DEI-617SE/617DE/817E Operation Manual Version 05

5INSLL00448

1. CAUTION：

1.1 Before wiring, please make sure that power is switched off to prevent from getting electric shock.
1.2 The product should be avoided to install at humid environment.
1.3 To prevent the controller burning out, please make sure the water-proofed procedure is undertaken during installation.
1.4 Please install according to the wiring diagram, in order to avoid incorrect wiring.
1.5 Before supplying the power, please always check if the wiring and input power is connected correctly.
1.6 Please always read this instruction carefully before installation. If the damage is caused of incorrectly wiring, the product would not be guaranteed.

2. SPECIFICATION：

2.1 Dimension：
2.1.1 Front panel size：40mm (H) × 170mm (W) ±1mm
2.1.2 Mounting hole size：33mm (H) × 140mm (W) ±1mm
2.2 Operating environment：-5℃～55℃ (23℉～131℉), RH 20%～ 85% (non - condensing)
2.3 Storage environment：-10℃～65℃(14℉～149℉), RH 20%～ 85% (non - condensing)
2.4 Output/Input：
2.4.1 Power supply：AC 230 / 115V±10%, single phase 50 / 60Hz.
2.4.2 Power consumption：Max. 10 Watts (controller only)
2.4.3 Temperature display range：－45℃～45℃±1℃(－45℉～99℉±1℉)
2.4.4 Temperature sensor：NTC, PVC, 1.5M (L)
2.4.5 Compressor contact capacity：25(7)A / 250VAC
2.4.6 Defrost contact capacity：25A / 250VAC
2.4.7 Fan contact capacity：7A / 250VAC
2.4.8 Lighting contact capacity：7A / 250VAC
2.4.9 Defog contact capacity：7A / 250VAC

3. FUNCTION：

3.1 Button operation：
3.1.1 Power ON / OFF：Press ⏻ and hold it for 3 seconds to startup the controller and it will operate with the setting mode and parameters automatically. Press this button again and hold it for 3 seconds to switch off the controller.
3.1.2 Light ON / OFF：Press Light and hold it for 3 seconds to switch or the light.
3.1.3 Defog ON / OFF：Press Defog and hold it for 3 seconds to switch on or off the defog function.
3.1.4 Defrost：Press ▲ and ▼ and hold them for 3 seconds to enter defrost mode. Defrost process will be terminated automatically when reaches the defrost time or by pressing again both ▲ and ▼ buttons.
3.1.5 Lock / unlock parameters：In normal operation mode, press Light and Defog and hold them for 3 seconds to lock the parameters, if “00” is displayed, or to unlock if “33” is displayed. (No any setting modification is allowed after locking the parameters)
3.1.6 User’ s parameter setup：
Press Func and hold it for 5 seconds to enter the user’ sparameter setup mode, and the Set Temp. LED is on.
3.2 Function instruction：
3.2.1 Operation：The compressor starts operation when room temperature ≧ (setting temperature + temperature differential), and compressor stops operation when room temperature ≦ (setting temperature + temperature differential) or in defrost process.
3.2.2 Setup mode：
3.2.2.1 Press Func to select sequentially from the functions, Set temp., Temp. differential, Defrost cycle, Defrost period, Temp. calibration, Compressor delay protection, Max. set temp. and Min. set temp.
3.2.2.2 When the required function is selected, press ▲ and ▼ to adjust the values.
3.2.2.3 If no more button is pressed within 10 seconds, the controller will save the new parameters and values and back to the normal operation mode.
3.2.3 Defrost mode and fan operation：
3.2.3.1 Compressor-off defrost (DEI-617)：
3.2.3.1.1 Defrost is performed by the preset operation duty or forced manually. When defrost in progress, the Defr. LED blinks, compressor is off and fan keeps running.
3.2.3.1.2 After defrost, compressor operates according to the difference between room temperature, setting temperature and temperature differential.

3.2.3.2 Electrical heater defrost (DEI-817)：
3.2.3.2.1 Defrost is performed by the preset operation duty or forced manually. When defrost in progress, the Defr. LED blinks, compressor is off and heater turns on and fan stops.
3.2.3.2.2 After defrost, fan starts with two minutes delay and compressor with one minute delay, operates according to the difference between room temperature, setting temperature and temperature differential.
3.2.4 Even the compressor delay protection is setup for 0 minute, compressor will still operate one minute delay after power is supplied.
3.2.5 When the room sensor is in failure, compressor operates cyclically every 15 minutes.
3.3 Indicator/symbol：

Function	Indicator (● : ON, ○ : OFF, ◎ : Blinking)					
	Defog	Lighting	Set temp.	Set differential	Defrost cycle	Defrost period
Set temp. (Room)	○	○	●	○	○	○
Temp. differential	○	○	○	●	○	○
Defrost cycle	○	○	○	○	●	○
Defrost period	○	○	○	○	○	●
Temp. calibration (Room temp.)	◎	○	●	○	○	○
Compressor delay protection	◎	○	○	●	○	○
Max. set point	◎	○	○	○	●	○
Min. set point	◎	○	○	○	○	●

3.4 Parameter table：

Function	Minimum	Maximum	Default
Set temp. (Room)	Min. set point	Max. set point	－18℃／0℉ (DEI-817E) 5℃／41℉ (DEI-617SE/DE)
Temp. differential	1℃／℉	10℃／℉	4℃／℉
Defrost cycle	0 HR	99 HR	6 HR
Defrost period	0 MIN.	59 MIN.	30 MIN.
Temp. calibration (Room temp.)	－8℃／℉	7℃／℉	0℃／℉
Compressor delay Protection	0 MIN.	15 MIN.	3 MIN.
Max. set point	Set temp.	40℃／90℉	40℃／90℉
Min. set point	－40℃／－40℉	Set temp.	－40℃／－40℉

4. ERROR CODES：

4.4 “EE”：Parameter memory failure (Re-plug in and operate as factory default)
4.5 “E1”：Sensor probe failure (Check if the sensor is well connected or replace a new sensor)