

### HNY SERIES

HNY-110 HNY-210

HNY-110C HNY-210C

From the high-end series of Kenton — featuring an ergonomic exterior design, an intelligent PID microcomputer control system, and a precise temperature control solution. Rooted in European and American manufacturing techniques, the use of first-class imported components ensures the recreation of a perfectly constant temperature environment, making your experiments effortless and efficient.



## HNY Shaking Incubator

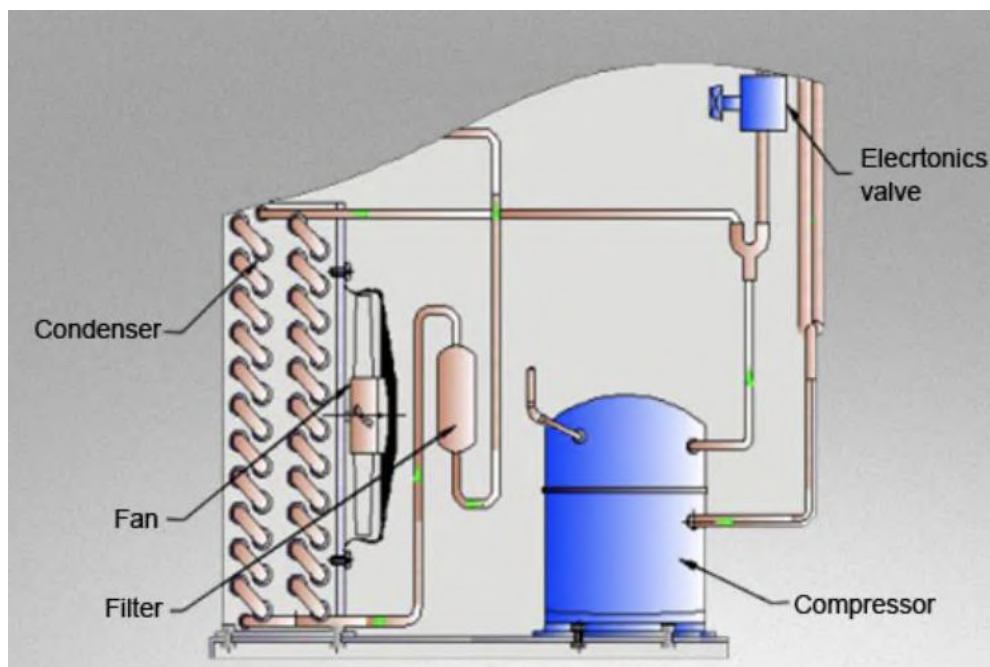
- The shaking incubator is a versatile instrument designed for use in universities, petrochemical industries, public health and epidemic prevention, medical fields, environmental monitoring, and other research departments. It is suitable for shaking and incubating various liquid and solid compounds, including plants, microorganisms, biochemistry, cell cultures, genetics, viruses, environmental studies, and medical research. This biochemical device combines a temperature-controlled incubator and a shaker.
- Equipped with a programmable intelligent PID LCD touchscreen controller, it offers high-precision temperature control, timing functions, over-temperature alarms, motor overheating protection, and automatic vibration stop when the door is opened. An RS485 interface enables computer connection for network control.
- Features a servo motor design that is maintenance-free and noise-free. It outperforms conventional brushless DC motors at low speeds, offering smoother torque and more uniform speed.
- The chamber is made of SUS304 stainless steel, offering excellent corrosion resistance and durability. A side oxygenation port ensures adequate oxygen supply during constant temperature operation, and the forced convection fan guarantees uniform temperature distribution and consistent thermal conditions.
- The door is made of hollow tempered glass, and the interior is equipped with a lighting system for easy observation of samples. A UV sterilization lamp prevents cross-contamination of experimental samples. A universal spring flask holder (optional adhesive plate) is particularly suitable for cultivating a wide range of biological samples for comparative experiments.
- IQ, OQ, and PQ validation documents are available in both Chinese and English, along with third-party calibration and testing services.
- This product series has passed EU CE safety certification and comes with a 3-year quality warranty.

## ALLCOLD™ Refrigeration Technology (Cooling function available for models with "C")

The internationally popular **ALLCOLD™ balanced dual-mode control system** integrates heating and cooling, effectively reducing temperature fluctuations. It features automatic defrosting, multi-layer safety protection, and meets the requirements for long-term operation. Equipped with internationally renowned brand compressors, it promotes environmental protection, high efficiency, and energy saving.

