



Mobile industrial dehumidifier DEH-1900i

» Operating and maintenance manual



Rev. 6.20

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Introduction

Purpose

This user manual has been compiled to inform you about the equipment you have purchased and how to use it safely.

Content

Management contains general information on safety and applications, principle of operation, dehumidification process control, maintenance procedures, diagnosis and troubleshooting.

Copyright

We reserve all rights to update and clarify the information contained in this manual.

Warning!!!



Some components inside the air dehumidifier housing carry high voltage. Please read this manual before use to avoid errors that could result in personal injury, equipment damage, or electric shock! The equipment warranty is void if the unit has been improperly operated, maintained or modified.

1 SAFETY AND APPLICATION

1.1 Safety of use

All models of dehumidifiers in this series are manufactured in compliance with the requirements of European safety standards and current regulations. During design and production, the requirements for ensuring the safety of the operator and equipment were taken into account. This manual provides safety information and describes circumstances that may lead to abnormal situations. Such information is marked with a warning sign "ATTENTION!".

This manual also provides basic information on how to maintain your dehumidifier. It is for informational purposes only and does not relieve the user of his responsibility to comply with personal safety requirements and local safety standards.

In equipment operation each user is obliged to follow the instructions below:

- observe technique safety when working with electrical equipment;
- follow the description and instructions in this manual to ensure protection user and equipment;
- before use, check the equipment for visible damage and performance;
- do not allow the use of the dehumidifier in explosive environments and rooms, as well as in places where the air contains various kinds of dust or aggressive substances: oils, salts, sulfur, chlorine, etc.;
- keep the heat exchangers clean and timely service the dehumidifier;
- do not use the installation without a filter;
- do not block the air intake and air supply grilles;
- do not wash the unit under running water;
- observe during transport and operation vertical installation position;
- empty on time container for condensate (when used);
- do not use the equipment if you suspect a malfunction;
- prevent deletion of warnings signs on the device;
- keep this manual next to the dryer.

1.2 Application area

DEH-i series dehumidifiers use the condensing method of dehumidification and are able to effectively dehumidify the air and automatically maintain the desired humidity level at atmospheric pressure in the range of 40-100% relative humidity and operating range temperatures from +10°C to +35°C.

This series of condensing dryers are widely used in the following fields:

- elimination of consequences flooding of various heated premises with water;
- heated warehouses for packaging and finished products;
- production of internal wet construction and finishing works;
- production and storage of confectionery products and food stuffs;
- storage and aging of cheeses;
- drying fish, vegetables and fruits, starch;
- painting cameras;
- test laboratories;
- production facilities with high-precision equipment;
- rooms with open reservoirs and pools;
- premises that require frequent wet cleaning and laundry;
- pumping stations;
- production zones injection molding;
- and etc.

2 DEVICE INFO

2.1 Standards

The design of the dehumidifiers corresponds to the protection class IP22, IEC standard.

2.2 Description and principle of operation

The unit is designed for automatic and uninterrupted dehumidification and maintenance air humidity at atmospheric pressure. The operation of the dehumidifier is based on the principle of condensation of moisture from the air. During operation of the dryer, moist air is sucked into the dryer by a fan and, passing through two heat exchangers of the compressor refrigeration machine, is first cooled in the "cold" heat exchanger (evaporator) to the dew point temperature with condensation, and then heated in the "warm" heat exchanger (condenser) and is discharged from the dehumidifier into the room to be dried. The moisture released from the air in the form of condensate flows into the inner tray, and then by gravity, at the user's choice, is discharged either into the built-in removable tank or directly into the sewer system. Dehumidifier management and control carried out through the control panel equipped with an LCD display. The display can show current and adjustable parameters, operating modes, as well as service information in case of a malfunction. In the course of work through a dehumidifier there is a continuous repeated circulation of air and its humidity in the room gradually decreases. Due to the design of the dryer in a single unit, the air temperature at the outlet of the dryer in dehumidification mode is always higher than the air temperature at the inlet to the dryer by about 5°C.

It should also be borne in mind that the performance of the dehumidifier directly depends on the humidity and temperature of the air being dried. The lower the temperature and air humidity, dryer performance will be lower. To drain condensate it is necessary to use the supplied corrugated hose from the fitting to the sewer from the outside.

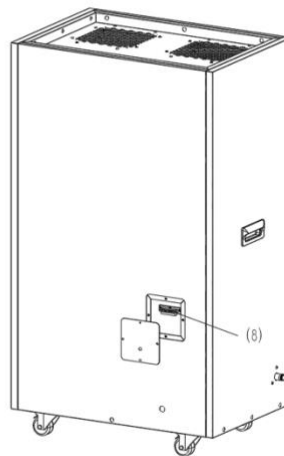
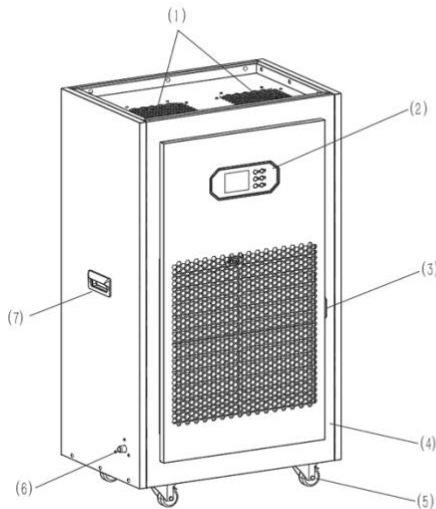
When freezing the heat exchanger during the operation of the dehumidifier, the automation switches off the fan for hot gas defrosting, the compressor continues to work. After the defrosting of the heat exchanger is completed, the fan turns on automatically and the air dehumidification continues. Operating modes are displayed on the LCD display of the control panel.

The dehumidifier is equipped with a removable, washable G1 filter to clean the incoming air. The use of a dryer without a filter is prohibited due to contamination of the heat exchanger, subsequent corrosion of its elements and, as a result, depressurization of the system.

2.3 Design

The dehumidifier has a metal, corrosion-resistant housing, powder-coated method. In the front part of the housing there is an incoming air filter, which is fixed by a grille.

For easy transportation, the dryer is equipped with tubeless wheels and transport handles.



Name of the parts

1. Air outlet
2. Control panel
3. Filter
4. Front shell
5. Transport wheels
6. Drain connection
7. Handle
8. RS485 port

3 MOVEMENT AND INSTALLATION SITE

The equipment is equipped with transport wheels and a handle for easy moving to the place of operation.

