DIGITUS®

DISPLAY FOR COOLING UNIT

Manual
DN-97335

Table of contents

1. Overview

DN-97335 is a IIoT human-machine interface. It is high-quality and cost-effective touch screen, industrial ABS plastic shell, low cost, high reliability. The main board is treated with a special coating (three anti-paint) to adapt to harsh environments.

DN-97335 IoT HMI, features a 7" resistive touchscreen, 800x480 resolution, 24-bit colors, high-performance CPU, 4GB storage, and IoT module supported.

2. Appearance

3. Package Content

- 1x Touch screen with integrated metal plate and wiring
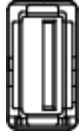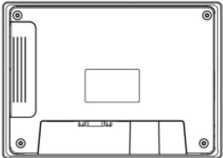- 1x User Manual

4. Specifications

Hardware parameter	Display	7" 16:9 TFT LCD
	Resolution (W x H)	800×480
	Colors	24-bit
	Brightness	360 cd/m²
	Backlight	LED
	LCD Life	50000 hours
	Touch Panel	4 wires resistive touch screen
	CPU	600MHz ARM Cortex-A8
	Memory	128M Flash + 128M DDR3
	RTC	Built in
	Ethernet	NA
	USB Port	USB Slave 2.0 port x1, USB Host 2.0 port x1
	Download Project	USB Slave/ U-disk
	COM Port	COM1:RS232/RS485/RS422 COM3:RS232
	LCD viewing angle (T/B/L/R)	50'/ 70'/ 70'/ 70'
Electrical Specifications	Power Consumption	< 10W
	Input Power	DC24V, working range DC 9V~28V
	Power Protection	Protected from thunderstrike and surging
	Power Down Allowed	< 5mS
Environment Specifications	Operating Temperature	0~50℃
	Storage Temperature	-20~60℃
	Anti-UV	Not suitable to work in strong ultraviolet light (such as direct sunlight)
	Operating Humidity	10~90%RH (No condensation)
	Vibration Endurance	10~25Hz (X, Y, Z direction 2G/30 minutes)

	Cooling method	Natural air cooling
Mechanical Index	Degree of Protection	Front IP65 (with NEMA panel), Back IP20
	Enclosure	Engineering plastic
	Panel Cutout (W x H)	192 × 138 mm
	Dimension	204 × 145× 33.8 mm
	Weight	About 560g

5.   Interface definition

Power terminal (Pin1~Pin3from left to right)		
	Pin1	FG
	Pin2	0V
	Pin3	DC24V
DB9 Serial terminal		
	Pin1	Rx- (B)
	Pin2	RxD (COM1 RS232)
	Pin3	TxD (COM1 RS232)
	Pin4	Tx-
	Pin5	GND
	Pin6	Rx+(A)
	Pin7	RxD (COM3 RS232)
	Pin8	TxD (COM3 RS232)
	Pin9	Tx+

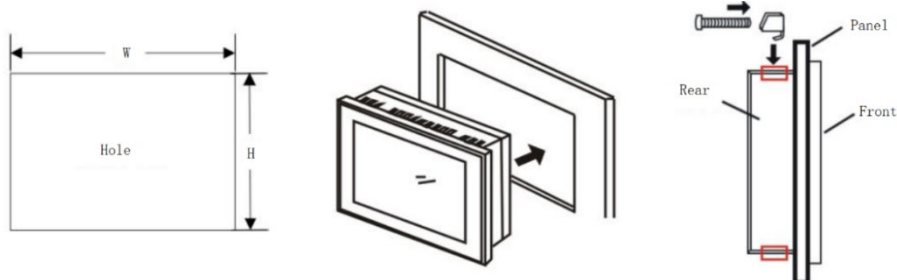| USB Host		
	USB Type A	Used to connect U disk, scan code gun and other peripherals
USB Slave		
	MicroUSB	Used to download programs and debug
IIoT Expanding Module Connection	Expansion module card slot (Option)	Application for network connection

6.   Install

6.1 Installation precautions

Please ensure that AC power cords, PLC output modules, contactor starters, and other types of electrical interface equipment are kept at a distance from the back of the device product when installing the device behind this product.

6.2 Installation procedures

Embed the appliance on the operating panel of the control cabinet and install the metal snaps with a crosshead screwdriver and a random panel. Follow these steps to install.

