



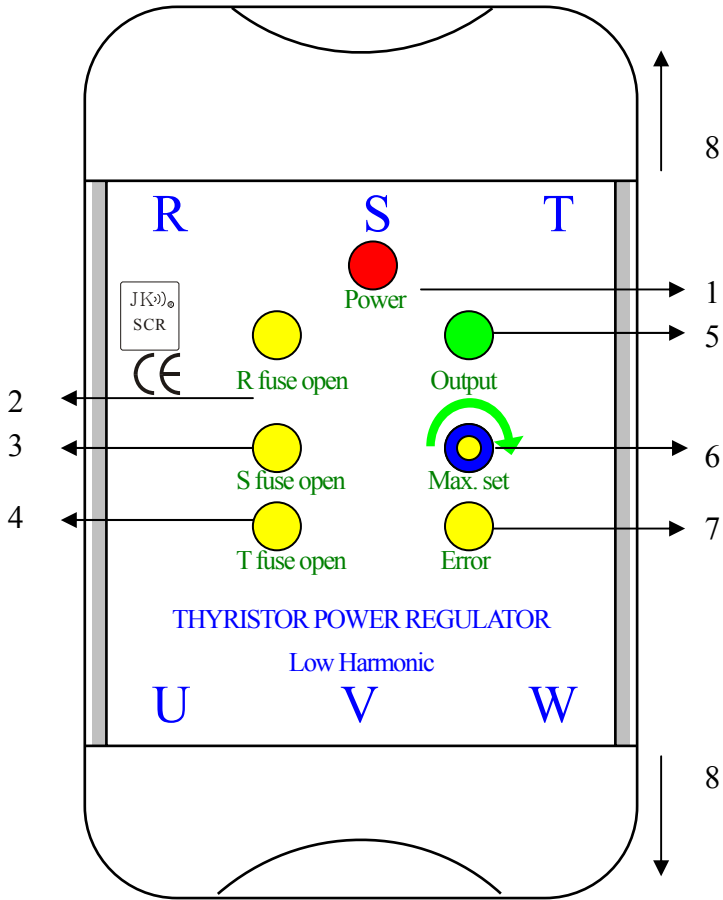
Thyristor Power Regulator – Low Harmonic Series. Hand Book



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I. Instruction & Function of panel:



1. Indication light of auxiliary power.
2. Indication light of fuse blown of R phase.
3. Indication light of fuse blown of S phase.
4. Indication light of fuse blown of T phase.
5. Output indication light.
6. Adjusting knob of max. limit.
7. Error indication light.
8. Direction indication of top and bottom cover, press first then slide.

Instruction of Panel LED signal:

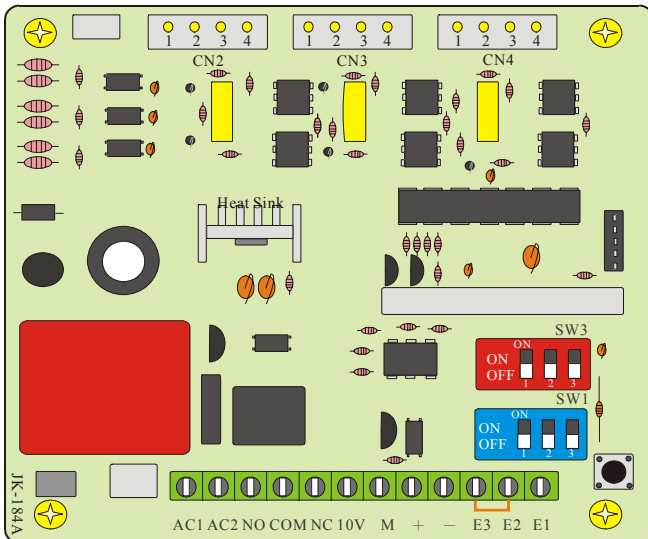
1. Power : the indication light ON when auxiliary power (AC1, AC2) connect with 220 VAC. 50/60 Hz : auto-judging.
2. R fuse open : LED ON for R phase fuse blown, and error LED ON at same time.
3. S fuse open : LED ON for S phase fuse blown, and error LED ON at same time.
4. T fuse open : LED ON for T phase fuse blown, and error LED ON at same time.
5. Output: LED will be glimmered when SCR products output.
6. Max. Set: Adjusting knob of max. limit, current capacity can be adjusted according to the environment or requirement.
7. Error: error LED ON when fuse blown and R,S,T fuses open at same time, LED also ON for machine overheat to the protection.



