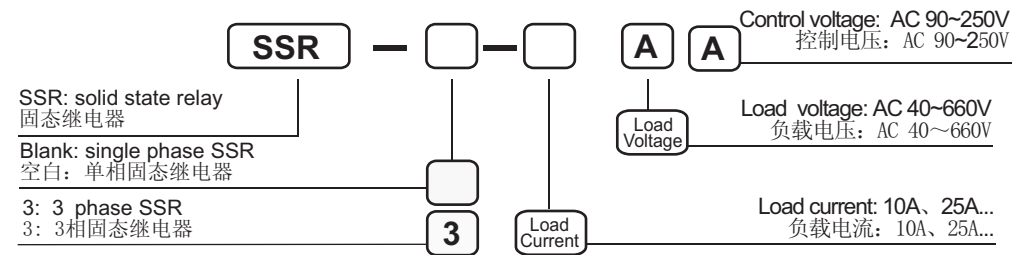


FEATURES (特点):

- Load current range: AC 5A、15A、25A、40A、50A、80A、100A.
负载电流量程: AC 5A、15A、25A、40A、50A、80A、100A.
- Load voltage range: AC 24~660V AC.
负载宽电压: AC 24~660V.
- Control voltage: DC 3~32V、Control current: 6mA~25mA.
控制电压: DC 3~32V、控制电流: 6mA~25mA.
- Input constant current control, Zero Crossing turn-on, Zero current turn-off.
输入恒流控制, 交流过零通断 (随机触发型可订做).
- Adopt technic of glass passivated SCR square piece(>50A), good in dispersing heat.
采用玻璃钝化可控硅方片精心制作, 散热效果佳.
- Dual triac or SCR strong output or single triac or SCR reversal parallel connection strong output.
双向可控硅输出或单向可控硅反并联增强型输出.
- With LED display to detect the operating of devices.
输入LED显示.
- Widely used in various automatic fields like chemical fibre machinery, temperature controller Electric cooker, rubber machinery, fountain control, numerical control machinery...etc.
适用于化纤机械、电炉温控、橡胶机械、喷泉控制、数控机床等各种自动化控制领域.



1.ORDERING CODE (订货编码):



2.TECHNICAL SPECIFICATIONS (技术参数):

PART. NO (型号)	RANGE (量程)	TECHNICAL SPECS (技术参数)	
SSR-5A(A)	AC 5A	Max. Load Current (负载最大电流)	AC 5A、15A、25A、40A、50A、80A、100A
SSR-10A(A)	AC 15A	Load Voltage(负载最大电压)	AC 24~660V
SSR-25A(A)	AC 25A	Isolated Voltage (隔离电压)	≥ 2000V AC 1 min.
SSR-40A(A)	AC 40A	Insulation Voltage (绝缘电压)	≥ 2000V AC 1 min.
SSR-50A(A)	AC 50A	Control Voltage (控制电压)	DC 3~32V / AC 90~250V
SSR-80A(A)	AC 80A	Control Current (控制电流)	6mA~25mA (自动限流)
SSR-100A(A)	AC 100A	Turn-On Voltage (通态压降)	≤ 1.3V
		Off-set leakage (断态漏电流)	≤ 1.3mA
		Off state dv/dt (电压上升率)	300v/us
		On - Off Time (通断时间)	100ms
		Frequency Range (频率范围)	47/63 Hz
		Status Indicator (动作状态指示)	Red LED
		Ambient Temperature(工作环境温度)	-40~80℃
		Net Weight (净重)	200g

PART. NO (型号)	RANGE (量程)	TECHNICAL SPECS (技术参数)	
SSR-3-15A(A)	AC 15A	Max. Load Current (负载最大电流)	15A、25A、40A、50A、80A、100A
SSR-3-25A(A)	AC 25A	Insulation Voltage (绝缘电压)	≥ 2000V AC 1 min.
SSR-3-40A(A)	AC 40A	Control Voltage (控制电压)	DC 3~32V / AC 90~250V
SSR-3-50A(A)	AC 50A	Control Current (控制电流)	12mA~20mA
SSR-3-80A(A)	AC 80A	Turn-On Voltage (通态压降)	≤ 1.5V
SSR-3-100A(A)	AC 100A	Off-set leakage (断态漏电流)	≤ 1.0mA
		Off state dv/dt (电压上升率)	300v/us
		On - Off Time (通断时间)	10ms
		Frequency Range (频率范围)	47/63 Hz
		Status Indicator (动作状态指示)	Red LED
		Ambient Temperature(工作环境温度)	-40~80℃