- On the panel surface, cut a rectangular mounting groove and open the embedded holes according to the opening size, then embed the HMI host from the front of the panel.
- Insert the metal tabs in the top and bottom four mounting jack positions on the back of the HMI console, insert the fixing screws (included) and tighten them with a cross screwdriver.
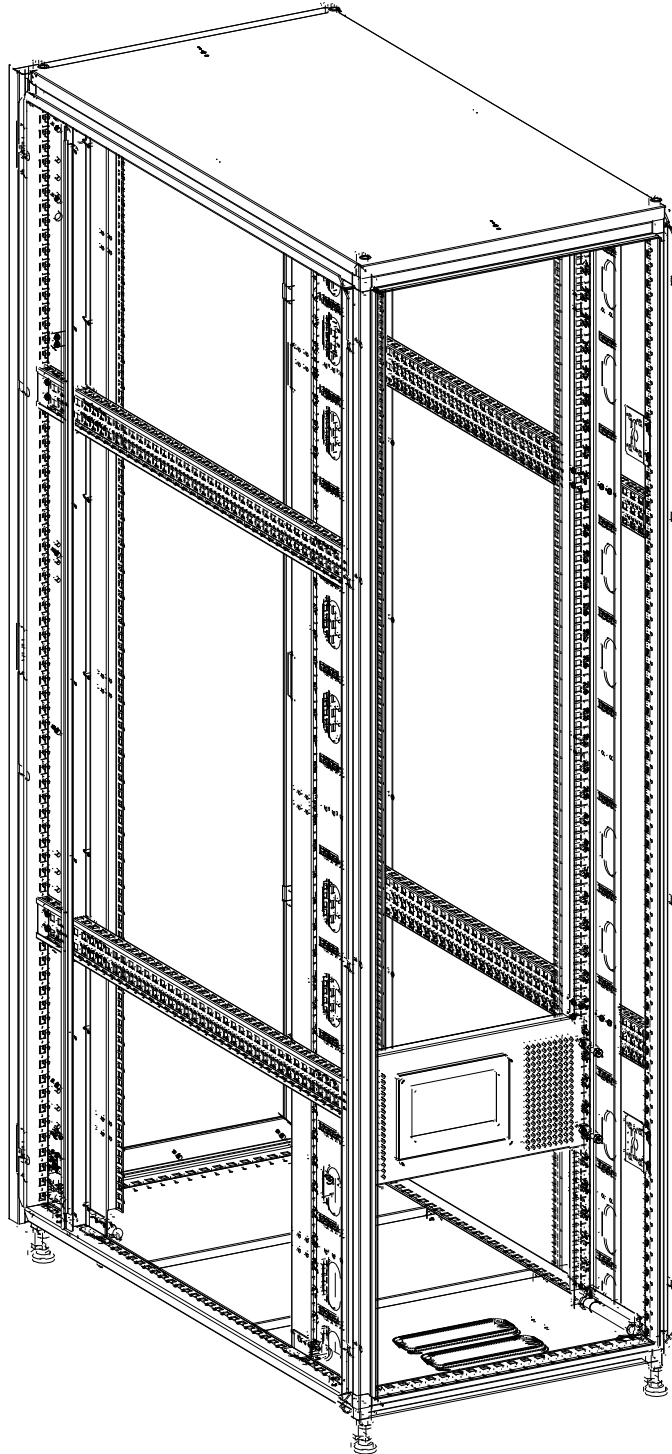
6.3 Mounting size

190.8±0.3

33.8±0.3

203.9±0.3

102

137±0.3

65.5

144.9±0.3

7"

Panel Cutout (W*H):

192*138(+1.5mm/-0.0mm)
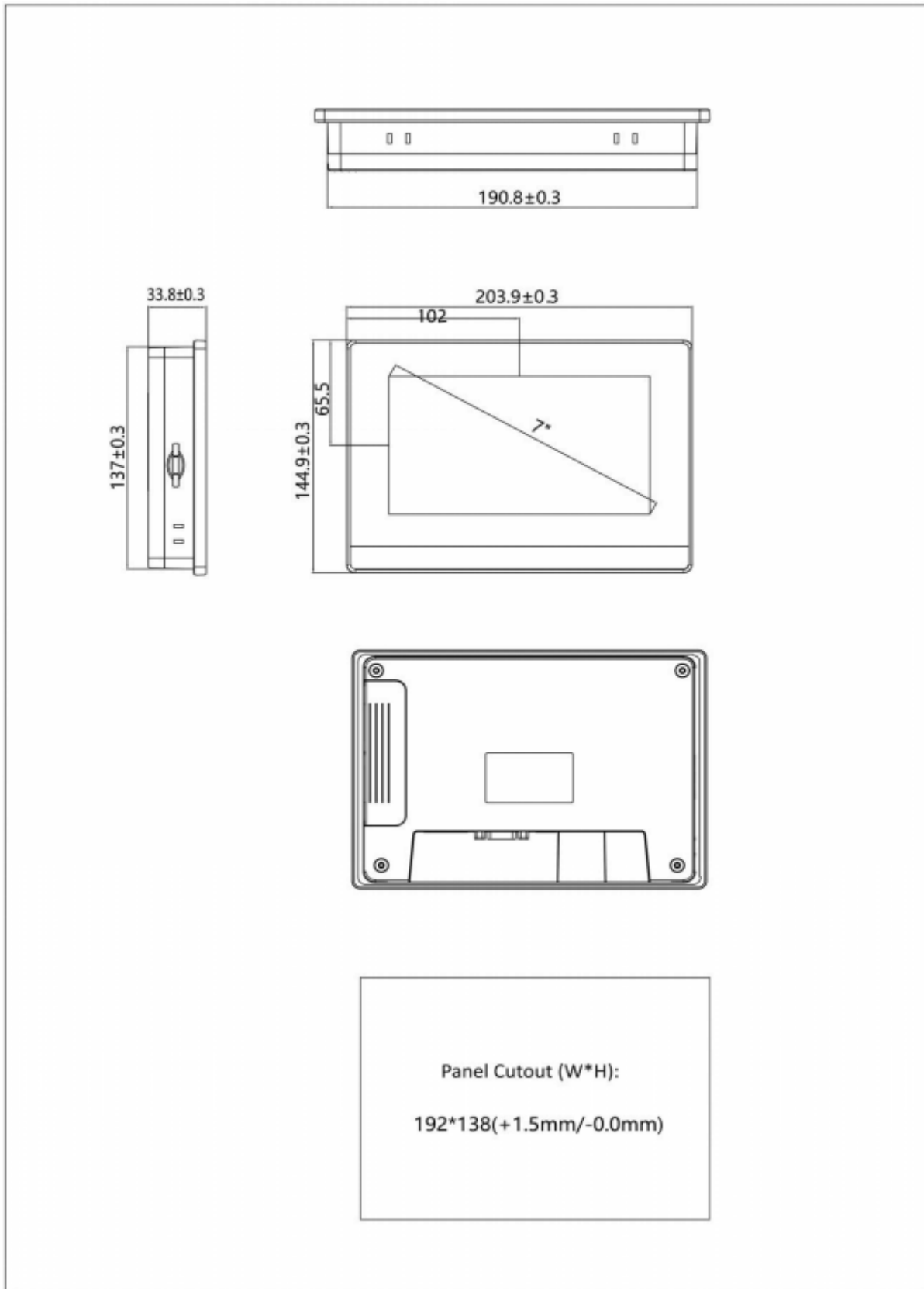
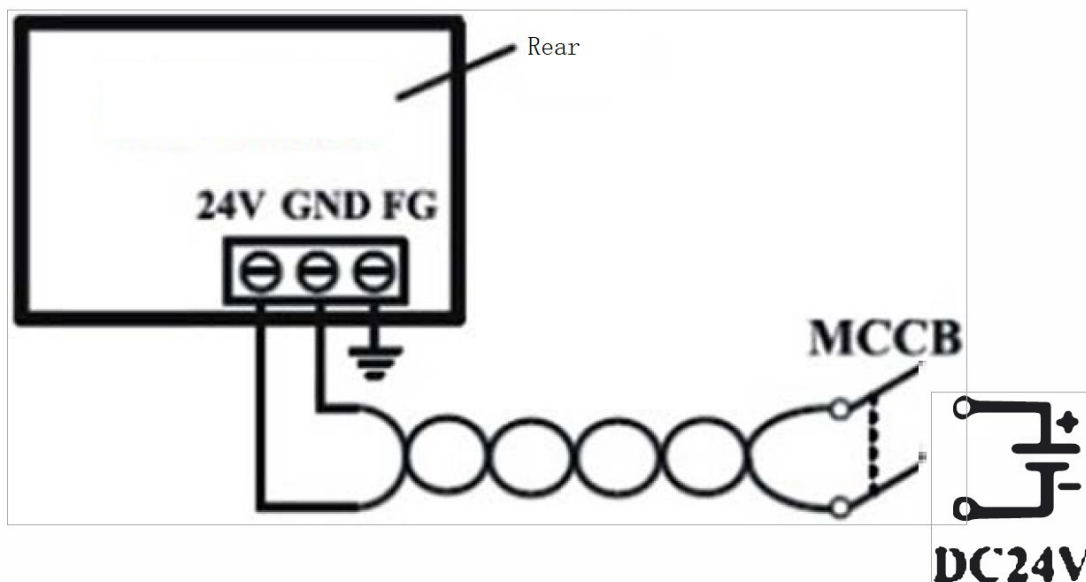## 6.4 Fixed installation of structure