Q & A

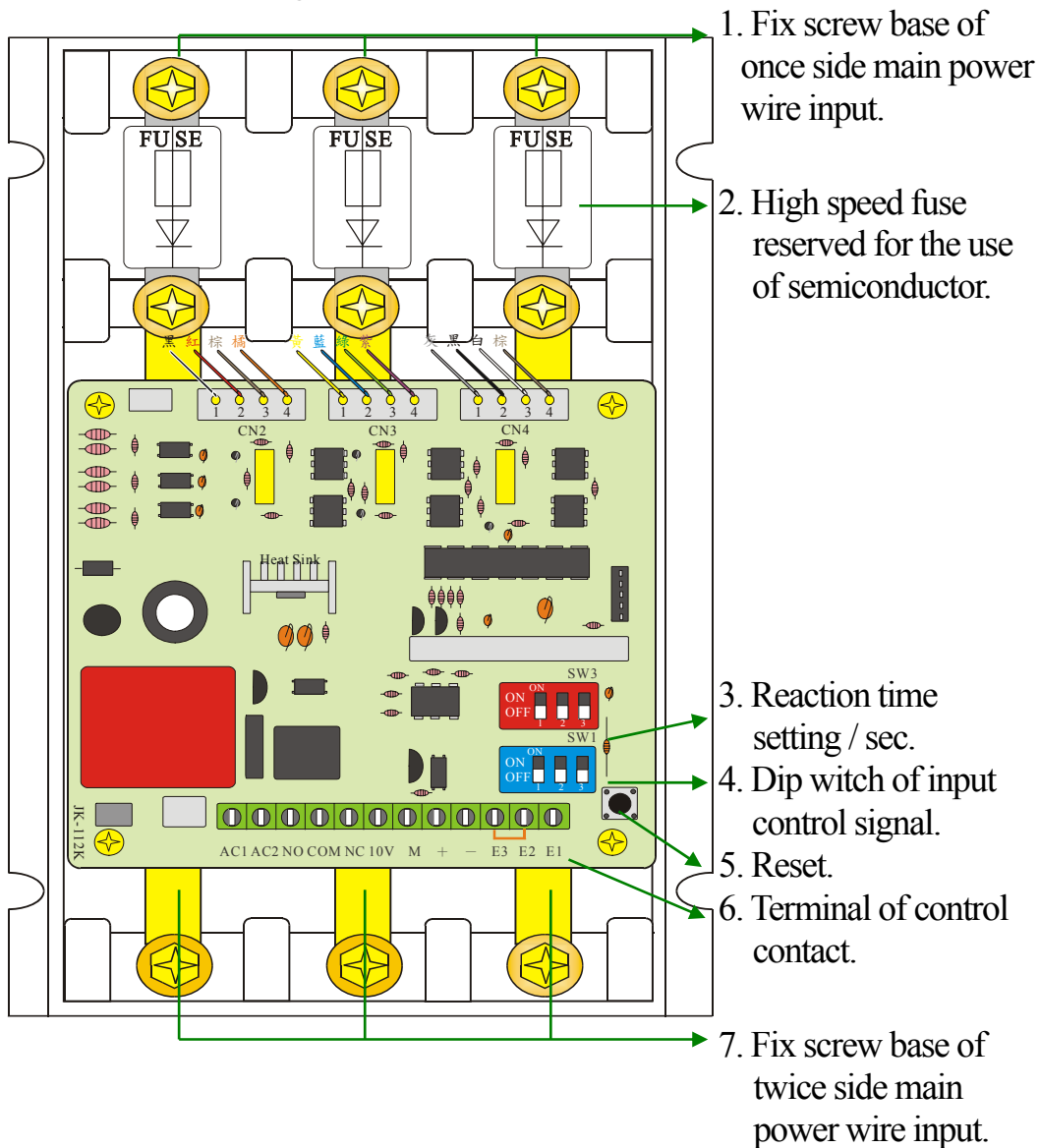
Q: How to reset if indication light of error ON and abnormal condition has been resolved?

