TC Digital Temperature Unit

Technical Data

· 19"installation
· Simple structure, easy installation;
· Easy cabling & operation;
· Disturbing resistance、reliable running ;
· 2-way output (IEC320 C13 and NEMA 5-15R).

Main Part

Model No.	Input Connector Type
7245801	UK type(BS1363)
7245802	German type(DIN49441)
7245803	US type(NEMA 5-15P)

Technical Parameters

· **Power supply:** 220VAC+ 10%/-15% , 50/60Hz.
· **Temperature measuring range:** -50℃ ~99℃.
· **Resoluton:** 1℃.
· **Refrigeration output contact capacity:** 10A/277VAC.
· **Senssor error delay time:** 1min. .
· **Safe level:** 1P65.
· **Operation humidity:** 20~85%(no condensate).
· **Power consumption:** ≤3W.
· **Temperature controling range:** -40℃ ~50℃.
· **Accuracy:** -50℃ ~70℃, ±1℃, ±1 ℃ at others can drive single phase compressor≤1/2HP.
· **Sensor:** NTC.
· **Operation temperature:** -30℃~75℃.

Detalis：

Key operation

· Check parameter set value:
Press ▲ and then loosen to display the set upper limit; Press and then loosen▼to display the.

Modify parameter set value

· Press set for more than 3s to cnter into parameter modifying status the last,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 ■

Restore the parameter setting

· When electrify the controller,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.

Front panel

Key-press function

Key-press	Reference	Performance
SET	Check compressor protection time	Display current menu set value
SET...3 seconds	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

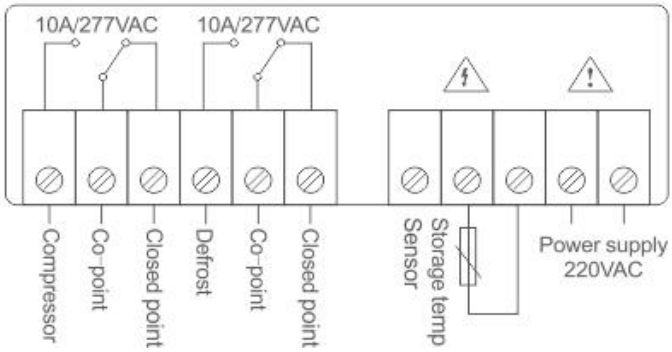
- **Compressor**:When the storage temp.Is higher than set temp.Upper limit,compressor starts, lower than set temp. Lower limit,compressor stops, When sensor errir, compressor works proportionably as on -15 minutes off -30 minutes. After electrified or compressor stops . Compressor restart-up is allowed after running out of compressor protection time.

- **Alarm**:While temp.exceeding valus is not 0.LED blinkingly displays current temperature when storage temperature is higher than set temperature upper limip +exceeding temp value or lower than set lower limit-exceeding temp. value. When rumming 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° C and lower than 120'C. Press any key to cancel alarm sound, but alarm status remains.

Lndicator light description

Indicator light	Staus	Input Connector Type
Cool	Always on	Compressor cutput
Cool	Flashes	Compressor cutput delay
Set	Always on	Parmeter modification status

Wire diagram



Key-press function

Item	Funtion	Fetting range	Unit	Default
F1	Upper limit	F2~+5	°C	-10
F2	Lower limit	-40~F1	°C	-20
F3	Temperature calibration	-5~5	°C	0
F4	Compressor protection time	0~9	Min	3
F5	Exceeding temperatuer value	0~50, set value as 0 to cancel alam	°C	15
F6	Exceeding temperature alarm delay time	F2~+5	°C	20

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 ower damp, high temperature,string electromagnetism interference ir string corrosion.

- **Caution:** The power supply should conform to one labeled on the machine,and ensure the stability of the power voltage. Sensor down-lead and power should be kept for a proper distance to avoid possible interferences.

Error Code

Code	Reason	Staus
E1	Memorizer error	Alarm,machine dose not work
E2	Sensor error	Alarm.Comressor starts/ stop proportionably
HH	Exceeding temp, display limit	