

Features:

- 16A high switching capability
- Size:29mm×12.8mm×26.2mm
- Contact gap:2.0mm
- Material compliance (Compliant with RoHS)


Approvals

UL (File No.) : E179745-1-30
 TUV (File No.) : R50540860
 CQC (File No.) : CQC22002336811

Contact Data

| | |
|---------------------------------|--|
| Contact arrangement | 2 Form A /2 Form C |
| Contact material | AgSnO2 |
| Contact Resistance | 100mΩ max(@ 6VDC 1A) |
| Contact Rating (resistive load) | 16A 277VAC |
| Max. Contact Voltage | 277VAC |
| Max. Contact Current | 16A |
| Max. Breaking Capacity | 4432VA |
| Min. recommended contact load | 1A,6VDC |
| Operate Time (at nominal volt.) | ≤15ms |
| Release Time (at nominal volt.) | ≤15ms |
| Electrical endurance | NO: 16A,277VAC,resistive load, 85°C,1s on : 9s off,3×10 ⁴ ops. NC: 16A,277VAC,resistive load, 85°C,1s on : 9s off,1×10 ⁴ ops. |

Note:

The above electrical endurance tests are completed with flux-proof product(with vent hole). The venting hole should be opened in electrical endurance test.

Coil Data

| Nominal Voltage VDC | Max. Operate Voltage VDC | Min. Release Voltage VDC | Max. Allowable Voltage VDC | Coil Resistance (1±10%) Ω | Coil Power W | Holding Voltage |
|---------------------|--------------------------|--------------------------|----------------------------|---------------------------|--------------|--|
| 5 | 3.75 | 0.25 | 5.5 | 18 | 1.4 | 50% to 100% Nomi. Volt. (at 23°C) 55% to 100% Nomi. Volt. (at 85°C) |
| 6 | 4.5 | 0.3 | 6.6 | 26 | | |
| 9 | 6.75 | 0.45 | 9.9 | 58 | | |
| 12 | 9 | 0.6 | 13.2 | 102 | | |
| 24 | 18 | 1.2 | 26.4 | 410 | | |
| 48 | 36 | 2.4 | 52.8 | 1650 | | |

Note:

- (1) Do not apply the maximum voltage on the product continuously for more than 10min to avoid coil heating
- (2) The coil holding voltage is the voltage applied to coil 200ms after the rated voltage
- (3) Operation voltage of change over product ≤85% rated voltage, coil tolerance of (1±15%)

Insulation Data

| | |
|-----------------------------|------------------------|
| Insulation resistance | 1000MΩ (500VDC) |
| Initial dielectric strength | |
| between open contacts | 2500VAC, 50/60Hz 1min. |
| between contact sets | 3000VAC, 50/60Hz 1min. |
| between contact and coil | 5000VAC, 50/60Hz 1min. |

Other Data

| | |
|----------------------|--|
| Material compliance | EU RoHS/ELV, China RoHS, REACH |
| Temperature rise | < 70K(After the coil is energized with rated voltage for 200ms,set the holding voltage to 60% of rated voltage,load current carrying 16A, @85°C) |
| Shock resistance | Functional 98m/s ² Destructive 980m/s ² |
| Vibration resistance | 10Hz to 55Hz 1.0mm DA |
| Mechanical endurance | 3×10 ⁵ ops |
| Ambient temperature | -40°C to +85°C |
| Humidity | 5% to 85%RH |
| Weight | Approx. 20g |

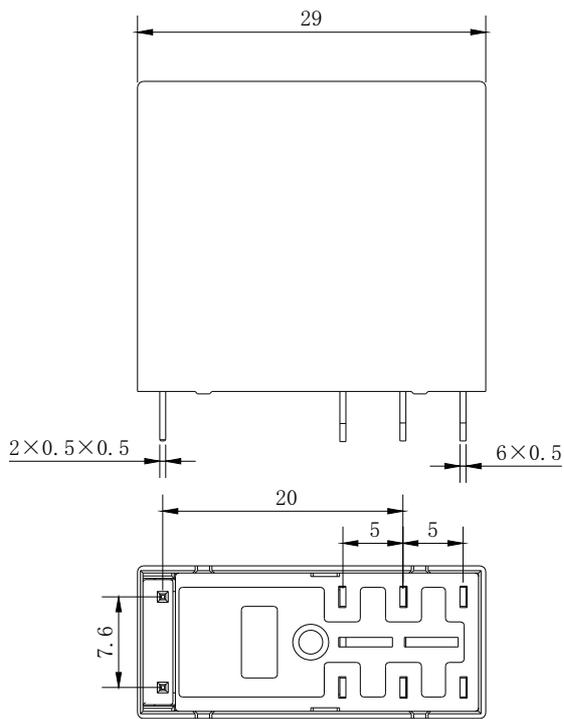
Note:

The above values are initial values

Safety certification load

| Certification | File No. | Approved ratings |
|---------------|----------------|--------------------|
| UL | E179745 | 16A 125/250/277VAC |
| TUV | R50540860 | |
| CQC | CQC22002336811 | |

Dimensions



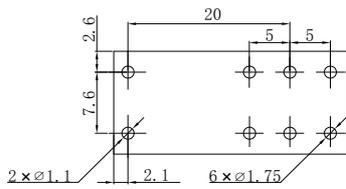
Unless otherwise specified:

- If dimension < 1mm, tolerance: ±0.2mm;
- If dimension 1~5mm, tolerance: ±0.3mm;
- If dimension > 5mm, tolerance: ±0.4mm.

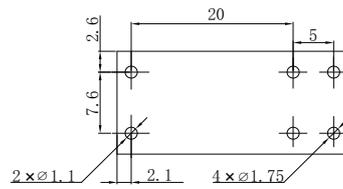
Note:

1. Terminal dimension is dimension before soldering.
2. Tolerance of P.C.B. layout: ±0.1mm.

PCB layout (bottom view)

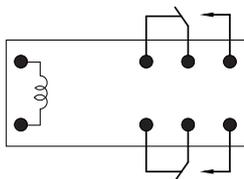


type C

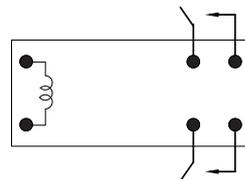


type A

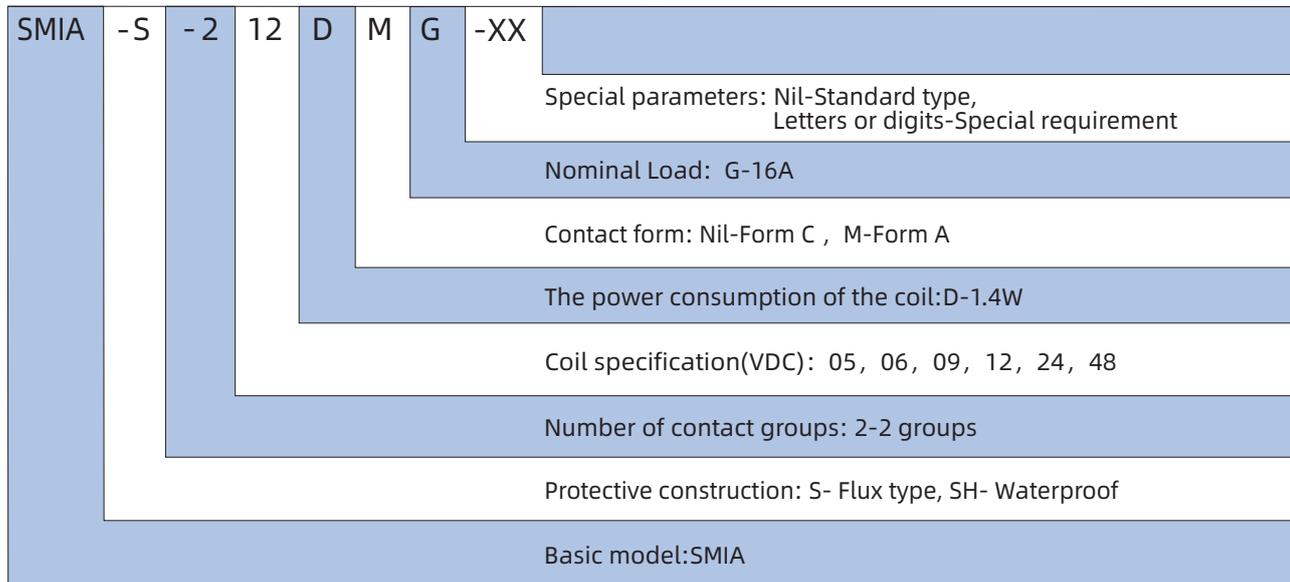
Wiring Diagrams



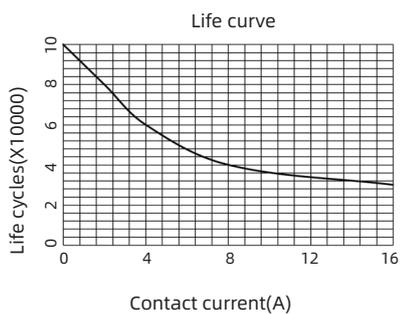
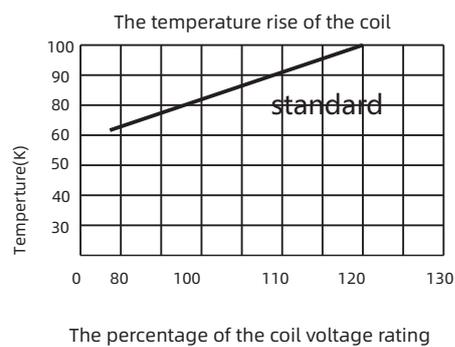
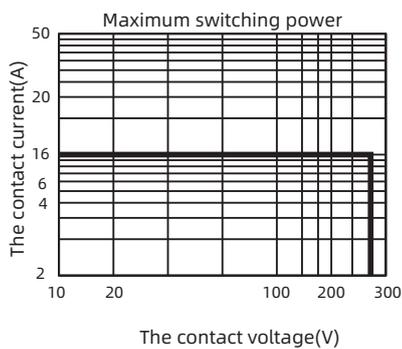
type C



type A

Product Code Structure

Note:

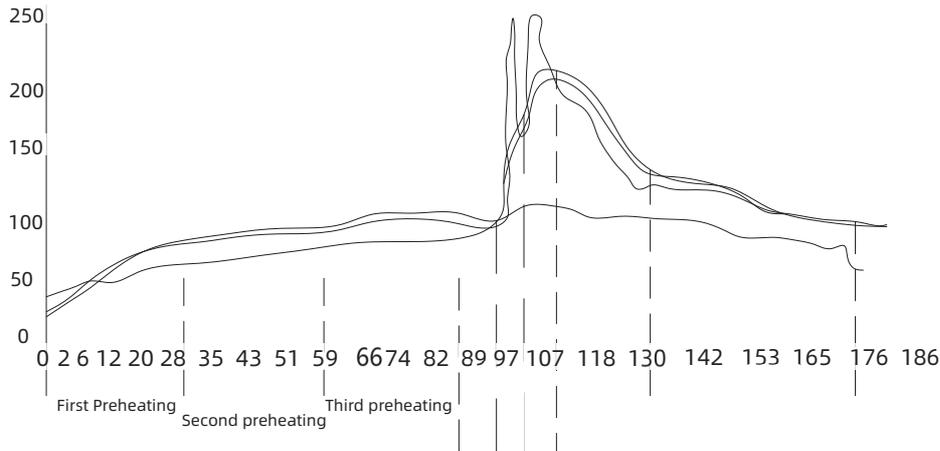
- (1) Flux-proof type can not be used in polluted environment containing H₂S, SO₂, NO₂, dust and other pollutants.
- (2) Water cleaning or surface process is not suggested after the flux-proofed relays are assembled on PCB..
- (3) Customer special requirements (XX) shall be evaluated by our company and marked by special suffix.

Performance curve


Welding conditions (recommended)

