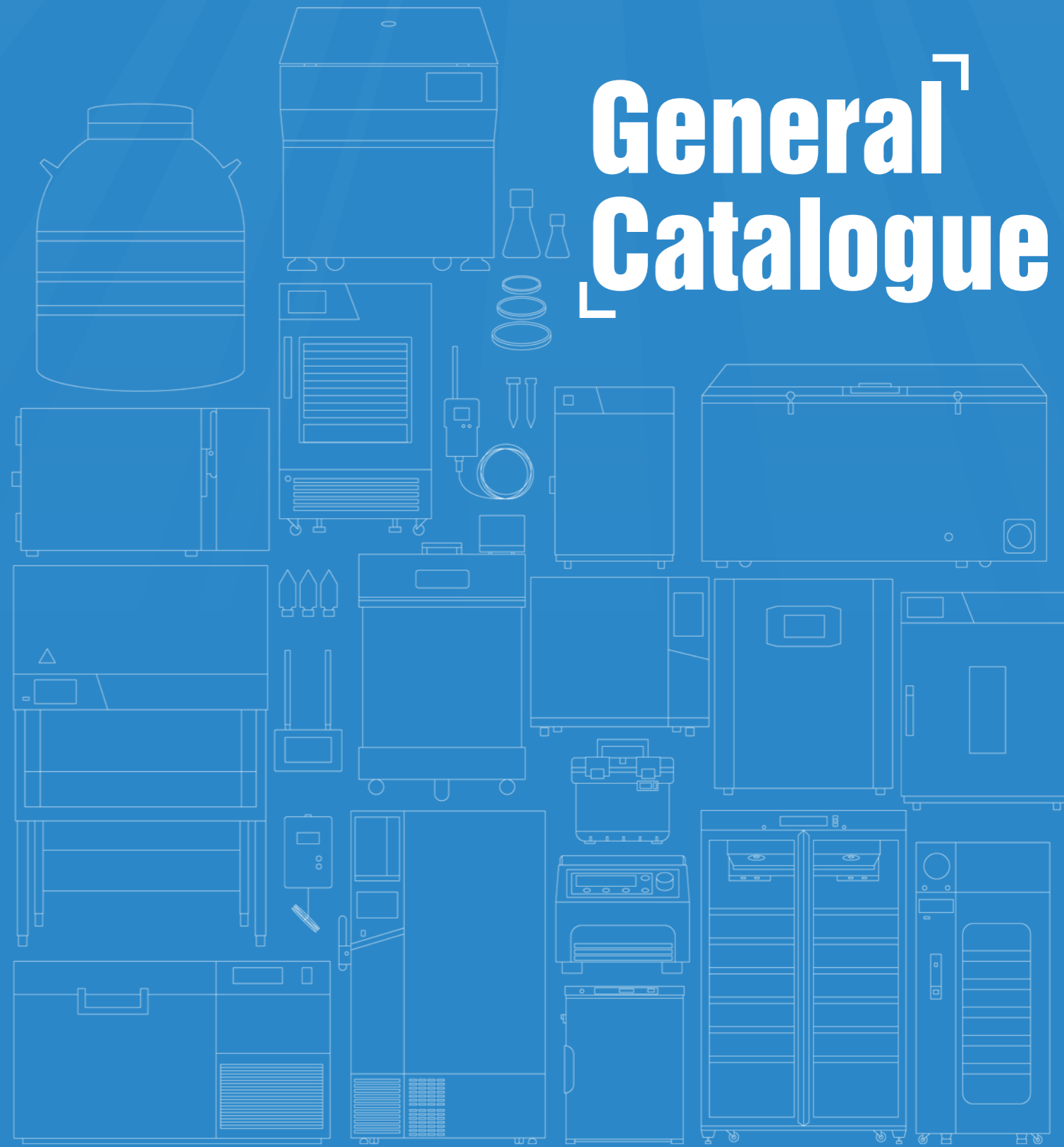


# General Catalogue



Your Haier Biomedical Partner



**Qingdao Haier Biomedical Co., Ltd.**

No.280 Feng Yuan Road, High-tech Zone,  
Qingdao, 266111, P.R. China  
E-mail: [inquiry@haierbiomedical.com](mailto:inquiry@haierbiomedical.com)  
Website: [www.haiermedical.com](http://www.haiermedical.com)  
07-07-2025\_v2



Haier Biomedical  
International



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Note: If a slight difference occurs between pictures and actual products, please refer to actual products. Our company reserves the right of final interpretation of this brochure, please contact us for any further information if required.



Founded in 1984, Haier Group is a leading global provider of better life and digital transformation solutions. Based on the purpose of "More Creation, More Possibilities", we are committed to co-create infinite possibilities for a better life with users, and to co-create infinite possibilities for industrial development with the ecological partners.

Being an iconic company in the real economy, we've always been user centered, adhered to original technology and built a landscape of three pillars, Smart Living, Comprehensive Health and Industrial Internet. We have built 10 R&D centers, 71 research institutes, 35 industrial parks, 143 manufacturing centers and a sales network of 230,000 nodes around the world. We are the world's only IoT Ecosystem Brand that has been ranked in the Kantar BrandZ Top 100 Most Valuable Global Brands for six consecutive years. Additionally, we have ranked among the Top 10 in the Google & Kantar BrandZ Chinese Global Brand Builders for eight consecutive years, held the No.1 position in Euromonitor's Global Major Appliances Brand for 15 consecutive years, and have been selected as one of The World's 500 Most Influential Brands by the World Brand Lab for twenty consecutive years.

We have six listed companies, and our subsidiary Haier Smart Home is named among the Fortune's Global 500 and World's Most Admired Companies. We have several global premium brands, including Haier, Casarte, Leader, GE Appliances, Fisher & Paykel, AQUA and Candy, and have the world's first smart home Scenario Brand, SAN YI NIAO. We have built the world-leading industrial Internet platform COSMOPlat and the comprehensive health industry ecosystem Incaier.

We believe: More collaboration will happen when more boundaries are broken, and more valuable relationships are established. Only then will the future of the world be filled with infinite wonderful possibilities.

\*Data as of November 2024



10+N R&D Centers

126 Marketing Centers

35 Industrial Parks

143 Factories

200+ Countries or Regions



## About Haier Biomedical

### Company Profile

Haier Biomedical was established in 2005 and listed on the Science and Technology Innovation Board of the Shanghai Stock Exchange in 2019 (stock code: 688139). The Company aims to create the best user experience for a wide range of user groups such as hospitals, biotechnology enterprises, universities & colleges, scientific research institutions, centres for disease control and prevention, plasma stations, and primary public health authorities. The Company mainly engages in two major business fields: life sciences and medical innovation. It provides comprehensive digital solutions with multiple types of products and services for scenarios including smart laboratories, smart compliance pharmaceuticals, digital hospitals, smart public health, and smart blood distribution.

Leveraging industry-leading technologies, the Company has promoted scientific and technological innovation and led industrial reform. Through successive breakthroughs in low-temperature biomedical technology, our company has maintained its international leadership in relevant research and development as well as industrialization. With ongoing investments in research and development, we have continuously achieved breakthroughs in core technologies and expanded our business into areas such as biological culture, centrifugal preparation, laboratory consumables, and in-hospital pharmacy services. Building on this foundation, we have pioneered transformative methods in the biomedical industry. This includes integrating emerging technologies like the Internet of Things (IoT) and cloud computing, as well as launching innovative comprehensive solutions for digital applications such as smart blood distribution and smart vaccination. These solutions have expanded into areas like smart laboratories, automated in-hospital pharmacy services, and public health screenings, reshaping the landscape of the industry.

As of the end of the reporting period, Haier Biomedical has established 6 technical platforms, owned a total of 1,321 authorized patents and 296 software copyrights, led or participated in the release of 1 international standard, 18 national and industry standards, 2 local standards, 17 group standards, and 2 CQC certification technical specifications. In addition, 32 achievements have

reached the international leading level. Moreover, the Company has 28 items with more than 800 models of Class II and Class III medical device registration certificates, among which more than 200 models obtained the EU CE certification, more than 60 models obtained the US FDA certification, and more than 130 models obtained the US UL certification. Products certified under 21 items with 36 models were selected as excellent domestic medical equipment.

Haier Biomedical's products and solutions have been applied in more than 150 countries and regions worldwide, with our reach expanding all the time. In the domestic market, the Company has served tens of thousands of end users in the medical and health field, including hospitals, biotechnology enterprises, universities & colleges, scientific research institutions, centres for disease control and prevention, plasma stations, and testing institutions. Well-known customers in China include the Shanghai Ruijin Hospital, Wuxi Apptec, Shanghai Fudan University, China Centre for Disease Control and Prevention, Hualan Biological, Hengrui Pharmaceutical, and Fosun Pharmaceutical. The Company's international network is continuously expanding; as of the end of the reporting period, over 800 resell partners have joined the distribution network. To cultivate localized operations, the Company has established overseas operation centres, including the user experience and training centres in Dubai, Nigeria, and the UK and warehousing and logistics centres in the Netherlands and US. In addition, the Company has maintained long-term cooperative relationships with more than 60 international organizations such as the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF).

### Haier Biomedical Development Stages:

|  |   |   |   |   |
|--|---|---|---|---|
| <p>On October 28, 2005, Haier Biomedical was formally established</p>  | <p><b>WHO Approved (PQS)</b><br/>Haier Biomedical won the first PQS certification in China, continuing a long-term cooperation with WHO, UN and UNICEF</p>  | <p><b>Technology Break-Through</b><br/>Haier Biomedical was listed on the science and technology innovation board in Shanghai, becoming the first stock of the IoT technology ecology</p> | <ul style="list-style-type: none"> <li>Smart IoT Biosafety Cabinet and Smart Cloud Lab Launched</li> <li>Phase II Haier Biomedical Industrial Park Commenced</li> <li>"TUV Rheinland Witness Laboratory" Qualification</li> <li>Haier Biomedical Technology Center was accredited by CNAS National Laboratory</li> <li>NSF Certification</li> </ul> | <ul style="list-style-type: none"> <li>Joined the UNGC Global Initiative</li> <li>National Green Factory Award</li> <li>Acquired Hohwell Smart Pharmacy Technology</li> </ul>                 |
| <b>2005</b>  | <b>2011</b>   | <b>2019</b>   | <b>2021</b>   | <b>2023</b>   |
| <p><b>2006</b><br/><b>Technology Break-Through</b><br/>Haier Biomedical created the first -86°C ultra-low temperature freezer in China</p> | <p><b>2017</b><br/><b>First Market Share in China</b><br/>Achieved The First Market Share in sectors as Biosample cold chain storage, Blood cold chain storage, Vaccine cold chain storage, Drug cold chain storage</p> | <p><b>2020</b><br/>• New Factory Opened<br/>• IoT Exhibition Center Launched<br/>• China's First UL Energy Star WTDP Laboratory Qualification</p>   | <p><b>2022</b><br/>• Dubai No.001 Training Center Opened<br/>• TwinCool Frequency Conversion ULT Freezer Launched<br/>• RKN Container was Approved for Airworthiness<br/>• -150°C Hydrocarbon IoT Cryogenic Freezer Launched</p>  | <p><b>2024</b><br/>• IEC Proposal Led by Haier Biomedical Has Been Approved<br/>• Led in WHO Contract Awards for Chinese Suppliers<br/>• Obtained LN2 Management System FDA Certification</p> |



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## LN<sub>2</sub> Storages

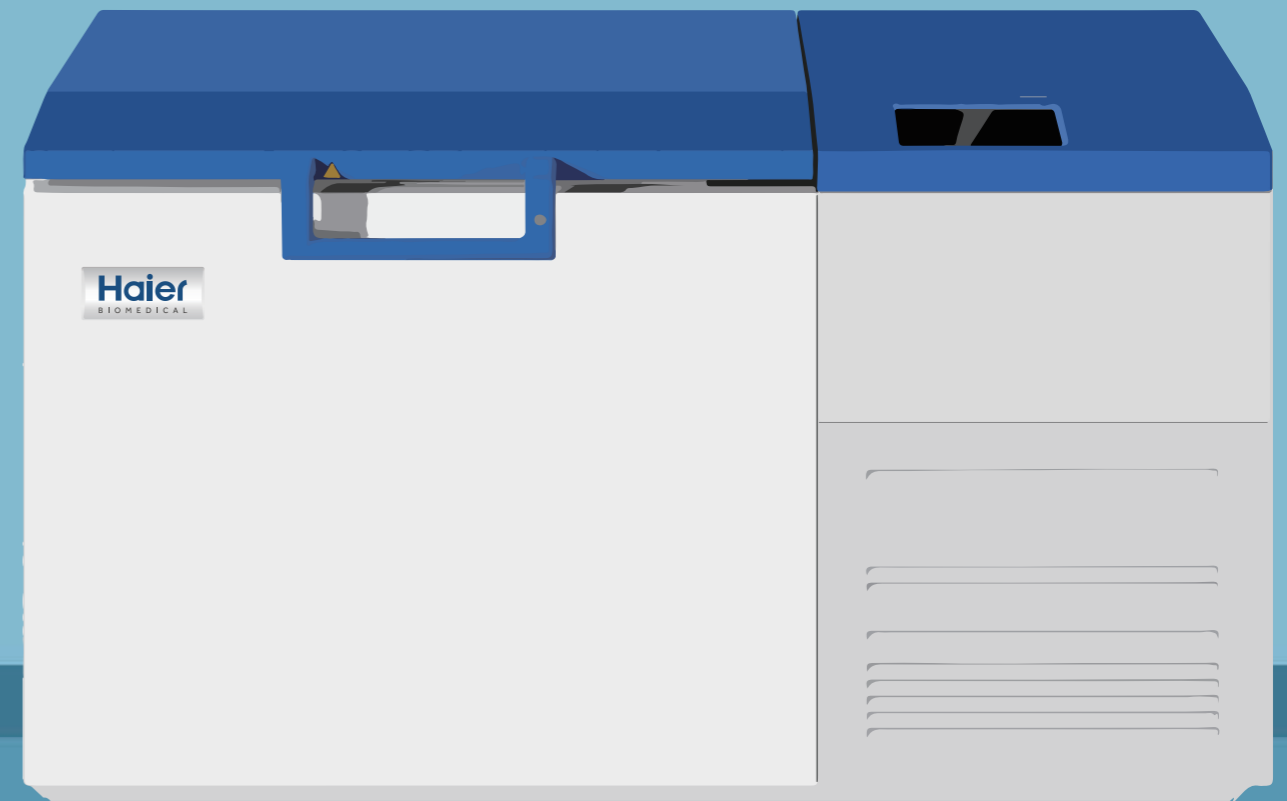
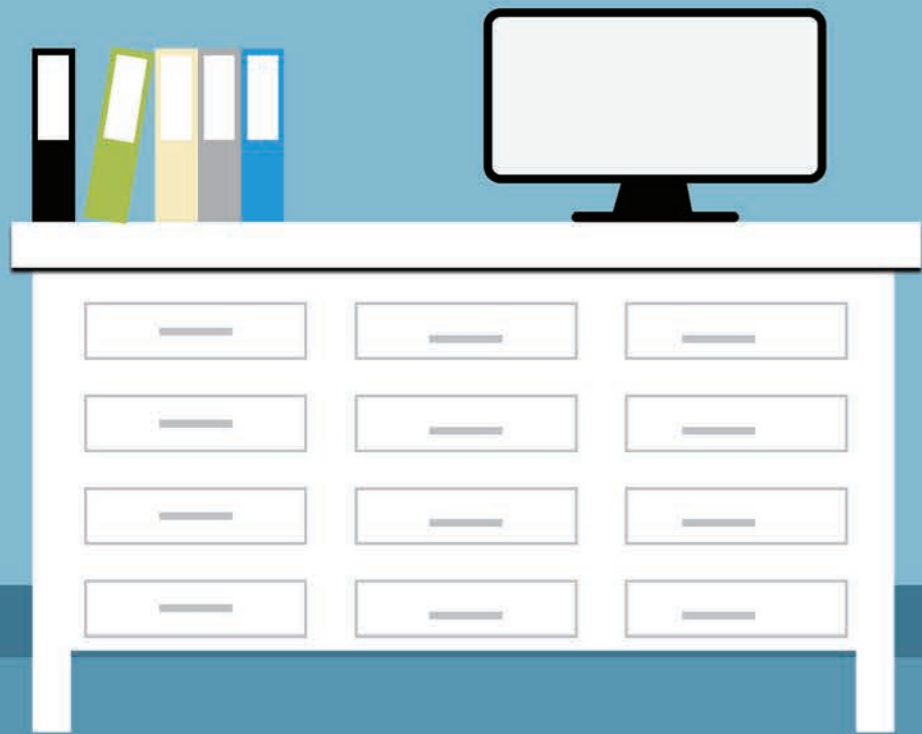
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**-150°C**  
**Cryo Freezer**





A mechanical cryogenic freezer is used for the long-term cryopreservation of samples such as cell cultures, tissue samples, bacteria, viruses and non-biological products such as electronics. Applications include cord blood preservation, biobanks, reproductive procedures, blood banks, life science research, biomedical engineering and fisheries. Mechanical cryopreservation is a safe alternative to LN<sub>2</sub> and can reduce or eliminate the reliance on LN<sub>2</sub>, reducing safety concerns.

**Energy Efficient Hydrocarbon Refrigeration**

- Includes specialist industrial compressor, hydrocarbon refrigerant, dual-compressors 4-stage cascade refrigeration system, which delivers excellent energy-efficiencies
- Energy-efficient fan design with intelligent start/stop

**Environmentally Friendly**

- 100% HC refrigerant truly environmentally-friendly refrigeration system with zero global warming potential (GWP)
- LBA polyurethane foam has low GWP and is significantly lower than most HFCs commonly used, offering better environmental protection

**Superior Uniformity**

The temperature uniformity is ±5°C with the setting temperature of -150°C

**Low Noise**

Noise-reduction features and noise reduction design lowers to noise to 55 dB (A)

**Safe, Secure and Reliable**

Multiple alarms, including high and low temperature, power failure, door ajar, hot condenser, low battery, sensor error, and high ambient temperature. The pressure state of the system can be automatically adjusted by the pressure controller to prevent the pressure from being too high to effect the freezer operation.



Product Dimensions

**Remark:**  
 W0-Total Width  
 W1-Cabinet Width  
 W2-Inner Cabinet Effective Width  
 D0-Total Depth  
 D1-Inner Cabinet Effective Depth  
 H0-Total Height  
 H1-Inner Cabinet Height  
 H2-Inner Cabinet Effective Height

| Model       | Code | W0     | W1     | W2    | H0     | H1    | H2    | D0    | D1    |
|-------------|------|--------|--------|-------|--------|-------|-------|-------|-------|
| DW-150W209  |      | 1650mm | 1050mm | 667mm | 1010mm | 727mm | 677mm | 860mm | 462mm |
| DW-150W209A |      | 1650mm | 1050mm | 667mm | 1010mm | 727mm | 677mm | 860mm | 462mm |

Specifications

|  | Model                          | DW-150W209A            | DW-150W209             |                |
|--|--------------------------------|------------------------|------------------------|----------------|
| Technical Data                           | Cabinet Type                   | Chest                  | Chest                  |                |
|  | Ambient Temperature (°C)       | 10-28                  | 10-28                  |                |
|  | Cooling Type                   | Direct Cooling         | Direct Cooling         |                |
|  | Defrost Mode                   | Manual                 | Manual                 |                |
|  | Refrigerant                    | HC                     | HC                     |                |
|  | Sound Level (dB(A))            | 55                     | 55                     |                |
| Performance                              | Cooling Performance (°C)       | -150                   | -150                   |                |
|  | Temperature Range (°C)         | -140 ~ -150            | -140 ~ -150            |                |
| Control                                  | Controller                     | Microprocessor         | Microprocessor         |                |
|  | Display                        | LCD Touchscreen        | LCD Touchscreen        |                |
| Electrical Data                          | Power Supply (V/Hz)            | 208-230/60             | 220-240/50             |                |
|  | Max Power (W)                  | 2000                   | 1750                   |                |
|  | Capacity (L/Cu.Ft)             | 209/7.4                | 209/7.4                |                |
| Dimensions                               | Net/Gross Weight               | kg                     | 260/295                | 260/295        |
|  |                                | lbs                    | 573.2/650.4            | 573.2/650.4    |
|  | Interior Dimension (W*D*H)     | mm                     | 667*462*677            | 667*462*677    |
|  |                                | in                     | 26.3*18.2*26.7         | 26.3*18.2*26.7 |
|  | Exterior Dimension (W*D*H)     | mm                     | 1650*860*1010          | 1650*860*1010  |
|  |                                | in                     | 65.0*33.9*39.8         | 65.0*33.9*39.8 |
|  | Packing Dimension (W*D*H)      | mm                     | 1810*960*1170          | 1810*960*1170  |
|  |                                | in                     | 71.3*37.8*46.1         | 71.3*37.8*46.1 |
| Cabinet Width (without handle and hinge) | mm                             | 667                    | 667                    |                |
| Container Load (20'/40'/40'H)            |                                | 12/24/24               | 12/24/24               |                |
| Alarms                                   | High/Low Temperature Alarm     | Y                      | Y                      |                |
|  | Hot Condenser Alarm            | Y                      | Y                      |                |
|  | Power Failure Alarm            | Y                      | Y                      |                |
|  | High/Low Voltage Alarm         | Y                      | Y                      |                |
|  | Sensor Error Alarm             | Y                      | Y                      |                |
|  | Low Battery Alarm              | Y                      | Y                      |                |
|  | High Ambient Temperature Alarm | Y                      | Y                      |                |
|  | Door Ajar Alarm                | Y                      | Y                      |                |
|  | Start-Up Delay                 | Y                      | Y                      |                |
|  | Caster                         | Y(4)                   | Y(4)                   |                |
| Leveling Feet                            | Y(2)                           | Y(2)                   |                        |                |
| Accessories                              | Porthole                       | 1*Rear, (25mm)Diameter | 1*Rear, (25mm)Diameter |                |
|  | Inner Doors                    | 2                      | 2                      |                |
|  | Freezer Racks Qty (2" boxes)   | 12                     | 12                     |                |
|  | Capacity (2" boxes)            | 144                    | 144                    |                |
|  | USB Interface                  | Y                      | Y                      |                |
|  | Remote Alarm                   | Y                      | Y                      |                |
|  | 5V Power Supply Port           | Y                      | Y                      |                |
|  | Temperature Chart Recorder     | Optional               | Optional               |                |
|  | RS232/485 Port                 | N/A / Standard         | N/A / Standard         |                |
|  | CO <sub>2</sub> Backup System  | N/A                    | N/A                    |                |
| LN <sub>2</sub> Backup System            | Optional                       | Optional               |                        |                |
| Others                                   | Certification                  | UL                     | CE, MDR                |                |



Follow the QR code and learn more about the Cryo Freezer DW-150W209 from Haier Biomedical

**Haier**  
BIOMEDICAL

**New Generation  
ULT Freezers**



# Ultra Low Temperature RFID Freezer



**DW-86L728BPSTR**

The Haier Biomedical ULT RFID freezer offers enhanced protection for high-value samples like genetic material, biosamples, and tissue. With quick freezing, secure access, and comprehensive inventory management features, it ensures product integrity and visibility while eliminating manual processes. Ideal for research facilities and laboratories seeking efficient sample storage solutions.

## Product Features



### Enhanced Efficiency

Effortlessly locate and inventory sample tubes without the need to open the door. The system automatically records the exact position of each sample in real-time, streamlining manual processes.



### Rapid Inventory Management

Save time and effort with a single click inventory feature that completes within 5 seconds. Say goodbye to errors and delays.



### Precision Identification

Achieve accurate and swift recognition with a 3-second automatic identification process for sample information and location. This system excels at high-density batch reading tasks.



### Enhanced Safety Measures

The dual refrigeration system features double independent hydrocarbon refrigeration units, both capable of maintaining -80°C. This design not only ensures the safety of stored samples but also enhances reliability.

## Innovative Design Features



### Intuitive Monitoring Software

Benefit from a tailored sample management software that allows real-time tracking and monitoring of operational status, ensuring seamless workflow oversight.



### Comprehensive Security Integration

Utilize the four-code integration tube system, combining RFID tags, bottom QR codes, tube barcodes, and tube digital codes for heightened security and reliability in sample management.



### Streamlined User Interface

Navigate effortlessly through operations with a 15.6-inch LCD touch screen that provides an intuitive display of vital information. Accessing and managing tasks is made simple and efficient.

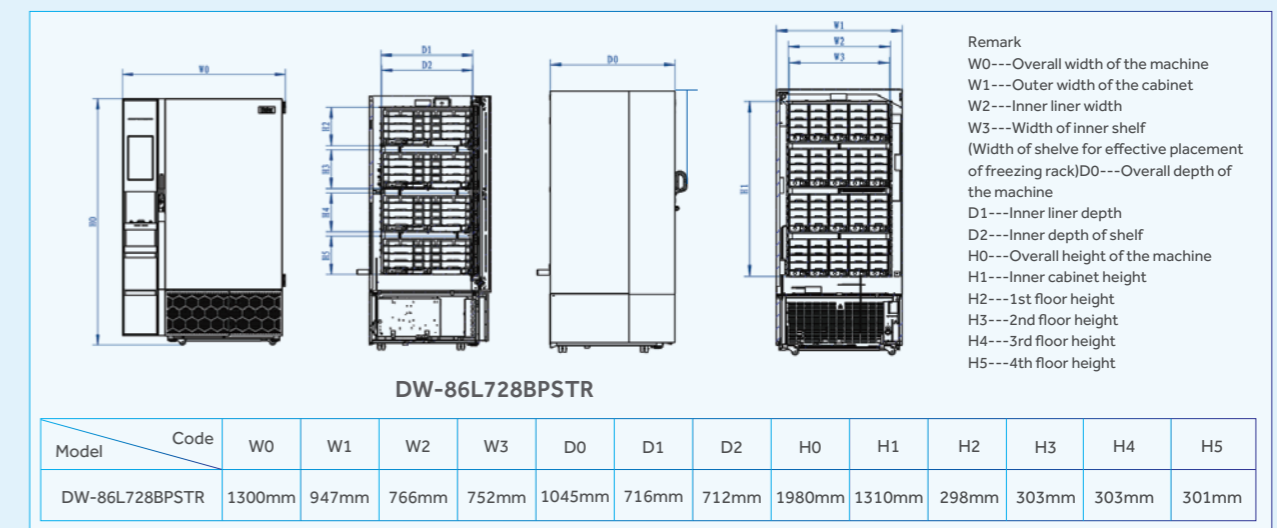


### Free Sample Placement

Samples can be placed freely without the need to be stored in specific locations, and the relevant sample information will be updated automatically.



## Product Dimension Drawings





# Ultra Low Temperature RFID Freezer Specifications

| Model                                    |                                   | DW-86L728BPSTR             |                |
|--|-----------------------------------|----------------------------|----------------|
| Technical Data                           | Cabinet Type                      | Upright                    |                |
|  | Ambient Temperature (°C)          | 10~32                      |                |
|  | Cooling Type                      | Direct Cooling             |                |
|  | Defrost Mode                      | Manual                     |                |
|  | Refrigerant                       | HC                         |                |
|  | Sound Level (dB(A))               | 42                         |                |
| Performance                              | Cooling Performance (°C)          | -86                        |                |
|  | Temperature Range (°C)            | -40~-86                    |                |
|  | Inventory Speed (Sec)             | 5                          |                |
|  | Query Speed (Sec)                 | 2                          |                |
|  | Recognition Speed (Sec)           | 3                          |                |
| Control                                  | Controller                        | Microprocessor             |                |
|  | Display                           | Touch Screen LCD           |                |
| Electrical Data                          | Power Supply (V/Hz)               | 220/50                     |                |
|  | Max Power (W)                     | 1700                       |                |
| Dimensions                               | Capacity (L/Cu.Ft)                | 728/25.7                   |                |
|  | Net/Gross Weight                  | kg                         | 555/640        |
|  |                                   | lbs                        | 1223.5/1410.9  |
|  | Interior Dimension (W*D*H)        | mm                         | 766*716*1310   |
|  |                                   | in                         | 30.2*28.2*51.6 |
|  | Exterior Dimension (W*D*H)        | mm                         | 1300*1045*1980 |
|  |                                   | in                         | 51.1*41.1*77.9 |
|  | Packing Dimension (W*D*H)         | mm                         | 1480*1175*2215 |
|  |                                   | in                         | 58.2*46.2*87.2 |
| Cabinet Width (Without Handle and Hinge) | mm                                | 1300                       |                |
| Alarms                                   | High/Low Temperature Alarm        | Y                          |                |
|  | Hot Condenser Alarm               | Y                          |                |
|  | Power Failure Alarm               | Y                          |                |
|  | High/Low Voltage Alarm            | Y                          |                |
|  | Sensor Error Alarm                | Y                          |                |
|  | Low Battery Alarm                 | Y                          |                |
|  | High Ambient Temperature Alarm    | Y                          |                |
|  | Door Ajar Alarm                   | Y                          |                |
|  | Start-Up Delay                    | Y                          |                |
| Accessories                              | Caster                            | Y                          |                |
|  | Leveling Feet                     | Y                          |                |
|  | Porthole                          | Y/2                        |                |
|  | Inner Doors                       | 4                          |                |
|  | Shelves                           | 3- Stainless Steel Shelves |                |
|  | Shelf Dimensions (W*D)(mm)        | 752*650                    |                |
|  | Max. Load per Shelf (kg)          | 90                         |                |
|  | Freezer Racks Quantity (2" boxes) | 20                         |                |
|  | Capacity (2" boxes)               | 400                        |                |
|  | USB Interface                     | Y                          |                |
|  | Remote Alarm                      | Y                          |                |
|  | 5V Power Supply Port              | Y                          |                |
|  | Temperature Chart Recorder        | Optional                   |                |
|  | RS232/485 Port                    | N/A / Standard             |                |
| CO <sub>2</sub> Backup System            | Optional                          |                            |                |
| LN <sub>2</sub> Backup System            | Optional                          |                            |                |
| Others                                   | Certification                     | CE                         |                |

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

# Stirling ULT Freezer

15/16



DW-86L100STL

Applicable for products and samples which require strict storage conditions such as viruses, pathogens, red blood cells, skin, bones, bacteria, semen, biological products, ocean products, electronic devices and special materials. Suitable for long term storage applications and compliant with typical storage requirements found in blood stations, hospitals, disease control and prevention centers, scientific research institutions, biomedical engineering institutes etc.

## Product Advantages



### Energy Saving and Environmental Protection

Compared with the traditional overlapping system, Stirling refrigeration technology saving energy 30%, refrigerant reloading reduced 50%.



### Multiple Temperature Ranges

Application range -20°C~32°C; full voltage configuration



### Smart Internet of Things

The Internet of Things app can be configured to monitor the running state of the refrigerator for 24 hours.



### Upgraded System and Loss Reduction

The refrigeration system is simplified and the failure rate is reduced.



### High Uniformity

The whole machine temperature uniformity  $\leq \pm 2^\circ\text{C}$ .



### Low Noise

Quadruple damping scheme, the noise of the whole machine is below 45 decibels.

## Ergonomic Design



The engine room is moved up, and the height of the storage space is reduced for easy access.



Humanized Design: 10 inch LCD touch screen, intelligent human-computer interaction.



Integrated cast aluminum handle, self-locking design, more convenient switching.



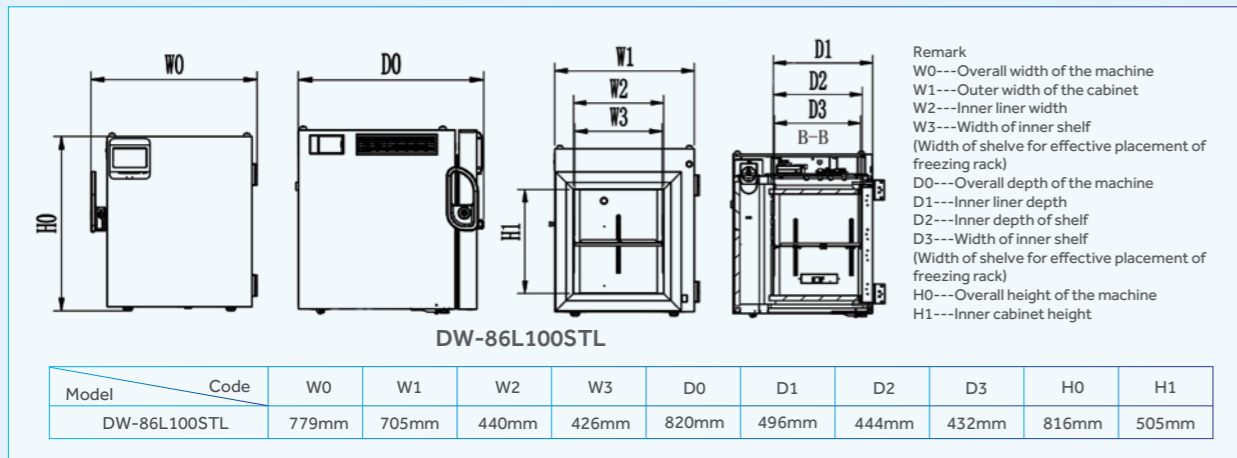
Equipped with multiple security lock and multiple security guarantee, including secret lock, padlock, optional fingerprint lock, NFC punch lock.



Multiple interface configurations: standard USB interface, RS485 interface.

# Stirling ULT Freezer

## Product Dimension Drawings



## Specifications

| Model           |  | DW-86L100STL                          |                |
|-----------------|--|---------------------------------------|----------------|
| Technical Data  | Cabinet Type                             | Upright                               |                |
|                 | Ambient Temperature (°C)                 | 10-32                                 |                |
|                 | Cooling Type                             | Direct cooling                        |                |
|                 | Defrost Mode                             | Manual                                |                |
|                 | Refrigerant                              | HC                                    |                |
| Performance     | Sound Level (dB(A))                      | ≤46                                   |                |
|                 | Cooling Performance (°C)                 | -86                                   |                |
|                 | Temperature Range (°C)                   | -20~-86                               |                |
| Control         | Controller                               | Microprocessor                        |                |
|                 | Display                                  | Touch Screen LCD                      |                |
| Electrical Data | Power Supply (V/Hz)                      | 220-240/50/60                         | 110-120/50/60  |
|                 | Max Power (W)                            | 300                                   |                |
|                 | Capacity (L/Cu.Ft)                       | 100/3.5                               |                |
| Dimensions      | Net/Gross Weight                         | kg                                    | 110/145        |
|                 |  | lbs                                   | 260.2/326.3    |
|                 | Interior Dimension (W*D*H)               | mm                                    | 440*444*505    |
|                 |  | in                                    | 17.3*17.5*19.9 |
|                 | Exterior Dimension (W*D*H)               | mm                                    | 779*820*816    |
|                 |  | in                                    | 30.7*32.3*32.1 |
|                 | Packing Dimension (W*D*H)                | mm                                    | 850*920*1000   |
| in              |  | 33.5*36.2*39.4                        |                |
| Functions       | Cabinet Width (without handle and hinge) | 705                                   |                |
|                 | Container Load (20'/40'/40'H)            | 24/52/52                              |                |
|                 | High/Low Temperature Alarm               | Y                                     |                |
|                 | Hot Condenser Alarm                      | N/A                                   |                |
|                 | Power Failure Alarm                      | Y                                     |                |
|                 | High/Low Voltage Alarm                   | Y                                     |                |
|                 | Sensor Error Alarm                       | Y                                     |                |
|                 | Low Battery Alarm                        | Y                                     |                |
|                 | High Ambient Temperature Alarm           | Y                                     |                |
|                 | Door Ajar Alarm                          | Y                                     |                |
|                 | Start-up delay                           | Y                                     |                |
|                 | Caster                                   | Y                                     |                |
|                 | Leveling Feet                            | Y                                     |                |
|                 | Porthole                                 | Y/1                                   |                |
|                 | Inner Doors                              | 2                                     |                |
| Accessories     | Shelves                                  | 1- stainless steel adjustable shelves |                |
|                 | Shelf Dimensions (W*D) (mm)              | 425*430                               |                |
|                 | Max. Load per Shelf (kg)                 | 90                                    |                |
|                 | Freezer Racks Quantity (2" boxes)        | 6                                     |                |
|                 | Capacity (2" boxes)                      | 72                                    |                |
|                 | USB Interface                            | Y                                     |                |
|                 | Remote Alarm                             | Y                                     |                |
|                 | 5V Power Supply Port                     | Y                                     |                |
|                 | Temperature Chart Recorder               | N/A                                   |                |
|                 | RS232/485 Port                           | N/A / Standard                        |                |
| Others          | CO <sub>2</sub> Backup System            | Optional                              |                |
|                 | LN <sub>2</sub> Backup System            | Optional                              |                |
|                 | Certifications                           | CE                                    | UL             |

# UltraEco ULT Freezer



DW-86L730/830BPT

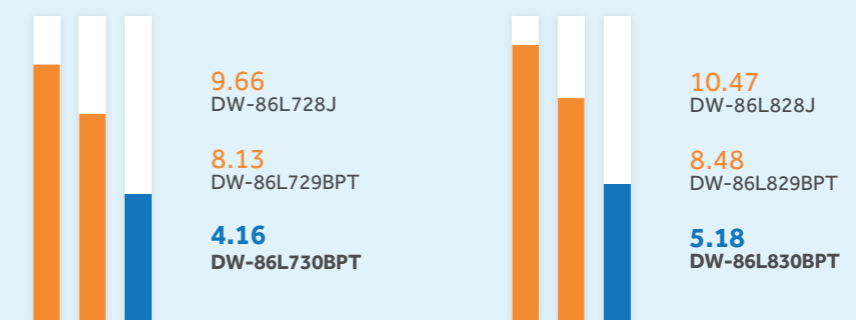
Super energy-saving technology and precise temperature control. Designed to provide long-term storage for various biological samples and sensitive items to ensure the integrity and stability of precious materials. With its outstanding energy-saving features, it not only reduces electricity consumption but also contributes to a greener environment.

## Optimal Energy Efficient Performance

HC refrigerant, frequency conversion technology and optimized structural design combine to lower operating costs compared to previous generation by up to 50%.

ENERGY STAR certified with world-leading energy efficiency

## Power Consumption Comparison (kWh/day)



\*Above power consumption base on ENERGY STAR report

# UltraEco ULT Freezer

## Significantly Enhanced Performance

The upgraded compressor, along with the enhanced refrigeration system and improved insulation structure, significantly elevates the performance of UltraEco series. In comparison to the previous generation, UltraEco series features lower energy consumption, a longer holdover time, faster temperature recovery time and re-entry time, as well as reduced noise. All these enhancements will bring customers a completely new experience.

**49%**

⚡ Decrease in Energy Consumption

**16%**

🕒 Improvement in Warm-Up Time from -80°C to -50°C

**80%**

🕒 Faster Re-Entry Time

**15 min**

🕒 1 Min Door Opening Recovery Time

**42dB(A)**

🔊 Lower Sound Level

**±2°C**

🌡 Outstanding Temperature Uniformity

\*Above data based on DW-86L730BPT

| Model   | DW-86L729BPT | DW-86L730BPT | DW-86L829BPT | DW-86L830BPT |
|---|--------------|--------------|--------------|--------------|
| Temperature Uniformity (°C)   | ±3           | ±2           | ±3           | ±3           |
| ENERGY STAR Power Consumption (kWh/day)                                 | 8.13         | 4.16         | 8.48         | 5.18         |
| 1-Minute Open Door Recovery Time (20° C Ambient Running at -75°C)(mins) | 24           | 15           | 35           | 32           |
| Warm-Up Time at 20° C Ambient (from -80°C to -50°C)(mins)               | 300          | 348          | 315          | 378          |
| Re-entry Time (Seconds)   | 300          | 60           | 300          | 60           |

\*Freezer performance will vary based on customer product volume, storage format, operating conditions, test methodology and performing recommended maintenance

## Green and Environmental Friendly



Naturally occurring Hydrocarbon (HC) refrigerants and insulation materials with ultra-low global warming potential (GWP) levels exert an extremely minimal impact on the environment. These are not only eco-friendly but also contribute to a sustainable future by reducing the carbon footprint and safeguarding the delicate balance of our ecosystem.

## Safety and Reliability

- Dual sensors ensure accurate detection of temperature changes, providing double the security for sample storage.
- The self-diagnostic feature of the compressor triggers immediate alarms in case of issues, enabling swift maintenance to prevent sample damage.
- VIP insulation technology provides 6-hour durable thermal retention and safeguards samples during brief power failures.
- Optional built-in independent backup system guarantees sample safety even in the event of a long power outage.

# UltraEco ULT Freezer

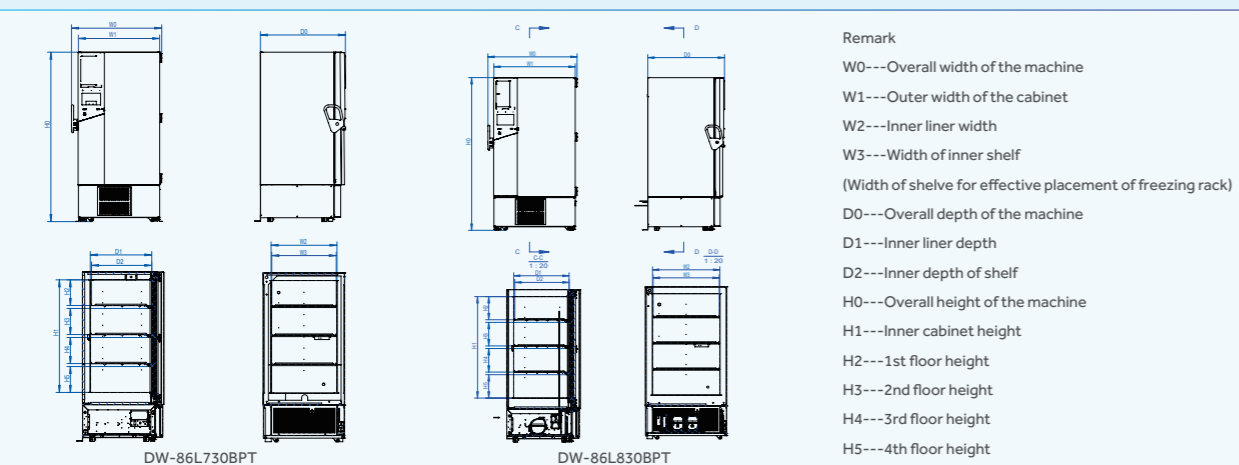
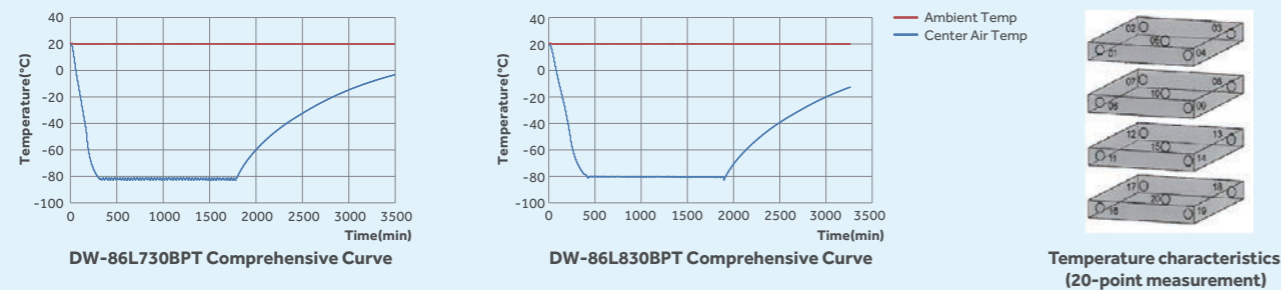
**10 Inch Capacitive Touch Screen**  
State-of-art UI design coupled with sample management system to provide the optimal user experience

**Improved Pressure Relief Port**  
Re-entry time shortened to just 60 seconds

**USB Interface**  
Enables users to download historical temperature data for compliance/auditing purposes

**Innovative Light Bar Design**  
Clearly indicate the operating status of the freezer and offer strengthened visual alarm indications for effortless at-a-glance monitoring

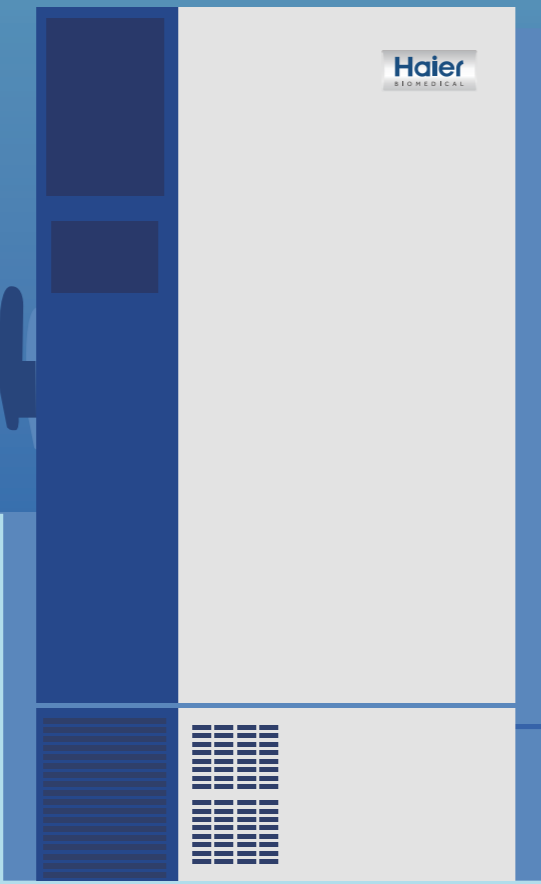
## Typical Performance Characteristics at 20°C Ambient



| Model        | Code | W0     | W1     | W2    | W3    | H0     | H1     | H2    | H3    | H4    | H5    | D0    | D1    | D2    |
|--------------|------|--------|--------|-------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| DW-86L730BPT |      | 1046mm | 946mm  | 766mm | 750mm | 1970mm | 1310mm | 298mm | 303mm | 303mm | 301mm | 998mm | 716mm | 700mm |
| DW-86L830BPT |      | 1145mm | 1050mm | 870mm | 854mm | 1970mm | 1310mm | 298mm | 303mm | 303mm | 301mm | 998mm | 716mm | 700mm |

