

Stc-3000 Operation instruction

Specification and Size

Front panel size: 75(L)*34.5(W) mm

Machine size: 75(L)*34.5(W)*85(D)mm

Installation hole size: 71(L)*29mm (W)

Sensor cable length: 1 meter (include the probe)

Technical Parameters

Temperature measurement range: -50℃~99℃

Temperature measurement accuracy: $\pm 1^{\circ}\text{C}$ (-50℃~70℃)

Power supply: 110-220VAC $\pm 10\%$, 50/60HZ (DC12V/DC24V)

Sensor: 1 NTC sensor

Operating environment temperature: 0℃~60℃

Relative temperature: 20~85% (no frost)

Temperature resolution: 0.1℃

Sensor failure delay: 1 minute

The power consumption of the whole machine is less than 3W

Relay output capacity: 10A

Storage temperature: -30~75℃

Indicator light	Function
cool	On: cool is working; off: cool is off/Flashing: delay
Heat	On: heating is working; off: heating is off
Set	On: parameter setting status

Key operation instructions

Method of viewing parameters:

When the controller is working normally, press and immediately release the "▲" key once to display the temperature setting value, press and immediately release the "▼" key once to display the temperature difference setting value, 2 The temperature will return to the normal display state after a second.

2. Method of setting parameters

When the controller is working normally, press and hold the "S" key for more than 3 seconds to enter the parameter modification mode, the "Set" indicator light is on, and the digital tube displays the code "F1" of the first menu item.

Press the "▲" key or "▼" key to scroll up or down the menu item and display the menu code, press the "S" key to display the parameter setting value of the current menu, press and hold the "S" key, then press The "▲" or "▼" key can adjust up or down and display the parameter setting value of the current menu, while holding down the "S" and "▲" keys or the "▼" key can quickly adjust up or down and display the parameter setting of the current menu After setting, press and release the power button to save the parameter modification and return to the normal temperature display state. If there is no key operation within 10 seconds, the parameter modification will not be saved and return to the normal display state.

If there is an error while saving the parameters, it will display "Er", and return to the normal display state after 3 seconds.

3. Repair system data:

When the machine is powered on, first check whether the parameter settings are correct. If an error is detected, "Er" will be displayed. Press any at this time to restore the default parameter settings and work normally. It is recommended to reset the parameters at this time

Operation instructions

When the controller is working normally, press and hold the power button for more than 3 seconds to turn off the controller. When the controller is off, press and hold the power button for more than 3 seconds to turn on the controller.

When the controller is normal, the digital tube displays the current temperature measurement value, And switch the cooling/heating mode

When the measured temperature $\geq$ temperature setting value + temperature difference setting value enters the refrigeration state, the COOL indicator light is on, and the normally open contact of the refrigeration relay is closed: the COOL indicator light flashes, indicating that the refrigeration equipment is in the compressor protection state, when the measured temperature $\leq$ the temperature setting Value, the COOL indicator is off, and the normally open contact of the refrigeration relay is disconnected.

When the measured temperature $\leq$ the temperature setting value-the temperature difference setting value enters the heating state, the Heat indicator light is on, and the heating relay normally open contact is closed, when the measured temperature $\geq$ the temperature setting value, the Heat indicator light is on

The heating relay normally open contact is disconnected

Menu Instruction

Code	Function	Setting range	Default
F1	Temperature setting	~50.0~99.9	10.0℃
F2	Temperature difference setting value	0.1~10.0℃	0.5℃
F3	Compressor delay	1~10 minutes	3 minutes
F4	Temperature correction	~10.0~10.0℃	0℃
F5	Fainthearted /Celsius switching	Set range	0/1

Fault & Alarm

Sensor failure alarm:

When the temperature probe circuit has a short circuit or open circuit fault, the controller will start the probe failure alarm mode, close all execution states, the buzzer will sound, the digital tube will display EE, press any key to eliminate the buzzer sound, After the fault is removed, return to normal working mode.

Over-temperature limit alarm:

When the temperature measurement exceeds the temperature measurement range, the controller starts the over-temperature limit fault alarm mode, closes all execution states, the buzzer sounds, the digital tube displays HH, press any key to eliminate the buzzer sound,

When the temperature returns to the normal measurement range, it returns to the normal working mode.

Safety Regulations

★Danger:

1. Strictly distinguish the sensor lead, power cord and output relay interface, do not connect wrongly, and the breaker must not be overloaded;
2. All wiring changes must be done with the power supply disconnected

★Warning

The controller is forbidden to be used in water or excessively humid environments, and it is forbidden to use it in high temperature, strong electromagnetic interference, and strong corrosive environments.

★Notice:

1. The power supply voltage should be consistent with the voltage marked on the controller, and the stability of the power supply voltage should be guaranteed;
2. In order to avoid possible interference, it is recommended to keep a proper distance between the sensor lead and the power line

Writing Diagram