(1) Wave soldering installation conditions

In the case of automatic welding, refers to the following conditions. Pre-heating: within 150°C (welding surface terminal) within 150 seconds.



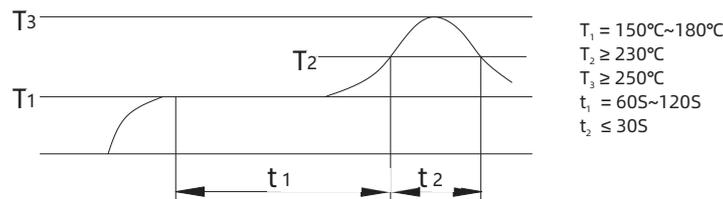
Wave soldering temperature profile

Recommended welding temperature and time: 240°C~260°C, 3s-5s. In addition, the impact on the relay may vary according to the type of substrate actually used. Therefore, check the actual substrate for confirmation.

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

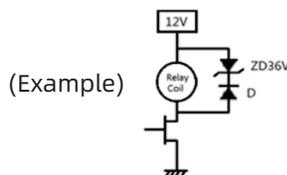
Under the condition of mixed parts on the same substrate, the temperature rise of the relay largely depends on the heating method of reflow welding machine, so please set the temperature condition.

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.



(3) Coil end parallel circuit (recommended)

Varistor (ZNR) could absorb the coil surge of relay that is recommended.



Disclaimer

This product specification is for reference only, subject to change without prior notice. It is not possible for Sanyou to evaluate all the performance parameter requirements of relays in each specific application field, so customers should choose the suitable product according to the specific application conditions. If you have any questions, please contact us for more technical support, but the customer should be responsible for product selection.