A: Please check the problem is load short or machine overheat first, then remove error condition, and OFF auxiliary power, restart auxiliary power or pre reset key after 10 sec., and reset done.



DIP switch: white part of the dip switches need to be adjusted to the location.

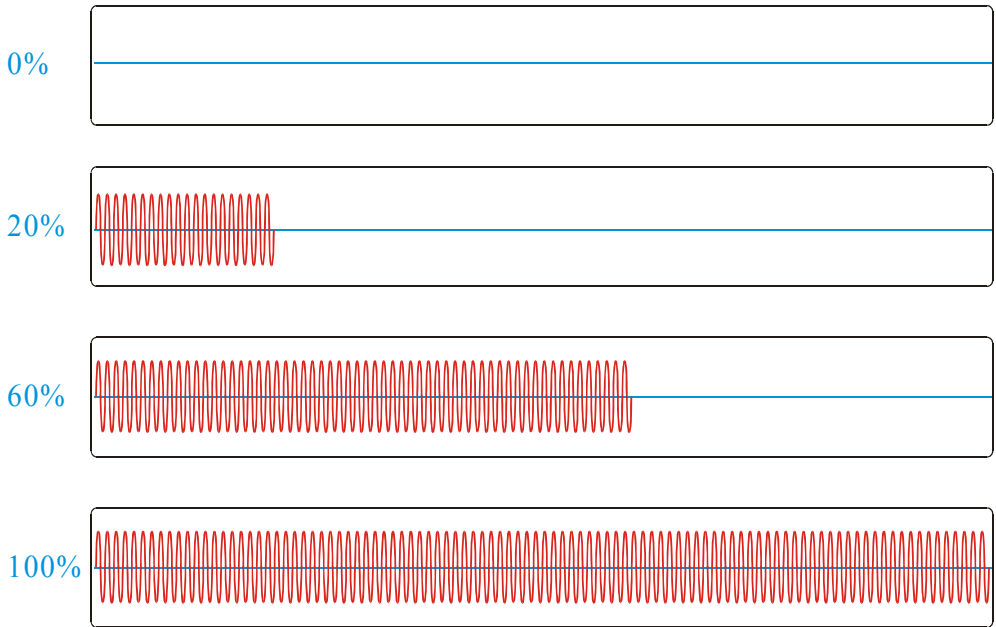
Interior Structure Diagram:



DIP switch: white part of the dip switches need to be adjusted to the location.

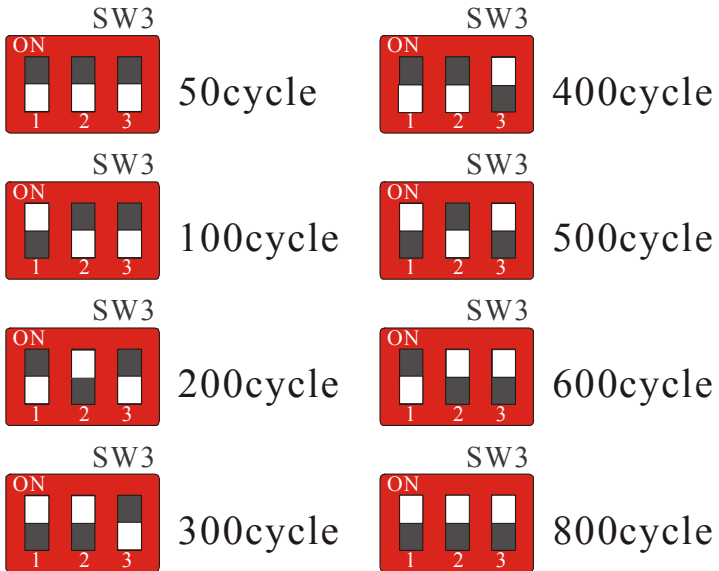
II. Introduction of function:

Output : proportional



Characteristics : With signal strong or weak, the units of control fluid cartridge (SCR) are in sine waves. The units of control are in sine waves, and SCR will be conducted always when AC power is zero voltage, so no harmonic waves produced to interference to other computer instrument and equipment.