For optimal, economical and safe operation of the dryer, the following recommendations:

1. Avoid physical damage to the unit when moving to the site exploitation;
2. Do not place the dehumidifier in close proximity to radiators or other sources of heat;
3. Install the dehumidifier on a level surface in a vertical position to properly drain the condensate discharged from the dehumidifier;
4. If possible, place the dehumidifier in the center of the room to be dried or in the middle of a long wall to ensure optimal air circulation;
5. Do not cover or block the ventilation grilles of the unit for unhindered circulation of the dried air through the dryer;
6. Close windows, door sand, if possible, limit the ventilation performance in the room being dried to avoid the influx of moist air from the street or adjacent premises.

4 STARTING AND OPERATION

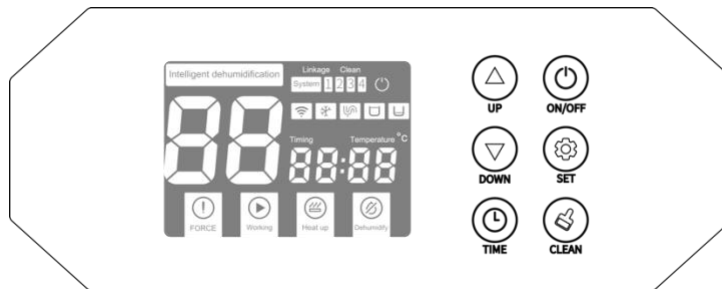
4.1 Electrical connection



All work on electrical equipment must be carried out in accordance with the safety standards of the country in which the equipment is used.

- it is forbidden to connect the dehumidifier to the mains, the power and frequency of which are outside the nominal values of the dehumidifier;
- when using extension cables, they must be fully extended, grounded and of sufficient conductor cross-section.

4.2 Control Panel



 [On/off] : used for equipment switching control.

 [Set] : used for entering the temperature setting status and parameter confirmation.

 [Up] : When humidity, timing or cleaning time are set, the parameters will increase.

 [Down] : When setting humidity, timing or cleaning time, the parameters will decrease.

 [Clean] : used to set the cleaning time, query and reset the running time.

 [Time] : used to set the timing time and query the remaining timing time.

4.3 Status description

On in standby mode,  is on; In the power-on state,  is off.

The "intelligent dehumidification" character is on when the machine is turned on, and the "intelligent dehumidification" character is off when the machine is turned off;

If the fan is delayed to start, the "Working" symbol flashes; If the fan is on, the "Working" symbol will be on;

The "Dehumidify" character flashes when the compressor is delayed; When the compressor is on, the "Dehumidify" character is on; Compress is off, then "Dehumidify" off ; If the compressor stops when the humidity reaches the target value, the "Dehumidify" character flashes;

- Humidity is above 90%, the display shows "HI"

- Humidity is below 10%, the display shows "Lo"

4.4 Humidity control

When the machine is turned on, press the  or  key once to enter the humidity setting state: the large number flashes to display the humidity setting value "** *".

In the humidity setting state, press the  and  key to set the humidity, with the setting range of 10%-90% RH, which can not be set circularly.

Press the  or  key continuously for more than 2s to set continuously, 5 times per second.

Press the  key or operate without key for 5s, then confirm the set humidity value and exit the humidity setting status.

If the humidity is set to 10%, continuous dehumidification operation is forced, and the "forced" symbol is on.

Attention:

- The dehumidifier will not start if the humidity level set in the settings is higher than current humidity;

4.5 Timer settings

Set the time in the standby state to turn on regularly, and turn off in the power on state.

In the power-on/power-off state, press the  key once to enter the timing setting query state, the "Timing" symbol is on, and the left small double 8 digits flash to display the remaining or default timing time "00".

In the query status of timing setting, press the  and  key to set the timing time value (can't be selected in a cycle). The time setting range is 1~24h, and can be set in a cycle

Press the  key once or operate without key for 5s, confirm the timing time and exit the timing setting state.

When the timing time is set to "0 ", the timing setting is invalid, and the left small double 8 digits and the "timing " symbol are off.

When the timing is valid, the left small double digit 8 shows the remaining timing time.

4.6 Temperature query (display in °C only):

In the power-on state, press the  and  keys for 5S at the same time to enter the temperature query state: the left number displays the coil code "P1", the right number displays the corresponding coil temperature, and then press the  key to check the exhaust temperature: the left number displays the coil code "P2", the right number displays the exhaust temperature (if the temperature sensor is not used or faulty, the corresponding right number displays "--"), If there is no key operation for 5S, the temperature query status will exit.

4.7 Temperature control

High temperature protection (buzzer has no alarm prompt)

If the ambient temperature is detected to be $\geq$ [high temperature protection temperature U04 value (50°C)] for 3 consecutive seconds, the whole machine enters into high temperature protection, the fan is turned on, and the compressor is turned off;

If the ambient temperature is detected to be $\leq$ ([high temperature protection temperature] - [temperature control return difference (2)]) for 3 consecutive seconds, the whole machine will exit the high temperature protection and resume normal operation (the compressor can be restarted only after it meets the protection of shutdown for three minutes);

Low temperature protection (buzzer has no alarm prompt)

If the ambient temperature is detected to be $\leq$ [low temperature protection temperature U05 value (5°C)] for 3 consecutive seconds, the machine will enter into low temperature protection;

If the ambient temperature $\geq$ ([low temperature protection temperature]+[temperature control return difference (2)]) is detected for 3 consecutive seconds, the whole machine will exit from the low temperature protection and return to normal operation (the compressor has to meet the three-minute shutdown protection before it can be started again).

Status indication

- 1) During high-temperature shutdown U04 value(50°C), the small digital display blinks and shows "-H".
- 2) During low-temperature shutdown U05 value(5°C), the small digital display blinks and shows "-L".
- 3) During normal operation, the large number shows the ambient humidity.

4.8 Filter cleaning reminder function

If the accumulated running time of the fan $\geq$ the cleaning interval time (default 30 days), the machine will continue to run, the prompt "cleaning filter", and re-power will not be restored (re-power, "cleaning filter" prompt does not clear); until the accumulated fan running time < cleaning interval time.

