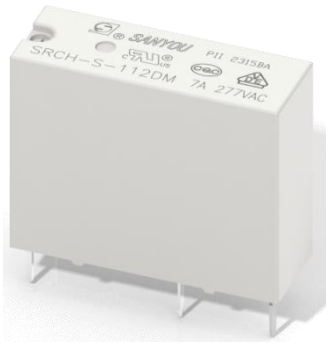
Features:

- Low coil power consumption.
- Micro-miniature relay, standard PCB terminals.
- Compliant with IEC60335-1(GWT) & CTI250V.
- IEC60079-15 compliant product is available.

Typical applications:

- Home appliances: air conditioner, heater, etc.
- Vending machine.
- Office equipment: computer, fax machine, etc.
- Electric controlled window, car antenna, door lock, etc.



Approvals

UL, c-UL (File No.)：E179745
CQC (File No.)：CQC13002089945, CQC22002367719
VDE (File No.)：40045446

Contact Data

Contact arrangement	1form A(NO)
Rated voltage	277VAC
Max.switching voltage	277VAC
Rated current	7A
Min. recommended contact load	1A, 6VDC
Breaking capacity max.	1939VA
Contact material	AgNi,AgSn02
Frequency of operation	360 ops./h
Operate/release time max.	20ms/10ms
Electrical endurance	See electrical endurance graph

Contact ratings

Type	Contact	Load	Cycles
IEC 61810, EN 60730-1			
SRCH	A	7A,277VAC,cos ϕ=1,105℃	$5X10^4$
SRCH	A	10A,277VAC,cos ϕ=1,85℃	$1X10^4$
UL 60947-4-1			
SRCH	A	7A, 277VAC, 105℃	$5X10^4$
SRCH	A	10A, 277VAC, 85℃	$1X10^4$
SRCH	A	TV-3, 120VAC, 40℃	$2.5X10^4$
GB/T 21711.1-2023			
SRCH	A	7A,277VAC,105℃	$2X10^4$
SRCH	A	10A,277VAC,85℃	$1X10^4$
Mechanical endurance			$\geq 1x10^7$

Coil Data

Coil voltage range:	5 to 24VDC
Operative range, IEC 61810	2
Coil insulation system according UL	Class F

Coil versions, DC coil

Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω（1±10%）	Rated coil powers mW
5	≤3.75	≥0.25	125	200
6	≤4.5	≥0.3	180	200
9	≤6.75	≥0.45	405	200
12	≤9	≥0.6	720	200
18	≤13.5	≥0.9	1620	200
24	≤18	≥1.2	2880	200

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

Coil Data(continued)

Coil versions, DC coil

Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω（1±10%）	Rated coil powers mW
5	≤3.75	≥0.25	69	360
6	≤4.5	≥0.3	100	360
9	≤6.75	≥0.45	225	360
12	≤9	≥0.6	400	360
18	≤13.5	≥0.9	900	360
24	≤18	≥1.2	1600	360

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

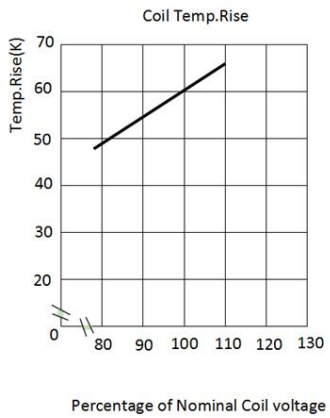
Insulation Data

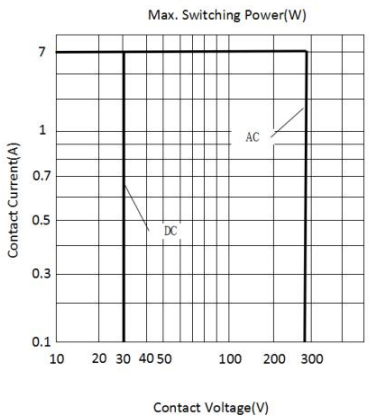
Initial dielectric strength	
between open contacts	750VAC
between contact and coil	4000VAC
Clearance/Creepage	
between contact and coil（Clearance）	≥5.5mm(actual)
between contact and coil（Creepage）	≥6.4mm(actual)
Material group of insulation parts	IIIa
Tracking index of relay	PTI 175V/PTI 250V

