Micro-computer temperature controller discriptions of STC-8080

Features:

◆ Italian compact design Incorporated SMT&THT. Small and light.

◆ Adopt USA Microchip-PIC. Strong ability to antiinterference. Stable and reliable.

◆ Applied in a wide range of refrigerant field such as icebox, refrigerator, display-box and refrigerator car.

Specifications:

◆ **Outer Shell:**ABS fireproof plastic

◆ **Size**:

☆ Panel size:34.5mm(height) x 75mm(length)

☆ Recommended installing hole size:30mm (height) x 71mm(length)

◆ **Safeguard Level:**IP65

◆ **Operation circumstances:**

☆ Operating temperature: -5℃～+55℃

☆ Stored temperature:-10℃～+65℃

☆ Relative humidity:20%～95% (No Frost)

◆ **Parameters**:

☆ Power supply:12VAC±10%(or 12VDC)

☆ Outputs:<3VA

☆ Measuring range: -40℃～+50℃

☆ Distinguishing rate: 1℃

☆ Compressor output:7A/240VAC

☆ Alarming output: Buzz + LED blinking

☆ Delayed protection time:3 minutes

☆ Temperature rectifying range: ±5℃

☆ Alarming adjustable range(temperature is above normal value):0℃～20℃

☆ Sensors:NTC probes, capped wire

☆ Defrost period: adjustable in 0～99 hours

☆ Defrost time: adjustable in 0～99 minutes

Descriptions to indicator light:

◎	Defrost indicator light	red light shines	auto-defrost
		red light flashes	manual defrost
◎	Refrigerant indicator light	red light shines	auto-refrigerant
		red light flashes	delayed switch
◎	Set indicator light	red light shines	parametersin the setting state

switch Functions:

◆ **Check setting parameters mode (in the state of no setting)**

☆ Press[▲]switch to display the maximum value, and current temperature is restored after two seconds.

☆ Press[▼]switch to display minimum value, and current temperature is restored after two seconds.

☆ Press[Set]switch to display defrost time and period in four seconds. Then current temperature is restored.

☆ Press[Rst]switch, futile.

◆ **Parameter setting mode:**

☆ Press [Set] switch for three seconds to enter the preferences mode, and set indicator light shines. LED displays the parameters adjusted last time.

☆ Press [▲] or [▼] switch to choose parameters. After the selection of parameters the value of corresponding parameter is displayed with the press of [Set] switch.

☆ Press [Set], and [▲] or [▼] switch at the same time to set the value of parameters.Press [▲] or [▼] continuously the value will increase or decrease automatically.

☆ Press [▲] or [▼] switch to alter other parameters afterthe setting of one parameter value. Just repeat the above-mentioned steps.

☆ Press [Rst] switch to confirm and restore after all parameters are set. Indicator light is extingui-shed. Confirmation, storation and restoration of parameters will occur due to the lack of operations in 30 seconds.

Refrigeration, defrost and rectification of temperature:

◆ **Refrigeration and defrost:**

When measuring temperature of sensor tip is above the maximum value refrigerant relay will connect and refrigerant compressor will switch. When measuring temperature of sensor tip is below the minimum value refrigerant relay will disconnect and refrigerant com- pressor will disclose.

When defrost cycle arrives, defrost relay connects and defrost begins, but when defrost cycle ends, defrost relay disconnects.

◆ **Manual defrost:**

When the set defrost time and cycle is unfit for the defrost, manual defrost function will operate. Press [▼] button continuously for three seconds for manual defrost. Press for another three seconds will exit.

◆ **Cancellation of defrost:**

Set the defrost cycle or time for "0" to cancel defrost.

◆ **Temperature rectification:**

When there is error between actual temperature and the measuring temperature of controller, temperature rectification function will work. Press[Set]switch for three seconds, and press [▲] or [▼] switch until LED display F3. Press [Set] and [▲] or [▼] switch and choose the proper value within the range of ±5℃. Displayed value after rectification= displayed value before rectification + rectification value.

Delayed protection:

◆ Refrigeration will begin in three minutes after switched.

◆ The interval of connections of refrigerant relay is no less than three minutes when switched.

Alarming:

◆ **Sensor tip failure alarming:**

When open circuit and short circuit occurs to sensor tip (non-connection with framework included), temperature controller will alarm-buzzer works, LED displays 44 and blinks. Press any key will eliminate alarming. Alarming will continue until failure disappears if no pressing of keys.

◆ **Excessive temperature alarming and cancellation** Alarming excessive temperature of controller ranges from 0-20℃. When sensor tip measuring range is no less than maximum value + setting alarming temperature or no more than minimum value - setting alarming temperature, temperature controller alarms, buzzer works and digit tube blinks. Press any key will cancel alarming, otherwise, alarming will continue if no pressing.

◆ **Indication of measuring range:**

Measuring range of temperature controller is -40℃～50℃. Temperature≥50℃, LED displays "HH", temperature ≤-40℃, LED displays "LL".

Notice:

◆ Fire and damage of controller may occur if refrigeration and defrost is overloaded than the output connection volume.

◆ Make sure that wire and connection point are connected in a stable way.

◆ Please read through manual of descriptions.

Warranty:

◆ Please present warranty manual and invoice in case of repair.

◆ Warranty period: valid in one year dated from the day of purchase.

◆ Restrictions of warranty:

☆ Improper repairs of customers.

☆ Modification or misuse of customers without prior notice.

☆ Operating circumstances is beyond the stipulation of the manual.

◆ Normal wear and tear is excluded.

Parameters:

code	function	setting range	setpoint	unit	descriptions
F1	maximum temperature	-39~+50	-18	℃	maximum temperature controlling
F2	minimum temperature	-40~+49	-22	℃	minimum temperature controlling
F3	temperature rectification	±5	0	℃	rectify when there is error compared with actual temperature
F4	defrost cycle	0-99	6	hour	set intervals between two defrost time
F5	defrost time	0-99	30	minute	per defrost time
F6	excessive temperature alarming	0-20	10	℃	buzzer buzzes and digital tube blinks in excessive temperature alarming