In the power-on state, press the  key, you can enter the cleaning time setting state: the left side of the double 8 small numbers flashing display cleaning time set value "" (unit: days). In the cleaning time setting state, and then press the  and  key to set the cleaning reminder time value (not cyclic selection), press the  and  key a change in the cleaning time setting value of 1 day, the cleaning time setting range of 1 to 99 days; press the  key or no key operation 5s to confirm the setting of the cleaning time value and exit the cleaning time setting state.

Under the state of power off, long press the  key for 5s, you can enter the cleaning time query state: the left side of the double 8-digit display of the cumulative running time of the high 2-digit data "", the right side of the double 8-digit display of the cumulative running time of the low 2-digit data ". Press the  key once, then the cumulative running time of the fan will be cleared to zero, and no key operation will exit the cleaning time query state after 5s.

4.9 Fahrenheit/Celsius switching

In the power-on state, press the  and  keys for 5 seconds to switch the Fahrenheit/Celsius display.

4.10 Defrost model

The dehumidifier automatically activates defrosting mode when conditions are met:

- ① The compressor's continuous operation time should be $\geq$ [25 minutes defrost interval];
- ② A. Maintain coil temperature between -3°C and 0°C for 5 minutes, keep compressor/fan running, and activate the two-way valve for 1 minute defrosting.
B. If the coil temperature remains below -3°C for 30 minutes, the compressor will shut down and the fan will activate high-speed operation for defrosting. If the compressor stops for 3 minutes and the coil temperature reaches or exceeds 2°C, it will restart automatically and exit defrost protection mode.

C. When E2 fails, defrosting mode:

The compressor must operate continuously for $\geq$ [25 minutes]; the compressor/fan must run continuously, and the two-way valve must be opened for 1 minute to defrost.

- Status indicator:

During defrost operation, the "Defrost" character flashes; after defrost, the "Defrost" character turns off.

4.11 System parameter setting

Enter the parameter setting mode using a set of passwords (the factory default password is – **1111**).

Press the set key and hold it for 3 seconds.

The 4-digit display will show '- - -0'.

Use the up key to cycle through the current position of the password (1,2,3...0,1), and the down key to cycle through the current position of the password (9,8,7...0,9).

Press the set key to set the current position's password value.

After completing the password setting, press the set key to confirm.

If the password is incorrect, the two-digit display will show 'Er', and the buzzer will sound three times before exiting the parameter setting mode.

If the password is correct, the buzzer will sound once, and you will enter the parameter setting mode. At this point, the display will show 'U06'.

Use the up or down key to select a parameter code.

Once a parameter is selected, press the set key to display its setting value.

You can then use the up or down key to set the parameter.

After completing the settings, press the set key again to return to the parameter code display mode.

System parameter setting interface exit

After the parameter setting is completed, you must long press the setting key for 3 seconds. The system exits the parameter setting state and saves this parameter setting. If there is no button operation in the parameter setting state for 30 seconds continuously, the system exits the parameter setting state, but this parameter setting is invalid, and the controller still runs according to the original parameter.

The working parameter codes and setting instructions are shown in the following table

No	Code	Setting the function	Setting range	Illustrate	Factory setting
1	U06	Dehumidifying Setpoint	10~ 90%	10~ 99%	50
2	U43	Humidity control differential	1~ 5%	1-30	2
3	U41	Fan Start Temperature	0~25℃	-40-25	16
4	U04	High Temperature Protection	30~70 ℃	High temperature/low temperature Setting interval 1 ℃	50
5	U05	Low Temperature Protection	-20~25 ℃		5
6	U32	Internal Temperature Sensor calibration	-10~+10℃		0
7	U34	Coil Temperature Sensor Calibration	-10~+10℃		0
8	U35	Humidity sensor calibration	-10~+10%		0
9	U39	Coil Temperature Sensor Function Setting	0~1	0:Disable evaporation sensor ; 1: Enable system fluorine deficiency protection	1
10	U25	High Pressure Alarm Input mode	0~1	0: Disable ; 1: Allow	0
11	U26	Compressor Low pressure Alarm Input mode	0~1	0: Disable ; 1: Allow	0
12	U44	External control start signal	0~1	0: Disable external switch 1: Allow external key switch	1
13	U24	Buzzer alarm	0~1	0: Disable 1: Enable	1
14	U17	Minimum compressor downtime	0 -10 minutes		3
15	U37	Compressor faulty stop time	0 -90 minutes		3
16	U38	Compressor faulty running time	1 -90		3
17	U47	System power on/off	ON, OFF	ON: Turn on ; OFF: Shut down	ON
18	U14	RS485 baud rate setting	0~2	0:9600bps 1:19200bps 2:38400bps	0
19	U13	Device Address	1~247		1
20	U99	Password	0000 ~ 9999	----	1111
21	U07	Water fills and opens and closes	0~1	0: The water is full 1: No water full	0
22	End	Setting End			

5 Protection functions

5.1 Buzzer function

The buzzer beeps once each time a key is pressed, beeps once when confirming parameter settings, and beeps three times when invalid operations are performed. When the system fails or there is an external alarm input, if parameter U24 = 0, the buzzer alarm function is turned off and the buzzer does not sound an alarm. If parameter U24 = 1, the buzzer sounds continuously. After the system returns to normal, the buzzer alarm state is automatically eliminated.

5.2 System Low Pressure (fluorine leakage) protection

5 minutes after the compressor is started, the ambient temperature and coil temperature are detected. If the ambient temperature is higher than the evaporator temperature by more than 5 degrees, the system is considered normal. Otherwise, it is considered to be low gas pressure (fluorine leakage) and the alarm code "LF" is displayed. The compressor is forced to shut down.



If the low-pressure protection occurs three times in succession within 1 hour, you need to manually power on to clear the alarm.

