DEI-713BE Operation manual 5INSLL00575

1. CAUTION：

1.1 Before wiring, please make sure that power is switched off to prevent from getting electric shock.
1.2 Please install according to the wiring diagram, in order to avoid incorrect wiring.
1.3 Before installation, please avoid to install it in humid environment.
1.4 Before supplying the power,please always check if the wiring and input power connect properly.
1.5 Any improper wiring or installation is beyond our warranty.

2. SPECIFICATION：

2.1 Dimension
  2.1.1 Panel dimension：120 mm (L) x 70 mm (W) x 14 mm (H) $\pm$ 1 mm. (723)
  2.1.2 Panel dimension：87 mm (L) x 87 mm (W) x 13 mm (H) $\pm$ 1 mm. (713)
  2.1.3 Power box：133 mm (L) x 55 mm (W) x 48 mm (H) $\pm$ 1 mm.
2.2 Ambient condition:
  2.2.1 Operation：0℃～50℃，＜ 90%RH (Non-condensing).
  2.2.2 Storage：-10℃～60℃，＜ 90%RH (Non-condensing).
2.3 Output / Input
  2.3.1 Input voltage: AC230V/ AC115V $\pm$ 10% 50 / 60HZ (Single phase)
  2.3.2 External control input x 1
  2.3.3 Temperature sensing input x 1
  2.3.4 Keys input x 5
  2.3.5 Output contact
    2.3.5.1 Valve contact 1A x 1
    2.3.5.2 Fan speed contact 1A x 3
    2.3.5.3 Circuit fuse 5A / 250VAC
    2.3.5.4 Chiller contact 1A x 1 (Voltage free, reserved)
    2.3.5.5 Heater contact 1Ax 1 (Reserved)
    2.3.5.6 If output capacity is unsufficient, please use additional contactor.
  2.3.6 Display output：LCD
  2.3.7 Maximum signal wire: 30 meters.

3. OPERATION：

3.1 Operation / function of button
  3.1.1 "Power" ：Touch to on/off power.
  3.1.2 "Mode"：
    3.1.2.1 Under power on status, touch to select operation mode: Cooling, Fan, Heating, Dehumidify.
    3.1.2.2 Under power off status, press and hold for 3 seconds to lock/unlock. Under lock status, only "Power" key is available.
  3.1.3 "Fan"：
    3.1.3.1 Under power on status, touch to select "Auto", "High", "Medium" and "Low" speed.
    3.1.3.2 "Auto" speed is not available under fan mode.
    3.1.3.3 Under power off status, press and hold for 3 seconds to set temp. calibration -8℃~+8℃.
  3.1.4 "Temp. Adjustment":Press to adjust temp. in 0.5℃ as a step, keep pressing to speed up.
    3.1.4.1 "ST" icon is displayed when setting temperature.
    3.1.4.2 Temp. setting is not adjustable under fan model.
    3.1.4.3 Under power off status, press and hold "DOWN" key for 3 seconds to set cooling minimum setpoint, range:0℃~+35℃.
    3.1.4.4 Under power off status, press and hold "UP" key for 3 seconds to set heating maximum setpoint, range:0℃~+35℃.
  3.1.5 KEYCARD（External control）：
    3.1.5.1 Under power off status, enable external output contact, controller will operate according to previous settings.
    3.1.5.2 Under power on status, disable external output contact, controller will be turned off automatically.
3.2 Function description:
  3.2.1 Temp. display range：0.0℃～50.0℃, accuracy $\pm$ 1℃ in 0.5℃ as a step.
  3.2.2 Setpoint range:：
    3.2.2.1 Cooling: Maximum is 35.0℃, minimum is the minimum setpoint set by user, in 0.5℃ as a setp.
    3.2.2.2 Heating: Minimum is 0.0℃, maximum is the maximum setpoint set by user, in 0.5℃ as a setp.
  3.2.3 Default：Cooling mode, auto fan speed, setpoint at 25℃.

