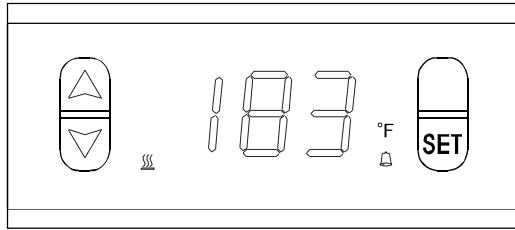# Model: ED330L(Fahrenheit) Digital Temperature Controller for heating

Features of Function

- It is a mini-sized and integrated intelligent controller
- Temperature Control / Heating control / Fahrenheit、Celsius degree switchable /Value Storing / Self Testing

Specifications

1. Power supply:115VAC
2. Temperature sensor: NTC, 1pc, 1m(L)
3. Range of temperature display:－20～300℃(－4～572℉)   Accuracy:±1℃/℉
4. Range of set temperature:－20～280℃(－4～536℉)   Factory default :100℃(212℉)
5. Dimension:77(Length)×35(Width)×60(Depth)mm
   Mounting hole dimension:71(Length)×29(Width)mm
6. Temperature of the operating environment:－10～60℃(14～140℉);
   Relative Humidity:20%~90%(Non-condensing)
7. Relay output contact capacity
   Control output: N.O. 16A/250VAC

Front Panel Operation

1 . Set temperature (compressor stop temperature) adjustment

- Press **SET** button, the set temperature will be displayed and flashes.
- Press △ or ▽ button to modify and store the displayed value . The values can be increased or reduced rapidly by pressing △ button or ▽ button for more than 2 seconds.Press **SET** button to exit the adjustment and display the cold-room temperature.
- If no more button is pressed within 6 seconds, the cold-room temperature will be displayed. (Set temperature adjustment range: parameter E1～E2)

2. Heating LED: during heating, the LED is on; when the cold-room temp. is constant, the LED is off.

3. Parameters setup

- Press **SET** button and hold for 6 seconds to enter the parameter setup mode while E1 flashes.
- Press again **SET** button to select sequentially from the parameters : E2,E3,E4,E5,E1.
- Press △ or ▽ button, the value of parameter will be displayed and can be modified and stored.
- If no more button is pressed within 6 seconds, it will return to normal operation mode.

Parameter	Function	Set range	Default
E1	Lower setpoint limit	－20℃/－4℉～Set temp.	10℃ 50℉
E2	Higher setpoint limit	Set temp.～280℃/536℉	200℃ 392℉
E3	Temp. hysteresis	1～100℃ / 2～180℉	6℃ 11℉
E4	Comp.start delay time	0～10Min	2Min
E5	Cold-room sensor correction	－50～50℃ / －90～90℉	0
CF	Temperature unit	℃=Celsius ℉=Fahrenheit	℃

4. The factory default resumption: press ▽ button for 1 second and then press △ button simultaneously for 6 seconds, the display flashes , all parameters will be resumed to factory defaults. After 6 seconds, it returns to normal operation mode.

5. Parameters Locking

In normal operating, press ▽ button and hold for 6 seconds to lock the parameters if "OFF" is displayed or to unlock if "ON" is displayed. Parameters can be displayed only and can not be modified if locked, but the adjustment of the set temp. is active (factory default is "ON")

Function details

1. Heating control:
- Heater starts heating when cold-room temperature $<$ (set temp. $-$ hysteresis) and stops heating when cold-room temperature $>$ set temperature.
2. Abnormal work mode
- When cold-room sensor is short-circuited , " HH" is displayed ; when the cold-room sensor is open-circuited , "LL" is displayed. At the same time alarm LED flashes.
3. Circuit Diagram

16A/250VAC

Sensor 115VAC

| 1 | 2 | 3 | | | | | 9 | 10 | 11 | 12 |

Load

~115V
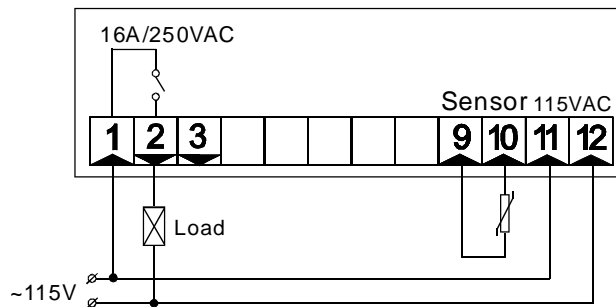
Notes for Installation

1. The sensor cable leads must be kept separately from main voltage wires in order to avoid high frequency noise induced. Separate the power supply of the loads from the power supply of the controller.
2. In case of long-distance sensor installation from the controller, the sensor cable may be prolonged up to 100 m max. without any re-calibration.
3. The temperature controller can not be installed in the area with water drops.

Accessories for the temperature controller

1. One pc of temperature sensor
2. One pc of installation stand
3. One pc of cover panel