz 1 min)

⑵ 触点与线圈间 Between Coil To Contacts: 2500 or 4000 Va.c. (50/60 Hz1 min)详见订货标记 (See ordering information for more details)

5.6 绝缘电阻 Insulation Resistance

⑴ 断开触点间Between Contacts: 100MΩ (500Vd.c)

⑵ 触点与线圈间 Between Coil To Contacts: 100MΩ (500Vd.c)

5.7 振动 Vibration

强度: 1.5mm 双振幅，10～55Hz

Durability: 1.5mm Double amplitude ,10 to 55Hz.

5.8 冲击 Shock

稳定性: 98 m/s^2 （脉冲持续时间 11 ms），6 次(三个相互垂直轴线的每一个方向 6 次，总共 36 次),闭合回路的断开或开路回路的闭合时间应不超过 100 μs。

Malfunction: 98 m/s^2 (Duration11 ms), 6 shocks (six ops in both directions of each of the three mutually perpendicular axes, totally 36 ops), No opening of any closed contact circuit of no closing of any opened contact circuit shall exceed 100 μs.

强度: 980 m/s^2（脉冲持续时间 6 ms），6 次(三个相互垂直轴线的每一个方向6 次，总共 36 次）继电器外观、结构和性能不应有异常。

Durability: 980 m/s^2(Duration 6 ms),6 shocks(six ops in both directions of each of the three mutually perpendicular axes,totally 36ops)It shall be noabnormalities in appearance, construction and performance.

5.9 引出脚强度 Terminal Strength:

PCB 引出脚：在 PCB 引出脚方向上施加 5 N/10 s 拉力，继电器应无异常。

PCB Terminal：The relay shall be no abnormalities while bring 5 N/10 s force on the PCB terminals in the directions of it.

5.10 耐焊接热 Soldering Heat Resistance:

(1) 焊接温度 Soldering Temperature：(280±3) ℃

(2) 焊接时间 Soldering Time：(5±0.5) s

继电器应无异常 There shall be no abnormalities.

5.11 焊接性能 SolderingAbility: （250±3）℃, （3±0.3）s 引出端被浸锡部分有 90%以上连续覆上一层锡层。 90% of the dipped portion shall be soldered .

5.12 耐温性 Temperature Resistance

(1) 耐热Heat Resistance(70±2) ℃温度中放置 2h,恢复常温 2 h 后，继电器的结构及性能应无异常。

Must be free from any abnormality in both the construction and characteristics after the relay is lift in a temperature of (70±2) ℃ for 2 h and then in room temperature and humidity for 2 h.

(2) 耐寒 Cold Resistance

(-40±2) ℃度中放置 2 h,恢复常温 2 h 后，继电器的结构及性能应无异常。

Must be free from any abnormality in both the construction and characteristics after the relay is lift in a temperature of (-40±2) ℃ for 2 h and then in room temperature and humidity for 2 h.

5.13 耐湿性 Moisture Resistance

在温度(40±2) ℃相对湿度 90%～95% RH 中放置 48 h，恢复常温 2 h 后，继电器的结构及性能应无异常。且绝缘电阻应不小于 50 MΩ(500 Vd.c.)。

Must be free from any abnormality in both the construction and characteristics after the relay is lift in a humidity of 90% to 95% RH for 48 h and then in room temperature and humidity for 2 h. Insulation resistance however must be 50 MΩ(500 Vd.c.).

6. 产品标识 Marking

6.1 外壳颜色 Case Color: 黑色 black

6.2 印字位置 Marking Position: 顶部 Top

6.3 印字颜色 Ink Color: 激光刻字

7. 订货信息 Ordering information

SCH - T90 - 1A-12 S T

1 2 3 4 5 6

7.1, 总 称 generic terms

7.2, 型号 Part number:

