

Controlled Rate Freezer

Scope of Application:

Suitable for primary cells and cooling cells that are highly sensitive to temperature changes.

Innovative Design

- Information traceability
- Precise temperature control
- One-click freezing
- 7-inch touch screen

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Product Advantages



Precise Temperature Control

- Fine temperature control, the temperature rises and fall rate can be controlled in a large range, can achieve the cooling rate of 0.1-99°C/min
- Stable temperature control, double solenoid valve design and special jet ring design, stable temperature control, effectively reduces cell damage
- Precise temperature control, ADRC control algorithm, temperature fluctuation range is $\pm 0.5^{\circ}\text{C}$
- 21 CFR Part 11-compliance
Use of electronic records and signatures during the manufacturing process, that may help improve operational efficiency, improve system security, and decrease the number of records with defects



Ergonomic Design

- 7-inch touch LCD screen, easy to operate
- Liquid nitrogen allowance warning: Real-time display of liquid nitrogen allowance, timely warning when it is lower than 20%
- Single handle press lock, simple and labor-saving, locking function, and the safety of the test process is guaranteed
- Equipped with a real-time temperature curve printer and electronically archived temperature records

Product Functions

USB Interface

Easier to connect external modules such as printer and barcode reader

Adjustable Feet

Convenient to adjust the height of machine

Temperature Record

Information traceability: the frozen temperature curve and data can be transmitted to the computer for display, and PDF files can be generated synchronously for printing and archiving

Handle

Easy to open and close the door, the user process is safer

Lock

Ergonomic design, easy to operate

Side-opening Door

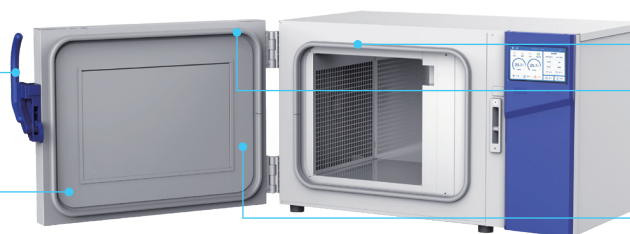
Convenient access of frozen samples, suitable height

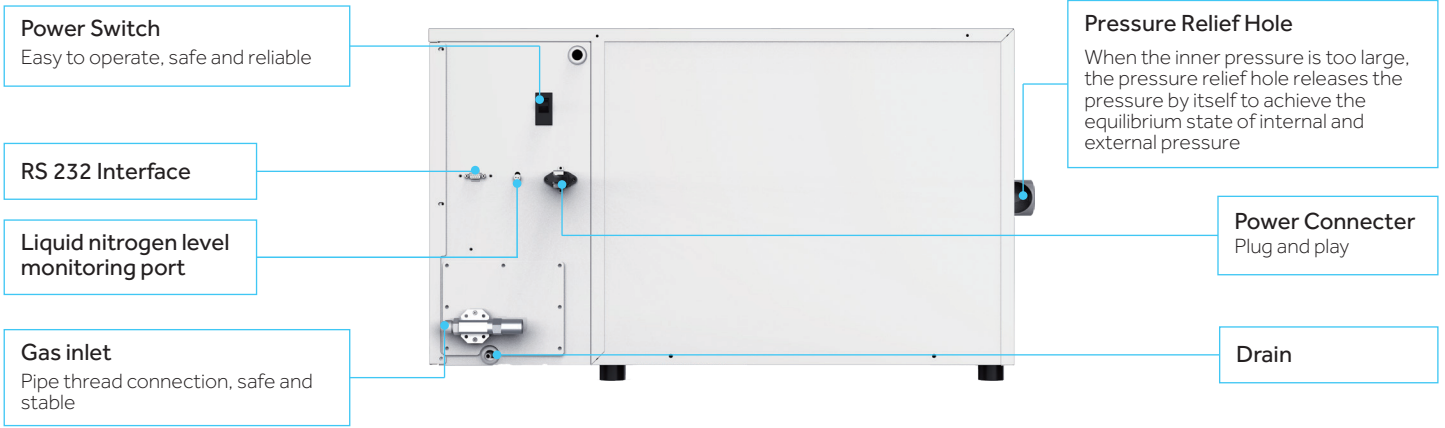
Double Layer Sealing Structure

Good sealing performance

Superior Insulation Performance

Environmental friendly polyurethane foam material has good thermal insulation performance

