

小型功率继电器
Miniature Power Relay
SLA-G**特点 Features**

- 小型大容量继电器，最大切换负载 40A。
Miniature relay with high switching capability: 40A.
- 触点形式为常开或转换型。
Contact form: Form A or Form C.
- 可供触点与线圈间耐压达 4000VAC 耐浪涌电压 6000VAC(1.2/50μS)的特殊继电器。
Special type of 4000VAC dielectric strength and 6000V surge voltage (1.2/50μS) between coil and contact available.
- 专利发明证书号: ZL 2008 20050972.1
Patent Number ZL 2008 20050972.1
- 可提供满足 IEC60335-1 /IEC60079-15 的产品。
IEC60335-1 /IEC60079-15 compliance product is available.

安规认证 Safety certificate

UL、cUL 认证号 (File No.): E190598
 CQC 认证号 (File No.):
 CQC02001002109、CQC10002050461、CQC21002306488

触点参数 Contact Data

型号 Type	SLA-G
额定负载 (阻性负载) Rated load (Resistive load)	40A 277VAC
最大切换电流 Max. switching current	40A
最大切换电压 Max. switching voltage	277VAC
最大切换功率 Max. switching power	11080VA

性能参数 Characteristics

触点材料 Contact material	银合金 Silver alloy	
接触电阻 Contact resistance	100mΩ Max. (1A 6VDC)	
吸合时间 (额定电压) Operate time (at rated coil voltage)	15ms Max. (不加二极管 No diode)	
释放时间 Release time	10ms Max. (不加二极管 No diode)	
绝缘电阻 Insulation resistance	Min. 1,000MΩ (at 500VDC)	
介质耐压 Dielectric strength	触点与触点间 Between open contacts:	1,500VAC, 50/60Hz for 1min.
	触点与线圈间 Between coil and contact:	2,500VAC, 50/60Hz for 1min. (可供 AC4000V 高耐压型 4KV available)

抗振动 Vibration resistance	耐久 Destructive	10~55Hz, 双振幅 1.5 mm. 10~55Hz, at double amplitude of 1.5mm.
	误动作 Function	10~55Hz, 双振幅 1.5 mm. 10~55Hz, at double amplitude of 1.5mm.
抗冲击 Shock resistance	耐久 Destructive	100G Min.
	误动作 Function	10G Min.
寿命 Endurance	机械寿命(每小时 10,800 次, 室温) Mechanical endurance(at 10,800ops./h)	10,000,000 次 10,000,000 cycles(at room temperature)
	电气寿命(每小时 360 次, 室温) Electrical endurance(at 360 ops./h)	30,000 次 30,000 cycles(at room temperature)
环境温度 Ambient temperature	-40℃ ~ +70℃ (不冷凝 No condensation)	
重量 Weight	约 24.0g Approx.24.0g	

线圈参数 Coil Data (at 20℃)

额定电压 Nominal voltage (VDC)	额定电流 Nominal operating current ±10%(mA)	线圈电阻 Coil resistance ±10%(Ω)	最大连续外加电压 Max. allowable voltage	吸合电压 Operate voltage (Max.)	释放电压 Release voltage (Min.)	额定功率 Nominal operating power
5	180.00	27	额定电压的 130% 130% of nominal voltage	额定电压的 75% 75% of nominal voltage	额定电压的 5% 5% of nominal voltage	约 0.9W
6	150.00	40				
9	100.00	90				
12	75.00	160				
15	60.00	250				
18	50.00	360				
24	37.50	640				
48	18.75	2,560				
110	8.20	13,400				

上述值为初始值, 请勿在产品上连续施加最大电压 > 10min, 以免线圈过度发热。

The data shown above are initial values. Do not apply maximum allowable voltage on coil for more than 10 minutes to avoid overheating of the coil.

安规认证负载（注：更多详细的认证负载，参考安规证书）

Safety Certificate Ratings (More details of approved ratings, please refer to the safety certificates)

认证类型 Certificates	CQC	UL/CUL
认证号码 File No	CQC02001002109 CQC10002050461 CQC21002306488	E190598
认证负载 Approved ratings	Form A: 30A 250VAC 40A 277VAC Form C: 20A/10A 250VAC 40A 277VAC	Form A: 40A 277VAC, Resistive 30A 240VAC, Resistive/General Use Form C: N.O. 40A 277VAC, Resistive 30A 240/120VAC, Resistive 30A 240/120VAC, General Use 20A 240VAC, Resistive

(1) 上述未注明温度的负载，均指环境温度为室温

All values unspecified are at room temperature

(2) 以上仅列出了该产品认证的部分负载，每个负载的详细测试条件不同，因此电寿命次数不一样。如需了解详细情况，请联系三友。
Only typical ratings are listed above and the endurance differ in each load. Other specific load information are available upon request.

(3) 对于塑封式、防水式产品试验时，应打开外壳的透气孔。

For sealed type testing, please open the ventilation hole in the case before test.

