



特点

Features:

- 高触点容量: 150A触点切换能力。
- High contact capacity: 150A of ability to switch contacts.
- 线圈保持电压可降至线圈额定电压的50~55%V, 以达到节能的功效。
- Coil holding voltage can be reduced to 50~55%V of coil rated voltage to achieve energy saving effect.
- 一组常开触点, 触点间距 > 3.0mm。
- A group of normally open contact, contact gap > 3.0mm.
- 符合欧洲光伏标准IEC62109、VDE0126。
- Meet European pv standards IEC62109、VDE0126。

安规认证

Safety Approval

UL, C-UL认证号: E190598
 UL, C-UL File No: E190598
 TUV 认证号: R50442051
 TUV File No: R50442051
 CQC 认证号: CQC19002216643
 CQC File No: CQC19002216643

触点负载

Contact Capacity

型号 Model	150A 型 150A
额定负载 (阻性) Nominal switching capacity (res. load)	接通40A,载流150A,断开40A/240VAC,On 1s/Off 9s,at85°C, 30K ops High operating current 40A,Loadcurrent 150A, Cut off capacity 40A/240VAC,On 1s/Off 9s,at85°C, 30K ops 接通30A,载流150A,断开30A/400VAC,On 1s/Off 9s,at85°C, 30K ops High operating current 30A,Load current 150A,Cut off capacity 30A/400VAC,On 1s/Off 9s,at85°C, 30K ops 切换: 3000次(60VDC,100A) On 1s/Off 9s,at23.5°C switching: 3000number(60VDC,100A) On 1s/Off 9s,at23.5°C
最大切换电流 Max. switching current	150A
最大切换电压 Max. switching voltage	690VAC
最大切换功率 Max. switching power	103,500VA

性能参数

Characteristic Data

触点材料 Contact arrangement	银合金 Silver alloy
接触电阻 contact resistance	50mv/at 10A (max) 压降法. 50mv/at 10A (max) Voltage drop.
吸合时间 Operate time (at nominal volt.)	30msec. Max. 30msec. Max.
释放时间 Release time (at nominal volt.)	10msec. Max. 10msec. Max.
绝缘电阻 insulation resistance	1000MΩ Min.(DC500V) 1,000MΩ Min.(DC500V)
介质耐压 Initial dielectric strength	触点与触点间: AC 2000V,50/60Hz 1min. Between open contacts: AC2,000V, 50/60Hz 1min. 触点与线圈间: AC 5000V,50/60Hz 1min. Between coil and contact: AC5,000V, 50/60Hz 1min
抗振动 Vibration resistance	耐久 Functional 10~55Hz, 双振幅 1.5 mm 10~55Hz at double amplitude of 1.5 mm 误动作 Destructive 10~55Hz, 双振幅 1.5 mm 10~55Hz at double amplitude of 1.5 mm
抗冲击 Shock resistance	耐久 Functional 100G Min. 100G Min. 误动作 Destructive 10G Min. 10G Min.
寿命 Endurance	机械寿命 (每小时9,000次) Mechanical (at 9000 ops./h) 1,000,000 次 1,000,000 cycles
环境温度 Ambient temperature	-40°C~+85°C(不冷凝) -40°C~+85°C (no condensation)
重量 Unit weight	约155g Approx. 155g

线圈参数(at 20°C)

Coil Data (at 20°C)

150A type

150A type

额定电压 Nominal voltage (VDC)	额定电流 Nominal operating current ±10% (mA)	线圈电阻 Coil resistance ±10% (Ω)	吸合电压 ⁽¹⁾ Pick-up voltage ⁽¹⁾ (Max.)	释放电压 Drop-out voltage (Min.)	保持电压 ⁽²⁾ Keep voltage ⁽²⁾	额定功率 Nominal operating power
12	208.3	57.6	额定电压的 Nominal voltage 75 %	额定电压的 Nominal voltage 5 %	额定电压的 Nominal voltage 50~55 %	2.5W
24	104.2	230.4				

备注: (1)继电器施加全额线圈电压维持200ms.

Comment: (1)Relays apply full coil voltage to maintain 200ms

(2)线圈保持电压是线圈激励电压维持200ms之后, 降至额定线圈电压的50~55%。

(2)The coil holding voltage is 50~55% of the rated coil voltage after the coil excitation voltage is maintained for 200ms

(3)继电器线圈不允许长时间施加超过保持电压的上限值,防止继电器过热烧毁.