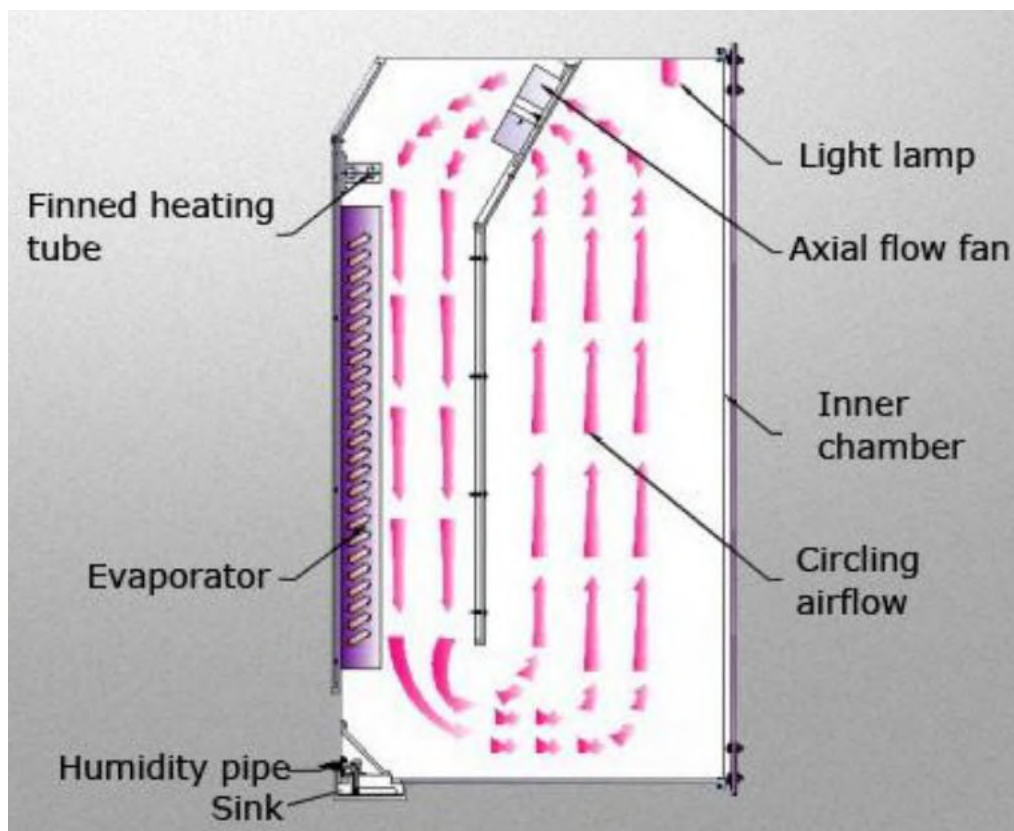
**Automatic defrost function:** The balanced refrigeration system is based on innovative rapid heat pump defrost technology, allowing continuous, uninterrupted operation. This effectively resolves frosting issues caused by prolonged evaporator operation.

**Eco-friendly refrigerants:** Ensuring a cleaner world while providing an excellent user experience. This technology also reduces energy consumption and operating costs.



## ALLFLOW™ Airflow Circulation System

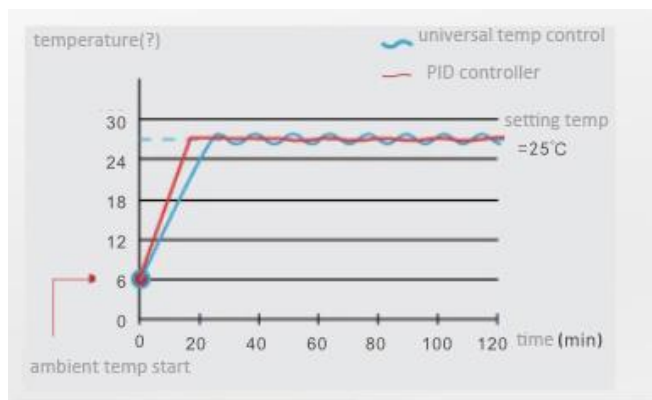
- The **ALLFLOW™ forced convection airflow circulation system** ensures that a larger number of samples can be stored in the chamber without compromising temperature uniformity. It enables rapid temperature recovery after the door is opened. Paired with a maintenance-free, branded axial fan, it enhances operational convenience.
- The **ALLFLOW™ system** guarantees continuous temperature stability within the working chamber. Combined with the airflow channel design, it provides an optimal environment for sample cultivation once the desired temperature is reached.



