

Miniature Power Relay

SRCH

Features

- Small size (20.5x7.2x16.6 mm) for high density PCB mounting.
- 7A contact switching capability.
- High breakdown voltage: 4000V (between coil and contact)
- IEC60335-1 compliant product is available.

Safety certificate

UL, c-UL File No: E179745

VDE File No: 40045446

CQC File No: CQC13002089945、CQC22002367719

Contact Data

Type	SRCH
Rated load (Resistive load)	7A 277VAC
Max. switching current	10A
Max. switching voltage	277VAC
Max. switching power	2770VA
Min. switching load	6V 1A

Characteristics

Contact material	Silver alloy	
Contact resistance	100mΩ Max. (at 1A 6VDC)	
Operate time (at rated coil voltage)	20ms Max. (No diode)	
Release time	10ms Max. (No diode)	
Insulation resistance	1,000MΩ Min. (DC500V)	
Dielectric strength	Between open contacts: 750VAC, 50/60Hz for 1min.	
	Between coil and contact: 4,000VAC, 50/60Hz for 1min.	
Vibration resistance	Functional	10~55Hz at double amplitude of 1.5 mm
	Destructive	10~55Hz at double amplitude of 1.5 mm
Shock resistance	Functional	10G Min.
	Destructive	100G Min.
Endurance	Mechanical endurance (at 10,800ops./h)	10,000,000(at room temperature)
	Electrical endurance (at 360ops./h)	100,000 (at room temperature)
Ambient temperature	-40°C ~ +105°C (No condensation)	
Weight	Approx. 3.9g	

Coil Data (at 20°C)

Nominal voltage (VDC)	Nominal operating current $\pm 10\%$ (mA)	Coil resistance $\pm 10\%$ (Ω)	Max. allowable voltage	Operate voltage (Max.)	Release voltage (Min.)	Nominal operating power
5	40.00	125	130% of nominal voltage	75% of nominal voltage	5% of nominal voltage	0.20W
6	33.33	180				
9	22.22	405				
12	16.67	720				
18	11.11	1,620				
24	8.33	2,880				
5	72.00	69	130% of nominal voltage	75% of nominal voltage	5 % of nominal voltage	0.36W
6	60.00	100				
9	40.00	225				
12	30.00	400				
18	20.00	900				
24	15.00	1600				

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 (Note: More details of approved ratings, please refer to the safety certificates)

Certificates	CQC	VDE	UL/CUL
File No.	CQC13002089945 CQC22002367719	40045446	E179745
Approved Ratings	7A 277VAC	7A 277VAC 10A 277VAC	7A 277VAC ,General Use & Resistive 10A 277VAC ,General Use & Resistive TV-3 120VAC

- (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 of case before test.