5.3 Dry contact alarm output

When sensor failure, high temperature, low temperature, high pressure/low pressure alarm, or fluorine deficiency protection occurs, the dry contact relay will operate and output an alarm signal;

Signal name	Work	Power off	Standby	Fault
COM (common terminal) - NC (normally closed)	disconnect	closure	closure	closure
COM (common terminal) - NO (normally open)	closure	disconnect	disconnect	disconnect

5.4 Restore factory parameters and passwords

When the controller is running, press the set key and the up key at the same time and hold it for 5 seconds. The buzzer will sound a tone and the digital tube will display "Un". At this time, press the up key twice and the buzzer will sound a tone. The controller will automatically restore the factory parameters and the default password "1111";

6 Remote control functions

6.1 Wi-Fi distribution network

Connect the dehumidifier with power supply

Please make sure your phone wifi & Bluetooth are turned on . Your mobile phone and smart device need to be within good signal strength range of your WIFI router (Please refer to your router specifications for maximum range)

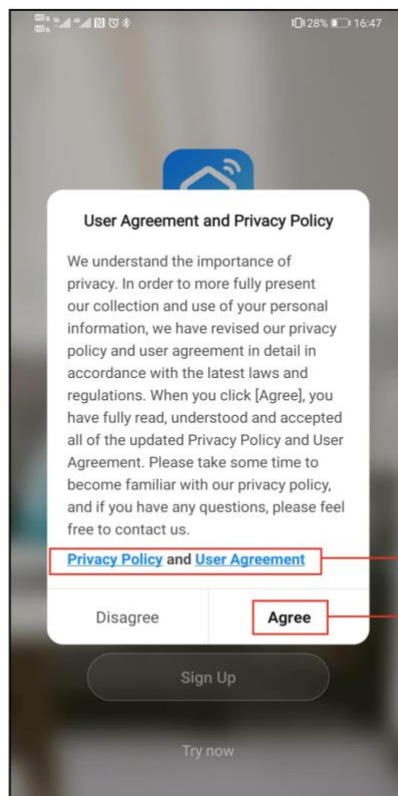
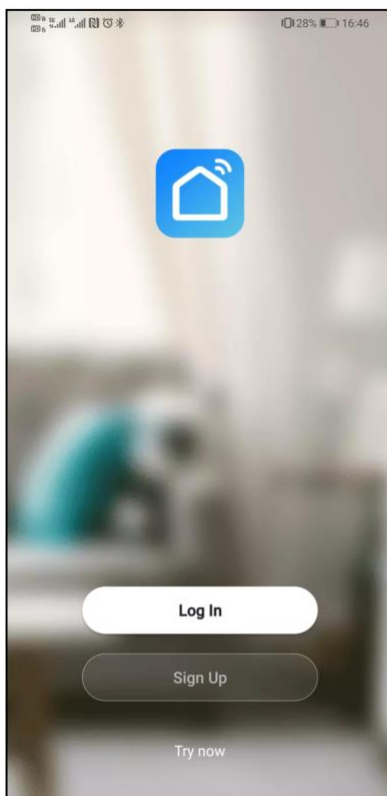
You can download the App by searching “Smart Life” in mobile app stores or scanning the following QR code



(This QR code is applicable to IOS / Android mobile phone)

Register/Log in

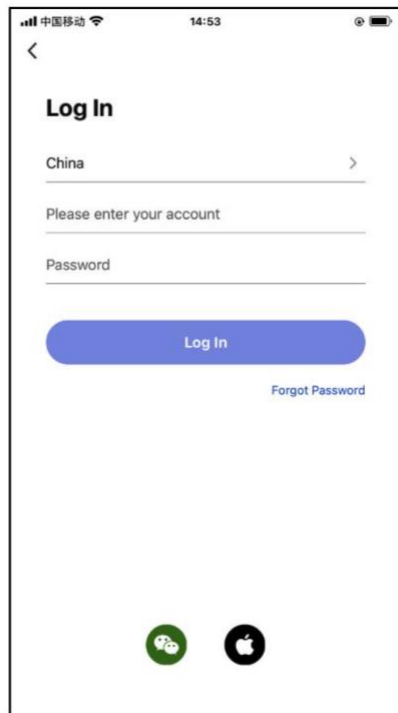
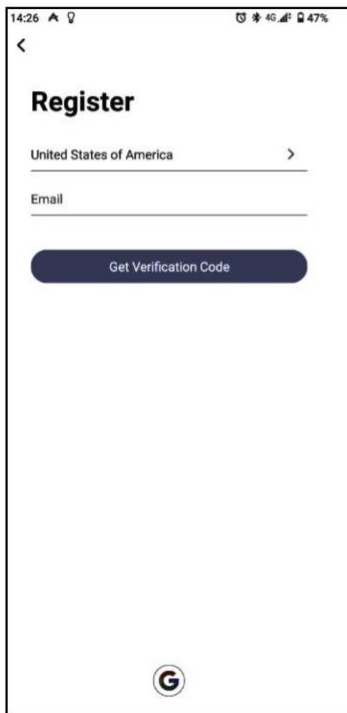
Activate your Location, WIFI and Bluetooth function, and open the "Smart Life" app. Then, the privacy policy page of the "Smart Life" platform appears. And you will enter the account login / registration page, After agreeing to the User Agreement and Privacy Policy, proceed to the next step.



Go to the privacy policy page

Go to the login/registration page

You can register your account step by step, or register with the third-party social account. Click the **Google account/Apple ID** icon at the bottom of the login area to authorize the registration, and get into the homepage.

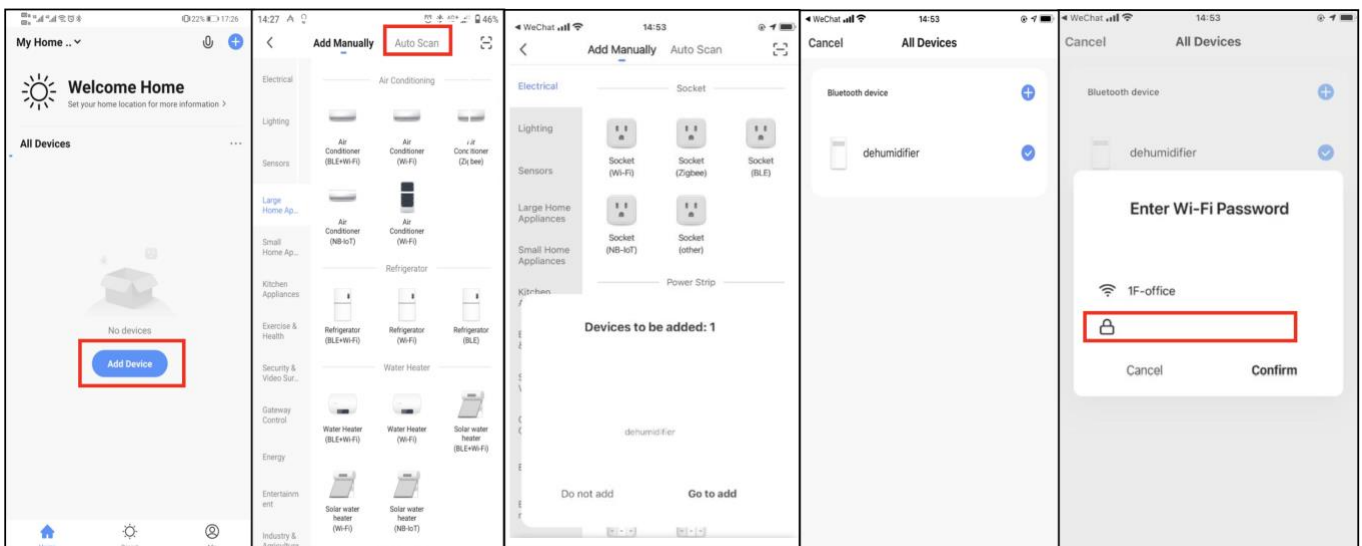


Add Device.