## Specifications

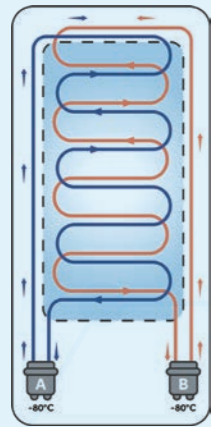
| Model                         | DW-86L730BPT                             | DW-86L830BPT                          |                                       |                |
|-------------------------------|--|---------------------------------------|---------------------------------------|----------------|
| <b>Technical Data</b>         | Cabinet Type                             | Upright                               | Upright                               |                |
|                               | Ambient Temperature (°C)                 | 10-32                                 | 10-32                                 |                |
|                               | Cooling Type                             | Direct Cooling                        | Direct Cooling                        |                |
|                               | Defrost Mode                             | Manual                                | Manual                                |                |
|                               | Refrigerant                              | HC                                    | HC                                    |                |
|                               | Sound Level (dB(A))                      | ≤42                                   | ≤46                                   |                |
| <b>Performance</b>            | Cooling Performance (°C)                 | -86                                   | -86                                   |                |
|                               | Temperature Range (°C)                   | -40--86                               | -40--86                               |                |
| <b>Control</b>                | Controller                               | Microprocessor                        | Microprocessor                        |                |
|                               | Display                                  | LCD touchscreen                       | LCD touchscreen                       |                |
| <b>Electrical Data</b>        | Power Supply (V/Hz)                      | 100-230/50/60                         | 100-230/50/60                         |                |
|                               | Max Power (W)                            | 900                                   | 1050                                  |                |
| <b>Dimensions</b>             | Capacity (L/Cu.Ft)                       | 730/25.8                              | 830/29.3                              |                |
|                               | Net/Gross Weight (approx)                | kg                                    | 315/368                               | 336/390        |
|                               |  | lbs                                   | 694.5/811.3                           | 740.8/859.8    |
|                               | Interior Dimensions (W*D*H)              | mm                                    | 766*716*1310                          | 870*716*1310   |
|                               |  | in                                    | 30.2*28.2*51.6                        | 34.3*28.2*51.6 |
|                               | Exterior Dimensions (W*D*H)              | mm                                    | 1046*998*1970                         | 1145*998*1970  |
|                               |  | in                                    | 41.2*39.3*77.6                        | 45.1*39.3*77.6 |
|                               | Packing Dimensions (W*D*H)               | mm                                    | 1110*1150*2160                        | 1220*1150*2160 |
|                               |  | in                                    | 43.3*45.3*85                          | 48*45.3*85     |
|                               | Cabinet Width (without handle and hinge) | 946                                   | 1050                                  |                |
| Container Load (20'/40'/40'H) | 10/20/20                                 | 8/20/20                               |                                       |                |
| <b>Functions</b>              | High/Low Temperature Alarm               | Y                                     | Y                                     |                |
|                               | Hot Condenser Alarm                      | Y                                     | Y                                     |                |
|                               | Power Failure Alarm                      | Y                                     | Y                                     |                |
|                               | High/Low Voltage Alarm                   | Y                                     | Y                                     |                |
|                               | Sensor Error Alarm                       | Y                                     | Y                                     |                |
|                               | Low Battery                              | Y                                     | Y                                     |                |
|                               | High Ambient Temperature Alarm           | Y                                     | Y                                     |                |
|                               | Door Ajar Alarm                          | Y                                     | Y                                     |                |
|                               | Start-Up Delay                           | Y                                     | Y                                     |                |
|                               | Caster                                   | Y(4)                                  | Y(4)                                  |                |
|                               | Leveling Feet                            | Y(2)                                  | Y(2)                                  |                |
|                               | Porthole                                 | 2*rear, (15mm)diameter                | 2*rear, (15mm)diameter                |                |
|                               | Inner Doors                              | 4                                     | 4                                     |                |
|                               | Shelves                                  | 3- Stainless Steel Adjustable Shelves | 3- Stainless Steel Adjustable Shelves |                |
| Shelf Dimensions (W*D)(mm)    | 752*650                                  | 856*650                               |                                       |                |
| Max. Load per Shelf (kg)      | 90                                       | 108                                   |                                       |                |
| Freezer Racks Qty (2" boxes)  | 20                                       | 24                                    |                                       |                |
| Capacity (2" boxes)           | 500                                      | 600                                   |                                       |                |
| USB Interface                 | Y  | Y                                     |                                       |                |
| Remote Alarm                  | Y  | Y                                     |                                       |                |
| 5V Power Supply Port          | Y  | Y                                     |                                       |                |
| Temperature Chart Recorder    | Optional                                 | Optional                              |                                       |                |
| RS232/485 Port                | N/A / Standard                           | N/A / Standard                        |                                       |                |
| CO <sub>2</sub> Backup System | Optional                                 | Optional                              |                                       |                |
| LN <sub>2</sub> Backup System | Optional                                 | Optional                              |                                       |                |
| <b>Others</b>                 | Certifications                           | CE, UL, ENERGY STAR                   | CE, UL, ENERGY STAR                   |                |



**TwinCool  
Frequency  
Conversion  
ULT Freezers**



**Product Advantages**



**Dual refrigeration system for optimal reliability and security**

Two independent hydrocarbon (HC) refrigeration systems, each can maintain -80°C ensuring the safety of stored samples



**World-leading Energy Saving Refrigeration Technology**

Intelligent frequency conversion technology and HC refrigeration system delivers a 50% reduction in energy usage when compared to traditional HFC refrigeration systems



**Environmental Protection**

Environmentally friendly hydrocarbon refrigerant and LBA foam material



**Optional IoT System**

The optional IoT monitors the operating status of the equipment in real time. Equipped with multiple alarm functions and a self-diagnostics system to identify and warn users to ensure sample safety

**Ergonomic Design**



**Low Noise Design**

Optimised systems and noise-reducing cabinet design lower noise out to 42dB for a quieter working experience



**Adjustable Sample Loading Tray (Optional)**

The adjustable height sample load tray provides users with a convenient place to hold samples while opening and accessing storage compartments



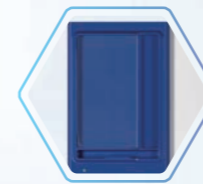
**Large loading capacity**

DW-86L578BPST: 40,000 cryovials (2ml)  
DW-86L728BPST: 50,000 cryovials (2ml)  
DW-86L828BPST: 60,000 cryovials (2ml)



**Intelligent Control**

10.1-inch high-performance touch screen, sensitive touch operation. Using the optional IoT module, users can check the real-time operating status from an App



**Ergonomic design**

Document holder for easy storage of documents



**High quality door opening experience**

The ergonomic chamfer design of the handle ensures smooth operation and maximum durability



**Multiple safety lock**

Standard mechanical lock, optional electromagnetic lock  
Optional fingerprint lock and NFC for optimal security and access



**Magnetic filter screen**

Filter screen is easy to clean



**Microcomputer control**

Microcontroller with 10.1 inch LCD touch screen displays temperature and other important data. Temperature display precision is 0.1°C



**Multiple alarms**

Including high/ low temperature alarm, sensor error alarm, hot condensor alarm, power failure alarm, low battery alarm, door ajar alarm, high ambient temperature alarm, etc



**Networking function**

Equipped with RS485 interface to connect multiple freezers



**Adjustable feet**

For easy positioning and levelling



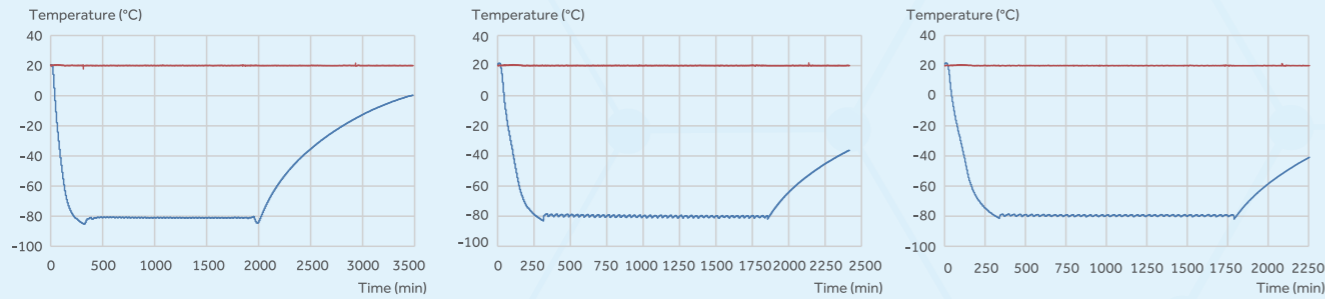
DW-86L828BPST



Follow the QR code and learn more about the TwinCool Frequency Conversion ULT Freezer DW-86L828BPST from Haier Biomedical

# TwinCool TwinCool Frequency Conversion ULT Freezer

## Temperature Curve



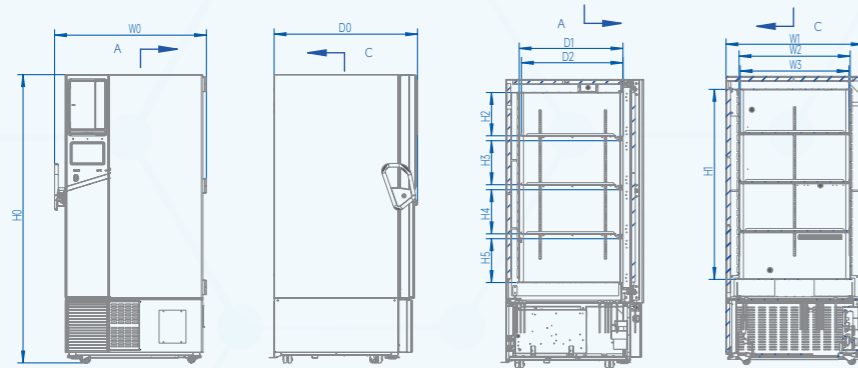
DW-86L578BPST Comprehensive Curve

DW-86L728BPST Comprehensive Curve

DW-86L828BPST Comprehensive Curve

— Center Air Temp  
— Ambient Temp

## Product Dimensions



**Remark**  
**W0=Total Width**  
**W1=Freezer Width**  
**W2=Inner Cabinet Width**  
**W3=Inner Cabinet Shelf Width**  
**H0=Total Height**  
**H1=Inner Cabinet Height**  
**H2=1st Floor Height**  
**H3=2ed Floor Height**  
**H4=3rd Floor Height**  
**H5=4th Floor Height**  
**D0=Total Depth**  
**D1=Inner Cabinet Width**  
**D2=Inner Cabinet Shelf Width**

| Parameter            | W0     | W1     | W2    | W3    | H0     | H1     | H2    | H3    | H4    | H5    | D0    | D1    | D2    |
|----------------------|--------|--------|-------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| <b>Model</b>         |        |        |       |       |        |        |       |       |       |       |       |       |       |
| <b>DW-86L578BPST</b> | 895mm  | 800mm  | 620mm | 602mm | 1980mm | 1310mm | 298mm | 303mm | 303mm | 301mm | 998mm | 716mm | 700mm |
| <b>DW-86L728BPST</b> | 1046mm | 946mm  | 766mm | 750mm | 1980mm | 1310mm | 298mm | 303mm | 303mm | 301mm | 998mm | 716mm | 700mm |
| <b>DW-86L828BPST</b> | 1145mm | 1050mm | 870mm | 854mm | 1980mm | 1310mm | 298mm | 303mm | 303mm | 301mm | 998mm | 716mm | 700mm |

## Specifications



| Model                                    | DW-86L578BPST                         | DW-86L728BPST                         | DW-86L828BPST                         |
|--|---------------------------------------|---------------------------------------|---------------------------------------|
| <b>Technical Data</b>                    | Cabinet Type: Upright                 | Cabinet Type: Upright                 | Cabinet Type: Upright                 |
| Ambient Temperature (°C)                 | 10-32                                 | 10-32                                 | 10-32                                 |
| Cooling Type                             | Direct Cooling                        | Direct Cooling                        | Direct Cooling                        |
| Defrost Mode                             | Manual                                | Manual                                | Manual                                |
| Refrigerant                              | HC                                    | HC                                    | HC                                    |
| Sound Level (dB (A))                     | 42                                    | 42                                    | 42                                    |
| <b>Performance</b>                       | Cooling Performance (°C)              | -86                                   | -86                                   |
| Temperature Range (°C)                   | -40~-86                               | -40~-86                               | -40~-86                               |
| <b>Control</b>                           | Controller                            | Microprocessor                        | Microprocessor                        |
| Display                                  | LCD Touchscreen                       | LCD Touchscreen                       | LCD touchscreen                       |
| <b>Electrical Data</b>                   | Power Supply (V/Hz)                   | 100-230/50/60                         | 100-230/50/60                         |
| Max Power (W)                            | 1100                                  | 1100                                  | 1400                                  |
| <b>Dimensions</b>                        | Capacity (L/Cu.Ft)                    | 578/20.4                              | 728/25.7                              |
| Net/Gross Weight                         | kg                                    | 325/355                               | 350/385                               |
|  | lbs                                   | 716.5/782.6                           | 771.6/848.8                           |
| Interior Dimension (W*D*H)               | mm                                    | 620*716*1310                          | 766*716*1310                          |
|  | in                                    | 24.4*28.2*51.6                        | 30.2*28.2*51.6                        |
| Exterior Dimension (W*D*H)               | mm                                    | 895*998*1980                          | 1046*998*1980                         |
|  | in                                    | 35.2*39.3*78.0                        | 41.2*39.3*78.0                        |
| Packing Dimension (W*D*H)                | mm                                    | 953*1071*2127                         | 1105*1066*2117                        |
|  | in                                    | 37.5*42.1*83.7                        | 43.5*42*83.3                          |
| Cabinet Width (without handle and hinge) | mm                                    | 800                                   | 946                                   |
| Container Load (20'/40'/40'H)            |                                       | 12/24/24                              | 10/20/20                              |
| <b>Functions</b>                         | High/Low Temperature Alarm            | Y                                     | Y                                     |
| Hot Condenser Alarm                      | Y                                     | Y                                     | Y                                     |
| Power Failure Alarm                      | Y                                     | Y                                     | Y                                     |
| High/Low Voltage Alarm                   | Y                                     | Y                                     | Y                                     |
| Sensor Error Alarm                       | Y                                     | Y                                     | Y                                     |
| Low Battery Alarm                        | Y                                     | Y                                     | Y                                     |
| High Ambient Temperature Alarm           | Y                                     | Y                                     | Y                                     |
| Door Ajar Alarm                          | Y                                     | Y                                     | Y                                     |
| Start-up delay                           | Y                                     | Y                                     | Y                                     |
| <b>Accessories</b>                       | Caster                                | Y (4)                                 | Y (4)                                 |
| Leveling Feet                            | Y (2)                                 | Y (2)                                 | Y (2)                                 |
| Porthole                                 | 2*rear, (25mm) diameter               | 2*rear, (25mm) diameter               | 2*rear, (25mm) diameter               |
| Inner Doors                              | 4                                     | 4                                     | 4                                     |
| Shelves                                  | 3- stainless steel adjustable shelves | 3- stainless steel adjustable shelves | 3- stainless steel adjustable shelves |
| Shelf Dimensions (W*D) (mm)              | 606*650                               | 752*650                               | 856*650                               |
| Max. Load per Shelf (kg)                 | 72                                    | 90                                    | 108                                   |
| Freezer Racks Quantity (2" boxes)        | 16                                    | 20                                    | 24                                    |
| Capacity (2" boxes)                      | 400                                   | 500                                   | 600                                   |
| USB Interface                            | Y                                     | Y                                     | Y                                     |
| Remote Alarm                             | Y                                     | Y                                     | Y                                     |
| 5V Power Supply Port                     | Y                                     | Y                                     | Y                                     |
| Temperature Chart Recorder               | Optional                              | Optional                              | Optional                              |
| RS232/485 Port                           | N/A / Standard                        | N/A / Standard                        | N/A / Standard                        |
| CO <sub>2</sub> Backup System            | Optional                              | Optional                              | Optional                              |
| LN <sub>2</sub> Backup System            | Optional                              | Optional                              | Optional                              |
| <b>Others</b>                            | Certifications                        | CE, UL, MDR, ACT, ENERGY STAR         | CE, UL, MDR, ACT, ENERGY STAR         |



**Frequency  
Conversion ULT  
Freezers**



Suitable for long term storage applications and compliant with typical storage requirements found in hospitals, disease control and prevention centres, scientific research institutions, biomedical engineering institutes, the agriculture/fishery sector as well as the electronics and chemical industries.

Product Parts

**Smart Full-size Touch Screen**  
10 inch capacitive touch screen, state-of-art UI design coupled with sample management system to provide the optimal user experience

**Pressure Equalisation Port**  
Heated port with spring assisted mechanism to prevent icing on the vent allows users to reopen the main door soon after entering. Adopts chromium plating, rust-proof

**Energy Saving Refrigeration**  
High efficiency cooling fans and compressors, combined with hydrocarbon refrigerants, ensure energy savings and long-term sample security

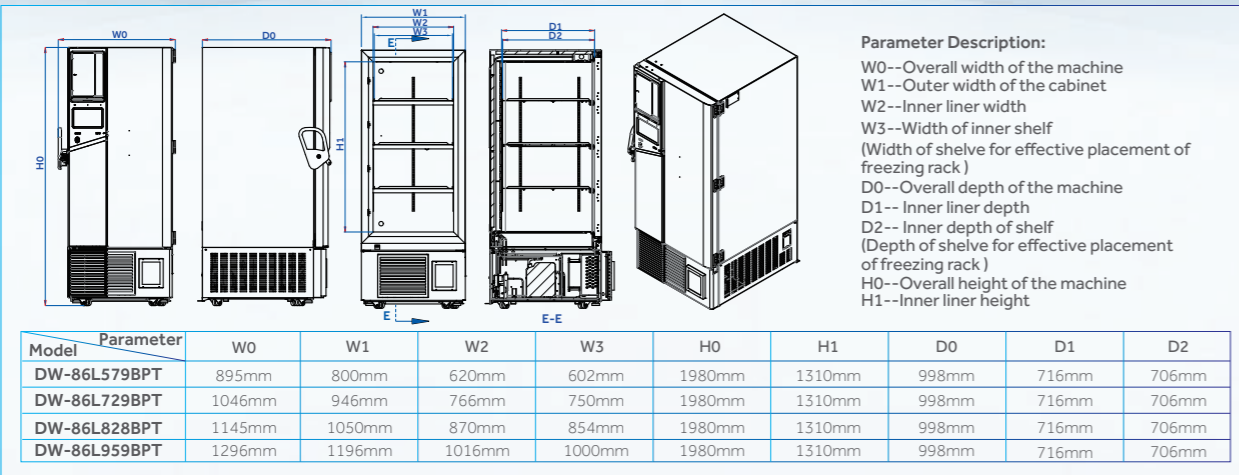


**Multilayered Sealing Structure**  
Multilayered gaskets decrease heat loss and guarantee excellent warm up times in the event of a power failure

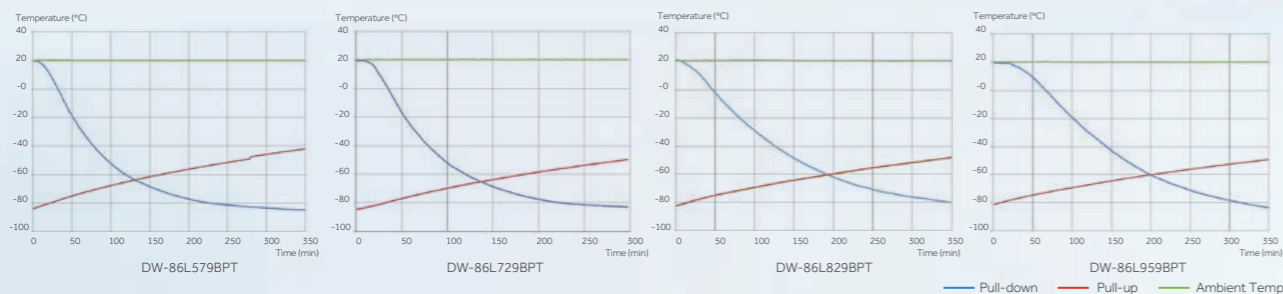
**USB Interface**  
Enables users to download historical temperature data for compliance/auditing purposes

**Improved Handle Design**  
Lockable handle with unique key prevents other Haier Biomedical freezer owner's access to your precious samples, also comes with space for a padlock for that extra security

Product Dimensions



Temperature Curve



Advanced Hardware System

**Smart Full-size Touch Screen**  
10-inch capacitive touch screen, state-of-art UI design coupled with sample management system to provide the optimal user experience.



**HC & Variable Frequency Drive Refrigeration System for Additional Energy Saving**  
Advanced innovative design delivers excellent energy savings. The energy consumption is down to a single digit.

Ergonomic Design

**Safe and secure**  
Equipped with key lock, padlock and optional electromagnetic lock, with optional fingerprint lock, providing multiple safeguards for sample safety

**Low noise design, reducing the noise down to 43.5dB**  
Special noise-reduction design plus super silent compressor technology and energy-saving fan, considerably lowers noise level

**Super energy efficient with three environmentally friendly innovations**  
Ultra-low power consumption, down to less than 10kWh/day, ensuring a world leading energy saving performance

**Optimized insulation**  
Double foaming for both inner and outer doors and five-layer sealing design and optimized super-thick VIP thermal insulation technology, extends temperature holdover time during power failure and increases insulation efficiency by 20%

Specifications

|                                   | Model                                    | DW-86L579BPT    | DW-86L729BPT                          | DW-86L829BPT                          | DW-86L959BPT                          |                                       |
|-----------------------------------|--|-----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Technical Data                    | Cabinet Type                             | Upright         | Upright                               | Upright                               | Upright                               |                                       |
|                                   | Ambient Temperature (°C)                 | 10-32           | 10-32                                 | 10-32                                 | 10-32                                 |                                       |
|                                   | Cooling Type                             | Direct Cooling  | Direct Cooling                        | Direct Cooling                        | Direct Cooling                        |                                       |
|                                   | Defrost Mode                             | Manual          | Manual                                | Manual                                | Manual                                |                                       |
|                                   | Refrigerant                              | HC              | HC                                    | HC                                    | HC                                    |                                       |
|                                   | Sound Level (dB(A))                      | 43.5            | 43.5                                  | 43.5                                  | 47                                    |                                       |
| Performance                       | Cooling Performance (°C)                 | -86             | -86                                   | -86                                   | -86                                   |                                       |
|                                   | Temperature Range (°C)                   | -40~-86         | -40~-86                               | -40~-86                               | -40~-86                               |                                       |
| Control                           | Controller                               | Microprocessor  | Microprocessor                        | Microprocessor                        | Microprocessor                        |                                       |
|                                   | Display                                  | LCD Touchscreen | LCD Touchscreen                       | LCD Touchscreen                       | LCD Touchscreen                       |                                       |
| Electrical Data                   | Power Supply (V/Hz)                      | 100-230/50/60   | 100-230/50/60                         | 208-230/50/60 100-230/50/60           | 208-230/50/60 100-230/50/60           |                                       |
|                                   | Max Power (W)                            | 1100            | 1100                                  | 1400                                  | 1750                                  |                                       |
|                                   | Capacity (L/Cu.Ft)                       | 579/20.4        | 729/25.7                              | 829/29.2                              | 959/33.9                              |                                       |
|                                   | Net/Gross Weight                         | kg<br>lbs       | 325/355<br>716.5/782.6                | 350/385<br>771.6/848.8                | 380/415<br>837.7/914.9                | 450/485<br>992.1/1069.2               |
| Dimensions                        | Interior Dimension (W*D*H)               | mm              | 620*716*1310                          | 766*716*1310                          | 870*716*1310                          | 1016*716*1310                         |
|                                   |  | in              | 24.4*28.2*51.6                        | 30.2*28.2*51.6                        | 34.3*28.2*51.6                        | 40.0*28.2*51.6                        |
|                                   | Exterior Dimension (W*D*H)               | mm              | 895*998*1980                          | 1046*998*1980                         | 1145*998*1980                         | 1296*998*1980                         |
|                                   |  | in              | 35.2*39.3*78.0                        | 41.2*39.3*78.0                        | 45.1*39.3*78.0                        | 51.0*39.3*78.0                        |
| Packing Dimension (W*D*H)         | mm                                       | 953*1071*2127   | 1105*1066*2117                        | 1204*1072*2125                        | 1365*1102*2164                        |                                       |
|                                   | in                                       | 37.6*42.2*83.8  | 43.6*42*83.4                          | 47.5*42.3*83.7                        | 53.8*43.4*85.2                        |                                       |
| Functions                         | Cabinet Width (without handle and hinge) | mm              | 800                                   | 946                                   | 1050                                  | 1196                                  |
|                                   | Container Load (20'/40'/40'H)            |                 | 12/24/24                              | 10/20/20                              | 8/20/20                               | 8/16/16                               |
|                                   | High/Low Temperature Alarm               |                 | Y                                     | Y                                     | Y                                     | Y                                     |
|                                   | Hot Condenser Alarm                      |                 | Y                                     | Y                                     | Y                                     | Y                                     |
|                                   | Power Failure Alarm                      |                 | Y                                     | Y                                     | Y                                     | Y                                     |
|                                   | High/Low Voltage Alarm                   |                 | Y                                     | Y                                     | Y                                     | Y                                     |
|                                   | Sensor Error Alarm                       |                 | Y                                     | Y                                     | Y                                     | Y                                     |
|                                   | Low Battery Alarm                        |                 | Y                                     | Y                                     | Y                                     | Y                                     |
|                                   | High Ambient Temperature Alarm           |                 | Y                                     | Y                                     | Y                                     | Y                                     |
|                                   | Door Ajar Alarm                          |                 | Y                                     | Y                                     | Y                                     | Y                                     |
|                                   | Start-up delay                           |                 | Y                                     | Y                                     | Y                                     | Y                                     |
|                                   | Caster                                   |                 | Y (4)                                 | Y (4)                                 | Y (4)                                 | Y (4)                                 |
|                                   | Leveling Feet                            |                 | Y (2)                                 | Y (2)                                 | Y (2)                                 | Y (2)                                 |
|                                   | Porthole                                 |                 | 2*rear, (25mm) diameter               | 2*rear, (25mm) diameter               | 2*rear, (25mm) diameter               | 2*rear, (25mm) diameter               |
|                                   | Inner Doors                              |                 | 4                                     | 4                                     | 4                                     | 4                                     |
|                                   | Shelves                                  |                 | 3- stainless steel adjustable shelves | 3- stainless steel adjustable shelves | 3- stainless steel adjustable shelves | 3- stainless steel adjustable shelves |
| Shelf Dimensions (W*D) (mm)       |  | 606*650         | 752*650                               | 856*650                               | 1002*650                              |                                       |
| Max. Load per Shelf (kg)          |  | 72              | 90                                    | 108                                   | 126                                   |                                       |
| Freezer Racks Quantity (2" boxes) |  | 16              | 20                                    | 24                                    | 28                                    |                                       |
| Capacity (2" boxes)               |  | 400             | 500                                   | 600                                   | 700                                   |                                       |
| USB Interface                     |  | Y               | Y                                     | Y                                     | Y                                     |                                       |
| Remote Alarm                      |  | Y               | Y                                     | Y                                     | Y                                     |                                       |
| 5V Power Supply Port              |  | Y               | Y                                     | Y                                     | Y                                     |                                       |
| Temperature Chart Recorder        |  | Optional        | Optional                              | Optional                              | Optional                              |                                       |
| RS232/485 Port                    |  | N/A / Standard  | N/A / Standard                        | N/A / Standard                        | N/A / Standard                        |                                       |
| CO <sub>2</sub> Backup System     |  | Optional        | Optional                              | Optional                              | Optional                              |                                       |
| LN <sub>2</sub> Backup System     |  | Optional        | Optional                              | Optional                              | Optional                              |                                       |
| Others                            | Certifications                           | CE, UL, MDR     | CE, UL, ENERGY STAR, MDR              | CE, ENERGY STAR, MDR                  | UL, ENERGY STAR, CE, ENERGY STAR, MDR |                                       |



Follow the QR code and learn more about the Smart Frequency Conversion ULT Freezer DW-86L829BPT from Haier Biomedical

Haier Biomedical's Smart Frequency technology manages the compressor speeds on demand. The ultra-low temperature freezers can thus achieve world-leading energy efficiency in ultra-low temperature.



DW-86L829BP

The Smart Frequency Conversion range of ultra low temperature freezers have been designed and developed at the Haier Biomedical R&D Institute. They are certified by one of the world's leading energy conservation and environmental protection organisations.



**Intelligent Frequency Conversion Technology**

Two variable speed compressors are controlled for optimal freezer performance. Low energy consumption is achieved.



**Maximum Energy Efficiency**

Our SmartFrequency Technology, coupled with our environmentally safe and friendly hydrocarbon refrigeration system, allows the Haier freezers to operate at a low level of energy of 8.2 kWh/day.



**Precise Temperature Control**

The innovative control algorithm balances the effects of temperature loss with the unique frequency conversion refrigeration system, ensuring the cabinet temperature stability of  $\pm 3^{\circ}\text{C}$ .



**Frequency Conversion Adaptive Technology**

Variable speed compressors in Haier Biomedical freezers are operated to produce the capacity that matches the demand of the load. The control system automatically tunes the speed of the compressors to optimize the operation.



**World-leading Energy Saving Refrigeration Technology**

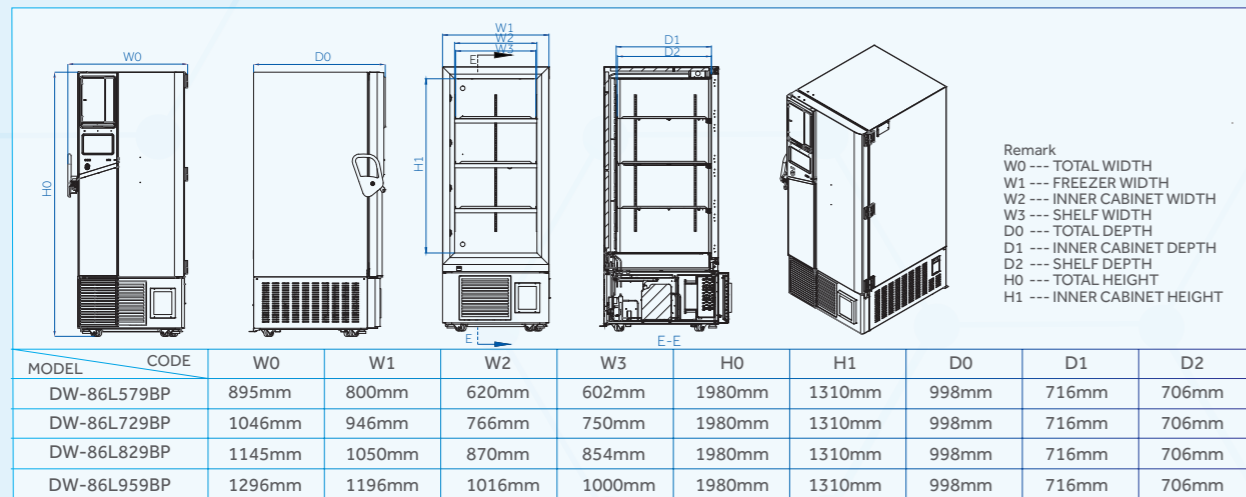
Our hydrocarbon refrigeration technology can save energy by 50%, significantly reducing operator's cost. The refrigerants do not contain fluoride and chloride. The global warming potential is extremely low at 3. Thus they are very friendly to the environment



**Minimal Sound Level Output**

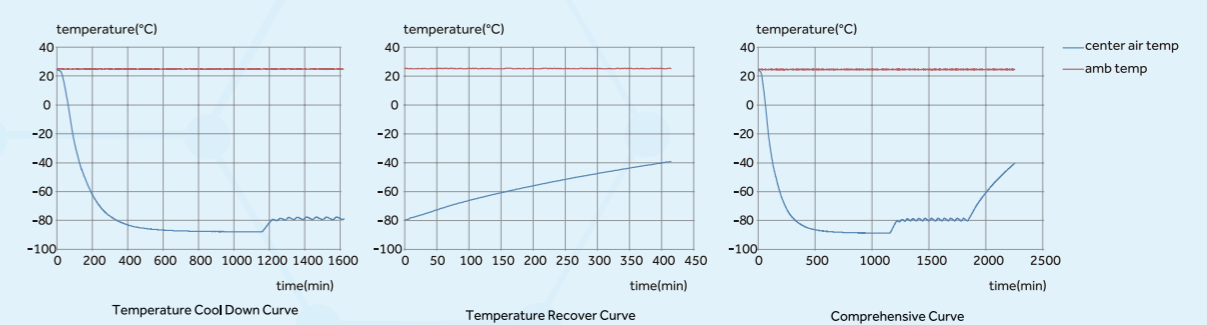
Adaptive control technology controls the fans and compressors to reduce the sound level to 43.5 dB(A).

**Product Dimensions**



DW-86L829BP

**DW-86L829BP | TYPICAL PERFORMANCE CHARACTERISTICS AT 25°C AMBIENT**



Specifications

| Model                             | DW-86L579BP                              | DW-86L729BP                           | DW-86L829BP                           | DW-86L959BP                           |                             |                |
|-----------------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------|----------------|
| Technical                         | Cabinet Type                             | Upright                               | Upright                               | Upright                               | Upright                     |                |
|                                   | Ambient Temperature (°C)                 | 10-32                                 | 10-32                                 | 10-32                                 | 10-32                       |                |
| Data                              | Cooling Type                             | Direct Cooling                        | Direct Cooling                        | Direct Cooling                        | Direct Cooling              |                |
|                                   | Defrost Mode                             | Manual                                | Manual                                | Manual                                | Manual                      |                |
|                                   | Refrigerant                              | HC                                    | HC                                    | HC                                    | HC                          |                |
|                                   | Sound Level (dB(A))                      | 43.5                                  | 43.5                                  | 43.5                                  | 47                          |                |
|                                   | Cooling Performance (°C)                 | -86                                   | -86                                   | -86                                   | -86                         |                |
| Performance                       | Temperature Range (°C)                   | -40~-86                               | -40~-86                               | -40~-86                               | -40~-86                     |                |
|                                   | Controller                               | Microprocessor                        | Microprocessor                        | Microprocessor                        | Microprocessor              |                |
| Control                           | Display                                  | LED                                   | LED                                   | LED                                   | LED                         |                |
|                                   | Power Supply (V/Hz)                      | 100-230/50/60                         | 100-230/50/60                         | 208-230/50/60 100-230/50/60           | 208-230/50/60 100-230/50/60 |                |
| Electrical Data                   | Max Power (W)                            | 1100                                  | 1100                                  | 1400                                  | 1750                        |                |
|                                   | Capacity (L/Cu.Ft)                       | 579/20.4                              | 729/25.7                              | 829/29.2                              | 959/33.9                    |                |
| Dimensions                        | Net/Gross Weight                         | kg                                    | 325/355                               | 350/385                               | 380/415                     | 450/485        |
|                                   |  | lbs                                   | 716.5/782.6                           | 771.6/848.8                           | 837.7/914.9                 | 992.1/1069.2   |
|                                   | Interior Dimension (W*D*H)               | mm                                    | 620*716*1310                          | 766*716*1310                          | 870*716*1310                | 1016*716*1310  |
|                                   |  | in                                    | 24.4*28.2*51.6                        | 30.2*28.2*51.6                        | 34.3*28.2*51.6              | 40.0*28.2*51.6 |
|                                   | Exterior Dimension (W*D*H)               | mm                                    | 895*998*1980                          | 1046*998*1980                         | 1145*998*1980               | 1296*998*1980  |
|                                   |  | in                                    | 35.2*39.3*78.0                        | 41.2*39.3*78.0                        | 45.1*39.3*78.0              | 51.0*39.3*78.0 |
|                                   | Packing Dimension (W*D*H)                | mm                                    | 953*1071*2127                         | 1105*1066*2117                        | 1204*1072*2125              | 1365*1102*2164 |
|                                   |  | in                                    | 37.6*42.2*83.8                        | 43.6*42*83.4                          | 47.5*42.3*83.7              | 53.8*43.4*85.2 |
|                                   | Cabinet Width (without handle and hinge) | mm                                    | 800                                   | 946                                   | 1050                        | 1196           |
|                                   | Container Load (20/40/40'H)              |                                       | 12/24/24                              | 10/20/20                              | 8/20/20                     | 8/16/16        |
| Functions                         | High/Low Temperature Alarm               | Y                                     | Y                                     | Y                                     | Y                           |                |
|                                   | Hot Condenser Alarm                      | Y                                     | Y                                     | Y                                     | Y                           |                |
|                                   | Power Failure Alarm                      | Y                                     | Y                                     | Y                                     | Y                           |                |
|                                   | High/Low Voltage Alarm                   | N/A                                   | N/A                                   | N/A                                   | N/A                         |                |
|                                   | Sensor Error Alarm                       | Y                                     | Y                                     | Y                                     | Y                           |                |
|                                   | Low Battery Alarm                        | Y                                     | Y                                     | Y                                     | Y                           |                |
|                                   | High Ambient Temperature Alarm           | Y                                     | Y                                     | Y                                     | Y                           |                |
|                                   | Door Ajar Alarm                          | Y                                     | Y                                     | Y                                     | Y                           |                |
|                                   | Start-up delay                           | Y                                     | Y                                     | Y                                     | Y                           |                |
|                                   | Caster                                   | Y (4)                                 | Y (4)                                 | Y (4)                                 | Y (4)                       |                |
|                                   | Leveling Feet                            | Y (2)                                 | Y (2)                                 | Y (2)                                 | Y (2)                       |                |
|                                   | Porthole                                 | 2*rear, (25mm) diameter               | 2*rear, (25mm) diameter               | 2*rear, (25mm) diameter               | 2*rear, (25mm) diameter     |                |
| Inner Doors                       | 4  | 4                                     | 4                                     | 4                                     |                             |                |
| Shelves                           | 3- stainless steel adjustable shelves    | 3- stainless steel adjustable shelves | 3- stainless steel adjustable shelves | 3- stainless steel adjustable shelves |                             |                |
| Shelf Dimensions (W*D) (mm)       | 606*650                                  | 752*650                               | 856*650                               | 1002*650                              |                             |                |
| Max. Load per Shelf (kg)          | 72                                       | 90                                    | 108                                   | 126                                   |                             |                |
| Freezer Racks Quantity (2" boxes) | 16                                       | 20                                    | 24                                    | 28                                    |                             |                |
| Capacity (2" boxes)               | 400                                      | 500                                   | 600                                   | 700                                   |                             |                |
| USB Interface                     | Y  | Y                                     | Y                                     | Y                                     |                             |                |
| Remote Alarm                      | Y  | Y                                     | Y                                     | Y                                     |                             |                |
| 5V Power Supply Port              | Y  | Y                                     | Y                                     | Y                                     |                             |                |
| Temperature Chart Recorder        | Optional                                 | Optional                              | Optional                              | Optional                              |                             |                |
| RS232/485 Port                    | N/A / Standard                           | N/A / Standard                        | N/A / Standard                        | N/A / Standard                        |                             |                |
| CO <sub>2</sub> Backup System     | Optional                                 | Optional                              | Optional                              | Optional                              |                             |                |
| LN <sub>2</sub> Backup System     | Optional                                 | Optional                              | Optional                              | Optional                              |                             |                |
| Others                            | Certifications                           | CE, UL, MDR                           | CE, UL, ENERGY STAR, MDR              | CE, UL, ENERGY STAR, MDR              | CE, UL, ENERGY STAR, MDR    |                |

Haier Biomedical Salvum brand of ULT freezers has been designed to deliver energy savings and reduced carbon footprint. This range uses environmentally safe hydrocarbon refrigerants and high efficiency fan motors to maximize the cooling ability of the system and reduce energy consumption. While providing sample safety, the freezer design makes energy savings possible for laboratories.



DW-86L829



DW-86L579

Product Advantages

All-New Upgrade

Both the appearance and performance have been upgraded and optimized compared to the previous generation, delivering users an optimal experience

HC Energy-Saving

The high efficiency hydrocarbon compressor along with the upgraded refrigeration technology leads to a significant reduction in energy consumption



Superior Uniformity

The temperature uniformity is within ±4°C at -80°C setpoint, which ensures reliable preservation and maintains sample integrity over time

Environmental Protection

Adopt environmentally friendly hydrocarbon refrigerant and green LBA insulation to reduce the carbon footprint and protect the environment

Multiple Alarm Functions

Including high/low temperature alarm, sensor failure alarm, power failure alarm, low battery alarm, door ajar alarm and high ambient temperature alarm. Alarm mode is sound and flash



Rich Configurations

Standard: RS485 interface, remote alarm, USB interface, 10-inch touchscreen, adjustable stainless steel shelves  
Optional: temperature recorder, backup system, stainless inner



Accessories



# Salvum Ultimate Standard Low Energy ULT Freezer with LCD Touchscreen

## Optimized Design



### Upgraded VIP Insulation Technology

The Vacuum Insulated Panels (VIP) has been upgraded from a spliced form to an integrated one, ensuring unparalleled temperature performance



### Improved Pressure Relief Port

The re-entry time has been shortened to just 60 seconds, effectively ensuring continuous access to the freezer



### Intelligent Control

The 10 - inch LCD touchscreen integrated with a microprocessor controller system can intuitively display internal temperature, ambient temperature, set point and other data as well as temperature curves. The set temperature is adjustable between -40 ° C and -86 ° C, with a temperature display precision of 0.1°C



### Safe and Secure

Equipped with keyed door lock, padlock, optional electronic lock, providing multiple safeguards for sample safety

## Product Parts



Document holder for easy storage of files and pens



The handle designed with a unique sliding-track makes opening and closing the door easier



The tool-free removable filter makes it easy and quick to clean



The outer door is equipped with four layers of seals and the inner door with one layer, which significantly reduces heat loss

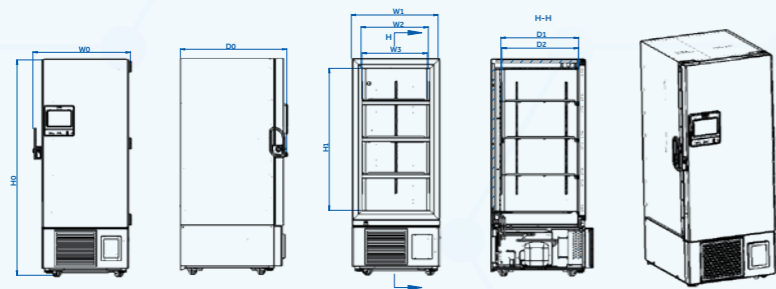


Standard USB interface enables users to download historical temperature data (up to 15 years)



4 swivel casters and 2 adjustable leveling legs for easy maneuvering and precise positioning

## Product Dimensions



### KEY

W0 --- TOTAL WIDTH  
 W1 --- FREEZER WIDTH  
 W2 --- INNER CABINET WIDTH  
 W3 --- SHELF WIDTH  
 D0 --- TOTAL DEPTH  
 D1 --- INNER CABINET DEPTH  
 D2 --- SHELF DEPTH  
 H0 --- TOTAL HEIGHT  
 H1 --- INNER CABINET HEIGHT

| Model     | Parameter | W0     | W1     | W2    | W3    | H0     | H1     | D0    | D1    | D2    |
|-----------|-----------|--------|--------|-------|-------|--------|--------|-------|-------|-------|
| DW-86L419 |           | 830mm  | 725mm  | 465mm | 450mm | 1980mm | 1310mm | 980mm | 716mm | 710mm |
| DW-86L579 |           | 903mm  | 800mm  | 620mm | 604mm | 1960mm | 1310mm | 980mm | 716mm | 710mm |
| DW-86L729 |           | 1049mm | 946mm  | 766mm | 750mm | 1980mm | 1310mm | 980mm | 716mm | 710mm |
| DW-86L829 |           | 1153mm | 1050mm | 870mm | 854mm | 1980mm | 1310mm | 980mm | 716mm | 710mm |

## Specifications

|  | Model                                 | DW-86L419                             | DW-86L579                             | DW-86L729                             | DW-86L829       |                |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------|----------------|
| Technical Data                           | Cabinet Type                          | Upright                               | Upright                               | Upright                               | Upright         |                |
|  | Ambient Temperature (°C)              | 10-32                                 | 10-32                                 | 10-32                                 | 10-32           |                |
|  | Cooling Type                          | Direct Cooling                        | Direct Cooling                        | Direct Cooling                        | Direct Cooling  |                |
|  | Defrost Mode                          | Manual                                | Manual                                | Manual                                | Manual          |                |
|  | Refrigerant                           | HC                                    | HC                                    | HC                                    | HC              |                |
|  | Sound Level (dB(A))                   | 47                                    | 47                                    | 52                                    | 52              |                |
| Performance                              | Cooling Performance (°C)              | -86                                   | -86                                   | -86                                   | -86             |                |
|  | Temp Range (°C)                       | -40~-86                               | -40~-86                               | -40~-86                               | -40~-86         |                |
| Control                                  | Controller                            | Microprocessor                        | Microprocessor                        | Microprocessor                        | Microprocessor  |                |
|  | Display                               | LCD Touchscreen                       | LCD Touchscreen                       | LCD Touchscreen                       | LCD Touchscreen |                |
| Electrical Data                          | Power Supply (V/Hz)                   | 220-240/50                            | 220-240/50                            | 220-240/50                            | 220-240/50      |                |
|  | Electrical Current (A)                | 800                                   | 1000                                  | 1700                                  | 1900            |                |
| Dimensions                               | Capacity (L/Cu.Ft)                    | 419/14.8                              | 579/20.45                             | 729/25.75                             | 829/29.3        |                |
|  | Net/Gross Weight (approx)             | kg                                    | 255/286                               | 300/330                               | 350/385         | 380/410        |
|  |                                       | lbs                                   | 562.2/630.5                           | 661.4/727.5                           | 771.6/848.8     | 837.7/903.9    |
|  | Interior Dimensions (W*D*H)           | mm                                    | 465*716*1310                          | 620*716*1310                          | 766*716*1310    | 870*716*1310   |
|  |                                       | in                                    | 18.3*28.2*51.6                        | 24.4*28.2*51.6                        | 30.2*28.2*51.6  | 34.3*28.2*51.6 |
|  | Exterior Dimensions (W*D*H)           | mm                                    | 830*990*1980                          | 903*990*1960                          | 1049*990*1980   | 1153*990*1980  |
|  |                                       | in                                    | 32.7*39.0*78.0                        | 35.6*39.0*77.2                        | 41.3*39.0*78.0  | 45.4*39.0*78.0 |
|  | Packing Dimension (W*D*H)             | mm                                    | 870*1070*2110                         | 950*1075*2110                         | 1120*1090*2130  | 1200*1080*2130 |
| in                                       |                                       | 34.3*42.1*83.1                        | 37.4*42.3*83.1                        | 44.1*42.9*83.9                        | 47.2*42.5*83.9  |                |
| Cabinet Width (without handle and hinge) | mm                                    | 725                                   | 800                                   | 946                                   | 1050            |                |
| Container Load (20'/40'/40'H)            |                                       | 12/26/26                              | 12/24/24                              | 10/20/20                              | 10/20/20        |                |
| Functions                                | High/Low Temperature Alarm            | Y                                     | Y                                     | Y                                     | Y               |                |
|  | Hot Condenser Alarm                   | Y                                     | Y                                     | Y                                     | Y               |                |
|  | Power Failure Alarm                   | Y                                     | Y                                     | Y                                     | Y               |                |
|  | High/Low Voltage Alarm                | Y                                     | Y                                     | Y                                     | Y               |                |
|  | Sensor Error Alarm                    | Y                                     | Y                                     | Y                                     | Y               |                |
|  | Low Battery Alarm                     | Y                                     | Y                                     | Y                                     | Y               |                |
|  | High Ambient Temperature Alarm        | Y                                     | Y                                     | Y                                     | Y               |                |
|  | Door Ajar Alarm                       | Y                                     | Y                                     | Y                                     | Y               |                |
|  | Start-up delay                        | Y                                     | Y                                     | Y                                     | Y               |                |
|  | Caster                                | Y(4)                                  | Y(4)                                  | Y(4)                                  | Y(4)            |                |
| Leveling feet                            | Y(2)                                  | Y(2)                                  | Y(2)                                  | Y(2)                                  |                 |                |
| Porthole                                 | 2*rear, (25mm) diameter               | 2*rear, (25mm) diameter               | 2*rear, (25mm) diameter               | 2*rear, (25mm) diameter               |                 |                |
| Inner Doors                              | 2                                     | 4                                     | 4                                     | 4                                     |                 |                |
| Shelves                                  | 3- stainless steel adjustable shelves | 3- stainless steel adjustable shelves | 3- stainless steel adjustable shelves | 3- stainless steel adjustable shelves |                 |                |
| Shelf Dimensions(W*D)(mm)                | 441*657                               | 606*649                               | 752*650                               | 856*650                               |                 |                |
| Accessories                              | Max. Load per Shelf(kg)               | 54                                    | 72                                    | 90                                    | 108             |                |
|  | Freezer Racks Quantity (2" boxes)     | 12                                    | 16                                    | 20                                    | 24              |                |
|  | Capacity(2" boxes)                    | 300                                   | 400                                   | 500                                   | 600             |                |
|  | USB Interface                         | Y                                     | Y                                     | Y                                     | Y               |                |
|  | Remote Alarm                          | Y                                     | Y                                     | Y                                     | Y               |                |
|  | 5V Power Supply Port                  | Y                                     | Y                                     | Y                                     | Y               |                |
|  | Temperature Chart Recorder            | Optional                              | Optional                              | Optional                              | Optional        |                |
|  | RS232/485 Port                        | N/A / Standard                        | N/A / Standard                        | N/A / Standard                        | N/A / Standard  |                |
|  | CO <sub>2</sub> Backup System         | Optional                              | Optional                              | Optional                              | Optional        |                |
|  | LN <sub>2</sub> Backup System         | Optional                              | Optional                              | Optional                              | Optional        |                |
| Others                                   | Certifications                        | CE, MDR                               | CE,MDR                                | CE,MDR                                | CE,MDR          |                |

This product line is designed and manufactured for long term storage of various biological products, including viruses, germs, erythrocytes and leucocytes. Applications can be found in blood banks, hospitals, epidemic prevention services, research institutes, biological engineering institutes, laboratories in electronic and chemical plants.