Install the display assembly on the U column of the cabinet and fix it with crown screws and nuts. A total of 4 screws are required to be fixed.
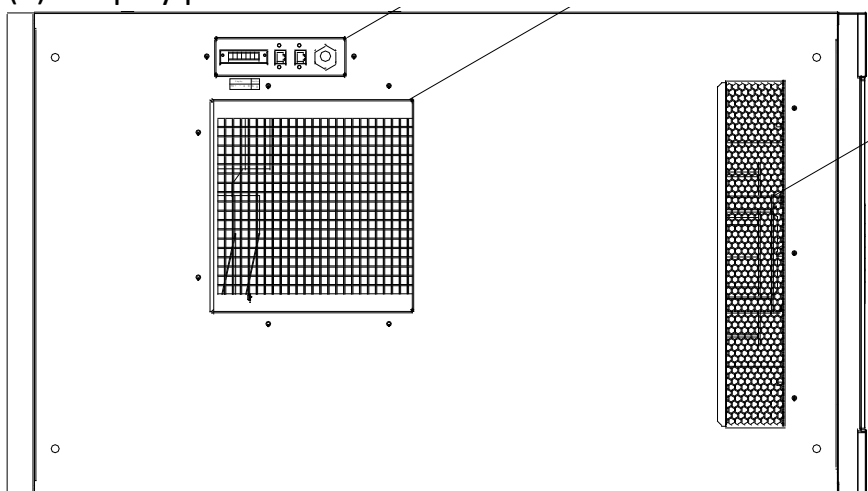
7.   Wiring

7.1 Power connection
Hold the screen touch panel anywhere and power up the HMI to 24V DC.

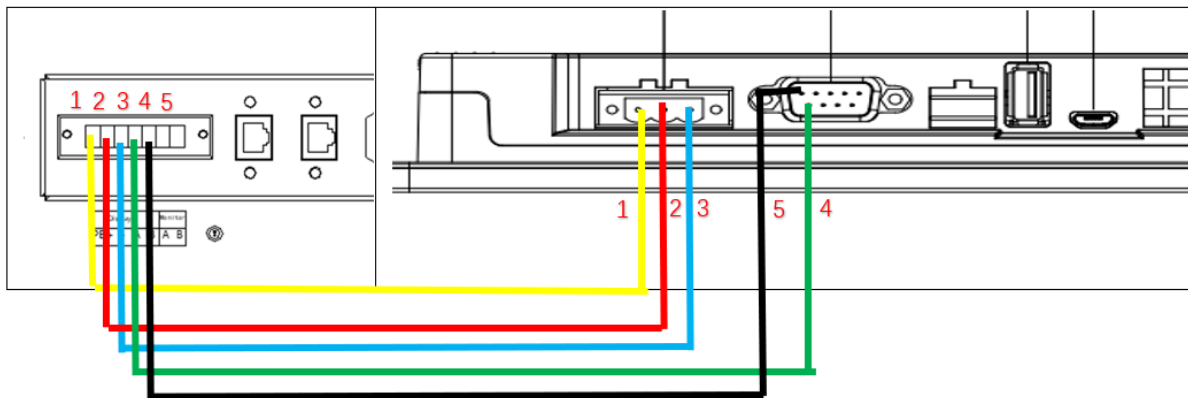
7.2 Communication connection
Connection of the unit DN-97330/ DN-97331
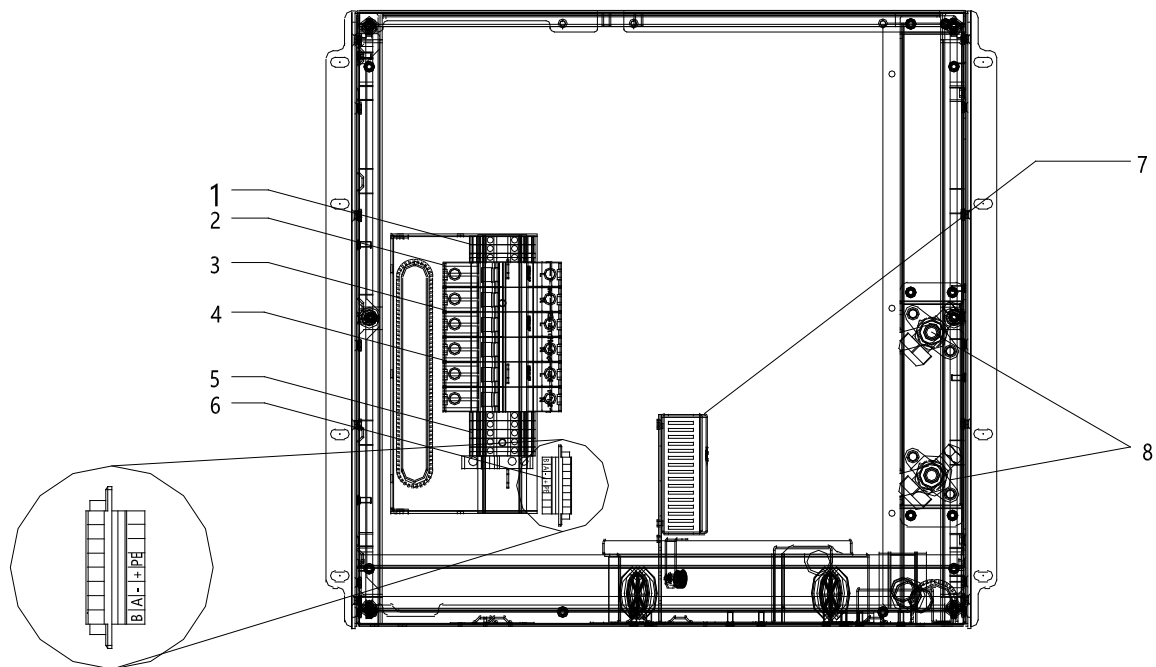(a). Display port

