**Features:**

- High contact capacity : 150A of ability to switch contacts.
- Coil holding voltage can be reduced to 50~55%V of coil rated voltage to achieve energy saving effect.
- A group of normally open contact, contact gap > 3.0mm.
- Meet European pv standards IEC62109、VDE0126 .

Safety Approval

UL , C-UL File No : E190598

TUV File No : R50442051

CQC File No : CQC19002216643

Contact Capacity

| | |
|--|--|
| Model | 100A |
| Nominal switching capacity (res. load) | Through to 40A, Carrying current 100A, Break 40A/240VAC, On 1s/Off 9s, at 85°C , 30K ops |
| | Through to 30A, Carrying current 100A, Break 30A/400VAC, On 1s/Off 9s, at 85°C , 30K ops |
| Max. switching current | 100A |
| Max. switching voltage | 690VAC |
| Max. switching power | 69,000VA |

Characteristic Data

| | | |
|---------------------------------|--|---|
| Contact material | Silver alloy | |
| Initial contact resistance | 50mv/at 10A (max) Voltage drop. | |
| Operate time (at nominal volt.) | 30msec. Max. | |
| Release time (at nominal volt.) | 10msec. Max. | |
| Initial insulation resistance | 1,000MΩ Min.(DC500V) | |
| Initial dielectric strength | Between open contacts : AC2,000V , 50/60Hz 1min. | |
| | Between coil and contact : AC5,000V , 50/60Hz 1min | |
| Vibration resistance | Functional | 10 ~ 55Hz at double amplitude of 1.5 mm |
| | Destructive | 10 ~ 55Hz at double amplitude of 1.5 mm |
| Shock resistance | Functional | 100G Min. |
| | Destructive | 10G Min. |
| Endurance | Mechanical (at 9000 ops./h) | 1,000,000 cycles |
| Ambient temperature | -40°C ~ +85°C (no condensation) | |
| Unit weight | Approx. 155g | |

Coil Data (at 20°C) 100A type

| Nominal voltage (VDC) | Nominal operating current ±10% (mA) | Coil resistabce ±10% (Ω) | Pick-up voltage ⁽¹⁾ (Max.) | Drop-out voltage (Min.) | Keep voltage ⁽²⁾ | Nominal operating power |
|-----------------------|-------------------------------------|--------------------------|---------------------------------------|-------------------------|-----------------------------|-------------------------|
| 12 | 158.3 | 75.8 | 75 % of Nominal voltage | 5 % of Nominal voltage | 50~55 % of Nominal voltage | power 1.9W |
| 24 | 79.2 | 303.2 | | | | |

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

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

(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

Safety Approval Ratings

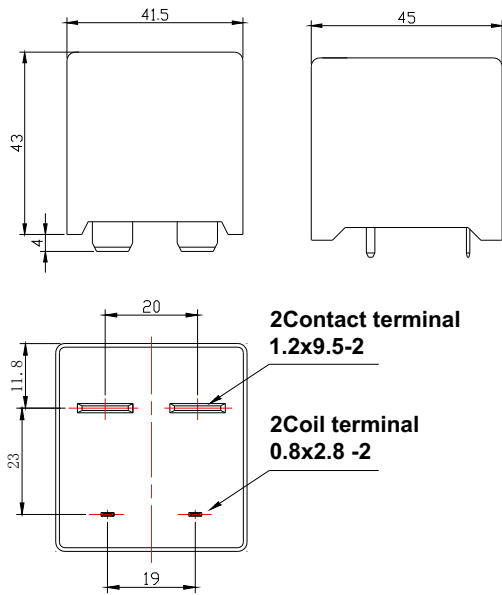
(Note:More detail of approval ratings,please refer to the safety certification)

| Approval | TUV | CQC | UL/CUL |
|------------------|---|---|---|
| File No. | R50442051 | CQC19002216643 | E190598 |
| Approved ratings | SPV100: Making 40A/240VAC, carrying 100A/240VAC breaking 40A/240VAC T85°C Making 30A/690VAC, carrying 100A/690VAC breaking 30A/690VAC T85°C | SPV100: Making 40A/240VAC, carrying 100A/240VAC breaking 40A/240VAC T85°C Making 30A/690VAC, carrying 100A/690VAC breaking 30A/690VAC T85°C | SPV100: Making 40A/240VAC, carrying 100A/240VAC breaking 40A/240VAC T85°C Making 30A/690VAC, carrying 100A/690VAC breaking 30A/690VAC T85°C |

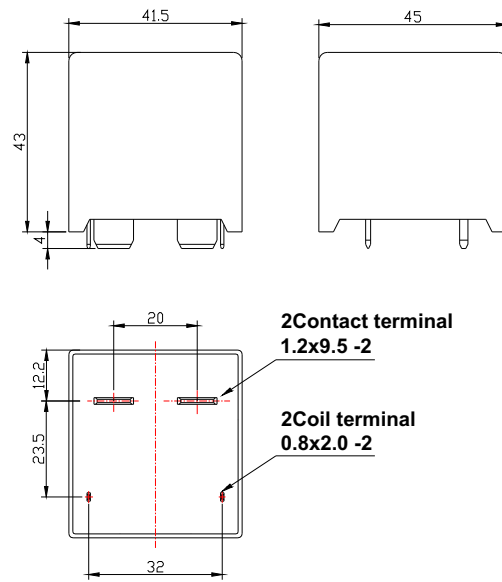
Ordering Information

| Nomenclature |
|---|
| <p>SPV 100 - S - M <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Special Parameter: Nil-Standard type Letter or number: Special requirement</p> <p>Installation dimensions: Nil-Standard type H-H type</p> <p>Contact material: 1-AgSnO2 2-AgNi</p> <p>The coil voltage: 12 : 12VDC 24 : 24VDC</p> <p>Contact form: M-Form A</p> <p>Form of protection: S-Flux proofed SH-Sealed type washable</p> <p>The load type: 100-100A</p> <p>Type designation: SPV</p> |

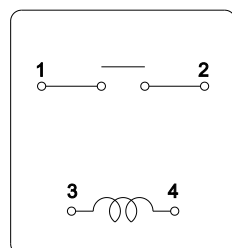
100A Standard type



100A H type



Wiring Diagram



Unless otherwise specified :

If dimension < 1mm, tolerance : $\pm 0.2\text{mm}$;

If dimension 1~5mm, tolerance : $\pm 0.3\text{mm}$;

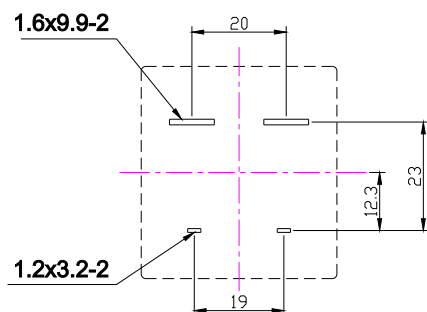
If dimension > 5mm, tolerance : $\pm 0.4\text{mm}$.

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

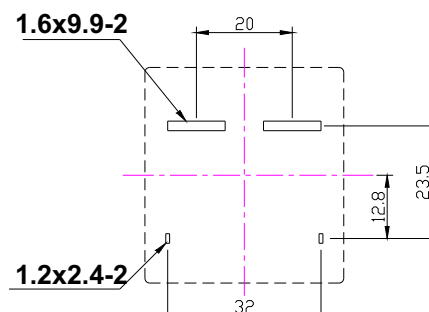
2. Tolerance of P.C.B. layout : $\pm 0.1\text{mm}$.

P.C.B. Layout (bottom view)

100A Standard type



100A H type



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.