

**小型功率继电器**  
**Miniature Power Relay**
**SRG****特点 Features**

- 高触点容量：17A 触点切换能力。  
High Contact Switching Capability:17A
- 超小型标准印刷板引出脚。  
Micro-miniaturize ; Standard PCB terminal
- 满足 IEC60335-1 GWIF 850°C/ GWIT 775°C 要求 CTI >=250V  
Compliant with IEC60335-1 GWIF850°C/GWIT775°C CTI>=250V
- 使用环境高达-40°C~105°C，负载切换能力 17A/277VAC TV-8/125VAC，最大 20A/277VAC  
Ambient temperature range -40°C~105°C, Switching capability 17A/277VAC;  
TV-8/125VAC, Max. 20A/277VAC
- 低线圈功耗 0.36W，F 级线圈绝缘等级。  
Low coil power 0.36W, Class F insulation system
- 线圈与触点间抗浪涌电压 6KV，介质耐压 2.5KV。  
Withstand 6KV impulse voltage. Dielectric strength 2.5KV r.m.s

**安规认证 Safety Approval**

UL, cUL 认证号 (File No) : E190598  
 VDE 认证号 (File No) : 40037165  
 CQC 认证号 (File No) : CQC13002089151

**触点参数 Contact Data**

型号 Type	SRG
额定负载 ( 阻性 ) Rated load (Resistive load)	17A 250VAC
最大切换电流 Max. switching current	20A
最大切换电压 Max. switching voltage	277VAC
最大切换功率 Max. switching power	4709VA
最小切换负载 Min. switching load	6V 1A

**性能参数 Characteristic**

触点材料 Contact material	银合金 Silver alloy
接触电阻 Contact resistance	100mΩ Max.(at 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	1,000MΩ Min.(DC500V)

介质耐压 Dielectric strength	触点与触点间 Between open contacts : 1000VAC, 50/60Hz for 1min.	
	触点与线圈间 Between coil and contact : 2500VAC, 50/60Hz for 1min.	
抗振动 Vibration resistance	误动作 Functional	10~55Hz, 双振幅 1.5 mm 10~55Hz, at double amplitude of 1.5 mm
	耐久 Destructive	10~55Hz, 双振幅 1.5 mm 10~55Hz, at double amplitude of 1.5 mm
抗冲击 Shock resistance	误动作 Functional	10G Min.
	耐久 Destructive	100G 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(at room temperature)
	电气寿命(每小时 360 次, 室温) Electrical endurance(at 360ops./h)	100,000 次 100,000(at room temperature)
环境温度 Ambient temperature	-40°C ~ +105°C ( 不冷凝 no condensation )	
重量 Weight	约 15g Approx. 15g	

### 线圈参数 Coil Data (at 20°C)

额定电压 ( VDC ) Nominal voltage (VDC)	额定电流 ±10%(mA) Nominal operating current ±10%(mA)	线圈电阻 ±10% (Ω) Coil resistance ±10%(Ω)	最大连续外加电压 Max. allowable voltage	吸合电压 (Max.) Operate voltage (Max.)	释放电压 (Min.) Release voltage (Min.)	额定功率 Nominal operating power
5	72.00	69.5	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 10%  10% of nominal voltage	0.36W
6	60.00	100				
9	40.00	225				
12	30.00	400				
18	20.00	900				
24	15.00	1600				
36	10.00	3600				
48	7.50	6400				

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 (Note: More details of approved ratings, please refer to the safety certificates)**

认证类型 Certificates	CQC	VDE	UL/cUL
认证号码 File No.	CQC13002089151	40037165	E190598
认证负载 Approved Ratings	17A/10A 277VAC	10A 250VAC 17A 250VAC	10A 277VAC, Resistive & General Use 17A 277VAC, Resistive & General Use 20A 125VAC, Resistive & General Use TV-8 125VAC 1HP 250VAC/125VAC

- 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.
- 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.
- 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.

