

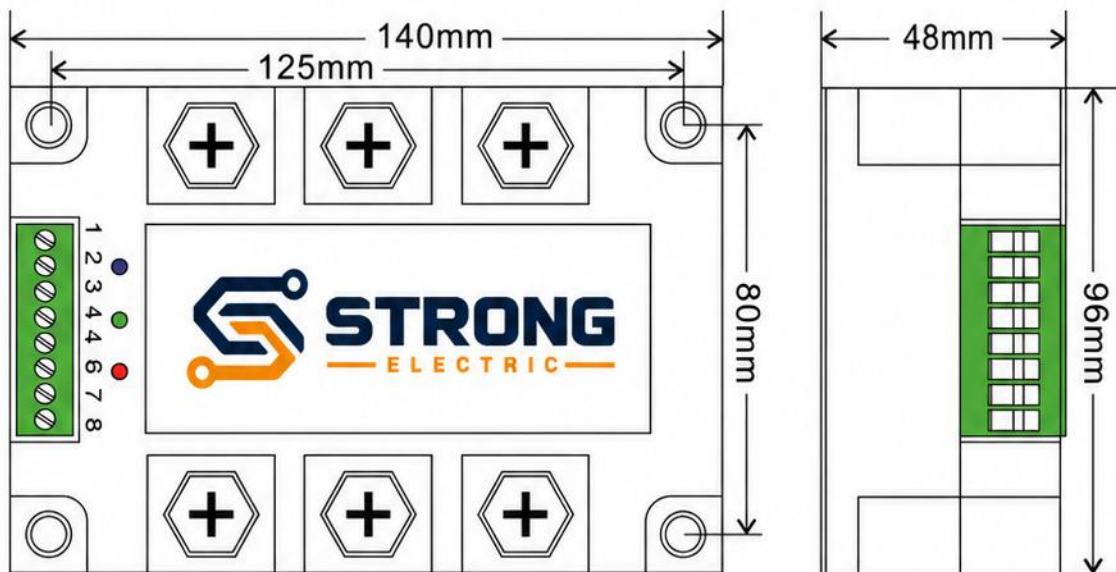
The **BSTY** three-phase intelligent AC voltage regulator module uses an imported microcontroller and military-grade PCB design. It integrates operational amplifiers, soft start, overtemperature protection, phase detection, pulse transformers and thyristor chips. Featuring high output linearity and a low trigger threshold, it provides stepless load-voltage regulation. It is suitable for transformer primary-voltage regulation, welding machines, temperature control, lighting control, charging, excitation, electroplating, electrolysis and water treatment, and can also be used for three-phase motor speed control.

