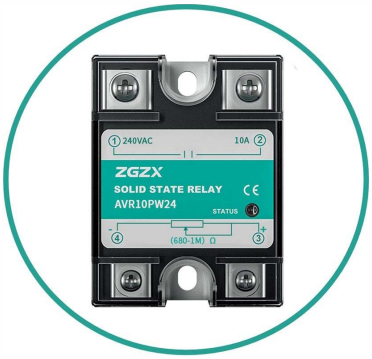


AVR series is a non-isolated resistance regulating AC solid-state voltage regulator, which integrates a trigger circuit, a resistance-capacitance absorption circuit, and a bidirectional thyristor. Easy to use. When applied, only an external adjustable resistor (or wirewound potentiometer) is needed to realize the pure resistance load AC output through the potentiometer manual adjustment. section to change the voltage on the resistive load to adjust the output power. Mainly used in incandescent lamp dimming, industrial equipment temperature control, resistive heating element parts, conveyor belt speed control, and other automatic power adjustment occasions. Note that the input and output of this product are not isolated, please use absolute Well edged potentiometers and knobs to prevent electric shock

Features

- SCR phase-shifted output, wide adjustment range
- Built-in resistance-capacitance absorption circuit, surge absorption protection is more reliable
- International Standardized Installation Dimensions
- LED indicates working status
- Epoxy resin potting, strong anti-corrosion and anti-explosion ability
- Flame retardant housing with safety cover
- Simple to use, the output voltage can be adjusted by external potentiometer

