VI.Relay Control Output Mode and Working Efficiency Settings

Under display mode, press the SET key and ▼ key at the same time — the device will enter the Fn relay control mode setting page (see the table). Then press the SET key briefly: when "Fn" is flashing, use the ▲▼ keys to modify the relay control mode. After modification, press the SET key briefly to return to the previous menu; press the ▲ key until you return to the main page to save and exit.

Display Code	Code Meaning	Mode Description
Fn	0 Low-temperature & High-humidity Control	Can connect to an external low-temperature alarm, or connect to a heater for external heating (to melt ice in the water pipe and prevent pipe blockage by ice); heating will also activate when humidity exceeds 87%.
	1 High-temperature Control	Can connect to an external high-temperature alarm, or connect to a fan for external cooling.
	2 Fault Alarm	Connect to an external fault alarm, which triggers an alert when the fan or condenser fins malfunction.
L	Cooling Chip Current	"XX" represents X.X ampere current (default: 1.3A); used for parameter adjustment when the cooling chip's efficiency decreases.
F	Fan Current	"XX" represents 0.XX ampere current (default: 0.27A); used for parameter adjustment when the fan is stuck or out of control.
B	Buzzer	0 = On, 1 = Off (default: 1); used for fault alarm.

VII.Fault Code Explanation

A flashing dehumidification light indicates a fault. Press the SET key to check the fault code; refer to the table below.

Fault Code	Alarm Meaning	Troubleshooting Method
E01	Fan is out of control	The fan or control circuit is faulty; please contact our after-sales staff.
E04	Cooling chip is out of control	The cooling chip or control circuit is faulty; please contact our after-sales staff.
E08	Cooling chip efficiency has decreased	

VIII.Device Operation Status Check

During the dehumidification operation of the device, press the ▲ key to sequentially check the cooling chip's temperature, load current, and fan load current.

Display Code	Code Meaning	Unit	Display Content Description
t	Cooling Chip Temperature	℃	Check the operating status of the cooling chip
L	Cooling Chip Current	mA	Check the operating efficiency of the cooling chip
F	Fan Current	mA	Check the operating efficiency of the fan

IX.Communication Section (MODBUS-RTU)

The communication baud rate is 9600, with no parity bit; use function code 03 for reading and function code 06 for writing.

Data Code	Data Content	
0X01	Ambient Temperature	**0X15** Working Status Description: **bit1:** Fan (1. Operating; 0. Not operating) **bit0:** Condenser Chip (1. Operating; 0. Not operating)
0X02	Ambient Humidity	
0X10	Humidity Start Value	
0X11	Humidity Stop Value	
0X12	Temperature Upper Limit Value	
0X13	Temperature Lower Limit Value	
0X14	Communication Address	
0X15	Fan and Condenser Chip Working Status	

Example of Reading the Humidity Start Value：Send 010300010001D5CA (the reading is in hexadecimal)

Communication Address	Function Code	Data Code	1 Byte	Check Code
01	03	0001	0001	D5CA

X.Maintenance and Repair

The instrument shall undergo metrological verification once a year. If the instrument error goes beyond the allowable range, and its accuracy cannot be restored through internal cleaning and drying treatment, this instrument shall be treated as a faulty one and sent back to the manufacturer for repair. The sensitive components shall be protected from water immersion and prolonged overheating to avoid damage.

10.1 Transportation and Storage

10.1.1 During the handling, transportation, etc. of the instrument, follow the requirements specified in GB/T191-2000: handle with care, keep it upright, avoid inversion and excessive stacking.

10.1.2 The instrument shall be stored in a warehouse where the ambient temperature ranges from -20 to 55°C and the relative humidity does not exceed 85%. Outdoor storage is prohibited. The warehouse shall also be moisture-proof and well-ventilated, and kept away from locations with strong magnetism, high temperatures, and corrosive gases.

10.2 After-sales Service

Free repair is provided for the instrument within 24 months from the date of its factory shipment. If the damage is caused by improper use by the user, or the warranty period has expired, appropriate repair fees will be charged.

产品合格证

C-Lin

产品合格证

符合标准: GB/T 22264

检 验 员: 检 01

出厂日期: 见产品或盒贴出厂编号

本产品经检验合格,准予出厂。

C-Lin 欣灵电气股份有限公司 XINLING ELECTRIC CO.,LTD

C-Lin

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RECYCLABLE

National High-Tech Enterprise, Yueqing city, Zhejiang Province

C-Lin 欣灵

使用说明书

Products Instructions

HCS-30

Dehumidification Device User Manual

Thank you very much for using the C-Lin brand intelligent dehumidification device! Please read the user manual before using the product!

09A066P0

I.Overview

The intelligent dehumidification device adopts the semiconductor refrigeration dehumidification method. It actively draws the humid air in the enclosed space into the dehumidification air duct under the action of the fan. The water vapor in the air condenses into water after passing through the semiconductor refrigeration mechanism, and then is discharged out of the cabinet through the water guide pipe, which can achieve a good dehumidification effect.