(3)Relay coils are not allowed to exceed the upper limit of the holding voltage for long periods of time to prevent the relay from overheating and burning out

安全认证负载

Safety Approval Ratings

认证类别 Approval	TUV	CQC	UL/CUL
认证号码 File No.	R50442051	CQC19002216643	E190598
认证负载 Approved ratings	SPV150: Making 40A/240VAC, carrying 150A/240VAC breaking 40A/240VAC T85°C Making 30A/690VAC, carrying 100A/690VAC breaking 30A/690VAC T85°C	SPV150: Making 40A/240VAC, carrying 100A/240VAC breaking 40A/240VAC T85°C Making 30A/690VAC, carrying 100A/690VAC breaking 30A/690VAC T85°C	SPV150: Making 40A/240VAC, carrying 100A/240VAC breaking 40A/240VAC T85°C Making 30A/690VAC, carrying 100A/690VAC breaking 30A/690VAC T85°C

订货标记

Ordering Information

型号命名规则 Nomenclature			
SPV 150- S -M ☐ ☐ ☐ ☐			
客户特性号 Special Parameter: 数字或字母: Letter or number:		无: 无客户特殊要求 Nil- Standard type 客户特殊要求, 与结构无关 Special requirement	
安装尺寸 无-标准型 H-H型 (见尺寸图) Installation dimensions: Nil-standard type H-H type		触点材质 1-AgSnO2 2-AgNi Contact material: 1-AgSnO2 2-AgNi	
线圈电压 12: 12VDC The coil voltage: 24: 24VDC		触点形式 M: 1组常开 Contact form: M-Form A	
防护形式 S- 密封胶、 SH- 防水 Form of protection: S-Flux proofed SH- Sealed type washable		负载类型 150-150A The load type: 150-150A	
基本型号 SPV Type designation: SPV			

客户特殊特性号1表示负载电压120VDC, (磁吹灭弧)

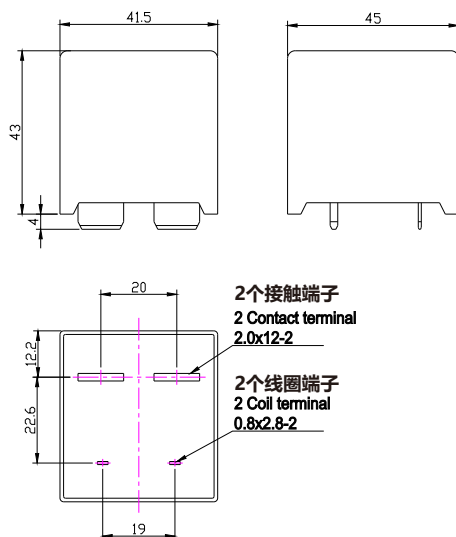
Customer special feature number 1 indicates load voltage 120VDC, (magnetic blowing arc extinguishing)

外形尺寸

Outline Dimensions

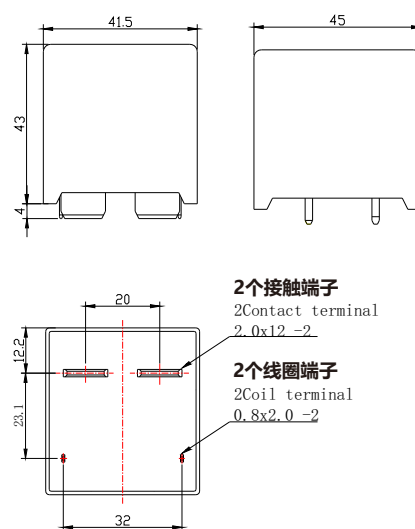
150A 标准型

150A Standard type



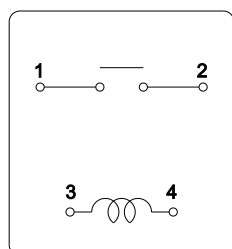
150A H 型

150A H type



接线图

wiring diagram



未标注尺寸公差:

< 1mm: $\pm 0.2\text{mm}$ 1~5mm: $\pm 0.3\text{mm}$ > 5mm: $\pm 0.4\text{mm}$

注: 1、引出脚尺寸为预焊前尺寸

2、安装孔尺寸公差: $\pm 0.1\text{mm}$

Unless otherwise specified:

If dimension < 1mm, tolerance: $\pm 0.2\text{mm}$;If dimension 1~5mm, tolerance: $\pm 0.3\text{mm}$;If dimension > 5mm, tolerance: $\pm 0.4\text{mm}$.

Note: 1. Extended terminal dimension is dimension before soldering.

