IBEST Electrical & Automation

**IBEST ELECTRICAL CO.,LTD**

PATECH AUTOMATYKA PRZEMYSŁOWA

Product Catalog ンンン

Code   SSR- A

Features

*Load current range: AC 10A, 25A, 30A, 40A, 50A, 60A, 80A, 100A.
*Load voltage range: . AC 24~660V AC.
*Control voltage: DC 3~32V; Control current: 6mA~25mA.
*Input constant current control, AC Zero point On and OFF function
*Adop technic of glass passivation triac square piece(>50A), good in dispersing heat.
*Optic isolated (≥2000V AC 1min), dual triac strong output or single triac reversal parallel
  connection strong output.
*Input or output LED indication.
* Widely used in various automatic fields like chemical fibre machinery, temperature controller
   Electric cooker, rubber machinery, fountain control, numerical control machinery…etc.

Product model is named:
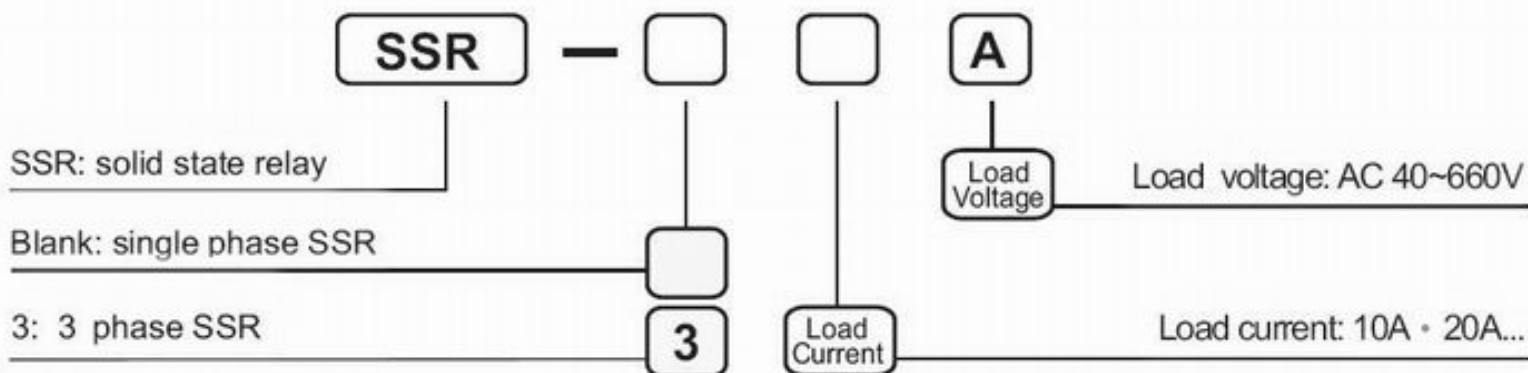
2. Ordering Code:

Model and Type	Load Current	Load Voltage	Control Voltage	Appearance
SSR-10A	AC 10A	AC 24~660V	DC 3~32V	Normal
SSR-25A	AC 25A	AC 24~660V	DC 3~32V	Normal
SSR-40A	AC 40A	AC 24~660V	DC 3~32V	Normal
SSR-50A	AC 50A	AC 24~660V	DC 3~32V	Normal
SSR-60A	AC 60A	AC 24~660V	DC 3~32V	Normal
SSR-80A	AC 80A	AC 24~660V	DC 3~32V	Normal
SSR-100A	AC 100A	AC 24~660V	DC 3~32V	Normal

3. Technical Specifications

Property project	Specific parameter
Max. Load Current	AC 10A 25A 40A 50A 80A 100A
Load Voltage	AC 24~660V
Isolated Voltage	≥ 2000V AC 1 min.
Insulation Voltae	≥ 2000V AC 1 min.
Control Voltage	DC 3~32V
Control Current	6mA~25mA
Turn-On Voltage	≤ 1.3V
Off-set leakage	≤ 1.3mA
Off state dv/dt	300v/us
On - Off Time	100ms
Frequency Range	47/63 Hz
Status Indicator	Red LED
Ambient Temperature	-40~80
Net Weight	200g

