

Features

- 50A Contact switching capability
- 125°C High Operating Temperature
- 1 Form A 、 1 Form C and 2 Form A contact available
- Dustproof and Fluxproof type available
- Resistance or diode paralleled type available

Typical Applications

- Rear window defogger , Battery breaking device
Automotive AC , Foglight control
- Electric power distributor , ABS Traction control system.

Contact Data

Contact form	1 Form A or 1 Form C
Contact Material	AgSnO ₂
Contact voltage drop	200mV Max (at 10A)
Pull in time (rated voltage)	10msec.Max.
Release time (rated voltage)	Ordinary type:10 msec.Max Parallel resistor or diode type:15 msec.Max
Rated load (resistive)	Normal: NO:50A 14VDC /NC: 30A 14VDC (at 23C) NO:40A 14VDC/NC: 20A 14VDC (at 85°C) Special: 2A:NO:30A 14VDC
Maximum switching current (normal type)	On(NO): 150A (Surge current of lamp load, 14VDC) Off(NO):50A (resistive load, 14VDC)

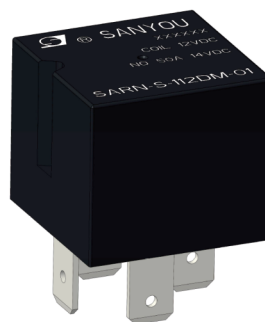
Other parameters

Shock Resistance	NO 30G
Vibration Resistance	5 ~ 22.3Hz at double amplitude of 10 mm 22.3~500Hz, 98m/s ²
Mechanical (10,800 ops./h)	1×10 ⁷ ops
Electrical (900 ops./h)	See the contact parameters table
Ambient Temperature	-40°C to +125°C (No condensation)
Humidity	5% to 85%RH
Weight	Approx. 36.0g

Note: The above parameters are initial values

Contact rating voltage	Load type		contact rating current(A)			endurance (cycles)
			Form C	Form A		
14VDC	Resistive load	Making	50	30	50	1×10 ⁵
		Breaking	50	30	50	
	The motor load	Making	80 ^a	—	80 ^a	1×10 ⁵
		Breaking	30	—	30	
27VDC	Light load	Making	150 ^a	—	150 ^a	1×10 ⁵
		Breaking	30	—	30	
	Resistive load	Making	30	10	20	1×10 ⁵
		Breaking	30	10	20	

Note: a. Peak current time/steady-state current time: 1/10;The on-off ratio is 2s: 2s



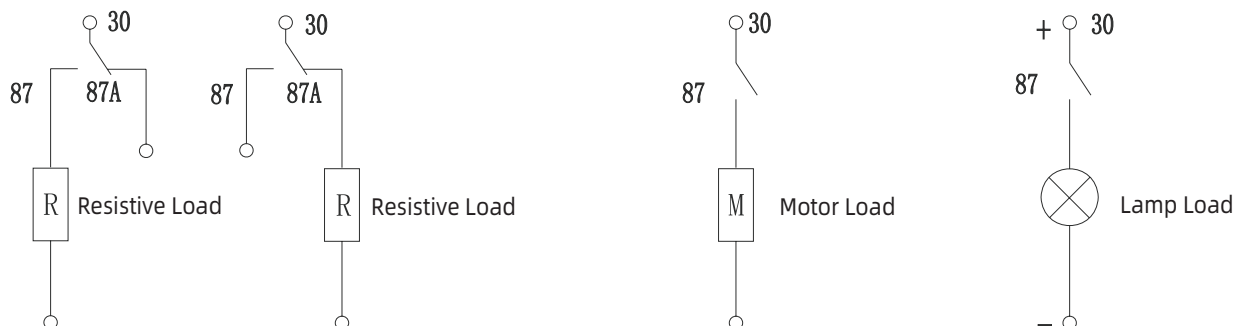
Coil parameters

Rated voltage (VDC)	12	12	24	24
Working current ±10(mA)	133.33	150	66.7	75
coil resistance ±10(Ω)	90	90	360	360
Parallel resistor (Ω)	---	680	---	2700
Equivalent resistance (Ω)	---	80	---	320
coil power (W)	1.6	1.8	1.6	1.8
Maximum allowable voltage (VDC)	150% Rated Voltage			
Maximum suction voltage (VDC)	60% Rated Voltage			
Maximum release voltage (VDC)	10% Rated Voltage			

