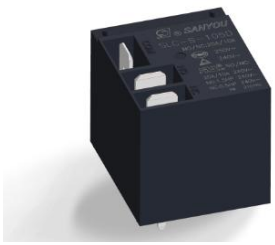
三友继电器 SANYOU RELAYS

Miniature Power Relay SLC



Features

- Miniature relay with high switching capability：30A.
- Contact form： Form A, Form B or Form C.
- Special type of 4000VAC dielectric strength and 6000V surge voltage(1.2/50uS) between coil and contact available.
- Protection quick connect terminal type available.
- IEC60335-1 compliant product is available.

Safety certificate

UL、 cUL（ File No.）: E190598
TUV (File No.): R50143450
CQC (File No.)：
CQC02001002109、CQC10002050461、CQC21002306488
VDE (File No.)：40036707

Contact Data

Type	SLC-DM	SLC-DB	SLC-D
Rated load（Resistive load）	30A 250VAC	15A 250VAC	20A/10A 250VAC
Max. switching current	30A	20A	20A
Max. switching voltage	250VAC	250VAC	250VAC
Max. switching power	7,500VA	5,000VA	5,000VA

Characteristics

Contact material	Silver alloy	
Contact resistance	100mΩ Max. (1A 6VDC)	
Operate time (at rated coil voltage)	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	Destructive	10～55Hz, at double amplitude of 1.5mm.
	Function	10～55Hz, at double amplitude of 1.5mm.
Shock resistance	Destructive	100G Min.
	Function	10G Min.
Endurance	Mechanical endurance(at 10,800ops./h)	10,000,000 cycles(at room temperature)
	Electrical endurance(at 360 ops./h)	100,000 cycles(at room temperature)
Ambient temperature	-40℃～+85℃（No condensation）	
Weight	Approx.27.0g	

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	TUV	UL/CUL	VDE
File No	CQC02001002109 CQC10002050461 CQC21002306488	R50143450	E190598	40036707
Approved ratings	Form A : 30A 250VAC Form B : 15A 250VAC Form C : 20A/10A 250VAC	Form A : 30A 250VAC Marking: 80A250VAC(300ms) Breaking : 20A 250VAC Form B : 15A 250VAC Form C : 20A/10A 250VAC	Form A: 40A 277VAC, Resistive 30A 240VAC, Resistive/General Use 15A 240VAC 1-1/2HP 240VAC;3/4 HP 120VAC TV-8 120VAC 30A 240VAC, Resistive/General Use Pilot duty: 470 VA, 240VAC Electronic Ballast: 10A 277VAC /120VAC Form B: 30A 120VAC, General Use 20A 240VAC, General Use 20A 120VAC, Resistive 10A 240VAC, Resistive/General Use Pilot duty: 275VA, 240VAC Electronic Ballast: 5A, 277VAC/120VAC 1/2HP 240VAC;1/4HP 120VAC Form C: N.O. 30A 240/120VAC,Resistive 30A 240/120VAC, General Use 20A 240VAC Resistive 10A 240VAC, Resistive 1-1/2HP 240VAC 3/4HP 125/120VAC TV-8 120VAC 20A 240VAC,General Use Pilot Duty: 470VA 240VAC Electronic Ballast: 10A 277VAC/120VAC	30A 250VAC,NO 20A 250VAC,CO(test NO) 10A 250VAC,CO(test NC)

(1) The above-mentioned unspecified temperature ratings, means that the ambient temperature is room temperature.

(2) Only some typical ratings are listed above. Each rating' s test condition is different, so the electrical endurance will be different. If more details are required, please contact us.

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

Ordering Information

Nomenclature

SLC	-S	-1	12	D	M	K	2	-G	-P	-F	-XX

-XX Special Parameter : Nil-Standard type, Letter or number-Special requirement

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

COM Flat quick-connect terminals :
Nil- Yoke and flat quick-connect terminal is one part;
P-Yoke rivet flat quick-connect terminal only for SLC-K

Parameter sign : Nil-Standard, G-High contact load(40A)

Contact material : Nil-AgSnO2 , 2-AgNi+AgSnO2

Terminal position :
Nil-COM terminal and NC/NO terminal on the same side
K-COM terminal and NC/NO terminal on the opposite side

Contact Form: Nil - Form C, B - Form B, 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 proofed ,
SH-Sealed type washable

Type : SLC

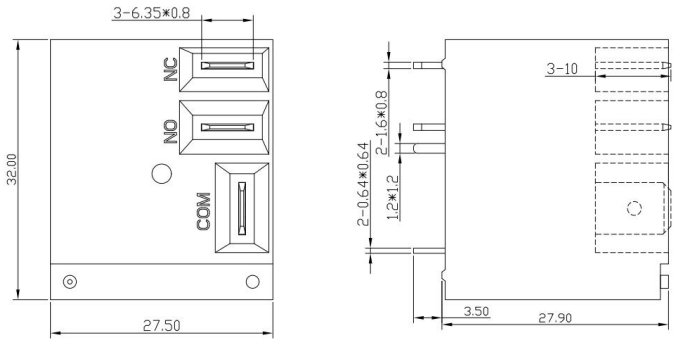
(1) Flux-proof relays can not be used in the environment with pollutants like H_2S, SO_2, NO_2, dust, etc.