7.3, 触点形式Contact Arrangement: 1A 常开（NO）1B 常闭（NC） 1C 转换（NO： NC）

7.4, 线圈额定电压 Coil rated voltage(V): 5 6 9 12 24 36 48 VDC

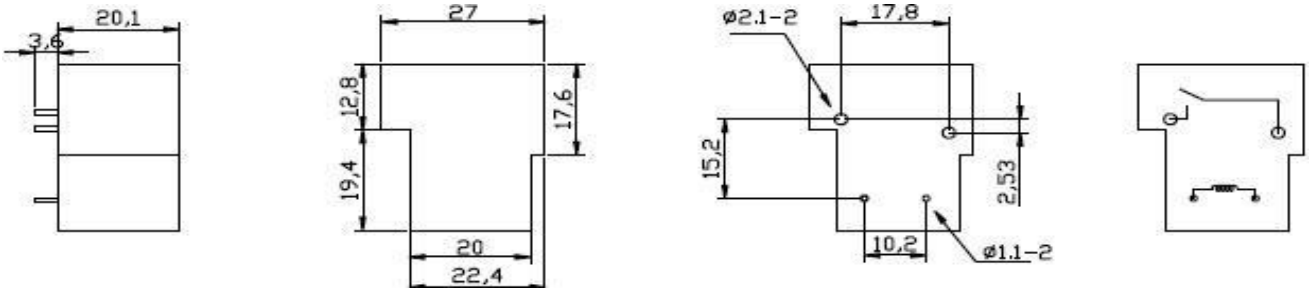
7.5, 塑封类型 Seal type: S 密封型 无 防尘型

7.6. 耐压等级 Dielectric strength: T 耐压 4KV 105℃ 无 常规型

8. 产品结构 Configuration

外形图	安装孔位图	接线图(底视图)
Outline dimensions	PCB layout	Wiring diagram

1 Form A



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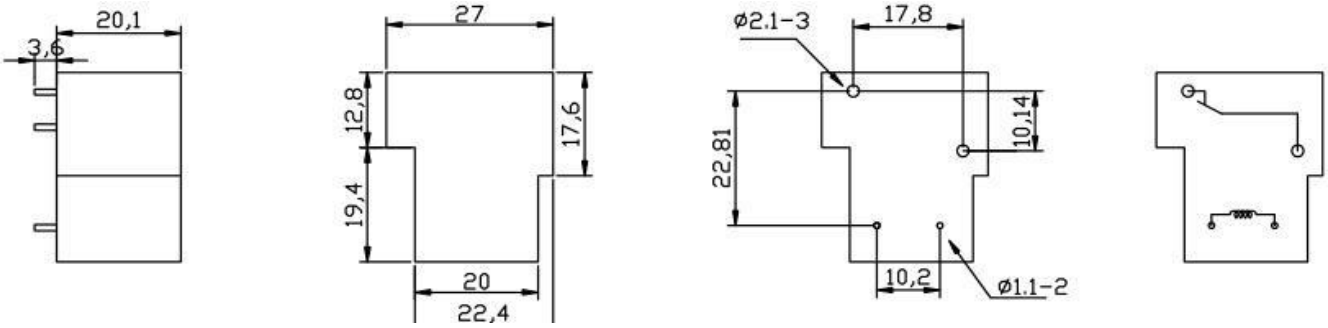

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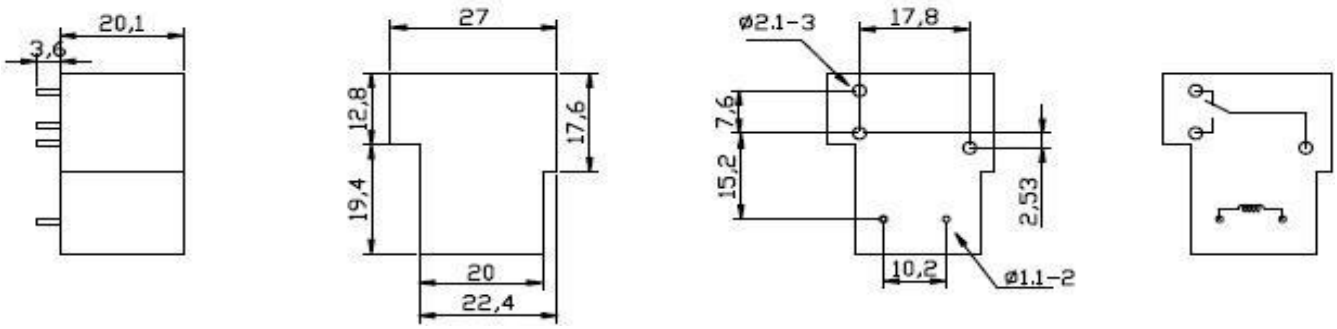

备注：

1 产品部分外形尺寸未标注公差，当外形尺寸≤1mm，公差为±0.2mm，当外形尺寸（1-5）mm 之间，公差为±0.3mm。

2 安装孔尺寸中未注尺寸公差为±0.1mm

Remarks:

1. part of the product size is not marked tolerance. When the outline size is less than 1mm, the tolerance is 0.2mm. When the outline size is (1-5) mm, the tolerance is + 0.3mm.

2.The size tolerance in the size of the installation hole is + 0.1mm

9.其他 Others

1 规格书内的各项性能参数是基于标准测试条件下测得的初始值

All the performance data listed in the datasheet are the initial values tested under standard testing condition.

2 非塑封继电器需要防止助焊剂或污染物进入继电器

Unsealed relays should be hand soldered to avoid flux contamination of the relay.

3 避免在强磁场条件下使用继电器，外界强磁场会造成继电器动作和释放等参数发生变化。

To avoid using relays under strong magnetic field because it will change the parameters of relay such as pull-in and drop-out voltage.

4 为了保持继电器的性能，请注意不要使继电器掉落或受到强冲击。掉落后的继电器建议不再使用。To maintain the performances of relays, please do not make the relay drop or be shocked strongly. Suggest that the relays dropped not be used.