Ordering Options

AVR — **AVR Series**

AC Voltage
Regulating SSR

10 — **Load Current**

10: 10Amps
25: 25Amps
40: 40Amps
60: 60Amps

PW — **Potentiometer Control**

PE: 470KΩ/2W
PW: 680KΩ/2W

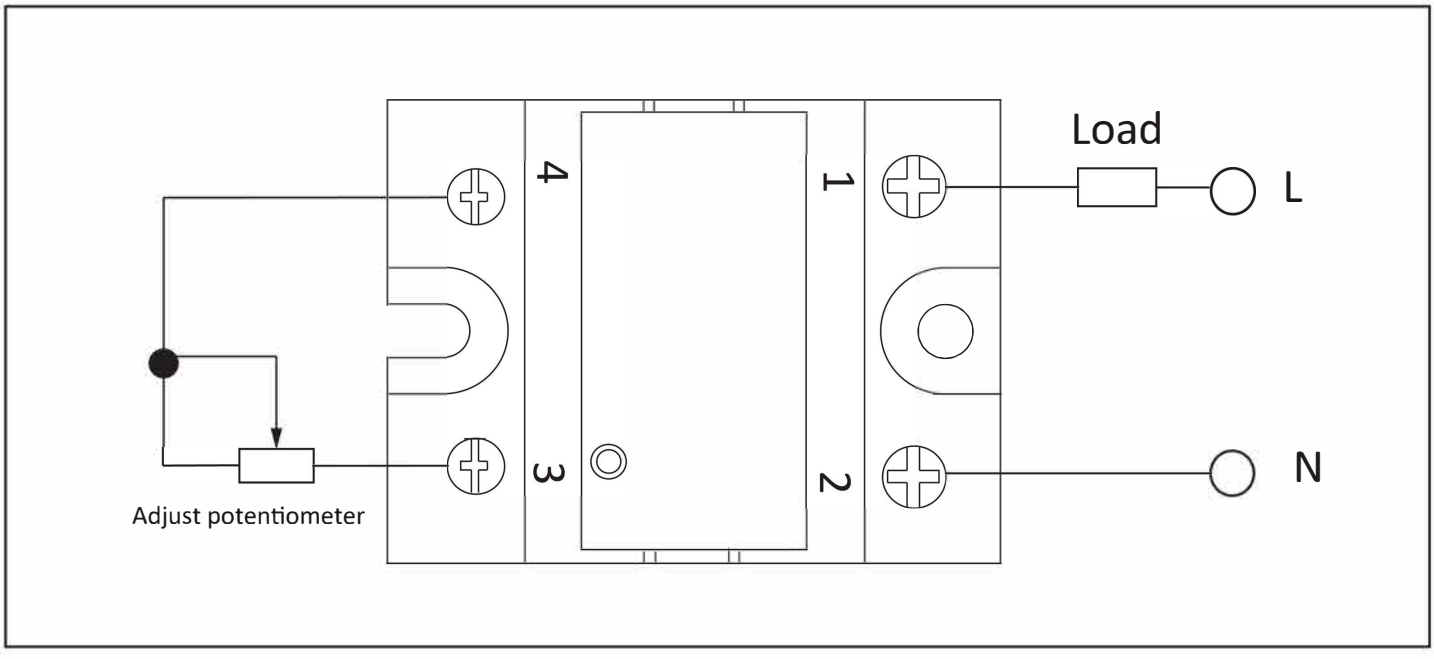
22 — **Output Voltage**

22: 0-220VAC
38: 0-380VAC

Product Selection

Potentiometer Control	Output Voltage	Rated operational current			
		10 Amp	25Amp	40Amp	60 Amp
470K	0-220VAC	AVR10PE22	AVR25PE22	AVR40PE22	AVR60PE22
470K	0-380VAC	AVR10PE38	AVR25PE38	AVR40PE38	AVR60PE38
680K	0-220VAC	AVR10PW22	AVR25PW22	AVR40PW22	AVR60PW22
680K	0-380VAC	AVR10PW38	AVR25PW38	AVR40PW38	AVR60PW38

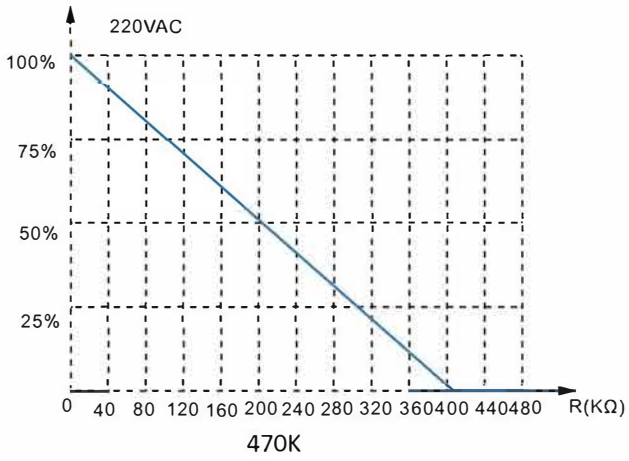
Connection Diagram



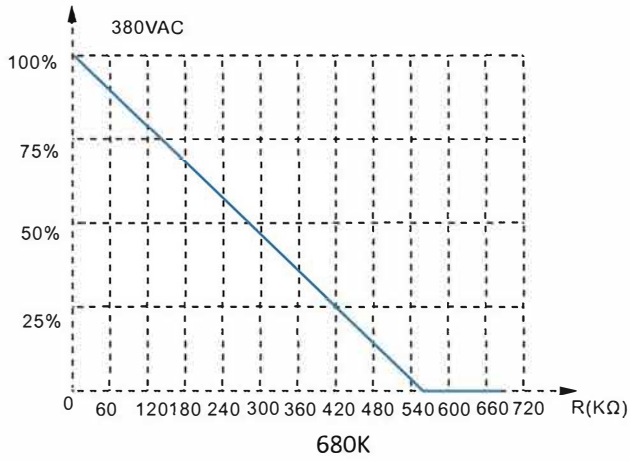
Specifications

Parameter	Units	Specification Limits			
Model No.:AVR	Amp	10	25	40	60
Load Current Range	Arms	0.05-10	0.05-25	0.05-40	0.05-60
Potentiometer Control	Ω	470K/2W or 680K/2W			
Load voltage regulation range	V	0-220VAC or 0-380VAC			
Minimum on-current	mA	50mA			
Maximum on-state voltage drop	V	1.5VAC			
Maximum off-state current	mA	5mA			
On-off time	ms	≤10ms			
Working frequency	Hz	45-65Hz			
Insulation resistance	MΩ	1000MΩ(500VDC)			
Dielectric (Input/Output)	Vrms	2500			
Dielectric (Input-Output/Base)	Vrms	2500			
Ambient Temperature Range	Operating or Storage -30°C to +80°C				
Led Display	Yes				