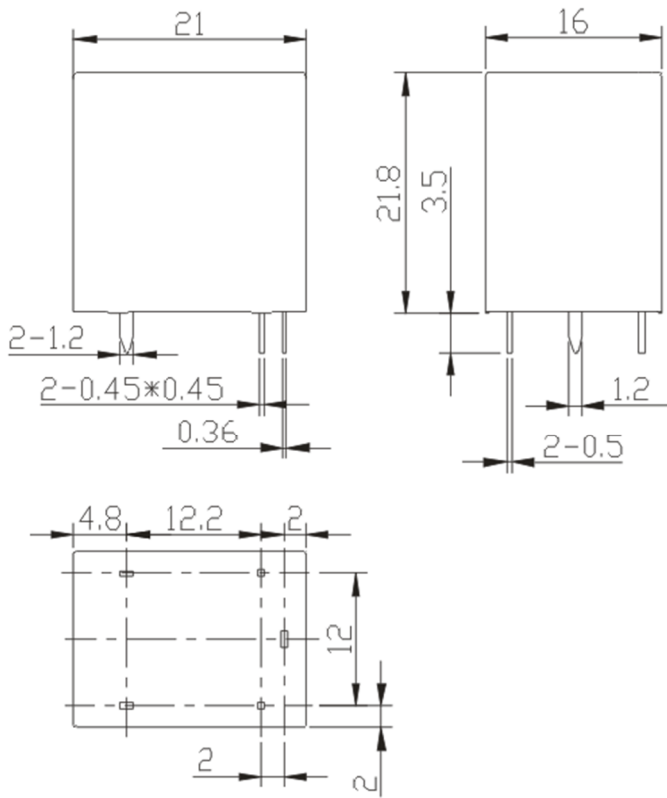
**订货标记 Ordering Information**

**型号命名规则 Nomenclature**

SRG	-S	-1	12	D	M	1	-F	-XX	
									特殊参数 Special Parameter : 无-标准型, 字母或数字-特殊要求 Nil-Standard type, Letter or number-Special requirement
									绝缘等级 Insulation System : 无 – Class B (Nil – Class B), F - Class F
									触点材质 Contact Material : 无 – AgSnO <sub>2</sub> (Nil – AgSnO <sub>2</sub> ), 1 – AgNi
									触点形式 Contact Arrangement : 无 – Form C (Nil – Form C), B – Form B, M – Form A
									线圈功耗 Coil Power : D-0.36W
									线圈电压 Rated Coil Voltage (VDC) : 05, 06, 09, 12, 18, 24, 36, 48
									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 : SRG

- 塑封式不能在污染环境 (含有 H<sub>2</sub>S、SO<sub>2</sub>、NO<sub>2</sub>、粉尘等污染物) 中使用。  
Flux-proof relays can not be used in the environment with pollutants like H<sub>2</sub>S, SO<sub>2</sub>, NO<sub>2</sub>, dust, etc.
- 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.
- 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)



底视图  
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

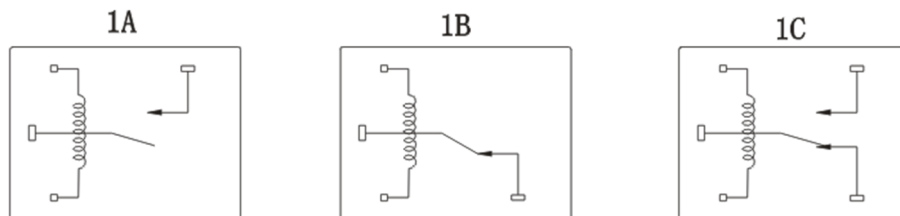
注 Note :