### Advantages

- VIP+** World leading energy-efficient
- Hydrocarbon refrigeration system
- Slim cabinet design
- Reliable sample protection
- Malfunction alarms
- Excellent insulation performance

### Insulation and System Design

- Special V-I-P (Vacuum Insulation Panel) insulation system reduces the heat gain by 25%
- High efficiency HC refrigeration system improves the overall efficiency by 45%
- Four individual insulated inner doors reduce the cold air loss to the minimum
- Heated Pressure Equalization Port makes re-accessing the unit fast
- About 50 dba sound level

### Safe and Reliable Storage

- Superior temperature uniformity
- Dependable fans, compressors and other system related components

### Alarms (Visual and Audible)

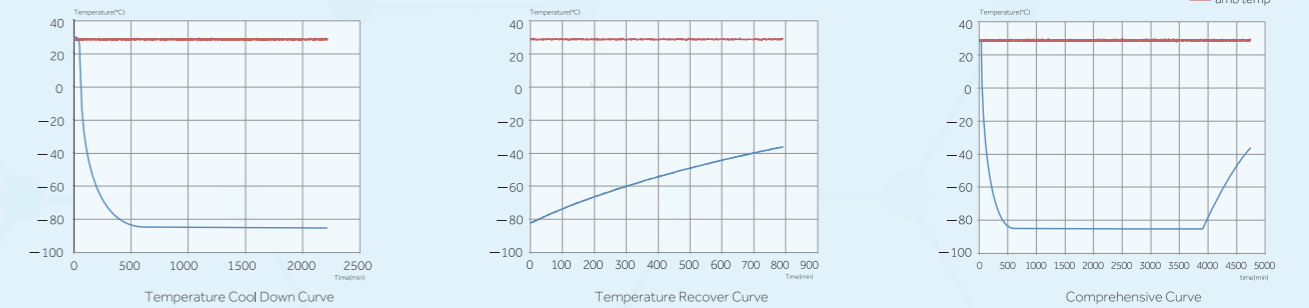
- Adjustable High/Low temperature alarm
- Sensor error
- Low battery
- Door ajar
- Power failure
- Hot condenser
- High ambient temperature
- Remote alarm contact



### Extended Warm Up Time During Power Failure

- Warm up time measures the time taken for temperature to rise up (from -80°C to -50°C) at 25°C ambient when the power is interrupted.
- Haier has the longest warm up time when compared with other major brands in the market.

TYPICAL PERFORMANCE CHARACTERISTICS AT 25 °C AMBIENT



### Advantage

**4 Individual Removable Foam Inner Doors**

- 4 individual inner doors can be opened independently to minimize frost buildup inside the chamber.
- Unique door seal design for the minimum loss of cold temperature during a door opening.
- Compatibility with existing racking system from competitors.
- Stainless steel handle to ensure proper strength for door latching.
- Some interior door handles have been upgraded to stainless steel for more comfortable door opening experience.

**Excellent Doors Seals**

Total of five gaskets to safeguard the freezer temperature, including four seals for the exterior door, one for each inner door.

**High Efficiency Refrigeration Components**

**Temperature Recorder (Optional)**

Front-mounted. For independent temperature monitoring.

**Optimized slideway design, easier to open and close the door.**

**Two port holes for ease of temperature monitoring**

**Pressure Equalization Port**

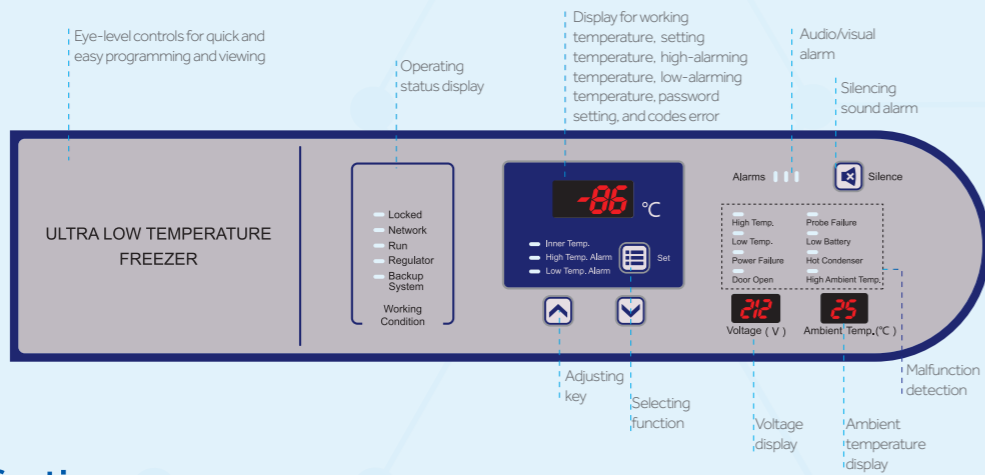
Heated port with spring-assisted mechanism to prevent icing on the vent. Allows re-accessing the freezer after initial door opening. Adopts chromium plating, rust-proof.

**DW-86L728J**



Follow the QR code and learn more about the Salvum Series Energy Saving -86°C ULT Freezer from Haier Biomedical

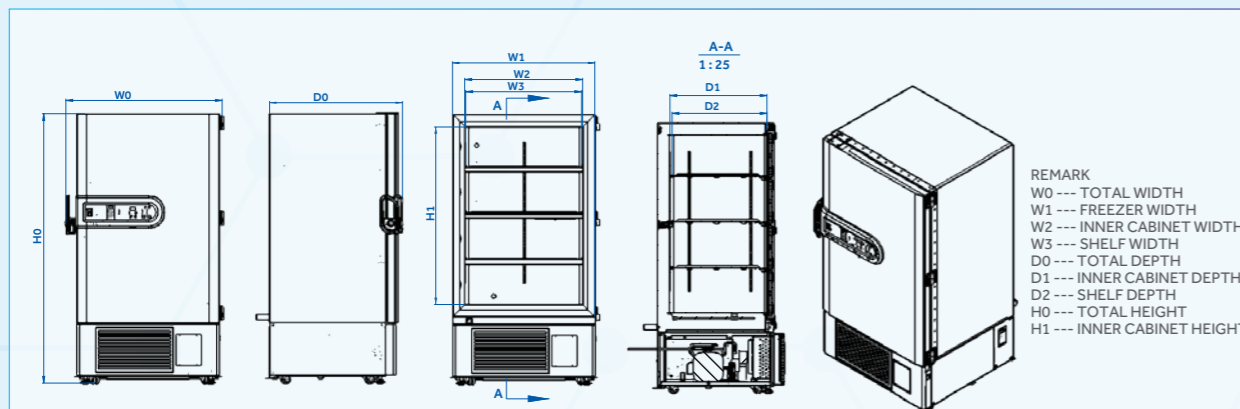
Salvum Ultimate Standard Low Energy ULT Freezer with LED Display



Specifications

| Alarm                    | Alarm Triggering Condition  |
|--------------------------|---|
| High Temperature         | Temperature reaches the warm alarm limit                                      |
| Low Temperature          | Temperature reaches the low alarm limit                                       |
| Power Failure            | Equipment loses power   |
| Door Ajar                | Door opening time exceeds set time, settable between 0 and 20 minutes         |
| Sensor Error             | E0.Ambient sensor fails   |
|                          | E1.Condenser sensor fails   |
|                          | E2.Main cabinet temperature control sensor fails                              |
|                          | E3.Heat exchanger sensor fails  |
| Low Battery              | E4.Heat exchanger temperature fails   |
|                          | Battery capacity runs low or battery switch is not turned on                  |
| Hot Condenser            | 1. Condensers filter element is clogged<br>2. Ambient temperature is too high |
| High Ambient Temperature | Ambient temperature exceeds 32°C  |

Product Dimensions



| MODEL      | CODE | W0     | W1     | W2    | W3    | H0     | H1     | D0    | D1    | D2    |
|------------|------|--------|--------|-------|-------|--------|--------|-------|-------|-------|
| DW-86L338J |      | 830mm  | 725mm  | 465mm | 450mm | 1846mm | 1165mm | 893mm | 630mm | 626mm |
| DW-86L388J |      | 830mm  | 725mm  | 465mm | 450mm | 1980mm | 1310mm | 980mm | 716mm | 700mm |
| DW-86L486E |      | 953mm  | 850mm  | 590mm | 574mm | 1980mm | 1310mm | 900mm | 630mm | 618mm |
| DW-86L490J |      | 873mm  | 770mm  | 590mm | 574mm | 1980mm | 1310mm | 900mm | 630mm | 618mm |
| DW-86L578J |      | 903mm  | 800mm  | 620mm | 604mm | 1960mm | 1310mm | 980mm | 716mm | 700mm |
| DW-86L628E |      | 1043mm | 940mm  | 760mm | 744mm | 1980mm | 1310mm | 900mm | 630mm | 618mm |
| DW-86L728J |      | 1049mm | 946mm  | 766mm | 750mm | 1980mm | 1310mm | 980mm | 716mm | 700mm |
| DW-86L828J |      | 1153mm | 1050mm | 870mm | 854mm | 1980mm | 1310mm | 980mm | 716mm | 700mm |



Field proven reliability

- Unique insulated inner door design for four separate storage compartments to minimize frost buildup inside the chamber
- Specialized control system design for a well-balanced operation of cascade refrigeration system
- Positive field proven reliability record



Safety

- Malfunction alarms including high and low temperature, power failure, sensor error, clean -filter, and extremely high ambient
- Capable of producing two types of alarm outputs: audible buzzer and visible flashing light
- Multiple built-in system protection features including user-settable protection code for controls, user settable delay to start, voltage compensation system, and protection against extreme high voltages
- Door open feature standard and USB port for temperature data downloading standard on upright models
- Remote alarm contacts



Installation & Application

- Wide range operating voltage system from 185V to 260 V designed to allow units installed in areas with poor voltage condition
- Suitable for 10°C to 32°C ambient temperature
- Input voltage and ambient temperature shown simultaneously for ease of monitoring environmental conditions
- Robust door latch designed for secure door closing
- Compact casters for ease of maneuvering



Low sound level

- Specialized refrigeration system design using whisper quiet fan and compressors
- Freezer chassis designed to absorb vibration and sound



Energy saving

- Unique door seal design for the minimum loss of cold temperature during a door opening
- High performance VIP insulation panels to minimize cabinet heat gain and to improve temperature stability
- Patented cabinet insulation system designed for optimal performance of cold storage temperature and minimal frost buildup
- Unique design of independent insulated inner door systems for independent access of storage space to provide the maximum protection of stored samples



Key design features

- Microprocessor-controlled system designed for controllable range of -40°C to -86°C for cabinet space with 1°C increment
- Large LED display for cabinet temperature, set temperature, ambient temperature, and input voltage
- Settable high temperature and low temperature alarms
- Automatic clean-filter alarm and sensor error alert
- Adjustable storage shelf height
- Optional temperature recorder, storage racks and storage boxes

# Salvum Ultimate Water-Cooled ULT Freezer

Haier Biomedical water-cooled ULT freezers are designed to meet strict requirements for storage of plasma, biological materials, vaccines, reagents, specimens, and other valuable samples. They are ideal for installations in hospitals, clinics, blood banks and medical research facilities where freezer heat must be removed by cooling water.



## Advantages

- Intelligent frequency conversion technology
- Advanced control Touchscreen
- Higher efficiency to yield more energy savings of up to 20%
- Approximately 90% of the compressor heat generated during operation is removed by the cooling water, thus posting the ambient temperature of laboratory
- Use less air-conditioning power for a comfortable laboratory condition
- Advanced control
- Low sound level
- Smart coolant control
- High quality industry grade hermetically sealed compressors
- Pressure protection system due to lack of water flow



## Product Dimensions

**Parameter description:**  
**W0**---Overall width of the machine  
**W1**---Outer width of the cabinet  
**W2**---Inner liner width  
**W3**---Width of inner shelf (width of shelf for effective storage)  
**D0**---Overall depth of the machine  
**D1**--- Inner liner depth  
**D2**--- Inner depth of shelf (effective depth of shelf)  
**H0**---Overall height of the machine  
**H1**---Inner liner height

| Parameter Model | W0     | W1     | W2     | W3     | H0     | H1     | D0    | D1    | D2    |
|-----------------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| DW-86L828W      | 1145mm | 1050mm | 870mm  | 854mm  | 1980mm | 1310mm | 998mm | 716mm | 706mm |
| DW-86L959W      | 1296mm | 1196mm | 1016mm | 1000mm | 1980mm | 1310mm | 998mm | 716mm | 706mm |

## Specifications



| Model                             |  | DW-86L828W                            | DW-86L959W       |                |
|-----------------------------------|--|---------------------------------------|------------------|----------------|
| Technical Data                    | Cabinet Type                             | Upright                               | Upright          |                |
|                                   | Ambient Temperature (°C)                 | 10-32                                 | 10-32            |                |
|                                   | Cooling Type                             | Direct Cooling                        | Direct Cooling   |                |
|                                   | Defrost Mode                             | Manual                                | Manual           |                |
|                                   | Refrigerant                              | HC                                    | HC               |                |
|                                   | Sound Level (dB (A))                     | 43.5                                  | 47               |                |
| Performance                       | Cooling Performance (°C)                 | -86                                   | -86              |                |
|                                   | Temperature Range (°C)                   | -40~-86                               | -40~-86          |                |
| Control                           | Controller                               | Microprocessor                        | Microprocessor   |                |
|                                   | Display                                  | LCD touchscreen                       | LCD Touch Screen |                |
| Electrical Data                   | Power Supply (V/Hz)                      | 208-230/50/60                         | 208-230/50/60    |                |
|                                   | Max Power (W)                            | 1100                                  | 1300             |                |
| Dimensions                        | Capacity (L/Cu.Ft)                       | 828/29.2                              | 959/33.9         |                |
|                                   | Net/Gross Weight (approx)                | kg                                    | 380/415          | 450/485        |
|                                   |  | lbs                                   | 837.7/914.9      | 992.1/1069.2   |
|                                   | Interior Dimension (W*D*H)               | mm                                    | 870*716*1310     | 1016*716*1310  |
|                                   |  | in                                    | 34.3*28.2*51.6   | 40.0*28.2*51.6 |
|                                   | Exterior Dimension (W*D*H)               | mm                                    | 1145*998*1980    | 1296*998*1980  |
|                                   |  | in                                    | 45.1*39.3*78.0   | 51.0*39.3*78.0 |
|                                   | Packing Dimension (W*D*H)                | mm                                    | 1204*1072*2125   | 1365*1102*2164 |
|                                   |  | in                                    | 47.5*42.3*83.7   | 53.8*43.4*85.2 |
|                                   | Cabinet Width (without handle and hinge) | mm                                    | 1050             | 1196           |
| Container Load (20'/40'/40'H)     |  | 8/20/20                               | 8/16/16          |                |
| Functions                         | High/Low Temperature Alarm               | Y                                     | Y                |                |
|                                   | Hot Condenser Alarm                      | Y                                     | Y                |                |
|                                   | Power Failure Alarm                      | Y                                     | Y                |                |
|                                   | High/Low Voltage Alarm                   | Y                                     | Y                |                |
|                                   | Sensor Error Alarm                       | Y                                     | Y                |                |
|                                   | Low Battery Alarm                        | Y                                     | Y                |                |
|                                   | High Ambient Temperature Alarm           | Y                                     | Y                |                |
|                                   | Door Ajar Alarm                          | Y                                     | Y                |                |
|                                   | Start-up delay                           | Y                                     | Y                |                |
|                                   | Caster                                   | Y (4)                                 | Y (4)            |                |
| Leveling Feet                     | Y (2)                                    | Y (2)                                 |                  |                |
| Porthole                          | 2*rear, (25mm)diameter                   | 2*rear, (25mm)diameter                |                  |                |
| Inner Doors                       | 4  | 4                                     |                  |                |
| Shelves                           | 3- stainless steel adjustable shelves    | 3- stainless steel adjustable shelves |                  |                |
| Shelf Dimensions (W*D) (mm)       | 856*650                                  | 1002*650                              |                  |                |
| Max. Load per Shelf (kg)          | 108                                      | 126                                   |                  |                |
| Freezer Racks Quantity (2" boxes) | 24                                       | 28                                    |                  |                |
| Capacity (2" boxes)               | 600                                      | 700                                   |                  |                |
| USB Interface                     | Y  | Y                                     |                  |                |
| Remote Alarm                      | Y  | Y                                     |                  |                |
| 5V Power Supply Port              | Y  | Y                                     |                  |                |
| Temperature Chart Recorder        | Optional                                 | Optional                              |                  |                |
| RS232/485 Port                    | N/A / Standard                           | N/A / Standard                        |                  |                |
| CO <sub>2</sub> Backup System     | Optional                                 | Optional                              |                  |                |
| LN <sub>2</sub> Backup System     | Optional                                 | Optional                              |                  |                |
| Others                            | Certifications                           | CE, MDR                               | CE, MDR          |                |

Suitable for clinical, medical, scientific research, quarantine and other departments to store items under low temperature conditions. Applicable for universities, hospitals, disease prevention and control centers, blood stations, scientific research institutes, electronics and chemical enterprise laboratories and biomedical engineering research institutes. For storage of biological products and biological samples such as red and white blood cells, viruses, bone and bacteria. Also used for electronic devices and other materials used for cryogenic tests.



**DW-86L100J**

**Energy Efficient, Safe and Reliable**  
High efficiency HC refrigeration system, optimised for energy efficiency.

**Compact Design**  
810mm cabinet height makes it easy to place on or under counter, saving storage space. Stackable design.

**Ergonomic Design**  
Ergonomic handle design ensures easy one-hand door opening.

**Quiet Operation**  
Optimized noise reduction cabinet and system design, emits sound level of only 46.8dB.



Follow the QR code and learn more about the Under Counter ULT Freezer DW-86L100J from Haier Biomedical

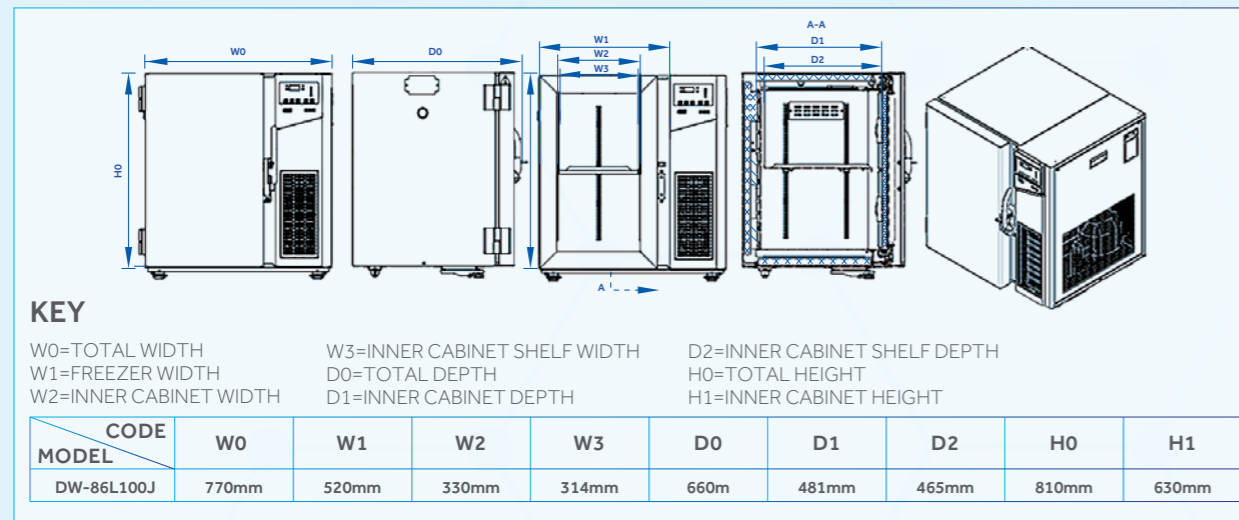


**Product Features**

- Microprocessor control system**
  - Microcomputer electronic thermostat, LED temperature display, display precision 1°C, adjustable cabinet temperature set point -40°C--86°C.
  - Cabinet temperature/voltage/ambient temperature checking are available.
  - Multiple alarm functions: high temperature alarm, low temperature alarm, sensor fault alarm, power failure alarm, low battery power alarm, open door alarm and high ambient temperature alert.
  - Sound and light alarm mode, attachable to remote alarm interface.
  - Battery backup alarm function operates continuously for >24hrs in the event of a power outage.
  - Standard configuration: RS485 port and USB interface.
  - Standard 5V power supply available for test equipment.
  - Optional IoT module.
- Superior thermal insulation performance**  
70mm super thick insulation layer design, aviation vacuum insulation material VIP, thickness of 25 mm or more, 4 layers of silicone seal, superior thermal insulation and energy saving effect.
- Porthole**  
Portholes as standard, allows for independent testing of cabinet temperature.
- Security lock**  
Standard door lock and padlock to ensure sample security and prevent unauthorised access.
- USB data storage**  
Capable of storing more than 15 years of data.



**Product Dimensions**



**Specifications**

| Model                                    |                                       | DW-86L100J                  |                |  |
|--|---------------------------------------|-----------------------------|----------------|--|
| Technical Data                           | Cabinet Type                          | Upright                     |                |  |
|  | Ambient Temperature (°C)              | 10-32                       |                |  |
|  | Cooling Type                          | Direct Cooling              |                |  |
|  | Defrost Mode                          | Manual                      |                |  |
| Performance                              | Refrigerant                           | HC                          |                |  |
|  | Sound Level (dB (A))                  | 46.8                        |                |  |
|  | Cooling Performance (°C)              | -86                         |                |  |
| Control                                  | Temperature Range (°C)                | -40~-86                     |                |  |
|  | Controller                            | Microprocessor              |                |  |
| Electrical Data                          | Display                               | LED                         |                |  |
|  | Power Supply(V/Hz)                    | 220~240/50                  | 120/60         |  |
| Dimensions                               | Max Power(W)                          | 680                         |                |  |
|  | Capacity(L/Cu.Ft)                     | 100/3.5                     |                |  |
|  | Net/Gross Weight                      | kg                          | 108/132        |  |
|  |                                       | lbs                         | 238/291        |  |
|  | Interior Dimension (W*D*H)            | mm                          | 330*481*630    |  |
|  |                                       | in                          | 13*19*25       |  |
|  | Exterior Dimension (W*D*H)            | mm                          | 770*660*810    |  |
|  |                                       | in                          | 30*26*32       |  |
|  | Packing Dimension (W*D*H)             | mm                          | 830*730*1000   |  |
|  |                                       | in                          | 32.7*28.7*39.4 |  |
| Cabinet Width (without handle and hinge) | mm                                    | 520                         |                |  |
|  | Container Load (20'/40'/40'H)         | 44/88/88                    |                |  |
| Alarms                                   | High/Low Temperature                  | Y                           |                |  |
|  | Hot Condenser                         | Y                           |                |  |
|  | Power Failure                         | Y                           |                |  |
|  | High/Low Voltage                      | Y                           |                |  |
|  | Sensor Error                          | Y                           |                |  |
|  | Low Battery                           | Y                           |                |  |
|  | High Ambient Temperature              | Y                           |                |  |
|  | Door Ajar                             | Y                           |                |  |
|  | Start-up Delay                        | Y                           |                |  |
|  | Caster                                | Y(4)                        |                |  |
|  | Leveling Feet                         | Y(2)                        |                |  |
|  | Porthole                              | 1 left side, (25mm)diameter |                |  |
| Inner Doors                              | 2                                     |                             |                |  |
| Shelves                                  | 1- stainless steel adjustable shelves |                             |                |  |
| Accessories                              | Shelf Dimensions (W*D) (mm)           | 316*424                     |                |  |
|  | Max. Load per Shelf (kg)              | 22                          |                |  |
|  | Freezer Racks Quantity (2" boxes)     | 4                           |                |  |
|  | Capacity (2" boxes)                   | 60                          |                |  |
|  | USB Interface                         | Y                           |                |  |
|  | Remote Alarm                          | Y                           |                |  |
|  | 5V Power Supply Port                  | Y                           |                |  |
|  | Temperature Chart Recorder            | N/A                         |                |  |
|  | RS232/485 Port                        | N/A / Standard              |                |  |
|  | CO <sub>2</sub> Backup System         | Optional                    |                |  |
| LN <sub>2</sub> Backup System            | Optional                              |                             |                |  |
| Others                                   | Certification                         | CE, MDR                     | UL             |  |

**-86°C ULT Freezer**

**Microprocessor Control System**  
 Microprocessor control, with temperature display precision at 0.1°C. Internal temperature is adjustable from of -40°C ~ -86°C

**Auto-cascade Hydrocarbon (HC) Refrigeration Technology**  
 Utilizing auto-cascade hydrocarbon compressor, with superior refrigeration and energy saving effect

**Porthole**  
 One porthole as standard, allows for independent testing of cabinet temperature

**Excellent Doors Seals**  
 Total six gaskets to safeguard the freezer temperature, including a 70mm insulation layer, a 25mm vacuum VIP and 4 layers of silicone seal

**Multiple Ports**  
 Enables users to download historical temperature data (up to 15 years) Equipped with remote alarm function and RS485 port

**Stainless Steel Inner Door**  
 Prevents loss of internal air to keep samples safe

**Internal Lock**  
 Standard internal lock with 4 keys for multiple users

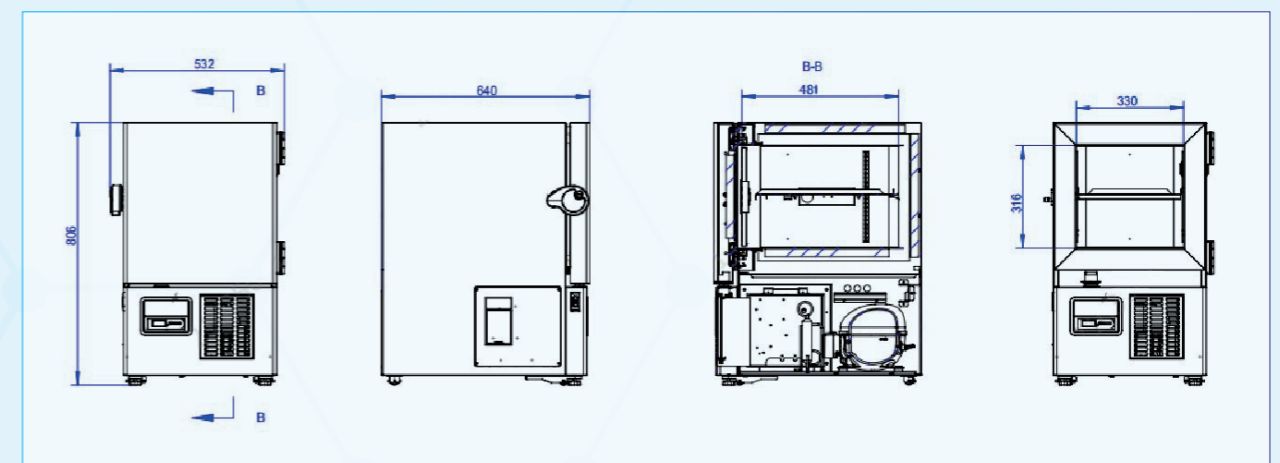
**Ergonomic Design**  
 Unique hook slide handle design, allows users to open and close the door with one hand

**Quick Access Filter Design**  
 Tool-free removable filter design, easy and quick to clean the filter

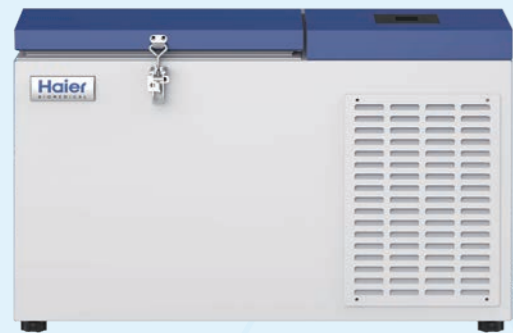
**DW86L51J**

Suitable for pharmaceutical, clinical and medical research use, for the long-term storage of samples and products under ultra-low temperature conditions.

**Product Dimensions**



Advantage



DW-80WZ15



HC Energy Saving

High quality HC high-efficiency compressor with optimized refrigeration system, which can save 50% on power consumption.



One Unit for Multiple Applications

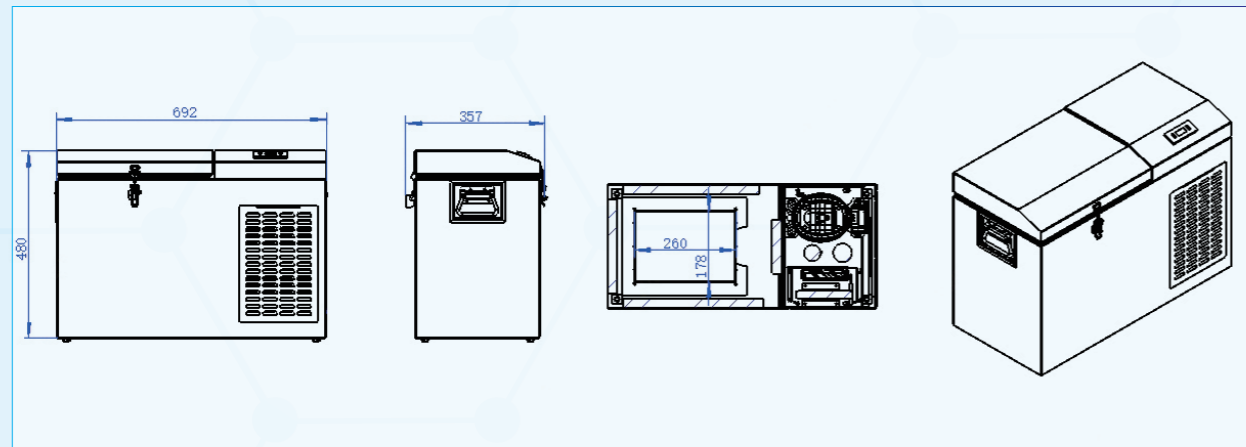
\*Vehicle-mounted transportation with 24V (DC) power supply  
\*Long-term storage with 110V power supply.



Superior Uniformity

Built-in evaporator, fast cool down refrigeration, the temperature is safe, secure and reliable with the uniformity of +3°C at key characteristic points.

Product Dimensions



Ergonomic Design



Light Weight

The whole unit weighs 27kg, easy to carry.



Superior Insulation Performance

25mm VIP + 70mm thick LBA foam insulation layer design, dual seal strips for better insulation.



Safety Lock Catch

Simple adjustable mechanical lock with lock catch, and it can be equipped with an external lock to guarantee the safety of sample transportation and storage.



Metal Handle

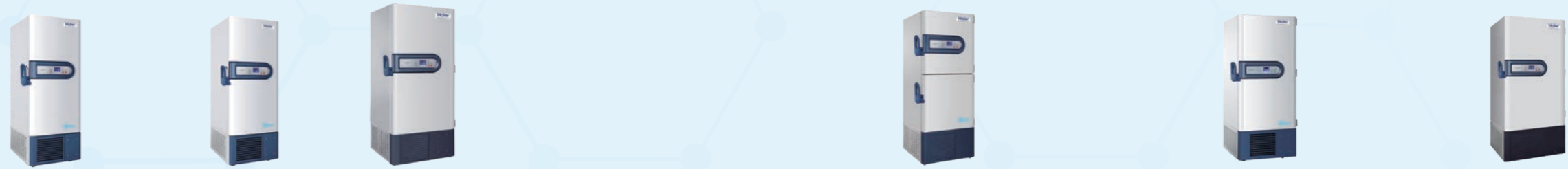
Hidden metal handle, stylish and comfortable, safe and durable, easy to carry.

Mini ULT Freezer

Specifications

| Model                         |  | DW-80WZ15              |                                       | DW-86L51J                    |                |             |
|-------------------------------|--|------------------------|---------------------------------------|------------------------------|----------------|-------------|
| Technical Data                | Cabinet Type                             | Chest                  |                                       | Upright                      |                |             |
|                               | Ambient Temperature (°C)                 | 10-32                  |                                       | 10-32                        |                |             |
|                               | Cooling Type                             | Direct Cooling         |                                       | Direct Cooling               |                |             |
|                               | Defrost Mode                             | Manual                 |                                       | Manual                       |                |             |
|                               | Refrigerant                              | HC                     |                                       | HC                           |                |             |
|                               | Sound Level (dB (A))                     | 60                     |                                       | 46.8                         |                |             |
| Performance                   | Cooling Performance (°C)                 | -80                    |                                       | -86                          |                |             |
|                               | Temperature Range (°C)                   | -60--80                |                                       | -40--86                      |                |             |
| Control                       | Controller                               | Temperature Controller |                                       | Microprocessor               |                |             |
|                               | Display                                  | LED                    |                                       | LED                          |                |             |
| Electrical Data               | Power Supply (V/Hz)                      | 220/50, DC24           | 110/60, DC24                          | 120V/60                      | 220-240/50     |             |
|                               | Max Power (W)                            | 280                    |                                       | 750                          | 500            |             |
| Dimensions                    | Capacity (L/Cu.Ft)                       | 15/0.53                |                                       | 51/1.8                       |                |             |
|                               | Net/Gross Weight                         | kg                     | 27/33                                 |                              | 77/90          | 73/86       |
|                               |  | lbs                    | 59.5/72.8                             |                              | 169.8/198.4    | 160.9/189.6 |
|                               | Interior Dimension (W*D*H)               | mm                     | 260*180*330                           |                              | 330*481*316    |             |
|                               |  | in                     | 10.2*7.1*13.0                         |                              | 13*16.5*12.4   |             |
|                               | Exterior Dimension (W*D*H)               | mm                     | 690*320*500                           |                              | 532*640*806    |             |
|                               |  | in                     | 27.2*12.6*19.7                        |                              | 20.9*25.2*31.7 |             |
|                               | Packing Dimension (W*D*H)                | mm                     | 805*430*725                           |                              | 570*735*1010   |             |
|                               |  | in                     | 31.7*17.0*28.5                        |                              | 22.4*28.9*43.3 |             |
|                               | Cabinet Width (without handle and hinge) | mm                     | /                                     |                              | 470            |             |
| Container Load (20'/40'/40'H) |  | 105/210/210            |                                       | 64/120/120                   |                |             |
| Functions                     | High/Low Temperature Alarm               | Y                      |                                       | Y                            |                |             |
|                               | Hot Condenser Alarm                      | N/A                    |                                       | Y                            |                |             |
|                               | Power Failure Alarm                      | Y                      |                                       | Y                            |                |             |
|                               | High/Low Voltage Alarm                   | N/A                    |                                       | Y                            |                |             |
|                               | Sensor Error Alarm                       | Y                      |                                       | Y                            |                |             |
|                               | Low Battery Alarm                        | N/A                    |                                       | Y                            |                |             |
|                               | High Ambient Temperature Alarm           | N/A                    |                                       | Y                            |                |             |
|                               | Door Ajar Alarm                          | N/A                    |                                       | Y                            |                |             |
|                               | Start-up delay                           | N/A                    |                                       | Y                            |                |             |
|                               | Caster                                   | N/A                    |                                       | Y (4)                        |                |             |
|                               | Leveling Feet                            | Y (4)                  |                                       | Y (2)                        |                |             |
|                               | Porthole                                 | N/A                    |                                       | 1*right side, (25mm)diameter |                |             |
| Inner Doors                   | N/A                                      |                        | 1                                     |                              |                |             |
| Shelves                       | /  |                        | 1- stainless steel adjustable shelves |                              |                |             |
| Shelf Dimensions (W*D) (mm)   | /  |                        | 316*424                               |                              |                |             |
| Max. Load per Shelf (kg)      | /  |                        | 22                                    |                              |                |             |
| Accessories                   | Freezer Racks Quantity (2" boxes)        | N/A                    |                                       | 2                            |                |             |
|                               | Capacity (2" boxes)                      | 10                     |                                       | 30                           |                |             |
|                               | USB Interface                            | N/A                    |                                       | Y                            |                |             |
|                               | Remote Alarm                             | N/A                    |                                       | Y                            |                |             |
|                               | 5V Power Supply Port                     | N/A                    |                                       | N/A                          |                |             |
|                               | Temperature Chart Recorder               | N/A                    |                                       | N/A                          |                |             |
|                               | RS232/485 Port                           | N/A                    |                                       | N/A / Standard               |                |             |
|                               | CO <sub>2</sub> Backup System            | N/A                    |                                       | N/A                          |                |             |
| LN <sub>2</sub> Backup System | N/A                                      |                        | N/A                                   |                              |                |             |
| Others                        | Certifications                           | CE, MDR                | UL                                    | UL                           | CE, MDR        |             |

## Specifications



| Model                             | DW-86L338J                               |                |                | DW-86L388J |        |  | DW-86L486E                            |                |                | DW-86L490J |            |  | DW-86L490JA                           |                |                | DW-86L578J |            |  | DW-86L578JA                           |            |                | DW-86L628E |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
|-----------------------------------|--|----------------|----------------|------------|--------|--|---------------------------------------|----------------|----------------|------------|------------|--|---------------------------------------|----------------|----------------|------------|------------|--|---------------------------------------|------------|----------------|------------|---------|--|---------------------------------------|----------|----------------|--|------|--|---------------------------------------|----------|----------------|--|--|--|--|--|
| Technical Data                    | Cabinet Type                             | Upright        |                |            |        |  |                                       | Upright        |                |            |            |  |                                       | Upright        |                |            |            |  |                                       |            |                |            |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Ambient Temperature (°C)                 | 10-32          |                |            |        |  |                                       | 10-32          |                |            |            |  |                                       | 10-32          |                |            |            |  |                                       |            |                |            |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Cooling Type                             | Direct Cooling |                |            |        |  |                                       | Direct Cooling |                |            |            |  |                                       | Direct Cooling |                |            |            |  |                                       |            |                |            |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Defrost Mode                             | Manual         |                |            |        |  |                                       | Manual         |                |            |            |  |                                       | Manual         |                |            |            |  |                                       |            |                |            |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Refrigerant                              | HC             |                |            |        |  |                                       | HC             |                |            |            |  |                                       | HC             |                |            |            |  |                                       |            |                |            |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Sound Level (dB (A))                     | 50             |                |            |        |  |                                       | 49             |                |            |            |  |                                       | 50             |                |            |            |  |                                       |            |                |            |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
| Performance                       | Cooling Performance (°C)                 | -86            |                |            |        |  |                                       | -86            |                |            |            |  |                                       | -86            |                |            |            |  |                                       |            |                |            |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Temperature Range (°C)                   | -40~-86        |                |            |        |  |                                       | -40~-86        |                |            |            |  |                                       | -40~-86        |                |            |            |  |                                       |            |                |            |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
| Control                           | Controller                               | Microprocessor |                |            |        |  |                                       | Microprocessor |                |            |            |  |                                       | Microprocessor |                |            |            |  |                                       |            |                |            |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Display                                  | LED            |                |            |        |  |                                       | LED            |                |            |            |  |                                       | LED            |                |            |            |  |                                       |            |                |            |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
| Electrical Data                   | Power Supply (V/Hz)                      | 220-240/50     |                |            | 120/60 |  |                                       | 208-230/60     |                |            | 220-240/50 |  |                                       | 120/60         |                |            | 208-230/60 |  |                                       | 220-240/50 |                |            |         |  |                                       |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Max Power (W)                            | 900            |                |            | 900    |  |                                       | 1400           |                |            | 900        |  |                                       | 1000           |                |            | 1600       |  |                                       | 1700       |                |            | 900     |  |                                       | 1600     |                |  | 1200 |  |                                       |          |                |  |  |  |  |  |
| Dimensions                        | Capacity (L/Cu.Ft)                       | 338/11.9       |                |            |        |  |                                       | 388/13.7       |                |            |            |  |                                       | 486/17.1       |                |            |            |  |                                       | 490/17.3   |                |            |         |  |                                       | 578/20.4 |                |  |      |  |                                       | 626/22.1 |                |  |  |  |  |  |
|                                   | Net/Gross Weight                         | kg             | 238/278        |            |        |  |                                       |                | 255/286        |            |            |  |                                       |                | 290/310        |            |            |  |                                       |            | 295/335        |            |         |  |                                       |          | 300/330        |  |      |  |                                       |          | 301/323        |  |  |  |  |  |
|                                   |  | lbs            | 524.7/612.9    |            |        |  |                                       |                | 562.2/630.5    |            |            |  |                                       |                | 639.3/683.4    |            |            |  |                                       |            | 650.4/738.5    |            |         |  |                                       |          | 661.4/727.5    |  |      |  |                                       |          | 664.0/712.0    |  |  |  |  |  |
|                                   | Interior Dimension (W*D*H)               | mm             | 465*630*1165   |            |        |  |                                       |                | 465*716*1310   |            |            |  |                                       |                | 590*630*1310   |            |            |  |                                       |            | 590*630*1310   |            |         |  |                                       |          | 620*716*1310   |  |      |  |                                       |          | 760*630*1310   |  |  |  |  |  |
|                                   |  | in             | 18.3*24.8*45.9 |            |        |  |                                       |                | 18.3*28.2*51.6 |            |            |  |                                       |                | 23.3*24.8*51.6 |            |            |  |                                       |            | 23.2*24.8*51.6 |            |         |  |                                       |          | 24.4*28.2*51.6 |  |      |  |                                       |          | 29.9*24.8*51.6 |  |  |  |  |  |
|                                   | Exterior Dimension (W*D*H)               | mm             | 830*900*1871   |            |        |  |                                       |                | 830*980*1980   |            |            |  |                                       |                | 953*900*1980   |            |            |  |                                       |            | 873*900*1980   |            |         |  |                                       |          | 903*980*1960   |  |      |  |                                       |          | 1035*900*1980  |  |  |  |  |  |
|                                   |  | in             | 32.7*35.4*73.7 |            |        |  |                                       |                | 32.7*38.6*78.0 |            |            |  |                                       |                | 37.5*35.4*78.0 |            |            |  |                                       |            | 34.4*35.4*78.0 |            |         |  |                                       |          | 35.6*38.6*77.2 |  |      |  |                                       |          | 40.7*35.4*78.0 |  |  |  |  |  |
|                                   | Packing Dimension (W*D*H)                | mm             | 879*974*2013   |            |        |  |                                       |                | 877*1070*2114  |            |            |  |                                       |                | 1020*1020*2130 |            |            |  |                                       |            | 934*980*2116   |            |         |  |                                       |          | 952*1063*2089  |  |      |  |                                       |          | 1110*1005*2130 |  |  |  |  |  |
|                                   |  | in             | 34.6*38.3*79.3 |            |        |  |                                       |                | 34.5*42.1*83.2 |            |            |  |                                       |                | 40.2*40.2*83.9 |            |            |  |                                       |            | 36.8*38.6*83.3 |            |         |  |                                       |          | 37.5*41.9*82.2 |  |      |  |                                       |          | 43.7*39.6*83.9 |  |  |  |  |  |
|                                   | Cabinet Width (without handle and hinge) | mm             | 725            |            |        |  |                                       |                | 725            |            |            |  |                                       |                | 850            |            |            |  |                                       |            | 770            |            |         |  |                                       |          | 800            |  |      |  |                                       |          | 940            |  |  |  |  |  |
| Container Load (20/40/40'H)       | 12/24/24                                 |                |                |            |        |  | 12/24/24                              |                |                |            |            |  | 12/24/24                              |                |                |            |            |  | 12/24/24                              |            |                |            |         |  | 12/24/24                              |          |                |  |      |  | 12/24/24                              |          |                |  |  |  |  |  |
| Functions                         | High/Low Temperature Alarm               | Y              |                |            |        |  |                                       | Y              |                |            |            |  |                                       | Y              |                |            |            |  |                                       | Y          |                |            |         |  |                                       | Y        |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Hot Condenser Alarm                      | Y              |                |            |        |  |                                       | Y              |                |            |            |  |                                       | Y              |                |            |            |  |                                       | Y          |                |            |         |  |                                       | Y        |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Power Failure Alarm                      | Y              |                |            |        |  |                                       | Y              |                |            |            |  |                                       | Y              |                |            |            |  |                                       | Y          |                |            |         |  |                                       | Y        |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | High/Low Voltage Alarm                   | N/A            |                |            |        |  |                                       | N/A            |                |            |            |  |                                       | N/A            |                |            |            |  |                                       | N/A        |                |            |         |  |                                       | N/A      |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Sensor Error Alarm                       | Y              |                |            |        |  |                                       | Y              |                |            |            |  |                                       | Y              |                |            |            |  |                                       | Y          |                |            |         |  |                                       | Y        |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Low Battery Alarm                        | Y              |                |            |        |  |                                       | Y              |                |            |            |  |                                       | Y              |                |            |            |  |                                       | Y          |                |            |         |  |                                       | Y        |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | High Ambient Temperature Alarm           | Y              |                |            |        |  |                                       | Y              |                |            |            |  |                                       | Y              |                |            |            |  |                                       | Y          |                |            |         |  |                                       | Y        |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Door Ajar Alarm                          | Y              |                |            |        |  |                                       | Y              |                |            |            |  |                                       | Y              |                |            |            |  |                                       | Y          |                |            |         |  |                                       | Y        |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Start-Up Delay                           | Y              |                |            |        |  |                                       | Y              |                |            |            |  |                                       | Y              |                |            |            |  |                                       | Y          |                |            |         |  |                                       | Y        |                |  |      |  |                                       |          |                |  |  |  |  |  |
|                                   | Caster                                   | Y (4)          |                |            |        |  |                                       | Y (4)          |                |            |            |  |                                       | Y (4)          |                |            |            |  |                                       | Y (4)      |                |            |         |  |                                       | Y (4)    |                |  |      |  |                                       |          |                |  |  |  |  |  |
| Leveling Feet                     | Y (2)                                    |                |                |            |        |  | Y (2)                                 |                |                |            |            |  | Y (2)                                 |                |                |            |            |  | Y (2)                                 |            |                |            |         |  | Y (2)                                 |          |                |  |      |  |                                       |          |                |  |  |  |  |  |
| Porthole                          | 2*rear, (25mm)diameter                   |                |                |            |        |  | 2*rear, (25mm)diameter                |                |                |            |            |  | 2*rear, (25mm)diameter                |                |                |            |            |  | 2*rear, (25mm)diameter                |            |                |            |         |  | 2*rear, (25mm)diameter                |          |                |  |      |  | 2*rear, (25mm)diameter                |          |                |  |  |  |  |  |
| Inner Doors                       | 2  |                |                |            |        |  | 2                                     |                |                |            |            |  | 4                                     |                |                |            |            |  | 4                                     |            |                |            |         |  | 4                                     |          |                |  |      |  | 4                                     |          |                |  |  |  |  |  |
| Shelves                           | 3- stainless steel adjustable shelves    |                |                |            |        |  | 3- stainless steel adjustable shelves |                |                |            |            |  | 3- stainless steel adjustable shelves |                |                |            |            |  | 3- stainless steel adjustable shelves |            |                |            |         |  | 3- stainless steel adjustable shelves |          |                |  |      |  | 3- stainless steel adjustable shelves |          |                |  |  |  |  |  |
| Shelf Dimensions (W*D) (mm)       | 451*597                                  |                |                |            |        |  | 443*657                               |                |                |            |            |  | 576*597                               |                |                |            |            |  | 576*567.5                             |            |                |            |         |  | 606*650                               |          |                |  |      |  | 746*567.5                             |          |                |  |  |  |  |  |
| Max. Load per Shelf (kg)          | 44                                       |                |                |            |        |  | 54                                    |                |                |            |            |  | 58                                    |                |                |            |            |  | 58                                    |            |                |            |         |  | 72                                    |          |                |  |      |  | 72                                    |          |                |  |  |  |  |  |
| Freezer Racks Quantity (2" boxes) | 12                                       |                |                |            |        |  | 12                                    |                |                |            |            |  | 16                                    |                |                |            |            |  | 16                                    |            |                |            |         |  | 16                                    |          |                |  |      |  | 20                                    |          |                |  |  |  |  |  |
| Capacity (2" boxes)               | 216                                      |                |                |            |        |  | 300                                   |                |                |            |            |  | 320                                   |                |                |            |            |  | 288                                   |            |                |            |         |  | 400                                   |          |                |  |      |  | 400                                   |          |                |  |  |  |  |  |
| USB Interface                     | Y  |                |                |            |        |  | Y                                     |                |                |            |            |  | Y                                     |                |                |            |            |  | Y                                     |            |                |            |         |  | Y                                     |          |                |  |      |  | Y                                     |          |                |  |  |  |  |  |
| Remote Alarm                      | Y  |                |                |            |        |  | Y                                     |                |                |            |            |  | Y                                     |                |                |            |            |  | Y                                     |            |                |            |         |  | Y                                     |          |                |  |      |  | Y                                     |          |                |  |  |  |  |  |
| 5V Power Supply Port              | Y  |                |                |            |        |  | Y                                     |                |                |            |            |  | Y                                     |                |                |            |            |  | Y                                     |            |                |            |         |  | Y                                     |          |                |  |      |  | Y                                     |          |                |  |  |  |  |  |
| Temperature Chart Recorder        | Optional                                 |                |                |            |        |  | Optional                              |                |                |            |            |  | Optional                              |                |                |            |            |  | Optional                              |            |                |            |         |  | Optional                              |          |                |  |      |  | Optional                              |          |                |  |  |  |  |  |
| RS232/485 Port                    | Optional                                 |                |                |            |        |  | Optional                              |                |                |            |            |  | Optional                              |                |                |            |            |  | Optional                              |            |                |            |         |  | Optional                              |          |                |  |      |  | Optional                              |          |                |  |  |  |  |  |
| CO <sub>2</sub> Backup System     | Optional                                 |                |                |            |        |  | Optional                              |                |                |            |            |  | Optional                              |                |                |            |            |  | Optional                              |            |                |            |         |  | Optional                              |          |                |  |      |  | Optional                              |          |                |  |  |  |  |  |
| LN <sub>2</sub> Backup System     | Optional                                 |                |                |            |        |  | Optional                              |                |                |            |            |  | Optional                              |                |                |            |            |  | Optional                              |            |                |            |         |  | Optional                              |          |                |  |      |  | Optional                              |          |                |  |  |  |  |  |
| Others                            | Certifications                           | CE, MDR        |                |            | UL     |  |                                       | CE, MDR        |                |            | CE, MDR    |  |                                       | UL             |                |            | CE, MDR    |  |                                       | UL         |                |            | CE, MDR |  |                                       | UL       |                |  |      |  |                                       |          |                |  |  |  |  |  |