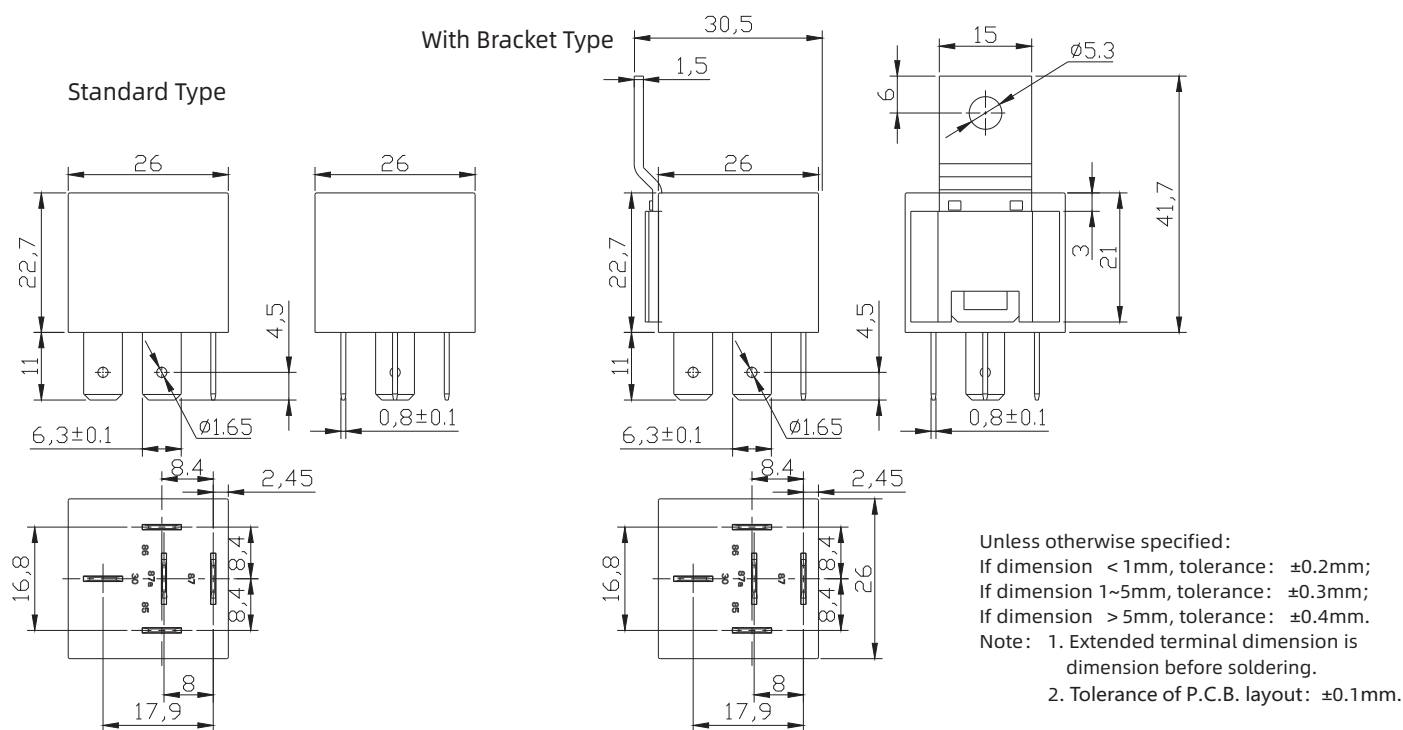
Voltage resistant insulation parameters

insulation resistance	100MΩ Min.(500VDC)
Initial Dielectric Strength	Between open contacts:500VAC, 50/60Hz 1min. Between contacts and coil:500VAC, 50/60Hz 1min.

