

Features:

- 90A switching capacity
- Low power consumption
- Strong anti-shock resistance
- Withstand voltage between contacts and coil: 4KV
- Single/Dual coils available
- Tolerance 2000A 0.3ms 300 times can be broken
- Environmentally friendly products(Accord RoHS)
- Dimensions: 39mm×15mm×30.2mm

Typical Application:

- EV charging station
- Electrical remote control
- Electrical Equipment

Approvals

TUV (File No.)	R50670807
UL (File No.)	E179745

Contact Data

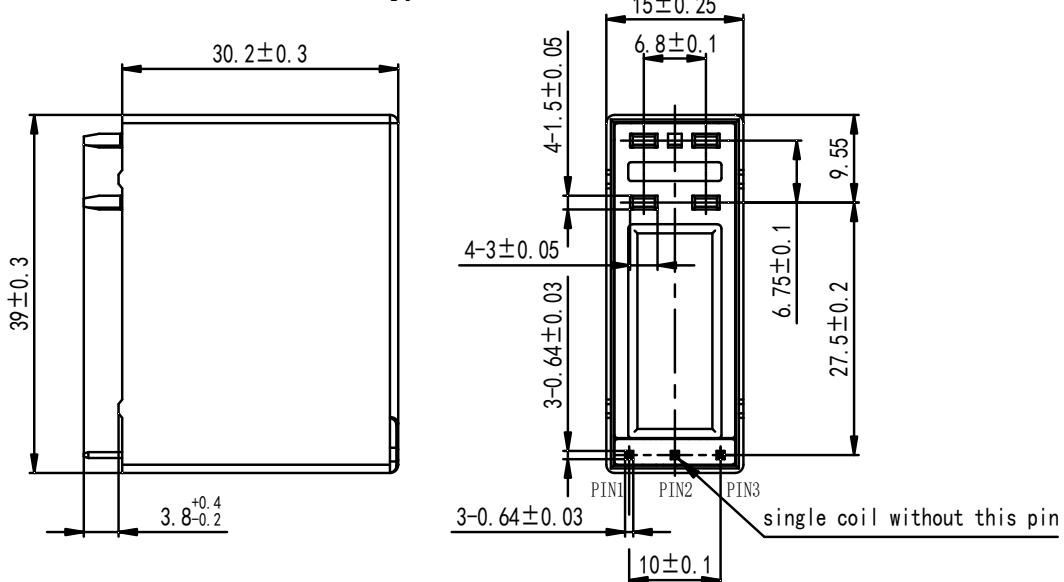
Contact form	1 Form A or 1 Form B
Rated Load	90A 250VAC
Max.switching voltage	277V
Max.switching current	90A
Max.switching power	24,930VA
Contact Material	Silver alloy
Contact resistance	≤10 mΩ
Max.Operate/Release time	15 ms/15 ms
Electrical Endurance	5x10 ⁴ 次 (90A 277VAC, Indication seal type, Only current-carrying, 85°C) 6x10 ³ 次 (90A 277VAC, Indicates plastic packaging, 20°C) 6x10 ³ 次 (Connect 50A 277VAC, Carry Current 90A 277VAC, Disconnect 50A 277VAC, Indication seal type, 85°C)
Mechanical Endurance	1x10 ⁵ cycles

Insulation Data

Insulation Resistance	≥1,000MΩ (500VDC)
Dielectric Strength	Contact-Contact AC1,500V; 50/60Hz 1min Contact-Coil AC4,000V; 50/60Hz 1min
Contact-Coil (Creepage distance)	≥8.0mm

Outline Dimensions (Unit: mm)