4. Electrical Connection Drawing:

Nothing

5. The picture of product mix:

SSR⩽50A

SSR⩾50A
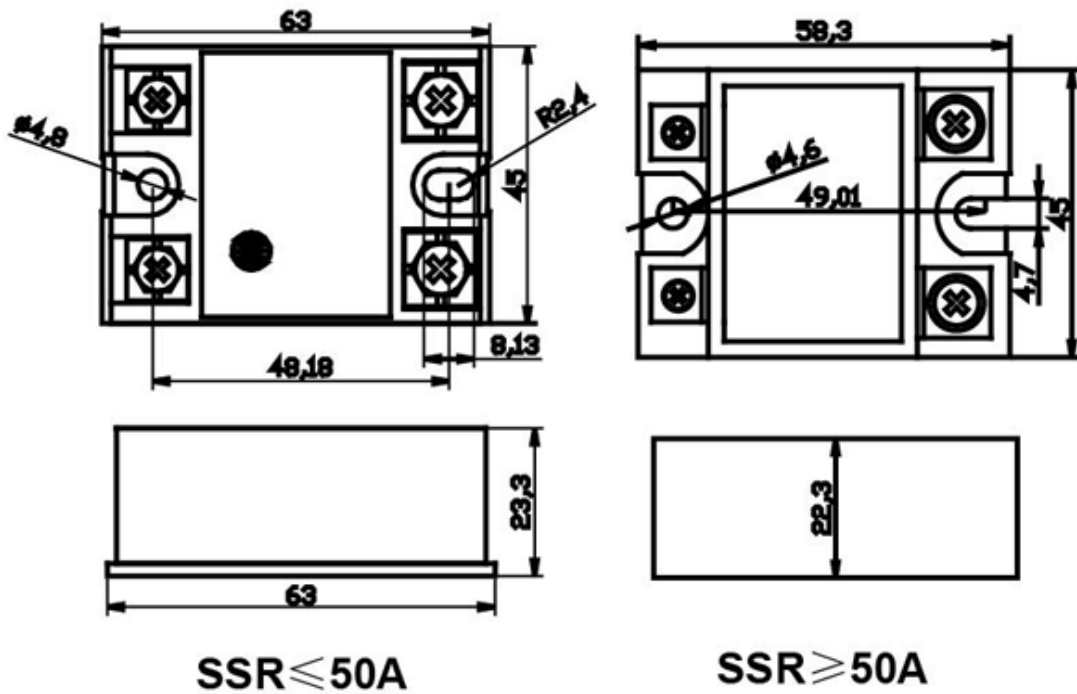
6. Notice:

1- SSR is current drove, when used in logic electrocircuit, try to drive by low voltage +5V DC, to make sure enough load capacity and zero voltage.

2- Multiple SSR input terminals can be connected in Series or in parallel,to make sure each SSR high voltage contact current≥6mA   contact voltage≥4V, viz. in parallel onnection, driving current≥the sum of each input current; In series connection, driving voltage≥the sum of each turn-on voltage (suppose driving voltage=4V).

3- RC absorb loop and off leak current: the Purpose of RC absorb loop is to absorb the surge voltage and increase dv/dt index, but SSR internal RC loop can cause about 1~2mA off leak current. According to experiences, SSR   10A doesn't influence load up to 50W (e.g.motor). Besides, in application of huge inductance load, SSR can be protected by connecting RC absorb loop in parallel with SSR output terminals. In case SSR is used in power extend application, RC absorb loop may cause misaction when power on, therefore, when ordering, customers should indicate the application of SSR, RC absorb loop can be eliminated.

4- Over current   over voltage protection methods:over load and load short circuit is the main reason of damage to SSR. To protect from damage, limit fuse or air switch can be configured with, and magnetism fuse adopted for low capacity SSR. Over voltage protection: in addition to RC absorb loop, metal oxidation resistance   MOV   can be connected in parallel. The size of MOV is decided by absorb power, and the thickness of MOV decide the protected voltage value. In normal condition, SSR of 220V can use PT at 430~600V, SSR of 220V can use resistance at 750~850V.

5- SSR radiator: when SSR is at ON estate, max. heat is calculated by real operating current×1.2W/A, for example, long term working at 50A equals to heat produced by iron of 60W. When design for dispersing heat, ambient temperature circulation conditions (such as natural cooling   fan cooling) and SSR installation density should be taken into account. SSR of 2A~5A needn't radiator; SSR   10A to work long time only need to install flat metal piece with good dispersing heat; SSR   10A need to configure related radiator, but should be cooled by fan when   60

6- SSR selection for load surge current: Most load may cause surge current at the instant of turning on, surge current is another key reason of damage to SSR when heat is not dispersed in time. Therefore, to select SSR, current range is better to reserve some space. Load like incandescent lamp and electric cooker thread can cause 10 times surge current for lasting 1 cycle, this is smilar to SSR anti-surge current feature. To selecting strong SSR, current should be equal to 1.8 times of rated current of electric cooker thread and 1.5 times of rated current of incandescent lamp. AC electric magnet and general relay may cause 4~5 times surge current; AC motor may cause 5~7 surge current when turning on for lasting 10 cycles. For normal SSR to control motor, SSR current range should be 7 times of motor rated current.

7- Cautions for testing SSR: in normal condition, AC SSR has a internal absorb loop and there is a leak current about 0.5~2mA, therefore, when SSR input terminals without control voltage , to measure output terminals by voltage meter, meter still displays voltage. Correct testing method is to connect a lamp up to 15W, connect voltage meter to lamp.