1.引出脚尺寸为预焊前尺寸

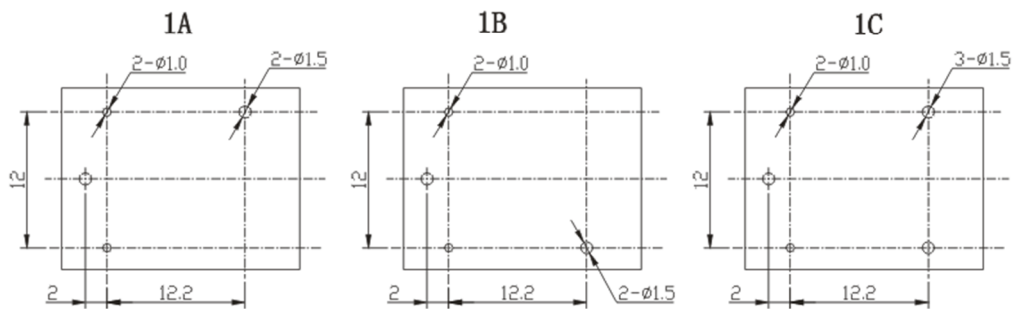
The dimension of pin is the size before tinning

2.安装孔尺寸公差 : ±0.1mm

Tolerance of PCB layout : ±0.1 mm.



接线图 (底视)  
Wiring Diagram(bottom view)

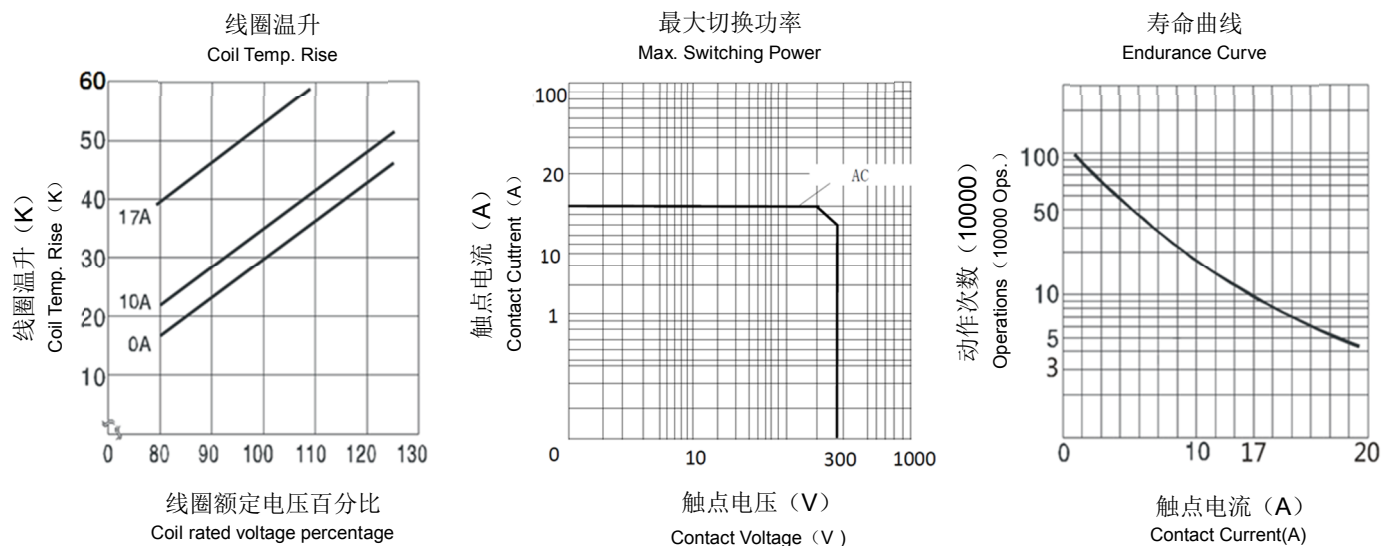


安装孔尺寸图(底视)  
P.C.B.Layout(bottom view)

## 典型用途 Typical Applications

- 家用电器：空调、电热器等 Home appliances such as air conditioner, electrical heater, etc.
- 自动售货机 Automat
- 办公室设备：电脑、传真机等 Office equipment such as computer, fax machine, etc.
- 自动电控窗、汽车天线、门锁等 Automatic power window, car antenna, door lock, etc.

## 性能曲线图 Characteristic Curves



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。如有疑问，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 : The specification is for reference only. Specifications are subject to change without prior 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.