8 different time cycles choice



The cycle can be adjusted with the requirement, ex-factory settings is 100 cycle.

Eg : to 100 cycle, cycle of output 20% is 20 cycle, and 50% is 50 cycle.

to 500 cycle, cycle of output 20% is 100 cycle, and 50% is 250 cycle.

DIP switch: white part of the dip switches need to be adjusted to the location.

III. Product characteristic & protection:

1. Maximum supply and exterior VR can be adjusted.
2. Signal receiving can be adjusted, offer : 4 – 20 mA, 0~5V, 1~5V, 0~10V, 2~10V. Ex-factory standard settings is 4~20 mA.
3. Use frequency ; 50/60 H, auto-judging switching.
4. Overheat protection, auto protection with system retrip when machine I overheat.
5. The use-life of fan can be extended to 2 – 3 times when heat sink running at 55°C and stop at 45°C.
6. To check each phase's broke with 3 LED indication lights of R.S.T., eg : the user can change fuse immediately without checking by electric meter when fuse blown.
【3 LED of R, S, T and error LED ON at same time if any two phases' fuse blown, because 3 phases are no current passed at same time.】
7. For protection of load short, includes semi-conductor's fast fuse to prevent.
8. For error output contact, offer one set (1A, 1B) error contact output as system emergency control when machine over heat or fuse blown.

IV. Technical specification:

Main power: 220 VAC, 380VAC, 440VAC, 480 VAC \pm 10%

Control power: 220 VAC \pm 15 % 【offer 110 VAC for choice, please tell our salesmen if necessary.】

Rated current: 25A, 35A, 50A, 60A, 80A, 100A, 125A, 160A, 180A, 200A, 225A, 250A, 300A, 350A, 400A, 600A, 750A.

Operation frequency: 50 ~ 60 Hz \pm 5 %

Output range: 0~100%

Output Way: proportional.

Control signal of input: 4~20mA, 0~5V, 1~5V, 0~10V, 2~10V

Use environment: -10°C ~ 50°C, relative humidity 90%RH↓

Working temperature: -10°C ~50°C

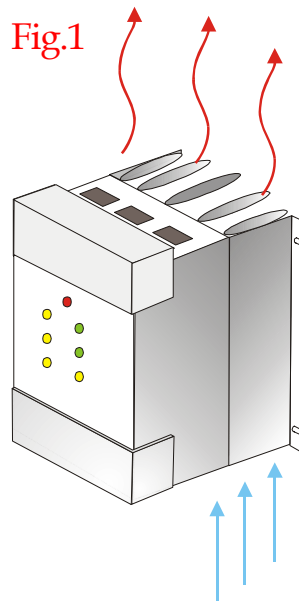
Maximum relative humidity : 93% no congeal as water drop.

V. Attention of Installation :

1. Ventilation : SCR power regulator must be installed in cool and ventilated place, the room temperature must be below 50°C , and higher than -10°C .
2. SCR itself will have heat, therefore, please pay attention to fan's ventilation when install the machine, and keep 10 cm at least from other tools or machine for well ventilation.
3. Please give up hole and down hole when install in the control box in order to cool air enter from down hole and hot air out from up hole; the hole must add filter net to avoid dust or impurities blocking, and please clean regularly to avoid blocking.
4. The fan should be added if the temperature of control box is over 50°C , and give more air convection to keep the temperature of control box under 50°C for best operation.
5. Please set input signal first before installation and power supply to make sure thermometer can be coordinate with the product to run normally.