After turning on the dehumidifier, the **WIFI**  indicator light will flash slowly, after long press ON/OFF key for 3 seconds until a drip sound was heard. Then, WIFI indicator light flashes quickly and the dehumidifier is in WIFI configuration mode.

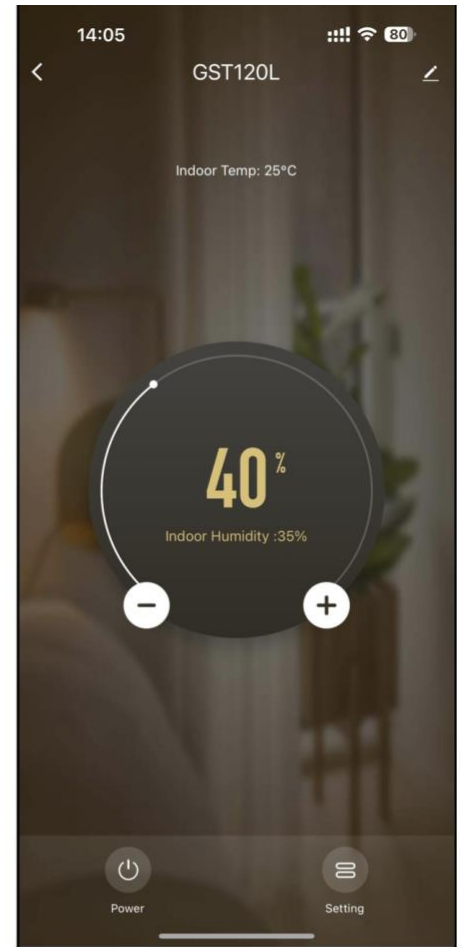
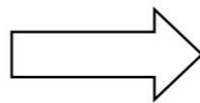
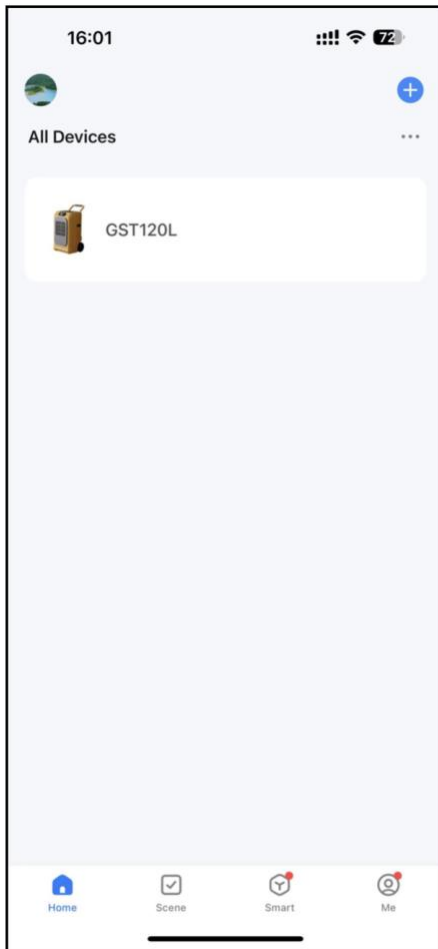
Auto Scan

Click Add Device on the main page of APP, and select Auto Scan. (Please make sure your Location, Wi-Fi and Bluetooth function is activated to conduct device pairing.) Add the detected devices, and enter the Wi-Fi password to complete.



Introduction of functions device

The paired devices will be displayed one by one under the “All devices” page. Click the default name of the device “dehumidifier” as shown in the figure below to enter the main interface of operating the device.



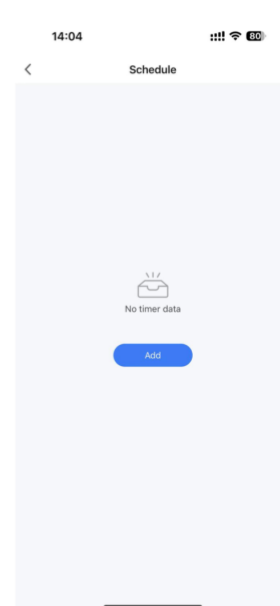
The main interface functions are as follows:



