

KSD308 Series Snap-Action Thermostat

I. Product Overview

The KSD308 series thermostat is a bimetallic strip temperature controller with a fully enclosed housing, designed specifically for high-power devices such as electric water heaters. Utilizing the principle of thermal expansion and contraction of a bimetallic strip, when the preset temperature is reached, the disc-shaped element momentarily jumps, causing the contacts to actuate rapidly through a mechanism, thus connecting or disconnecting the circuit and providing safety protection for the appliance.

This model is a manual reset type. When the temperature exceeds the limit and the circuit is disconnected, the reset button must be pressed manually to restore the circuit conduction. It is especially suitable for overheat protection and anti-dry burning protection of products such as electric water heaters, electric heating equipment, and boilers.



II. Product Features and Advantages

- **Designed specifically for high-power loads:** Optimized for high-power applications such as electric water heaters, the contact system has excellent current-carrying capacity.
- **Four-pole single-throw contact structure (including grounding knife):** It adopts a four-pole single-throw (4PST) contact design, in which three poles are used to synchronously control the on and off of load circuits such as live wire/neutral wire, and the fourth pole is specifically used for the on and off control of grounding protection circuit. When the temperature exceeds the limit, it synchronously cuts off all circuits including the ground wire, realizing comprehensive electrical isolation and safety protection.
- **Rapid disconnection technology:** A temperature-sensitive bimetallic strip is used to achieve rapid contact action (sudden snap action) to ensure that the circuit can be quickly cut off when the temperature exceeds the limit.
- **High reliability and long lifespan:** The speed and force of contact separation are optimized to effectively reduce arc erosion and ensure that the controller has a long and reliable lifespan even under high load conditions.

III. Application

- Instant electric water heaters and storage electric water heaters
- Electric heating equipment, electric welding machine
- Steam heaters, boilers
- High-power mechanical equipment and electrical products

IV. Main Technical Parameters

Parameter Items	Specifications
Model	KSD308
Contact structure	Four-Pole Single-Throw (4PST), one of which is ground control.
Reset method	Manual reset
Shell material	Bakelite (phenolic resin)
Rated electrical parameters	AC 400V / 45A, 60A
Operating temperature range	45°C ~ 150°C (customizable)
Operating temperature tolerance	±3°C ~ ±5°C
Contact resistance	≤50mΩ
Insulation resistance	≥100MΩ
Electrical strength	1500V~/5mA/1min
Service life	Manual cycle life: ≥3,000 cycles
Wiring method	M4 screw fixing method
Certification	CQC (CQC19002213894)

V. Installation Method

Installation method: Use contact temperature sensing installation, ensuring the metal cover is in close contact with the mounting surface of the controlled appliance. To ensure effective temperature sensing, it is recommended to apply thermal grease to the sensing surface.

Precautions:

- Do not deform or collapse the cover during installation, as this may affect performance.

- To prevent electrical leakage, avoid liquid from seeping into the thermostat and ensure that the casing is free of cracks.
- Please connect the wires correctly according to the markings on the casing, paying special attention to the correct connection of the grounding terminal.

VI. Dimensional Drawings

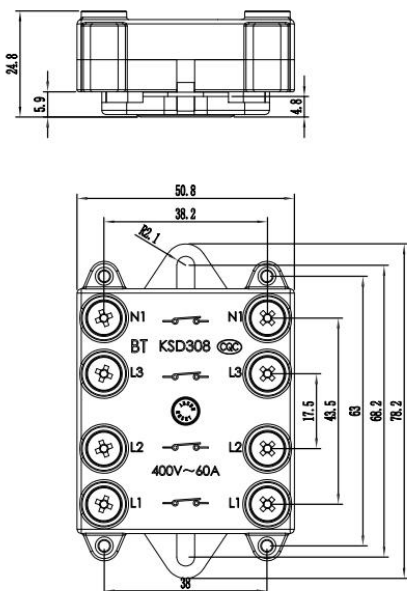


Fig.1 KSD308

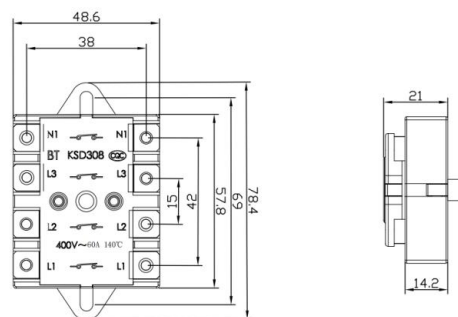


Fig.2 KSD308A