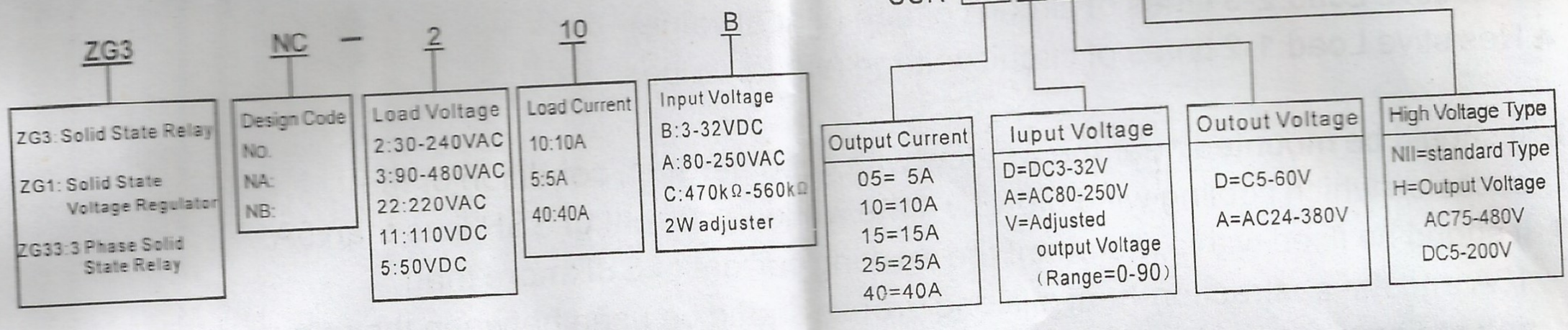
SOLID STATE RELAY INSTUCTION MANUAL

1.General description of Solid State Relay

Solid State Realy is called SSR for short.ZG3 series solid state relay made by our factory is the latest non-contact electronic switch with good ON-OFF performance.Its input contact only requires tinny control current and can be compatible with intergrated circuit of Ttl and CMOS.etc.The outprut return circuit adopts Double-Way controlled silicon or big power transistor to cut on or cut off the loading cureent.The optical couple is adopted between the input and output.

Because Solid State Relay is a non-contact switch element,made up of state stateelements.compared with electromagnetic relay.it is more reliable.It has many advantages.such as long servicelife.Little disturbance to surrounding and strong anti-interference performance,etcterference performance.etc. Lt has wide application fields.And it tends to replace the traditional electromagnetic relay and further expands to the fields which traditionalelectromagnetic relay is not applicable for .like Input/Output Interface of computer andprogram control.electric stove heating constant temperatureequipment,duplicator,color machine,remote control system,industrial automatic device,signl lamp,traffic lamp,stagelighting control equipment,instrumet and meter,medical equipment.duplicator.color enlargr,and rubber & plastic machine. In some special devices which require dampproof,fire proof and ant-corrosinon,and under bad working envionment,SSR hasincomparable superiorty in comparison with traditional electromagnetic relay. It is an ideal productto replace the old generations of products in relay family.