(2) Water cleaning or surface process is not suggested after the flux-proof relays are assembled on PCB.

(3) Customized special suffix is available after being evaluated by Sanyou.

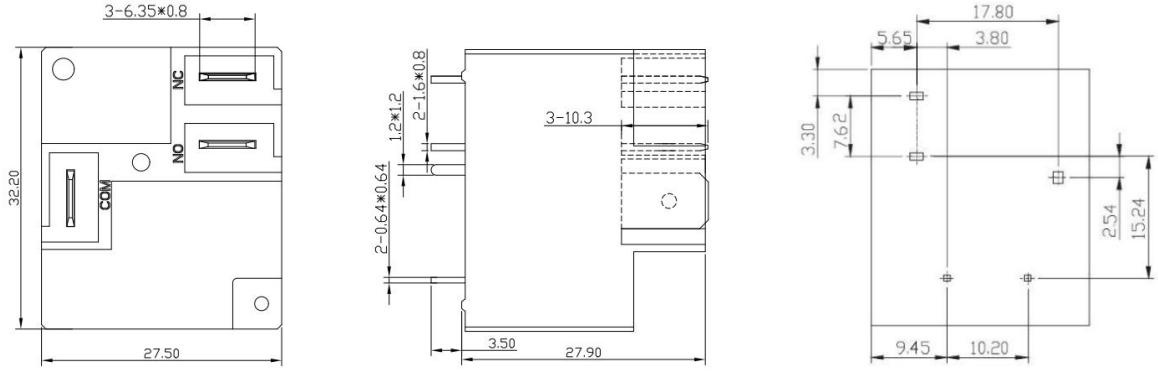
Outline dimension, wiring diagram, PCB layout (Unit: mm)

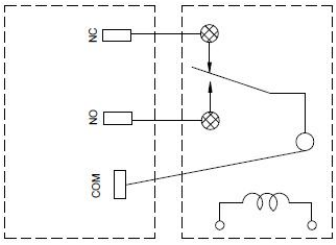
SLC



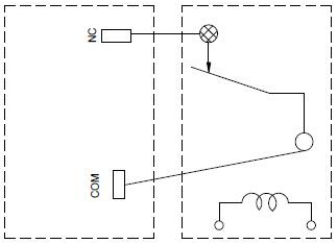
In case of no tolerance shown on outline dimension
If dimension < 1 mm, tolerance：±0.2mm
If dimension 1~5mm, tolerance：±0.3mm
If dimension > 5mm, tolerance：±0.4mm
Note：
1. The dimension of pin is the size before tinning
2.Tolerance of PCB layout：±0.1 mm.