# ALLSENS™ Microcomputer PID Control

## Technology

- Equipped with a programmable segmented control LCD touchscreen, all parameters are clearly displayed at a glance. It provides comprehensive status information required by users, including measured temperature, set temperature, alarms, cooling (if equipped), heating, lighting, and timer operation.
- Features adaptive PID program control, ensuring precise temperature regulation, preventing temperature overshoot, and maintaining uniform and consistent chamber temperature.
- Built-in multifunctional memory menu, with a standard RS485 interface for computer connection, enabling real-time monitoring.
- Meets diverse user needs with a wide time setting range: 0–999 hours, 0–9999 minutes.



## Programmable Segmented Touchscreen



## Temperature Sensing Components

- **PT100 Temperature Sensor:**

Ensures fast response to step changes in temperature with minimal self-heating effects, delivering accurate and reliable temperature readings.



PT100 temperature sensor

## Efficient Insulation Design

- **Double-layer insulated thermal design:**

Fully supports eco-friendly concepts by conserving energy.

- **Internal isolation door:**

Allows users to observe chamber samples while maintaining consistent internal temperature, ensuring reliable experimental conditions.

## Ergonomic Design

- **Modern lab aesthetics:**

Incorporates internationally popular arc-shaped designs and color schemes, enhancing operational comfort.

- **Integrated handle and LCD display:**

Designed for ease of use, offering a comfortable viewing angle and seamless operation for door opening and interface adjustments.

- **Adjustable mesh shelves:**

Shelves can be repositioned at various intervals to accommodate diverse cultivation needs.



## Advanced Manufacturing Technology

- **High-precision construction:**

All sheet metal components are processed using laser cutting and CNC bending. Cold-rolled steel undergoes a three-step acid treatment for rust prevention, and a surface electrostatic spray coating enhances durability and aesthetics.



## Ease of Cleaning

- The clean and easy-to-maintain chamber design minimizes seams, simplifying cleaning and upkeep.
- Removable, multi-layer shelves allow for easy adjustment and reduce metal components inside the chamber, making cleaning more straightforward.
- A water collection tray is integrated into the bottom of the chamber, with a drain valve that can be periodically opened to remove accumulated water, preventing bacterial growth.

## Convenient Maintenance

- The LCD microcomputer controller features diagnostic functions, displaying various operating states, including historical operation records and temperature data for each segment.
- Electrical control components are separated from the chamber workspace, with the refrigeration unit and electrical output control parts installed at the bottom of the cabinet, ensuring easy access for maintenance and servicing.



## Safe and Efficient Protection Concept

- Multiple over-temperature protection functions: Includes audible and visual alarms to promptly alert users.
- Certified electrical components: Key electrical components comply with UL certification standards.
- Temperature protection design: Adheres to German DIN 12880 Class 3.1 standards, while electrical safety conforms to international IEC 61010-1, UL 61010-1 (USA), and EN 61010-1 (EU) standards.

## HNY shaking incubator specification table

Model	HNY shaking incubator			
	HNY-110	HNY-210	HNY-110C	HNY-210C
Internal Dimensions (mm) (Height × Width × Depth)	640x600x460	640x810x560	640x600x460	640x810x560
External Dimensions (mm) (Height × Width × Depth)	1390x730x635	1390x950x735	1390x730x635	1390x950x735
Nominal Power (KW)	0.8	0.9	0.9	1.2
Power Supply Voltage	Single-phase AC 220V/50Hz			
Temperature Range (°C)	Room temperature +5°C to 65°C (without cooling)		4°C to 65°C (with cooling and heating)	
Shaking Method	Rotary (Cyclical)			
Amplitude and Shaking Speed	ø26mm 20-300r/min			
Accuracy (°C)	±0.1			
Temperature Fluctuation (°C)	±0.5%			
Number of Layers (Shelves)	2			
Rack Dimensions (mm) (Height × Width × Depth)	Model 110: 340x500x350/Model 210: 340x730x455			
Standard Bottle Holder	Model 110: Upper layer with 18 bottle clips (250), lower layer with adhesive board or universal spring. Model 210: Upper layer with 32 bottle clips (250), lower layer with adhesive board or universal spring.			
Note	The size and quantity of bottle clips can be provided in various options (see the table below)			



