Operating Instructions (ETC-100)

Pre-use Inspection and Requirements for installation

◆ The power voltage should conform to the mark on the controller and the voltage stability should be endured.
◆ The controller is forbidden to be used in water or over-moist environment and high tempeature,powerful electromagnetic or high corrosive environment as well.
◆ The sensor of the controllers is USA DALLS integrated temperature sensor, and please strictly stick to the instructions to connect the wire so as to avoid the sensor being damaged.
◆ The sensor's pilot wire,power wire and output relay socket should be clearly separated from one another and the current should not be overloaded.

Specifications and Parameters

◆ Panel Size：75 x 34.5（Unit:mm）　◆ Fixing hole size：30 x 71（Unit:mm）
◆ Environmental temperature：-5℃～55℃　◆ Relative Humidity：10%～95%(not allow to frost)
◆ Basic technological parameters:
◇ Power voltage：220VAC±10%，50∽60HZ　◇ Power: Less than 3W
◇ Resolution:0.1℃(when ⩾100℃ is 1℃)　◇ Range:-50℃～120℃
◇ Accuracy:-10℃～85℃,±0.5℃,in other range less than ±2℃
◇ Relay contact capacity：7A/240VAC
◆ Main functions:
◇ Temperature measurement and control　◇ Temperature revised
◇ Delayed protect　◇ Insert password for adjusting parameter

Status of indicators

❄	Red lights	Compressor works normally
	Red flashes	Compressor operation delayed
❄	Red lights	Adjust parameters

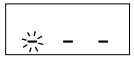


fig.1


fig.2

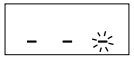


fig.3

Operating instructions

◆ Examine parameter:Press key"▲" show normal temperature after displaying upper limit emperature 2 seconds; press key"▼"show normal temperature 2 seconds later after displaying bottom temperature; press key"set" and"❄"no effect.
◆ Password set: In normal temperature state, press key "set" at least 3 seconds to set password. (fig.1),the first figure flash, press"▲" or "▼" to input the first password(0-9) , then press key "❄" for confirmation. At the same time the screen display as the fig.2, then following the first step to input and confirm the second and third password until it display F01 in case the password is correct; If input an error password it will automatically return to the Fig.1 for the input again. If input error password for three times or no operation in 30 seconds it will automatically return to temperature displaying state. Enter into menu and display P01-P03 to change the password following the above step.
◆ The original password is 111. If forget your password you can power off then press "set" & "❄" synchronously and power on for 5 seconds until display "on" . Now the password is the origial one,change the password according to the above way.
◆ Parameter setting: Input the correct password and enter into the menu state. Press "❄ " to display the last setting.Press" ▲ " or "▼" for amending, press "set" for confirm and return to the original parameter. Then press " ▲ " or "▼" for the next parameter and follow the above step to finish the parameter setting. When all the parameters have been adjusted,press "set" at least 3 seconds to confirm and exit the parameter setting state and back to the state of temperature measurement. If not press "set" at least 3 seconds for confirmation or no operation in 30 seconds after adjusting all the parameters, it will also return to the temperature measurement state, but the adjusted parameter is not saved and the instrument operate according to the original one.

Functions

◆ Refrigerating functions:refrigeration mode, when the temperature of the refrigerator is higher than the upper temperature limit,it will start to refrigerate, and when the temperature of the refrigerator is lower than the bottom temperature limit, it will stop refrigerating.
◆ Delayed function:
When the first time powered, if the actual temperature higher than the upper temperature limit,the system will not work at once,until the delayed time finished. If the distance of operating the system ⩾ delayed time, the system may work at once; if the distance < , the delayed time,the system will not work only after the delayed time. In heating mode, no delayed time when operating the system.
◆ Alarm functions
◇ Alarm for sensor's error : under the condition of being electrified, when the refrigerator's sensor errors, LED will flash while displaying E1 together with the buzzer humming.
◇ Alarm for out of the measuring range : when the temperature to be measured is higher than 120℃ or lower than -50℃, the controller will display E2 together with the buzzer humming.
◇ Alarm muting: under the condition of alarm status, press any key to mute the alarming noise without change the LED displaying status.

Parameter information and setting

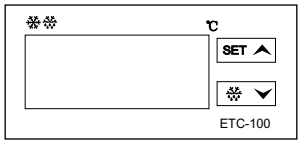
Code	Meaning	Range	Unit	Plant set
F01	Set upper limit	-49～+120	℃	-15
F02	Set bottom limit	-50～+119	℃	-18
F03	Temperature adjustable	-9～+5	℃	0
F04	Delayed time	0～30	minute	3

Password menu

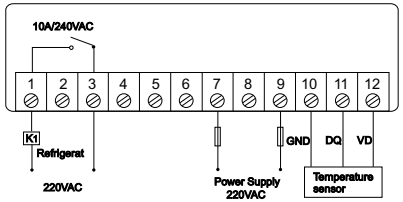
Code	Meaning	Range	Plant set
P01	The first figure	0～9	1
P02	The second figure	0～9	1
P03	The third figure	0～9	1

Wire connection plan

◆ Panel Picture:



◆ Ends connection plan:



K1 agree drive AC winding connector.

Attentions:

★For refrigerator sensor wire, the black one is connnected with 10, the white one with 11 and the red one with 12. Otherwise,the sensor will be damaged.