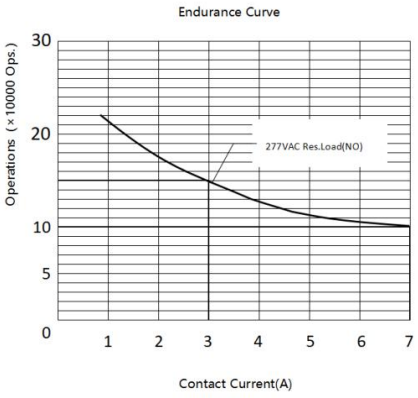
Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH

Ambient temperature	-40℃ to +85℃,-40℃to +105℃
Category of environmental protection	
IEC 61810	RTII - flux proof RTIII - Sealed type washable
Weight	Approx. 3.9g
Resistance to soldering heat THT (IEC 60068-2-20)	260°C/5s
Packaging/unit	tube, tray



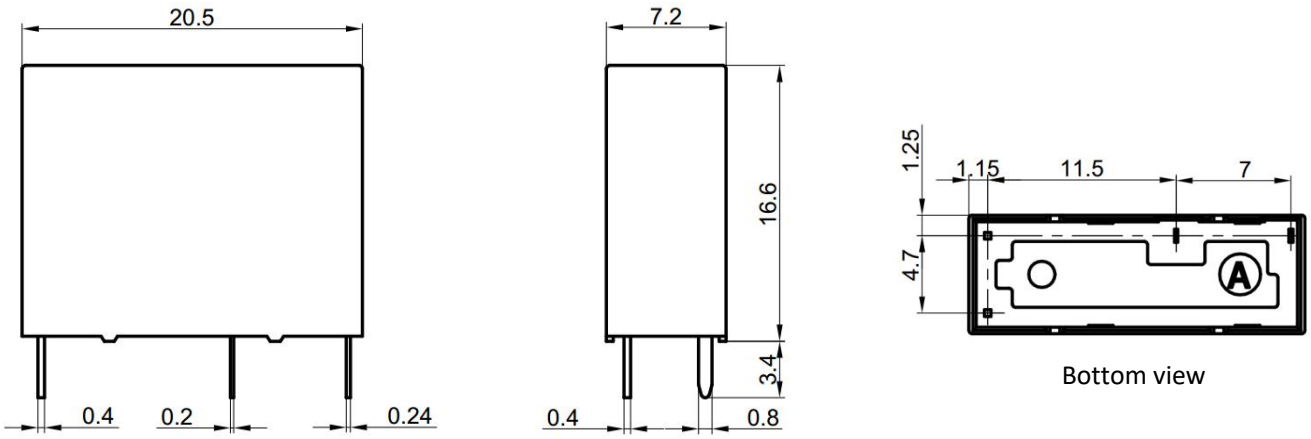




备注 Note:

(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.

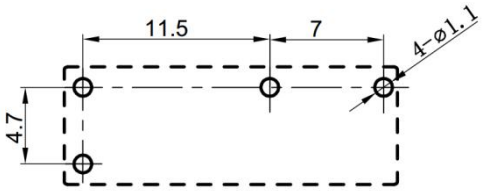
Dimensions



Wiring Diagrams

1a

PCB Layouts（bottom view）



1a

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

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

Product Code Structure

SRCH	-S	-1	12	D	M	2	-F	-XX	
									Special 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 Arrangement: M-Form A
									Coil Power: D-0.2W, H-0.36W
									Rated Coil Voltage(VDC): 05, 06, 09, 12, 18, 24
									Number of Poles: 1-1Pole
									Protective Construction S - Flux-proof SH- Sealed type washable
									Type: SRCH

(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.

(4) Ex suffix stands for products compliant with IEC60079-15.

Examples of Ordering Codes

SRCH-S-112DM	relay SRCH, Flux-proof, rated DC voltage 12V, coil power 0.2W, 1NO, and contact material $AgSnO_2$
SRCH-S-112HM2	relay SRCH, Flux-proof, rated DC voltage 12V, coil power 0.36W, 1NO, and contact material AgNi

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.