

可程式恒温恒湿试验机  
Programmable Temperature & Humidity Chamber



# 程式恒温恒湿试验机 Programmable Temperature & Humidity Chamber

## High Technology 科技创新技术



### 多元化Labview测试整合

自动切换庆声与Labview通讯架构

Auto-switch between KSON and Labview communication architecture



### 網路记录器

测试结果采e化管理

E-management of testing results



### 即时讯息提示(故障提醒/告知)

立即掌控机台状态, 藉手机传达简讯与语音

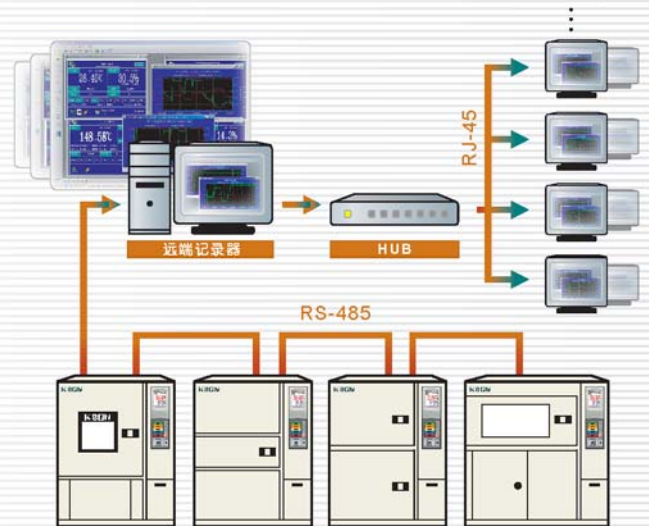
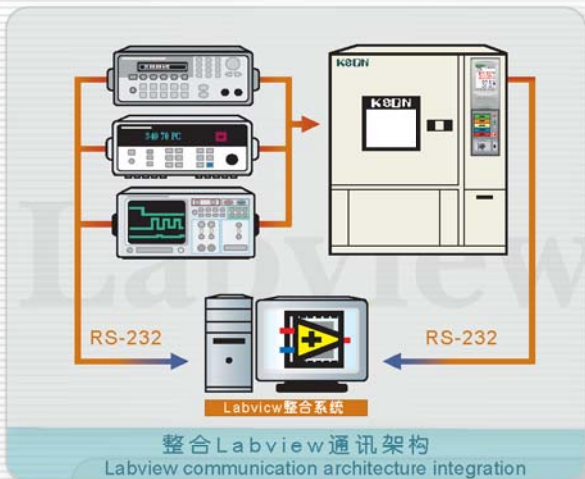
Sending SMS and voice message via mobile phone; instantly controlling the machine status



### 拥有多项专利

目前通过「恒温恒湿机防止结露专利」与「控制超音波之加湿装置专利」

The patents on "The Dew Congealment Prevention for Constant Temperature & Humidity Chamber" and "The Humidifier Device of Ultra-Sonic Controlling" obtained



▲ e化管理与控制机台 ▲  
E-management and controlling machine



▲ 「恒温恒湿机防止结露」第M 677087号 ▲  
「控制超音波之加湿装置」第a 47592号  
The Dew Congealment Prevention for Constant Temperature Humidity Chamber number M 677087 and The Humidifier Device of Ultra-Sonic Controlling number a 47592.



# Key Value 核心价值

Touch panel 彩色触控式控制器



## 贴心安全设计

实验结束后，机台自动回常温贴心保护待测品  
Automatic restore to normal temperature after the experiment, to protect the tested item.



## 机台维护即时掌控

故障病历软体设计  
The software design of breakdown history.



## smart 提示装置

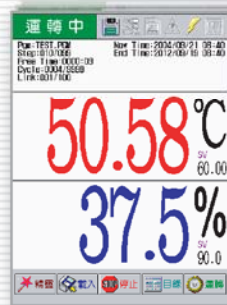
当湿度水桶用水低於15小时安全存量，自动提供讯息  
Sending an automatic message when the water stock of the humidity tank is less than the safety-amount of basic 15 hours



定點功能  
locating function



編輯程式  
Editor program



狀態監視  
Status monitor



## Laboratory class

温湿度重复性、再现性、稳定性高  
High repeatability, reproduction ability and stability of temperature & humidity



## 符合国际规范

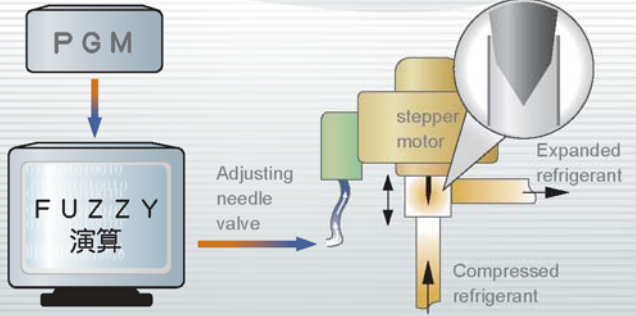
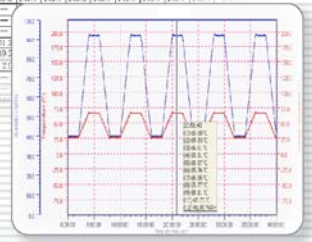
箱体不凝结设计，避免测试结果误判，提高准确性  
Non-condensing chamber design to prevent misreading of testing results and provide high accuracy **「恒温恒湿机防止结露」专利申请第M 677087号**