3.OPERATION CAUTIONS (使用注意事项):

- SSR is current drive, when used in logic electrocircuit, try to drive by low voltage +5V DC, to make sure enough load capacity and zero voltage.
SSR为电流驱动型, 在逻辑电路驱动时应尽可能采用低电平5VDC输出进行驱动, 以保证有足够的带负载能力和尽可能低的零电平.
- 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 connection, driving current ≥ the sum of each input current; In series connection, driving voltage ≥ the sum of each turn-on voltage (suppose driving voltage = 4V).
多个SSR的输入端可以串、并联, 但应满足每个SSR高电平时触发电流大于6mA、触发电平电压大于4V、也即并联驱动电流应大于多个输入电流之和; 串联时驱动电压应大于多个开启电压 (以每个驱动电压为4V计算) 之和.
- RC absorb loop and off leak current (RC吸收回路和断态漏电流): 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. RC吸收回路的作用为吸收浪涌电压提高dv/dt指标, 但SSR内部的RC回路会产生约1~2mA的断态漏电流, 根据经验, 10A以下SSR的漏电流对50W以上功率的负载 (如电机) 基本无影响. 另外在实际应用感性负载场合, 还可以在SSR两输出端再并联RC吸收回路以保护SSR. 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.
若SSR用于功率扩展场合, 由于其内部RC吸收回路在上电时产生充放电会有误动作, 因此在订货时请说明SSR的用法, 内部免装RC吸收.
- Over current、over voltage protection methods (过流、过压保护措施): 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.
过流和负载短路是造成SSR永久性损坏的主要原因, 选用快速的熔断器和空气开关是过流保护方法之一. 对于小容量的SSR也可选用磁质保险丝. 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 压敏电阻 at 430~600V, SSR of 220V can use resistance at 750~850V.
过压的保护除SSR内部有RC吸收回路外, 还可以采取并联金属氧化物压敏电阻 (MOV)、MOV面积大小决定吸收功率、MOV的厚度决定保护电压值. 一般220V系列SSR可选取430~600V的压敏电阻、330V系列SSR可选取750~850V的压敏电阻.
- SSR radiator (SSR的发热与散热): 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℃
SSR在导通时的最大热量按实际工作电流 × 1.2W/A来计算, 例如50A的长期工作电流会产生相当于60W电烙铁所产生的热量. 在散热设计时, 应考虑到环境温度, 通风条件 (自然冷却、风扇冷却) 及SSR安装密度等因素. 2A至5A系列不需外加散热器, 10A以上需装在相配套的散热器上, 当散热温度大于60度时应用风扇冷却.
- SSR selection for load surge current (各种负载在浪涌特性SSR的选择): 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. 许多负载在接通瞬间会产生浪涌电流, 由于散热不及时, 浪涌电流与过流一样是造成SSR损坏的主要原因, 选型时在电流上应留有相应余地. Load like incandescent lamp and electric cooker thread can cause 10 times surge current for lasting 1 cycle, this is similar 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.
在白炽灯、电炉丝等负载接通时有近10倍的浪涌电流, 持续1个周波左右, 这与普通型SSR的抗浪涌过流特性相接近. 选择增强型SSR的电流等级应选为1.8倍于电炉丝的额定电流和1.5倍于白炽灯的额定电流. 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.
交流电磁铁、中间继电器会产生4~5倍的浪涌电流, 交流电机在启动过程中也将产生5~7倍浪涌电流, 持续10个周波. 一般控制电机的SSR电流等级应选7倍于交流电机的额定电流.
- Caution for testing SSR (测试SSR时应注意的事项): 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.
通常交流固态继电器内部已装有阻容的吸收回路, 因而存在漏电流 (0.5~2mA). 故SSR在输入端不加控制电压时, 输出端如用电压表直接测量, 则电压表仍指示有电压. 正确测试方式应接一个15W以上功率的灯泡作负载, 电压表并接在负载上.