Model	Bottle clip options (maximum quantity)
HNY-110 (C)	50ML(56 units)、100ML(56units)、250ML(36units)、500ML(24units)
HNY-210 (C)	50ML(104units)、100ML(104units)、250ML(64units)、500ML(56units)、1000ML(30units)

## Selectable product accessories:

1. Portable integrated data printer;
2. Data recording storage device with USB interface;
3. Built-in universal power socket interface;
4. Gas interface;
5. SUS304 stainless steel perforated shelf;
6. Test hole;
7. ALLSENSTM programmable software;
8. Door-opening power-off function;
9. Top lighting panel or lighting shelf.

HNY Shaking Incubator main configuration table			
Serial number	Name	Specification	Quantity
1	Frame	HNY	1
2	Programmable LCD touchscreen smart temperature controller	9000	1
3	High-precision temperature sensing probe	PT-100	1
4	Rotary 3-axis (4-axis) drive system		1
5	Axial flow fan	BT150	1-2
6	Compressor	FKA	1
7	Stainless steel heating tube	0.4-0.7KW	2
8	304 stainless steel interior	HNY	1
9	RS485 interface	9 holes	1
10	Fuse	15A	1
11	Detachable power cable with plug, 3×1mm <sup>2</sup>	2.5m 15A	1
12	Environmentally friendly refrigerant		If dry
13	Evaporator		1
14	Condenser		1
15	Swivel and brake casters	3 inches	2 Each
16	Defrost solenoid valve	SH1028	1
17	Stainless steel shaking rack	HNY	1
18	Miniature circuit breaker	DZ47	1
19	Cooling fan motor		1

## **KENTON APPARATUS LTD.**

**Manufacturer of Drying Oven, Lab Incubator, Climate Chamber, Laminar Flow Cabinet, Biological Safety Cabinet(OEM, ODM)**

Kenton is a laboratory instrument manufacturer. In 1999, Kenton produced the first batch of 101 series drying oven and launched them on the market. Later, it successively launched incubator, biochemical incubator and other series. In 2005, we obtained ISO: 9001 quality certification, and in 2008-2012, we successively obtained CE certification. In 2013, a new generation of product series was introduced, and its functions and uses were comprehensively upgraded. The liner material was upgraded to SUS 304 stainless steel. In 2011, we expanded the global market, and now our products are sold to Europe, America, Southeast Asia major markets. Kenton manufactures laboratory equipment under our own brand. Our product line includes biological safety cabinets, artificial climate chambers, drying ovens, incubators, high temperature chambers, humidifiers, water baths, industrial air ovens, laminar flow cabinet, biochemical incubators, vacuum ovens, constant temperature and humidity chambers, and light incubators, among other series. The 30,000 sets produced annually are expected to expand at a pace of 20% annually. It has emerged as South China's biggest and most significant equipment manufacturer. The business has launched Kenton Technology Ltd. to concentrate on the development of supporting equipment in the disciplines of biological research and life sciences, in response to changes in worldwide market demand. We increased the new product series, which includes: blood oscillator, anaerobic oven, (Ultra)low temperature refrigerator, non-pipeline clean gas fume hood, sterile isolation cabinet, drug testing safety cabinet, etc., via independent research and development and technical advancement. Numerous scientific research departments, medical preservation, genetic vaccination, and other businesses make extensive use of our goods. In the meanwhile, we have expanded our recognition and support and have sold to Europe, America, Southeast Asia, Australia, the Middle East, and other international markets thanks to consistent investment, research and development, and advancements in workers, equipment, and technology. To supply top-notch goods and services to reputable laboratories and scientific research centers, as well as to mining and industrial companies both domestically and internationally.

<https://www.kentonchina.com/>

E-mail: [kenton@kentonchina.com](mailto:kenton@kentonchina.com)

Address: No.2, Hualong Rd, Donghua industrial zone, Renhe town, Baiyun district, Guangzhou China

Tel: 86-020-36246586, 36247961, 36246650, 36246651