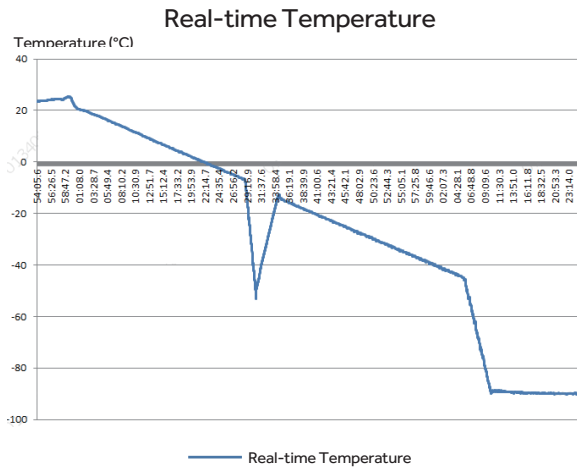




Product Performance

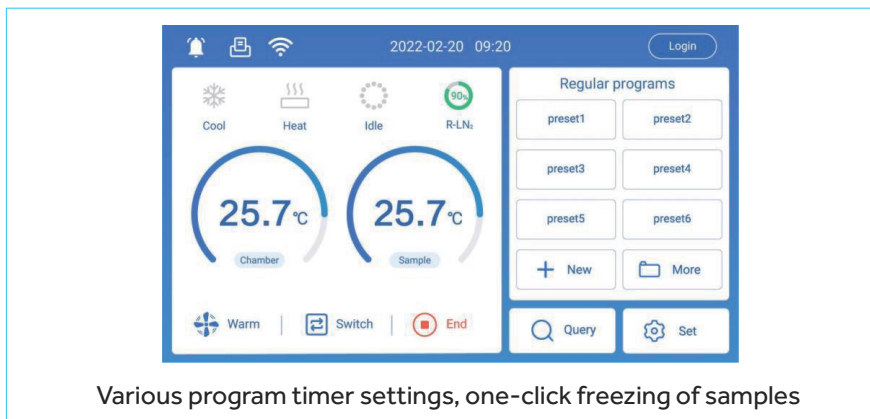


ADRC control algorithm, more accurate temperature control, temperature fluctuation range is $\pm 0.5^{\circ}\text{C}$



Double solenoid valve design and special jet ring design to realize the cooling rate of $0.1\sim 99^{\circ}\text{C}/\text{min}$
The heating rate is $0.1\sim 12^{\circ}\text{C}/\text{min}$ by heater design

One-click Freezing



Specifications



Model	Effective Volume (L)	Temperature Range (°C)	Cooling Rate (°C/min)	Heating Rate (°C/min)	Temperature Uniformity (°C)
CJ-L37	37	-180-50	0.1-99.9	0.1-12	<2

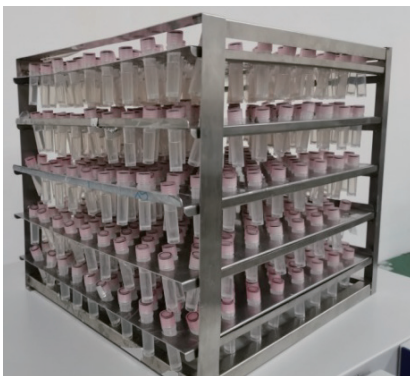
Power Supply (V/Hz)	Display Screen	Refrigerant	Liquid Nitrogen Monitoring
230-50/60	7 "colorful LCD touch screen	Liquid nitrogen	Alarm reminder for liquid nitrogen less than 20%

Exterior Dimensions (W*D*H mm)	Interior Dimensions (W*D*H mm)	Packing Dimensions (W*D*H mm)	Net/Gross Weight (Kg)	Serial Port Form	Accessories
941*571*527	330*340*330	1050*700*705	73/105	USB Interface/RS232 serial port	1 Printer, 2 Sample probe

Optional Freezing Rack



BE No.	Description	Vials/bags per rack	Racks per order per chamber	Dimensions (W*D*H mm)
BE0ZM6000	2/5ml freezing rack	810 (2ml vial) 486 (5ml vial)	1/1	308*327*300
BE0ZM5000	50ml freezing rack	13 (25/50ml bag)	3/6	100*153*259
BE0ZMA000	250ml freezing rack	8 (250/500ml bag)	1/2	160*240*256
BE0ZMC000	100ml freezing rack	10 (100ml bag)	2/4	112*164*301



Vials Freezing Rack

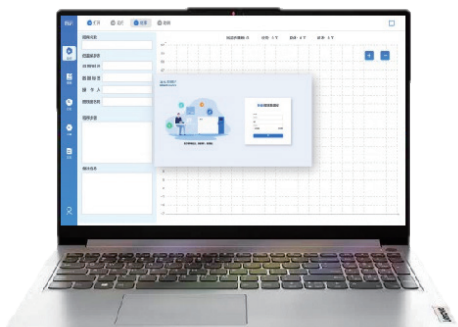


Bag Freezing Rack



Bag Freezing Box

PC Software(with PC)



- Optimized profile design and easy to operate.
- Real-time acquisition of freezing curve, sample temperature, operating steps, etc.
- Remote control of controllable rate freezer.
- Update and enhance the creation of freezing programs.
- Realize the comparative analysis of historical data, output running records and print program reports.

Self-pressurized LN₂ Storage



Model	YDZ-100/1.5
Volume of LN ₂ (L)	100
Static Evaporation (L/Day)	1.3
LN ₂ Output (L/Min)	4
Height (mm)	1185
Outside Diameter (mm)	606
Empty Weight (kg)	75
Full Weight (kg)	157
Pressure Parameters (MPa)	1. Standard working pressure 0.09 2. Maximum working pressure 0.15 3. First stage safety valve relief pressure 0.15 4. Second stage safety valve release pressure 0.24 5. Pressure gauge range 0-0.25

*Haier Biomedical reserves the right to change products and specifications without prior notice.