订货标记 Ordering Information

型号命名规则 Nomenclature

SLA	-S	-1	12	D	M	J	-G	-F	-XX
									特殊参数：无-标准型，字母或数字-特殊要求 Special Parameter: Nil-Standard type, Letter or number- Special requirement
									绝缘等级：无-普通型，B-Class B，F-Class F Insulation System: Nil-Standard, B - Class B, F - Class F
									参数标记：G-高负载品(40A) Parameter sign: G-High contact load(40A)
									触点材质：无-AgSnO2 Contact material: Nil-AgSnO2
									端脚形式：无-标准型，J-剪脚型 Terminal Type: Nil-Standard, J-Without 6# terminal
									触点形式 Contact Form: Nil - Form C, M - Form A
									线圈功耗 Coil power: D-0.9W
									线圈电压 Rated coil voltage(VDC): 05, 06, 09, 12, 15, 18, 24, 48, 110
									触点组数 Number of poles: 1-1 Pole
									封装形式 Protective Construction S-塑封式 Flux-proof SH-防水式 Sealed type washable
									基本型号 Type: SLA

(1) 塑封式不能在污染环境 (含有 H₂S、SO₂、NO₂、粉尘等污染物) 中使用。

Flux-proof relays can not be used in the environment with pollutants like H₂S, SO₂, NO₂, dust, etc.

(2) 塑封式装入 PCB 焊接后, 不能进行整体清洗或表面处理。

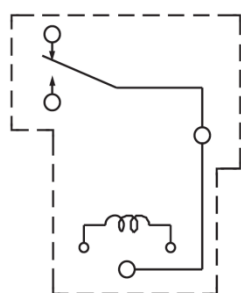
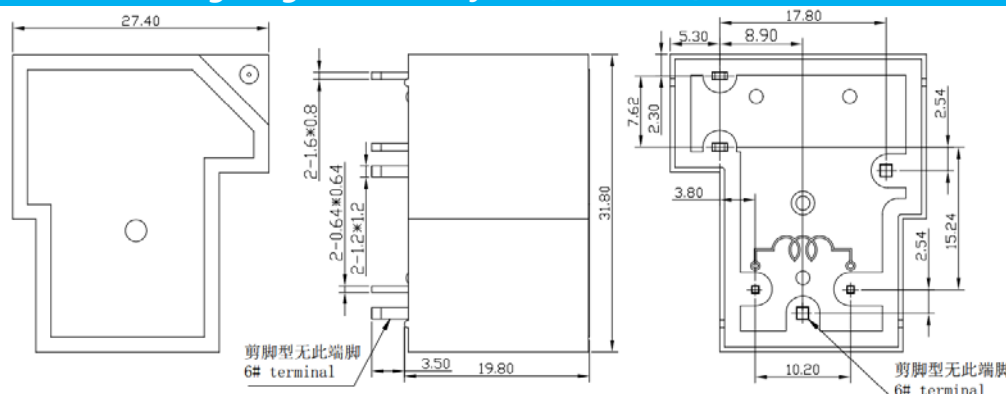
Water cleaning or surface process is not suggested after the flux-proof relays are assembled on PCB.

(3) 客户特殊要求 (XX), 由我司评估后, 按特性符号标识。

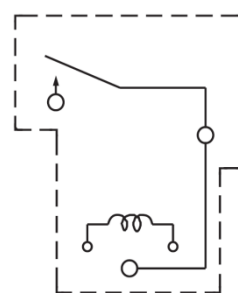
Customized special suffix is available after being evaluated by Sanyou

外形尺寸图、接线图、安装孔位图 (单位: mm)

Outline dimension, wiring diagram, PCB layout (Unit: mm)

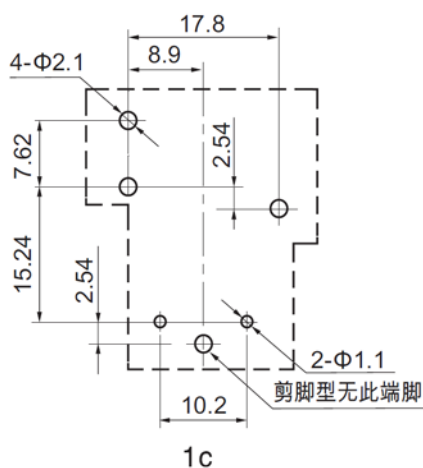


1c

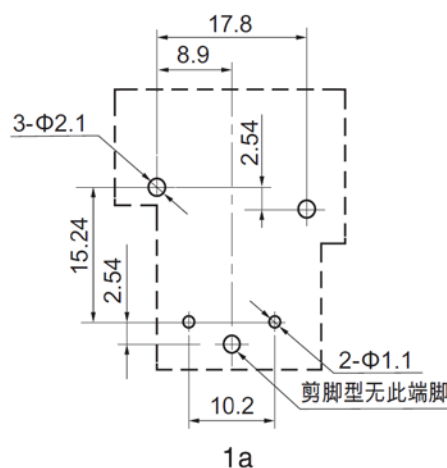


1a

接线图
Wiring Diagram



1c



1a

安装孔尺寸图 (底视图)
P.C.B Layout (bottom view)