1. Product Specifications

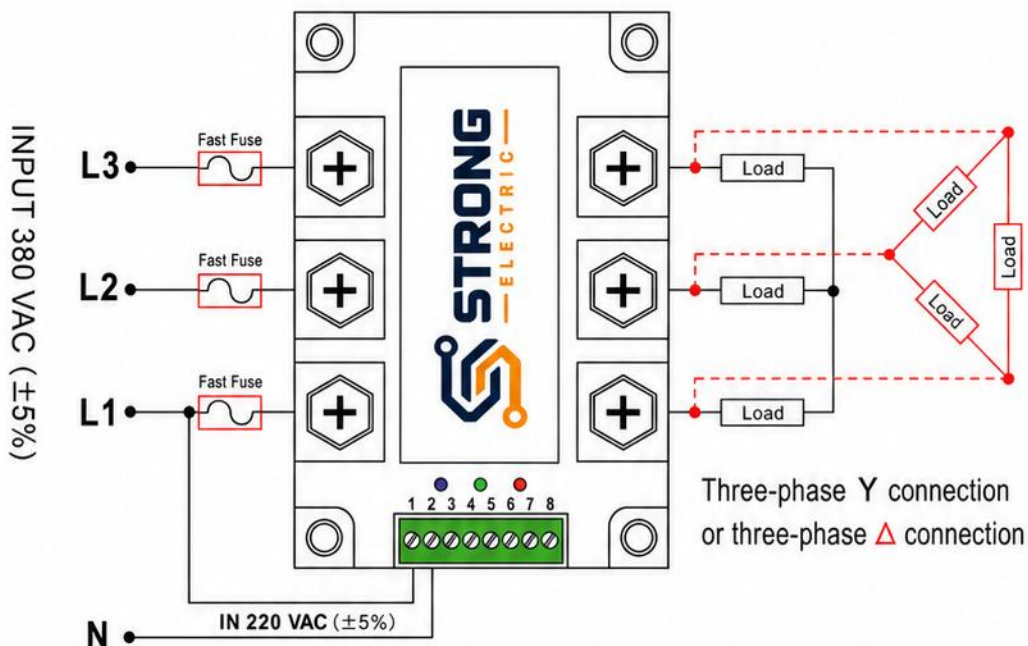
- ▶ Main-circuit operating voltage: Three-phase **380 VAC** ($\pm 5\%$)
- ▶ Control power supply: Single-phase **220 VAC** ($\pm 5\%$)
- ▶ Adjustment range: **0–180°**
- ▶ Adjustment potentiometer: **10 k Ω , 2 W**
- ▶ Control inputs: **DC 1–5 V, DC 2–10 V, DC 4–20 mA, DC 2–10 mA**
- ▶ Novel design; no phase-sequence restriction; simple wiring and easy maintenance.
- ▶ Main and control circuits are fully isolated for safe, reliable operation.
- ▶ Built-in soft-start function (factory setting: **2 s**; customizable: **0–15 s**)
- ▶ Built-in overtemperature protection (**85°C**)

2. Dimensions

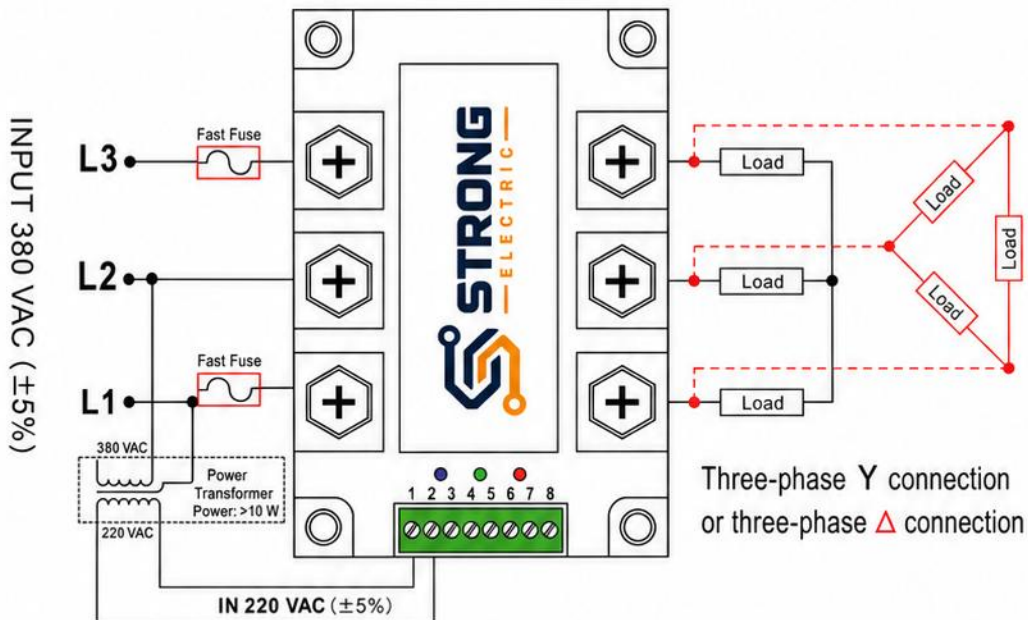
Overall dimensions: 140 × 96 × 48 mm Mounting-hole spacing: 125 × 80 mm