Ordering Information

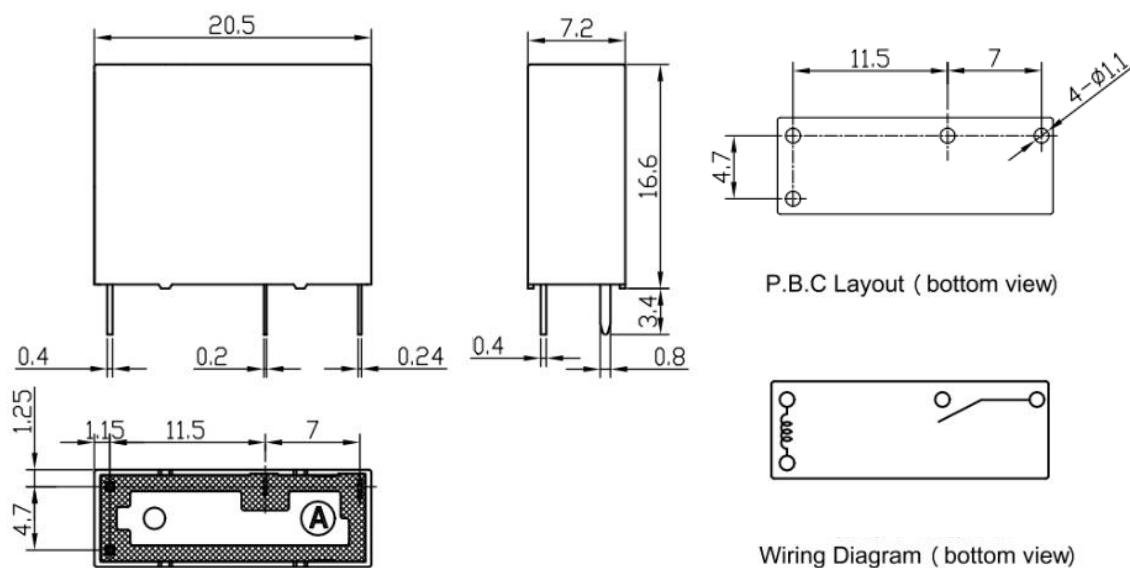
Nomenclature

SRCH -S -1 12 D M 2 -F -XX

Parameter:	Nil-Standard type,Letter or number-Special requirement
Insulation System :	Nil - Standard, B - Class B, F - Class F
Contact Material :	Nil- AgSnO ₂ , 2 - AgNi 3-AgSnO ₂ + Gold-plated 4-AgNi+ Gold-plated
Contact Form :	M-Form A
Coil Power:	D-0.20W, H-0.36W
Coil Voltage :	05, 06, 09, 12, 18, 24(VDC)
Number of Poles:	1-1 Pole
Protective Construction:	S- Flux proofed, SH- Sealed type washable
Type:	SRCH

- (1) Flux-proof relays can not be used in the environment with pollutants like H₂S, SO₂,NO₂, 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)



In case of no tolerance shown on outline dimension

If dimension < 1 mm, tolerance: ± 0.2 mm

If dimension 1~5mm, tolerance: ± 0.3 mm

If dimension > 5mm, tolerance: ± 0.4 mm

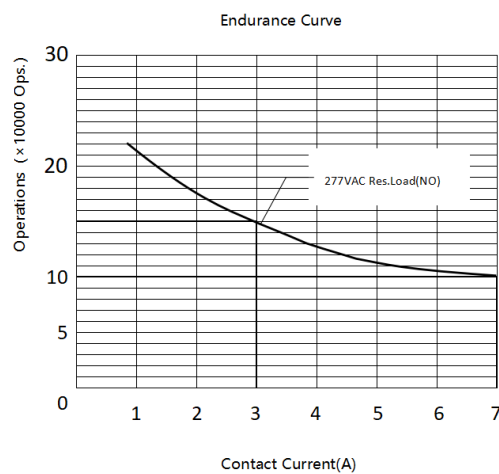
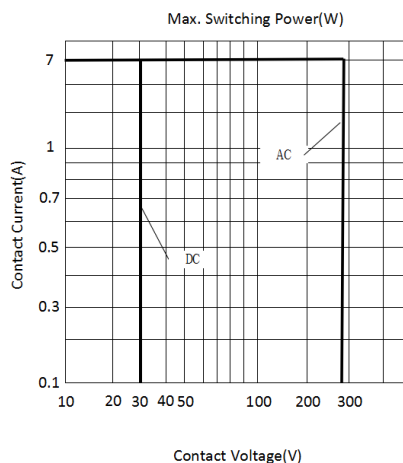
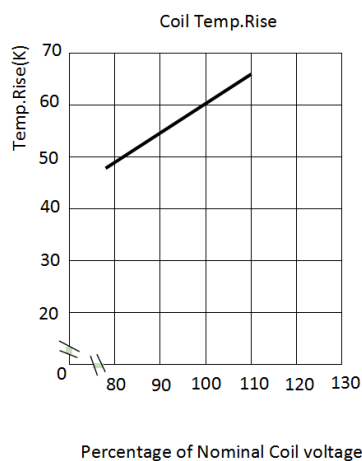
Note:

1. The dimension of pin is the size before tinning
2. Tolerance of PCB layout: ± 0.1 mm.

Typical Applications

- Telecommunication equipment
- Safety equipment
- Office equipment
- Home appliances such as air conditioner, microwave oven

Characteristic Curves



备注 Note:

- (1) Test conditions: room temperature, flux-proof product, resistive load, 1s on, 9s off.
- (2) The above curves are for reference only, and the final result is subject to the experiment.

Disclaimer: The specification is for reference only. Specifications are subject to change without prior notice. We could not evaluate all the performance and all the parameters for every possible applications. Thus the users should in a right position to choose suitable product for their own application. For sealed relays, after installation and cleaning, please open the ventilation hole in the case before use. If there is any query, please contact Sanyou for technical services. However it is the user's responsibility to determine which product should be used.