



### Features

- 450V 20A Contact switching capability
- High working temperature 125°C
- U type and H type are available
- Flange and iron bracket type are available
- Satisfy RoHS

## Product Parameter

Characteristic	Items	Explanation		Characteristic	Items	Explanation	
Contact Parameter	Contact Type	Single NO Type		Performance Parameter	Mechanical Endurance	1,000,000 cycles	
	Nominal Load	20A ( @450V )			Initial Dielectric Strength	IP/OP	2500VAC 1min.
	Max. Persistent Current	40A ( @80V )				OP/OP	2500VAC 1min.
	Dropping Voltage Of Contacts	≤200mV(@10A)			Initial Insulation Resistance		100MΩ ( 500VDC )
	Min.Applicable Load	1A 12VDC			Pick-up Time ( Nominal Voltage )		≤10ms
	Terminal Type	Plug Type Terminal(ISO)			Drop-out Time		≤10ms
Electrical Parameter ( 1 )		U Type	H Type		Shock	Stability Test	294m/s <sup>2</sup> ( 30G )
	Max.Switching Voltage	80VDC	450VDC			Strength Test	
	Max.Breaking Current	20A ( 80VDC,more than once )	40A ( 450VDC,more than once )		Vibration		22.3~500Hz 49m/s <sup>2</sup> ( 5G )
	Electric Endurance	Res. Load	100,000 cycles ( 80VDC 10A )		100,000 cycles ( 450VDC 10A )	Ambient Temperature	
				20,000 cycles ( 450VDC 20A )	Ambient Humidity		20%~85%RH
				8,000 cycles ( 80VDC 40A )	Weight		39g
					Length×Width×Height(mm)		43×32.6×37.3

## Coil Parameter ( at 23°C )

Nominal Voltage ( VDC )	12	24
Operating Voltage ( VDC )	12	24
Max. Voltage ( VDC )	16	36
Pick-up Voltage ( VDC )	≤7.2	≤14.4
Drop-out Voltage ( VDC )	≥1.2	≥2.4
Coil Resistance ( ±10% ) ( Ω )	90	360
Initial Power ( W )	1.6	1.6
Steady Power ( W )	1.6	1.6

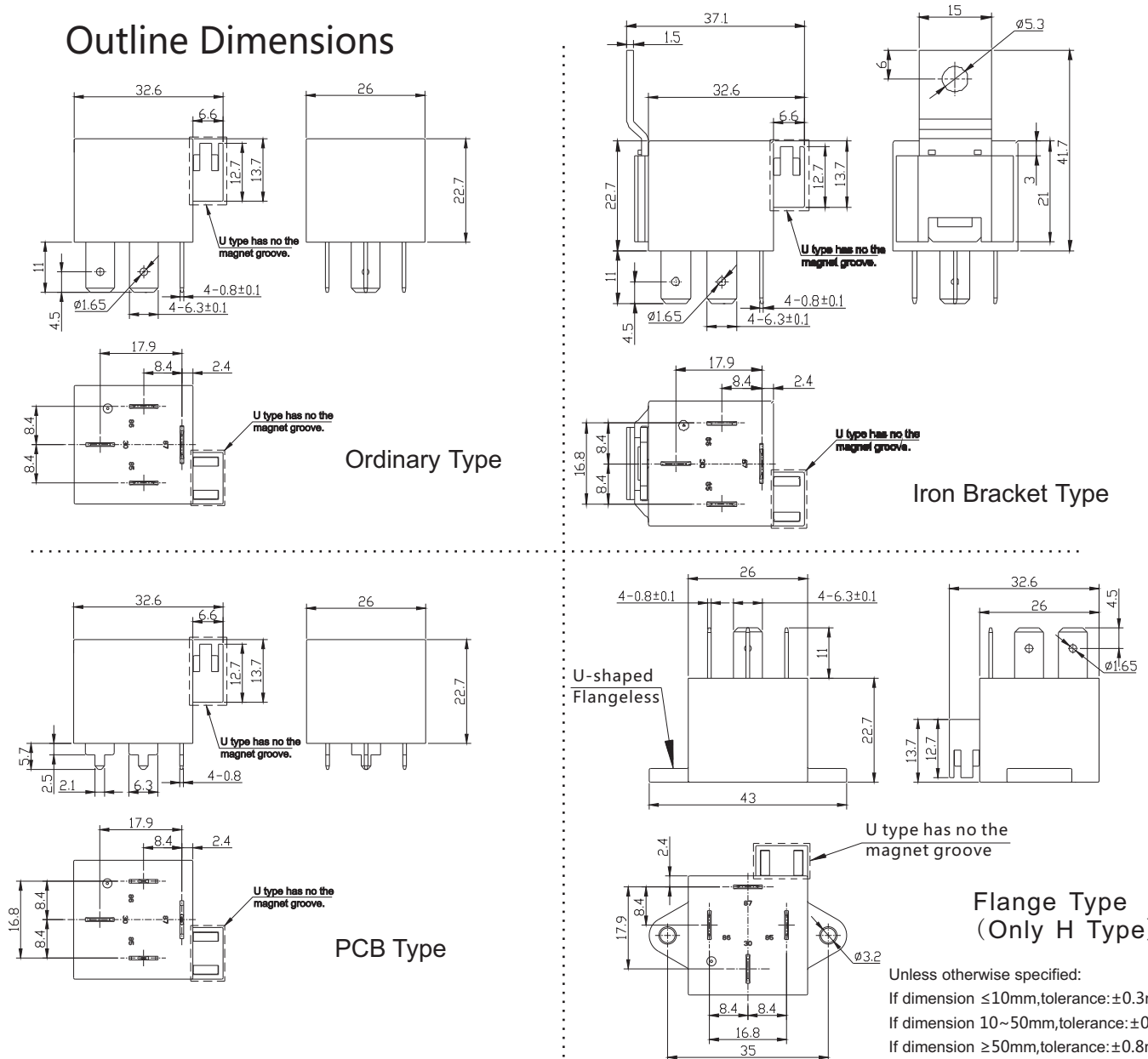
### Notes :

