三友继电器 SANYOU RELAYS

# Miniature Power Relay SLD


**Features**

- Miniature relay with high switching capability：50A.
- Contact form： Form A
- Special type of 4000VAC dielectric strength and 6000V surge voltage (1.2/50μS) between coil and contact available.
- IEC60335-1 compliance product is available.

**Safety certificate**

UL、cUL 认证号：E190598
TUV 认证号：R50143450
CQC 认证号：CQC02001002109

## Contact Data

| | |
|---|---|
| Type | SLD |
| Rated load（Resistive load） | 50A 250VAC |
| Max. switching current | 50A |
| Max. switching voltage | 277VAC |
| Max. switching power | 13850VA |

## Characteristics

| | | |
|---|---|---|
| Contact material | Silver alloy | |
| Contact resistance | 100mΩ Max. (1A 24VDC) | |
| Operate time | 15ms Max. (No diode) | |
| Release time | 10ms Max. (No diode) | |
| Insulation resistance | Min. 1,000MΩ (at 500VDC) | |
| Dielectric strength | Between open contacts： | 1,500VAC，50/60Hz for 1min. |
| | Between coil and contact: | 2,500VAC，50/60Hz for 1min.(4KV available) |
| Vibration resistance（NO） | Destructive | 10～55Hz, at double amplitude of 1.5mm. |
| | Function | 10～55Hz, at double amplitude of 1.5mm. |
| Shock resistance（NO） | Destructive | 100G Min. |
| | Function | 10G Min. |
| Endurance | Mechanical endurance(at 10,800ops./h) | 1,000,000 cycles(at room temperature) |
| | Electrical endurance(at 360 ops./h) | 1000 次(50A 250VAC，resistive load, room temperature, 1s on: 9s off)<br>$1x10^4$ 次(40A 250VAC，resistive load, room temperature, 1s on: 9s off)<br>$5x10^4$ 次(switch on 20A, carry 50/60A, switch off 20A, 250vac. resistive load, room temperature, 1s on: 9s off) |
| Ambient temperature | -40℃～+85℃（No condensation） | |
| Weight | Approx.24.0g | |

## Coil Data (at 20℃)

| Nominal voltage (VDC) | Nominal operating current ±10%(mA) | Coil resistance ±10%(Ω) | Max. allowable voltage | Operate voltage (Max.) | Release voltage (Min.) | Nominal operating power |
|---|---|---|---|---|---|---|
| 5 | 180.00 | 27 | 130% of nominal voltage | 75% of nominal voltage | 5% of nominal voltage | 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 | | | | |

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.

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

| Certificates | CQC | UL/cUL | TUV |
|---|---|---|---|
| File No | CQC02001002109 | E190598 | R50143450 |
| Approved ratings | 50A 125VAC/250VAC/277VAC<br>switch on 20A, carry 50/60A, switch off 20A<br>125VAC/250VAC/277VAC | | |

(1) All values unspecified are at room temperature

(2) Only typical ratings are listed above and the endurance differ in each load. Other specific load information are available upon request.

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

## Ordering Information

**Nomenclature**

**SLD** **-S** **-1** **12** **D** **M** **-F** **-XX** Special Parameter：Nil-Standard type,
Letter or number- Special requirement

Insulation System：Nil-Class F，F - Class F

Contact material：Nil-AgSnO2

Contact Form：M-Form A

Coil power： D-0.9W

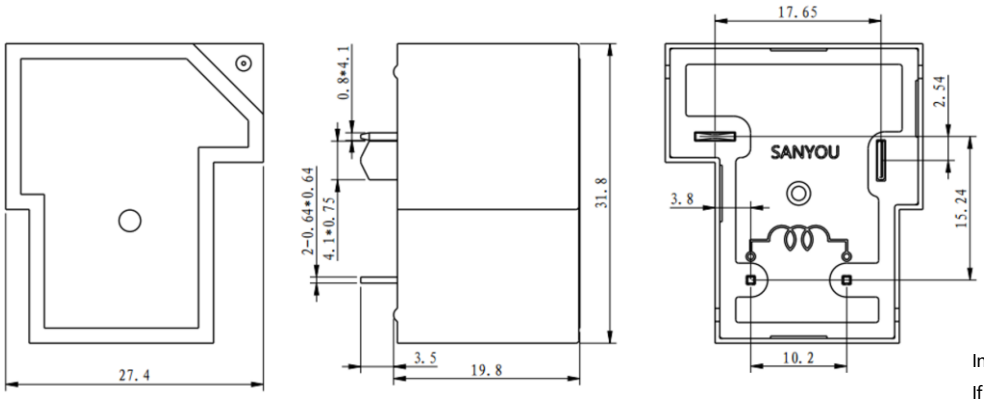
Rated coil voltage(VDC)：
05，06，09，12，15，18，24，48，110

Number of poles：1-1 Pole

Protective Construction：S- Flux-proof
SH- Sealed type washable；SS- Sealed type unwashable

Type： SLD

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




In case of no tolerance shown on outline dimension

If dimension < 1 mm, tolerance：±0.2mm

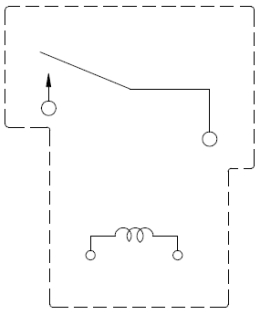
If dimension 1~5mm, tolerance：±0.3mm

If dimension > 5mm, tolerance：±0.4mm

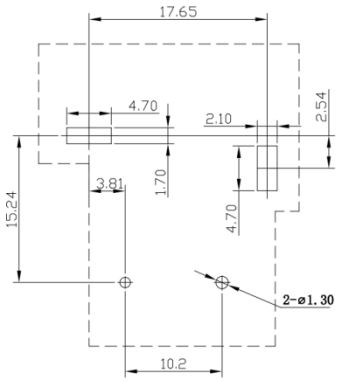
Note：

1.The dimension of pin is the size before tinning

2. Tolerance of PCB layout：±0.1 mm.



Wiring Diagram




P.C.B Layout（bottom view）

## Typical Applications

●Car ●UPS ●Charging Pile