## 智慧型调节发热负载

采电脑自动调整冷媒流量，有效带走待测品发热负载  
Using computer to automatically adjust refrigerant flow, effectively removing the heat load of the item **「控制超音波加湿器」专利申请第a 47592号**

| 測試日期       | 測試時間  | 測試地點 | 測試人員 | 測試結果                   |
|------------|-------|------|------|------------------------|
| 2004/09/28 | 12:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 12:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 13:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 13:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 14:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 14:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 15:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 15:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 16:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 16:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 17:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 17:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 18:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 18:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 19:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 19:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 20:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 20:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 21:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 21:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 22:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 22:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 23:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 23:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 00:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 00:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 01:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 01:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 02:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 02:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 03:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 03:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 04:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 04:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 05:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 05:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 06:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 06:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 07:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 07:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 08:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 08:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 09:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 09:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 10:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 10:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 11:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 11:30 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |
| 2004/09/28 | 12:00 | 3000 | 張三   | 溫度: 50.58°C, 濕度: 37.5% |



▲ 智慧化调整发热负载能力 Intellectual adjustment of heat loading capability ▲



### KM (知识管理) 教学光碟

提供机台使用教学光碟，方便客户建构知识管理平台(KM)内容与内部教育训练

Machine -usage tutorial discs are provided for customers to easily construct Knowledge Management (KM) platform content and conduct internal training courses



### 可靠度时序控制 & 安全设计

可程式控制待测品ON/OFF设计，可与机台同步断电保护设备及待测品

The programmable ON/OFF design to control the tested item. Synchronized power-off with the machine to protect the equipment & the tested item



### 主动检测控制系统

主动检测控制器，采通讯传输CHECK SUM 检查

Automatic check controller, using telecommunication transmission CHECK SUM verification



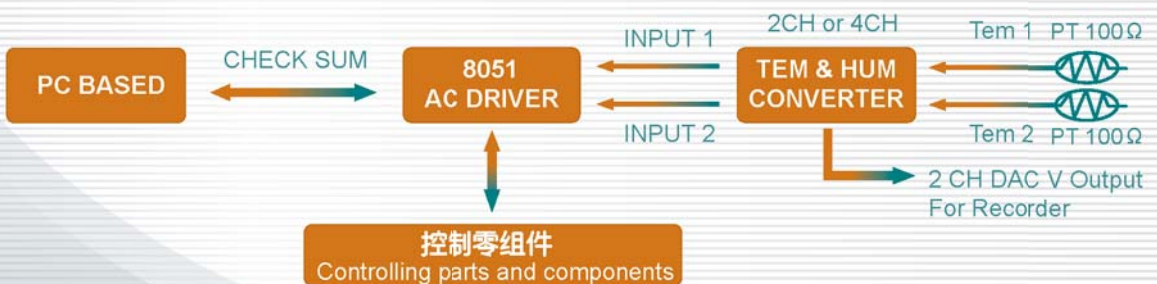
▲ 提供教学光碟 ▲  
A tutorial disc is provided



推动总电流10安培(A)的负载 (Driving the total current load of 10A)

