# **SANYOU RELAYS** General Power Relay

# Features:

- Low coil power consumption .
   Micro-miniature relay, standard PCB terminals.
   Compliance EU RoHS and the requirement of white home appliances.
   IEC60335-1 compliant product is available.
- •IEC60079-15 compliant product is available.

#### **Typical applications:**

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

#### Approvals

UL, c-UL (File No.): E190598

CQC (File No.): CQC02001002126, CQC10002050459, CQC21002306489 VDE (File No.): 40034479

Contact Data	
Contact arrangement	1form C( CO)or 1form A( NO)
Rated voltage	250VAC
Max.switching voltage	277VAC
Rated current	10A
Min. recommended contact load	1A, 6VDC
Breaking capacity max.	2500VA
Contact material	AgNi, AgSn0 <sub>2</sub>
Frequency of operation	360 ops./h
Operate/release time max.	8ms/5ms
Electrical endurance	See electrical endurance graph

# Contact ratings

-				
Туре	Contact	Load	Cycles	
IEC 6181	0			
SRDI	A/C(NO)	<b>10A,250VAC,cos φ=1,85</b> ℃	1X10 <sup>5</sup>	
SRDI	A/C(NO)	<b>10A,250VAC,cos φ=1,105</b> ℃	8X10 <sup>4</sup>	
UL 60947	7-4-1			
SRDI	A/C(NO)	10A,250VAC,cos φ=1,105℃	1X10⁵	
SRDI	A/C(NO)	1/3 hp, 250 VAC, 40℃	3X104	
SRDI	A/C(NO)	TV-5, 120 VAC, 40℃	2.5X10⁴	
GB/T 217	711.1-2023			
SRDI	A/C(NO)	<b>10A,250VAC,85</b> ℃	2X10 <sup>4</sup>	
SRDI	A/C(NO)	10A,250VAC,105℃	2X10 <sup>4</sup>	
EN 6073	0-1			
SRDI	A/C(NO)	10A,277VAC,105℃	3X104	
Mechanic	cal endurance		≥1x10 <sup>7</sup>	

#### Coil Data

Coil voltage range:	5 to 60VDC
Operative range, IEC 61810	2
Coil insulation system according UL	Class F









#### Coil Data(continued)

Coil versions, DC coil					
Rated	Operate	Release	Coil	Rated coil	
voltage	voltage	voltage	resistance	powers	
VDC	VDC	VDC	$\Omega$ (1±10%)	mW	
5	≤3.75	≥0.5	70	360	
6	≤4.5	≥0.6	100	360	
9	≤6.75	≥0.9	225	360	
12	≤9	≥1.2	400	360	
15	≤11.25	≥1.5	625	360	
18	≤13.5	≥1.8	900	360	
24	≤18	≥2.4	1600	360	
48	≤36	≥4.8	6400	360	
60	≤45	≥6	10000	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	2500VAC
Clearance/Creepage	
between contact and coil (Clearance)	≥1.5mm(actual)
between contact and coil (Creepage)	≥3.0mm(actual)
Material group of insulation parts	Illa
Tracking index of relay base	PTI 175V/PTI 250V

## Other Data

Ambient temperature -40	0℃ to +85℃,-40℃to +105℃
Category of environmental protection	
IEC 61810	RTII - flux proof
	RTIII - Sealed type washable
Weight	Approx. 8.0g
Resistance to soldering heat THT (IEC 60068-2-20	) 260°C/5s
Packaging/unit	tube, tray



(1)Test conditions: room temperature, flux-proof product,

(2)The above curves are for reference only, and the final result is subject to the experiment.

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Dimensions



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.

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SRDI V6.1

## Product Code Structure

SRDI	-S	-1	12	D	М	7	-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 & 2 -AgSnO <sub>2</sub> 4 - 3 Compounds AgSnO <sub>2</sub> (Form C) 5 - Cu plated with La 6 - AgNi 7 - AgNi & AgSnO <sub>2</sub> 8 - 3 Compounds AgNi (Form C)
									Contact Form: Nil - Form C B - Form B M - Form A
									Coil power: D-0.36W
									Rated coil voltage(VDC): 05, 06, 09, 12, 15, 18, 24, 48, 60
									Number of poles : 1-1Pole
									Protective construction: S- Flux-proof SH- Sealed type washable
(4) Elim									Type: SRDI

- (1) Flux-proofed 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) The customer special requirement express as special code after evaluating by Sanyou.
- (4) The "VDE" printing on the cover are only available for products with the suffixes of "D" "D2" "D3" "D6" "DM" "DM6".
- (5) C1 suffix stands for product Compliant with IEC60335-1&CTI250V
- (6) "Ex" stands for products compliant with IEC60079-15.

# **Examples of Ordering Codes**

SRDI-S-112DM	relay SRDI , Flux-proof , rated DC voltage 12V , coil power 0.36W,1NO,and contact material AgSnO <sub>2</sub> .
SRDI-S-112D4	relay SRDI , Flux-proof , rated DC voltage 12V ,coil power 0.36W,1CO,and contact material AgSnO2.

## 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.