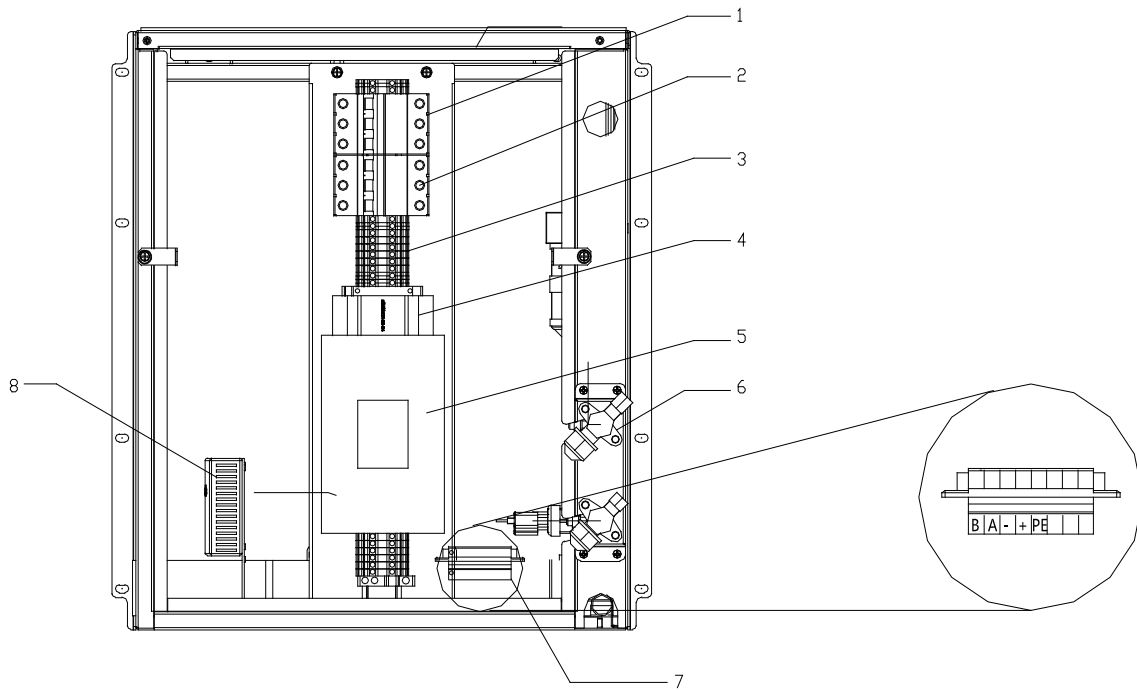Bottom of DN-97330/ DN-97331

(b). Connect to the display.

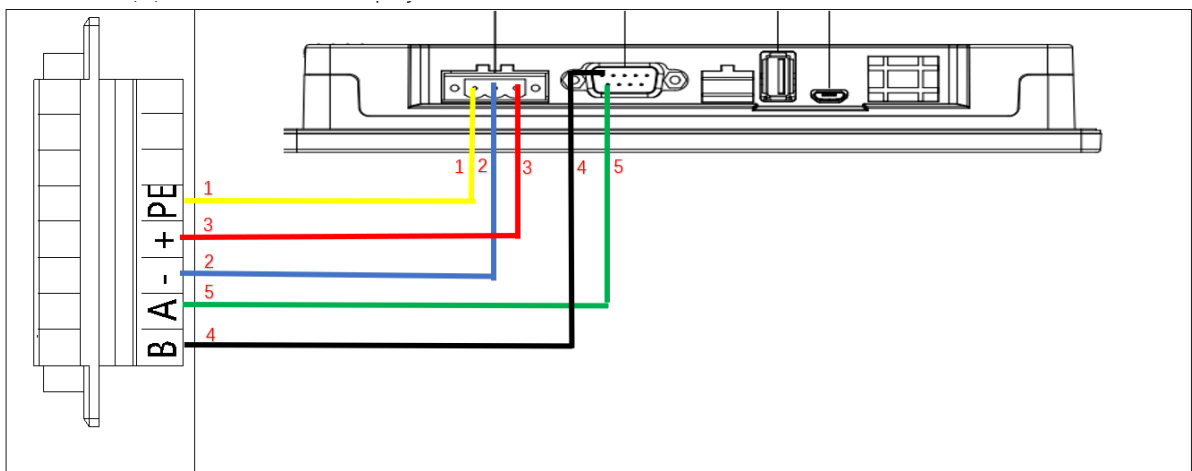Connection port of the unit DN-97332/DN-97333/ DN-97334:
(a): Display port