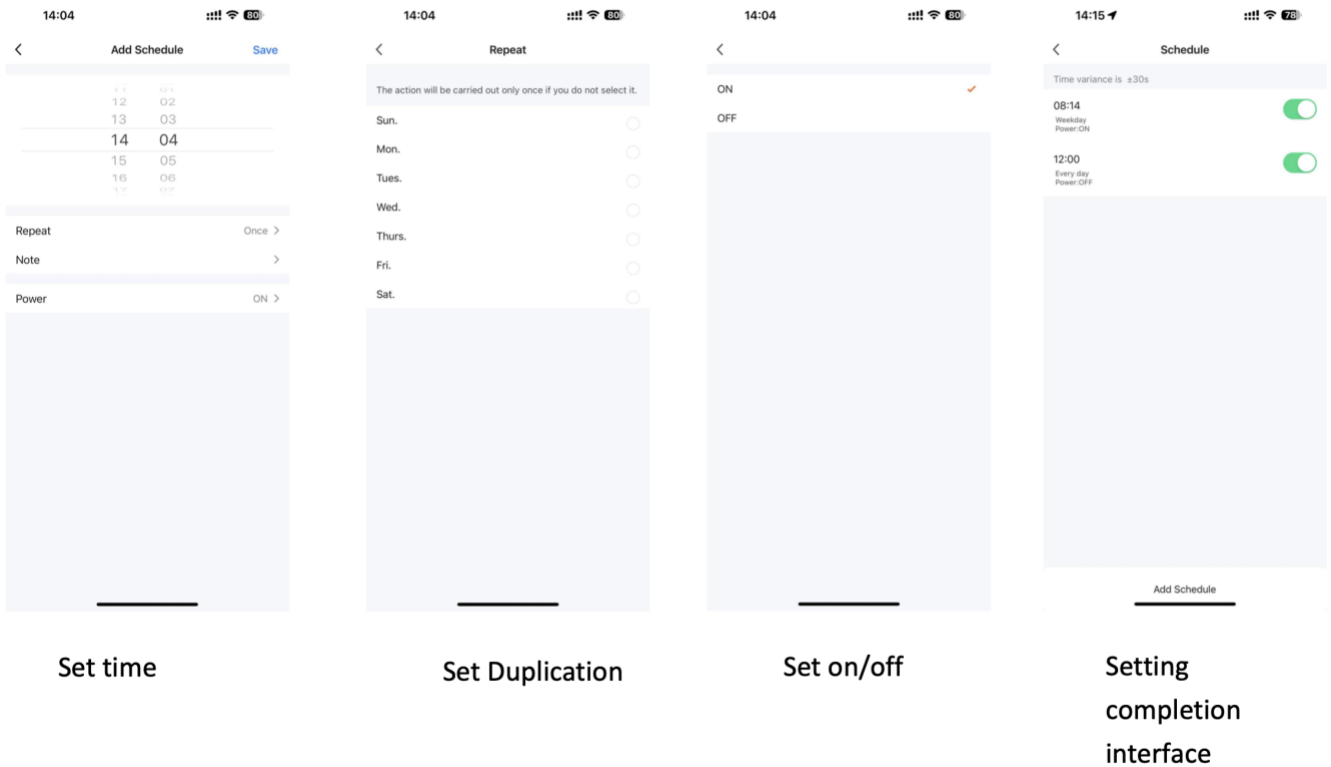
Main interface



Setting interface



Timing setting interface



Note: In the “Main Interface”, tap the power button to start the machine. After the machine is started, the operation mode of the machine can be controlled through the function buttons in the “Main Interface”.

6.2 ModBus connection

Support MODBS RTU format, 8 bit data bits, optional check mode (no, odd, even), 1 bit stop bits, port rate optional (9.6kbps 19.2kbps 38.4kbps).

Supported functional codes

Function	Description
02	Read Discrete Inputs
03	Read Holding Registers
06	Write Single Register
04	Read Input Registers

Data type: single 1-bit and 16-bit data types.

Data address: The data address starts from 0, and the first data address is 0.

Supported exception codes

Error Code	Description
01	illegal function code
02	Illegal data address
03	Illegal data value

Function

1. Read Discrete Inputs (02)

Function	address	Data Types	Permissions	unit	illustrate
Internal fan	0	BOOL Type	Read-only	none	0: Stop, 1: Run
Emergency fan	1	BOOL Type	Read-only	none	0: Stop, 1: Run
Refrigeration state	2	BOOL Type	Read-only	none	0: Stop, 1: Run
Heating state	3	BOOL Type	Read-only	none	0: Stop, 1: Run
Cooling Dehumidifying state	4	BOOL Type	Read-only	none	0: Stop, 1: Run
Heating dehumidifying state	5	BOOL Type	Read-only	none	0: Stop, 1: Run
System self-inspection status	6	BOOL Type	Read-only	none	0: Stop, 1: Run
System running state	7	BOOL Type	Read-only	none	0: Stop, 1: Run
Alarm relay output	8	BOOL Type	Read-only	none	0: Off, 1: Suction
Internal Temperature sensor alarm	9	BOOL Type	Read-only	none	0: Normal, 1: Fault
High Temperature alarm	10	BOOL Type	Read-only	none	0: Normal, 1: Fault
Low temperature alarm	11	BOOL Type	Read-only	none	0:Normal,1: Alarm
External temperature sensor alarm	12	BOOL Type	Read-only	none	0: Normal, 1: Fault
External High temperature alarm	13	BOOL Type	Read-only	none	0:Normal, 1:Alarm
External Low temperature alarm	14	BOOL Type	Read-only	none	0:Normal, 1:Alarm
Internal Humidity Sensor alarm	15	BOOL Type	Read-only	none	0: Normal, 1: Fault
Internal High humidity alarm	16	BOOL Type	Read-only	none	0:Normal, 1:Alarm
Internal Low humidity alarm	17	BOOL Type	Read-only	none	0:Normal, 1:Alarm
External Humidity Sensor alarm	18	BOOL Type	Read-only	none	0: Normal, 1: Fault
External High humidity alarm	19	BOOL Type	Read-only	none	0:Normal, 1:Alarm
External Low humidity alarm	20	BOOL Type	Read-only	none	0:Normal,1: Alarm
Compressor high-pressure alarm	21	BOOL Type	Read-only	none	0:Normal,1: Alarm
Compressor low-pressure alarm	22	BOOL Type	Read-only	none	0:Normal,1: Alarm
Refrigeration failure alarm	23	BOOL Type	Read-only	none	0:Normal,1: Alarm
Heating failure alarm	24	BOOL Type	Read-only	none	0:Normal,1: Alarm
Unused – reserve	25				
Coil Temperature Sensor Faulty	26	BOOL Type	Read-only	none	0: Normal, 1: Fault
Coil Sensor low-temperature alarm	27	BOOL Type	Read-only	none	0:Normal,1: Alarm

