STC–8000H INSTRUCTIONS

General description

STC-8000H is a universal single-sensor temperature controller, with refrigeration, exceeding temperature limit alarm functions. Compressor delay time adjustable, after electrified exceeding temp. limit alarm delay adjustable, suitable for refrigerant industries such as refrigerator, refrigerator car, etc.
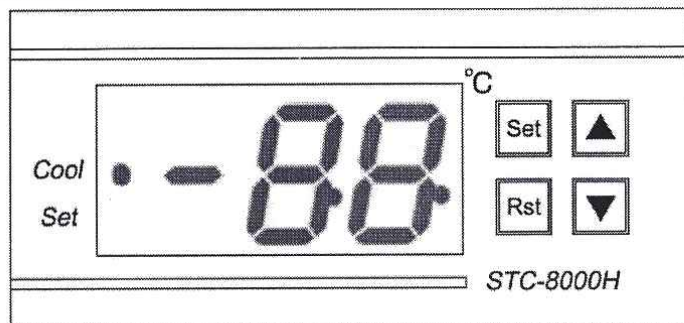
Size

Front panel size: 75X34.5(mm)

Product size: 75X34.5X85(mm)

Installing hole size: 71X29(mm)

Sensor: 2 meters (probe included)

Technical parameters

Power supply：220VAC+10%/-15%，50/60Hz

Power consumption:≤3W

Temperature measuring range：−50℃～99℃

Temperature controlling range：−40℃～50℃

Resolution:1℃

Accuracy：−50℃～70℃，±1℃，±2℃at others

Refrigeration output contact capacity:10A/277VAC，can drive single phase compressor≤1/2HP

Sensor error delay time: 1min

Sensor: NTC

Safe level: IP65

Operation temperature:0℃～60℃

Operation humidity: 20～85%（no condensate）

Storage temperature:−30℃～75℃

Front panel

STC-8000H

Key operation

Check parameter set value:

Press ▲ and then loosen to display the set upper limit; press and then loosen ▼ to display the set lower limit; press and the loosen Set to display the set compressor protection time; press and then loosen Rst to display set temperature exceeding value. 2s later return to display normal temperature.

Modify parameter set value:

Press Set for more than 3s to enter into parameter modifying status, display the last adjusted menu after electrified with parameter modifying indicator light on.

Press ▲ or ▼ to go forward or backward the menu item; press Set to display the current parameter set value.

Press Set and ▲or ▼simultaneously can adjust the current parameter set value; press Set and ▲simultaneously more than 1s will increase current parameter set value quickly; press Set and ▼simultaneously more than 1s will decrease current parameter set value quickly.

Press Rst or no key operation in 30s will save the modified parameter and return to normal temperature display status.

Restore the parameter setting:

When electrify the conroller, first check the parameter setting, if parameter setting is wrong, LED display E1 with buzzer sound, at this time press Set will restore default parameter setting. Advise to reset the parameter.

Key-press function

Key-press	Normal mode	Parameter modification mode
SET	Check compressor protection time	Display current menu set value
SET···3seconds	Enter into parameter modification	
Rst	Check temperature exceeding value	Quit from parameter modification
▲	Temperature upper limits checking	Menu items go backwards
▼	Temperature lower limits checking	Menu items go forwards
SET+▲		Parameter values increase by degrees
SET+▼		Parameter values decrease by degrees

Control output

Compressor:

When the storage temp. is higher than set temp. upper limit, compressor starts, when lower than set temp. lower limit, compressor stops. When sensor error, compressor works proportionably as on-15 minutes off-30 minutes. After electrified or compressor stops, compressor restart-up is allowed after running out of compressor protection time.

Alarm:

While temp. exceeding value is not 0, LED blinkingly displays current temperature when storage temperature is higher than set temperature upper limit +exceeding temp. value or lower than set lower limit-exceeding temp. value. When running out of the exceeding temp. limit alarm delay after electrified, exceeding temp. limit alarm starts with buzzer sound, and alarm cancel when temperature return to normal temperature.

LED blinkingly display E1 with buzzer sound when memorizer error; display E2 with buzzer sound when sensor error. Display HH when temp. higher than 99℃ and lower than 120℃.

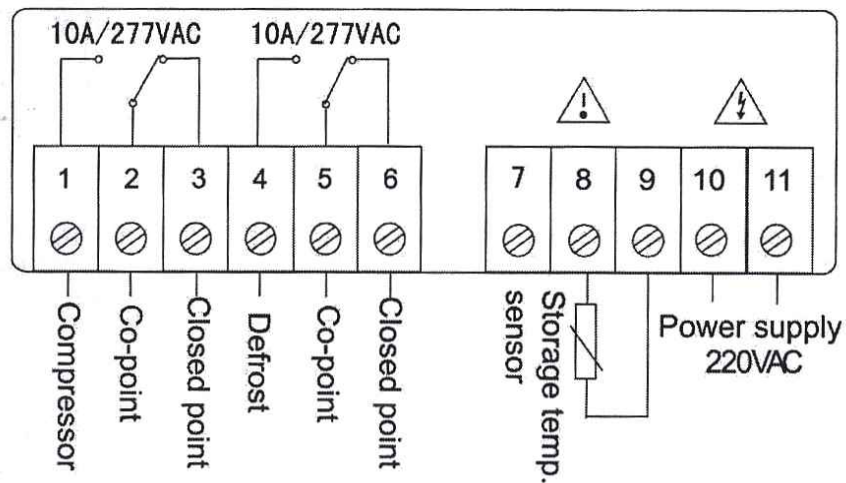Press any key to cancel alarm sound, but alarm status remains.

Indicator light description:

Indicator light	Status	Function
Cool	Always on	Compressor output
Cool	Flashes	Compressor output delay
Set	Always on	Parameter modification status

Parameter list:

ITEM	FUNCTION	SETTING RANGE	UNIT	DEFAULT
F1	Upper limit	F2~+50	℃	-10
F2	Lower limit	-40~F1	℃	-20
F3	Temperature calibration	-5~5	℃	0
F4	Compressor protection time	0~9	min	3
F5	Exceeding temperature value	0~50,set value as 0 to cancel alarm	℃	15
F6	Exceeding temperature alarm delay time	0~99	min	20

Wire diagram:

10A/277VAC   10A/277VAC

1	2	3	4	5	6	7	8	9	10	11

Compressor — Co-point — Closed point — Defrost — Co-point — Closed point — Storage temp. sensor — Power supply 220VAC

Safety regulations:

◆Danger:

◇Strictly distinguish the sensor down-lead, power wire and output relay interface from one another, prohibit wrong connections or overloading the relay.

◇All connections should be modified under electricity cut-off.

◆Warning:

◇Prohibit to use the machine in water or under the environment of over damp, high temperature, strong electromagnetism interference or strong corrosion.

◆Caution:

◇The power supply should conform to the one labeled on the machine, and ensure the stability of the power voltage;

◇Sensor down-lead and power wire should be kept for a proper distance to avoid possible interferences.

Error code:

Code	Reason	Status
E1	Memorizer error	Alarm, machine does not work
E2	Sensor errror	Alarm, Compressor starts/stop proportionably
HH	Exceeding temp. display limit	---