Back of DN-97332/DN-97333

Back of DN-97334

(b): Connect to the display:

8. Program Interface Description

The program interface is divided into homepage, menu page, alarm page.
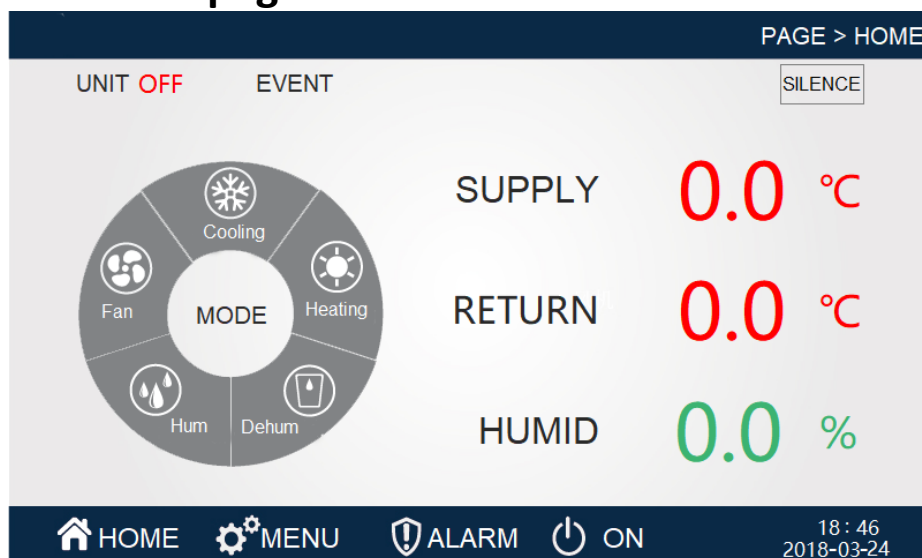
8.1 Home page

Figure1 Home

Automatically enter the home page when you are on power. Or automatically return to the home page if the interface is not operated for a long time.

- (21:10/2018-03-24) Time/date. show current date, you can change the time in the clock Settings.
- (Home/menu/alarm/boot) Menu options, click the corresponding option to enter the corresponding menu page.
- The "home page" option currently displays the embedded background mode, representing the current page as the home page. Other pages are similar, and the post is not repeated.
- (Temperature 0.0 ℃) shows that temperature sensors to detect real-time temperature.
- (Humidity 0.0%) shows the real-time humidity detected by humidity sensor.
- (The unit state shutdown) shows the current operating state of the unit and the "boot" state.
- (Alarm) This will scroll to show all the current alarms.
- (Censored) When there is an alarm, there will be a warning sound, click the noise to eliminate the alarm sound.
- (Operating state refrigeration and heat dehumidification humidifier) various functional operation status.

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8.2 menu

You can enter the menu page at other page point menu.

Figure2 Menu

- • (I/O) Click to enter the input output page, including all digital input output information and analog quantity input and output information.
- • (User Settings) click to enter the user Settings page, including the parameters set by the user.
- • (Factory Settings) click to enter the factory Settings page, including all factory Settings.
- • (Maintenance Settings) click to enter the maintenance Settings page, including all maintenance Settings parameters.

8.3 Alarm

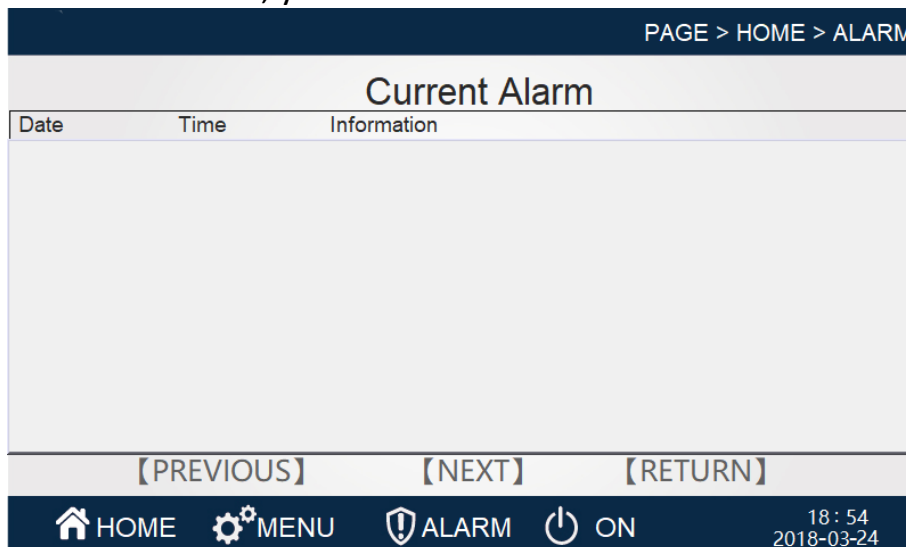Under this menu, you can view all alarms that exist in the current unit.

Figure3 Current alarm

- (Trigger date) the exact date of the alarm.
- (Trigger time) The timing of the alarm.
- (Alarm content) Warning.
- (return) The return key is returned to the previous page.
- (Next page) Page turn option, click to enter the history alarm page.