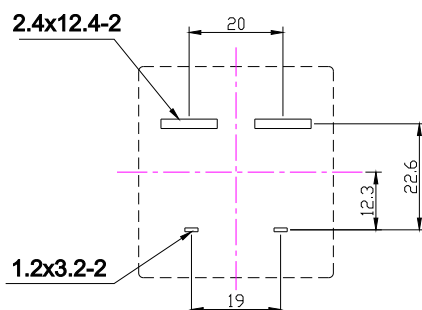
2. Tolerance of P.C.B. layout: $\pm 0.1\text{mm}$.

PCB板 开孔图

PCB board bore hole drawing

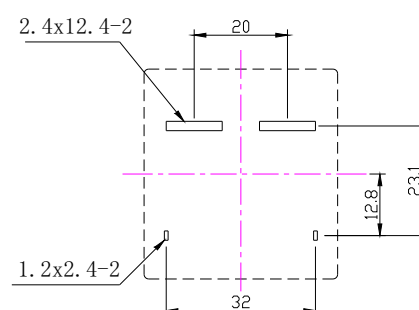
150A 标准型

150A Standard type



150A-H 型

150A H type



注意事项:

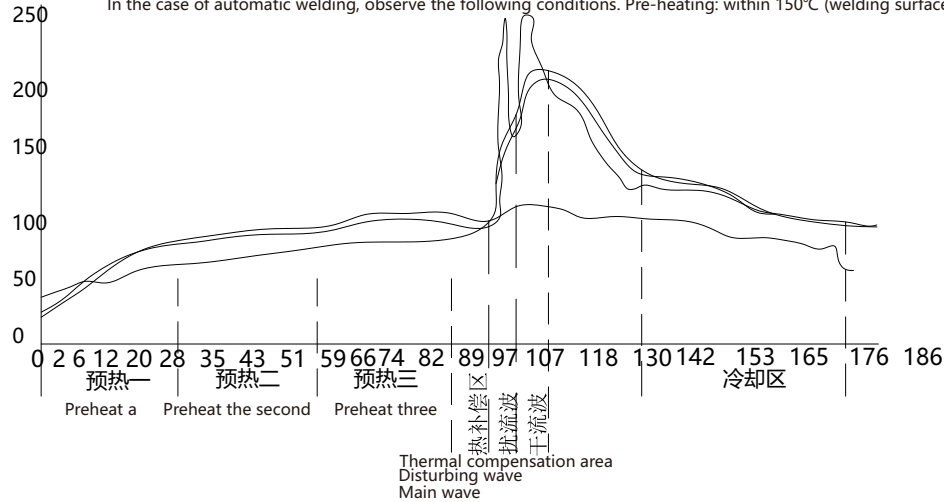
Matters needing attention:

(1) 波峰焊安装条件

Wave soldering installation conditions

在自动焊接的情况下，请遵守以下条件。预加热：150℃以内（焊接面端子部）150秒以内。

In the case of automatic welding, observe the following conditions. Pre-heating: within 150℃ (welding surface terminal) within 150 seconds.

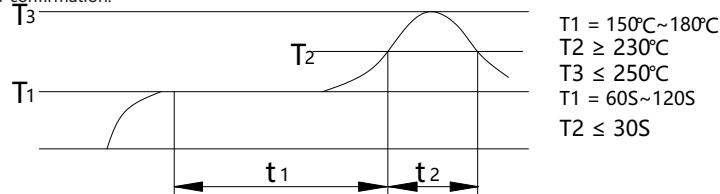


波峰焊温度分布图 Wave soldering temperature profile

推荐焊接温度和时间为：240℃~260℃，3s~5s。另外，根据实际使用的基板种类等，对继电器产生的影响可能会有所不同

Recommended welding temperature and time: 240℃~260℃, 3s-5s. In addition, the impact on the relay may vary according to the type of substrate actually used

因此请通过实际使用的基板进行确认。
Therefore, check the actual substrate for confirmation.



(2) 回流焊安装条件 (Pin-in-Paste 工艺)

(2) Reflow welding installation conditions (PIN-in-paste process)

同一基板上的部品混存的状态下，继电器的温度上升在很大程度上取决于回流焊机器的加热方法，因此请设定温度条件，
Under the condition of mixed parts on the same substrate, the temperature rise of the relay largely depends on the heating method of reflow welding machine, so please set the temperature condition.

使得继电器的端子焊接部和继电器外壳天面的温度小于上述条件，然后通过实际机器事先进行确认。

Make the temperature of the relay terminal welding part and the surface of the relay shell less than the above conditions, and then confirm with the actual machine in advance.

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，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。

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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. 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 only.

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