SLC-K

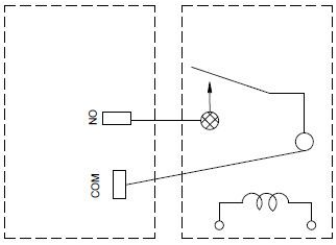




top view bottom view
1c

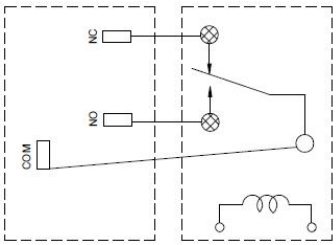


top view bottom view
1b

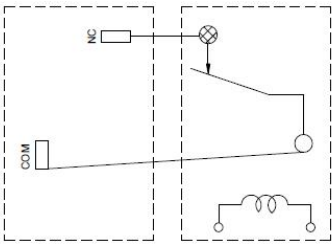


top view bottom view
1a

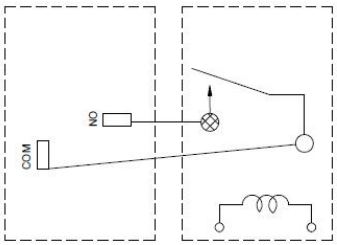
SLC Wiring Diagram



top view bottom view
1c

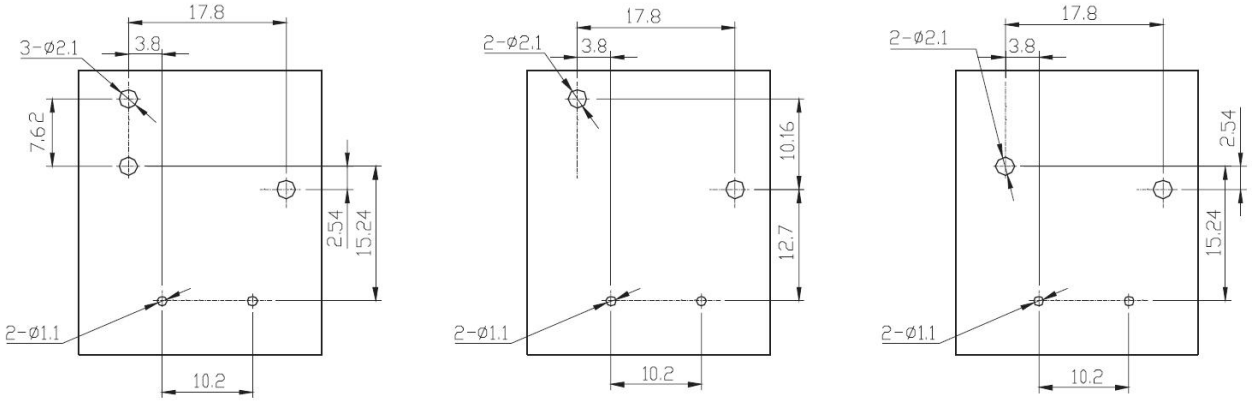


top view bottom view
1b



top view bottom view
1a

SLC-K Wiring Diagram



P.C.B Layout (bottom view)

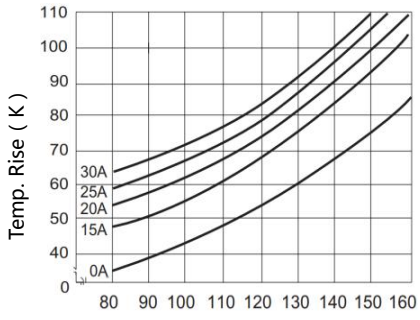
Typical Applications

●Car ●Heater and ventilation equipment

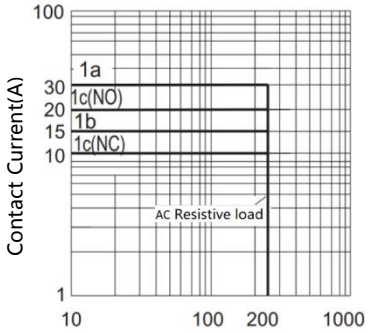
●Air conditioner ● Home appliance

Characteristic Curves

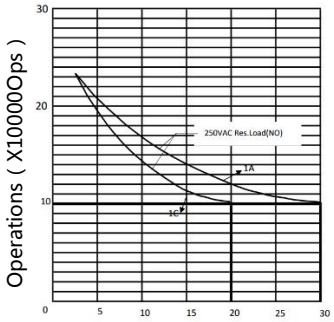
Coil Temp.Rise



Max. Switching Power

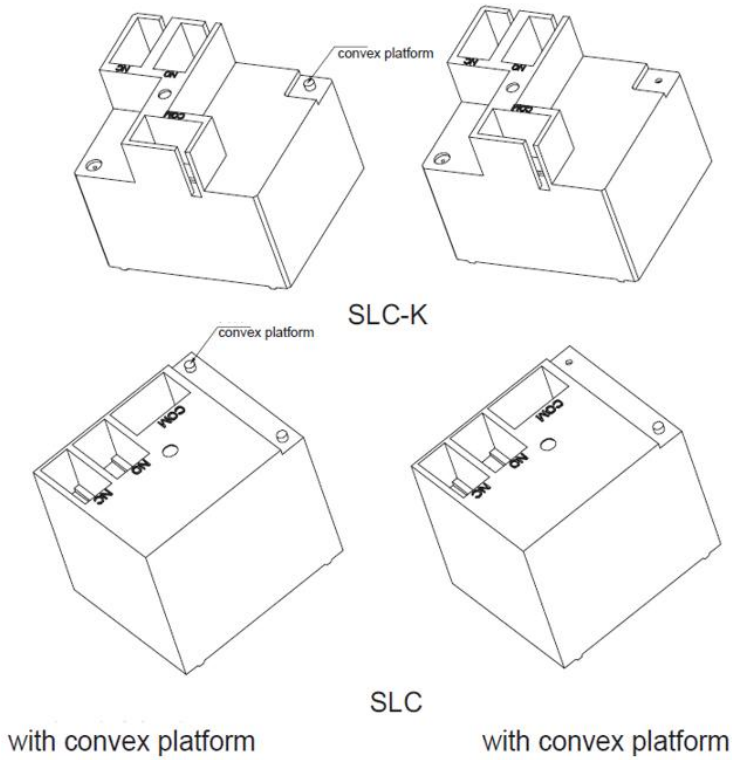


Endurance Curve



Note：

If you choose the sealed type，before using,please remove the convex platform at the top of the case to ensure the normal performance of the relay after the completion of a PCB operations. they are as shown in the following diagram：



Disclaimer：
This datasheet is for customer reference only. 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 users should in a right position to choose suitable product for their own application. For sealed relays after installation and cleaning, please open the vent hole on the case before use. 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.