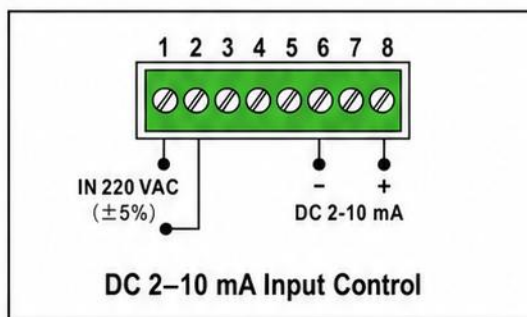
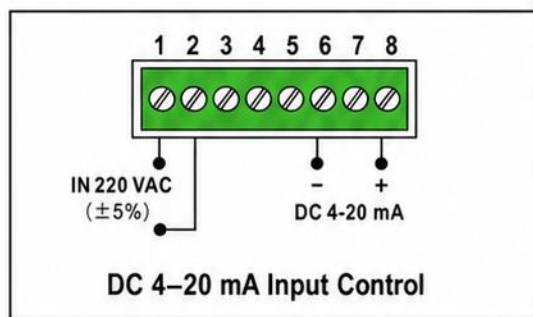
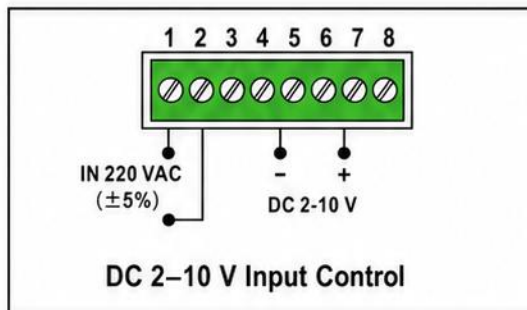
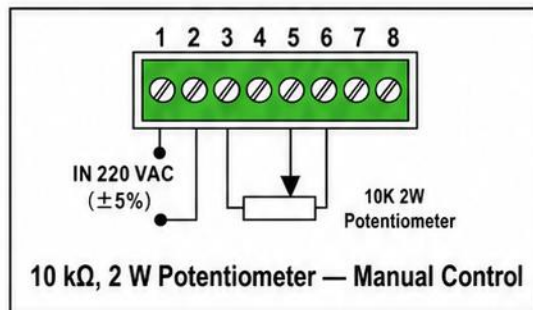
3. Three-Phase Four-Wire Connection



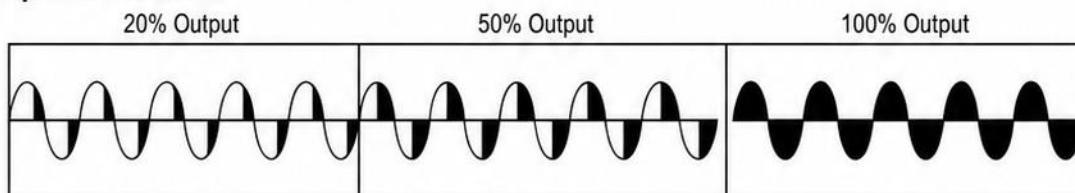
4. Three-Phase Three-Wire Connection



5. Control Terminal Wiring



6. Output Waveforms



7. Precautions

1. If the power indicator is off, the module may not be receiving power. Check and connect the control power supply.
2. If the temperature indicator is on, the internal module temperature has exceeded 85°C and the output has been disabled. Operation resumes automatically after the heat sink cools.
3. If the system indicator flashes but there is no output, confirm that the load and control signal are connected.
4. If the system indicator flashes but output cannot be adjusted using an analog signal (DC 1-5 V, DC 2-10 V, DC 4-20 mA or DC 2-10 mA), confirm that a load is connected. Adjustment is not possible without a load. For testing, use a 10 kΩ potentiometer and a 100-200 W lamp load.
5. When measuring output voltage with a multimeter, test the corresponding phase pairs UV, VW and WU using the red and black probes. Otherwise, the measured voltage may be inaccurate.
6. Install a heat sink and cooling fan. Apply an even layer of thermally conductive silicone grease between the module baseplate and heat sink. Secure the module with M5 screws and tighten evenly for firm surface contact.