Features:

- High contact capacity: 150A of ability to switch contacts.
- Coil holding voltage can be reduced to 50~60% of coil rated voltage to achieve energy saving effect.
- A group of normally open contact,contact gap > 3.0mm.

Approvals

UL (File No.) : E190598
TUV (File No.) : R50442051
CQC (File No.) : CQC19002216643

Contact Data

Contact arrangement	1 Form A
Contact material	$AgSnO_2$
Contact Resistance	≤5mΩ (at 6V 20A)
Contact Rating (resistive load)	150A 400VAC
Max. Contact Voltage	690VAC
Max. Contact Current	150A
Max. Breaking Capacity	103500VA
Operate Time (at nominal volt.)	≤30ms
Release Time (at nominal volt.)	≤10ms

Electrical endurance

NO: Making 40A, Carrying 150A , Breaking 40A,240VAC, resistiveload,85℃ , 1s on : 9s off,3×10^4ops.

NO: Making 30A, Carrying 150A , Breaking 30A,400VAC, resistiveload,85℃ , 1s on : 9s off,3×10^4ops.

Coil Data

Nominal Voltage VDC	Max. Operate Voltage VDC	Min. Release Voltage VDC	Nominal operating current (1±10%) mA	Coil Resistance (1±10%) Ω	Coil Power W	Holding Voltage VDC
12	9	0.6	208.3	57.6	2.5	Nominal voltage 50%~60%
24	18	1.2	104.2	230.4		

Note:
(1) Relays apply full coil voltage to maintain 200ms.
(2) The coil holding voltage is 50~60% 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.

Insulation Data

Insulation resistance	1000MΩ (500VDC)
Initial dielectric strength	
between contact sets	2000VAC, 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 150A, @85℃)
Shock resistance*	Functional 98m/s² Destructive 980m/s²
Vibration resistance*	10Hz to 55Hz 1.5mm DA
Mechanical endurance	1×10^6ops
Ambient temperature	-40℃ to +85℃
Humidity	5% to 85%RH
Termination	PCB
Weight	Approx. 155g

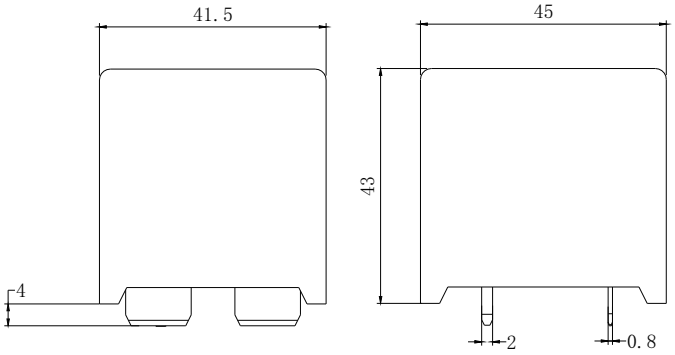
Note:
* refers to the index in the non-width direction

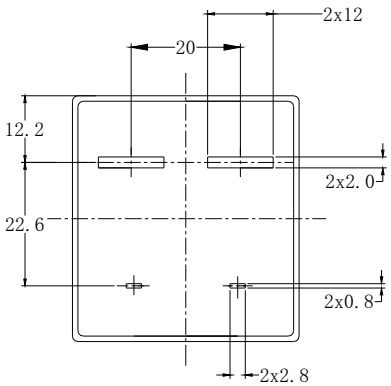
Safety certification load

Certification	File No.	Approved ratings
UL	E190598	400VAC 40A/150A/40A
TUV	R50442051	
CQC	CQC19002216643	