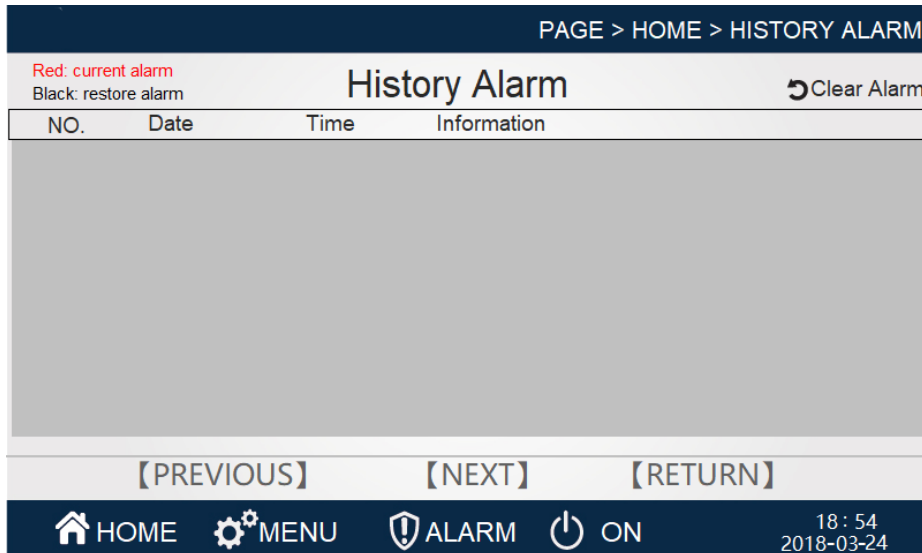Under this menu, you can view all the uncleared alarms that have occurred before the current crew.

Figure4 History alarm

- (serial number) Alarm number.
- (date) The exact date of the alarm.
- (time) The timing of the alarm.
- (alarm content) Alarm content.
- (return) The return key is returned to the previous page.
- (next page) Page turn option, click to enter the current alarm page.
- (clearance alarm) Click to clear all history alarms.

8.4 Input/output 1

Under this menu, you can view the current unit number input state and digital output status. When the output status of the device is blue, the device is in the output state and the device is in a non-output state when the color is gray. When the port input state is blue, the port is entered into a closed state, and when the color is gray, the device is disconnected.
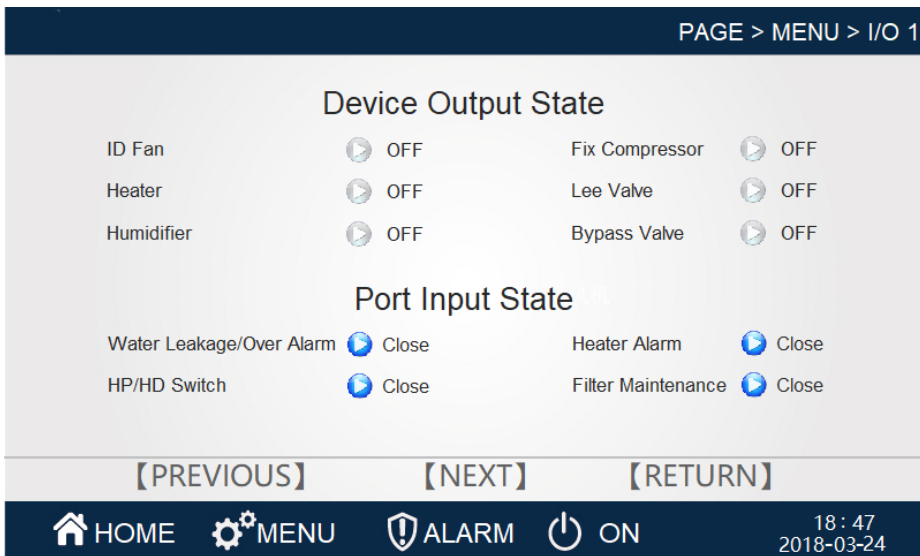
Figure5 Input/output1

- (return) The return key is returned to the previous page.
- (next page) Page turn option, click to enter the input output 2 page.

8.5 Input/output 2

Under this menu, you can view the current unit simulation input and output values.
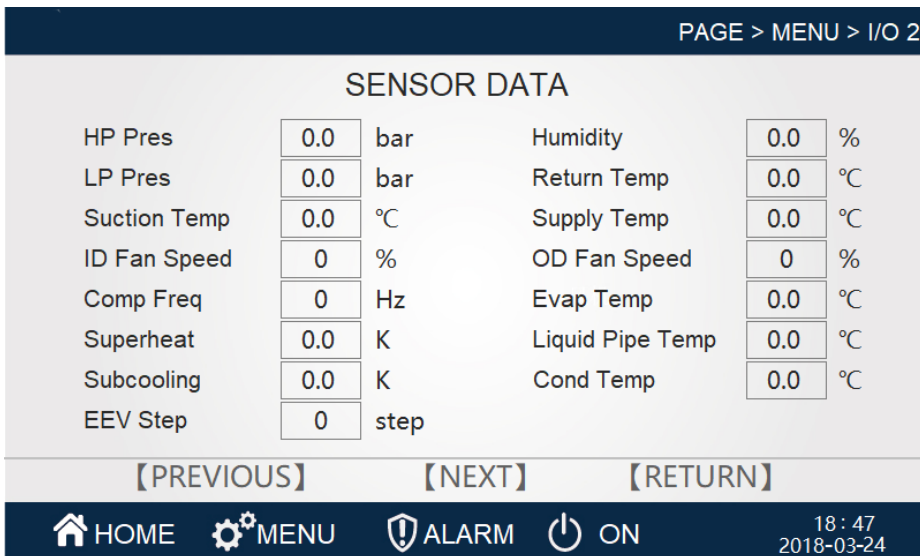