## Specifications



| Model           |  | DW-86L728J                            |                | DW-86L728JA | DW-86L828J                            |                | DW-86L828JA | DW-86W100J             | DW-86W420J             | DW-86W420JA    |  |
|-----------------|--|---------------------------------------|----------------|-------------|---------------------------------------|----------------|-------------|------------------------|------------------------|----------------|--|
| Technical Data  | Cabinet Type                             | Upright                               |                |             | Upright                               |                |             | Chest                  | Chest                  |                |  |
|                 | Ambient Temperature (°C)                 | 10-32                                 |                |             | 10-32                                 |                |             | 10-32                  | 10-32                  |                |  |
|                 | Cooling Type                             | Direct Cooling                        |                |             | Direct Cooling                        |                |             | Direct Cooling         | Direct Cooling         |                |  |
|                 | Defrost Mode                             | Manual                                |                |             | Manual                                |                |             | Manual                 | Manual                 |                |  |
|                 | Refrigerant                              | HC                                    |                |             | HC                                    |                |             | HC                     | HC                     |                |  |
| Performance     | Sound Level (dB (A))                     | 50                                    |                |             | 50                                    | 51.5           |             | 49                     | 50                     |                |  |
|                 | Cooling Performance (°C)                 | -86                                   |                |             | -86                                   |                |             | -86                    | -86                    |                |  |
| Control         | Temperature Range (°C)                   | -40~-86                               |                |             | -40~-86                               |                |             | -40~-86                | -40~-86                |                |  |
|                 | Controller                               | Microprocessor                        |                |             | Microprocessor                        |                |             | Microprocessor         | Microprocessor         |                |  |
| Electrical Data | Display                                  | LED                                   |                |             | LED                                   |                |             | LED                    | LED                    |                |  |
|                 | Power Supply (V/Hz)                      | 220-240/50                            | 120/60         | 208-230/60  | 220-240/50                            | 208-230/60     |             | 220-240/50             | 220-240/50             | 208-230/60     |  |
| Dimensions      | Max Power (W)                            | 1700                                  |                |             | 1700                                  |                |             | 800                    | 1600                   |                |  |
|                 | Capacity (L/Cu.Ft)                       | 728/25.7                              |                |             | 828/29.2                              |                |             | 100/3.5                | 420/14.8               |                |  |
|                 | Net/Gross Weight                         | kg                                    | 345/385        |             |                                       | 380/410        |             |                        | 138/160                | 310/357        |  |
|                 |  | lbs                                   | 760.6/848.8    |             |                                       | 837.7/903.9    |             |                        | 304.2/352.7            | 683.4/787.0    |  |
|                 | Interior Dimension (W*D*H)               | mm                                    | 766*716*1310   |             |                                       | 870*716*1310   |             |                        | 470*450*480            | 1367*462*652   |  |
|                 |  | in                                    | 30.2*28.2*51.6 |             |                                       | 34.3*28.2*51.6 |             |                        | 18.5*17.7*18.9         | 53.8*18.2*25.7 |  |
|                 | Exterior Dimension (W*D*H)               | mm                                    | 1049*980*1980  |             |                                       | 1153*980*1980  |             |                        | 769*825*1120           | 2130*870*1020  |  |
|                 |  | in                                    | 41.3*38.6*78.0 |             |                                       | 45.4*38.6*78.0 |             |                        | 30.3*32.5*44.1         | 83.9*34.3*40.2 |  |
|                 | Packing Dimension (W*D*H)                | mm                                    | 1100*1069*2130 |             |                                       | 1197*1050*2117 |             |                        | 835*860*1280           | 2210*910*1160  |  |
|                 |  | in                                    | 43.3*42.1*83.9 |             |                                       | 47.1*41.3*83.3 |             |                        | 32.9*33.9*50.4         | 87*35.8*45.7   |  |
| Functions       | Cabinet Width (without handle and hinge) | 946                                   |                |             | 1050                                  |                |             | 733                    | 733                    |                |  |
|                 | Container Load (20'/40'/40'H)            | 12/20/20                              |                |             | 8/20/20                               |                |             | 12/24/48               | 6/12/24                |                |  |
|                 | High/Low Temperature Alarm               | Y                                     |                |             | Y                                     |                |             | Y                      | Y                      |                |  |
|                 | Hot Condenser Alarm                      | Y                                     |                |             | Y                                     |                |             | Y                      | Y                      |                |  |
|                 | Power Failure Alarm                      | Y                                     |                |             | Y                                     |                |             | Y                      | Y                      |                |  |
|                 | High/Low Voltage Alarm                   | N/A                                   |                |             | N/A                                   |                |             | N/A                    | N/A                    |                |  |
|                 | Sensor Error Alarm                       | Y                                     |                |             | Y                                     |                |             | Y                      | Y                      |                |  |
|                 | Low Battery Alarm                        | Y                                     |                |             | Y                                     |                |             | Y                      | Y                      |                |  |
|                 | High Ambient Temperature Alarm           | Y                                     |                |             | Y                                     |                |             | Y                      | Y                      |                |  |
|                 | Door Ajar Alarm                          | Y                                     |                |             | Y                                     |                |             | Y                      | Y                      |                |  |
| Accessories     | Start-Up Delay                           | Y                                     |                |             | Y                                     |                |             | Y                      | Y                      |                |  |
|                 | Caster                                   | Y (4)                                 |                |             | Y (4)                                 |                |             | Y (4)                  | Y (4)                  |                |  |
| Others          | Leveling Feet                            | Y (2)                                 |                |             | Y (2)                                 |                |             | Y (2)                  | Y (2)                  |                |  |
|                 | Porthole                                 | 2*rear, (25mm)diameter                |                |             | 2*rear, (25mm)diameter                |                |             | 1*rear, (25mm)diameter | 1*rear, (25mm)diameter |                |  |
|                 | Inner Doors                              | 4                                     |                |             | 4                                     |                |             | 1                      | 3                      |                |  |
|                 | Shelves                                  | 3- stainless steel adjustable shelves |                |             | 3- stainless steel adjustable shelves |                |             | /                      | /                      |                |  |
|                 | Shelf Dimensions (W*D) (mm)              | 752*650                               |                |             | 856*650                               |                |             | /                      | /                      |                |  |
|                 | Max. Load per Shelf (kg)                 | 90                                    |                |             | 108                                   |                |             | /                      | /                      |                |  |
|                 | Freezer Racks Quantity (2" boxes)        | 20                                    |                |             | 24                                    |                |             | 9                      | 27                     |                |  |
|                 | Capacity (2" boxes)                      | 500                                   |                |             | 600                                   |                |             | 72                     | 270                    |                |  |
|                 | USB Interface                            | Y                                     |                |             | Y                                     |                |             | Y                      | Y                      |                |  |
|                 | Remote Alarm                             | Y                                     |                |             | Y                                     |                |             | Y                      | Y                      |                |  |
| Others          | 5V Power Supply Port                     | Y                                     |                |             | Y                                     |                |             | N/A                    | N/A                    |                |  |
|                 | Temperature Chart Recorder               | Optional                              |                |             | Optional                              |                |             | Optional               | Optional               |                |  |
|                 | RS232/485 Port                           | Optional                              |                |             | Optional                              |                |             | Optional               | Optional               |                |  |
|                 | CO <sub>2</sub> Backup System            | Optional                              |                |             | Optional                              |                |             | Optional               | Optional               |                |  |
|                 | LN <sub>2</sub> Backup System            | Optional                              |                |             | Optional                              |                |             | Optional               | Optional               |                |  |
| Certifications  | CE, MDR                                  | UL                                    | CE, MDR        | UL          | CE, MDR                               | UL             | CE, MDR     | CE, MDR                | UL                     |                |  |

## CO<sub>2</sub> Backup System

### Advantage

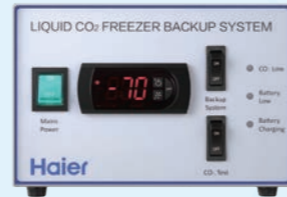
- Small footprint, light and easy for installation
- User adjustable temperature setting
- Simple to program and operate
- Flexible – Can be installed on any ULT freezer, which has a port hole
- The CO<sub>2</sub> injection pipe is designed in combination of filter, to prevent the blockage of CO<sub>2</sub> back-up system

### Safety

- Liquid CO<sub>2</sub> test button to ensure the backup system is working
- Low CO<sub>2</sub> alarm system alerts the user when liquid CO<sub>2</sub> bottle is low in liquid level
- Ultra-low sound level compressors

### Reliability

- Stainless steel covering, more elegant
- Stainless steel input pipe design, allows for flexibility and ease of cylinder positioning
- Durable battery lasts up to 48 hours



### Specifications

|                      | Model                                 | HBX-IC                                    |   |
|----------------------|---------------------------------------|---|---|
| Technical Data       | Climate Class                         | N/A                                       |   |
|                      | Cooling Type                          | Direct Cooling                            |   |
|                      | Refrigerant                           | CO <sub>2</sub>                           |   |
| Performance          | Cooling Performance (°C)              | -70                                       |   |
|                      | Temperature Range (°C)                | -40~-70                                   |   |
| Control              | Controller                            | Thermostat                                |   |
|                      | Display                               | LED                                       |   |
| Electrical Data      | Power Supply (V/Hz)                   | 220-240/50<br>208-230/60                  |   |
|                      | Power (W)                             | 115/60<br>20                              |   |
|                      | Electrical Current (A)                | 0.25                                      |   |
|                      | Net/Gross Weight (approx)             | 11.2/14<br>24.7/30.86                     |   |
| Dimensions           | Exterior Dimensions (W*D*H)           | 200*400*160<br>7.8*15.7*6.3               |   |
|                      | Packing Dimensions (W*D*H)            | 550*390*330<br>21.7*15.4*13.0             |   |
|                      | Alarms                                | CO <sub>2</sub> Margin Insufficient Alarm | Y |
|                      |                                       | Low Battery Alarm                         | Y |
| Sensor Error Alarm   |                                       | Y   |   |
| Main Power Off Alarm |                                       | Y   |   |
| Charge Indicator     |                                       | Y   |   |
| Accessories          | CO <sub>2</sub> Injection Test Button | Y   |   |
|                      | Foot                                  | 4   |   |
| Others               | Certifications                        | CE/UL                                     |   |

## LN<sub>2</sub> Backup System

LN<sub>2</sub> backup cooling system is an independent refrigeration system generally used for a -150°C mechanical cryo freezer. When there is a loss of power or the temperature of the freezer rises to the high alarm set point, the LN<sub>2</sub> backup system can be automatically activated to inject LN<sub>2</sub> into the chamber to maintain the freezer temperature. The backup system operates on a rechargeable battery when there is a loss of mains power.



### Features

- Interlocked design to turn off the LN<sub>2</sub> injection when the door is opened
- Protection circuit to prevent over-charging battery
- Light weight and portable design, suitable for installation on top of a freezer
- Alarm functions to include low battery and sensor error

### Specifications

|                 | Model                       | HBX-IIA                    |
|-----------------|-----------------------------|----------------------------|
| Technical Data  | Cabinet Type                | Horizontal                 |
|                 | Cooling Type                | Direct Cooling             |
|                 | Refrigerant                 | LN <sub>2</sub>            |
| Performance     | Cooling Performance (°C)    | -135                       |
|                 | Temperature Range (°C)      | -90~-135                   |
| Control         | Controller                  | Thermostat                 |
|                 | Display                     | LED                        |
| Electrical Data | Power Supply (V/Hz)         | 220-240/50                 |
|                 |                             | 208-230/60                 |
|                 | Power (W)                   | 115/60<br>20               |
|                 | Electrical Current (A)      | 0.05                       |
| Dimensions      | Net/Gross Weight (approx)   | 15/17<br>33.1/37.5         |
|                 |                             | 360*305*445                |
|                 | Exterior Dimensions (W*D*H) | 14.2*12.0*17.5             |
|                 |                             | Packing Dimensions (W*D*H) |
| Alarms          | Low Battery Alarm           | Y                          |
|                 | Sensor Error Alarm          | Y                          |
|                 | Main Power Off Alarm        | Y                          |
|                 | Charge Indicator            | Y                          |
| Others          | Certifications              | CE/UL                      |



**Lab Consumables  
Storage Solutions**


# Freezer Storage Racks


Haier Biomedical offers a full line of freezer storage racks to help make efficient use of space in chest and upright freezers, deep freezers, and ultra-low temperature freezers. Normally, freezer racks may have horizontal access (for upright freezers) or vertical openings (for chest freezers). For optimal storage, client can choose racks designed to fit the particular freezer model or product.


## Product Features


- Advanced pulsed capacitor discharge resistance welding machine is used for welding, which makes the welding firm, smooth and beautiful.
- A wide range of specifications, can store cryogenic tube (box), SBS cryogenic tube (box), centrifuge tubes etc.
- Handle design, compared with the traditional design is less susceptible to freezing.
- Customized freezer racks according to different purposes or different freezers.



| Drawer Freezer Rack   | CAT.NO.                      | Model                        | Material         | Adapte           | Packing     |
|---|------------------------------|------------------------------|------------------|------------------|-------------|
|  | 433001                       | (EXP)DCJ-55-B(SUS201)        | SUS201           | 133*133*53mm box | 1 pcs/ case |
|   | 433002                       | (EXP)DCJ-55-B(SUS304)        | SUS304           | 133*133*53mm box | 1 pcs/ case |
|   | 433003                       | (EXP)DCJ-54-B(SUS201)        | SUS201           | 133*133*53mm box | 1 pcs/ case |
|   | 433004                       | (EXP)DCJ-54-B(SUS304)        | SUS304           | 133*133*53mm box | 1 pcs/ case |
|   | 433005                       | (EXP)DCJ-53-B(SUS201)        | SUS201           | 133*133*53mm box | 1 pcs/ case |
|   | 433006                       | (EXP)DCJ-53-B(SUS304)        | SUS304           | 133*133*53mm box | 1 pcs/ case |
|   | 433007                       | (EXP)DCJ-44-B(SUS201)        | SUS201           | 133*133*53mm box | 1 pcs/ case |
|   | 433008                       | (EXP)DCJ-44-B(SUS304)        | SUS304           | 133*133*53mm box | 1 pcs/ case |
|   | 434040                       | (EXP)DCJ-45-B(SUS304)        | SUS304           | 133*133*53mm box | 1 pcs/ case |
|   | 434041                       | (EXP)DCJ-33-B(SUS304)        | SUS304           | 133*133*53mm box | 1 pcs/ case |
|   | 433009                       | (EXP)DCJ-35-B(3 inch/SUS304) | SUS304           | 133*133*94mm box | 1 pcs/ case |
| 433010  | (EXP)DCJ-34-B(3 inch/SUS304) | SUS304                       | 133*133*94mm box | 1 pcs/ case      |             |
| 433011  | (EXP)DCJ-75-B(SUS304)        | SUS304                       | 133*133*37mm box | 1 pcs/ case      |             |

| Side-access Freezer Rack   | CAT.NO. | Model                        | Material | Adapte           | Packing     |
|--|---------|------------------------------|----------|------------------|-------------|
|  | 433012  | (EXP)DCJ-55-A(SUS304)        | SUS304   | 133*133*53mm box | 1 pcs/ case |
|  | 433013  | (EXP)DCJ-54-A(SUS304)        | SUS304   | 133*133*53mm box | 1 pcs/ case |
|  | 433037  | (EXP)DCJ-53-A(SUS304)        | SUS304   | 133*133*53mm box | 1 pcs/ case |
|  | 433014  | (EXP)DCJ-35-A(3 inch/SUS304) | SUS304   | 133*133*94mm box | 1 pcs/ case |
|  | 433015  | (EXP)DCJ-34-A(3 inch/SUS304) | SUS304   | 133*133*94mm box | 1 pcs/ case |
|  | 433016  | (EXP)DCJ-44-A(SUS304)        | SUS304   | 133*133*53mm box | 1 pcs/ case |

| SBS Freezer Rack  | CAT.NO. | Model                 | Material | Adapte            | Packing     |
|---|---------|-----------------------|----------|-------------------|-------------|
|  | 433017  | (EXP)DCJ-57-B(SUS304) | SUS304   | 86*128*50.8mm box | 1 pcs/ case |
|   | 433018  | (EXP)DCJ-77-B(SUS304) | SUS304   | 86*128*38.5mm box | 1 pcs/ case |
|   | 433019  | (EXP)DCJ-56-B(SUS304) | SUS304   | 86*128*50.8mm box | 1 pcs/ case |
|   | 433020  | (EXP)DCJ-57-B(SUS201) | SUS201   | 86*128*50.8mm box | 1 pcs/ case |
|   | 433021  | (EXP)DCJ-77-B(SUS201) | SUS201   | 86*128*38.5mm box | 1 pcs/ case |
|   | 433022  | (EXP)DCJ-56-B(SUS201) | SUS201   | 86*128*50.8mm box | 1 pcs/ case |

| Vertical Freezer Rack   | CAT.NO. | Model                 | Material | Adapte           | Packing     |
|---|---------|-----------------------|----------|------------------|-------------|
|  | 433023  | (EXP)DCJ-6-A(SUS304)  | SUS304   | 133*133*53mm box | 1 pcs/ case |
|   | 433025  | (EXP)DCJ-8-A(SUS304)  | SUS304   | 133*133*53mm box | 1 pcs/ case |
|   | 433026  | (EXP)DCJ-10-A(SUS304) | SUS304   | 133*133*53mm box | 1 pcs/ case |
|   | 433028  | (EXP)DCJ-12-A(SUS304) | SUS304   | 133*133*53mm box | 1 pcs/ case |

| Centrifuge Tube Freezer Rack  | CAT.NO. | Model          | Material | Adapte               | Packing     |
|---|---------|----------------|----------|----------------------|-------------|
|  | 433029  | (EXP)SDCJ-15ml | SUS304   | 15ml centrifuge tube | 1 pcs/ case |
|   | 433030  | (EXP)SDCJ-50ml | SUS304   | 50ml centrifuge tube | 1 pcs/ case |

## Cryogenic Storage Series

61/62

Haier Biomedical can provide a range of high quality cryogenic storage tubes, which can withstand the extremes of cryogenic conditions while protecting the valuable samples. Meanwhile the Haier Biomedical cryogenic storage tubes have high compatibility with above freezer storage racks and ULT freezers, meeting the client's one-stop demands.



### Product Features

- Rigorous cytotoxicity-testing ensures pyrogen, RNase, DNase and endotoxins levels are less than 0.005EU/mL
- Complying with ANSI/SLAS international standards, suitable for a variety of automated storage and processing equipment  
Laser etching process and three-code information integration technology are adopted to ensure the security and redundancy to provide an extra layer of protection
- The snap design of the base is easy to use and prevents scratches after freezing
- Designed and manufactured to prevent leakage at -98kpa to meet the IATA dangerous goods PI650 standard



## Cryogenic Tube

| CAT.NO. | Volume (mL) | Material | Specification | Type       | Sterile | Packing                      |
|---------|-------------|----------|---------------|------------|---------|------------------------------|
| 413032  | 0.5         | PP       | SBS 12x8      | box-packed | ✓       | 96 pcs/box, 80 boxes/ case   |
| 413033  | 0.75        | PP       | SBS 12x8      | box-packed | ✓       | 96 pcs/box, 70 boxes/ case   |
| 413034  | 1.0         | PP       | SBS 12x8      | box-packed | ✓       | 96 pcs/ box, 50 boxes/ case  |
| 413004  | 2.0         | PP       | SBS 6x8       | box-packed | ✓       | 48 pcs/ box, 50 boxes/ case  |
| 413005  | 2.0         | PP       | 10x10         | box-packed | ✓       | 100 pcs/ box, 30 boxes/ case |
| 413006  | 0.5         | PP       | /             | bag-packed | ✓       | 220 pcs/ bag 60 bags/ case   |
| 413007  | 1.0         | PP       | /             | bag-packed | ✓       | 150 pcs/ bag 40 bags/ case   |
| 413008  | 2.0         | PP       | /             | bag-packed | ✓       | 70 pcs/ bag 50 bags/ case    |

\* External cap , triple code, white code on black background

## SBS Box

| CAT.NO. | Adapte           | Material | Specification | Packing        |
|---------|------------------|----------|---------------|----------------|
| 413009  | 0.5 ml SBS Tube  | PC+ABS   | SBS 8x12      | 80 boxes/ case |
| 413010  | 0.75 ml SBS Tube | PC+ABS   | SBS 8x12      | 70 boxes/ case |
| 413011  | 1.0 ml SBS Tube  | PC+ABS   | SBS 8x12      | 50 boxes/ case |
| 413012  | 2.0 ml SBS Tube  | PC+ABS   | SBS 6x8       | 50 boxes/ case |
| 413013  | 2.0 ml SBS Tube  | PC+ABS   | 10x10         | 30 boxes/ case |



# Cryogenic Storage Series

Cryo tubes can withstand ultra-low temperature refrigerator environment, no deformation under low temperature environment, tightly closed tube mouth, low risk of contamination. The multi-colored caps are designed for easy sample differentiation.



● Temperature Range: -196 °C - 121 °C

| External thread | CAT.NO. | Volume (mL) | Material | Cap           | Sterile | Packing                     |
|-----------------|---------|-------------|----------|---------------|---------|-----------------------------|
|                 | 423010  | 0.5         | PP       | Flat cap      | ✓       | 100pcs/bag, 10bags/case     |
|                 | 423016  | 0.5         | PP       | Flat cap      | ✓       | 100pcs/ box, 12 boxes/ case |
|                 | 423011  | 1.5         | PP       | Flat cap      | ✓       | 100pcs/bag, 10bags/ case    |
|                 | 423017  | 1.5         | PP       | Flat cap      | ✓       | 100pcs/ box, 12 boxes/ case |
|                 | 423032  | 0.5         | PP       | Automated cap | ✓       | 100pcs/bag, 20bags/ case    |
|                 | 423038  | 0.5         | PP       | Automated cap | ✓       | 100pcs/ box, 30 boxes/ case |
|                 | 423028  | 1.0         | PP       | Automated cap | ✓       | 100pcs/bag, 20bags/ case    |
|                 | 423026  | 1.0         | PP       | Automated cap | ✓       | 100pcs/ box, 30 boxes/ case |
|                 | 423035  | 1.5         | PP       | Automated cap | ✓       | 100pcs/bag, 20bags/ case    |
|                 | 423041  | 1.5         | PP       | Automated cap | ✓       | 100pcs/ box, 30 boxes/ case |
|                 | 423029  | 2.0         | PP       | Automated cap | ✓       | 100pcs/bag, 20bags/ case    |
|                 | 423027  | 2.0         | PP       | Automated cap | ✓       | 100pcs/ box, 30 boxes/ case |
|                 | 423012  | 2.0         | PP       | Concave cap   | ✓       | 100pcs/bag, 10bags/ case    |
|                 | 423013  | 5.0         | PP       | Concave cap   | ✓       | 100pcs/bag, 10bags/ case    |

| Internal thread | CAT.NO. | Volume (mL) | Material | Cap         | Sterile | Packing                  |
|-----------------|---------|-------------|----------|-------------|---------|--------------------------|
|                 | 423014  | 1.0         | PP       | Concave cap | ✓       | 100pcs/bag, 10bags/ case |
|                 | 423015  | 2.0         | PP       | Concave cap | ✓       | 100pcs/bag, 10bags/ case |

Internal thread tube:

External thread tube:



Concave cap  
(color code inset possible)



Automated cap

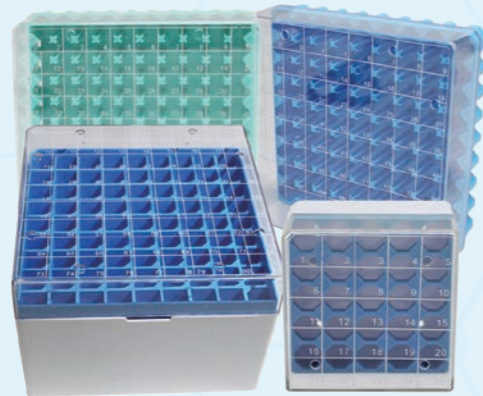


Flat cap



Concave cap  
(color code inset possible)

Cryogenic Box



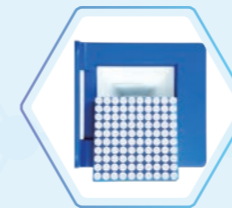
- Specifications: 25/81/100 wells
- Temperature Range: -196 °C ~ 121 °C

| Paper Box | CAT.NO. | Type  | Specifications     | Adapte    | Packing       |
|-----------|---------|-------|--------------------|-----------|---------------|
|           | 423001  | 9*9   | 133*133*53mm White | 0.5-2.0ml | 50 boxes/case |
|           | 423002  | 10*10 | 133*133*53mm White | 0.5-2.0ml | 50 boxes/case |

| PC Box | CAT.NO. | Type  | Specifications   | Adapte    | Packing       |
|--------|---------|-------|--|-----------|---------------|
|        | 422005  | 5*5   | 73*73*53mm<br>Clear box cover, Blue center plate, white base   | 0.5-2.0ml | 50 boxes/case |
|        | 422012  | 9*9   | 133*133*53mm<br>Clear box cover, Blue base                     | 0.5-2.0ml | 50 boxes/case |
|        | 422013  | 10*10 | 133*133*53mm<br>Clear box cover, Green base                    | 0.5-2.0ml | 50 boxes/case |
|        | 422014  | 9*9   | 133*133*94mm<br>Clear box cover, Blue center plate, White base | 5.0ml     | 24 boxes/case |

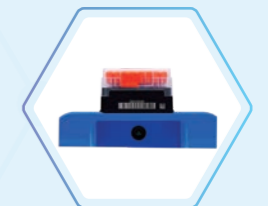
High Speed Batch Scanner

Haier Biomedical high speed batch scanner can be used to scan various specifications of boxed prefabricated code cryogenic tubes, 1S high-speed identification of sample information, to achieve efficient management of sample.



Intelligent induction tube box, automatic light filling, multi environment adaptation.

Tube bottom code and box code synchronous reading, three-dimensional construction data.



Detachable module design, compatible with SBS, square and other multi-specification cryogenic box.

Module anti-loss hook design, prevent module placement and loss trouble.





| CAT.NO | Description   | Quantity | Package    |
|--------|---|----------|------------|
| 445005 | Batch scanning, high-speed scanning, side code scanning, suitable SBS freezer box             | 1        | 1 set/case |
| 445007 | Batch high-speed scanning, top scanning model, suitable for 10*10/9*9 top labeled freezer box | 1        | 1 set/case |


# Single Tube Scanner

Haier Biomedical single tube scanner is flexible and quick to scan the samples information.



 Wireless communication distance up to 30 meters, easy to identify mobile scene information.

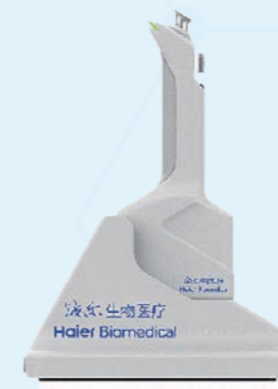
Support battery charging and replacement, a saturated charge can work for 20 hours or standby for 50 hours. 

 Excellent DPM code reading ability, suitable for all kinds of precision code recognition, fast and accurate.

| CAT.NO | Description   | Quantity | Package    |
|--------|---|----------|------------|
| 445012 | Wireless handheld scanner, provide single cryogenic tube or cryogenic box, scanner recognition one-dimensional code/ two-dimensional code function, plug and play | 1        | 1 set/case |
| 445013 | Handheld scanner, provide single cryogenic tube or cryogenic box, scanner recognition one-dimensional code/two-dimensional code function, plug and play           | 1        | 1 set/case |
| 445053 | Desktop scanner, provide single cryogenic tube or cryogenic box, scanner recognition one-dimensional code/two-dimensional code function, plug and play            | 1        | 1 set/case |

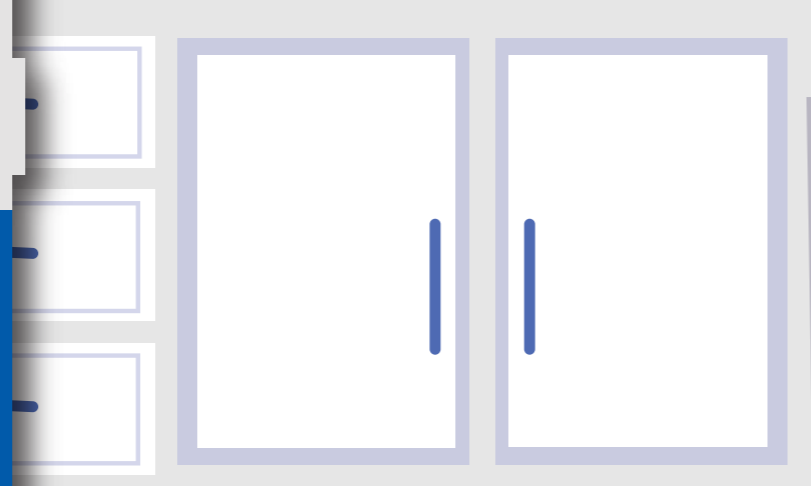
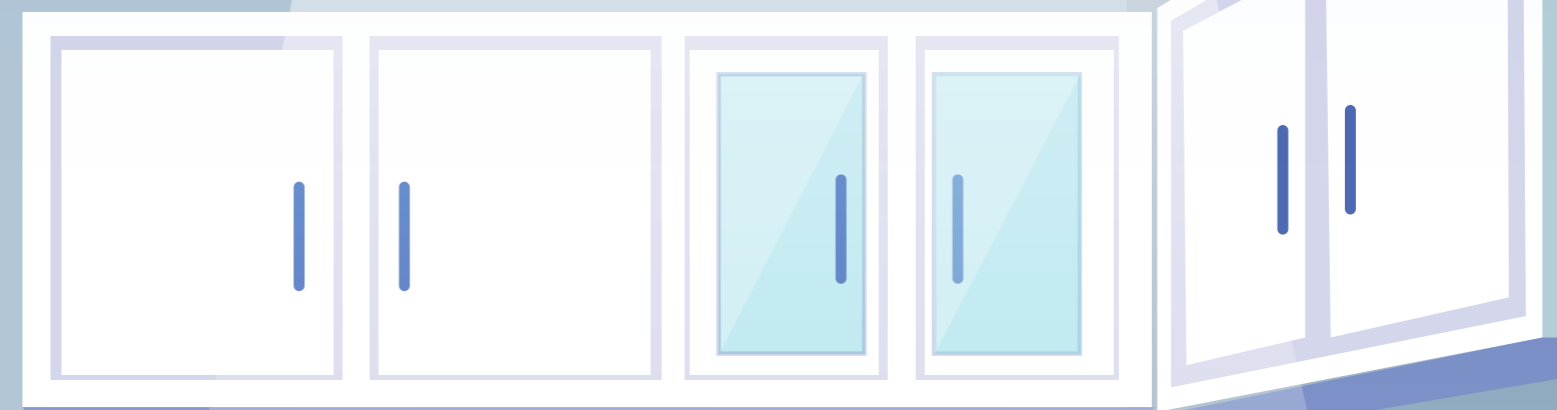
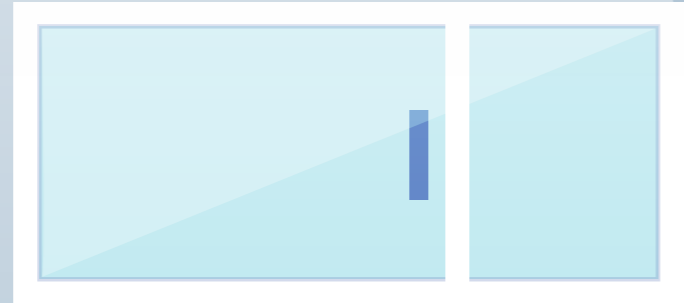
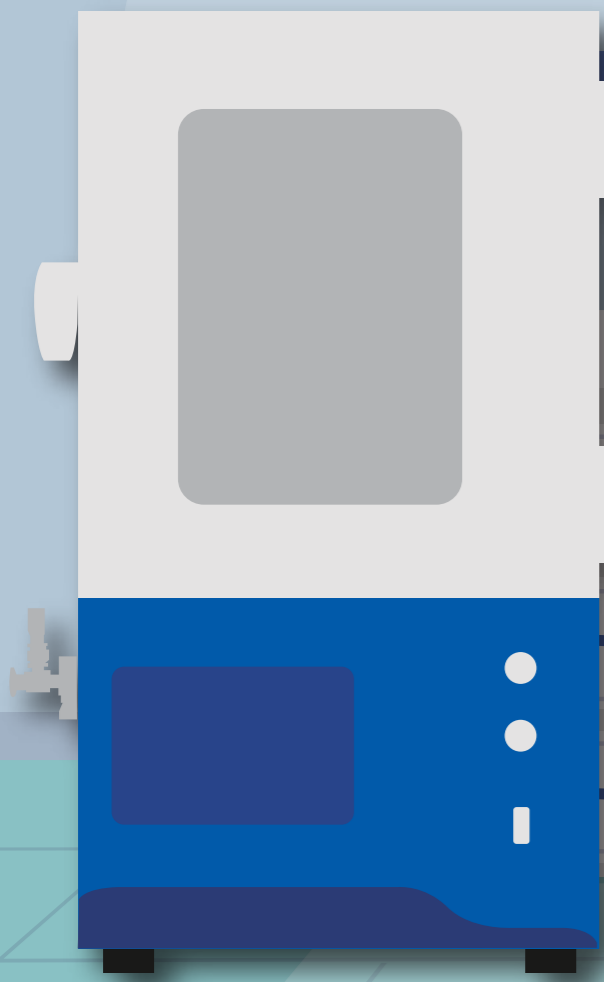
# Batch Cover Opener

Haier Biomedical batch cover opener opens or closes the multi-channel cap improves the efficiency compared to manual operation and reduces the risk of contact with biochemical reagents and safety risks.



- Multi-channel synchronized cap opening, up to 8 channels at a time
- Push-key design for quick and easy cap removal
- Rack storage, convenient storage of opened batch caps

| CAT.NO. | Description   | Quantity | Package    |
|---------|---|----------|------------|
| 445016  | 8-channel, hand-held, for SBS 96 boxed cryo-tubes;    | 1        | 1 set/case |
| 445020  | 6-channel, hand-held, for SBS 48/24 boxed cryo-tubes; | 1        | 1 set/case |









**Freeze Dryers**

Applicable to biological research, medical laboratories for drying of biotechnological and pharmaceutical products, e.g. tissues and tissue extracts, bacteria, vaccines, and sera, also suitable to food research, chemical industry and other related scenarios for efficient lyophilization of samples.

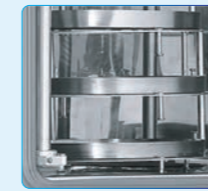


DG-65Z04-10A

Product Advantages

- 
**Automatic parameter storage**  
 Intelligent storage of the freeze-drying parameters, without setting them separately each time
- 
**The integrated design and totally enclosed environment make the sample pollution-free**  
 The whole working cabin is closed, the freeze-drying process is isolated from the outside environment
- 
**Multiple alarm functions**  
 Multiple alarms including cold trap cooling overtime, vacuum pump oil replacement reminder, temperature sensor fault/cold trap temperature sensor fault, vacuum sensor fault, condenser sensor fault, ambient temperature sensor fault, abnormal refrigeration, motor overcurrent, condenser dirty blockage, vacuum alarm, heating lamp life less than 10% alarm
- 
**The refrigeration efficiency is greatly improved**  
 The evaporator is located in the freezing chamber, which directly cools the sample and improves the refrigeration efficiency, it can reach -60°C within 25 minutes
- 
**IoT real-time management**  
 Separate account, authority management, configuration record function, data traceability, real-time monitoring of equipment status
- 
**High sublimation speed and high drying efficiency**  
 Excellent temperature uniformity, free from external influences, more energy-saving and environment-friendly

Ergonomic Design



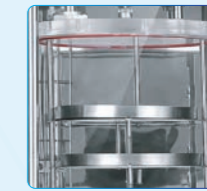
Automatic lifting shelves without manual operation



vacuum pump port, convenient for oil change



The filter can be easily replaced



The design of glass door ensures the working situation in the drying chamber visible at the glance

Product Parts



Product Advantages

- The two-level gas ballast design offers greater convenience in meeting the steam discharge requirements of diverse processes.
- The automatic anti-backflow oil design provides more reliable protection for the vacuum system, preventing it from being contaminated by oil after shutdown.
- The built-in gear wheel pump and constant pressure oil supply mechanism ensure forced oil supply, allowing stable and reliable operation even under high suction pressure.

## Vacuum Pump

| Model                             |                      | DRV10              |
|-----------------------------------|----------------------|--------------------|
| Power Supply (V/Hz)               |                      | 220/50             |
| Pumping Speed (m <sup>3</sup> /h) |                      | 9.9                |
| Ultimate Pressure                 | Gas Ballast Off (Pa) | 5*10 <sup>-1</sup> |
|                                   | Gas Ballast On (Pa)  | 5                  |
| Motor Power (kw)                  |                      | 0.4                |
| Required Oil (L)                  |                      | 1.1                |
| Air Inlet                         |                      | KF25               |
| Air Outlet                        |                      | KF25               |
| Sound Level (db)                  |                      | 65                 |
| Weight (kg)                       |                      | 25                 |

| Model                                       |  | DG-65Z04-10A                |
|---|--|-----------------------------|
| Ice Condenser Temperature (°C)              |  | -65                         |
| Condensation Efficiency                     |  | 4kg/24h                     |
| Sound Level (dB(A))                         |  | ≤60                         |
| Weight (kg)                                 |  | 145 (equipment)+25 (pump)   |
| Ultimate vacuum (Pa/mbar)                   |  | 5/5*10 <sup>-2</sup>        |
| Maximum Condensation (kg)                   |  | 4                           |
| Power (w)                                   |  | 950                         |
| Power Supply (V/Hz)                         |  | 220/50                      |
| Dry Chamber Interior Dimension (W*D*H)(mm)  |  | 404*374*398                 |
| Dry Chamber Capacity (L)                    |  | 60                          |
| Freeze Cabinet Capacity (L)                 |  | 13                          |
| Area (m <sup>2</sup> )                      |  | 0.1                         |
| Shelves                                     |  | 3 layers                    |
| Material Tray Diameter (mm)                 |  | Φ200                        |
| Maximum Spacing Between Material Trays (mm) |  | 70                          |
| Exterior Dimension (W*D*H)(mm)              |  | 480*793*883 (without pump)  |
| Packing Dimension (W*D*H)(mm)               |  | 665*900*1400 (include pump) |
| Temperature Curve Display                   |  | Yes                         |
| Vacuum Pump Maintenance Reminder            |  | Yes                         |
| Screen                                      |  | 10.1 inch touch screen      |
| Notepad                                     |  | Yes                         |
| Account Management                          |  | Yes                         |
| USB   |  | Yes                         |
| Penicillin Bottle                           |  | Optional                    |
| Vacuum Pump Oil                             |  | Optional                    |
| Oil Mist Filter                             |  | Optional                    |
| Certifications                              |  | CE                          |

Applicable to biological research, medical laboratories for drying of biotechnological and pharmaceutical products, e.g. tissues and tissue extracts, bacteria, vaccines, and sera. The product is also suitable to food research, chemical industry and other related scenarios for efficient lyophilization of samples.



DG-65Z04-10AR

## Product Advantages

**Automatic Parameter Storage**

Intelligent storage of the freeze-drying parameters, without setting them separately each time

**IoT Real-time Management**

Separate account, authority management, configuration record function, data traceability, real-time monitoring of equipment status

**Real Time Monitoring of Freeze-Drying Status**

Check the sample freeze-drying curve at any time, and it can be adjusted immediately and in time if there are any risks

**The Refrigeration Efficiency is Greatly Improved**

The evaporator is located in the freezing chamber, which directly cools the sample and improves the refrigeration efficiency, it can reach -60°C within 25 minutes

**Multiple Alarm Functions**

Multiple alarms, including cold trap cooling overtime, vacuum pump oil replacement reminder, temperature sensor fault/cold trap temperature sensor fault, vacuum sensor fault, condenser sensor fault, ambient temperature sensor fault, abnormal refrigeration, motor overcurrent, condenser dirty blockage, vacuum alarm, heating lamp life less than 10% alarm

## Ergonomic Design

**Standard**

Suitable for freeze-drying bulk samples

**Manifolds**

Suitable for freeze-drying samples in externally-attached flasks

**Stoppering**

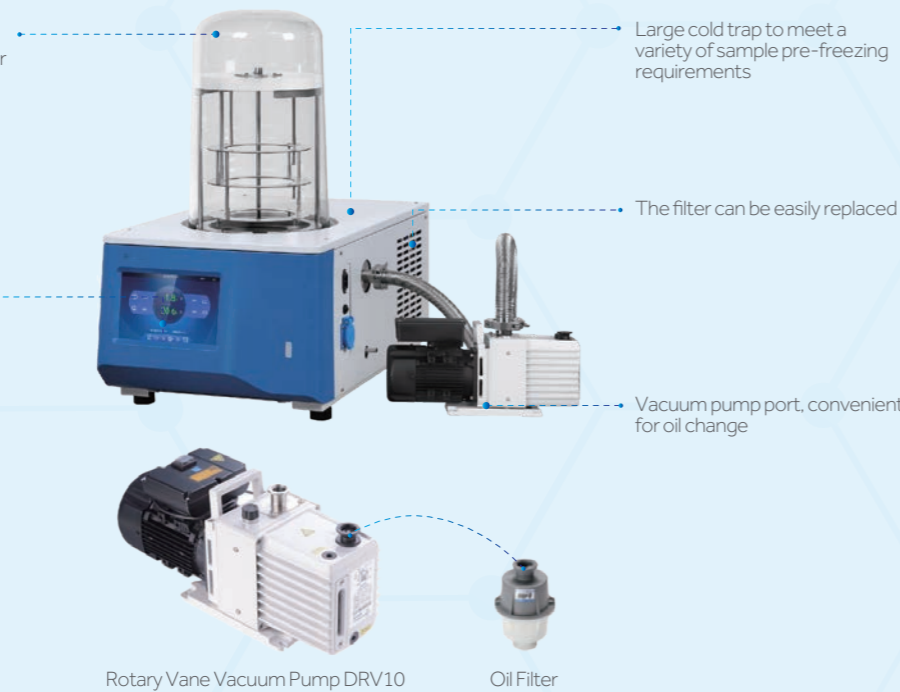
Suitable for freeze-drying and stoppering samples in vials

**Stoppering with Manifolds**

Suitable for freeze-drying and stoppering samples in vials and externally-attached flasks

## Product Parts

The glass design cover ensures the working situation in the drying chamber is visible at a glance



10-inch touch screen, users can view operating status, and historical temperature data and alarm events

## Specifications

| Model                             |                      | DRV10              |
|-----------------------------------|----------------------|--------------------|
| Power Supply (V/Hz)               |                      | 220/50             |
| Pumping Speed (m <sup>3</sup> /h) |                      | 9.9                |
| Ultimate Pressure                 | Gas Ballast Off (Pa) | 5*10 <sup>-1</sup> |
|                                   | Gas Ballast On (Pa)  | 5                  |
| Motor Power (kw)                  |                      | 0.4                |
| Required Oil (L)                  |                      | 1.1                |
| Air Inlet                         |                      | KF25               |
| Air Outlet                        |                      | KF25               |
| Sound Level (db)                  |                      | 65                 |
| Weight (kg)                       |                      | 25                 |

| Model                                       |  | DG-65Z04-10AR              |
|---|--|----------------------------|
| Ice Condenser Temperature (°C)              |  | -65/-85                    |
| Condensation Efficiency (kg/h)              |  | 4/24                       |
| Sound Level (dB(A))                         |  | ≤60                        |
| Weight (kg)                                 |  | 80 (equipment)+25 (pump)   |
| Ultimate Vacuum (Pa/mbar)                   |  | 5/5*10 <sup>-2</sup>       |
| Maximum Condensation (kg)                   |  | 4                          |
| Power (w)                                   |  | 950                        |
| Power Supply (V/Hz)                         |  | 220/50                     |
| Freeze Cabinet Capacity (L)                 |  | 13                         |
| Area (m <sup>2</sup> )                      |  | 0.1                        |
| Shelves                                     |  | 3 layers (extensive)       |
| Material Tray Diameter (mm)                 |  | φ200                       |
| Maximum Spacing Between Material Trays (mm) |  | 70                         |
| Exterior Dimension (W*D*H)(mm)              |  | 480*793*730 (without pump) |
| Packing Dimension (W*D*H)(mm)               |  | 665*900*920 (include pump) |
| Temperature Curve Display                   |  | Yes                        |
| Vacuum Pump Maintenance Reminder            |  | Yes                        |
| Screen                                      |  | 10.1 inch touch screen     |
| Notepad                                     |  | Yes                        |
| Account Management                          |  | Yes                        |
| USB   |  | Yes                        |
| IoT   |  | Yes                        |
| Penicillin Bottle                           |  | Optional                   |
| Certifications                              |  | CE                         |

## Pilot Freeze Dryer

The pilot freeze dryer is a smaller-scale freeze-drying system used in research, product development, and small-scale production processes.