Standard type



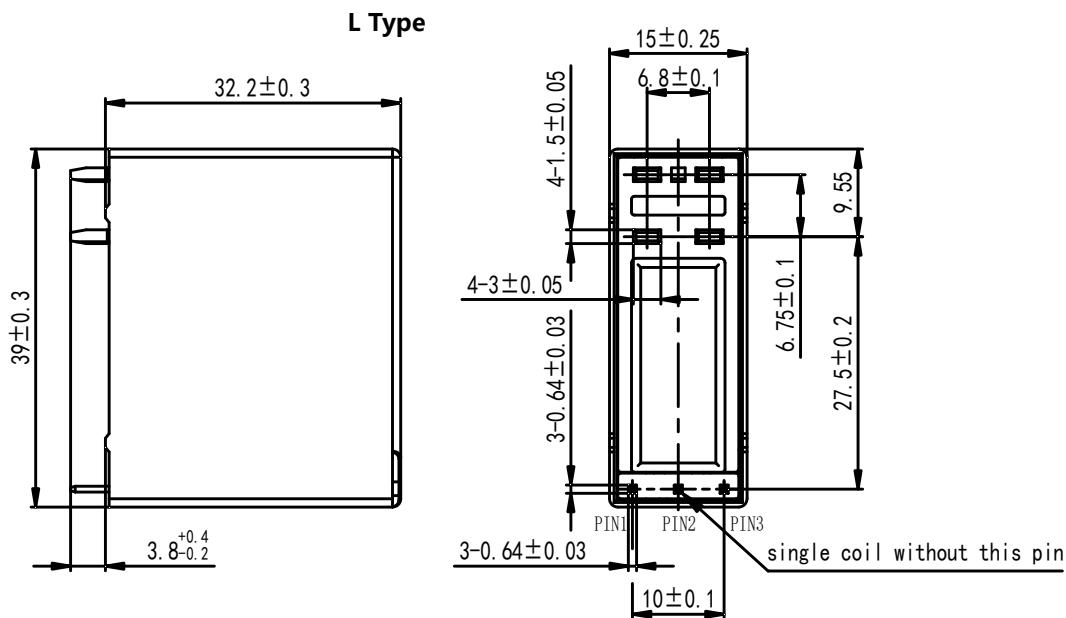
Coil Data

Coil voltage range		6 to 48VDC		
Coil insulation system according UL		Class F		
Coil type, standard type				
Rated Voltage VDC	Operate/Release Voltage VDC	Coil resistance Single/Dual Ω (1±10%)	Rated power Single/Dual W	Pulse Duration ms
6	≤4.8	12/6	3/6	≥50
9	≤7.2	27/13.5	3/6	≥50
12	≤9.6	48/24	3/6	≥50
24	≤19.2	192/96	3/6	≥50
48	≤38.4	768/384	3/6	≥50

All figures are given for coil without pre-energization, at ambient temperature 20°C.

Other Data

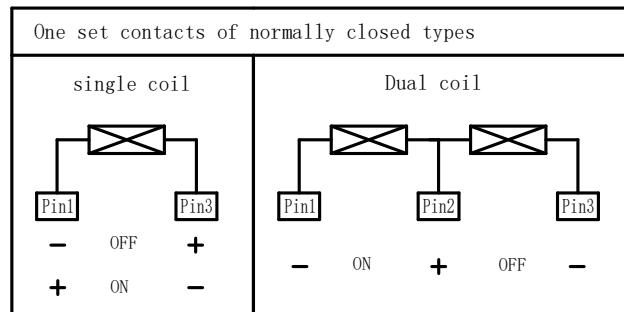
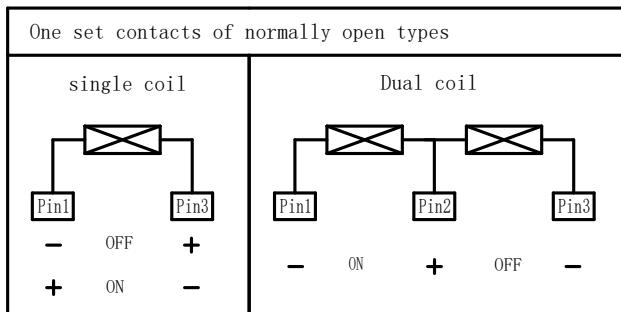
Material compliance: EU RoHS/ELV, China RoHS, REACHHS	
Ambient Temperature	-40°C to +85°C
Ambient Humidity	5% ~ 85% RH
Vibration resistance	10 ~ 55Hz, 1.5mm DA
Shock resistance	Durability 100g Malfunction 10g
Packaging type	Dust proof type
Output port form	Printed circuit board type