▲ 可程式控制时序接点 ▲  
Programmable controlling timing Junction

### 检测控制系统架构 Checking and testing the control system architecture



## 可程式恒温恒湿试验机规格表 Programmable temperature & humidity chamber Specification table

| 规格(SPECIFICATION)                         | KTHA  |     | KTHB       |     | KTHC        |     |         | KTHD        |     |     | KTHG        |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
|---|---|-----|------------|-----|-------------|-----|---------|-------------|-----|-----|-------------|-----|---------|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| 温度与湿度控制(TEMPERATURE AND HUMIDITY CONTROL) |   |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 内箱尺寸(Inside dimensions(W·D·H)cm)          | 50×55×60  |     | 50×60×75   |     | 60×80×85    |     |         | 100×80×100  |     |     | 100×100×100 |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 外箱尺寸(Outside dimensions(W·D·H)cm)         | 114×88×147  |     | 114×93×162 |     | 127×113×172 |     |         | 167×113×187 |     |     | 170×133×187 |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 内容积(Inside capacity) / 公升(Liter)          | 165   |     | 225        |     | 408         |     |         | 800         |     |     | 1000        |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 净重(Net weight)(kg)                        | 325   | 300 | 380        | 350 | 520         | 450 | 410     | 610         | 525 | 495 | 760         | 700 | 640     |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 绝缘材料(Insulation material)                 | 防火PU发泡 (70℃~100℃) 或 玻璃纤维 + 防火PU发泡 (110℃ 以上)   |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 内箱材料(Internal material)                   | SUS #304 不锈钢 (Stainless steel)  |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 外箱材料(External material)                   | SUS#304不锈钢 (Stainless steel) + 9493粉体涂装 (3B surface treatment)  |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 高温(High temperature (H.T.)℃)              | 100   | 150 | 100        | 150 | 100         | 150 | 100     | 150         | 100 | 150 | 100         | 150 |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 升温时间(Heating time (20℃-H.T.)min)          | 30  | 45  | 30         | 45  | 30          | 45  | 30      | 45          | 30  | 45  | 50          | 65  |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 低温(Low temperature(L.T.) )                | -70   | -60 | -50        | -40 | -30         | -20 | -10     | 0           | -70 | -60 | -50         | -40 | -30     | -20 | -10 | 0  | -70 | -60 | -50 | -40 | -30 | -20 | -10 | 0  | -70 | -60 | -50 | -40 | -30 | -20 | -10 | 0  |    |    |    |    |    |    |
| 降温时间(Cooling time (20℃-L.T.)min)          | 85  | 70  | 50         | 45  | 35          | 30  | 20      | 10          | 80  | 75  | 60          | 45  | 35      | 25  | 20  | 10 | 65  | 55  | 50  | 45  | 40  | 30  | 20  | 15 | 80  | 70  | 50  | 35  | 20  | 15  | 100 | 85 | 70 | 50 | 35 | 25 | 20 | 15 |
| 湿度范围(Humidity range)                      | 10 ~ 98 % RH  |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 温度分布偏差(Temperature Variation℃)            | ±1.0℃(-40℃~100℃)/±1.5℃(-40.1℃~70℃: 100.1℃~150℃)   |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 湿度分布均匀度(Humidity Variation %)             |   |     |            |     |             |     | ±3(中心点) |             |     |     |             |     | ±5(中心点) |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 温度稳定度(Temperature stability ℃)            | ± 0.2   |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 湿度稳定度(Humidity stability %R.H)            | ±2  |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 温度解析度(Temperature resolution ℃)           | ± 0.01  |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 湿度解析度(Humidity resolution %R.H)           | ± 0.1   |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 主要装置(MAJOR DEVICE)                        |   |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 循环系统(Circulation system)                  | 机械式的对流系统 ( Mechanical convection system )   |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 冷冻系统(Cooling system)                      | 空气冷却密闭型/半密闭型压缩机(Air cooling hermetic/semi-hermetic compressor)HFC环保冷媒<br>二元式/一元式                              |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 加热系统(Heating system)                      | 平衡温度(Balance temperture)P.I.D.+P.W.M.+S.S.R.  |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 加湿系统(Humidification system)               | 平衡湿度 ( Balance Humidity ) P.I.D. + P.W.M. + S.S.R.  |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 加湿给水系统(Humidification water supply)       | 自动水位控制(Automatic water regulating)+可回收供给系统(Recoverable supply system)   |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 控制器(Controller)                           | KTH-2005 Touch panel  |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 电源(Power source)                          | AC 220V / 1 φ 3 wire: 380 V / 3 φ 5 wire: AC 220V / 3 φ 4 wire  |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 水质(Water quality)                         | 蒸馏水 ( Distilled water only )  |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 环境温度(Environmental temperature)           | + 5℃ ~ + 30℃  |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 地板空间(Floor space (W · D) cm)              | 170 * 200   |     | 170 * 210  |     | 180 * 240   |     |         | 220 * 240   |     |     | 220 * 240   |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 扩充设备(Optional accessories)                | 时序插座(power supply socket),CM通讯介面(communication interface)<br>大视窗(big viewing window)(降温时间增加10分钟)玻璃门中门:降温增加5分钟 |     |            |     |             |     |         |             |     |     |             |     |         |     |     |    |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |    |    |    |    |    |    |    |

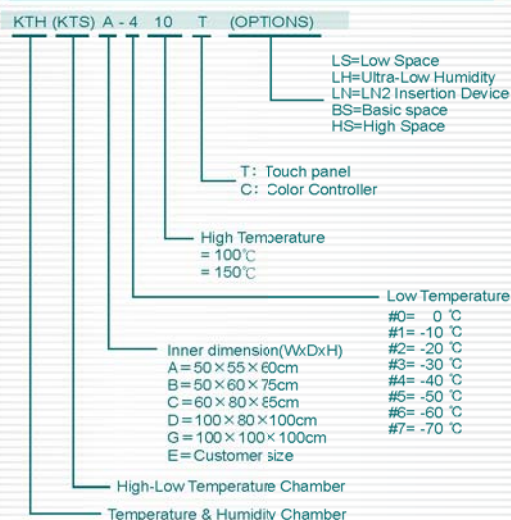
※温度分布均匀度依照GB/T 5170:1996

The temperature distribution uniformity is tested according to GB/T 5170:1996

※以上规格, 请以实体报价为主, 最终解释权归本公司所有 For above accessories, their actual specifications may vary.

The right of final interpretation belongs to our company.

### Model Code



### 温湿度可控制能力范围表 temperature&humidity range

