# Three Phase AC Solid State Relay

AC：10 — 500A 440 / 660 VAC

(Screw Mounting Type - Rectangular Shape)



## GTH33 / GTH35

- Optical isolation between control input and output circuits.
- LED indicator for operational status.
- Control signal compatible with TTL logic interface.
- Solid-state, non-contact switch output. Zero current turn-off.
- Built-in RC snubber circuit across the output terminals.
- The product is mainly used in automatic control equipment for three-phase AC power supplies, such as: industrial kilns, electric heating ovens, water pumps, fans, etc.

| Parameter / Model | | GTH33 DC to AC | | GTH35 AC to AC |
|---|---|---|---|---|
| Input Parameters | Control voltage | 4～32 VDC | | 160～240 VAC |
| | Control Current | ⩽25 mA | | |
| | Turn-On Current | ⩾ 8 mA | | |
| | Turn-Off Voltage | ⩽1.5 VDC | | ⩽ 30 VAC |
| | Switching Time | ⩽10 mS | | |
| Output Parameters | Load Voltage | 24～240VAC×3 24～440VAC×3 24～660VAC×3 | | |
| | Peak Current | 10、20、30、40、50A | 60、80、90…180A | 200、300、400、500A |
| | On-state Voltage Drop | ⩽1.5 V | ⩽1.8 V | |
| | Off-state Voltage | ⩾ 800V ⩾ 1500V | | |
| Performance Parameters | Isolation Voltage | ⩾ 2500 V | | |
| | Insulation Voltage | ⩾ 2500 V | | |
| | Insulation Resistance | ⩾ 100 MΩ | | |
| | Operating Temperature | −25 ～ 75 °C | | |
| | Power Frequency | 50/60 HZ | | |
| | Cooling Conditions | ⩾20A heat sink required, ⩾30A heat sink with fan required | | |
| | Load Current Safety Factor | Resistive load: 2-3 times, Inductive load: 3-4 times of load current | | |
| | Outline Dimensions (Code) | 86×68×28 $mm^3$ (J-6) | 105×74×41 $mm^3$(J-3) | 120×84×56 $mm^3$(J-5) |



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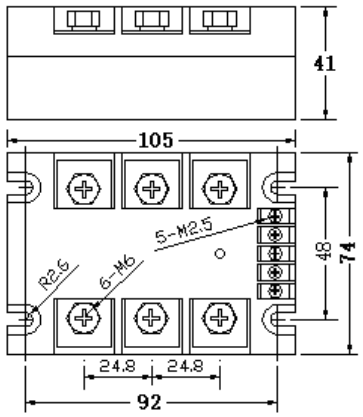
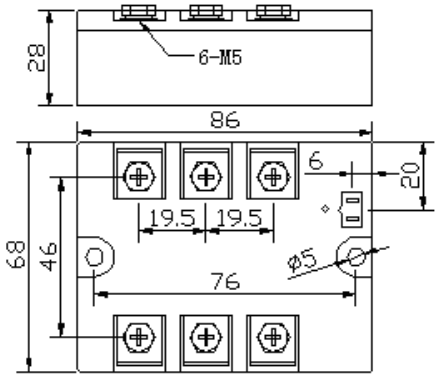
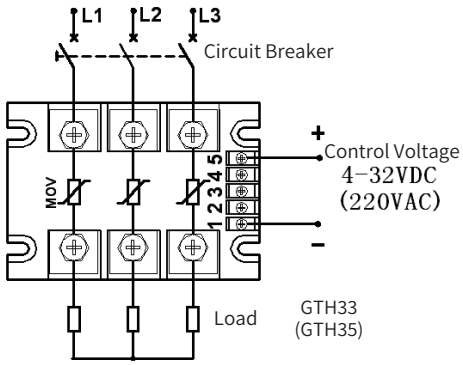
## Outline Dimensions. Installation Wring Diagram: (Unit: mm)



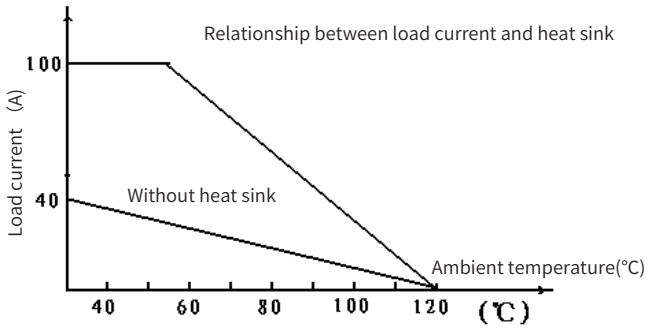

J-3

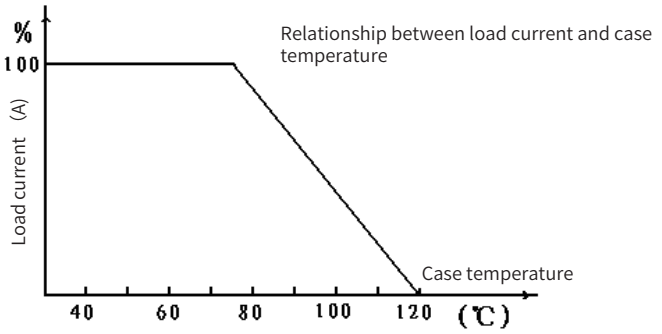



J-6




## Temperature Curve Diagram:




## Product Safety Usage Requirements and Precautions:

• When using the product, a margin should be left when selecting the current of the product according to the load type. (For resistive load: select according to 2-3 times the load current. For Inductive or capacitive load: select according to 3-4 times the load current )

• According to the relationship between load current and ambient temperature, when the ambient temperature is high or heat dissipation conditions are not good, the current capacity of the solid state relay should be increased accordingly.

• In order to prevent the product from short-circuiting during use, it is necessary to connect a fast circuit breaker or a fast fuse in series with the product in the load circuit.

• For inductive loads, a varistor must be connected to the output end to prevent the transient high voltage generated during switching from damaging the internal chip. The varistor (MOV) is selected with a rated voltage range of 430–470V for 240VAC systems, 680–750V for 440VAC systems, and 1100–1200V for 660VAC systems. Alternatively, the AC overvoltage protection absorber manufactured by our company may be used.

• When the product is installed, it is required that the contact surface between the heatsink and the product must be flat and clean, and a layer of thermally conductive silicone grease is applied to its surface, and then finally the screws set with flat washers and spring washersare tightened symmetrically to fix.



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