**HDG-85Z10-50**

## Product Advantages



### Precise Temperature Control

- The ±0.5°C shelf temperature accuracy allows precise adjustments tailored to your sample's needs and freeze-drying conditions.
- Benefit from ±1°C cabinet temperature accuracy, ensuring consistent freeze-drying quality across your samples.



### Efficient Refrigeration Technology

Experience rapid cold trap pull down from +20°C to -45°C in just 30 minutes, with the ability to reach ultimate temperatures of -85°C. Achieve simultaneous cabinet and cold trap cooling, reducing wait times and enhancing efficiency.



### PLC Control, User-Friendly Control Interface

Utilize editabl e automatic programs and multi-temperature segment control, meeting fine process requirements effortlessly. Navigate easily through operations with the touchscreen interface, which can connect to a PC, enabling multi-user applications.



### Comprehensive Documentation

Ensure compliance with FDA 21 CFR part 11, featuring e-signature capabilities for robust documentation.

## Pilot Freeze Dryer

### Product Features



#### Suitable for Small Batch Production & Pilot Run

Shelf total size: 0.54m<sup>2</sup>  
 Capacity: Circa. 3.690 Penicillin bottles Φ12mm  
 Circa. 2.046 Penicillin bottles Φ16mm  
 Circa. 1.056 Penicillin bottles Φ22mm



#### Custom Design Options

0.2m<sup>2</sup> / 0.4m<sup>2</sup> / 1m<sup>2</sup> can be customized according to customer demand.  
 Optional eutectic point test, drying end point judgment, can be connected to the sterilizer and gas backfill system, semi-customized to meet a variety of needs of users.



#### Automatic Stoppering Function

Experience automatic stoppering functionality, facilitated by a customized hydraulic system. ideal for small batch production needs.



#### Sample Safety

Rest assured. with emergency protection functions and IoT monitoring, ensure the safety of your valuable samples.

### Product Performances

| Model                             | HDG-85Z10-50   |
|-----------------------------------|--|
| Shelf Size                        | 0.54m <sup>2</sup><br>Penicillin Φ12mm: Circa. 3690pcs<br>Penicillin Φ16mm: Circa. 2046pcs<br>Penicillin Φ22mm: Circa. 1056pcs |
| Cold Trap Temperature (°C)        | -85°C  |
| Cold Trap Cooling Speed           | From +20°C to -45°C in 30min   |
| Ice Condenser Capacity (kg)       | 10   |
| Shelf Temperature Uniformity (°C) | ±0.5°C On same shelf<br>±1°C For all shelves   |
| Ultimate Vacuum (mbar)            | 0.005  |
| Shelf Dimension (mm)              | 300*450  |
| Shelf Quantity                    | 4+1  |
| Shelf Distance (mm)               | 80   |
| Shelf Temperature (°C)            | -60°C~60°C   |
| Power (W)                         | 5000   |
| Exterior Dimension (W*D*H)(mm)    | 1530*890*1900  |
| Weight (kg)                       | 800  |
| Power Supply (V/Hz)               | 220V/50Hz  |
| Control System                    | PLC control (Touchscreen as standard, can connect with PC)   |
| Vacuum Control                    | Leak control valve   |
| Freeze Drying Curve & Records     | Yes  |
| Automated Program                 | Yes (Manually)   |
| Penicillin Lid Press              | Yes (Hydraulic)  |
| N2 Back Fill System               | Optional   |
| Automatic Drainage                | Yes  |
| Frost Function                    | Heated water frost   |
| IoT Monitoring                    | No   |
| Sample Emergency Protection       | Constantly cooling the sample when vacuum exceeds limit  |
| FDA 21 CFR Part 11                | Compliance   |
| Drying End Point Judgment         | Optional   |
| Eutectic Point test               | Optional   |
| Sterilization                     | Optional for H <sub>2</sub> O <sub>2</sub> sterilizer  |
| IQ/OQ Confirmation                | Optional   |
| Certifications                    | CE   |

## Laboratory Freeze Dryer

### Bench-Top



HDG-86Z03-12T

### Floor-Standing



HDG-86Z04-12



HDG-86Z06-18

The laboratory freeze-dryer is designed for laboratory research and sample preparation, and there are five types of design that can meet different needs.

### Product Features



Offering different choices of ice condenser capacity: 3, 4, 6 kg per 24 hours



Rapid cooling to temperatures as low as -90°C



Environmentally-friendly HC refrigeration system



Optimal process control for quick and reliable freeze-drying



Real time display of sample temperature, vacuum curve, and cold trap temperature curve



# Laboratory Freeze Dryer

## Ergonomic Design

7" touchscreen display for intuitive operation

Clear acrylic chamber for easy viewing

Easy to clean anti-corrosion cold trap and shelves

Vacuum relief valve/Drain valve

USB port to download operational data

## Multiple Freeze-Drying Chamber Options

**Standard** Suitable for freeze-drying bulk samples

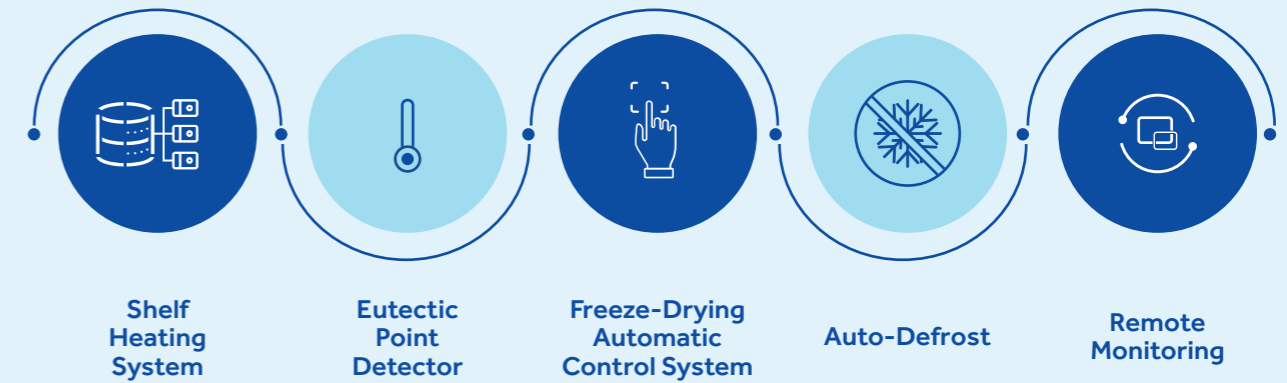
**Stoppering** Suitable for freeze-drying and stoppering samples in vials

**Manifolds** Suitable for freeze-drying samples in externally-attached flasks

**Stoppering with Manifolds** Suitable for freeze-drying and stoppering samples in vials and externally-attached flasks

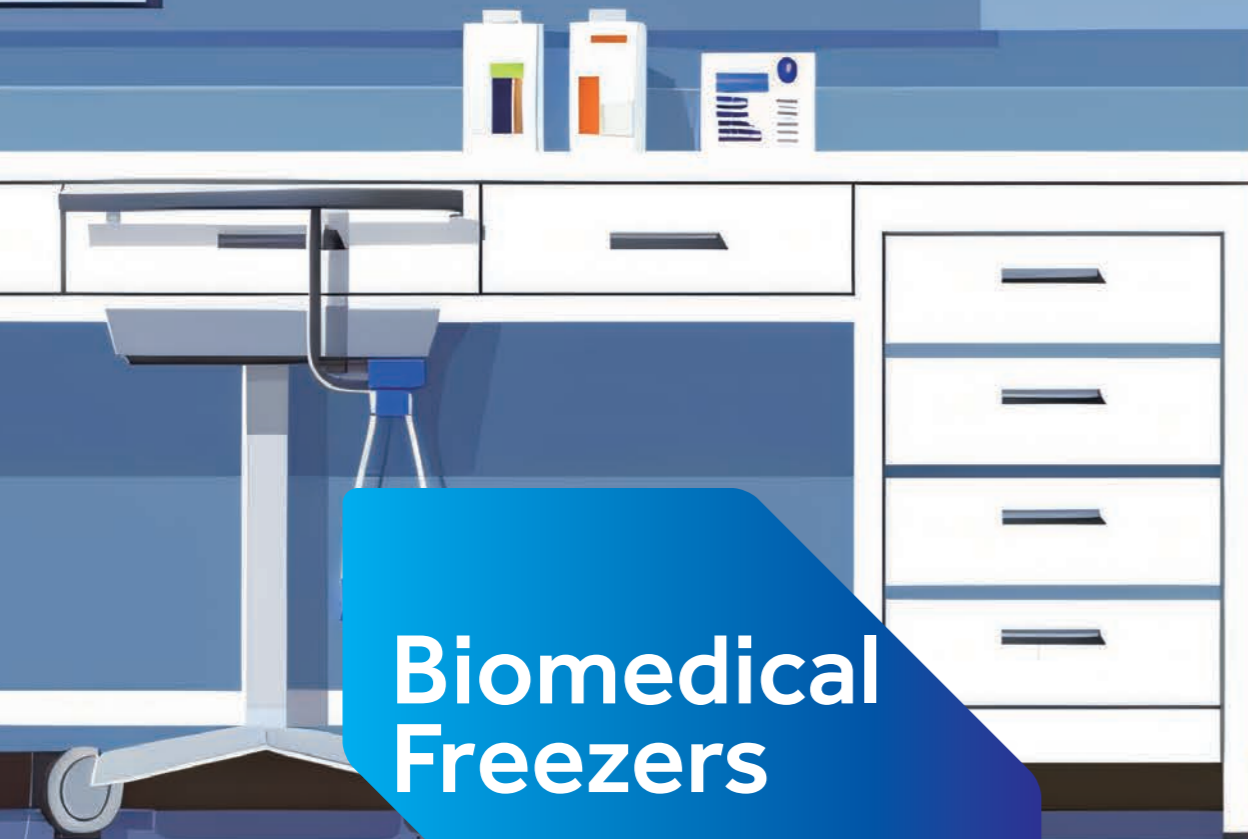
**T-Type** Suitable for freeze-drying samples in ampoule bottle and externally-attached flasks

## Freeze-Drying Function Options

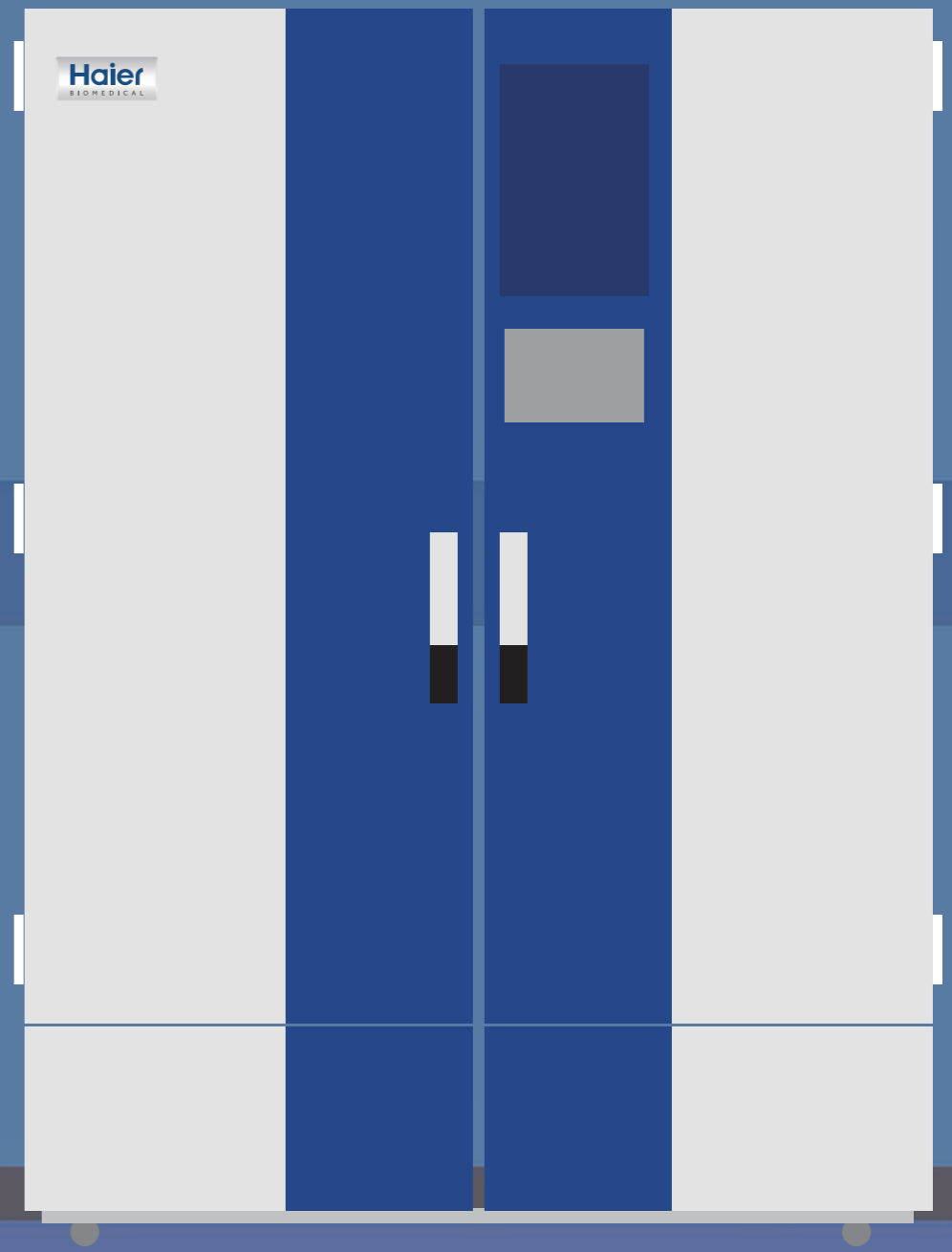


## Specifications

| Model                            | HDG-86Z03-12T | HDG-86Z04-12   | HDG-86Z06-18   |
|----------------------------------|---------------|----------------|----------------|
| Type                             | Bench-Top     | Floor-Standing | Floor-Standing |
| Area (m <sup>2</sup> )           | 0.12/0.09     | 0.12/0.09      | 0.18/0.09      |
| Ice Condenser Temperature (°C)   | -86           | -86            | -86            |
| Ice Condenser Capacity (kg)      | 3             | 4              | 6              |
| Condensation Efficiency (kg/24h) | 3             | 4              | 6              |
| Maximum Vacuum (Pa)              | ≤ 5           | ≤ 5            | ≤ 5            |
| Shelf Diameter (mm)              | φ200          | φ200           | φ240/φ200      |
| Number of Shelves                | 4/3           | 4/3            | 4/3            |
| Distance Between Shelves (mm)    | 70            | 70             | 70             |
| Freeze Chamber Dimension (mm)    | φ300*150      | φ300*210       | φ340*250       |
| Power Supply (V/Hz)              | 220V/50Hz     | 220V/50Hz      | 220V/50Hz      |
| Power (W)                        | 950           | 980            | 1000           |
| Exterior Dimension (W*D*H) (mm)  | 406*550*430   | 406*550*720    | 645*600*720    |
| Weight (kg)                      | 44            | 50             | 60             |



**Biomedical  
Freezers**



# -60°C Biomedical Freezer

A versatile low-temperature freezer installed in hospitals, blood stations, diseases control & prevention centers, research institutions, bioscience laboratories and medical laboratories. It is suitable for storing a wide variety of biological products including viruses, bacteria, red blood cells, white blood cells, skin, bone and semen as well as ocean-going supplies and electronic devices. It can also provide a low-temperature environment for testing of special materials.

The secondary application is for the storage of fishery products such as tuna, Australian lobster, salmon, South American shrimps, Argentina red shrimp, top-quality beef, kanpachi, octopus, yellowtail, bonito fish, grouper, and fugu rubripes. This is a requirement for fishery products for human consumption and hence these freezers are popular among professional oceanic fisherman, seafood distributors, speciality seafood stores and sushi restaurants and commercial food manufacturers.



DW-60W258



German Made Energy Efficient Compressor



Digital Temperature Control display



Dual-seal Design



Efficient and Reliable Fan



Quickly freeze sea food products to retain their original taste, structure and freshness.



Low noise output, noise cancelling technology yields a smoother operation and a sound level of less than 43dB(A).



Multiple alarm system includes temperature alarm, and sensor error alarm.



HC refrigerant system is optimized to improve refrigeration efficiency by 30%, and save energy by about 50%.

Single compressor auto cascade refrigeration system provides high efficient cooling power. 100m Insulation ensure optimal thermal protection and energy efficiency.



Dual seal design retains cold and reduces condensation.



304 stainless steel is suitable for both laboratory and is certified food safe for commercial kitchen environments.

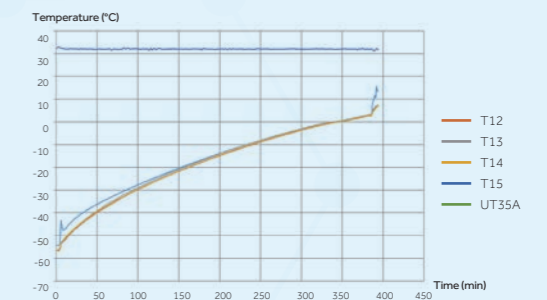
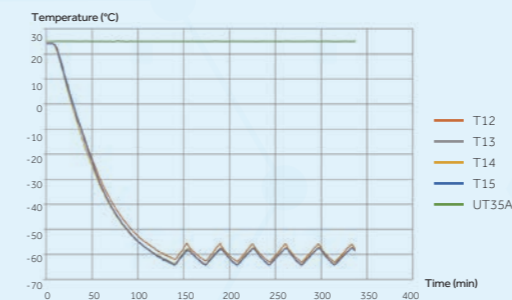


Key lock product protection and lockable casters for ease of moving and safe installation.



An easy to use, waterproof digital controller

## Temperature Curve



## Specifications

| Model                         | DW-60W138                   | DW-60W258      | DW-60W388      |                |                |
|-------------------------------|-----------------------------|----------------|----------------|----------------|----------------|
| Technical Data                | Cabinet Type                | Chest          | Chest          | Chest          |                |
|                               | Climate Class               | N              | N              | N              |                |
|                               | Cooling Type                | Direct Cooling | Direct Cooling | Direct Cooling |                |
|                               | Refrigerant                 | HC             | HC             | HC             |                |
|                               | Sound Level ((dB(A))        | 43             | 43             | 43             |                |
| Performance                   | Cooling Performance (°C)    | -60            | -60            | -60            |                |
|                               | Temperature Range (°C)      | -30~-60        | -30~-60        | -30~-60        |                |
| Control                       | Controller                  | Microprocessor | Microprocessor | Microprocessor |                |
|                               | Display                     | LED            | LED            | LED            |                |
| Electrical Data               | Power Supply (V/Hz)         | 220-240/50     | 220-240/50     | 220-240/50     |                |
|                               | Power (W)                   | 620            | 620            | 700            |                |
|                               | Electrical Current (A)      | 3.1            | 3.1            | 5.3            |                |
| Dimensions                    | Capacity (L/Cu.Ft)          | 138/4.9        | 258/9.1        | 388/13.7       |                |
|                               | Net/Gross Weight (approx)   | kg             | 62/75          | 88/108         | 105/130        |
|                               |                             | lbs            | 137/165        | 194/238        | 232/287        |
|                               | Interior Dimensions (W*D*H) | mm             | 580*445*620    | 1000*445*620   | 1450*445*620   |
|                               |                             | in             | 22.8*17.5*24.4 | 39.4*17.5*24.4 | 57.1*17.5*24.4 |
|                               | Exterior Dimensions (W*D*H) | mm             | 790*770*950    | 1210*770*950   | 1655*770*950   |
|                               |                             | in             | 31.1*30.3*37.4 | 47.6*30.3*37.4 | 65.2*30.3*37.4 |
|                               | Packing Dimensions (W*D*H)  | mm             | 815*800*990    | 1255*800*990   | 1695*800*990   |
| in                            |                             | 32.1*31.5*39   | 49.4*31.5*39   | 66.7*31.5*39   |                |
| Container Load (20'/40'/40'H) |                             | 28/56/56       | 22/46/46       | 14/28/28       |                |
|                               | Alarms                      | High/Low Temp  | Y              | Y              | Y              |
| Accessories                   | Sensor Error                | Y              | Y              | Y              |                |
|                               | Caster                      | Y              | Y              | Y              |                |
| Certification                 | Porthole                    | Y              | Y              | Y              |                |
|                               | CE                          | Y              | Y              | Y              |                |
|                               | MDR                         | Y              | Y              | Y              |                |

# -40°C Biomedical Freezer (Chest)

This product is designed to store vaccines, blood plasma and many other biological materials. Suitable for scientific research institutes, blood stations, hospitals, centers for disease control and prevention, and material science, electronics and chemical laboratories.



DW-40W138J/255J/380J

## Product Features



### Temperature Control

- Microcomputer control, digital temperature display, display precision is 0.1°C. Adjustable temperature set point -20°C~40°C
- User settable temperature alarms



### Safety System

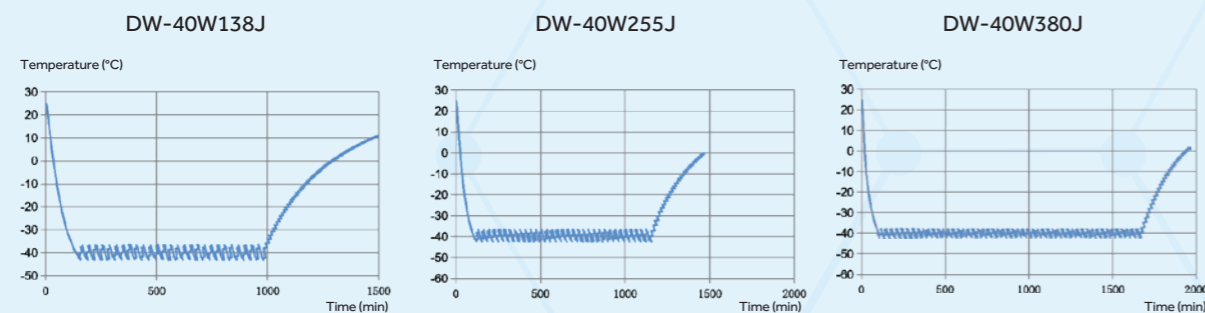
- Multiple alarms: high/low temperature alarm/sensor error alarm/power failure alarm. Optional high ambient warning and remote alarm contacts
- Battery backed-up alarm will alert for more than 24 hours in case of power failure
- Equipped with overcurrent protector for safety



### Refrigeration System

- Durable, market-leading brand compressors and EBM condensing fan ensure a high refrigeration efficiency and maximizes temperature performance
- High density insulation layer delivers superior insulation performance
- Evaporator and condenser design delivers excellent refrigeration efficiencies
- Non-toxic, environmentally-friendly hydrocarbon refrigerants

## Temperature Curve



## Specifications



| Model                         |                            | DW-40W138J                      | DW-40W255J                      | DW-40W380J                      |                |
|-------------------------------|----------------------------|---------------------------------|---------------------------------|---------------------------------|----------------|
| Technical Data                | Cabinet Type               | Chest                           | Chest                           | Chest                           |                |
|                               | Climate Class              | SN N                            | SN N                            | SN N                            |                |
|                               | Cooling Type               | Direct Cooling                  | Direct Cooling                  | Direct Cooling                  |                |
|                               | Defrost Mode               | Manual                          | Manual                          | Manual                          |                |
|                               | Refrigerant                | HC                              | HC                              | HC                              |                |
|                               | Sound Level (dB(A))        | 42                              | 42                              | 42                              |                |
|                               | Cooling Performance (°C)   | -40                             | -40                             | -40                             |                |
| Performance                   | Temperature Range (°C)     | -20~-40                         | -20~-40                         | -20~-40                         |                |
|                               | Controller                 | Microprocessor                  | Microprocessor                  | Microprocessor                  |                |
| Control                       | Display                    | LCD                             | LCD                             | LCD                             |                |
|                               | Power Supply (V/Hz)        | 220-240/50                      | 220-240/50                      | 220-240/50                      |                |
| Electrical Data               | Power (W)                  | 260                             | 370                             | 450                             |                |
|                               | Capacity (L/Cu.Ft)         | 138/4.9                         | 255/9.0                         | 380/13.4                        |                |
| Dimensions                    | Net/Gross Weight (approx)  | kg                              | 52/65                           | 76/96                           | 90/115         |
|                               |                            | lbs                             | 114.6/143.3                     | 167.5/211.6                     | 198.4/253.5    |
|                               | Interior Dimension (W×D×H) | mm                              | 580*445*620                     | 1000*445*620                    | 1450*445*620   |
|                               |                            | in                              | 22.8*17.5*24.4                  | 39.4*17.5*24.4                  | 57.1*17.5*24.4 |
|                               | Exterior Dimension (W×D×H) | mm                              | 790*770*950                     | 1210*770*950                    | 1655*770*950   |
|                               |                            | in                              | 31.1*30.3*37.4                  | 47.6*30.3*37.4                  | 65.2*30.3*37.4 |
|                               | Packing Dimension (W×D×H)  | mm                              | 840*810*1000                    | 1260*810*1000                   | 1710*815*990   |
|                               |                            | in                              | 33.1*31.9*39.4                  | 49.6*31.9*39.4                  | 67.3*32.1*39.0 |
| Container Load (20'/40'/40'H) |                            | 28/56/56                        | 16/36/54                        | 12/28/28                        |                |
| Alarms                        | High/Low Temperature       | Y                               | Y                               | Y                               |                |
|                               | Remote Alarm               | Optional                        | Optional                        | Optional                        |                |
|                               | Power Failure              | Y                               | Y                               | Y                               |                |
|                               | Sensor Error               | Y                               | Y                               | Y                               |                |
|                               | Low Battery                | N                               | N                               | N                               |                |
|                               | High Ambient Temperature   | Optional                        | Optional                        | Optional                        |                |
|                               | Dirty Condenser            | N                               | N                               | N                               |                |
|                               | Door Ajar                  | N                               | N                               | N                               |                |
|                               | Casters                    | Y(4)                            | Y(4)                            | Y(4)                            |                |
|                               | Leveling Feet              | N                               | N                               | N                               |                |
| Accessories                   | Porthole                   | Y, 1*left side, (25mm) Diameter | Y, 1*left side, (25mm) Diameter | Y, 1*left side, (25mm) Diameter |                |
|                               | Inner Doors                | N                               | N                               | N                               |                |
|                               | Drawers                    | N                               | N                               | N                               |                |
|                               | Shelves                    | N                               | N                               | N                               |                |
|                               | StorageBasket              | 1                               | 2                               | 6                               |                |
|                               | USB Interface              | Optional                        | Optional                        | Optional                        |                |
|                               | RS485                      | Optional                        | Optional                        | Optional                        |                |
|                               | NFC                        | N                               | N                               | N                               |                |
|                               | Temperature Recorder       | N                               | N                               | N                               |                |
|                               | Others                     | Certificate                     | CE, MDR                         | CE, MDR                         | CE, MDR        |

# -40°C Biomedical Freezer (Upright)

Suitable for the storage of plasma, biological material, reagents and other essential items. Used within hospitals, disease prevention, academia and commercial laboratories.



DW-40L298J

## Product Features



### HC Energy-saving

High efficiency hydrocarbon compressor and refrigeration technology for a lower energy consumption



### Superior Uniformity

With the optimized system design, the temperature uniformity of the characteristic point is  $\pm 3^{\circ}\text{C}$ , and the uniformity of the whole temperature zone is controlled within  $\pm 5^{\circ}\text{C}$



### Environmental Protection

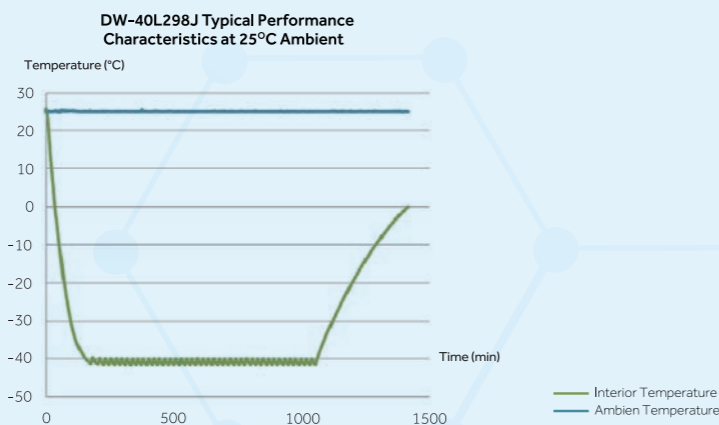
Hydrocarbon refrigerant, LBA foam polyurethane insulation layer



### Adjustable Shelves

Built-in evaporator and adjustable shelves provides large available interior space. Users can store items of different sizes as needed

## Temperature Curve



## Specifications




| Model                         |                                | DW-40L92                       | DW-40L262                                    | DW-40L298J                                   | DW-40L298JA                                  | DW-40L568J     |                |
|-------------------------------|--------------------------------|--------------------------------|--|--|--|----------------|----------------|
| Technical Data                | Cabinet Type                   | Upright                        | Upright                                      | Upright                                      | Upright                                      | Upright        |                |
|                               | Climate Class                  | SNN                            | SNN  | SNN  | SNN  | SNN            |                |
|                               | Cooling Type                   | Direct Cooling                 | Direct Cooling                               | Direct Cooling                               | Direct Cooling                               | Direct Cooling |                |
|                               | Defrost Mode                   | Manual                         | Manual                                       | Manual                                       | Manual                                       | Manual         |                |
|                               | Refrigerant                    | HC                             | HC   | CFC-Free                                     | HC   | HC             |                |
|                               | Sound Level (dB(A))            | 29                             | 41   | 44   | 40   | 42             | 45             |
| Performance                   | Cooling Performance (°C)       | -40                            | -40  | -40  | -40  | -40            |                |
|                               | Temperature Range (°C)         | -20--40                        | -20--40                                      | -20--40                                      | -20--40                                      | -20--40        |                |
| Control                       | Controller                     | Microprocessor                 | Microprocessor                               | Microprocessor                               | Microprocessor                               | Microprocessor |                |
|                               | Display                        | LCD                            | LCD  | LED  | LCD  | LCD            |                |
| Electrical Data               | Power Supply (V/Hz)            | 220-240/50/60                  | 220-240/50/60                                | 115/60                                       | 220-240/50                                   | 208-230/60     | 220-240/50     |
|                               | Power (W)                      | 340                            | 310  | 600  | 350  | 270            | 340            |
| Dimensions                    | Capacity (L/Cu.Ft)             | 92/3.3                         | 262/9.3                                      | 298/10.5                                     | 298/10.5                                     | 568/20.1       |                |
|                               | Net/Gross Weight (approx)      | kg                             | 46/51  | 88/93  | 119/147                                      | 119/147        | 190/215        |
|                               |                                | lbs                            | 101.4/112.4                                  | 194.0/205.0                                  | 262.3/324.1                                  | 262.3/324.1    | 418.9/474      |
|                               | Interior Dimension (W×D×H)     | mm                             | 435*410*635                                  | 480*465*1430                                 | 541*443*1218                                 | 541*443*1218   | 610*755*1260   |
|                               |                                | in                             | 17.1*16.1*25.0                               | 18.9*18.3*56.3                               | 21.3*17.4*48.0                               | 21.3*17.4*48.0 | 24*29.7*49.6   |
|                               | Exterior Dimension (W×D×H)     | mm                             | 640*610*810                                  | 700*705*1665                                 | 770*710*1828                                 | 770*710*1828   | 848*951*1780   |
|                               |                                | in                             | 25.2*24.0*31.9                               | 27.6*27.8*65.6                               | 30.3*28.0*72.0                               | 30.3*28.0*72.0 | 33.4*37.4*70.1 |
| Packing Dimension (W×D×H)     | mm                             | 660*700*910                    | 775*760*1880                                 | 840*770*2000                                 | 840*770*2000                                 | 910*1040*1930  |                |
| in                            | 26.0*27.6*35.8                 | 30.5*29.9*74.0                 | 33.0*30.3*78.7                               | 33.0*30.3*78.7                               | 35.8*40.9*76.0                               |                |                |
| Container Load (20'/40'/40'H) |                                | 48/108/108                     | 21/45/45                                     | 21/42/42                                     | 21/42/42                                     | 10/22/22       |                |
| Alarms                        | High/Low Temperature           | Y                              | Y  | Y  | Y  | Y              |                |
|                               | Remote Alarm                   | Y                              | Y  | Y  | Y  | Y              |                |
|                               | Power Failure                  | Y                              | Y  | Y  | Y  | Y              |                |
|                               | Sensor Error                   | Y                              | Y  | Y  | Y  | Y              |                |
|                               | Low Battery                    | N                              | N  | Y  | Y  | N              |                |
|                               | High Ambient Temperature       | Y                              | Y  | Y  | Y  | Y              |                |
|                               | Dirty Condenser                | Y                              | N  | N  | N  | N              |                |
|                               | Door Ajar                      | Y                              | Y  | Y  | Y  | Y              |                |
|                               | Accessories                    |                                |  |  |  |                |                |
| Casters                       | Y(4)                           | Y(4)                           | Y(4)   | Y(4)   | Y(4)   |                |                |
| Leveling Feet                 | Y(2)                           | Y(2)                           | Y(2)   | Y(2)   | Y(2)   |                |                |
| Porthole                      | Y, 1*Left Side, (25mm)Diameter | Y, 1*Left Side, (25mm)Diameter | Y, 1*Left Side, 1*Right Side, (25mm)Diameter | Y, 1*Left Side, 1*Right Side, (25mm)Diameter | Y, 2*Rears, (25mm)Diameter                   |                |                |
| Inner Doors                   | N                              | N                              | 2  | 2  | 2  |                |                |
| Drawers                       | 3- Plastic Drawers             | 7- Plastic Drawers             | Drawers, Optional                            | Drawers, Optional                            | 16/20/24-plastic blood bag drawers, optional |                |                |
| Shelves                       | N                              | N                              | 3- Adjustable Wire Shelves                   | 3- Adjustable Wire Shelves                   | 3- Adjustable Wire Shelves                   |                |                |
| Shelf Dimensions (W×D)(mm)    | N                              | N                              | 518*373                                      | 518*373                                      | 569*665                                      |                |                |
| Max. Load per Shelf (kg)      | N                              | N                              | 20   | 20   | 38   |                |                |
| USB Interface                 | Optional                       | Optional                       | Optional                                     | Optional                                     | Optional                                     |                |                |
| RS485                         | Optional                       | Optional                       | Optional                                     | Optional                                     | Optional                                     |                |                |
| NFC                           | N                              | N                              | N  | N  | N  |                |                |
| Temperature Recorder          | N                              | N                              | Optional                                     | Optional                                     | Optional                                     |                |                |
| Others                        | Certificate                    | CE, MDR                        | CE, MDR                                      | /  | CE, MDR                                      | CE, MDR        |                |

# -40°C Biomedical Freezer (Double Doors Type)

Suitable for the storage of plasma, biological material, reagents and other essential items. Used within hospitals, disease prevention, academia and commercial laboratories.

## Product Features

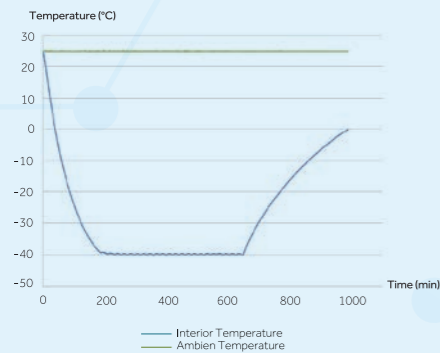
- 
**HC Energy-saving**  
 High efficiency hydrocarbon compressor and refrigeration technology for a lower energy consumption
- 
**Superior Uniformity**  
 With the optimized system design, the temperature uniformity of the characteristic point is  $\pm 3^{\circ}\text{C}$ , and the uniformity of the whole temperature zone is controlled within  $\pm 5^{\circ}\text{C}$
- 
**Environmental Protection**  
 Hydrocarbon refrigerant, LBA foam polyurethane insulation layer
- 
**Adjustable Shelves**  
 Built-in evaporator and adjustable shelves provides large available interior space. Users can store items of different sizes as needed



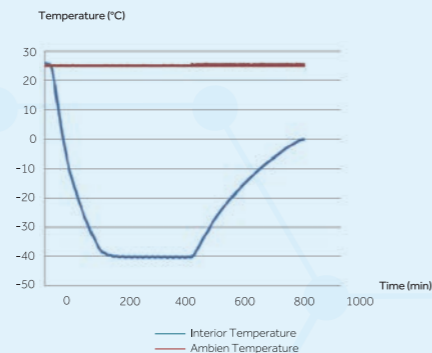
DW-40L418D/528D

## Temperature Curve

DW-40L418D Typical Performance Characteristics at 25°C Ambient



DW-40L528D Typical Performance Characteristics at 25°C Ambient



## Specifications



| Model                         | DW-40L418D                 | DW-40L528D                                | DW-40L528DA                               |                |
|-------------------------------|----------------------------|---|---|----------------|
| Technical Data                | Cabinet Type               | Upright (Double Door)                     |   |                |
|                               | Climate Class              | SN N                                      |   |                |
|                               | Cooling Type               | Direct Cooling                            |   |                |
|                               | Defrost Mode               | Manual                                    |   |                |
|                               | Refrigerant                | HC  |   |                |
|                               | Sound Level (dB(A))        | 40  | 39  | 42             |
| Performance                   | Cooling Performance (°C)   | -40                                       |   |                |
|                               | Temperature Range (°C)     | -20~-40                                   |   |                |
| Control                       | Controller                 | Microprocessor                            |   |                |
|                               | Display                    | LED                                       |   |                |
| Electrical Data               | Power Supply (V/Hz)        | 220-240/50                                | 208-230/60                                |                |
|                               | Power (W)                  | 370                                       | 375                                       | 280            |
| Dimensions                    | Capacity (L/Cu.Ft)         | 418/14.8                                  | 531/18.8                                  |                |
|                               | Net/Gross Weight (approx)  | kg  | 141/169                                   | 147/178        |
|                               |                            | lbs                                       | 310.8/372.6                               | 324.1/392.4    |
|                               | Interior Dimension (W×D×H) | mm  | 554*620*1230                              | 704*620*1230   |
|                               |                            | in  | 21.8*24.4*48.4                            | 27.7*24.4*48.4 |
|                               | Exterior Dimension (W×D×H) | mm  | 790*845*1878                              | 940*845*1878   |
|                               |                            | in  | 31.1*33.3*73.9                            | 37.0*33.3*73.9 |
|                               | Packing Dimension (W×D×H)  | mm  | 860*930*2040                              | 1005*940*2040  |
| in                            |                            | 33.9*36.6*80.3                            | 39.6*37.0*80.3                            |                |
| Container Load (20'/40'/40'H) | 12/24/26                   | 10/22/24                                  |   |                |
| Alarms                        | High/Low Temperature       | Y   | Y   |                |
|                               | Remote Alarm               | Y   | Y   |                |
|                               | Power Failure              | Y   | Y   |                |
|                               | Sensor Error               | Y   | Y   |                |
|                               | Low Battery                | Y   | Y   |                |
|                               | High Ambient Temperature   | Y   | Y   |                |
|                               | Dirty Condenser            | N   | N   |                |
|                               | Door Ajar                  | Y   | Y   |                |
|                               | Casters                    | Y(4)                                      | Y(4)                                      |                |
|                               | Leveling Feet              | Y(2)                                      | Y(2)                                      |                |
| Accessories                   | Porthole                   | Y,1*Left Side,1*Right Side,(25mm)Diameter | Y,1*Left Side,1*Right Side,(25mm)Diameter |                |
|                               | Inner Doors                | N   | N   |                |
|                               | Drawers                    | 12- Plastic Drawers, Optional             | 10- Plastic Drawers, Optional             |                |
|                               | Shelves                    | 3- Adjustable Wire Shelves                | 3- Adjustable Wire Shelves                |                |
|                               | Shelf Dimensions (W×D)(mm) | 530*528                                   | 680*537                                   |                |
|                               | Max. Load per Shelf (kg)   | 28  | 37  |                |
|                               | USB Interface              | Optional                                  | Optional                                  |                |
|                               | RS485                      | Optional                                  | Optional                                  |                |
|                               | NFC                        | N   | N   |                |
|                               | Temperature Recorder       | Optional                                  | Optional                                  |                |
| Others                        | Certificate                | CE, MDR                                   | CE, MDR                                   |                |

## -40°C Smart Frequency Conversion Biomedical Freezer

## -40°C Biomedical Freezer



### Product Features

- High-efficiency and energy-saving compressor and system**  
 Optimized refrigeration system with a high efficiency inverter compressor to reduce energy consumption
- Green and environmentally friendly**  
 Hydrocarbon refrigerant, energy saving and environmental protection, built with Urethane foam insulation complies with European ROHS regulation
- Superior temperature uniformity in a large storage space**  
 Built-in evaporator design, and the shelf height can be adjusted according to the size of the stored articles, so as to realize the efficient use of large space in the cabinet.  
 The temperature uniformity is  $\pm 3^{\circ}\text{C}$  with the setting temperature of  $-40^{\circ}\text{C}$ .
- Low sound level**  
 Noise level less than 45 dB(A), providing a more comfortable environment.

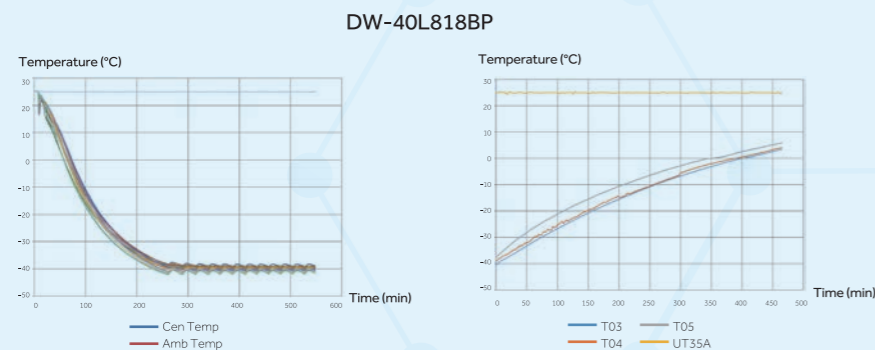
DW-40L818BP

### Ergonomic Design

- Microprocessor-controlled system**  
 Microprocessor control, with temperature display precision at  $0.1^{\circ}\text{C}$ . Internal temperature is adjustable from  $-20^{\circ}\text{C}$  to  $-40^{\circ}\text{C}$ .
- Multiple alarm functions**  
 Including high/ low temperature, sensor error, power failure, low battery, high ambient, and door ajar alarms. Alarm mode is sound and flash. And the remote alarm interface is available

- Configuration**  
 Standard: RS485 interface  
 Optional: Temperature recorder, USB interface, 10-inch touch screen Stainless steel shelves, Blood basket, Plastic blood bag drawers
- Safe and secure**  
 Equipped with key lock, padlock, optional electronic lock, providing multiple safeguards for sample safety
- Porthole**  
 Two portholes as standard, allows for independent testing of cabinet temperature

### Temperature Curve



### Application Range

Used in the blood banks, hospitals, disease control centers, research institutes, electronic, chemical and other industries, cryopreservation of plasma, biologics and other products, and cold tests for components and materials.

### Product Features

- High-efficiency and Energy-saving Compressor and System**  
 Optimized refrigeration system with a high efficiency inverter compressor to reduce energy consumption.
- Green and Environmental Friendly**  
 Hydrocarbon refrigerant, energy saving and environmental protection, built with urethane foam insulation complies with European ROHS regulation.
- Low Sound Level**  
 Noise level less than 42dB(A), providing a more comfortable environment.
- Superior Temperature Uniformity**  
 The temperature uniformity is  $\pm 3^{\circ}\text{C}$  with the setting temperature of  $-40^{\circ}\text{C}$ .
- IntelligentControl**  
 10-inch high-performance touch screen, sensitive touch operation. Users can check the real-time operating status

### Ergonomic Design

- Microprocessor-controlled System**  
 Microprocessor control, with temperature display precision at  $0.1^{\circ}\text{C}$ . Internal temperature is adjustable from  $-20^{\circ}\text{C}$  to  $-40^{\circ}\text{C}$ .
- Multiple Alarm Functions**  
 Including high/ low temperature, sensor error, power failure, low battery, high ambient, and door ajar alarms. Alarm mode is sound and flash. And the remote alarm interface is available.
- Super-large Capacity**  
 Large capacity (700 2-inch box) to accommodate the multiple storage needs.
- Configuration**  
 Standard: 10-inch touch screen, RS485 interface, 2 coated steel wired shelves.  
 Optional: Temperature recorder, Printer, USB interface, NCF, IoT module, Stainless steel shelves, Plastic blood bag drawers
- Safe and Secure**  
 Equipped with key lock, padlock, optional electronic lock, providing multiple safeguards for sample safety.