  3.2.4 Cooling mode：
    3.2.4.1 Three way valve:：
      3.2.4.1.1 When room temp. $\geqq$ setpoint + 0.5℃, 3-way valve on.
      3.2.4.1.2 When room temp. $\leqq$ setpoint - 0.5℃, 3-way valve off.
      3.2.4.1.3 Fan speed adjustable: Auto, High, Medium, Low.
      3.2.4.1.4 Chiller contact on.
    3.2.4.2 Auto fan speed.：
      3.2.4.2.1 When (Room temp. - setpoint) $\geqq$ 3.0℃, run at high speed.
      3.2.4.2.2 When 2.5℃ $\geqq$ (Room temp. - setpoint) $\geqq$ 2.0℃ , remain existing fan speed.
      3.2.4.2.3 When (Room temp. - setpoint) = 1.5℃, run at medium speed.
      3.2.4.2.4 When 1.0℃ $\geqq$ (Room temp. - setpoint) $\geqq$ 0.5℃, remain existing fan speed.
      3.2.4.2.5 When (Room temp. - setpoint) $\leqq$ 0℃, run at low speed.
    3.2.4.3 Disable intermittent air blow (JP2-J2 = short), fan keeps running.
    3.2.4.4 Activate intermittent air blow(JP2-J2 = open)
      3.2.4.4.1 When (setpoint-room temp.) $\geqq$ 1.0℃, fan runs and stop cyclically for 1 minute in low speed.
      3.2.4.4.2 When (setpoint-room temp.) $\geqq$ 2.0℃, fan runs for 1 minute and stop for 2 minutes cyclically in low speed.
      3.2.4.4.3 When (setpoint-room temp.) $\geqq$ 3.0℃, fan stops.
  3.2.5 Heating mode：
    3.2.5.1 Boiler (2-pipe) system: (DIP2-J4=Short)
      3.2.5.1.1 When room temp. $\leqq$ (setpoint -0.5℃), valve on.
      3.2.5.1.2 When room temp. $\leqq$ (setpoint -3℃), secondary heater on.
      3.2.5.1.3 When room temp. $\geqq$ (setpoint+0.5℃), valve off.
      3.2.4.1.4 When room temp. $\geqq$ (setpoint-1), secondary heater off.
    3.2.5.2 Heater(4-pipe) system: (DIP2-J4=Open)
      3.2.5.2.1 When room temp. $\leqq$ (setpoint -0.5℃), heater on.
      3.2.5.2.2 When room temp. $\geqq$ (setpoint+0.5℃), heater off.
      3.2.5.2.3 Auto, High, Medium, Low fan speeds are available.
    3.2.5.3 Auto fan speed：
      3.2.5.3.1 When(Setpoint - room temp.) $\geqq$ 3.0℃, run in high speed.
      3.2.5.3.2 When 2.5℃ $\geqq$ (Setpoint - room temp.) $\geqq$ 2.0℃, remain existing speed.
      3.2.5.3.3 When (Setpoint - room temp.) = 1.5℃, run in medium speed.
      3.2.5.3.4 When 1.0℃ $\geqq$ (Setpoint - room temp.) $\geqq$ 0.5℃, remain existing speed.
      3.2.5.3.5 When (Setpoint - room temp.) $\leqq$ 0℃, run in low speed.
    3.2.5.4 Disable intermittent air blow (DIP2-J2 = short), fan keeps running.
    3.2.5.5 Activate intermittent air blow (DIP2-J2 = open)
      3.2.5.5.1 When (Room temp.- setpoint) $\geqq$ 1.0℃, fan runs and stop cyclically for 1 minute in low speed.
      3.2.5.5.2 When (Room temp.- setpoint) $\geqq$ 2.0℃, fan runs for 1 minute and stop for 2 minutes cyclically in low speed.
      3.2.5.5.3 When (Room temp.- setpoint) $\geqq$ 3.0℃, fan stops.
    3.2.5.6 Chiller contact OFF.
  3.2.6 Dehumidify mode:
    3.2.6.1 In low fan speed, without intermittent air blow & auto fan speed. Heater contact off, chiller contact on. Setpoint is adjustable.
    3.2.6.2 When Room temp. $\geqq$ (setpoint+0.5), valve contact on.
    3.2.6.3 When Room temp. $\leqq$ (setpoint-0.5), valve contact on for 2 minutes and off for 5 minutes as a cycle.
  3.2.7 3 minutes protection:
    3.2.7.1 Without 3 minutes delay protection DIP2-J1=Short.
    3.2.7.2 With 3 minutes delay protection DIP-J1=Open.
  3.2.8 Activate air conditioning when power is supplied.
    3.2.8.1 Without this function, DIP2-J3=Short.
    3.2.8.2 Activate this function, DIP2-J3=Open; runs according to the last setting mode.

4.ERROR ELIMINATION：（When following situation occurred, controller will be off automatically.)

4.1 When it is showing "E1" it indicates sensor is out of order. (Send it back to manufacturer for inspection)
4.2 When it is showing "FA"(Fire alarm), it indicates room temp. has reached 55℃.
4.3 When it is showing "EE", it indicates memory failure, it will be back to normal temperature display in 20 seconds.
4.4 When it is showing "E2", it indicates unusual temperature on PCB.
4.5 When it is showing "tA", it indicates an alarm on PCB temperature, and temperature already exceeds 95℃.