(1)Unless specified otherwise in the individual methods, the ambient temperature of the electric endurance test is 23°C,duty factor is 2s:2s.

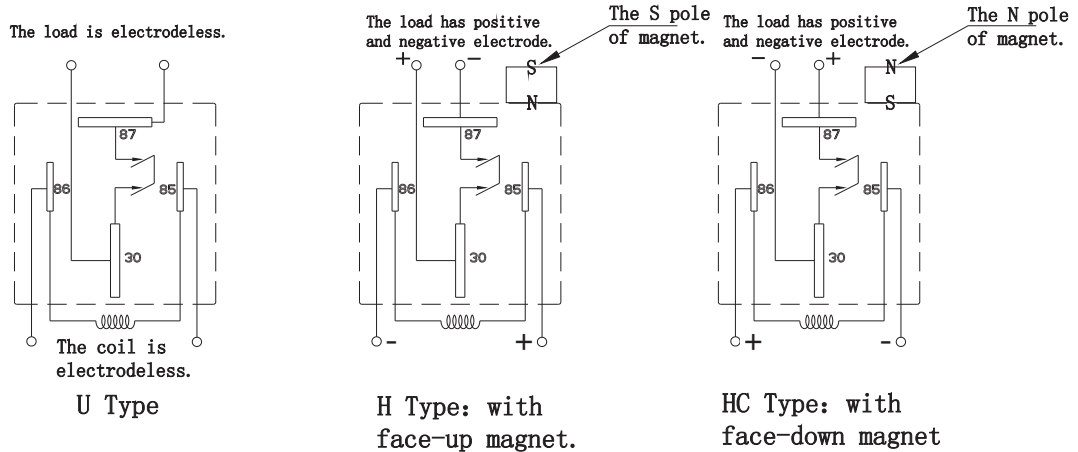
## Ordering Information

SARN	-S	-1	12	D	U	P	F	H	-XX	Special Parameter: Nil-Standard type, 01-terminal without hole.
										Accessory Form: Nil-Ordinary type, H-With face up magnet, HC-With face down magnet.
										Mounting Type: Nil-without bracket, G-with Flange, F-with iron bracket.
										Terminal Form: Nil-Plug type terminal, P-PCB type terminal.
										Contact Form : U-Form U
										Coil Power : D-1.6W
										Coil Voltage(VDC) : 12 , 24
										Number of Poles : 1-1 Pole
										Protective Construction: Nil-Dustproof , S-Fluxproof
										Type Designation : SARN

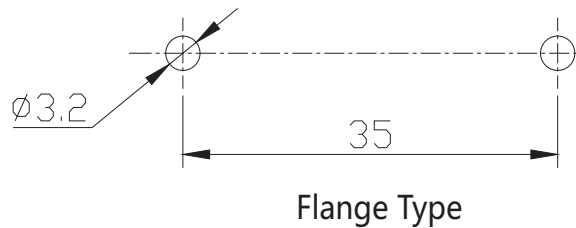
## Outline Dimensions



Schematic Diagram



Mounting Dimension



Instruction

1. Use and transport conditions.
  - 1) Temperature :  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
  - 2) Humidity : 20~85%RH
2. Please regard the relay as a product within a service life. Don't exceed its capacity of the switch and service life. Please change in time as necessary.
3. The load output of the relay has positive and negative electrode, please refer the Wiring Diagram to connect it.
4. Be careful and don't stain the connection part of contact with foreign bodies and oil, it may lead to abnormal heat dissipation. Please use the connecting bus with nominal sectional area (  $100\text{mm}^2 \text{ min}$  ) .
5. Please avoid applying to the terminal with excessive load, if the load of nominal range is exceeded, it will affect the function of switch .

Disclaimer :

This datasheet is the customers' reference. All the specification are subject to change without notice.  
We could not evaluate all the performance and parameters for every possible application. Thus the users should be in a right position to choose the suitable product for their own application. If there is any query, please contact Sanyou for technical service. However it is the users' responsibility to determine which product should be used only.  
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