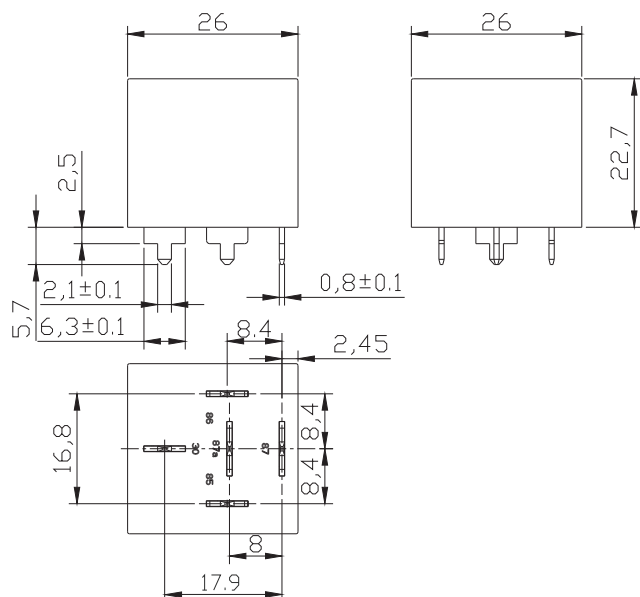
Wiring Diagram for different Loads



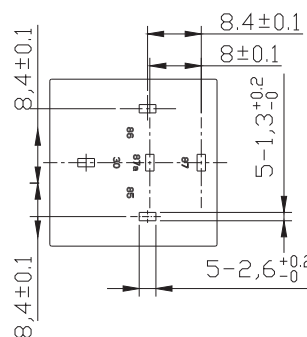
Outline Dimensions, Wiring Diagram (unit:mm)



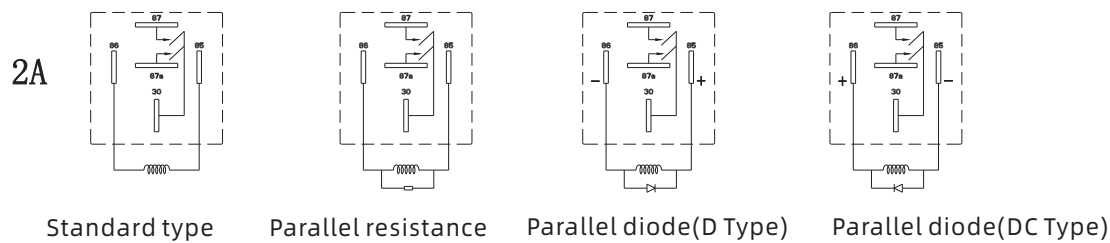
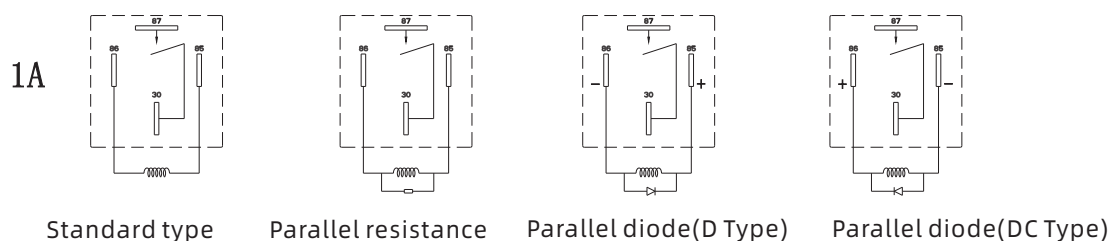
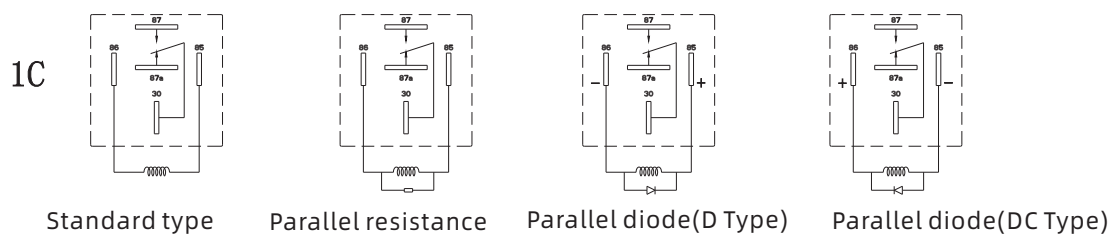
PCB type