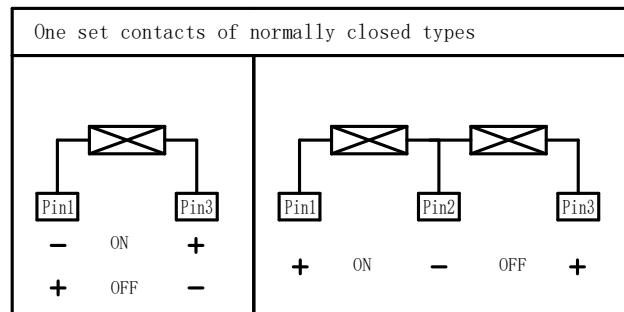
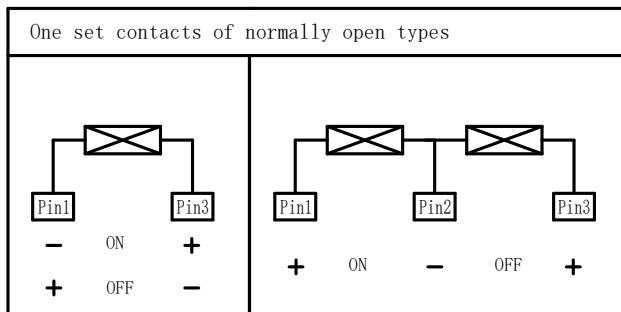
Note: Some product dimensional tolerance is not specified. When $< 1\text{mm}$, the tolerance is $\pm 0.2\text{mm}$; when between $1\sim 5\text{mm}$, the tolerance is $\pm 0.3\text{mm}$; when $> 5\text{mm}$, the tolerance is $\pm 0.4\text{mm}$.

Wiring Diagrams

Positive coil type



Reverse polarity



Model naming rules

SY506 -90 -S -1 12 D M 1 R XX

Special parameters:

None - standard type,

XX - customer required type

L-Indicates the heightening structure of the shell

Drive polarity: None- Positive coil type, R- indicates reverse polarity

Coil type: 1- means single coil; 2- means dual coil

Contact type:

M - indicates A type (normally open type)

B - indicates B type (normally closed type)

Coil Power Consumption: D - Standard Type

Coil Specifications (VDC): 06, 09, 12, 24, 48

Number of contact groups: 1- means 1 group

Packaging type:

S- Indicates plastic packaging,

SH-Indication seal type

Rated current: 90-90A

Type: SY506

Customized special suffix is available after being evaluated by Sanyou.

Examples of Ordering Codes

SY506-90-S-112DM1R

Relay SY506, Rated current 90 A, Indicates plastic packaging S, Group 1, Coil Specifications 12 VDC, Standard Type D, 1 Form A, single coil, indicates reverse polarity R

Cautions

1. The original position of latching relay is "closed" when shipping. It is possible that during transit or installation, the relay may change its state to be "open" position, it is recommended to set the relay in to state needed via apply voltage to the coil.
2. In order to let relay operate normally, the voltage which apply to the coil should reach to the rated voltage, the pulse width should be 50ms to 100ms. Do not energize both coil at the same time on Dual coil or energize the coil for longer than minute.
3. Relay without copper wire, the terminal can not be soldered, bend, and rigid fasten both two terminals.
4. Keep away from corrosive gas and other condition which may damage the relay.

Disclaimer

This product specification is for reference only and may change without prior notice. Customers should select the appropriate product model according to the performance parameter requirements of their specific application areas. The customer will bear the responsibility and loss caused by improper selection. For more technical support, please contact Sanyou Corporation Limited.