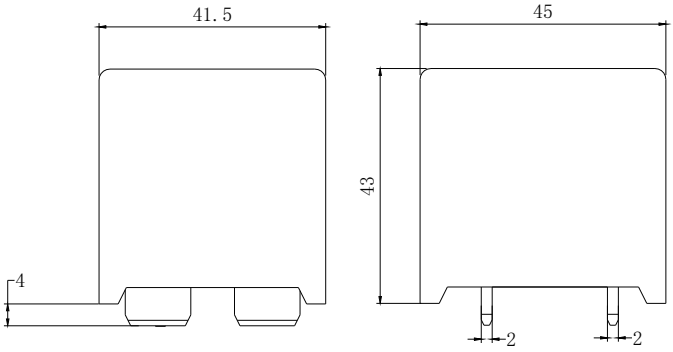
Dimensions

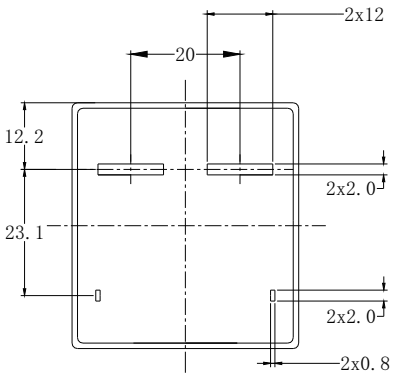
150A Standard type





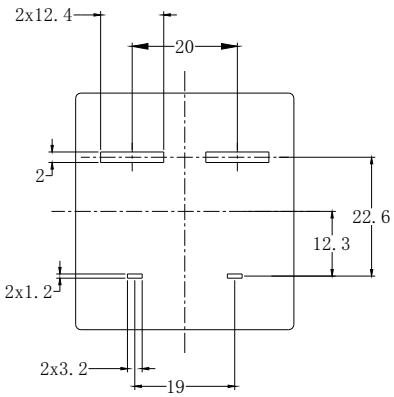
150A H type



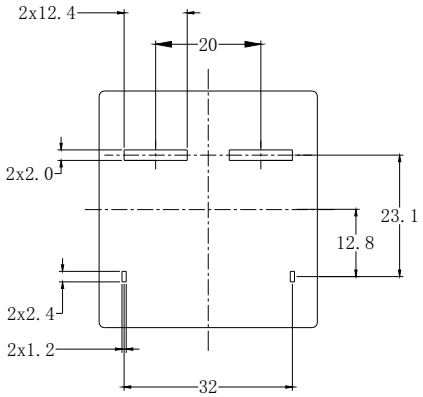


PCB board bore hole drawing

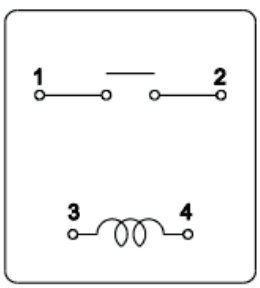
150A Standard type



150A H type

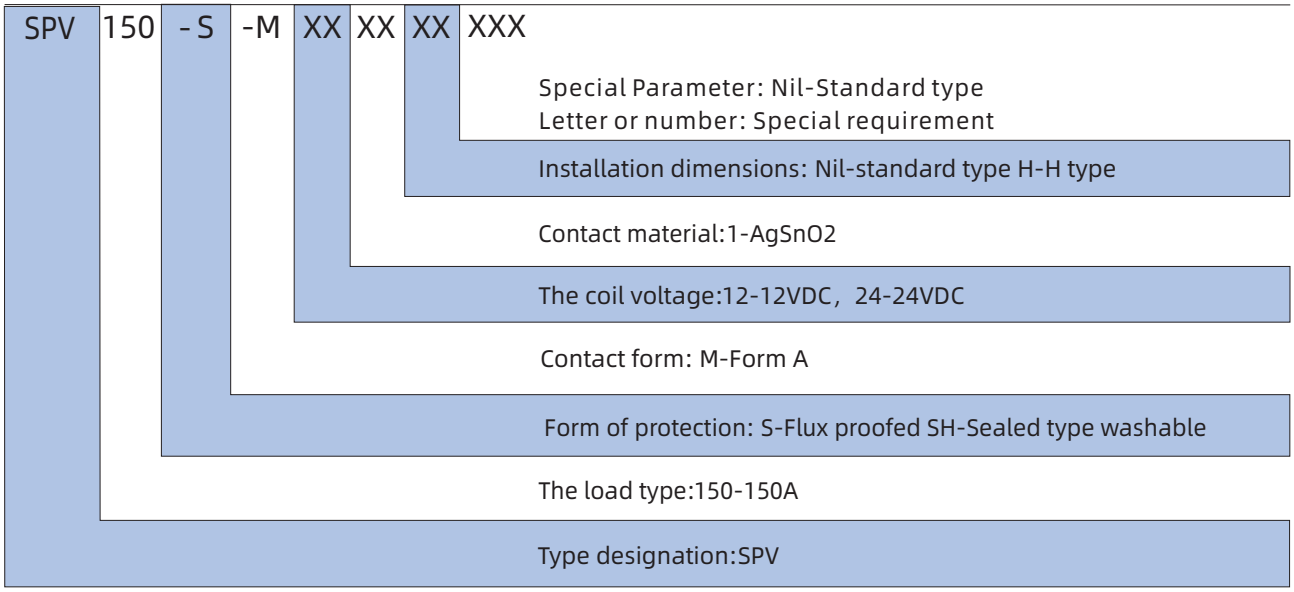


Wiring Diagrams



Unless otherwise specified：
If dimension ＜1mm, tolerance： ±0.2mm;
If dimension 1~5mm, tolerance： ±0.3mm;
If dimension ＞5mm, tolerance： ±0.4mm.
Note：
1. Extended terminal dimension is dimension
2. Tolerance of P.C.B. layout： ±0.1mm.

Ordering Information



Note:

（1） Customer-Specific Characteristic No. 1 indicates a load voltage of 120VDC (with magnetic blowout for arc extinction).

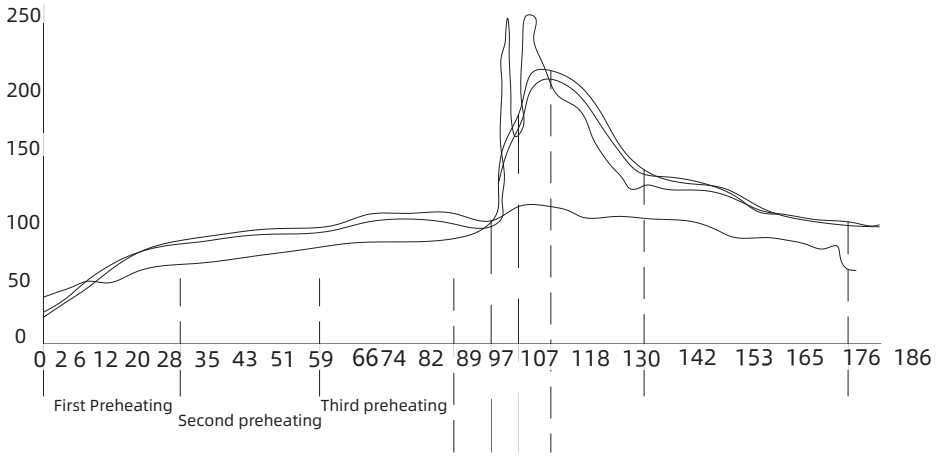
（2） After the solder mask relay is assembled on the PCB, it is not recommended to perform water cleaning or surface treatment.

（3） The solder mask relay must not be used in environments containing contaminants such as H_2S, SO_2, NO_2, and dust.

Welding conditions (recommended)

(1) Wave soldering installation conditions

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



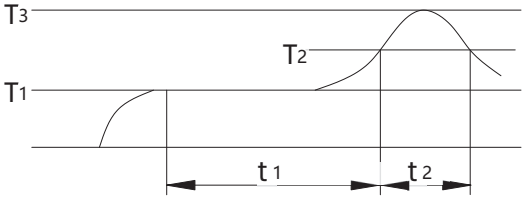
Wave soldering temperature profile

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.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.

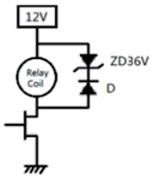


T_1 = 150℃~180℃
T_2 ≥ 230℃
T_3 ≥ 250℃
t_1 = 60S~120S
t_2 ≤ 30S

(3)Coil end parallel circuit (recommended)

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

(Example)



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.