P.C.B. Layout



Electrical schematic diagram



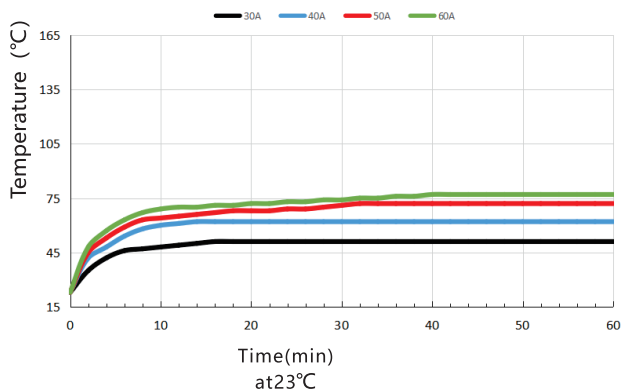
Ordering Information

SARN	-S	-1	12	D	M	F	R	-XX	Special Parameter: Nil-Standard type,01-terminal without hole
									Accessory Form: Nil-without accessory, R-Parallel resistor D-parallel diode(see wiring diagram) DC-Parallel diode(see wiring diagram)
									Mounting type : Nil-without bracket, F-with iron bracket,P-PCB type
									Contact Form: M-Form A
									Coil Power: D- 1.6W /1.8W
									Coil Voltage(VDC): 12 , 24
									Number of Poles:1-1 Pole
									Protective Construction:Nil-Dustproof , S-Fluxproof
									Type Designation:SARN

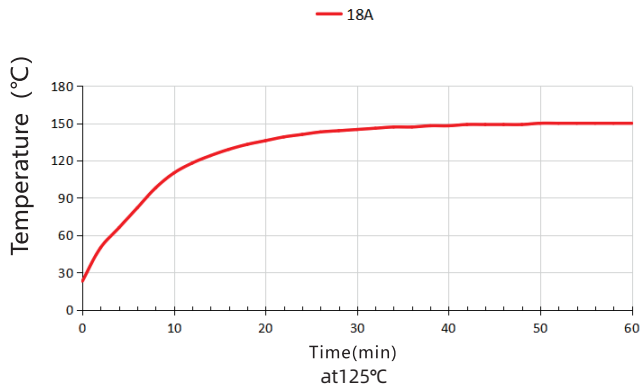
Note: (1) The customer's special requirements need to be formulated together with Sanyou.

Characteristic Curves

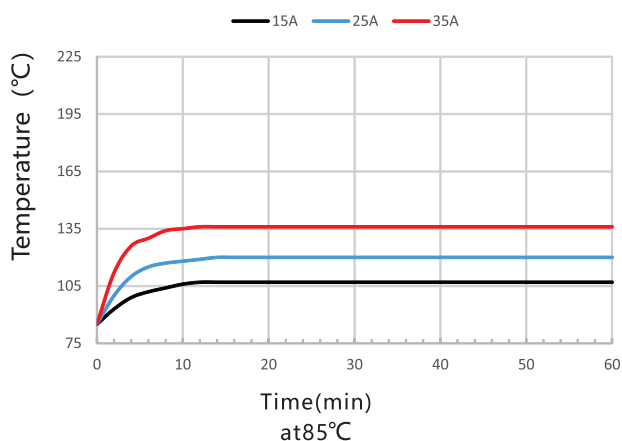
Coil Voltage: 12VDC
 Load Current: 30A,40A,50A,60A



Coil Voltage: 12VDC
 Load Current: 18A



Coil Voltage: 12VDC
 Load Current: 30A,40A,50A



Disclaimer

This product specification is for reference only, subject to change without prior notice. It is not possible for Sanyou to evaluate all the performance parameter requirements of relays in each specific application field, so customers should choose the suitable product according to the specific application conditions. If you have any questions, please contact us for more technical support, but the customer should be responsible for product selection.