KJD17 Electromagnetic Switch Product Manual



1. Product Overview

This product is a KJD17 type electromagnetic switch, featuring a dual-button design with green "I (Start)" and red "O (Stop)". It integrates electromagnetic control and overload protection functions, widely used in power tools, small motors, machine tools, household appliances, etc., as a core control component for power on/off and overload protection. With a rated current of 18A (AC-1) / 15A (AC-3) and coil voltage of 220~240V AC (50/60Hz), it has an IP55 protection class, suitable for industrial and outdoor humid/dusty environments.

2. Core Technical Specifications

Item Specification
Model KJD17
Rated Current 18A (AC-1, resistive load); 15A (AC-3, motor load)
Rated Voltage Coil: AC 220~240V (50/60Hz); Main circuit: AC 250V~
Protection Class IP55 (dustproof, splash-proof)
Poles 2 poles (double-pole on/off)
Actuation Type Latching start + momentary stop (with electromagnetic hold)
Protection Function Built-in overload/undervoltage protection (optional)
Mechanical Life ≥100,000 cycles
Electrical Life ≥10,000 cycles (under AC-3 condition)
Terminal Type 4/5-pin quick-connect terminals
Housing Material Flame-retardant nylon (PA66), high temperature & impact resistant
Button Marking Green "I": Start (ON); Red "O": Stop (OFF)

3. Terminal Wiring Definition (Refer to bottom marking)

Terminal Mark Function Description
L1/L2 Power input (live/neutral, connect to 220~240V AC)
T1/T2 Load output (connect to motor/equipment main circuit)
Coil Terminals (14/13, 24/23) Electromagnetic coil control terminals (connect to 220~240V control circuit)

⚠ Warning: Verify terminal markings on the product before installation. Strictly distinguish power input/load output/coil control circuits. Reverse wiring is strictly prohibited, otherwise it may cause coil burnout or control failure.

4. Working Principle

1. Start (Green "I" Button): Press the green button, the electromagnetic coil is energized and engaged, the main circuit contacts close, and the load starts running. The coil maintains the engaged state to realize latching operation.
2. Stop (Red "O" Button): Press the red button, the electromagnetic coil is de-energized, the main circuit contacts open under spring force, and the load stops. When overload/undervoltage is triggered, the contacts automatically open for safe shutdown.
3. Protection Function: When the load is overloaded or voltage is abnormal, the internal protection mechanism acts to cut off the main circuit automatically, preventing motor burnout or equipment damage.

5. Installation & Usage Notes

5.1 Electrical Safety Guidelines

- Voltage Matching: The coil must be connected to AC 220~240V power supply. Connecting to other voltage levels is strictly prohibited to avoid coil burnout.
- Load Matching: Resistive load shall not exceed 18A, motor load shall not exceed 15A. Overload operation is strictly prohibited.
- De-energized Work: Always disconnect the main power supply before installation, removal or wiring to prevent electric shock or accidental startup.

5.2 Mechanical Installation Requirements

- Mounting Method: Panel flush mounting, suitable for standard cutout dimensions

(refer to product drawing). Ensure the switch is securely fastened without looseness.
- Environmental Limits: IP55 protection can adapt to humid and dusty environments, but immersion in water or use in highly corrosive environments is prohibited.

5.3 Maintenance & Care

- Cleaning: Wipe the switch surface with a dry cloth regularly to avoid oil and dust covering the buttons and contacts.
- Troubleshooting: If the switch fails to engage, overheats, makes abnormal noise or cannot stop, immediately disconnect power for inspection. Replace the switch if necessary.
- Periodic Inspection: Check terminal connections every 6 months and retighten loose screws to avoid overheating caused by excessive contact resistance.

6. Safety Warnings

⚠ High Voltage Hazard: This switch is used in AC 220~240V high-voltage circuits. Wiring and maintenance must be performed by a qualified electrician. Touching live terminals is strictly prohibited.
⚠ Overload Prohibition: Exceeding the rated current of 18A (AC-1)/15A (AC-3) is strictly prohibited, otherwise it will cause the switch to burn, melt or even start a fire.
⚠ Protection Note: IP55 only protects against splashing water. Directly rinsing the switch body with water is prohibited to avoid internal water short circuit.