未标注尺寸公差

In case of no tolerance shown on outline dimension

If dimension < 1 mm, tolerance: ±0.2mm

If dimension 1~5mm, tolerance: ±0.3mm

If dimension > 5mm, tolerance: ±0.4mm

注 Note:

1.引出脚尺寸为预焊前尺寸

The dimension of pin is the size before tinning

2.安装孔尺寸公差: ±0.1mm

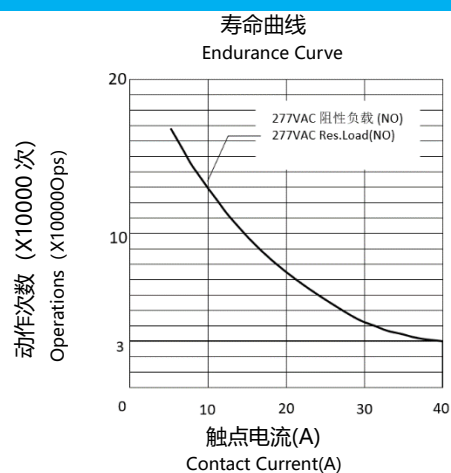
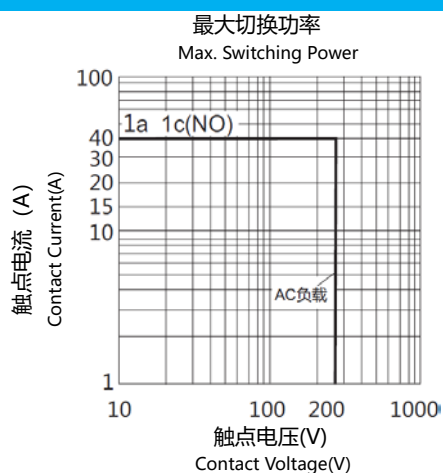
Tolerance of PCB layout: ±0.1 mm.

典型用途 Typical Applications

●汽车 Car

●UPS

性能曲线图 Characteristic Curves



备注 Note:

(1)测试条件: 常温环境, 开孔品, 阻性负载, 1s 通 9s 断。

Test conditions: room temperature, flux-proof product, resistive load, 1s on, 9s off.

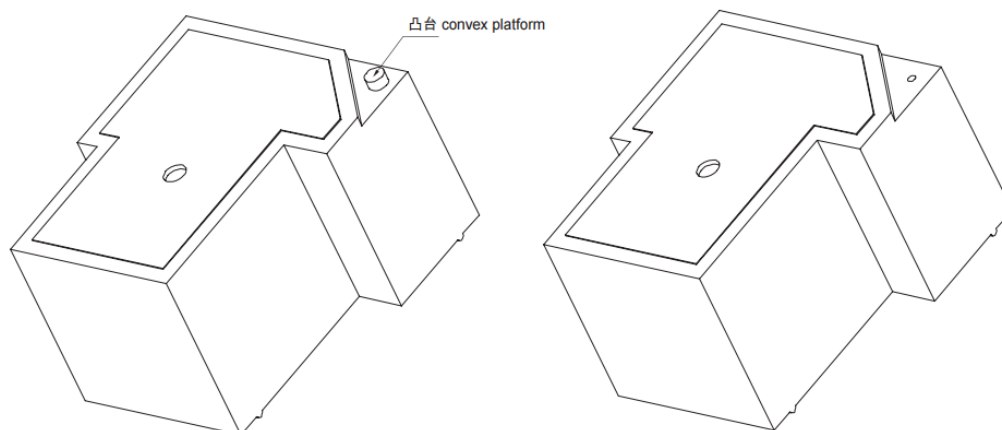
(2)以上曲线图仅供参考, 最终结果以实验测试为准

The above curves are for reference only, and the final result is subject to the experiment.

备注 Note:

若客户选型是密封品, 在 PCB 板作业完成后, 建议客户在使用前, 请切除外壳顶部的凸, 以保证继电器之正常性能。
如以下示意图所示:

If you choose the sealed type, before using, please remove the convex platform at the top of the case to ensure the normal performance of the relay after the completion of a PCB operations. they are as shown in the following diagram:



外壳有凸台状态
with convex platform

切除外壳凸台状态
without convex platform

声明：本产品规格书仅供客户使用时参考，若有更改，恕不另行通知。

对三友而言，不可能评定继电器在每个具体应用领域的所有性能参数要求，因而客户应该根据具体的使用条件选择与之相匹配的产品。对于密封继电器在安装清洗后，使用前请打开外壳上的透气孔。若有疑问，请与三友联系获取更多的技术支持。但产品选型责任仅由客户负责。

Disclaimer: This datasheet is the customers' reference. All the specification are subject to change without notice.

We could not evaluate all the performance and all the parameters for every possible application. Thus the user should in a right position to choose the suitable product for their own application. For sealed relays after installation and cleaning, please open the vent hole on the case before use. If there is any query, please contact Sanyou for the technical service. However it is the user's responsibility to determine which product should be used.