Explanation of Installation :

Please install the product with this direction, in order to let cool air enter from bottom, and hot air comes out from top. Please add filter net to avoid dust or impurities blocked if the control box has holes, and clean the net regularly to avoid the net blocking.



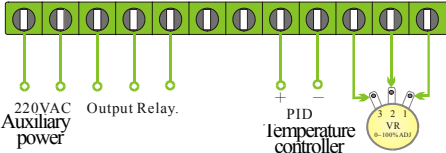


3 Phases SCR power regulator. Low Harmonic. Control wiring Diagram.

Connection for control signals.

Input voltage, current input with adjustable external VR.

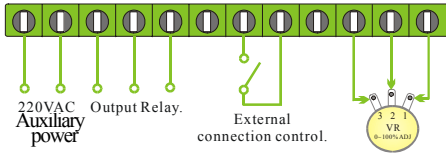
AC1 AC2 NO COM NC 10V M + - E3 E2 E1



Please jump E3 and E2 when external VR not be used.

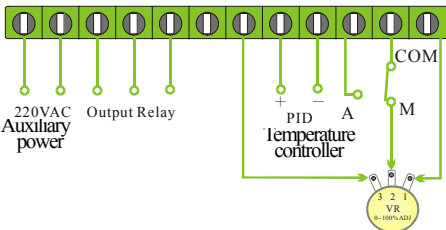
Contact input with adjustable external VR.

AC1 AC2 NO COM NC 10V M + - E3 E2 E1

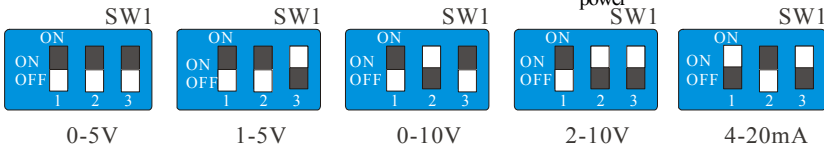


Auto control of PID / Control external of VR.

AC1 AC2 NO COM NC 10V M + - E3 E2 E1

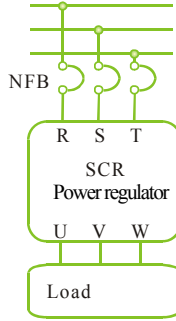


Setting input single.

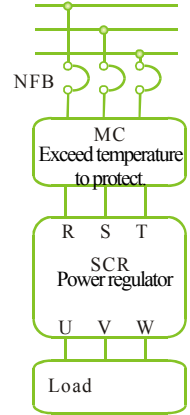


DIP switch: white part of the dip switches need to be adjusted to the location.

Three-phase power

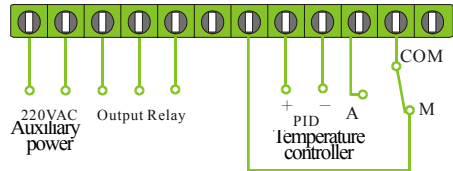


Three-phase power



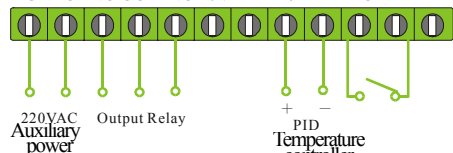
Auto control of PID / Manual full load of output.

AC1 AC2 NO COM NC 10V M + - E3 E2 E1



External connection control of PID input signal.

