

Three-phase Intelligent AC voltage regulator(SCR)



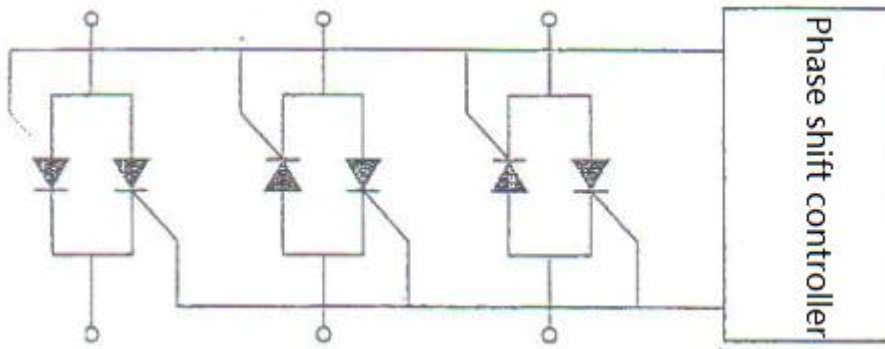
1. Product features:

- This product is a multi-function power integration module, inside combined together three-phase thyristor power circuit, single-chip control phase-shift trigger circuit, signal detection sensor circuit, and voltage regulator circuit.
- It is a complete power phase-shifted open-loop control system that enables adjustment of the load voltage.
- With built-in linear control circuit, good waveform symmetry, good linearity, high precision control, stable work.
- Widely used in a variety of inductive load and resistive load, such as AC motor speed, industrial automation, electric heating control, mechanical and electrical integration, all kinds of power, chemical, textile, communications and other fields.
- Can achieve manual control, automatic control interface, the main circuit input without phase sequence requirements.

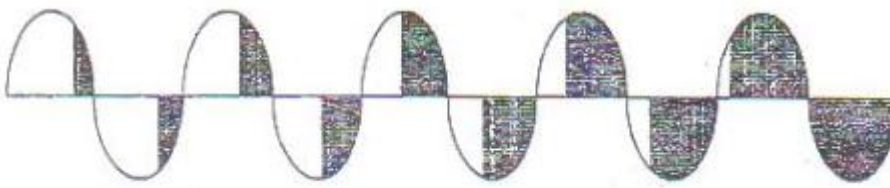
2. Technical data:

- Rated voltage: 3-phase 380VAC (three-phase four-wire)
- Rated current: 60A, 100A, 200A
- Frequency: 50Hz, 60Hz
- Working power supply: this product has built-in power, operating voltage AC220V, control terminal ① must be connected to the power N-side when using it.
- Output voltage: Output voltage asymmetry $\leq 5\%$
- Manual control: external connected to potentiometer 10K/2W

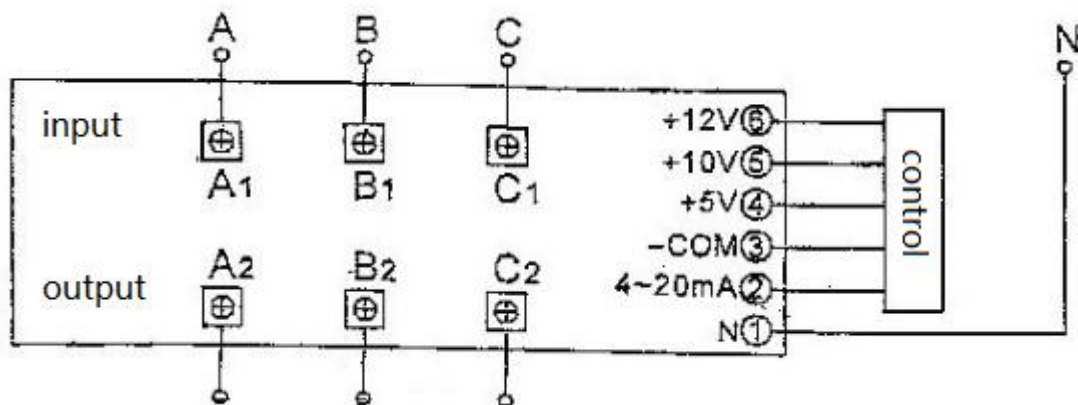
•Internal electrical connection diagram:



•Phase control chart:



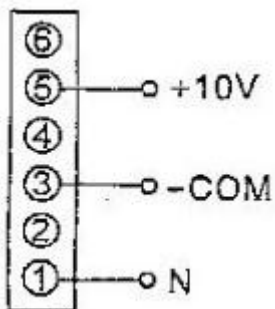
3.Wiring diagram:



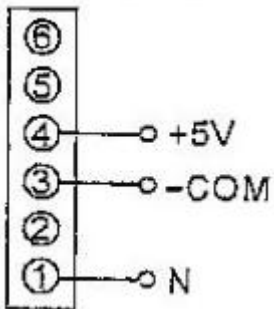
•Control methods:



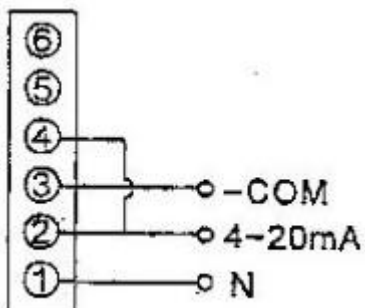
1) DC0~10V



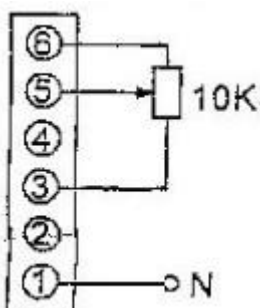
2) DC1-5V



3) 4-20mA

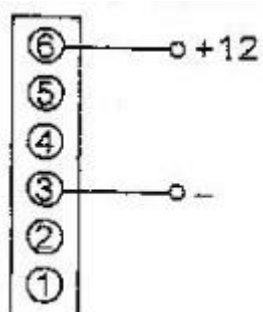


4) 10K potentiometer



5) Using external working power supply

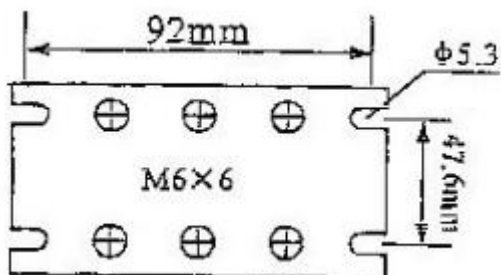
If using external power, voltage DC1V, current $\geq 1A$. Control terminal ① must be disconnected with power N side, other connection remains.



4. Product dimension

Outline dimension: LxWxH=105mm x 73mm x 63mm

Installation dimension: 92mm x 47.6mm (ϕ 5.3mm)



5.Precautions

- 1) The main circuit uses three-phase four-wire input, no phase sequence requirements.
- 2) This product is a high current product, please be sure to lock the terminals(A1,B1,C1)and(A2,B2,C2), otherwise it will cause the terminal heat and product burnt.
- 3) This product must be equipped with a suitable heat sink, and between the radiator and the module coated with thermal grease. If power is big,or cooling conditions are not good, please consider the use of air-cooled or water-cooled.
- 4) It is forbidden to output a large current at a small conduction angle(Module at high input, low output voltage), which can cause the module to heat up and damage.
- 5) Module protection: short circuit protection using semiconductor dedicated fast fuse. For overvoltage protection, recommended simultaneously use of resistance absorption and varistor. Its selection principle is the same with the SCR module.
- 6) Selected module current should be more than 2 times the load current for resistive load; For inductive load,module current should be more than 3 times the load current.

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