# -40°C Biomedical Freezer

## Product Parts

Document holding compartment for storing size A4 paper and pens

10-inch touchscreen

NFC clocking-in function (optional)

Optional USB port allows users to download temperature data saved up to 10 years for compliance and auditing purposes

Casters and leveling legs for ease of maneuvering and positioning



DW-40L959BPT



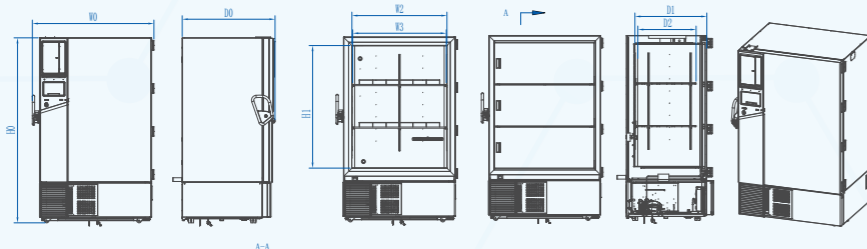
Shelf height can be adjusted according to the size of the stored articles, so as to realize the efficient use of large space in the cabinet (SUS304 stainless shelves as optional)

Pressure equalization port for easy door opening

Ergonomic handle design: easy access to storage space, built in lock and padlock features

Two standard portholes allow ease of temperature testing

## Product Dimension Drawings



Remark  
 W0=Total Width  
 W1=Freezer Width  
 W2=Inner Cabinet Width  
 W3=Inner Cabinet Shelf Width  
 D0=Total Depth  
 D1=Inner Cabinet Depth  
 D2=Inner Cabinet Shelf Depth  
 H0=Total Height  
 H1=Inner Cabinet Height

| Model        | Code | W0     | W1     | W2     | W3     | D0    | D1    | D2    | H0     | H1     |
|--------------|------|--------|--------|--------|--------|-------|-------|-------|--------|--------|
| DW-40L959BPT |      | 1296mm | 1196mm | 1016mm | 1008mm | 998mm | 716mm | 641mm | 1980mm | 1310mm |

## Specifications



| Model                         | DW-40L818BPT                            | DW-40L818BP                             | DW-40L959BPT                               | DW-40L959BP                                |
|-------------------------------|---|---|--|--|
| <b>Technical Data</b>         |   |   |  |  |
| Cabinet Type                  | Upright                                 | Upright                                 | Upright                                    | Upright                                    |
| Climate Class                 | SNN                                     | SNN                                     | SNN  | SNN  |
| Cooling Type                  | Direct Cooling                          | Direct Cooling                          | Direct Cooling                             | Direct Cooling                             |
| Defrost Mode                  | Manual                                  | Manual                                  | Manual                                     | Manual                                     |
| Refrigerant                   | HC                                      | HC                                      | HC   | HC   |
| Sound Level (dB(A))           | 44                                      | 44                                      | 42   | 42   |
| <b>Performance</b>            |   |   |  |  |
| Cooling Performance (°C)      | -40                                     | -40                                     | -40  | -40  |
| Temperature Range (°C)        | -20~-40                                 | -20~-40                                 | -20~-40                                    | -20~-40                                    |
| <b>Control</b>                |   |   |  |  |
| Controller                    | Microprocessor                          | Microprocessor                          | Microprocessor                             | Microprocessor                             |
| Display                       | Touch Screen LCD                        | LED                                     | Touch Screen LCD                           | LED  |
| <b>Electrical Data</b>        |   |   |  |  |
| Power Supply (V/Hz)           | 100-230/50/60                           | 100-230/50/60                           | 100-230/50/60                              | 100-230/50/60                              |
| Power (W)                     | 795                                     | 795                                     | 800  | 800  |
| <b>Dimensions</b>             |   |   |  |  |
| Capacity (L/Cu.Ft)            | 818/28.9                                | 818/28.9                                | 959/33.9                                   | 959/33.9                                   |
| Net/Gross Weight (approx)     | kg                                      | 210/240                                 | 210/240                                    | 350/400                                    |
|                               | lbs                                     | 463.0/529.1                             | 463.0/529.1                                | 771.6/881.8                                |
| Interior Dimension (W×D×H)    | mm                                      | 750*755*1460                            | 750*755*1460                               | 1016*716*1310                              |
|                               | in                                      | 29.5*29.7*57.5                          | 29.5*29.7*57.5                             | 40.0*28.2*51.6                             |
| Exterior Dimension (W×D×H)    | mm                                      | 988*951*1980                            | 988*951*1980                               | 1296*998*1980                              |
|                               | in                                      | 38.9*37.4*78.0                          | 38.9*37.4*78.0                             | 51.0*39.3*78.0                             |
| Packing Dimension (W×D×H)     | mm                                      | 1040*1035*2110                          | 1040*1035*2110                             | 1358*1098*2127                             |
|                               | in                                      | 40.9*40.7*83.1                          | 40.9*40.7*83.1                             | 53.5*43.2*83.7                             |
| Container Load (20'/40'/40'H) |   | 10/22/22                                | 10/22/22                                   | 8/16/16                                    |
| <b>Alarms</b>                 |   |   |  |  |
| High/Low Temperature          | Y                                       | Y                                       | Y  | Y  |
| Remote Alarm                  | Y                                       | Y                                       | Y  | Y  |
| Power Failure                 | Y                                       | Y                                       | Y  | Y  |
| Sensor Error                  | Y                                       | Y                                       | Y  | Y  |
| Low Battery                   | Y                                       | Y                                       | Y  | Y  |
| High Ambient Temperature      | Y                                       | Y                                       | Y  | Y  |
| Dirty Condenser               | N                                       | N                                       | N  | N  |
| Door Ajar                     | Y                                       | Y                                       | Y  | Y  |
| <b>Accessories</b>            |   |   |  |  |
| Casters                       | Y(4)                                    | Y(4)                                    | Y(4)                                       | Y(4)                                       |
| Leveling Feet                 | Y(2)                                    | Y(2)                                    | Y(2)                                       | Y(2)                                       |
| Porthole                      | Y, 2*rear, (25mm)Diameter               | Y, 2*rear, (25mm)Diameter               | Y, 2*rear, (25mm)Diameter                  | Y, 2*rear, (25mm)Diameter                  |
| Inner Doors                   | 3                                       | 3                                       | 3  | 3  |
| Drawers                       | 30- Plastic Blood Bag Drawers, Optional | 30- Plastic Blood Bag Drawers, Optional | 21/42- Plastic Blood Bag Drawers, Optional | 21/42- Plastic Blood Bag Drawers, Optional |
| Shelves                       | 5- Adjustable Wire Shelves              | 5- Adjustable Wire Shelves              | 2- Adjustable Wire Shelves                 | 2- Adjustable Wire Shelves                 |
| Shelf Dimensions (W×D)(mm)    | 706*665                                 | 706*665                                 | 1000*641                                   | 1000*641                                   |
| Max. Load per Shelf (kg)      | 50                                      | 50                                      | 65   | 65   |
| USB Interface                 | Optional                                | Optional                                | Optional                                   | Optional                                   |
| RS485                         | Y                                       | Y                                       | Y  | Y  |
| NFC                           | Optional                                | Optional                                | Optional                                   | Optional                                   |
| Temperature Recorder          | Optional                                | Optional                                | Optional                                   | Optional                                   |
| <b>Others</b>                 |   |   |  |  |
| Certificate                   | CE, UL, MDR                             | CE, UL, MDR                             | CE, UL, MDR                                | CE, UL, MDR                                |



# -30°C Biomedical Freezer (Forced Air Cooling)

## Typical Installation and Application

Large capacity, double door biomedical freezer, designed and manufactured for the low temperature storage of plasma, biological products and other items.



**DW-30L1280F**

### Key Features



**Intelligent Defrosting: Prolongs the Defrosting Cycle, Safeguarding the Stability of the Storage Temperature**

Compared with traditional timed defrosting, the intelligent defrosting technology reduces the defrosting frequency by half, effectively draws down the temperature fluctuation caused by defrosting during the sample storage cycle by intelligently identifying the amount of frost on the evaporator.



**Dual Independent Refrigeration Systems: Superior Safety**

If one system fails, the other one would reach -25°C quickly, which doubles the safety of the sample; With air cooling technology, the inside uniformity can reach ±3°C (±5°C during the defrosting period).



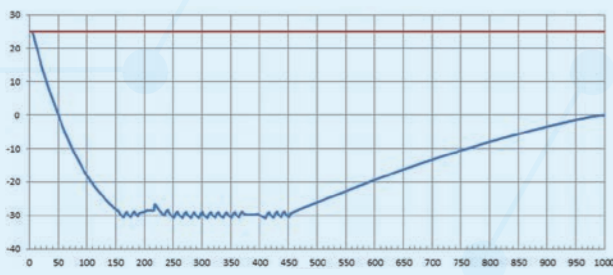
**Advanced Defrosting Technology Optimised Safety**

The automatic hot gas defrosting technology eliminates the risk of electrical leakage which can occur with heated wire defrosting techniques.

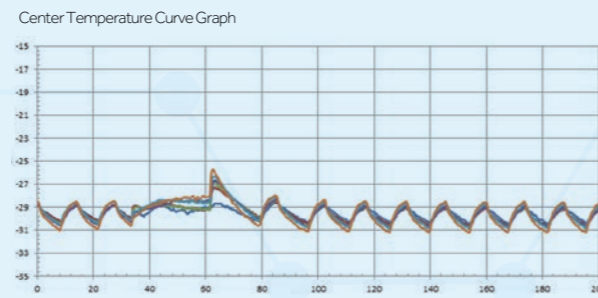


**Green Hydrocarbon Refrigeration**

The DW-30L1280F utilises HC refrigeration technology which is energy-efficient and has a zero impact on the ozone layer. The energy consumption of this model is 8kW/24H.



— center of the four-storey inside cabinet  
— ambient temperature



— 5th storey center — 3th storey center — 1th storey center  
— 6th storey center — 4th storey center — 2th storey center

### Product Parts

Microcomputer control, LED digital temperature display with inside temperature accuracy of 0.1°C



Optional: LCD Touchscreen



Supersized double outer doors, 70mm insulation layer



**Safe lock**  
Electronic mortise lock design, with NFC clocking-in function (fingerprint optional)

**Casters and feet**  
4 omnidirectional casters + 2 level legs, easy to move, lock and level



**Bottom strainer drawable design**  
Easy to clean

**Optimized system**  
Ensures fast cool down, reaches -30°C within 3 hours

**Standard USB port**  
Capable of storing more than 15 years of data



Follow the QR code and learn more about the Cryogenic Freezer DW-30L1280F from Haier Biomedical

## -30°C Biomedical Freezer (Forced Air Cooling)

### Application Range

Applied for the storage of critical and temperature sensitive biological samples, laboratory products and medical products. Suitable for blood banks, hospitals, disease control centers, research laboratories.

### Product Features

- Forced Air and Auto Defrost Design**  
 -30°C storage temperature with automatic defrost cycles guided by time and temperature, ensure maximum temperature stability and minimize energy consumption
- Superior Temperature Uniformity**  
 The temperature uniformity is  $\pm 3^{\circ}\text{C}$  with the setting temperature of  $-30^{\circ}\text{C}$
- High-Efficiency and Energy-Saving Compressor and System**  
 High-efficiency hydrocarbon compressor, optimized refrigeration system and low power consumption
- Green and Environmentally Friendly**  
 Hydrocarbon refrigerant, energy saving and environmental protection, built with LBA foam insulation, the GWP is close to 0
- Microprocessor-Controlled System**  
 Microprocessor control, with temperature display precision at  $0.1^{\circ}\text{C}$ . Internal temperature is adjustable from  $-10^{\circ}\text{C}$  to  $-30^{\circ}\text{C}$
- Configuration**  
 • Standard: 4 layer adjustable shelves  
 • Optional: 10-inch touch screen, USB interface, NFC, chart recorder, stainless steel shelf, blood basket
- Safe and Secure**  
 Designed with key lock, padlock, optional electronic lock, providing multiple safeguards for sample safety
- Low Noise Design**  
 Noise-reduction features and structure noise reduction design
- Multiple Alarm Functions**  
 Including high/low temperature alarm, sensor error alarm, power failure alarm, low battery alarm, door ajar alarm, high ambient temperature alarm, condenser dirty alarm. Alarm mode is sound and flash

### Product Parts

**Exceptional cooling**  
 Air-forced cooling combined with automatic defrost technology for high-performance cooling

**Access port**  
 Designed with two standard access ports on the left and right sides of the freezer, convenient for users to conduct independent testing

**Adjustable shelves**  
 4 adjustable shelves, (optional: stainless steel shelf, plastic blood bag drawers)

**Safe and secure**  
 Designed with key lock, padlock, optional electronic lock, providing multiple safeguards for sample safety

**Feet and casters**  
 4 back-and-forth casters and 2 adjustable feet for easy moving and leveling

**Microprocessor temperature control, LED display panel (optional: 10-inch touch screen)**  
 LED displays cabinet temperature with  $0.1^{\circ}\text{C}$  resolution, ambient temperature, and input voltage

Optional: LCD Touchscreen



## -30°C Biomedical Freezer (Forced Air Cooling)

## -30°C Smart Frequency Conversion Biomedical Freezer

### Specifications



| Model                         |  | DW-30L520F         |  | DW-30L1280F           |                |
|-------------------------------|--|--------------------|--|-----------------------|----------------|
| Technical Data                | Cabinet Type                                 | Upright            |  | Upright (Double Door) |                |
|                               | Climate Class                                | SNN                |  | N                     |                |
|                               | Cooling Type                                 | Forced Air Cooling |  | Forced Air Cooling    |                |
|                               | Defrost Mode                                 | Automatic Defrost  |  | Automatic Defrost     |                |
|                               | Refrigerant                                  | HC                 |  | HC                    |                |
|                               | Sound Level (dB (A))                         | 44                 | 45   | 46                    |                |
| Performance                   | Cooling Performance (°C)                     | -30                |  | -30                   |                |
|                               | Temperature Range (°C)                       | -10~-30            |  | -10~-30               |                |
| Control                       | Controller                                   | Microprocessor     |  | Microprocessor        |                |
|                               | Display                                      | LED                |  | LED                   |                |
| Electrical Data               | Power Supply (V/Hz)                          | 220-240/50         | 208-230/60                                   | 220-240/50            |                |
|                               | Power (W)                                    | 650                | 495  | 900                   |                |
| Dimensions                    | Capacity (L/Cu.Ft)                           | 520/18.4           |  | 1280/45.2             |                |
|                               | Net/Gross Weight (approx)                    | kg                 | 210/252                                      |                       | 420/480        |
|                               |  | lbs                | 463.0/555.6                                  |                       | 925/1057       |
|                               | Interior Dimension (W×D×H)                   | mm                 | 610*755*1006                                 |                       | 1320*752*1260  |
|                               |  | in                 | 24*29.7*39.6                                 |                       | 52*29.6*49.6   |
|                               | Exterior Dimension (W×D×H)                   | mm                 | 848*1011*1780                                |                       | 1520*1065*1996 |
|                               |  | in                 | 33.4*39.8*70.1                               |                       | 59.8*41.9*78.6 |
| Packing Dimension (W×D×H)     | mm   | 900*1060*1920      |  | 1580*1100*2100        |                |
|                               | in   | 35.4*41.7*75.6     |  | 62.2*43.3*82.7        |                |
| Container Load (20'/40'/40'H) | 10/22/22                                     |                    | 6/14/14                                      |                       |                |
| Alarms                        | High/Low Temperature                         | Y                  |  | Y                     |                |
|                               | Remote Alarm                                 | Y                  |  | Y                     |                |
|                               | Power Failure                                | Y                  |  | Y                     |                |
|                               | Sensor Error                                 | Y                  |  | Y                     |                |
|                               | Low Battery                                  | Y                  |  | Y                     |                |
|                               | High Ambient Temperature                     | Y                  |  | Y                     |                |
|                               | Dirty Condenser                              | Y                  |  | Y                     |                |
|                               | Door Ajar                                    | Y                  |  | Y                     |                |
|                               | Casters                                      | Y (4)              |  | Y (4)                 |                |
| Leveling Feet                 | Y (2)  |                    | Y (2)  |                       |                |
| Porthole                      | Y, 1*Left Side, 1*Right Side, (25mm)Diameter |                    | Y, 1*Left Side, 1*Right Side, (25mm)Diameter |                       |                |
| Inner Doors                   | N  |                    | N  |                       |                |
| Drawers                       | 16/20-plasticbloodbagdrawers,optional        |                    | 48- Plastic Blood Bag Drawers, Optional      |                       |                |
| Shelves                       | 4- Adjustable Wire Shelves                   |                    | 12- Adjustable Stainless Steel Shelves       |                       |                |
| Accessories                   | Shelf Dimensions (W×D)(mm)                   | 580*670            |  | 569*673               |                |
|                               | Max. Load per Shelf (kg)                     | 39                 |  | 40                    |                |
|                               | USB Interface                                | Optional           |  | Y                     |                |
|                               | RS485  | Y                  |  | Y                     |                |
|                               | NFC  | Optional           |  | Y                     |                |
|                               | Temperature Recorder                         | Optional           |  | N                     |                |
|                               | Others                                       | Certificate        | CE, MDR                                      | /                     | CE, MDR        |

### Typical Installation and Application

Suitable for sample storage within blood banks, hospitals, disease control centres, research institutes, electronic, chemical and other industries, cryopreservation of plasma, biologics and other products, also suitable for cold tests for components and materials.



DW-30L818BP

### Key Features

- Energy-efficient Variable Frequency Inverter Technology**  
 Optimized refrigeration system with a high-efficiency inverter compressor to reduce energy consumption.
- Large Capacity Storage with Excellent Temperature Uniformity**  
 The unit offers a large storage space with adjustable shelves, the built-evaporator ensures quick temperature pull down times and excellent temperature uniformity of ±3°C.
- Low Noise**  
 Sound reduction design lowers the sound level to 37dB(A) at 220V/50Hz.
- Environment Friendly**  
 1) HC refrigeration system contains zero chlorine and fluorine, which is better for the environment.  
 2) Urethane foam insulation complies with European ROHS regulation.



# -30°C Smart Frequency Conversion Biomedical Freezer

## Product Advantages

**DW-30L818BP**

- Optional USB port allows users to download temperature data saved up to 10 years for compliance and auditing purposes.
- Ergonomic Design: document holding compartment for storing size A4 paper and pens.
- Ergonomic handle design: easy access to storage space, built in lock and padlock features.
- Microprocessor temperature control: LED displays cabinet temperature with 0.1°C resolution, ambient temperature, and input voltage.
- Casters and leveling legs for ease of maneuvering and positioning.
- Double door seals for better insulation performance.
- Pressure equalization port for easy door opening.
- Inner door design reduces loss of cold air to improve energy efficiency and stable temperature.
- Optional stainless steel shelves or coated steel are adjustable.
- Power coating galvanized interior with large round corner design, corrosion resistance and easy to clean.
- Plastic blood bag drawer (optional): 25 blood bags (450ml/bag) can be loaded for one drawer, totally 750 blood bags for 30 drawers. (Note: The dimension of one blood bag is 125\*26\*190mm).

## Microprocessor Control System

- Microprocessor-based temperature control.
- Large LED displays cabinet temperature with 0.1 °C resolution with adjustable temperature setting from -10 °C to -30 °C.
- Cabinet temperature, ambient temperature and voltage are shown on the panel.
- Alarm conditions include high and low temperature, sensor error, power failure, low battery, door ajar and high ambient.
- Alarm modes are audible and flashing lights. Remote alarm terminals are available.
- Battery supports display and alarm system for forty-eight hours after power outage.
- Optional features are IoT module, USB port, temperature recorder and NFC swipe card functions.

## Insulation

- 70 mm thick insulation.
- Inner doors for better thermal efficiency.

## Porthole

Two standard portholes allow ease of temperature testing.

## Security Lock

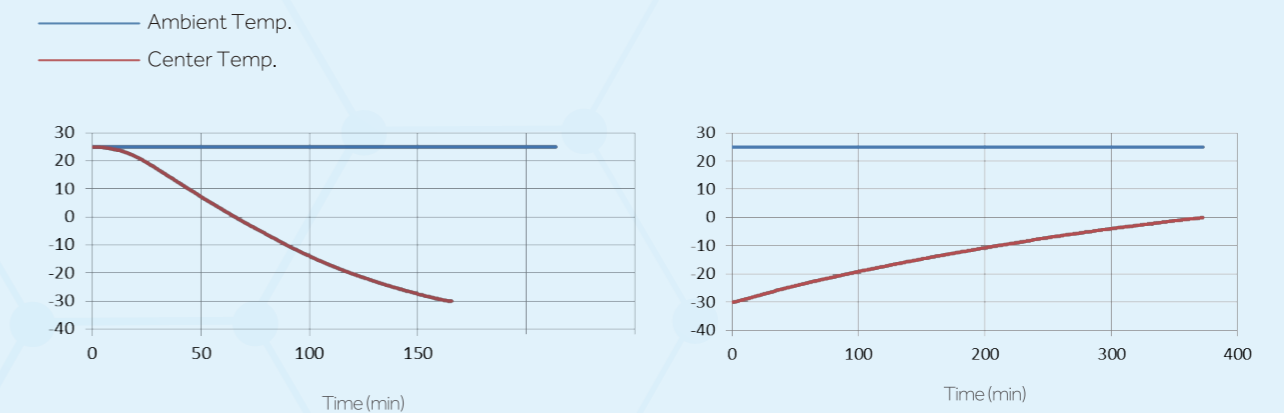
Lock is standard. Magnetic lock is optional for added protection and security

## Temperature Recorder

Optional temperature recorder for temperature recording and compliance.



## Typical Performance Characteristics at 25°C ambient



# -30°C Biomedical Freezer (Direct Cooling)

## Typical Installation and Application

For use in blood banks, hospitals, research institutions, electronics, chemical and other industries, for the preservation of plasma and biological products and cryogenic test of components and materials.

### Key Features



#### Energy Efficient Hydrocarbon (HC) Refrigeration System

Optimized refrigeration system, utilising high-efficiency HC compressor significantly reduces energy consumption.



#### Greener By Design

HC refrigerants are natural non-toxic and more environmentally friendly than HFC refrigerants. This alongside the HC compressor technology and LBA foamed polyurethane insulation layer, make this unit greener and in-line with European ROHS directives and environmental protection guidelines.



#### Large Capacity, Superior Uniformity

Built-in evaporator for faster cooling speed and uniform temperature throughout the cabinet,  $\pm 3^{\circ}\text{C}$ . Large internal space with adjustable shelves for flexible configuration.



#### Low Noise

Optimized system and cabinet design ensures low noise emissions, less than 44dB(A).

## Product Advantages



**DW-30L818**

**Easy to clean and Corrosion Resistant**  
Electric zinc plate powder sprayed internal liner and large round corner design and coated steel plate exterior design ensure reliable corrosion prevention which is easy to clean.

**Double Seal Design** Provides better insulation and saves energy.

**Inner doors** prevent rapid loss of cold air, saving energy and reducing temperature fluctuations.

**Ergonomic Handle Design:** easy access to storage space, built in lock and padlock features.

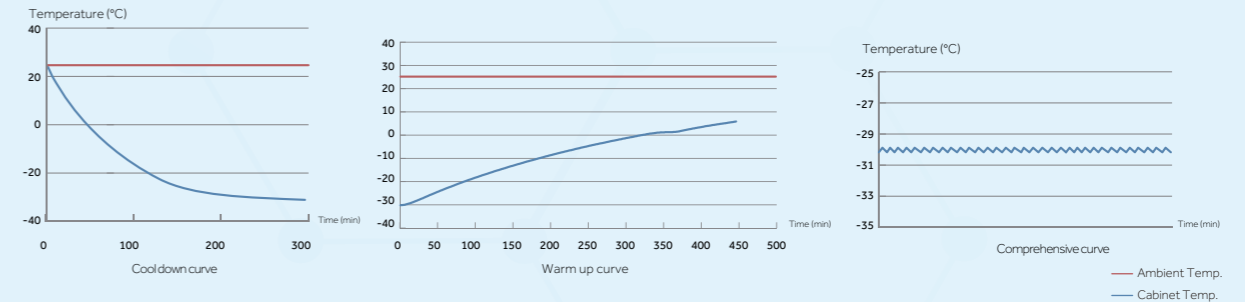
**4 multi-directional casters and 2 lockable feet** make it easy to move, level and lock in place.

**Microcomputer electronic thermostat, LCD digital display** of inside temperature, with 0.1°C display accuracy.

**Plastic blood bag drawer (optional):** 25 blood bags (450ml/bag) can be loaded for one drawer, a totally 750 blood bags for 30 drawers. (Note: The dimension of one blood bag is 125\*26\*190mm)

**Equipped with 5 plastic coated steel wire shelves** with optional stainless steel shelves, which are adjustable to meet the different requirements of users.

## Typical Performance Characteristics at 25°C ambient



## Specifications

|                            | Model                      | DW-30L818                               | DW-30L818BP                             |                |
|----------------------------|----------------------------|---|---|----------------|
| Technical Data             | Cabinet Type               | Upright                                 | Upright                                 |                |
|                            | Climate Class              | SNN                                     | SNN                                     |                |
|                            | Cooling Type               | Direct Cooling                          | Direct Cooling                          |                |
|                            | Defrost Mode               | Manual                                  | Manual                                  |                |
|                            | Refrigerant                | HC                                      | HC                                      |                |
|                            | Sound Level (dB(A))        | 44                                      | 37                                      |                |
| Performance                | Cooling Performance (°C)   | -30                                     | -30                                     |                |
|                            | Temperature Range (°C)     | -10--30                                 | -10--30                                 |                |
| Control                    | Controller                 | Microprocessor                          | Microprocessor                          |                |
|                            | Display                    | LCD                                     | LED                                     |                |
| Electrical Data            | Power Supply (V/Hz)        | 220-240/50                              | 100-230/50/60                           |                |
|                            | Power (W)                  | 380                                     | 680                                     |                |
| Dimensions                 | Capacity (L/Cu.Ft)         | 818/28.9                                | 818/28.9                                |                |
|                            | Net/Gross Weight (approx)  | kg                                      | 225/260                                 | 251/287        |
|                            |                            | lbs                                     | 496.0/573.2                             | 553.4/632.7    |
|                            | Interior Dimension (W×D×H) | mm                                      | 750*755*1460                            | 750*755*1460   |
|                            |                            | in                                      | 29.5*29.7*57.5                          | 29.5*29.7*57.5 |
|                            | Exterior Dimension (W×D×H) | mm                                      | 988*951*1980                            | 988*951*1980   |
|                            |                            | in                                      | 38.9*37.4*78.0                          | 38.9*37.4*78.0 |
|                            | Packing Dimension (W×D×H)  | mm                                      | 1040*1035*2110                          | 1040*1035*2110 |
| in                         |                            | 40.9*40.7*83.1                          | 40.9*40.7*83.1                          |                |
| Alarms                     | Container Load (20/40/40H) | 10/22/22                                | 10/22/22                                |                |
|                            | High/Low Temperature       | Y                                       | Y                                       |                |
|                            | Remote Alarm               | Y                                       | Y                                       |                |
|                            | Power Failure              | Y                                       | Y                                       |                |
|                            | Sensor Error               | Y                                       | Y                                       |                |
|                            | Low Battery                | N                                       | Y                                       |                |
|                            | High Ambient Temperature   | Y                                       | Y                                       |                |
|                            | Dirty Condenser            | N                                       | N                                       |                |
|                            | Door Ajar                  | Y                                       | Y                                       |                |
|                            | Accessories                | Casters                                 | Y(4)                                    | Y(4)           |
| Leveling Feet              |                            | Y(2)                                    | Y(2)                                    |                |
| Porthole                   |                            | Y, 2*Rear, (25mm)Diameter               | Y, 2*Rear, (25mm)Diameter               |                |
| Inner Doors                |                            | 3                                       | 3                                       |                |
| Drawers                    |                            | 30- Plastic Blood Bag Drawers, Optional | 30- Plastic Blood Bag Drawers, Optional |                |
| Shelves                    |                            | 5- Adjustable Wire Shelves              | 5- Adjustable Wire Shelves              |                |
| Shelf Dimensions (W×D)(mm) |                            | 706*665                                 | 706*665                                 |                |
| Max. Load per Shelf (kg)   |                            | 47                                      | 50                                      |                |
| USB Interface              |                            | Optional                                | Optional                                |                |
| RS485                      |                            | Optional                                | Y                                       |                |
| Others                     | NFC                        | N                                       | Optional                                |                |
|                            | Temperature Recorder       | Optional                                | Optional                                |                |
|                            | Certificate                | CE, MDR                                 | CE, UL, ENERGY STAR, MDR                |                |

# -30°C Biomedical Freezer (Direct Cooling)

## Typical Installation and Application

Suitable for blood banks, hospitals, disease control centers, research institutes, electronic, chemical and other industries. Used for the cryopreservation of plasma, biologics and other products, and cold tests for components and materials.

### Key Features



#### Adjustable storage shelf height

Built-in evaporator design, and the shelf height can be adjusted according to the size of the stored articles, so as to ensure the efficiency and use of the large space in the cabinet



#### Multiple alarm functions

High/Low temperature/door ajar/power failure/sensor error/high ambient temperature alarm and also equipped with remote alarm interface, alarm mode is sound and flash



#### High-efficiency and energy-saving compressor and system

High-efficiency hydrocarbon compressor, optimized refrigeration system and low power consumption



#### Green and environmental friendly

Hydrocarbon refrigerant, energy saving and environmental protection, built with LBA foam insulation, complies with European RoHS Directive



#### Superior temperature uniformity

### Ergonomic Design



#### Multiple alarms

Alarm functions include high, low temperature, sensor error, power failure, high ambient, and door ajar  
Alarm mode is sound and flash



#### Configuration

Standard: 3 coated steel wired shelves, remote alarm interface  
Optional: stainless steel partition board, drawer, temperature recorder, RS485 or USB (one out of two)



#### Low noise design

Noise-reduction features and structure noise reduction design



#### Microprocessor-controlled system

Microprocessor control, with temperature display precision at 0.1°C. Internal temperature is adjustable from -10°C to -30°C



#### Access ports

Two access ports as standard, allows for independent testing of cabinet temperature



#### Safe and secure

Equipped with key lock, padlock providing multiple safeguards for sample safety



DW-30L298J

Microprocessor temperature control, LCD temperature display, with display accuracy being 0.1°C

#### Porthole

Equipped with two standard portholes on the left and right sides of the freezer, convenient for users to conduct independent testing

#### Feet and Casters

4 back-and-forth casters and 2 adjustable feet for easy moving and leveling



#### Adjustable Shelves

The adjustable shelves ensure the maximum usage efficiency of the internal space, and users can store items of different sizes as needed

#### Improved Handle Design

Lockable handle with unique key prevents other Haier freezer owner's access to your precious samples, also comes with space for a padlock for that extra security

**-30°C Biomedical Freezer (Direct Cooling)**

107/108

**Specifications**

| Model           |                               | DW-30L298J                                   |                |
|-----------------|-------------------------------|--|----------------|
| Technical Data  | Cabinet Type                  | Upright                                      |                |
|                 | Climate Class                 | SN N   |                |
|                 | Cooling Type                  | Direct Cooling                               |                |
|                 | Defrost Mode                  | Manual                                       |                |
|                 | Refrigerant                   | HC   |                |
|                 | Sound Level (dB(A))           | 41   |                |
| Performance     | Cooling Performance (°C)      | -30  |                |
|                 | Temperature Range (°C)        | -10--30                                      |                |
| Control         | Controller                    | Microprocessor                               |                |
|                 | Display                       | LCD  |                |
| Electrical Data | Power Supply (V/Hz)           | 220-240/50                                   |                |
|                 | Power (W)                     | 330  |                |
| Dimensions      | Capacity (L/Cu.Ft)            | 298/10.5                                     |                |
|                 | Net/Gross Weight (approx)     | kg   | 125/140        |
|                 |                               | lbs  | 275.6/308.6    |
|                 | Interior Dimension (W×D×H)    | mm   | 541*443*1218   |
|                 |                               | in   | 21.3*17.4*48.0 |
|                 | Exterior Dimension (W×D×H)    | mm   | 770*710*1828   |
|                 |                               | in   | 30.3*28.0*72.0 |
|                 | Packing Dimension (W×D×H)     | mm   | 840*770*2000   |
|                 |                               | in   | 33.1*30.3*78.7 |
|                 | Container Load (20'/40'/40'H) | 21/42/42                                     |                |
| Alarms          | High/Low Temperature          | Y  |                |
|                 | Remote Alarm                  | Y  |                |
|                 | Power Failure                 | Y  |                |
|                 | Sensor Error                  | Y  |                |
|                 | Low Battery                   | N  |                |
|                 | High Ambient Temperature      | Y  |                |
|                 | Dirty Condenser               | N  |                |
|                 | Door Ajar                     | Y  |                |
|                 | Casters                       | Y(4)   |                |
|                 | Leveling Feet                 | Y(2)   |                |
| Accessories     | Porthole                      | Y, 1*Left Side, 1*Right Side, (25mm)Diameter |                |
|                 | Inner Doors                   | N  |                |
|                 | Drawers                       | 6- Plastic Drawers, Optional                 |                |
|                 | Shelves                       | 3- Adjustable Wire Shelves                   |                |
|                 | Shelf Dimensions (W×D)(mm)    | 518*373                                      |                |
|                 | Max. Load per Shelf (kg)      | 20   |                |
|                 | USB Interface                 | Optional                                     |                |
|                 | RS485                         | Optional                                     |                |
|                 | NFC                           | N  |                |
|                 | Temperature Recorder          | Optional                                     |                |
| Others          | Certificate                   | CE, MDR                                      |                |

**Typical Installation and Application**

Suitable for blood banks, hospitals, disease control centers, research institutes, electronic, chemical and other industries. Used for the cryopreservation of plasma, biologics and other products

**DW-30L528D****Key Features****High-efficiency and energy-saving compressor and system**

High-efficiency hydrocarbon compressor, optimized refrigeration system and low power consumption

**Adjustable storage shelf height**

Built-in evaporator design, and the shelf height can be adjusted according to the size of the stored articles, so as to realize the efficient use of large space in the cabinet

**Green and environmental friendly**

Hydrocarbon refrigerant, energy saving and environmental protection, built with LBA foam insulation, complies with European RoHS Directive

**Multiple alarm functions**

High/Low temperature/door ajar/power failure/sensor error/high ambient temperature alarm and also equipped with remote alarm interface, alarm mode is sound and flash

**Superior temperature uniformity**

The temperature uniformity is  $\pm 3^{\circ}\text{C}$  with the setting temperature of  $-30^{\circ}\text{C}$

**Ergonomic Design****Microprocessor-controlled system**

Microprocessor control, with temperature display precision at  $0.1^{\circ}\text{C}$ . Internal temperature is adjustable from  $-10^{\circ}\text{C}$  to  $-30^{\circ}\text{C}$ . Alarm functions include high, low temperature, sensor error, power failure, high ambient, and door ajar. Alarm mode is sound and flash

**Low noise design**

Noise-reduction features and structure noise reduction design

**Safe and secure**

Equipped with key lock, padlock providing multiple safeguards for sample safety

**Configuration**

Standard: 3 coated steel wired shelves, remote alarm interface  
Optional: stainless steel shelves, plastic blood bag drawer, plastic drawer, temperature recorder, RS485 or USB (one out of two)

**Porthole**

Two portholes as standard, allows for independent testing of cabinet temperature

## -30°C Biomedical Freezer (Direct Cooling)



DW-30L528D

### Specifications

| Model           |                               | DW-30L528D                                   |                |  |
|-----------------|-------------------------------|--|----------------|--|
| Technical Data  | Cabinet Type                  | Upright (Double Door)                        |                |  |
|                 | Climate Class                 | SN N   |                |  |
|                 | Cooling Type                  | Direct Cooling                               |                |  |
|                 | Defrost Mode                  | Manual                                       |                |  |
|                 | Refrigerant                   | HC   |                |  |
| Performance     | Sound Level (dB(A))           | 39   | 43             |  |
|                 | Cooling Performance (°C)      | -30  |                |  |
|                 | Temperature Range (°C)        | -10--30                                      |                |  |
| Control         | Controller                    | Microprocessor                               |                |  |
|                 | Display                       | LCD  |                |  |
| Electrical Data | Power Supply (V/Hz)           | 220-240/50                                   | 115/60         |  |
|                 | Power (W)                     | 460  | 420            |  |
| Dimensions      | Capacity (L/Cu.Ft)            | 531/18.8                                     |                |  |
|                 | Net/Gross Weight (approx)     | kg   | 180/205        |  |
|                 |                               | lbs  | 396.8/451.9    |  |
|                 | Interior Dimension (W×D×H)    | mm   | 704*620*1230   |  |
|                 |                               | in   | 27.7*24.4*48.4 |  |
|                 | Exterior Dimension (W×D×H)    | mm   | 940*845*1878   |  |
|                 |                               | in   | 37.0*33.3*73.9 |  |
|                 | Packing Dimension (W×D×H)     | mm   | 1005*940*2040  |  |
| in              |                               | 39.6*37.0*80.3                               |                |  |
| Alarms          | Container Load (20'/40'/40'H) | 10/22/24                                     |                |  |
|                 | High/Low Temperature          | Y  |                |  |
|                 | Remote Alarm                  | Y  |                |  |
|                 | Power Failure                 | Y  |                |  |
|                 | Sensor Error                  | Y  |                |  |
|                 | Low Battery                   | N  |                |  |
|                 | High Ambient Temperature      | Y  |                |  |
|                 | Dirty Condenser               | N  |                |  |
|                 | Door Ajar                     | Y  |                |  |
|                 | Casters                       | Y(4)   |                |  |
| Accessories     | Leveling Feet                 | Y(2)   |                |  |
|                 | Porthole                      | Y, 1*Left Side, 1*Right Side, (25mm)Diameter |                |  |
|                 | Inner Doors                   | N  |                |  |
|                 | Drawers                       | 10- Plastic Drawers, Optional                |                |  |
|                 | Shelves                       | 3- Adjustable Wire Shelves                   |                |  |
|                 | Shelf Dimensions (W×D)(mm)    | 680*537                                      |                |  |
|                 | Max. Load per Shelf (kg)      | 37   |                |  |
|                 | USB Interface                 | Optional                                     |                |  |
|                 | RS485                         | Optional                                     |                |  |
|                 | NFC                           | N  |                |  |
| Others          | Temperature Recorder          | Optional                                     |                |  |
|                 | Certificate                   | CE, MDR                                      | UL             |  |

## -30°C Biomedical Freezer

### Application Range

Used in the blood banks, hospitals, disease control centers, research institutes, electronic, chemical and other industries, cryopreservation of plasma, biologics and other products, and cold tests for components and materials.

### Product Advantages



#### Superior Temperature Uniformity

The temperature uniformity is  $\pm 3^\circ\text{C}$  with the setting temperature of  $-30^\circ\text{C}$



#### Green and Environmental Friendly

Hydrocarbon refrigerant, energy saving and environmental protection, built with LBA foam insulation, complies with European RoHS requirements



#### Microprocessor Controller

Microprocessor control, with temperature display precision at  $0.1^\circ\text{C}$ . Internal temperature is adjustable from  $-10^\circ\text{C}$  to  $-30^\circ\text{C}$  with  $1^\circ\text{C}$  control accuracy



#### High-efficiency and Energy-saving Compressor and System

High-efficiency hydrocarbon compressor, optimized refrigeration system and low power consumption



#### Multiple Alarm Functions

High/Low temperature/door ajar/power failure/sensor error/high ambient temperature alarm and also equipped with remote alarm interface, alarm mode is sound and flash



#### Compact Footprint

Combine a small footprint with large storage capacity to provide flexible, reliable and convenient sample storage



# -30°C Biomedical Freezer

## Product Parts



Newly designed control panel with rearranged layout and icons greatly enhances usability

4 universal casters and 2 levelling feet allows for easy movement and locks safely into place



5 adjustable shelves, optional stainless steel shelf

Improved handle design for one-handed operation Lockable handle with mechanical lock, and also can be equipped with padlock, convenient for multiple users

3 inner door design prevents rapid loss of cold when opening the door, saving energy and ensuring smaller temperature fluctuations in the freezer

### DW-30L698

## Optimal Design



### New Generation Appearance

A redesigned control panel features a revamped layout and updated icons, significantly improving user experience



### Safe and Secure

Upgraded handle design for one-handed use, with a lockable feature for added security. Can also be paired with a padlock for multi-user convenience



### Low Noise Design

Noise-reduction features and structure noise reduction design



### Porthole

Two portholes as standard, allows for independent testing of cabinet temperature



### Adjustable Storage Shelf Height

Built-in evaporator design, and the shelf height can be adjusted according to the size of the stored articles, so as to ensure the efficient use of large space in the cabinet



### Configuration

Standard: 5 coated steel wired shelves, remote alarm interface, USB (115V60Hz)  
Optional: stainless steel shelves, blood basket, drawer, temperature recorder, RS485, USB (220V50Hz)

## Product Dimensions

Remark  
W0=Total Width  
W1=Freezer Width  
W2=Inner Cabinet Width  
W3=Inner Cabinet Shelf Width  
D0=Total Depth  
D1=Inner Cabinet Width  
D2=Inner Cabinet Shelf Width  
H0=Total Height  
H1=Inner Cabinet Height

| CODE MODEL | W0    | W1    | W2    | W3    | D0    | D1    | D2    | D3    | H0     | H1     |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| DW-30L698  | 874mm | 780mm | 640mm | 604mm | 930mm | 755mm | 722mm | 691mm | 1984mm | 1458mm |

## Specifications

| Model                         |                            | DW-30L698                               |                 |  |
|-------------------------------|----------------------------|---|-----------------|--|
| Technical Data                | Cabinet Type               | Upright                                 |                 |  |
|                               | Climate Class              | SN N                                    |                 |  |
|                               | Cooling Type               | Direct Cooling                          |                 |  |
|                               | Defrost Mode               | Manual                                  |                 |  |
|                               | Refrigerant                | HC                                      |                 |  |
|                               | Sound Level (dB(A))        | 41                                      | 43              |  |
| Performance                   | Cooling Performance (°C)   | -30                                     |                 |  |
|                               | Temperature Range (°C)     | -10--30                                 |                 |  |
| Control                       | Controller                 | Microprocessor                          |                 |  |
|                               | Display                    | LED                                     |                 |  |
| Electrical Data               | Power Supply (V/Hz)        | 220-240/50                              | 115/60          |  |
|                               | Power (W)                  | 400                                     | 500             |  |
| Dimensions                    | Capacity (L/Cu.Ft)         | 698/24.7                                |                 |  |
|                               | Net/Gross Weight (approx)  | kg                                      | 180/225         |  |
|                               |                            | lbs                                     | 396.8/496       |  |
|                               | Interior Dimension (W*D*H) | mm                                      | 640*755*1458    |  |
|                               |                            | in                                      | 25.2*29.7*57.4  |  |
|                               | Exterior Dimension (W*D*H) | mm                                      | 874*930*1984    |  |
|                               |                            | in                                      | 34.4*36.6*78.1  |  |
|                               | Packing Dimension (W*D*H)  | mm                                      | 950*1060*2110   |  |
| in                            |                            | 37.4*41.7*83.0                          |                 |  |
| Container Load (20'/40'/40'H) | 10/22/22                   |   |                 |  |
| Alarms                        | High/Low Temperature       | Y                                       |                 |  |
|                               | Remote Alarm               | Y                                       |                 |  |
|                               | Power Failure              | Y                                       |                 |  |
|                               | Sensor Error               | Y                                       |                 |  |
|                               | Low Battery                | Y                                       |                 |  |
|                               | High Ambient Temperature   | Y                                       |                 |  |
|                               | Dirty Condenser            | N                                       |                 |  |
|                               | Door Ajar                  | Y                                       |                 |  |
|                               | Casters                    | Y(4)                                    |                 |  |
|                               | Leveling Feet              | Y(2)                                    |                 |  |
| Accessories                   | Porthole                   | 2*Rear, (25mm)Diameter                  |                 |  |
|                               | Inner Doors                | 3                                       |                 |  |
|                               | Drawers                    | 24- Plastic Blood Bag Drawers, Optional |                 |  |
|                               | Shelves                    | 5- Adjustable Wire Shelves              |                 |  |
|                               | Shelf Dimensions (W*D)(mm) | 610*655                                 |                 |  |
|                               | Max. Load per Shelf (kg)   | 40                                      |                 |  |
|                               | USB Interface              | Optional                                | Y               |  |
|                               | RS485                      | Optional                                |                 |  |
|                               | NFC                        | N                                       |                 |  |
|                               | Temperature Recorder       | Optional                                |                 |  |
| Others                        | Certificate                | CE, MDR                                 | UL, ENERGY STAR |  |

The Haier Biomedical -25°C biomedical freezer maximize storage space. Integrated cold shelf and evaporator design provides maximum refrigeration efficiency.



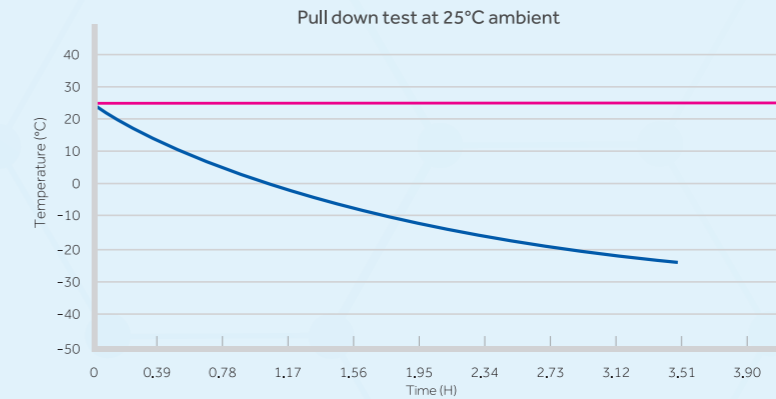
DW-25L92/262

**Key Features**

- Chemically stable, HC commercially available and environmentally safe refrigerant
- High-density foam insulation for rigidity and stable storage temperature
- Microprocessor control, digital display, adjustable temperature range: -10°C~-25°C
- LCD digital display for clear observation
- Wide voltage tolerance design with applicable voltage range of 187~242 V/AC

**Safety**

- Multiple malfunction alarms including high low temperature, sensor error
- Two types of alarm indications: audible buzzing and visible flashing light
- Door lock for storage safety
- Storage drawer



**Specifications**

| Model                     |                               | DW-25L92                       |                | DW-25L262                      |                |  |
|---------------------------|-------------------------------|--------------------------------|----------------|--------------------------------|----------------|--|
| Technical Data            | Cabinet Type                  | Upright                        |                | Upright                        |                |  |
|                           | Climate Class                 | SN N                           |                | SN N                           |                |  |
|                           | Cooling Type                  | Direct Cooling                 |                | Direct Cooling                 |                |  |
|                           | Defrost Mode                  | Manual                         |                | Manual                         |                |  |
|                           | Refrigerant                   | HC                             |                | HC                             |                |  |
| Performance               | Sound Level (dB(A))           | 27                             | 28             | 34                             |                |  |
|                           | Cooling Performance (°C)      | -25                            |                | -25                            |                |  |
| Control                   | Temperature Range (°C)        | -10~-25                        |                | -10~-25                        |                |  |
|                           | Controller                    | Microprocessor                 |                | Microprocessor                 |                |  |
| Electrical Data           | Display                       | LCD                            |                | LCD                            |                |  |
|                           | Power Supply (V/Hz)           | 220-240/50                     | 115/60         | 220-240/50                     | 115/60         |  |
|                           | Power (W)                     | 255                            | 125            | 255                            | 125            |  |
| Dimensions                | Capacity (L/Cu.Ft)            | 92/3.2                         |                | 262/9.3                        |                |  |
|                           | Net/Gross Weight (approx)     | kg                             | 46/51          | 88/93                          |                |  |
|                           |                               | lbs                            | 101.4/112.4    | 194.0/205.0                    |                |  |
|                           | Interior Dimension (W×D×H)    | mm                             | 435*410*635    | 480*465*1430                   |                |  |
|                           |                               | in                             | 17.1*16.1*25.0 | 18.9*18.3*56.3                 |                |  |
|                           | Exterior Dimension (W×D×H)    | mm                             | 640*610*810    | 700*705*1665                   | 700*705*1730   |  |
|                           |                               | in                             | 25.2*24.0*31.9 | 27.6*27.8*65.6                 | 27.6*27.8*68.1 |  |
| Packing Dimension (W×D×H) | mm                            | 660*700*910                    | 775*760*1880   |                                |                |  |
| Alarms                    | in                            | 26.0*27.6*35.8                 | 30.5*29.9*74.0 |                                |                |  |
|                           | Container Load (20'/40'/40'H) | 48/102/102                     |                | 21/45/45                       |                |  |
| Accessories               | High/Low Temperature          | Y                              |                | Y                              |                |  |
|                           | Remote Alarm                  | Y                              |                | Y                              |                |  |
|                           | Power Failure                 | Y                              |                | Y                              |                |  |
|                           | Sensor Error                  | Y                              |                | Y                              |                |  |
|                           | Low Battery                   | N                              |                | N                              |                |  |
|                           | High Ambient Temperature      | Y                              |                | Y                              |                |  |
|                           | Dirty Condenser               | N                              |                | N                              |                |  |
|                           | Door Ajar                     | Y                              |                | Y                              |                |  |
| Others                    | Casters                       | Y(4)                           |                | Y(4)                           |                |  |
|                           | Leveling Feet                 | Y(2)                           |                | Y(2)                           | N              |  |
|                           | Porthole                      | Y, 1*Left Side, (25mm)Diameter |                | Y, 1*Left Side, (25mm)Diameter |                |  |
|                           | Inner Doors                   | N                              |                | N                              |                |  |
|                           | Drawers                       | 3- Plastic Drawers             |                | 7- Plastic Drawers             |                |  |
|                           | Shelves                       | N                              |                | N                              |                |  |
|                           | Shelf Dimensions (W×D)(mm)    | N                              |                | N                              |                |  |
|                           | Max. Load per Shelf (kg)      | N                              |                | N                              |                |  |
|                           | USB Interface                 | Optional                       |                | Optional                       |                |  |
|                           | RS485                         | Optional                       |                | Optional                       |                |  |
| NFC                       | N                             |                                | N              |                                |                |  |
| Temperature Recorder      | N                             |                                | N              |                                |                |  |
| Certificate               | CE, MDR                       | UL                             | CE, MDR        | UL                             |                |  |



**Spark Free  
Refrigerators  
/Freezers**

# Spark Free Refrigerator

## Typical Installation

Spark free refrigerators are installed typically in many different laboratories and research facilities to store chemical or experimental reagents that are flammable, explosive, evaporative or corrosive.