Adjusting potentiometer resistance and voltage output RMS curve

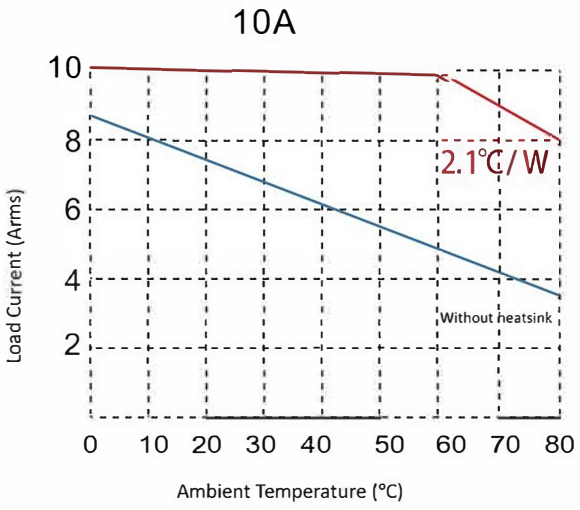


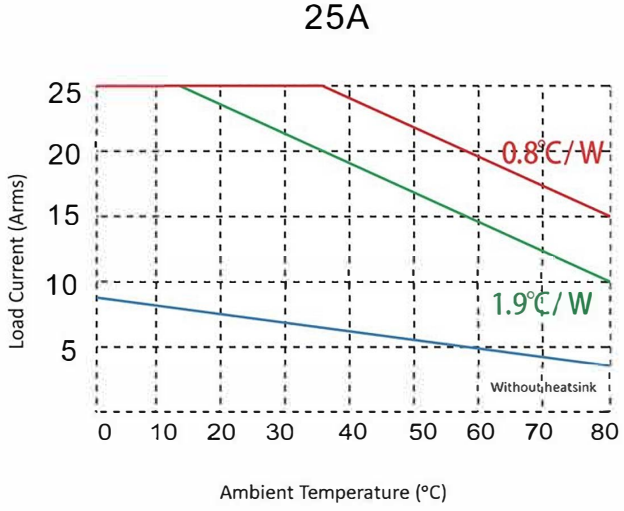
470K

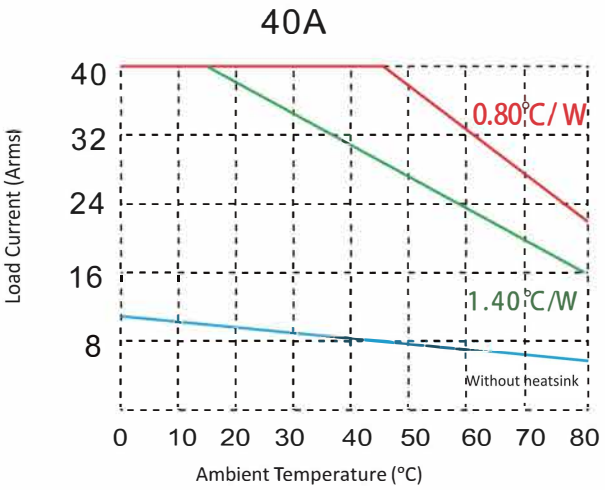


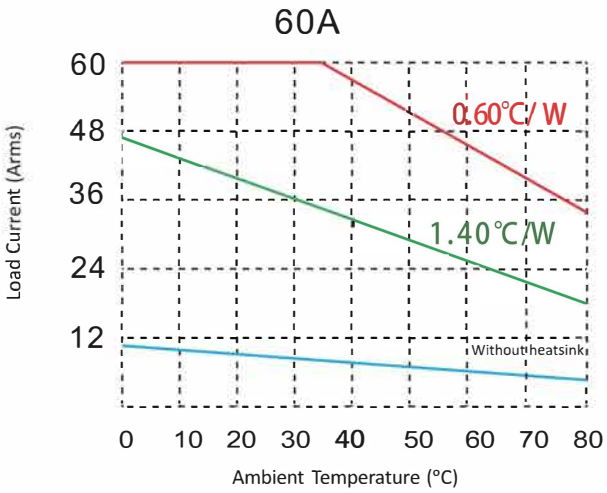
680K

Thermal Derating Curve





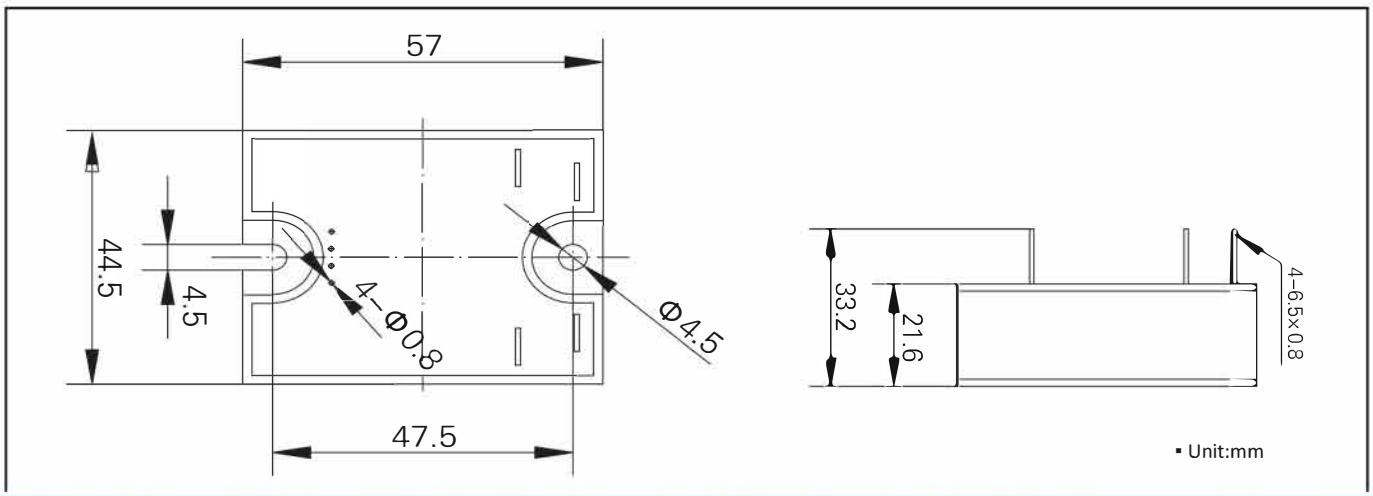




Use precautions

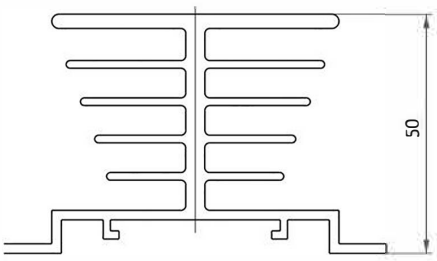
1. Product manufacturers have made great efforts on product quality and reliability, but the semiconductors used in solid state relays Improper selection or use of power devices can lead to irreversible damage. Also due to grid voltage fluctuations (usually ±10%) and the difference in inductive and capacitive reactance, a certain safety factor must be considered when selecting models. For example: electric heating long Period operating current should not exceed 60% of SSR current rated nominal value, motor operating current should not exceed 1/7 SSR current Rated nominal value.
2. When the long-term working current is greater than or equal to 5A, a matching radiator must be installed, and the temperature of the radiator bottom plate shall not exceed 80°C during operation. If the ambient temperature is too high, air cooling must be adopted to accelerate the air flow for better heat dissipation.
3. In order to ensure that the solid state relay is in close contact with the surface of the radiator during the installation process to achieve a more ideal heat dissipation effect, our company Equipped with special thermal conductive film or special thermal conductive silicone grease according to different current levels, please place the