Figure6 Input/output1

- (temperature and humidity curve) Click to enter the temperature and humidity curve interface.
- (pressure curve) Click into the pressure curve interface.
- (return) The return key is returned to the previous page.
- (previous page) Turn page option, click to enter the input output 1 page.
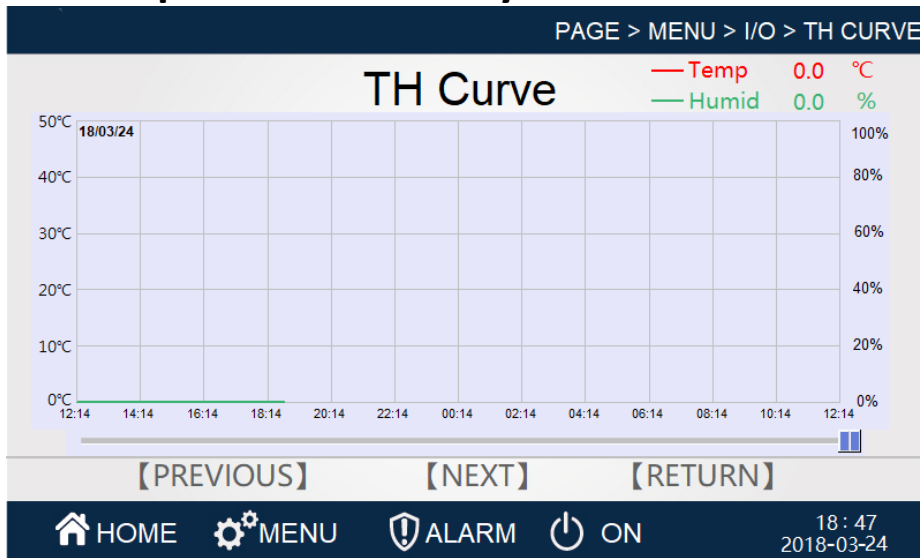
8.6 Temperature humidity curve

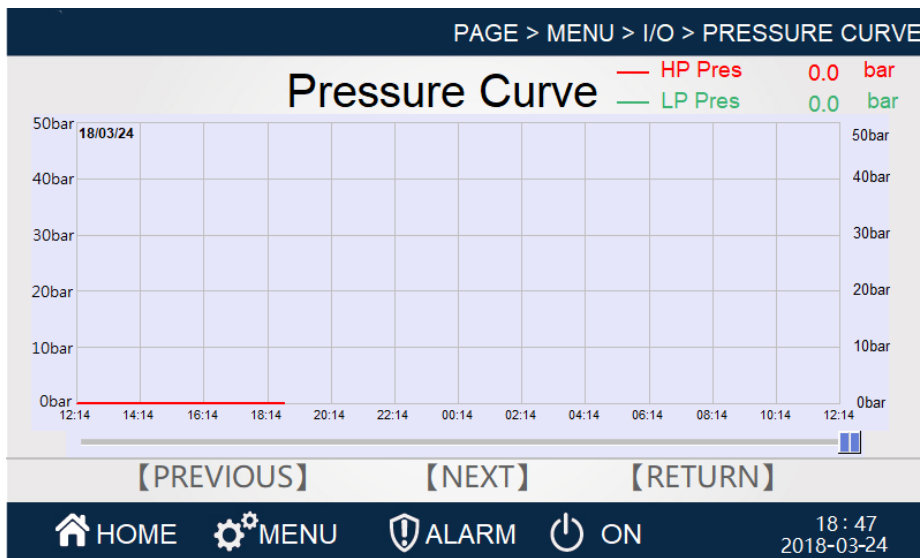Figure7 temperature humidity curve

8.7 Pressure curve

Figure8 pressure curve
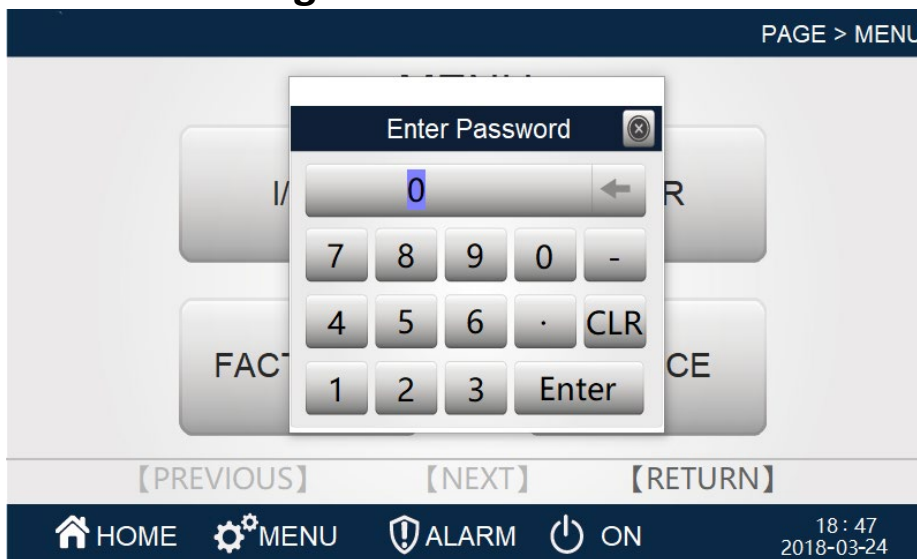
8.8 User Settings

Figure9 Enter password

Enter password "4321" Enter the Settings page.

Click the user Settings option on other page points to enter the user Settings page.

Figure10 User

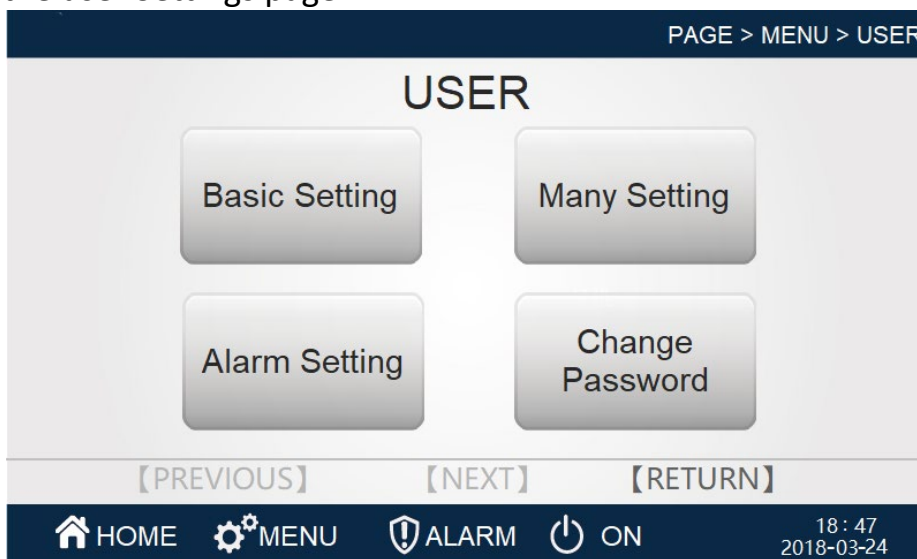- (Basic setting) Click to enter the basic Settings page, including temperature and humidity Settings.
- (Many setting) Click to enter the comprehensive Settings page, including date time, monitoring address, etc.
- (Alarm setting) Click to enter the alarm Settings page, including alarm value Settings, alarm property Settings.
- (Change password) Click to enter the change password page and change the user password.