**HLR-310SF/FL**

## Product Advantages

### ATEX II C-T6 E.U. Explosion Proof Certification

Explosion proof features include antistatic liner, gasket, explosion proof fan motor, over current and voltage protection. ATEX II C-T6 explosion proof certification for Haier's Laboratory refrigerator ensures safety in your work place.

### 3~16°C Setting Temperature Range

Smart temperature control system limits the temperature variance within  $\pm 3^{\circ}\text{C}$ . Adjustable set point for the range of  $3^{\circ}\text{C} \sim 16^{\circ}\text{C}$ , factory default set temperature is  $5^{\circ}\text{C}$ , controlling the temperature inside the chamber is  $2 \sim 8^{\circ}\text{C}$ .

### One-touch Search for Historic Data

The highest and lowest historic temperature data is saved and can be checked with one keystroke.

### High Efficiency HC Cooling Technology

The hydrocarbon refrigeration system operates at a much higher efficiency and reduces the energy consumption by about 50 percent.

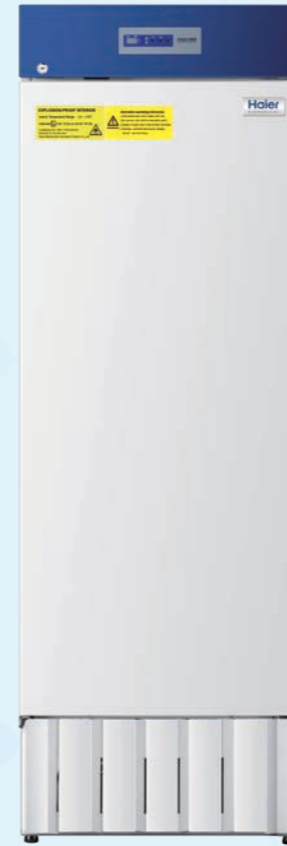
## Ergonomic Design

### High Strength Glass Shelves

Tempered glass shelves hold 40 kg of products per shelf.

### Low Noise

Noise cancelling technology reduces the sound level to less than 40 dB(A) for a much-improved environment.



### Dual Lock Design with Multiple Alarm Systems

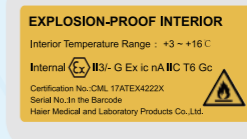
A mortise lock is standard on the door. Standard alarms include high and low temperature, door ajar, and sensor errors.



Cabinet Structure



Glass Shelf



ATEX Certification Label



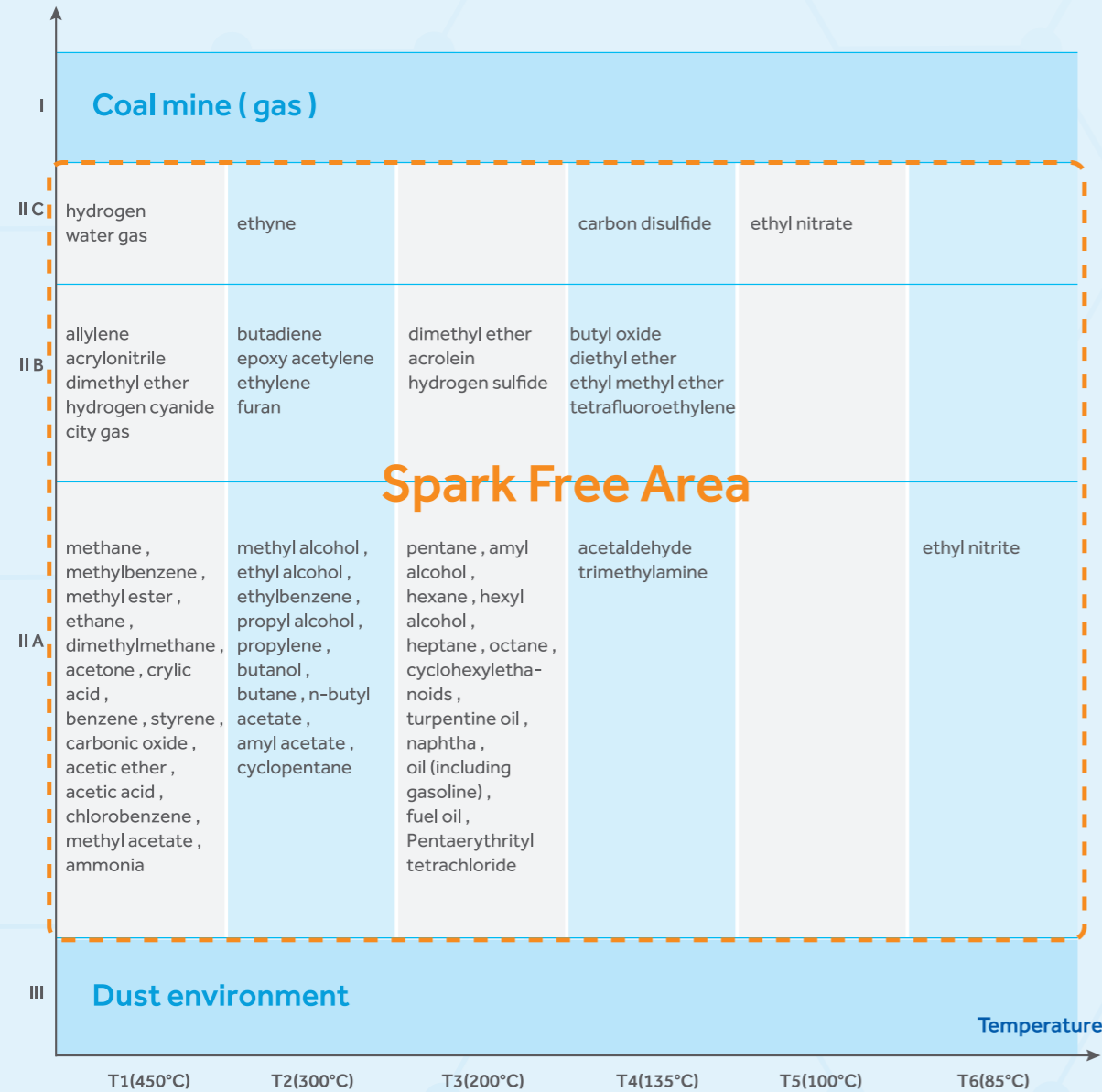
Explosion Proof Cabinet/Fan

# Spark Free Refrigerator

## Application Range

Haier spark free refrigerators are ATEX certified in the application range II 3G Ex ic nA II T6, which means the appliances can be found in the whole II zone environment (including II A and II B, II C), a typical environment within many biochemistry laboratories.

### Explosive-proof Rating



## Specifications



| Model                           | HLR-118SF          | HLR-310SF          | HLR-310FL(115V)    | HLR-310FL(220V)    |
|---------------------------------|--------------------|--------------------|--------------------|--------------------|
| <b>Technical Data</b>           |                    |                    |                    |                    |
| Type                            | Under-Counter      | Upright            | Upright            | Upright            |
| Climate Class                   | N                  | N                  | N                  | N                  |
| Cooling Type                    | Forced Air Cooling | Forced Air Cooling | Forced Air Cooling | Forced Air Cooling |
| Defrost Mode                    | Auto               | Auto               | Auto               | Auto               |
| Refrigerant                     | R600a              | R600a              | R600a              | R600a              |
| GWP (global warming potential)  | 20                 | 20                 | 20                 | 20                 |
| Sound Level (dB(A))             | 40                 | 40                 | 43                 | 40                 |
| <b>Performance</b>              |                    |                    |                    |                    |
| Temperature Range (°C)          | 3-16 Adjustable    | 3-16 Adjustable    | 3-16 Adjustable    | 3-16 Adjustable    |
| Ambient Temperature (°C)        | 16-32              | 16-32              | 16-32              | 16-32              |
| <b>Control</b>                  |                    |                    |                    |                    |
| Controller                      | Microprocessor     | Microprocessor     | Microprocessor     | Microprocessor     |
| Display                         | LED                | LED                | LED                | LED                |
| <b>Electrical Data</b>          |                    |                    |                    |                    |
| Power Supply (V/Hz)             | 220-240/50         | 220-240/50         | 115/60             | 220-240/50         |
| Power (W)                       | 55                 | 210                | 210                | 210                |
| Electrical Current (A)          | 1.2                | 1.26               | 2.5                | 1.26               |
| Power Consumption (kWh/24h)     | 0.56               | 1.05               | 1.05               | 1.05               |
| <b>Dimensions</b>               |                    |                    |                    |                    |
| Capacity (L/Cu.Ft)              | 118/4.2            | 310/10.9           | 310/10.9           | 310/10.9           |
| Net/Gross Weight (approx)       | kg                 | 44/49              | 72/83              | 72/83              |
|                                 | lbs                | 97/108             | 158.7/183          | 158.7/183          |
| Interior Dimensions (W*D*H)     | mm                 | 515*415*630        | 560*500*1290       | 560*500*1290       |
|                                 | in                 | 20.3*16.3*24.8     | 22.0*19.7*50.8     | 22.0*19.7*50.8     |
| Exterior Dimensions (W*D*H)     | mm                 | 597*635*810        | 605*598*1840       | 605*598*1840       |
|                                 | in                 | 23.5*25*31.9       | 23.8*23.6*73.6     | 23.8*23.6*73.6     |
| Packing Dimensions (W*D*H)      | mm                 | 700*710*930        | 680*690*1940       | 680*690*1940       |
|                                 | in                 | 27.6*28.0*36.6     | 26.8*27.1*74.4     | 26.8*27.1*74.4     |
| Container Load (20'/40'/40'H)   |                    | 48/96/96           | 24/51/51           | 24/51/51           |
| <b>Alarms</b>                   |                    |                    |                    |                    |
| High/Low Temperature            | Y                  | Y                  | Y                  | Y                  |
| Sensor Error                    | Y                  | Y                  | Y                  | Y                  |
| Door Ajar                       | Y                  | Y                  | Y                  | Y                  |
| <b>Accessories</b>              |                    |                    |                    |                    |
| Caster                          | 2                  | 4                  | 4                  | 4                  |
| Foot                            | 2                  | 2                  | 2                  | 2                  |
| Shelves/Baskets                 | 2/1                | 4/0                | 4/0                | 4/0                |
| Water Tray                      | 1                  | 1                  | 1                  | 1                  |
| Padlock Adapter Kit/Quantity    | /                  | 1                  | 1                  | 1                  |
| Built-in Key Door Lock/Quantity | 1                  | 1                  | 1                  | 1                  |
| <b>Certification</b>            |                    |                    |                    |                    |
| CE                              | Y                  | Y                  | Y                  | Y                  |
| ATEX                            | Y                  | Y                  | Y                  | Y                  |

**Warning: Do not store open containers of volatile substances in this refrigerator.**

## Combined Refrigerator and Freezer with Spark-free Interior

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### Application Range

Used for storage of volatile, unstable, low boiling point (flammable and explosive) compounds/dangerous other items that require a low temperature in pharmaceutical factories and laboratories etc.



HLRF-319SF

### Product Advantages



#### High Performance

Refrigerator: Forced-air cooling system with cycle defrost, temperature uniformity  $\pm 3^{\circ}\text{C}$   
Freezer: Cold wall cooling system, manual defrost temperature uniformity  $+5^{\circ}\text{C}$   
Optional USB interface, RS485 & printer, easy to get temperature record



#### Multipurpose and Space Efficient

One cabinet with two independent chambers, both are self-contained and independently controlled with individual doors



#### Environment-Friendly

Hydrocarbon refrigerant (R600a for refrigerator/R290 for freezer) and CFC-free polyurethane insulation for reduced global warming potential



#### Microprocessor Controller with Digital Display

Refrigerator temperature  $2\text{--}8^{\circ}\text{C}$  with resolution of  $0.1^{\circ}\text{C}$   
Freezer temperature  $-30\text{--}-10^{\circ}\text{C}$  with resolution of  $1^{\circ}\text{C}$   
Multiple alarm functions with remote alarm contact to ensure safe monitoring



#### Stainless Steel Interior

The interior of refrigerator and freezer are both made of stainless steel, which is easy to clean and corrosion-proof



#### ATEX Certified



#### Low Energy Consumption: 1.5 kWh/24h

# Combined Refrigerator and Freezer with Spark-free Interior

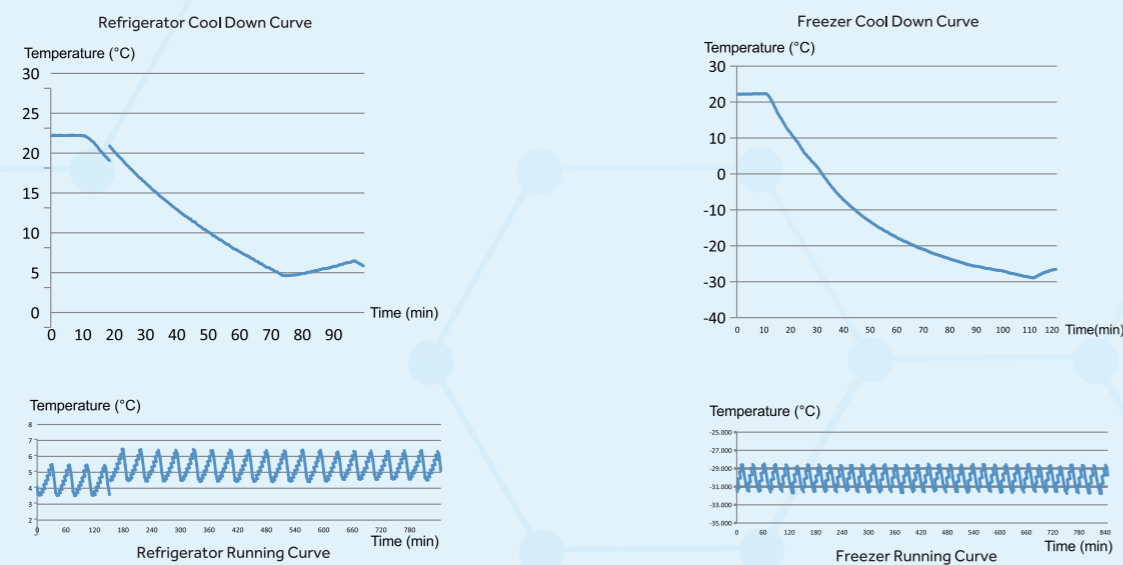


## Specifications



| Model                         |                             | HLRF-319SF   |  |
|-------------------------------|-----------------------------|--|--|
| Technical Data                | Cabinet Type                | Upright  |  |
|                               | Climate Class               | N, 16-32°C   |  |
|                               | Cooling Type                | Refrigerator: Forced Air Cooling/Freezer: Direct Cooling |  |
|                               | Defrost Mode                | Refrigerator: Auto/Freezer: Manual                       |  |
|                               | Refrigerant                 | Refrigerator: R600a/Freezer: R290                        |  |
|                               | Sound Level (dB(A))         | 43   |  |
| Performance                   | Temperature Range (°C)      | Refrigerator: 2-8/Freezer: -10--30                       |  |
| Control                       | Controller                  | Microprocessor   |  |
|                               | Display                     | LED  |  |
| Electrical Data               | Power Supply (V/Hz)         | 220-240~/50  |  |
|                               | Power (W)                   | 230  |  |
|                               | Electrical Current (A)      | 1.5  |  |
|                               | Power Consumption (kWh/day) | 1.5  |  |
| Dimensions                    | Capacity (L/Cu.Ft)          | Refrigerator: 219/7.7; Freezer: 100/3.5                  |  |
|                               | Net/Gross Weight (approx)   | kg   | 130/140  |
|                               |                             | lbs  | 319.7/352.7  |
|                               | Interior Dimensions (W*D*H) | mm   | Refrigerator: 605*510*720/Freezer: 515*465*440     |
|                               |                             | in   | Refrigerator: 23.8*20*28.3/Freezer: 20.2*18.3*17.3 |
|                               | Exterior Dimensions (W*D*H) | mm   | 735*660*1810                                       |
|                               |                             | in   | 28.9*26.0*71.3                                     |
|                               | Packing Dimensions (W*D*H)  | mm   | 775*720*1930                                       |
| in                            |                             | 30.5*28.3*76   |  |
| Container Load (20'/40'/40'H) |                             | 21/43/43   |  |
| Alarms                        | High/Low Temperature        | Y  |  |
|                               | Sensor Error                | Y  |  |
|                               | Power Failure               | Y  |  |
|                               | Door Ajar                   | Y  |  |
|                               | Low Battery                 | Y  |  |
|                               | Remote Alarm                | Y  |  |
|                               | Accessories                 | Caster   | Y/4  |
| Foot                          |                             | Y/2  |  |
| Porthole                      |                             | N  |  |
| Shelves                       |                             | Refrigerator: 3; Freezer: 2                              |  |
| Stylus Printer                |                             | Optional (printer or RS485, either-or)                   |  |
| RS485                         |                             | Optional (printer or RS485, either-or)                   |  |
| Other                         | USB Interface               | Optional   |  |
|                               | Certification               | CE, ATEX   |  |

25°C Ambient Temperature Curve



# -30°C Spark Free Freezer

## Typical Installation

It can be used for safe storage of potentially flammable items and other temperature sensitive samples at low temperatures. Applications found within life science, medical, electronics and chemical industries.



DW-30L298SF

## Product Advantages

- Explosion Proof Interior**  
SF series freezers feature standard interior design. FL series freezers feature antistatic interior design. All metal parts are grounded reliably and interior design is explosion proof. Certificates include China anti-explosion proof and EU explosion proof ATEX II C-T6
- Superior Temperature Uniformity**  
The temperature uniformity is  $\pm 3^{\circ}\text{C}$  with the setting temperature of  $-30^{\circ}\text{C}$
- Low Noise Design**  
Noise-reduction features and structure noise reduction design
- High-efficiency and Energy-saving Compressor and System**  
High-efficiency hydrocarbon compressor, optimized refrigeration system and low power consumption
- Green and Environmental Friendly**  
Hydrocarbon refrigerant, energy saving and environmental protection, built with LBA foam insulation, complies with European RoHS Directive
- Multiple Alarm Functions**  
High, Low temperature, door ajar, power failure, sensor error, high ambient temperature alarm and also equipped with remote alarm interface, alarm mode is sound and flash



DW-30L298SF

DW-30L298FL

**Laboratory Deep Freezer with explosion-proof interior**  
Interior Temp. Range :  $-10 \sim -30^{\circ}\text{C}$  ( DW-30L298FL/SF )  
Internal II C-T6 Gc  
Certification No. CML 18ATEX4058X  
Serial No. In the Barcode  
Qingdao Haier Biomedical Co., Ltd.

**Anti-static operating instruction**  
1. Clean plastic parts with a damp cloth only.  
2. Do not use a dry cloth to clean plastic parts.  
3. Danger of sparks due to electrostatic discharge.  
4. Warning - potential electrostatic charging hazard - see instructions.

## Ergonomic Design

- Microprocessor-controlled System**  
Microprocessor control with LCD temperature display precision at  $0.1^{\circ}\text{C}$ . Internal temperature is adjustable from  $-10^{\circ}\text{C}$  to  $-30^{\circ}\text{C}$
- Adjustable Shelves**  
The adjustable shelves ensure the maximum usage efficiency of the internal space, and users can store items of different sizes as needed
- Rich Configuration**  
Standard: DW-30L298SF interior material is PCM with 3 plastic coated wire shelves, DW-30L298FL interior material is SUS with 3 chrome-plated wire shelves  
Optional: stainless steel shelves, drawer, temperature recorder, RS485 or USB (one out of two)
- Improved Handle Design**  
The ergonomic chamfer design of the handle ensures smooth operation and maximum durability
- Feet and Casters**  
4 back-and-forth casters and 2 adjustable feet (out of two) for easy moving and leveling

## Application Range

|                        |                  |   |   |  |  |                      |
|------------------------|------------------|---|---|--|--|----------------------|
| Explosive Proof Rating | I                | Coal mine (gas)   |   |  |  |                      |
|                        | II C             | hydrogen water gas  | ethyne  |  | carbon disulfide   | ethyl nitrate        |
|                        | II B             | Allylene acrylonitrile<br>dimethyl ether hydrogen cyanide city gas  | butadiene epoxy acetylene ethylene furan  | dimethyl ether acrolein hydrogen sulfide   | butyl oxide diethyl ether ethyl methyl ether tetr ethylene |                      |
|                        | II A             | methane, methylbenzene, methyl ester, ethane, dimethylmethane, acetone, acrylic acid, benzene, styrene, carbonic oxide, acetic ether, acetic acid, chlorobenzene, methyl acetate, ammonia | methyl alcohol, ethyl alcohol, ethylbenzene, propyl alcohol, propylene, butanol, butane, n-butyl acetate, amyl acetate, cyclopentan | Pentane, amyl alcohol, hexane, hexyl alcohol, heptane, octane, cyclohexylethanoids, turpentine oil, naphtha, oil (including gasoline), fuel oil, Pentaerythryl tetrachloride | acetalde hyde trimethylamine                               | ethyl nitrite        |
| III                    | Dust environment |   |   |  |  |                      |
|                        |                  | T1 (450°C)  | T2 (300°C)  | T3 (200°C)   | T4 (135°C)   | T5 (100°C) T6 (85°C) |
|                        |                  | Temperature   |   |  |  |                      |



## -25°C Spark Free Freezer

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### Product Advantages



#### Explosion Proof Interior

The SF series is composed of a non-anti-static liner, door lining and drawers. Equipped with an overcurrent and overvoltage protection system with all components earthed to ensure static is discharged safely. Certified to ATEX IIC-T6 EU and can be used in zone 2 environments.



#### Hydrocarbon Energy-saving

Adopting high-efficiency HC compressor and optimized refrigeration system, for safe and reliable cold storage of your samples.



#### Environmentally Friendly

The HC system is a completely green refrigeration solution. With LBA foamed polyurethane insulation in line with European ROHS directive for environmentally friendly materials.



#### Low Noise

Cabinet structure and refrigeration system noise reduction design lowers noise level to less than 27dB (A) and eliminating any harsh high-frequency noises.

### Ergonomic Design



#### Microprocessor

- Microprocessor electronic temperature controller, LCD digital temperature display, display precision is 0.1°C, temperature set point -10~-25°C. Temperature uniformity is ±3°C.
- Multiple alarms including high and low temperature, sensor error, power failure, door ajar, high ambient and remote alarm.
- Alarm mode: sound and light alarm.
- It can be connected to remote alarm.



#### Undercounter Biomedical Freezer

The DW-25L92 cabinet is designed with a height of 810mm, which can be easily placed under the bench to save storage space.

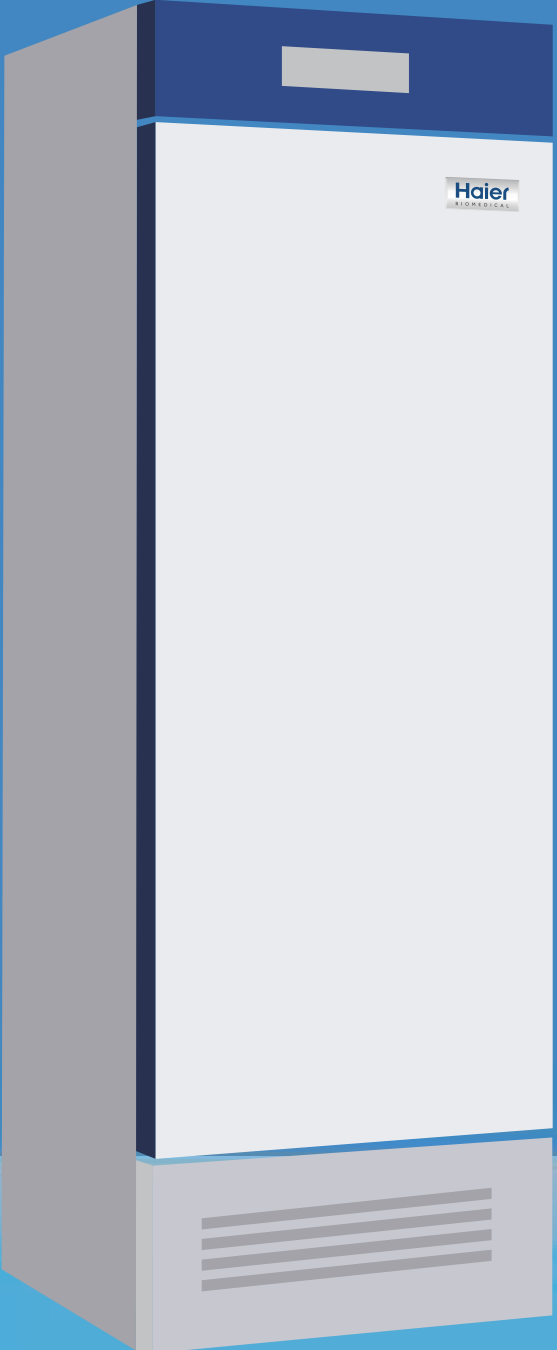
### Specifications



| Model                         | DW-25L92SF                 | DW-30L298SF                         | DW-30L298FL                         |  |                |
|-------------------------------|----------------------------|-------------------------------------|-------------------------------------|--|----------------|
| Technical Data                | Cabinet Type               | Upright                             | Upright                             | Upright  |                |
|                               | Climate Class              | SN N                                | SN N                                | SN N   |                |
|                               | Cooling Type               | Direct Cooling                      | Direct Cooling                      | Direct Cooling                                     |                |
|                               | Defrost Mode               | Manual                              | Manual                              | Manual   |                |
|                               | Refrigerant                | HC                                  | HC                                  | HC   |                |
|                               | Sound Level (dB(A))        | 27                                  | 41                                  | 41   |                |
| Performance                   | Cooling Performance (°C)   | -25                                 | -30                                 | -30  |                |
|                               | Temperature Range (°C)     | -10~-25                             | -10~-30                             | -10~-30  |                |
| Control                       | Controller                 | Microprocessor                      | Microprocessor                      | Microprocessor                                     |                |
|                               | Display                    | LED                                 | LCD                                 | LCD  |                |
| Electrical Data               | Power Supply (V/Hz)        | 220-240/50                          | 220-240/50                          | 220-240/50   |                |
|                               | Power (W)                  | 255                                 | 330                                 | 330  |                |
| Dimensions                    | Capacity (L/Cu.Ft)         | 92/3.2                              | 298/10.5                            | 298/10.5   |                |
|                               | Net/Gross Weight (approx)  | kg                                  | 46/51                               | 125/140  | 125/140        |
|                               |                            | lbs                                 | 101.4/112.4                         | 275.6/308.6  | 275.6/308.6    |
|                               | Interior Dimension (W×D×H) | mm                                  | 435*410*635                         | 541*443*1218                                       | 541*443*1218   |
|                               |                            | in                                  | 17.1*16.1*25.0                      | 21.3*17.4*48.0                                     | 21.3*17.4*48.0 |
|                               | Exterior Dimension (W×D×H) | mm                                  | 597*635*810                         | 770*710*1828                                       | 770*710*1828   |
|                               |                            | in                                  | 23.5*25*32.9                        | 30.3*28.0*72.0                                     | 30.3*28.0*72.0 |
|                               | Packing Dimension (W×D×H)  | mm                                  | 680*690*940                         | 840*770*2000                                       | 840*770*2000   |
| in                            |                            | 26.8*27.1*37.0                      | 33.1*30.3*78.7                      | 33.1*30.3*78.7                                     |                |
| Container Load (20'/40'/40'H) |                            | 48/102/102                          | 21/42/42                            | 21/42/42   |                |
| Alarms                        | High/Low Temperature       | Y                                   | Y                                   | Y  |                |
|                               | Remote Alarm               | Y                                   | Y                                   | Y  |                |
|                               | Power Failure              | N                                   | Y                                   | Y  |                |
|                               | Sensor Error               | Y                                   | Y                                   | Y  |                |
|                               | Low Battery                | N                                   | N                                   | N  |                |
|                               | High Ambient Temperature   | N                                   | Y                                   | Y  |                |
|                               | Dirty Condenser            | N                                   | N                                   | N  |                |
|                               | Door Ajar                  | Y                                   | Y                                   | Y  |                |
|                               | Inner Doors                | N                                   | N                                   | N  |                |
| Accessories                   | Casters                    | Y(4)                                | Y(4)                                | Y(4)   |                |
|                               | Leveling Feet              | Y(2)                                | Y(2)                                | Y(2)   |                |
|                               | Porthole                   | N                                   | N                                   | N  |                |
|                               | Inner Doors                | N                                   | N                                   | N  |                |
|                               | Drawers                    | 3- Plastic Drawers                  | 6- Plastic Drawers, Optional        | 6- Permanent Anti-Static Plastic Drawers, Optional |                |
|                               | Shelves                    | N                                   | 3- Adjustable Wire Shelves          | 3- Adjustable Wire Shelves                         |                |
|                               | Shelf Dimensions (W×D)(mm) | N                                   | 518*373                             | 518*373  |                |
|                               | Max. Load per Shelf (kg)   | N                                   | 20                                  | 20   |                |
|                               | USB Interface              | N                                   | Optional                            | Optional   |                |
|                               | RS485                      | N                                   | Optional                            | Optional   |                |
|                               | NFC                        | N                                   | N                                   | N  |                |
| Temperature Recorder          | N                          | N                                   | N                                   |  |                |
| Others                        | Certificate                | ATEX Explosion Proof Certificate,CE | ATEX Explosion Proof Certificate,CE | ATEX Explosion Proof Certificate,CE                |                |

**Haier Biomedical**

Intelligent Protection of Life Science



**Laboratory  
Refrigerators**

# Laboratory Refrigerator

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## Typical Installation

Used to store chemicals, reagents and consumables within laboratories and research facilities.

## Product Advantages

### Precise Control of Temperature

Adjustable set temperature range is 3°C to 16°C. A smart temperature control system keeps the internal temperature variation within ±3°C inside the chamber.

### High Efficiency HC Cooling Technology

The hydrocarbon refrigeration system operates at a much higher efficiency and reduces the energy consumption by about 50 percent.



## Ergonomic Design

### One-touch Search for Historic Data

The highest and lowest historic temperature data is saved and can be checked with one key stroke.

### Precise Control of Temperature

Adjustable set temperature range is 3°C to 16°C. A smart temperature control system keeps the internal temperature variation within ±3°C inside the chamber.

### High Strength Glass Shelves

Tempered glass shelves hold 24kg of products per shelf.

### Automatic Door Closing Function

### Low Noise

Noise cancelling technology reduces the sound level to less than 40 dB(A) for an improved working environment.

### HC High Efficiency HC Cooling Technology

The hydrocarbon refrigeration system operates at a much higher efficiency and reduces the energy consumption by about 50 percent.

### Dual Lock Design with Multiple Alarm Systems

A mortise lock is standard on the door with option to add a padlock for additional security. Standard alarms include high and low temperature, door opening, and sensor errors.



Cabinet Structure



Glass Shelve



Fan/Interior Light



Display Board

## Specifications

| Model                         |                                | HLR-310F            |                |
|-------------------------------|--------------------------------|---------------------|----------------|
| Technical Data                | Type                           | Upright             |                |
|                               | Climate Class                  | N                   |                |
|                               | Cooling Type                   | Forced Air Cooling  |                |
|                               | Defrost Mode                   | Auto                |                |
|                               | Refrigerant                    | R600a               |                |
|                               | GWP (global warming potential) | 20                  |                |
|                               | Sound Level (dB(A))            | 40                  |                |
| Performance                   | Temperature Range (°C)         | 3-16 Adjustable     |                |
|                               | Ambient Temperature (°C)       | 16-32               |                |
| Control                       | Controller                     | Microprocessor      |                |
|                               | Display                        | LED                 |                |
| Electrical Data               | Power Supply (V/Hz)            | 220-240/50          |                |
|                               | Power (W)                      | 225                 |                |
|                               | Electrical Current (A)         | 1.6                 |                |
| Performance Characteristics   | Temperature Sensor             | NTC                 |                |
|                               | Power Consumption (kWh/24h)    | 1.05                |                |
| Dimensions                    | Capacity (L/Cu.Ft)             | 310/10.9            |                |
|                               | Net/Gross Weight               | kg                  | 72/83          |
|                               |                                | lbs                 | 158.7/183      |
|                               | Interior Dimensions (W*D*H)    | mm                  | 560*500*1290   |
|                               |                                | in                  | 22.0*19.7*50.8 |
|                               | Exterior Dimensions (W*D*H)    | mm                  | 605*598*1840   |
|                               |                                | in                  | 23.8*23.6*73.6 |
|                               | Packing Dimensions (W*D*H)     | mm                  | 680*690*1940   |
| in                            |                                | 26.8*27.1*74.4      |                |
| Container Load (20'/40'/40'H) | 24/51/51                       |                     |                |
| Alarms                        | High/Low Temperature           | Y                   |                |
|                               | Sensor Error                   | Y                   |                |
|                               | Door Ajar                      | Y                   |                |
|                               | Audible and Visual Alarm       | Y                   |                |
| Accessories                   | Caster                         | 4                   |                |
|                               | Foot                           | 2                   |                |
|                               | Porthole                       | Y                   |                |
|                               | Shelves                        | 4                   |                |
|                               | Temperature Setting Mode       | Password Protection |                |
| Material                      | Exterior Material              | Painted Steel       |                |
|                               | Interior Material              | Polystyrene         |                |
|                               | Door Thickness (mm)            | 45                  |                |
|                               | Cabinet Thickness (mm)         | 35                  |                |
|                               | No. of Shelves                 | 4                   |                |
| Others                        | Certification                  | CE                  |                |

# Transportation



## Temperature Range 0~25°C

### Scope of Application

This product is applicable for international aviation cold chain transportation of drugs, vaccines, medicines, biological products, raw materials, high-end fresh food and other products which require strict temperature control.



### Product Advantages



Robust construction with advanced technology to ensure reliable quality and stable performance



Prevent internal temperature deviation and ensure the temperature uniformity under extreme environmental temperature changes



Superior internal temperature uniformity



Cost-effective performance

### Specifications

| Model                           | RKN-AT1   |   |                |
|---------------------------------|---|---|----------------|
| Power                           | Supports automatic switching between external AC power supply and built-in battery power supply, which is convenient to use and simple to operate   |   |                |
|                                 | Recharging power supply   | 100-240V AC, 50-60Hz  |                |
|                                 | Maximum charging time (h)   | 10 (fast charging)  |                |
|                                 | Maximum power during charging (w)   | 1,100   |                |
| Temperature Control Performance | The temperature management system, developed independently, achieves accurate temperature control through compressor refrigeration and electric heating innovative air circulation system to effectively balance the temperature difference |   |                |
|                                 | Temperature range   | 0°C~+25°C (+32°F to +77°F)  |                |
|                                 | Internal temperature tolerance  | At set temperature +2°C~+10°C (+35.6°F to +50°F), Tolerance +/-3°C (+/-5.4°F)<br>At set temperature +10°C~+20°C (+50°F to +68°F), Tolerance +/-5°C (+/-9°F) |                |
|                                 | Battery capacity  | When the ambient temperature is 25°C (77°F), the set temperature is 5°C (41°F), the container can operate for more than 50 hrs.                             |                |
|                                 | Operating ambient temperature   | -20°C~+43°C (-4°F to +109.4°F)  |                |
|                                 | Storage ambient temperature   | -40°C~+55°C (-40°F to +131°F)   |                |
| Dimensions                      | Internal effective volume   | 2m <sup>3</sup> (70.6 foot <sup>3</sup> )   |                |
|                                 | Exterior dimensions (L*W*H)   | mm  | 2005*1534*1620 |
|                                 |   | in  | 78.9*60.4*63.8 |
|                                 | Interior dimensions (L*W*H)   | mm  | 1294*1273*1264 |
|                                 |   | in  | 50.9*50.1*49.8 |
|                                 | Door opening (L*H)  | mm  | 1294*1264      |
| in                              |   | 50.9*49.8   |                |
| Weight                          | Tare weight   | kg  | 650            |
|                                 |   | lbs   | 1433           |
|                                 | Operational maximum gross weight  | kg  | 1588           |
|                                 |   | lbs   | 3500           |
|                                 | Maximum payload   | kg  | 938            |
|                                 |   | lbs   | 2067           |
| Data Recording                  | Data recording function: internal and external temperature, door opening times, alarm information through USB port  |   |                |
| Others                          | Applicable Aircraft Models: A330, A350, A380, B747, B767, B777, B787 as key examples  |   |                |
| Note                            | Tare weight and maximum payload might vary due to load variations and maintenance   |   |                |

## Temperature Range 0~10°C

### Active Cooling Solution



HZY-8Z/8ZA



HZY-15Z/15ZA

- Accurate control of the temperature between 2-6°C
- PCM ice raft
- Constant temperature range (4±1°C)
- Complete process with cold chain monitoring
- Replace the traditional Insulation method with haier's transport cooler for transport
- Blood from blood transfusion department to clinical blood transfusion point



#### Low Noise

- The ultra-quiet fan is equipped with air outlets on both sides, noise level less than 34 dB providing a more comfortable environment.



Air Duct Structure



#### Easy to Clean

- The inner liner adopts aluminium oxidation process to make it smooth inside and easy to clean.



Internal Structure

### Product Features

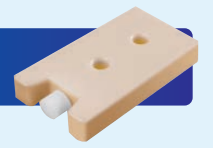
**Semiconductor for active cooling, energy saving and environmental protection.**

- Connect to power to cool unit to temperature, during transportation (without power) the unit will hold temperature. Small and easy to carry.

**2~6 °C precise temperature control, suitable for storage of biological products such as blood, medicines and reagents etc.**

- Temporary blood storage to ensure blood safety at clinical blood stations.

**Embedded with 4 °C phase change PCM ice pack for cold storage, providing long insulation after power off to ensure blood safety during the transportation.**



4 °C PCM Ice Pack

- The PCM ice pack uses a 4°C phase change material with a freezing point greater than 2°C to ensure the low temperature preservation of blood and other biological samples.
- At 25 °C under no load, the time for temperature inside the box rises to 10 °C is more than 1 hour.
- At 25 °C under full load, the time for temperature inside the box rises to 10 °C is more than 2 hour.

**Multiple Fault Alarms, Making It Safer to Use.**

- High/low temperature alarm, power failure alarm, and sensor error alarm.

**The Power Supply Is Configured with Cigarette Lighter Plug, Easy for Vehicle Transportation.**

- The power supply is configured to fit the vehicles internal power plug, easy for vehicle transportation.

### Passive Cooling Solution

- Multi-function handle with casters for easy transportation.
- Multi dimensional binding of orders and blood, and whole process with cold chain monitoring.
- From blood collection vehicle/blood donation house to blood center/blood station from blood center/blood station to hospital.

### Product Features

- LCD screen, real-time display of inside temperature, battery level and other information.
- Electromagnetic lock as standard, ability to scan QR code to open the unit, safeguarding the stored items.
- 4°C ice pack ensures cool storage temperatures with zero freezing to keep blood within safe storage temperature guidelines during transportation.



HZY-5B



HZY-35B

### Product Features

- Real-time display of inside temperature.
- Integrated cold storage ice pack box, easy to access ice pack.
- Rotational moulding shell, anti-knocking, easy to carry.
- Multifunctional handle, sided casters, easy to be transported on flat road.

Specifications



| Model          | HZY-5B                         | HZY-8Z  | HZY-15Z   |   |
|----------------|--------------------------------|---|---|---|
| Technical Data | Storage Temperature (°C)       | /   | 2-6   | 2-6   |
|                | Operating Temperature (°C)     | 2-10  | 2-10  | 2-10  |
| Dimensions     | Net / Gross Weight (kg)        | 2/3   | 4/5   | 6/8   |
|                | Exterior Dimensions (W*D*H mm) | 285*186*200                                       | 320*265*260                                       | 520*300*270                                       |
|                | Interior Dimensions (W*D*H mm) | 220*118*126                                       | 230*140*170                                       | 430*150*180                                       |
|                | Packing Dimensions (W*D*H mm)  | 357*277*287                                       | 393*362*367                                       | 595*375*404                                       |
|                | Blood Bag Capacity             | 5   | 8   | 15  |
| Alarms         | Foam material                  | High density foam                                 | Polyurethane Cycloisopentane                      | Polyurethane Cycloisopentane                      |
|                | Refrigeration method           | Passive cooling                                   | Semiconductor active refrigeration                | Semiconductor active refrigeration                |
|                | Warm up time                   | 3 hours (32°C ambient temperature load situation) | 2 hours (32°C ambient temperature load situation) | 2 hours (32°C ambient temperature load situation) |
|                | Shell/liner                    | ABS/ABS   | ABS/aluminium plate                               | ABS/aluminium plate                               |
|                | Alarm                          | Low Battery                                       | High temperature, sensor error, power off         | High temperature, sensor error, power off         |
|                | Battery                        | Lithium Battery                                   | Rechargeable lithium battery                      | Rechargeable lithium battery                      |
|                | Others                         | CE  | /   | Y   |

Specifications



| Model          | HZY-8ZA                        | HZY-15ZA  | HZY-35B   |   |
|----------------|--------------------------------|---|---|---|
| Technical Data | Storage Temperature (°C)       | 2-6   | 2-6   | /   |
|                | Operating Temperature (°C)     | 2-10  | 2-10  | 2-10  |
| Dimensions     | Net / Gross Weight (kg)        | 4/5   | 6/8   | 9/12  |
|                | Exterior Dimensions (W*D*H mm) | 320*265*260                                       | 520*300*270                                       | 550*328*370                                       |
|                | Interior Dimensions (W*D*H mm) | 230*140*170                                       | 430*150*180                                       | 450*232*295                                       |
|                | Packing Dimensions (W*D*H mm)  | 393*362*367                                       | 595*375*404                                       | 674*455*490                                       |
|                | Blood Bag Capacity             | 8   | 15  | 35  |
| Alarms         | Cold Chain Monitoring          | Y   | Y   | /   |
|                | NFC Unlock                     | /   | Y   | /   |
|                | Foam material                  | Polyurethane Cycloisopentane                      | Polyurethane Cycloisopentane                      | Polyurethane Cycloisopentane                      |
|                | Refrigeration method           | Semiconductor active refrigeration                | Semiconductor active refrigeration                | Passive cooling                                   |
|                | Warm up time                   | 2 hours (32°C ambient temperature load situation) | 2 hours (32°C ambient temperature load situation) | 6 hours (43°C ambient temperature load situation) |
|                | Shell/liner                    | ABS/aluminium plate                               | ABS/aluminium plate                               | HDPE/HDPE   |
|                | Alarm                          | High temperature, sensor error, power off         | High temperature, sensor error, power off         | /   |
| Battery        | Rechargeable lithium battery   | Rechargeable lithium battery                      | Button battery                                    |   |
| Others         | CE                             | /   | /   | Y   |

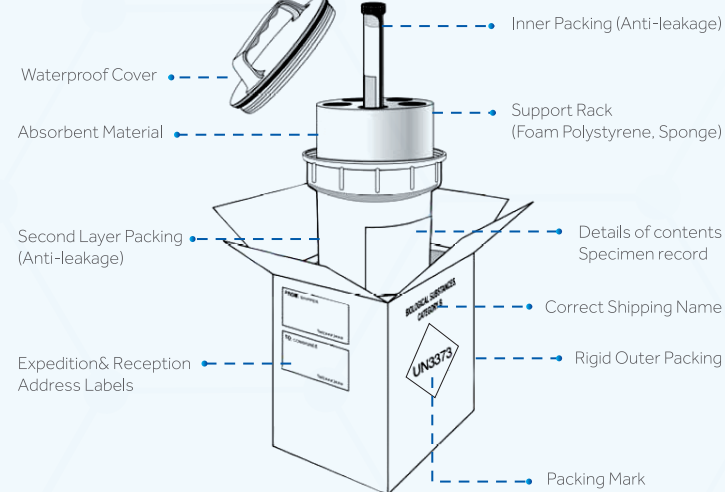
## Transport Cooler for Infectious Products

The virus is high-risk specimen, and if there is a collision during the transportation or transmission, there will be a risk of leakage and re-infection. A solution is urgently needed to ensure the viability of the samples and the safety of transport personnel.

### Packaging System

#### Three-layer packaging:

- **Main container**  
Test tube with cap (user configures according to business)
- **Auxiliary container**  
≥95kPa pressure sealed tank (EPS or EPE bracket for fixing test tube, 16 hole D10 test tube and 2 hole D15 test tube)
- **Outer packaging**  
Transfer box (ice row, foam used to fix sealed container, activated carbon and other adsorbed substances, sample labeling)



### Active Cooling



HZY-8Z (Specimen)



HZY-15Z (Specimen)

### Product Advantages



#### Active semiconductor cooling, energy saving and environment-friendly

Active semiconductor cooling, energy saving and environmental protection, built-in cooling function, cooling after power on.



#### Precise temperature control

Precise temperature control at 2°C~6°C is suitable for the temporary storage of biological products such as serum and blood specimens.



#### Built-in, 4°C phase change PCM, ice row cooling, long-term insulation after power failure, to ensure the safety of specimen

Under the condition of no load at 25°C, the temperature of the air in the box rising to 10°C takes 1 hour; under the loading condition of 25°C, the air temperature in the box rising to 10°C takes 2 hours.



#### Multiple fault alarms, safer to use

High and low temperature alarm, power failure alarm, sensor error alarm.



#### The power supply is equipped with a car cigarette lighter plug, which is convenient for vehicle transport

The power supply can support 12V and 100~240V conversion, so the container can be put into the car to plug in and transfer.

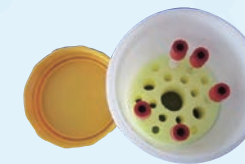
### Auxiliary Container



HZY-8Z (Specimen)



HZY-15Z (Specimen)



#### Pressure sealed tank (EPS or EPE holder for fixing test tubes, 16-hole D10 test tube and 2-hole D15 test tube)

The pressure-sealed tank remains intact at the temperature of the refrigerant used, as well as the temperature and pressure that may occur after loss of refrigeration. Under the condition of no leakage, it can withstand the internal pressure of 95kPa, and can ensure that it will not be damaged in the temperature range of -40°C to +55°C.