thermal conductive film parallel to the solid during installation between the base plate of the state relay and the contact surface of the heat sink, and fasten the fixing screws; for those equipped with thermal grease, please install Evenly apply an appropriate amount of thermal grease on the whole solid state relay base plate, and fasten the fixing screws.
4. When the module is fastened to the surface of the radiator, use M4 screws and spring washers with a torque of 4-6Nm. After 3 hours of use, use M4 screws and spring washers. Tighten once with the same torque.
5. The recommended tightening torque of M3 screws at the control end is 0.8-1Nm, and the recommended tightening torque of M5 screws at the load end is 1.9-2.1Nm.
6. When the wiring of the control potentiometer is long, please use a shielded wire or shield with a metal tube;
7. The product is non-isolated (input and output), the selection of the potentiometer should pay attention to the isolation from the line voltage, installation and use Safety must be paid attention to during the process;
8. The storage requirements of solid-state relays should be moisture-proof, moisture-proof, and avoid rain, drops and violent falls. should be stored in a ventilated, dry, non-corrosive gas environment, the humidity requirements of the environment must be less than 80%.

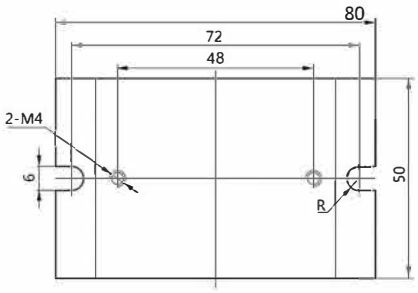
Dimensions



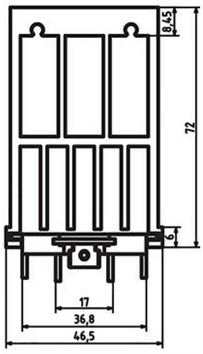
Solid State Relay Heatsink

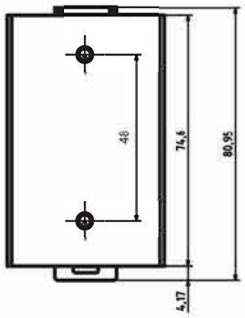
VSR-1 (For AVR10A-40A)

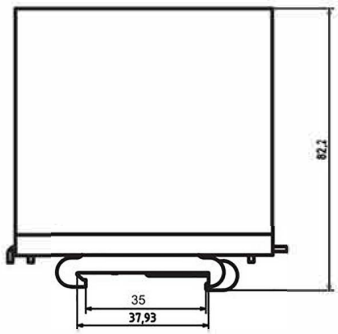




VSR-2 (For AVR10A-60A)







VSR-3 (For AVR10A-60A)