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8.9 Basic setting

Basic Setting

Temp Setting	0.0	℃	Humid Setting	0.0	%
Temp Band	0.0	℃	Humid Band	0.0	%
Dehum Limit Temp	0.0	℃	Recom Humid St	0.0	%
Heat ON Band	0.0	℃	Heat OFF Band	0.0	℃
Control Mode	Supply Air		Humid Control Mode	AH Control	
			Humid Control Valve	0.0	%

【PREVIOUS】 【NEXT】 【RETURN】

⌂ HOME ⚙MENU ⓘALARM ⏻ ON 18 : 47 2018-03-24

Figure11 Basic setting

- (Temp Setting 0.0℃) Set the temperature setting value, that is, the expected indoor temperature.
- (Humid Setting 0.0%) Set the humidity setting value, that is, the expected indoor humidity.
- (Temp Band 0.0 ℃) Set the temperature range, that is, the deviation of the set point of the temperature, to ensure that there is a deviation in the temperature point of the device starting and stopping, and it will not stop frequently during the partial load. Set temperature ranges compatible with frequent start-stop and allowable temperature fluctuations.
- (Humid Band 0.0 %) Set the humidity range, that is, the deviation of the humidity set point, to ensure that there is a deviation between the starting and stopping humidity point of the equipment, and it will not stop frequently during the partial load. When setting the humidity range, it is compatible with frequent start-stop and allowable humidity fluctuations.
- (Heat on band 0.0 ℃) Set the heating opening deviation, that is to achieve the temperature deviation after the basic conditions of heating.
- (Heat off band 0.0 ℃) Set the heat closing deviation, that is, to meet the basic conditions of thermal shutdown after the temperature deviation.
- (Control mode return air) The temperature control is based on the risk control system, and the air supply can be selected.
- (repower startup) Turn on the incoming call function.
- (return) The return key is returned to the previous page.

8.10 Many setting

Figure12 Many setting

- (2018 Year 03-month 20 day 13 hour 22 minute 52 second) Date and time, you can set the current date and time.
- (Modbus address 0) Monitor address, you can set the monitor address of the controller.
- (restore factory reset) Factory setting reset.
- (return) The return key is returned to the previous page.

8.11 Alarm setting

Figure13 Alarm setting

- (High temperature alarm 0.0℃) High temperature alarm value, the return

air temperature exceeds the high temperature alarm set value and then the alarm. Click the number to set.

- (Low temperature alarm 0.0℃) Low temperature alarm value, the return air temperature is lower than the low temperature alarm set value and then the alarm. Click the number to set.
- (high humidity alarm value 0.0%) The high humidity alarm value, the return air humidity exceeds the high humidity alarm set value after the alarm. Click the number to set.
- (low humidity alarm value 0.0%) The low humidity alarm value, the return air humidity is lower than the low wet alarm set value after the alarm. Click the number to set.
- (return) The return key is returned to the previous page.

8.12 User change password

Figure14 User change password

- (user password Settings******) click the text box to change the password.
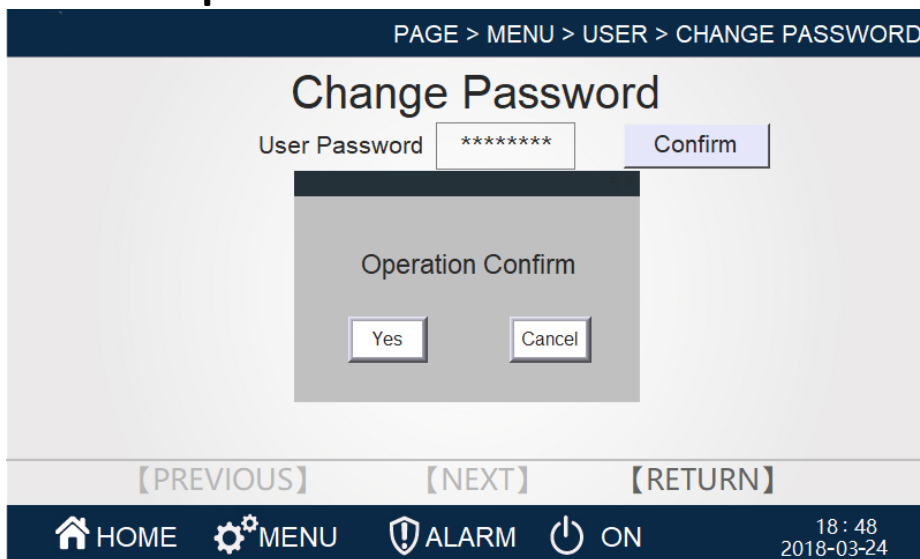
8.13 User password confirmation

Figure15 User password confirmation

- (password confirmation) can be changed after entering the new password

This is a Class A product. In home environment, this product may cause radio interference. In this case, the user may be required to take appropriate measures.

Hereby ASSMANN Electronic GmbH, declares that the Declaration of Conformity is part of the shipping content. If the Declaration of Conformity is missing, you can request it by post under the below mentioned manufacturer address.

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