Solid State Relay XURUI XSSR-DAxxxxM1





- \circ $\;$ Input and output electro-optic isolation or transformer isolation
- o Input constant current control and LED display, control signal and TTL & CMOS logic is compatible
- Bidirectional controlled sillion or unidirectional controllable counter-parallel output, zero electric current opening zero electric current shutdown
- o Power solid state uses the SCR chip counter-parallel output and working is stable
- o Buit-in resistance-capacitance absorbing circuit, dead zone voltage and small harmonic interference
- o Higher than of 2.5KV safe isolation voltage between the input output and ledger wall's
- Small volume,small input power, non-contact, sparkless, noiseless, non-machinery wear, anti-vibration and the long life

Model & Meanings



Main Application

- Industrial automation installment
- Computer periphery connection
- Illumination, stage lighting control
- Electric stove,heating,warm control
- Street light,signal light,traffic light,etc
- AC motor control
- Intermediate relay, solenoid valve control
- Numerical control machinery, external guidance system
- Color photo enlargement, film processing equipment, injection machinery
- Automatic fire control and security system

Interior schematic diagram and basic property test



Application attentions

- Control voltage and working voltage must be stable, the coefficient of fluctuation should guarantee in 10%, when wiring should pay attention to the solid state relay's polarity to avoid wrong connection causing solid state relay permanence Damage. SSR should be mounted away from origin of heat and good radiating conditions. In the case that the ambient temperatures is too high or bad radiating condition, it should increase the current margin to ensure SSR good working. In the case that the ambient temperatures is too high or bad radiating condition, it should increase the current margin to ensure SSR good working. SSR can be even and good radiating. When mounting SSR, fastener must be tightened to prevent increasing resistance caused by screw loosing. Even spreads heat conduction silicon, maintains the solid state relay can be even good radiation.
- Should use the corresponding overflow and the overvoltage protection measure.Overflow protection may select the fast fuse that response time is 10µS. Fuse size choose the practical work current 1.2-1.5 times.Overvoltage protection may use RC resistance-capacitance absorbing circuit and varistor. This series SSR has built in RC resistance-capacitance. Varistor choosing may according to the working voltage and current. 220V voltage select the varistor of 430-470V, 380V voltage select the varistor of 750-820V,the varistor discharge current capacity choose according to the current size.

Solid state relay's radiating and heat sink choice

- Because the inside switch components have interface resistance function, solid state relay can have certain heat in its breakover time. Therefore guarantee solid state relay normal work must have the good radiation condition. For example: Natural cooling, radiation cool, the radiator to add wind cooling and so on. Below 5A may use the natural cooling, above 10A must add the radiator to cool, above 40A needs to add the ventilator strongly cold.
- Not only radiator's effect related with the size, but also with the ambient temperature , the well ventilated condition and installment tightness has the relations. Radiation effect reference standard: make the solid state relay's bottom board 's temperature not to surpass 75°Cæ it may install a 70°Cæ (NC model) to connect in the control loop, when the radiator temperature surpasses the valve value will separate the control loop, thus protection solid state relay and equipment, particularly in the actual large current , big mounting density and high ambient temperature situation. In addition, need to consider whether solid state relay itself match with the radiator , as well as radiator's installment space in cabinet, guaranteed that the solid state relay's board temperature does not surpass 75°Cæin the worst situation.
- Our company has many series radiator specification for choice, but each model SSR is not to certainly match the only
 model radiator, they both have not completely corresponding relationships. Solid state relay's Calorific capacity only
 related with the actual load current, not completely consistent with current rank. (Calorific capacity formula: Calorific
 capacity = actual load current×1.5 tile/amp)

Dimensions/Specification

control voltage	3-32VDC
control current	6-25mA
reverse voltage	32VDC
guarantee close voltage	1VDC
guarantee open voltage	3VDC
load voltage	75-480VAC
load max current	60A-200A
load min current	0.05A
breakover voltage	≤2VAC
output leakage current	≤8mA
medium withstand voltage	≥2500VAC
insulating resistance	≥100MΩ
switching time	≤10mS
freuquency range	50-60Hz
operating temperature	-20-70°C
load current safety factor	resistive load50-60%
	inductive load30-40%

SSR Connection Diagram