AC1 AC2 NO COM NC 10V M + - E3 E2 E1



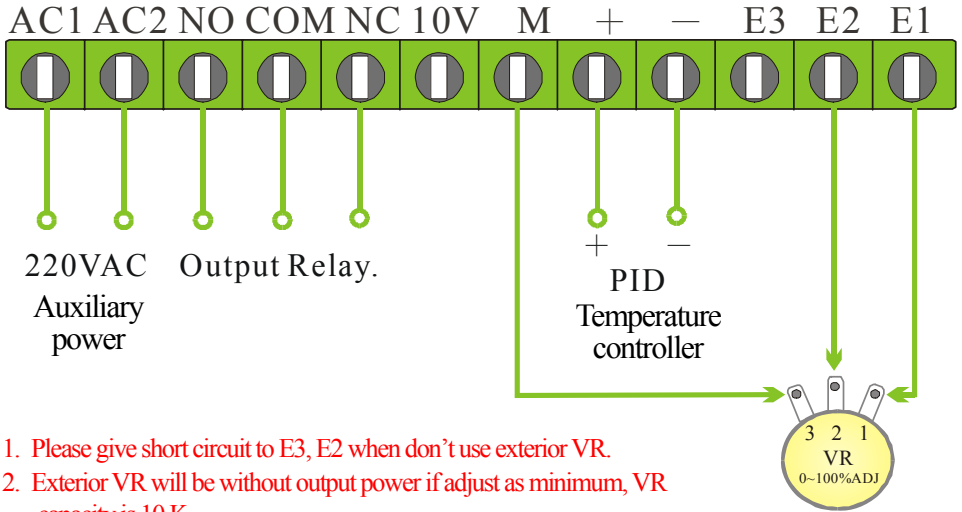
1. Please give short circuit to E3, E2 when don't use exterior VR.

2. Exterior VR will be without output power if adjust as minimum, VR capacity is 10 K.

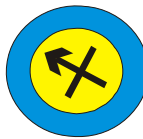
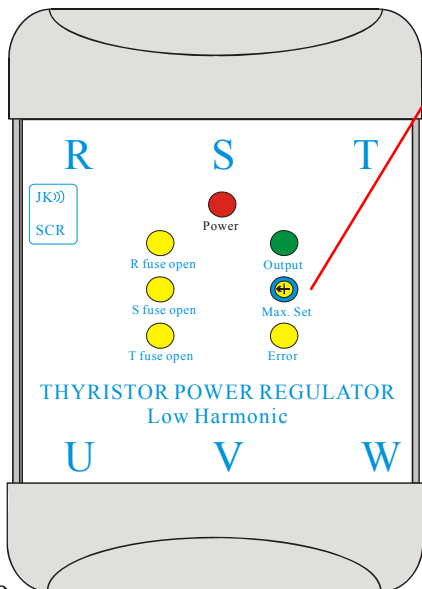
3. Point M is controller output DC5V/100mA.

VI. How to make sure SCR right?

1. Remove original wiring of +, E3, E2, and E1.
2. M connects +, short-circuit of E3, E2.
3. Adjust the knob on panel board, This SCR is OK if Max set output can be adjusted.
4. The value checked should be over 5VDC after check one to M with DC gear of multimeter.
5. The value of one to E3, E2 should be 4.6 ~ 5VDC.



1. Please give short circuit to E3, E2 when don't use exterior VR.
2. Exterior VR will be without output power if adjust as minimum, VR capacity is 10 K.



Max. limit knob of panel.

VII. Environmental characteristics :

Operation position	Vertical
Relative humidity	45%↑, 93 RH, no congeal as water drop.
Room temperature	- 10°C ~ 50°C
Frequency	50 Hz or 60 Hz, auto-judging
3Ø power, voltage	220VAC ^{+10%} 380VAC ^{+10%} 440VAC ^{+10%} 460~480 ^{+10%} °
Vibration	0.5G ↓
Height	1,000M↓ °

VIII. Guarantee of product



We guarantee that our products are conformed to each specification list on the manual; the product can be operating normally with suitable and proper installation.

Warranty : one year from the date of production. We shall offer free maintenance if our product has any flaw certainly within warranty period. The warranty doesn't include error installation, man-made damage, and the damage caused by irresistible natural disasters.

This guarantee offer repair guarantee of the product only, not includes other damage caused by any direct or indirect accidents.

Model No. :	<input type="checkbox"/> JK3PSL-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> JK2PSL-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serial No. :	S/N:					
Date of Installation:	Month:	Date:		Year:		
Agent:						



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