2. Write Single Register(06)

Function	address	Data Types	Permissions	unit	illustrate
Cooling stop temperature	0	The 16 bits have symbols	Read and Write	°C	15.0°C~50.0°C Example: Write 258 indicates a setting of 25.8°C All temperature data are processed in this way
Cooling sensitivity	1	The 16 bits have symbols	Read and Write	°C	1.0°C~20.0°C
Heating stops the temperature	2	The 16 bits have symbols	Read and Write	°C	-20.0°C Refrigeration stop temperature
Heating sensitivity	3	The 16 bits have symbols	Read and Write	°C	1.0°C~20.0°C
Internal High temperature alarm	4	The 16 bits have symbols	Read and Write	°C	30.0°C~70.0°C
Internal Low-temperature alarm	5	The 16 bits have symbols	Read and Write	°C	-20.0°C~25.0°C
Humidity setting value	6	16-bit unsigned	Read and Write	%	10%~99% Example: Write 602 indicates setting 60.2% All the humidity data is processed in this way
Internal High humidity alarm	7	16-bit unsigned	Read and Write	%	60%~100%
Internal Low humidity alarm	8	16-bit unsigned	Read and Write	%	10%~50%
Emergency fan working mode	9	16-bit unsigned	Read and Write		0: Stop 1: Long open 2: Timing
Emergency fan operation interval time	10	16-bit unsigned	Read and Write	hour	1~24
Emergency fan operating time	11	16-bit unsigned	Read and Write	minute	1~60
Simulate temperature in the machine	12	The 16 bits have symbols	Read and Write	°C	-20.0°C~60°C
485 address	13	16-bit unsigned	Read and Write		1~247
485 baudrate	14	16-bit unsigned	Read and Write		0: 9600 1: 19200 2: 38400
485 parity check bits	15	16-bit unsigned	Read and Write		0: None 1: Odd 2: Even
User factory setting	16	16-bit unsigned	Read and Write		0:Disable 1:Enable
Compressor cooling interval time	17	16-bit unsigned	Read and Write	minute	0~10
Heating interval time	18	16-bit unsigned	Read and Write	minute	0~10
External High temperature alarm	19	The 16 bits have symbols	Read and Write	°C	30.0°C~99.0°C
External Low-temperature alarm	20	The 16 bits have symbols	Read and Write	°C	-40.0°C~25.0°C
External High humidity alarm	21	16-bit unsigned	Read and Write	%	60%~100%
External Low humidity alarm	22	16-bit unsigned	Read and Write	%	10%~50%
Alarm relay switch	23	16-bit unsigned	Read and Write		0:Disable 1:Enable
Alarm sound switch	24	16-bit unsigned	Read and Write		0:Disable 1:Start using
Compressor high-pressure detection enables	25	16-bit unsigned	Read and Write		0:Disable 1:Enable
Compressor low-pressure detection enables	26	16-bit unsigned	Read and Write		0:Disable 1:Enable
Internal temperature sensor enables	27	16-bit unsigned	Read and Write		0:Disable 1:Enable

Function	address	Data Types	Permissions	unit	illustrate
Inner coil temperature sensor enables	28	16-bit unsigned	Read and Write		0:Disable 1:Enable
Internal humidity sensor enables	29	16-bit unsigned	Read and Write		0:Disable 1:Enable
External humidity sensor enables	30	16-bit unsigned	Read and Write		0:Disable 1:Enable
Heater enables	31	16-bit unsigned	Read and Write		0:Disable 1:Enable
Internal temperature probe correction value	32	The 16 bits have symbols	Read and Write	°C	-10.0°C~10.0°C
Fixed value of the off-cabinet temperature probe	33	The 16 bits have symbols	Read and Write	°C	-10.0°C~10.0°C
Internal coil tube temperature probe correction value	34	The 16 bits have symbols	Read and Write	°C	-10.0°C~10.0°C
Correction value of the humidity probe in the cabinet	35	The 16 bits have symbols	Read and Write	%	-10.0%~10.0%
External humidity probe correction value	36	The 16 bits have symbols	Read and Write	%	-10.0%~10.0%
The compressor interval running time of the temperature sensing fault	37	16-bit unsigned	Read and Write	minute	0~90
Compressor running time during the temperature sensing fault	38	16-bit unsigned	Read and Write	minute	1~99
Cooling fault detection is enabled	39	16-bit unsigned	Read and Write		0:Disable 1:Enable
Heating fault detection is enabled	40	16-bit unsigned	Read and Write		0:Disable 1:Enable
Internal fan operation stop temperature	41	16-bit unsigned	Read and Write		-40.0°C~25°C
Dehumidifying enabling	42	16-bit unsigned	Read and Write		0:Disable 1:Enable
Humidity reading calibration	43	16-bit unsigned	Read and Write	%	1.0%~30.0%
Emergency shutdown function enables	44	16-bit unsigned	Read and Write		0:Disable 1:Enable
Factory setting	45	16-bit unsigned	Read and Write		0:Disable 1:Enable
Remove the cooling or heating fault	46	16-bit unsigned	Read and Write		0:Disable 1:Enable
Start / Stop machine	47	16-bit unsigned	Read and Write		0: Shutdown; 1: Power on

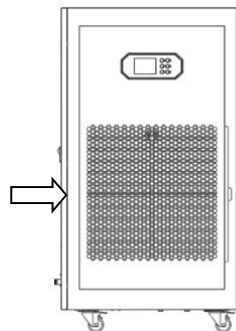
3. Read Input Registers(04)

Function	address	Data Types	Permissions	unit	illustrate
Internal Temperature Reading	0	16-bit signed	Read-only	°C	Actual temperature = reading
External Temperature Reading	1	16-bit signed	Read-only	°C	
Inner coil tube temperature reading	2	16-bit signed	Read-only	°C	
Internal humidity reading	3	16-bit unsigned	Read-only	%	Actual temperature = reading
External humidity reading	4	16-bit unsigned	Read-only	%	

7 Maintenance

Clean the filter screen

- Pull out the filter screen to the right.
- Replace the filter screen after cleaning.



Clean

Wipe the body shell with a clean cloth dipped with a proper amount of water or neutral cleaning solvent.

Then wipe the body shell with clean dry cloth.

If it is not used for a long time, please drain the water in the built-in sink, store the power cord and drain pipe, and store it in a cool and ventilated place.

Attention

Please do not use strong acid, strong alkali, flammable, volatile and other organic solvents to clean the product.

Please don't clean the product with spout directly.