2. Model Description

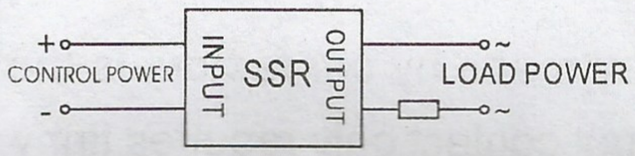


3. Specifications

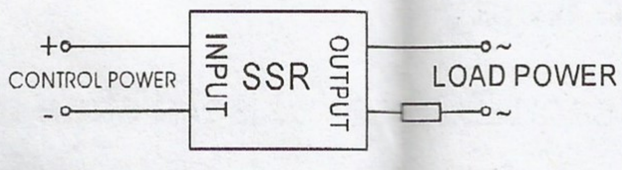
ModeL	Input Specifications						Output Specifications							Cooling condition	Safety work current		Dimensions (mm)
	Control Voltage VDC	Control Current mA	Start voltage VDC	Start current mA	Shut-off Voltage VDC	Working indicate	Output voltage VAC	Output current A	Dielectric strength VAC	On-state voltage drop VAC	Work temperature ℃	Protection: Over voltage	Protection: Over current				
Single Phase	3-32	<25	3	≤7	≤1.5	LED	24-240	0.1-300	≤2500	<1.5	-20 +70	Varistor	Circuit breaker	Fuse	10-80A with radiator 80-300A with cooling fan the abstraction-heat silicone grease shoud be used between the relay and radiator	60%	40%	L58 W44
	3-14	<36	3	≤7	≤1.5	LED	38-480	0.1-300	≤2500	<1.5	-20 +70						
	90-250 VAC	<30	90VAC	≤7	10VAC	LED	480-1200	0.1-300	≤2500	<1.5	-20 +70						
	3-15	<30	3	≤7	1.5	LED	36-600VDC	0.1-80	≤2500	≤1.5	-20 +70	Diode					H32
Voltage Regulator	With regulate potentiometer 470KΩ2W						0-250 0-380	0.1-120			-20 +70	Varistor	Circuit breaker	Fuse	10-30A with radiator 40-120A cooling by fan	60%	40%	
Three Phase	3.5-32	<30	3.5	≤15	1.5	LED	220 380 440 660 1200	10-40 50-80 80-250	≥2500	<1.5	-20 +70	Varistor	Circuit breaker	Fuse	10-80A with radiator 80-250A with cooling fan the abstraction-heat silicone grease shoud be used between the relay and radiator	60%	40%	L104 W73.5 H24
		<70	3.5	≤18	1.5													
	90-250 VAC	<20	90VAC	≤15	10VAC	LED												
	220-440 VAC	<25	220VAC	≤20	30VAC	LED												

4. Wiring Diagram

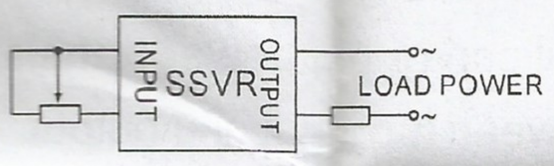
1、AC SSR Wiring Diagram



2、DC SSR Wiring Diagram

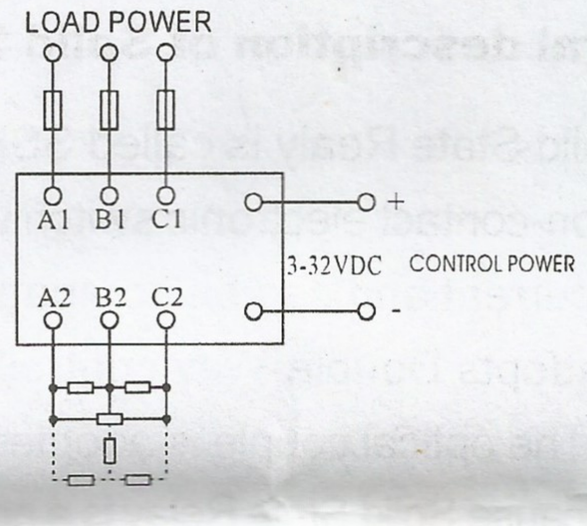


3、Regulator Wiring Diagram



2W470KΩ (or 560KΩ)with potentiometer adjust

4、3 Phase SSR Wiring Diagram



5. Cautions

▶ Input Conditions;

- Undulatory motion coefficient of input voltage should be less than 5%
- To make sure the SSR work in order,increase the input current when the environment temperatuer is low as well as decrease the input current when the environment temperatuer is high.
  It should be enough load capacity when use Intergrated Circuit drive SSR,and
- should use as low as possible O current level.

▶ Output Conditions;

- To make sure the SSR work in order,must use correct ssr extreme specifications and take necessary protection step.
- Choice of peak voltage;
- Inductive Load:2-3 times of circuit voltage (virtual value)
- Resistive Load:1-2 times of circuit voltage (virtual value)

▶ It should be mounted near the window with good aeration condition or the occasion which cooling wind blow by if the working current of SSR less than 5A.

- It shoud be fixed with a radiator if the working current of SSRmore than 10A,and the abstraction-heat silicone grease shoud be used between the relay and radiator.It should be force to wind cooling if the surface temperature of the radiato approximate60℃.

▶ To avoid the temperature-rise overrun the allowable value,the heat emission effect and mounting position sould be fully considerable.It shoud keep a certain space when 2 pieces or more SSR mounting side by side.

- Resistive load should not be more than 60% of rate current,inductive load should not be more than 40% of rate current.

▶

- Not applicable in below occasions
- Three-phase motor device
- Application of over-zero input
- Capacitance load and commutate circuit
- Applications of complete sine wave input
- Occasions can not suffer inferfere cased by phase modulation wave