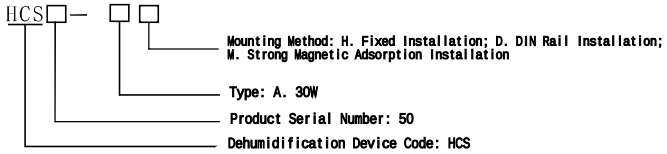
II.Main Technical Parameters

2.1 Operating Power Supply: 220VAC, 50Hz, Standby Power Consumption < 5VA、
2.2 Measurement Range: Temperature: -19 °C ~ 99 °C; Humidity: 20%RH ~ 99%RH
2.3 Basic Error:
Temperature: ±0.5 °C (10 °C ~ 50 °C), ±1.5 °C (50 °C ~ 99 °C)
Humidity: ±3%RH (70%RH ~ 99%RH), ±5%RH (20%RH ~ 70%RH)
2.4 Resolution: Temperature 1 °C, Humidity 1%RH
2.5 Control Mode: Humidity (high humidity control); Temperature (low temperature or high temperature control, optional)
2.6 Temperature Control Output: 1 channel of relay output (non-powered), 250VAC/3A or 30VDC/3A
2.7 Fault Output: 1 channel of non-powered fault output (terminals 4/5) (Note: Only one function can be selected for temperature control output and fault output; they cannot be used simultaneously)
2.8 Communication Method: RS485 communication (MODBUS-RTU protocol)
2.9 Operating Environment: Non-corrosive occasions with temperature -19 ~ 70 °C and humidity ≤ 85%RH
2.10 Water Output Under Working Conditions: Dehumidification power is 40W; please specify if other power is required for customization.

Power Table (under 30 °C, 80%RH environment)

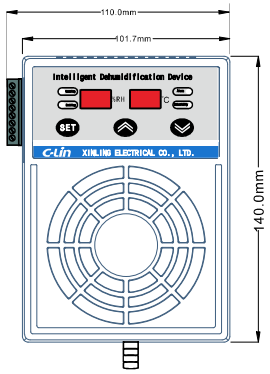
Dehumidification Power	40W	Water Output	260ml/24h

III.Model Selection

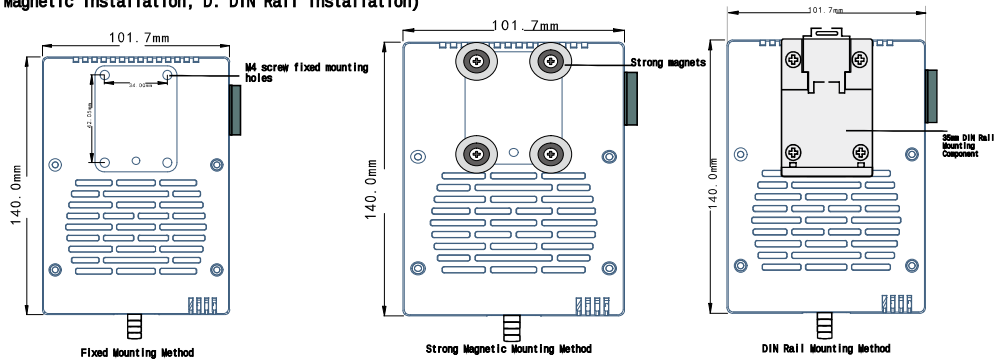


IV.Installation and Wiring

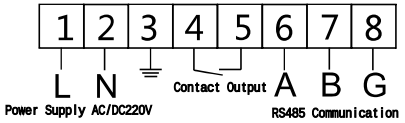
4.1 Overall Dimensions (140110?0mm)



4.2 Mounting Methods (In the model: H: Fixed Installation; M: Strong Magnetic Installation; D: DIN Rail Installation)

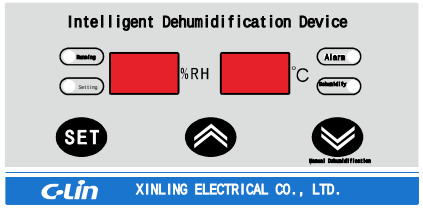


4.3 Wiring Method



V.Operation and Usage

5.1 Panel Appearance



5.2 Key Description

SET key (menu key): Enter parameter setting and fault check.
Up arrow key (add & page-turning key): Increase setting parameters, turn menu pages, and check the device's operating efficiency.
Down arrow key (subtract & page-turning key): Decrease setting parameters, turn menu pages, and trigger manual dehumidification.

5.3 Operation Instructions

5.3.1 Parameter Settings

Long press the SET key to enter setting page P1, and the setting indicator will light up. Then short press the SET key to make page P1 flash; use the Up and Down keys to set the humidity activation value (note: the activation value cannot be lower than the stop value, otherwise the setting will be invalid).

After finishing the parameter modification, short press the SET key again to return to the previous menu. Once all parameter settings are completed, press the Up key until you return to the main page — the parameter settings will be saved and the exit process is done.