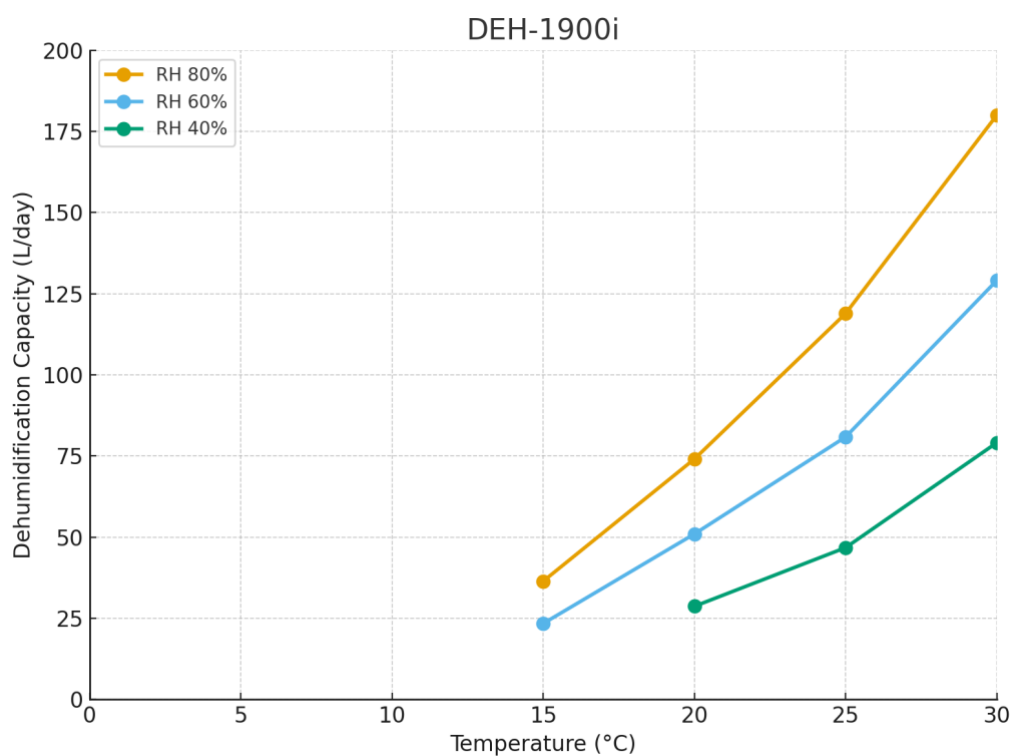
8 Error codes

Error code	Problems/ Malfunction	Solution
E2	Coil sensor	Contact service
E3	Temperature and humidity sensor fault	
EH	High temperature protection of exhaust pipe	
-H	High temperature protection	
-L	Low temperature protection	
LF	System fluorine deficiency protection	
Hi	Humidity > 90%	
Lo	Humidity < 10%	
Er	Wrong password	
Un	Restore the default factory password "1111"	

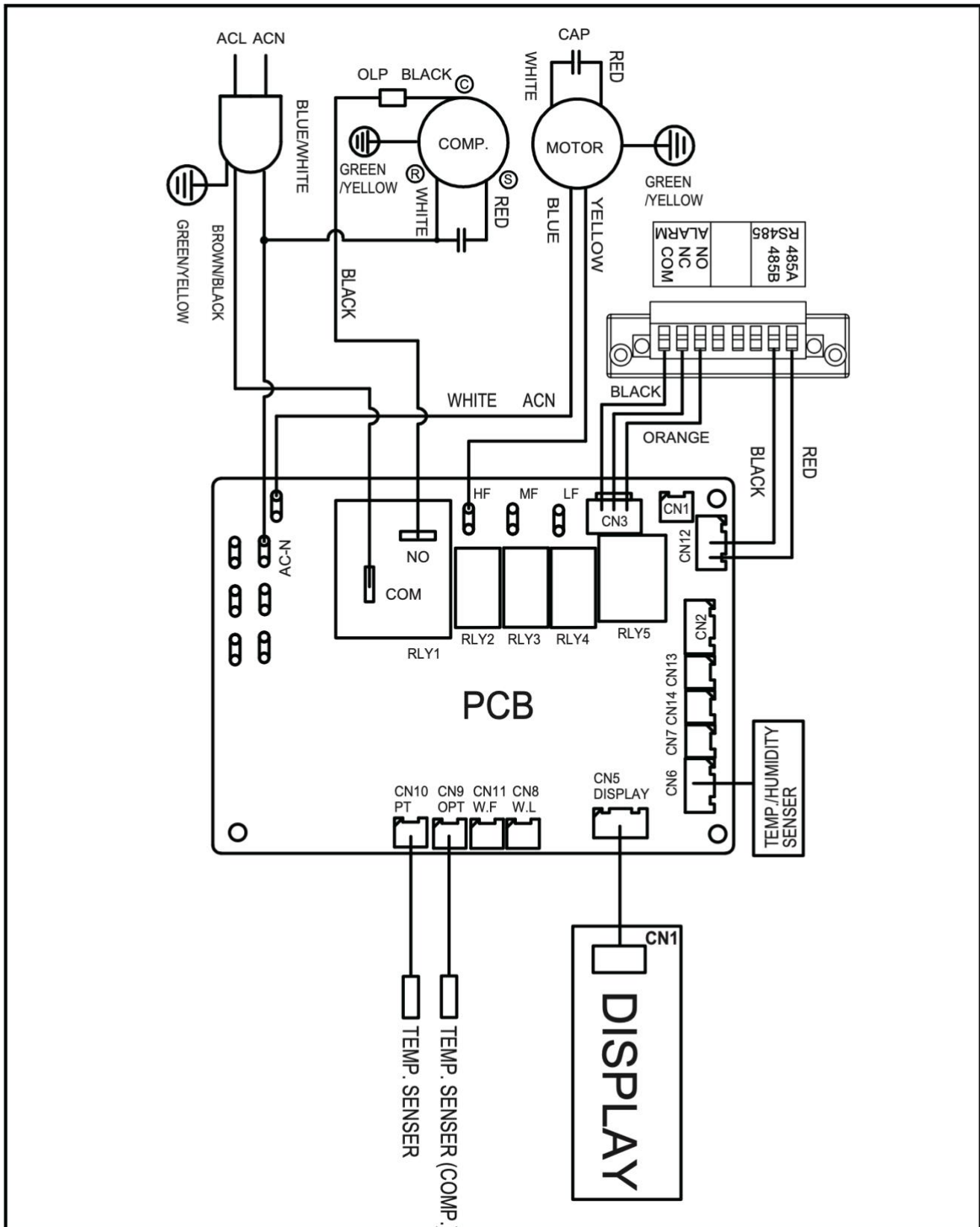
9 Data sheet

Model	1900i
Capacity (at 30°C/80% RH), l/day	180
Operating temperature range, °C	+10...+35
Humidity range, RH%	30...100
Process air flow, m ³ /hour	2000
Current, A	7,2
Power consumption, W	1700
Voltage / frequency	230V / 50-60 Hz
Refrigerant	R290*465g
Noise level, dB(A)	<60
IP Protection	IP22
Air filter class	G1
Overall dimensions, mm (depth*width*height)	630x430x1075
Weight, kg	69

10 Performance graph



11 Wiring diagram





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