### Specifications

| Model                               | HZY-8Z (Specimen)   | HZY-15Z (Specimen)                    |
|-------------------------------------|---|---------------------------------------|
| Use                                 | Transfer of biological specimens, etc   | Transfer of biological specimens, etc |
| Type                                | Active cooling, portable  | Active cooling, portable              |
| Internal dimensions (W*D*H mm)      | 230*140*170   | 430*150*180                           |
| External dimensions (W*D*H mm)      | 320*265*260   | 520*300*270                           |
| Loading quantity                    | 1 transport tank  | 2 transport tanks                     |
| Effective volume                    | 6L, 1 built-in specimen seal can  | 12L, 2 built-in specimen seal cans    |
| Specimen seal can dimension (mm)    | H160*D130   | H160*D130                             |
| Tube storage capacity               | 16 pcs D10 test tubes (small), 2 pcs D15 test tubes (large)                           |                                       |
| Net weight (kg)                     | 3.5   | 6                                     |
| Controller                          | Microprocessor control  | Microprocessor control                |
| Temporary storage temperature (°C)  | 2-6   | 2-6                                   |
| Transfer temperature (°C)           | 2-10  | 2-10                                  |
| Holdover time (25°C, no load) (h)   | 1   | 1                                     |
| Holdover time (25°C, full load) (h) | 2   | 2                                     |
| External material                   | ABS, high-density EPS foam filling  | ABS, high-density EPS foam filling    |
| Internal material                   | Aluminum plate  | Aluminum plate                        |
| Door material                       | ABS, high-density EPS foam filling  | ABS, high-density EPS foam filling    |
| Cold storage                        | PCM ice-pack for cold storage   | PCM ice-pack for cold storage         |
| Cooling type                        | Optimized semiconductor cooling   | Optimized semiconductor cooling       |
| Cooling fan                         | ADDA fan  | ADDA fan                              |
| Temperature control and display     | Microprocessor control, dual sensors for control and display, display accuracy 0.1 °C |                                       |
| Alarms                              | Sensor failure alarm, high temperature alarm, power failure alarm                     |                                       |



# Vaccine Transport Cooler



The vaccine transport cooler is superior and efficient, having dual capabilities for cold storage and temperature preservation, which is environmentally friendly and energy saving. The performance of the cooler and holdover time of temperature preservation is influenced by the temperature of the stored items.

**6 Liter/12 Liter/20 Liter/ 30 Liter**

**Scope of Application** ▶ Suitable for vaccine cold chain transportation.



High strength material, anti-collision, non-toxic and harmless, UV resistant.



The outer-unit body is equipped with an integrated handle, which is firmly installed and durable.



Real-time display of temperature inside the cooler, making the temperature monitoring more intuitive.



Specially positioned ice packs, partitioned storage, easy to operate.



Professional & innovative sealed design ensuring zero cold leakage to achieve safe, secure and reliable long-term cooling preservation.

## Product Design and Advantages

- Both inside and outside of the boxes are made of PP (high strength plastic) material, non-toxic and harmless, safe for direct food contact.
- The wall of the box is filled with fluorine-free polyurethane foam insulation material without adding any chemical material, environment-friendly and odor-free.
- The body of the unit is designed with handles on both sides to facilitate manual handling & is manufactured with anti-ultraviolet materials.
- Equipped with professional sealing ring design, with good heat insulation and refrigeration effect.

## Specifications



| Model                     | QBLL0606                 | QBLL0812                 | QBLL0820                  | QBLL0830                 |
|---------------------------|--------------------------|--------------------------|---------------------------|--------------------------|
| Temperature Range (°C)    | 2-8                      | 2-8                      | 2-8                       | 2-8                      |
| Volume (L)                | 6                        | 12                       | 20                        | 30                       |
| Exterior Dimension (mm)   | 330*240*275              | 420*245*300              | 440*262*308               | 580*310*360              |
| Interior Dimension (mm)   | 238*143*195              | 335*170*240              | 375*215*250               | 475*245*295              |
| Net Weight (Kg)           | 1.8                      | 2.4                      | 3.5                       | 4.5                      |
| Material                  | PP                       | PP                       | PP                        | PP                       |
| Cold Source Configuration | 6 pieces QB004 ice boxes | 6 pieces QB004 ice boxes | 10 pieces QB004 ice boxes | 6 pieces QB010 ice boxes |

Remark: QB004 and QB010 are models of ice packs, the dimension of QB004 is 160\*90\*30mm and the dimension of QB010 is 280\*120\*30mm

## Typical Application

Cold chain transportation for samples, reagents, blood products, specimens and drugs.

## Specifications

| Model                           | FS-12LS     | FS-18LS     | FS-35LS     | FS-54LS     | FS-100L     | FS-110L     |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Temperature Range (°C)          | 0-10        | 0-10        | 0-10        | 0-10        | 0-10        | 0-10        |
| Duration (h)                    | ≥24         | ≥24         | ≥24         | ≥24         | ≥24         | ≥24         |
| Exterior Dimensions (W*D*H)(mm) | 425*262*305 | 425*262*305 | 570*305*365 | 615*415*450 | 800*440*440 | 870*520*400 |
| Interior Dimensions (W*D*H)(mm) | 325*170*225 | 363*203*244 | 475*245*270 | 510*315*355 | 700*385*340 | 790*460*330 |
| Quantity of Icepacks (Pcs)      | 4           | 4           | 4           | 3           | 6           | 8           |
| Net Weight (kg)                 | 4.8         | 5.2         | 7.5         | 15          | 19.6        | 24          |
| Others                          | CE          | CE          | CE          | CE          | CE          | CE          |

Note: -25°C--15°C and 15°C-25°C are available with optional ice packs. The standard ice packs can only achieve 0-10°C temperature storage.

## Biosafety Transport Container



FS-12 18 35 54LS

- The sterilization process is easy, and the container can be used repeatedly
- High temperature outer case deformity protection for 10 years
- Manufactured with high-density polyethene and polypropylene material, which is non-toxic, UV resistant, non-fading and safe for direct food contact
- The container is filled with non-fluorinated polyurethane foam insulation material without any chemical materials, which is eco-friendly and without odor
- Easy to use: Smart-designed ice box, fixed clip, storage partition
- Integrated handles on both sides of the container, convenient, firm and durable
- Professional sealing with superior heat insulation and preservation effect
- Optional whole process temperature monitoring, which makes transportation more secure

### Technical Parameters

| Model                               | FS-12LS     | FS-18LS     | FS-35LS     | FS-54LS     |
|-------------------------------------|-------------|-------------|-------------|-------------|
| Temperature Range (°C)              | 2-10°C      | 2-10°C      | 2-10°C      | 2-10°C      |
| Duration (H)                        | ≥24h        | ≥24h        | ≥24h        | ≥24h        |
| Exterior Dimensions (W*D*H) (mm)    | 425*262*305 | 425*262*305 | 570*305*365 | 615*415*450 |
| Interior Dimensions (W*D*H) (mm)    | 325*170*225 | 375*215*250 | 475*245*270 | 510*315*355 |
| QTY of Sealed Tanks (Pcs)           | 2           | 3           | 5           | 14          |
| QTY of Sampling Tubes (Pcs)         | 40          | 60          | 100         | 280         |
| Qty of ice packs (Pcs)              | 4           | 4           | 8           | 3           |
| Net Weight (include ice packs) (Kg) | 5.2         | 6.5         | 9           | 20          |
| Others                              | CE          | CE          | CE          | CE          |

## Portable Transport Cooler

### Temperature Range -20~10°C



ALG50



BCD60



BCD115

- Low voltage battery protection
- LED lighting
- Widescreen LCD display
- Real-time voltage display
- Detachable temperature sensor
- Standard basket
- Low voltage battery protection
- LED lighting
- Widescreen LCD display
- Detachable temperature sensor
- Real-time voltage display
- Low voltage battery protection
- LED lighting
- Widescreen LCD display
- Detachable temperature sensor
- Real-time voltage display

### Specifications

| Model                          | ALG50                             | BCD60                             | BCD115                            |
|--------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Capacity (L)                   | 50                                | 60                                | 115                               |
| Climate Type                   | T, ST, SN, N                      | T, ST, SN, N                      | T, ST, SN, N                      |
| Net Weight (Kg)                | 16.7                              | 24.0                              | 28.6                              |
| Operating Temperature (°C)     | -20~ +10 (at 25°C)                | -18~ +10 (at 32°C)                | -18~ +10 (at 32°C)                |
| Power (W)                      | 55                                | 70                                | 70                                |
| Refrigerant                    | R134a                             | R134a                             | R134a                             |
| Insulation Material            | C5H10/C-Pentane                   | C5H10/C-Pentane                   | C5H10/C-Pentane                   |
| Exterior Dimensions (W*D*H) mm | 630*404*530                       | 621*485*569                       | 811*482*672                       |
| Packing Dimensions (W*D*H) mm  | 715*450*625                       | 718*578*638                       | 906*575*745                       |
| Voltage Power Supply           | AC110-240V, 50/60Hz<br>DC 12V/24V | AC110-240V, 50/60Hz<br>DC 12V/24V | AC110-240V, 50/60Hz<br>DC 12V/24V |
| Power Consumption (kWh/24h)    | 0.23                              | 0.25                              | 0.25                              |
| Others                         | CE                                | CE                                | CE                                |

## Active Cooling

### Product Advantages

#### DC Frequency Conversion Technology

DC frequency conversion compressor, superior energy efficiency.

#### Tilt Protection Function

Electronic gyroscope in board, effective protection for compressors.

#### Integrated Main Body

Rotational molding body better adapted to complex transport environments.

#### Multiple Power Supply

Supports AC and DC power.



HZY-40Z

### Unique Designs



The body and door use integrated roto molding.



Using environmental LBA CFC-free foaming materials, thermal insulation performance is increased by up to 5%.



The body is equipped with a handle for easy carry.



Optional: Casters to facilitate transport.



Optional: Electromagnetic lock, with password lock equipped; more secure.



Forced air cooling method, the temperature is more uniform.



Built-in UVC ultraviolet lamp for regular disinfection.



3 in 1 wide temperature range, multiple functions within one unit, greater cost savings.

### Specifications

| Model   | Exterior Dimension (W*D*H)(mm) | Interior Dimension (W*D*H)(mm) | Capacity (L) | Door   | Foam Materials | Compressor                       | Basket Load Bearing(KG) | Working Mode                   | Outer Shell/ Inner Liner | Condenser/ Evaporator  |
|---------|--------------------------------|--------------------------------|--------------|--|----------------|----------------------------------|-------------------------|--------------------------------|--------------------------|------------------------|
| HZY-40Z | 800*550*505                    | 338*348*285                    | 33           | Rotational moulding integrated forming foam door | LBA            | DC variable frequency compressor | ≤35                     | Forced air cooling and heating | Rotational moulding      | Microchannel/ Fin type |

| Controller     | Refrigerant | Light  | UV Lamp | Net Weight (KG) | Temperature Range (°C) | Power Supply                    | Max power (W) | Power Consumption (Kwh/24h) | Electromagnetic Lock | USB      |
|----------------|-------------|--------|---------|-----------------|------------------------|---------------------------------|---------------|-----------------------------|----------------------|----------|
| Microprocessor | HFC         | LED 1W | UVC 1W  | 42              | -20 to 22              | AC 110-240V 50/60Hz<br>DC12/24V | 90            | 1.5                         | Optional coded lock  | Optional |

## Intelligent Control Cold Chain Transport Cooler

### Product Advantages



#### Check the insulation status at any time

Real-time upload setting parameters, operation parameters, operation curve, alarm record and event record. Monitor the operation of the transport cooler through the UCool system to visualize the complete process and traceability of information.



BW25-8A/12A/18A/36A/64A  
BW50-12A/36A



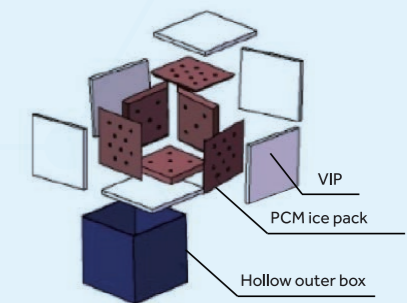
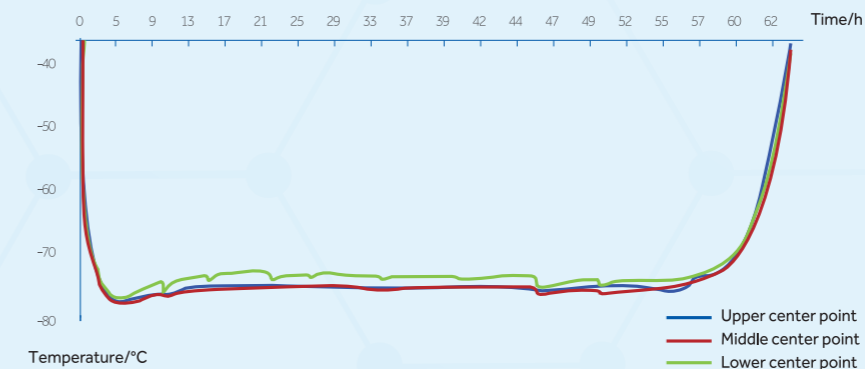
#### Stable performance, long service life

The product adopts VIP insulation technology which has an insulation performance of 5-8 times that of polyurethane foam, and significant extended time temperature control that handles the changing transportation conditions and environment; It has long service life by adopting nanometer core material.

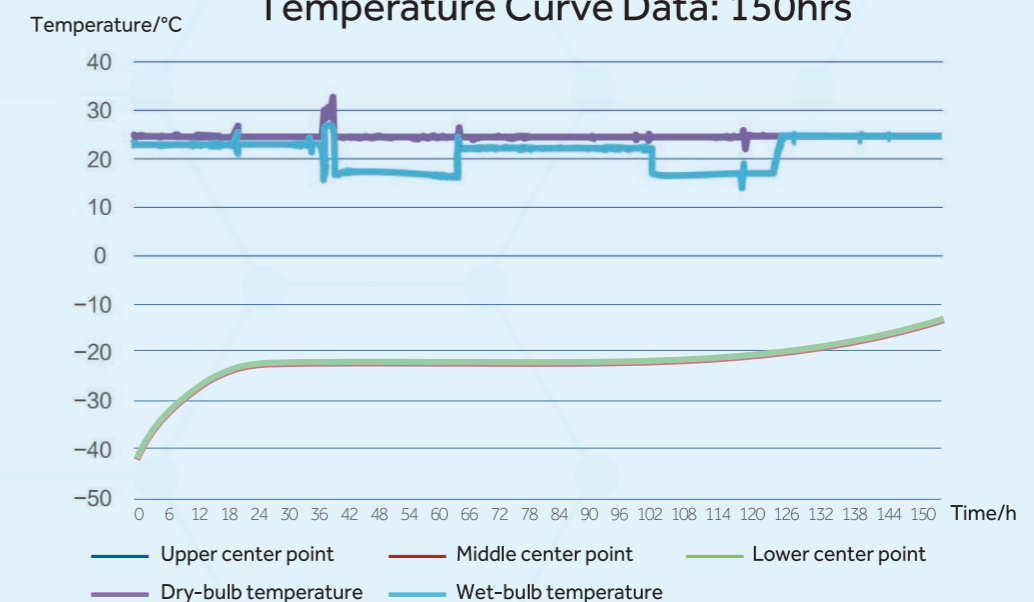


#### Light weight, easy to carry

Lightweight with ergonomic design is easy to carry.



### Temperature Curve Data: 150hrs



Follow the QR code and learn more about the Cold Chain Transport Cooler HZY-40Z from Haier Biomedical

# Intelligent Control Cold Chain Transport Cooler

## Specifications

| Model                               | BW25-8A                       | BW25-12A                      | BW50-12A                      | BW25-18A                      | BW25-36A                      | BW50-36A                      | BW25-64A                      |
|-------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Temperature Range (°C)              | -25~-15/2-8/<br>15-25/-90~-60 | -25~-15/2-8/<br>15-25/-90~-60 | -25~-15/2-8/<br>15-25/-90~-60 | -25~-15/2-8/<br>15-25/-90~-60 | -25~-15/2-8/<br>15-25/-90~-60 | -25~-15/2-8/<br>15-25/-90~-60 | -25~-15/2-8/<br>15-25/-90~-60 |
| Exterior Dimensions (W*D*H)(mm)     | 455*295*295                   | 410*345*355                   | 470*400*410                   | 510*350*355                   | 515*450*460                   | 575*510*510                   | 590*525*525                   |
| Packing Dimensions (W*D*H)(mm)      | 546*381*389                   | 504*436*444                   | 560*492*500                   | 607*439*447                   | 609*541*549                   | 665*597*605                   | 679*611*619                   |
| Interior Net Dimensions (W*D*H)(mm) | 310*215*215                   | 270*270*270                   | 270*270*270                   | 370*270*270                   | 370*370*370                   | 370*370*370                   | 440*440*440                   |
| Payload Size (with ice pack)(mm)    | 270*175*175<br>(8L)           | 230*230*230<br>(12L)          | 230*230*230<br>(12L)          | 330*230*230<br>(18L)          | 330*330*330<br>(36L)          | 330*330*330<br>(36L)          | 400*400*400<br>(64L)          |
| Net Weight (kg)                     | 4                             | 4.8                           | 9.8                           | 5.6                           | 8.2                           | 16.4                          | 11                            |
| Gross Weight (kg)                   | 6                             | 6.8                           | 12.5                          | 8.2                           | 11.2                          | 20                            | 14.8                          |
| Recorder Monitoring                 | Optional                      | Optional                      | Optional                      | Optional                      | Optional                      | Optional                      | Optional                      |
| Heat Insulating Material            | VIP                           | VIP                           | VIP                           | VIP                           | VIP                           | VIP                           | VIP                           |
| Insulation Thickness (mm)           | 25                            | 25                            | 50                            | 25                            | 25                            | 50                            | 25                            |
| Daily Consumption of Dry Ice (kg)   | 1.5                           | 1.6                           | 0.75                          | 1.85                          | 2.5                           | 1.5                           | 2.7                           |
| Safety Margin (kg)                  | 1                             | 1                             | 1                             | 1                             | 2                             | 2                             | 2                             |

Note: The safety margin is the minimum amount of dry ice required to keep the temperature in the box not higher than -70°C.

## Scope of Application

Suitable for refrigerated transportation of vaccines and biological products, samples, reagents, blood products, specimens and medicines.



BW25-12B/36B/64B/55B

## Product Advantages



### Stable performance, long service life

Vacuum insulation technology, ultra low thermal conductivity, ultra long insulation time



### Phase change cold storage, support multi-temperature range

It can be compatible with -25-15°C, 2-8°C and 15-25°C temperature ranges, and can be recycled



### Intelligent IoT is optional, and the whole process can be traced



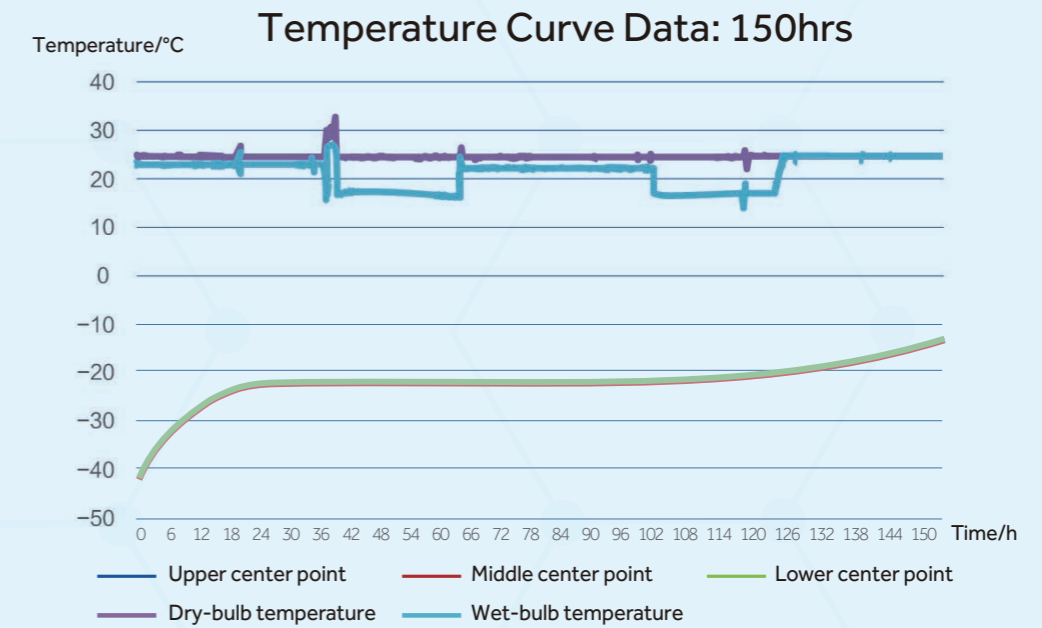
### Equipped with built-in handle for easy handling



### Six sided assembly structure is adopted for convenient maintenance

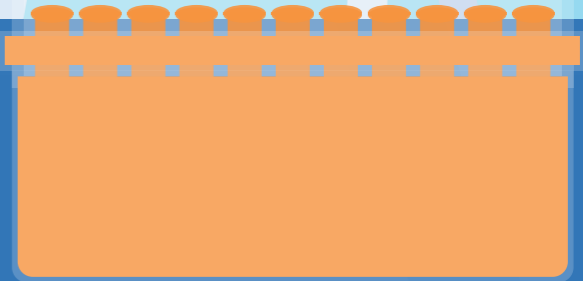
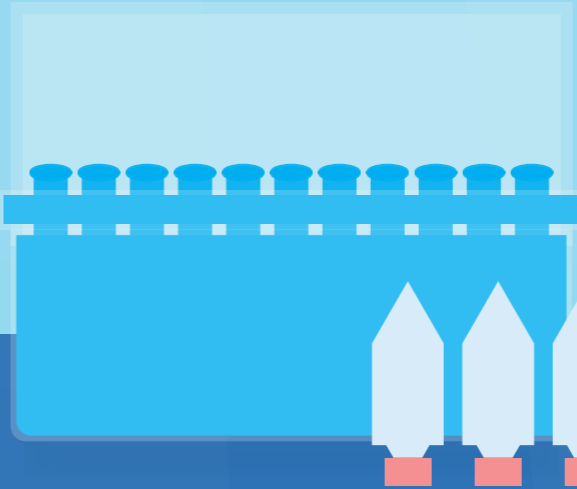
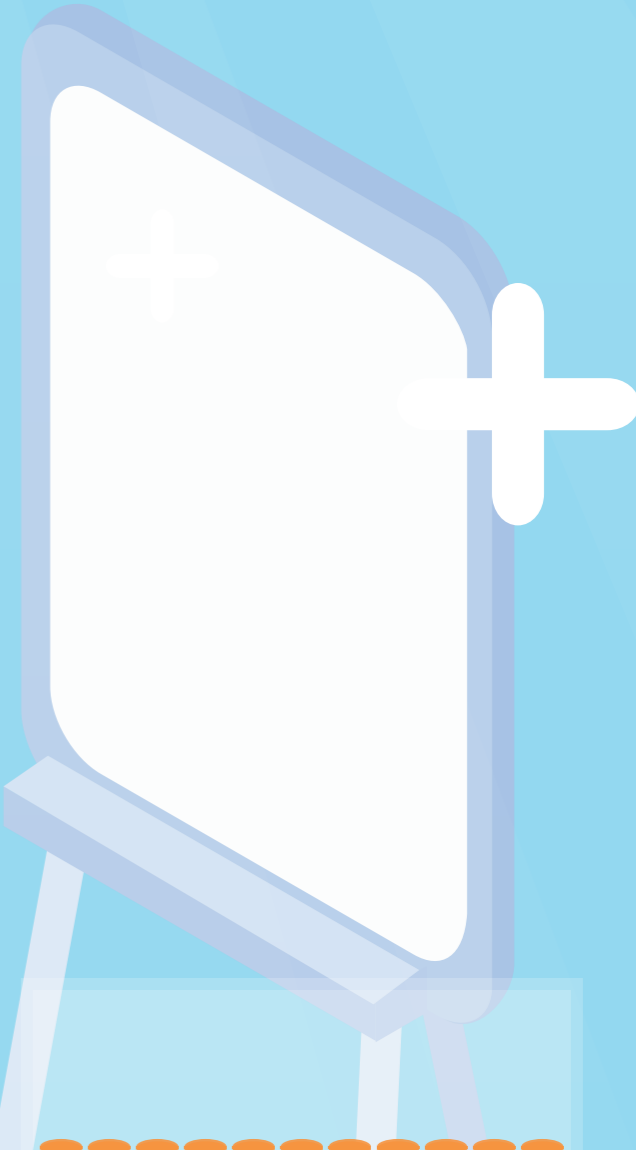
Six sided assembly structure is adopted for convenient maintenance

## Temperature Curve



## Specifications

| Model                              | BW25-12B          | BW25-36B          | BW25-64B          |
|------------------------------------|-------------------|-------------------|-------------------|
| Temperature Range (°C)             | -25~-15/2-8/15-25 | -25~-15/2-8/15-25 | -25~-15/2-8/15-25 |
| Exterior Dimensions (W*D*H mm)     | 410*345*355       | 515*450*460       | 590*525*525       |
| Packing Dimensions (W*D*H mm)      | 504*436*444       | 609*541*549       | 679*611*619       |
| Interior net Dimensions (W*D*H mm) | 270*270*270       | 370*370*370       | 440*440*440       |
| Payload Size (with ice pack) (mm)  | 230*230*230 (12L) | 330*330*330 (36L) | 400*400*400 (64L) |
| Net Weight (kg)                    | 5.8               | 9.5               | 13                |
| Gross Weight (kg)                  | 7.8               | 12.5              | 16.8              |
| Recorder Monitoring                | Optional          | Optional          | Optional          |
| Heat Insulating Material           | Fiberglass VIP    | Fiberglass VIP    | Fiberglass VIP    |
| Cooling Way                        | Passive cooling   |                   |                   |
| Coolant Type                       | PCM               |                   |                   |
| Duration Time                      | 48h               | 72h               | 72h               |



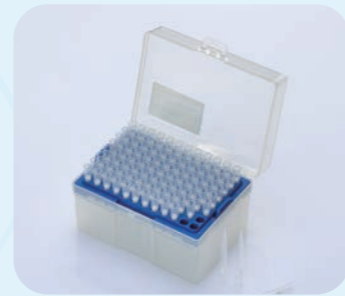
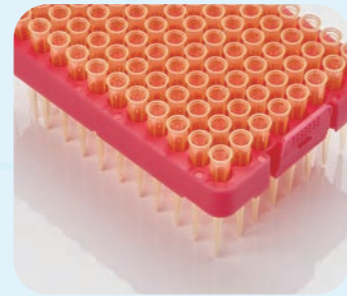
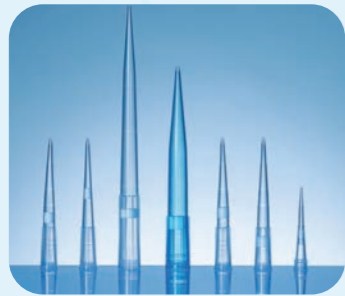
**Consumables**



### Universal Pipette Tips



- Volume Selection: 10/20/50/100/200/300/1000/1250  $\mu$ L
- Temperature Range: -80°C - 121°C



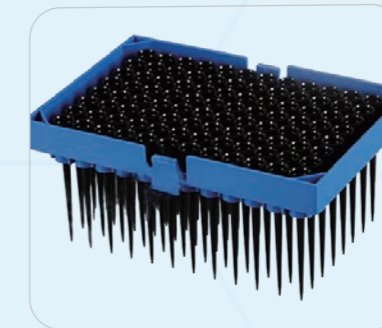
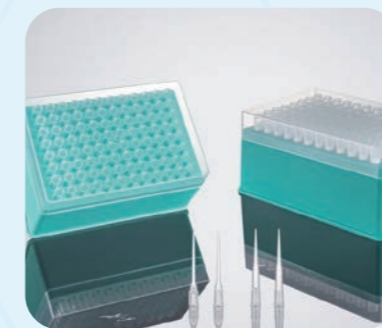
| Product                          | CAT.NO. | Volume ( $\mu$ L) | Filter | Low-Retention | Sterile | Packing                                  |
|----------------------------------|---------|-------------------|--------|---------------|---------|--|
| 200 $\mu$ l tips with scale      | 122025  | 10-200            |        |               |         | 1000pcs/bag,20bags/case                  |
|                                  | 122026  | 10-200            |        | ✓             |         | 1000pcs/bag,20bags/case                  |
|                                  | 111027  | 10-200            |        |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 111028  | 10-200            |        | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
| 200 $\mu$ l extended tips (59mm) | 122029  | 10-200            |        |               |         | 1000pcs/bag,20bags/case                  |
|                                  | 121030  | 10-200            |        |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 111031  | 10-200            | ✓      |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 122032  | 10-200            |        | ✓             |         | 1000pcs/bag,20bags/case                  |
| 200 $\mu$ l extended tips (78mm) | 111033  | 10-200            | ✓      | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 122034  | 10-200            |        |               |         | 1000pcs/bag,20bags/case                  |
|                                  | 111035  | 10-200            | ✓      |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 122036  | 10-200            |        | ✓             |         | 1000pcs/bag,20bags/case                  |
| 300 $\mu$ l extended tips        | 111037  | 10-200            | ✓      | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 122038  | 10-300            |        |               |         | 1000pcs/bag,5bags/case                   |
|                                  | 121039  | 10-300            |        |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 122040  | 10-300            |        | ✓             |         | 1000pcs/bag,5bags/case                   |
| 10 $\mu$ l extended tips         | 112041  | 10-300            | ✓      |               |         | 1000pcs/bag,5bags/case                   |
|                                  | 111042  | 10-300            | ✓      |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 111043  | 10-300            | ✓      | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 122044  | 0.5-10            |        |               |         | 1000pcs/bag,20bags/case                  |
| 10 $\mu$ l tips                  | 121045  | 0.5-10            |        |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 122046  | 0.5-10            |        | ✓             |         | 1000pcs/bag,20bags/case                  |
|                                  | 121047  | 0.5-10            |        | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 112048  | 0.5-10            | ✓      |               |         | 1000pcs/bag,10bags/case                  |
|                                  | 111049  | 0.5-10            | ✓      |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                                  | 111050  | 0.5-10            | ✓      | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |

| Product          | CAT.NO. | Volume ( $\mu$ L) | Filter | Low-Retention | Sterile | Packing                                  |
|------------------|---------|-------------------|--------|---------------|---------|--|
| 10 $\mu$ l tips  | 122001  | 0.5-10            |        |               |         | 1000pcs/bag,20bags/case                  |
|                  | 121002  | 0.5-10            |        |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                  | 122003  | 0.5-10            |        | ✓             |         | 1000pcs/bag,20bags/case                  |
|                  | 121004  | 0.5-10            |        | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                  | 112005  | 0.5-10            | ✓      |               | ✓       | 1000pcs/bag,10bags/case                  |
|                  | 111006  | 0.5-10            | ✓      |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                  | 111007  | 0.5-10            | ✓      | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
| 20 $\mu$ l tips  | 112008  | 1-20              | ✓      |               |         | 1000pcs/bag,10bags/case                  |
|                  | 111009  | 1-20              | ✓      |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                  | 111010  | 1-20              | ✓      | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
| 50 $\mu$ l tips  | 112011  | 5-50              | ✓      |               |         | 1000pcs/bag,10bags/case                  |
|                  | 111012  | 5-50              | ✓      |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                  | 111013  | 5-50              | ✓      |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                  | 111014  | 5-50              | ✓      | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
| 100 $\mu$ l tips | 112015  | 10-100            | ✓      |               |         | 1000pcs/bag,10bags/case                  |
|                  | 111016  | 10-100            | ✓      |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                  | 111017  | 10-100            | ✓      | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
| 200 $\mu$ l tips | 122018  | 10-200            |        |               |         | 1000pcs/bag,20bags/case                  |
|                  | 121019  | 10-200            |        |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                  | 122020  | 10-200            |        | ✓             |         | 1000pcs/bag,20bags/case                  |
|                  | 121021  | 10-200            |        | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                  | 112022  | 10-200            | ✓      |               |         | 1000pcs/bag,10bags/case                  |
|                  | 111023  | 10-200            | ✓      |               | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |
|                  | 111024  | 10-200            | ✓      | ✓             | ✓       | 96pcs/box,10boxes/inner box,50boxes/case |

### Automation Tips



- Type: Non-Conductive / Conductive
- Temperature Range: -80°C -121°C



| Product     | CAT.NO. | Volume (μL) | Filter | Low-Retention | Sterile | Packing                                   |
|-------------|---------|-------------|--------|---------------|---------|---|
| 1000μl tips | 122051  | 100-1000    |        |               |         | 1000pcs/bag,5bags/case                    |
|             | 122052  | 100-1000    |        |               |         | 1000pcs/bag,5bags/case                    |
|             | 121053  | 100-1000    |        |               | √       | 100pcs/box,10boxes/inner box,50boxes/case |
|             | 122054  | 100-1000    |        | √             |         | 1000pcs/bag,5bags/case                    |
|             | 121055  | 100-1000    |        | √             |         | 100pcs/box,10boxes/inner box,50boxes/case |
|             | 121056  | 100-1000    |        | √             | √       | 100pcs/box,10boxes/inner box,50boxes/case |
|             | 112057  | 100-1000    | √      |               |         | 1000pcs/bag,5bags/case                    |
|             | 112058  | 100-1000    | √      |               |         | 1000pcs/bag,5bags/case                    |
|             | 111059  | 100-1000    | √      |               | √       | 100pcs/box,10boxes/inner box,50boxes/case |
|             | 111060  | 100-1000    | √      | √             | √       | 100pcs/box,10boxes/inner box,50boxes/case |
| 1250μl tips | 122061  | 100-1250    |        |               |         | 1000pcs/bag,5bags/case                    |
|             | 122062  | 100-1250    |        |               |         | 1000pcs/bag,5bags/case                    |
|             | 121063  | 100-1250    |        |               | √       | 96pcs/box,10boxes/inner box,50boxes/case  |
|             | 122064  | 100-1250    |        | √             |         | 1000pcs/bag,5bags/case                    |
|             | 121065  | 100-1250    |        | √             | √       | 96pcs/box,10boxes/inner box,50boxes/case  |
|             | 112066  | 100-1250    | √      |               |         | 1000pcs/bag,5bags/case                    |
|             | 112067  | 100-1250    | √      |               |         | 1000pcs/bag,5bags/case                    |
|             | 111068  | 100-1250    | √      |               | √       | 96pcs/box,10boxes/inner box,50boxes/case  |
|             | 111069  | 100-1250    | √      |               | √       | 96pcs/box,10boxes/inner box,50boxes/case  |
|             | 111070  | 100-1250    | √      | √             | √       | 96pcs/box,10boxes/inner box,50boxes/case  |

| Product                               | CAT.NO. | Volume (μL) | Filter | Low-Retention | Sterile | Packing                                    |
|---------------------------------------|---------|-------------|--------|---------------|---------|--|
| Hamilton                              | 521001  | 1000        |        |               |         | 96 pcs/box, 5 boxes/strip, 8 strips/case   |
|                                       | 521002  | 1000        | √      |               |         | 96 pcs/box, 5 boxes/strip, 8 strips/case   |
| Agilent<br>Bravo<br>amd<br>VPrep      | 121075  | 30          |        |               | √       | 384pcs/box, 10boxes/inner box, 5boxes/case |
|                                       | 121076  | 30          |        | √             | √       | 384pcs/box, 10boxes/inner box, 5boxes/case |
|                                       | 111077  | 30          | √      |               | √       | 384pcs/box, 10boxes/inner box, 5boxes/case |
|                                       | 111078  | 30          | √      | √             | √       | 384pcs/box, 10boxes/inner box, 5boxes/case |
|                                       | 121079  | 70          |        |               | √       | 384pcs/box, 10boxes/inner box, 5boxes/case |
|                                       | 121080  | 70          |        | √             | √       | 384pcs/box, 10boxes/inner box, 5boxes/case |
|                                       | 111081  | 70          | √      |               | √       | 384pcs/box, 10boxes/inner box, 5boxes/case |
|                                       | 111082  | 70          | √      | √             | √       | 384pcs/box, 10boxes/inner box, 5boxes/case |
|                                       | 121083  | 250         |        | √             |         | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 121084  | 250         |        | √             |         | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 121085  | 250         |        |               | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 121086  | 250         |        | √             | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 111087  | 250         | √      |               | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 111088  | 250         | √      | √             | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |
| BECKMAN<br>Tip,<br>adapted<br>to i5i7 | 121089  | 50          |        |               |         | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 121090  | 50          |        | √             |         | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 121091  | 50          |        |               | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 121092  | 50          |        | √             | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 111093  | 50          | √      |               | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 111094  | 50          | √      | √             | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 121095  | 250         |        |               |         | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 121096  | 250         |        | √             |         | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 121097  | 250         |        |               | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 121098  | 250         |        | √             | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 111099  | 250         | √      |               | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |
|                                       | 111100  | 250         | √      | √             | √       | 96pcs/box, 10boxes/inner box, 5boxes/case  |

| Product   | CAT.NO. | Volume (μL) | Filter | Low-Retention | Sterile | Packing                 |
|---|---------|-------------|--------|---------------|---------|-------------------------|
| Tecan<br>LiHa,<br>clear   | 121101  | 20          |        |               |         | 96pcs/box, 24boxes/case |
|   | 121102  | 20          |        | √             |         | 96pcs/box, 24boxes/case |
|   | 121103  | 20          |        |               | √       | 96pcs/box, 24boxes/case |
|   | 121104  | 20          |        | √             | √       | 96pcs/box, 24boxes/case |
|   | 111105  | 20          | √      |               | √       | 96pcs/box, 24boxes/case |
|   | 111106  | 20          | √      | √             | √       | 96pcs/box, 24boxes/case |
|   | 121107  | 50          |        |               |         | 96pcs/box, 24boxes/case |
|   | 121108  | 50          |        | √             |         | 96pcs/box, 24boxes/case |
|   | 121109  | 50          |        |               | √       | 96pcs/box, 24boxes/case |
|   | 121110  | 50          |        | √             | √       | 96pcs/box, 24boxes/case |
|   | 111111  | 50          | √      |               | √       | 96pcs/box, 24boxes/case |
|   | 111112  | 50          | √      | √             | √       | 96pcs/box, 24boxes/case |
|   | 121113  | 200         |        |               |         | 96pcs/box, 24boxes/case |
|   | 121114  | 200         |        | √             |         | 96pcs/box, 24boxes/case |
|   | 121115  | 200         |        |               | √       | 96pcs/box, 24boxes/case |
|   | 121116  | 200         |        | √             | √       | 96pcs/box, 24boxes/case |
|   | 111117  | 200         | √      |               | √       | 96pcs/box, 24boxes/case |
|   | 111118  | 200         | √      | √             | √       | 96pcs/box, 24boxes/case |
|   | 121119  | 1000        |        |               |         | 96pcs/box, 16boxes/case |
|   | 121120  | 1000        |        | √             |         | 96pcs/box, 16boxes/case |
|   | 121121  | 1000        |        |               | √       | 96pcs/box, 16boxes/case |
|   | 121122  | 1000        |        | √             | √       | 96pcs/box, 16boxes/case |
|   | 111123  | 1000        | √      |               | √       | 96pcs/box, 16boxes/case |
|   | 111124  | 1000        | √      | √             | √       | 96pcs/box, 16boxes/case |
| Tecan LiHa,<br>conductive,<br>for Genesis<br>Freedom,<br>Freedom<br>Evo | 121125  | 20          |        | √             |         | 96pcs/box, 24boxes/case |
|   | 121126  | 20          |        | √             |         | 96pcs/box, 24boxes/case |
|   | 121127  | 20          |        |               | √       | 96pcs/box, 24boxes/case |
|   | 121128  | 20          |        | √             | √       | 96pcs/box, 24boxes/case |



| Product  | CAT.NO. | Volume (μL) | Filter | Low-Retention | Sterile                 | Packing                 |
|--|---------|-------------|--------|---------------|-------------------------|-------------------------|
| Tecan LiHa, conductive, for Genesis Freedom, Freedom Evo | 111129  | 20          | √      |               | √                       | 96pcs/box, 24boxes/case |
|  | 111130  | 20          | √      | √             | √                       | 96pcs/box, 24boxes/case |
|  | 121131  | 50          |        |               |                         | 96pcs/box, 24boxes/case |
|  | 121132  | 50          |        | √             |                         | 96pcs/box, 24boxes/case |
|  | 121133  | 50          |        |               | √                       | 96pcs/box, 24boxes/case |
|  | 121134  | 50          |        | √             | √                       | 96pcs/box, 24boxes/case |
|  | 111135  | 50          | √      |               | √                       | 96pcs/box, 24boxes/case |
|  | 111136  | 50          | √      | √             | √                       | 96pcs/box, 24boxes/case |
|  | 121137  | 200         |        |               |                         | 96pcs/box, 24boxes/case |
|  | 121138  | 200         |        |               | √                       | 96pcs/box, 24boxes/case |
|  | 121139  | 200         |        |               | √                       | 96pcs/box, 24boxes/case |
|  | 121140  | 200         |        |               | √                       | 96pcs/box, 24boxes/case |
|  | 111141  | 200         | √      |               | √                       | 96pcs/box, 24boxes/case |
|  | 111142  | 200         | √      | √             | √                       | 96pcs/box, 24boxes/case |
|  | 121143  | 1000        |        |               |                         | 96pcs/box, 16boxes/case |
|  | 121144  | 1000        |        |               | √                       | 96pcs/box, 16boxes/case |
|  | 121145  | 1000        |        |               | √                       | 96pcs/box, 16boxes/case |
|  | 121146  | 1000        |        |               | √                       | 96pcs/box, 16boxes/case |
| 111147   | 1000    | √           |        | √             | 96pcs/box, 16boxes/case |                         |
| 111148   | 1000    | √           | √      | √             | 96pcs/box, 16boxes/case |                         |
| Tecan LiHa, clear,SBS                                    | 121149  | 20          |        |               |                         | 96pcs/box, 24boxes/case |
|  | 121150  | 20          |        | √             |                         | 96pcs/box, 24boxes/case |
|  | 121151  | 20          |        |               | √                       | 96pcs/box, 24boxes/case |
|  | 121152  | 20          |        | √             | √                       | 96pcs/box, 24boxes/case |
|  | 111153  | 20          | √      |               | √                       | 96pcs/box, 24boxes/case |
|  | 111154  | 20          | √      | √             | √                       | 96pcs/box, 24boxes/case |
|  | 121155  | 50          |        |               |                         | 96pcs/box, 24boxes/case |
|  | 121156  | 50          |        |               | √                       | 96pcs/box, 24boxes/case |
|  | 121157  | 50          |        |               | √                       | 96pcs/box, 24boxes/case |
|  | 121158  | 50          |        |               | √                       | 96pcs/box, 24boxes/case |
|  | 111159  | 50          | √      |               | √                       | 96pcs/box, 24boxes/case |
|  | 111160  | 50          | √      | √             | √                       | 96pcs/box, 24boxes/case |
|  | 121161  | 200         |        |               |                         | 96pcs/box, 24boxes/case |
|  | 121162  | 200         |        |               | √                       | 96pcs/box, 24boxes/case |
|  | 121163  | 200         |        |               | √                       | 96pcs/box, 24boxes/case |
|  | 121164  | 200         |        |               | √                       | 96pcs/box, 24boxes/case |
|  | 111165  | 200         | √      |               | √                       | 96pcs/box, 24boxes/case |

| Product               | CAT.NO.                     | Volume (μL) | Filter | Low-Retention | Sterile                 | Packing                 |
|-----------------------|-----------------------------|-------------|--------|---------------|-------------------------|-------------------------|
| Tecan LiHa, clear,SBS | 111166                      | 200         | √      | √             | √                       | 96pcs/box, 24boxes/case |
|                       | 121167                      | 1000        |        |               |                         | 96pcs/box, 16boxes/case |
|                       | 121168                      | 1000        |        | √             |                         | 96pcs/box, 16boxes/case |
|                       | 121169                      | 1000        |        |               | √                       | 96pcs/box, 16boxes/case |
|                       | 121170                      | 1000        |        | √             | √                       | 96pcs/box, 16boxes/case |
|                       | 111171                      | 1000        | √      |               | √                       | 96pcs/box, 16boxes/case |
|                       | 111172                      | 1000        | √      | √             | √                       | 96pcs/box, 16boxes/case |
|                       | Tecan LiHa, conductive, SBS | 121173      | 20     |               |                         |                         |
| 121174                |                             | 20          |        | √             |                         | 96pcs/box, 24boxes/case |
| 121175                |                             | 20          |        |               | √                       | 96pcs/box, 24boxes/case |
| 121176                |                             | 20          |        | √             | √                       | 96pcs/box, 24boxes/case |
| 111177                |                             | 20          | √      |               | √                       | 96pcs/box, 24boxes/case |
| 111178                |                             | 20          | √      | √             | √                       | 96pcs/box, 24boxes/case |
| 121179                |                             | 50          |        |               |                         | 96pcs/box, 24boxes/case |
| 121180                |                             | 50          |        | √             |                         | 96pcs/box, 24boxes/case |
| 121181                |                             | 50          |        |               | √                       | 96pcs/box, 24boxes/case |
| 121182                |                             | 50          |        | √             | √                       | 96pcs/box, 24boxes/case |
| 111183                |                             | 50          | √      |               | √                       | 96pcs/box, 24boxes/case |
| 111184                |                             | 50          | √      | √             | √                       | 96pcs/box, 24boxes/case |
| 121185                |                             | 200         |        |               |                         | 96pcs/box, 24boxes/case |
| 121186                |                             | 200         |        |               | √                       | 96pcs/box, 24boxes/case |
| 121187                |                             | 200         |        |               | √                       | 96pcs/box, 24boxes/case |
| 121188                |                             | 200         |        |               | √                       | 96pcs/box, 24boxes/case |
| 111189                |                             | 200         | √      |               | √                       | 96pcs/box, 24boxes/case |
| 111190                |                             | 200         | √      | √             | √                       | 96pcs/box, 24boxes/case |
| 121191                |                             | 1000        |        |               |                         | 96pcs/box, 16boxes/case |
| 121192                |                             | 1000        |        |               | √                       | 96pcs/box, 16boxes/case |
| 121193                | 1000                        |             |        | √             | 96pcs/box, 16boxes/case |                         |
| 121194                | 1000                        |             |        | √             | 96pcs/box, 16boxes/case |                         |
| 111195                | 1000                        | √           |        | √             | 96pcs/box, 16boxes/case |                         |
| 111196                | 1000                        | √           | √      | √             | 96pcs/box, 16boxes/case |                         |
| 121197                | 5000                        |             |        |               | 96pcs/box, 16boxes/case |                         |
| 121198                | 5000                        |             |        | √             | 96pcs/box, 16boxes/case |                         |
| 121199                | 5000                        |             |        | √             | 96pcs/box, 16boxes/case |                         |
| 121200                | 5000                        |             |        | √             | 96pcs/box, 16boxes/case |                         |
| 111201                | 5000                        | √           |        | √             | 96pcs/box, 16boxes/case |                         |
| 111202                | 5000                        | √           | √      | √             | 96pcs/box, 16boxes/case |                         |

# Serological Pipette

## Serological Pipette



● Volume Selection: 1/2/5/10/25/50/100 mL

● Serological Pipette is mainly used for accurately measuring or transferring a certain volume of liquid, and widely used in fields such as cell culture, bacteriology, clinical practice, and scientific research experiments.

| CAT.NO. | Volume (mL) | Scale   | Color Ring | Type          | Packing                |
|---------|-------------|---------|------------|---------------|------------------------|
| 692209  | 1           | 1/100mL | Yellow     | Paper-Plastic | 100pcs/bag,10bags/case |
| 692210  | 2           | 1/50mL  | Green      | Paper-Plastic | 100pcs/bag,10bags/case |
| 692211  | 5           | 1/10mL  | Blue       | Paper-Plastic | 50pcs/bag,4bags/case   |
| 692212  | 10          | 1/10mL  | Orange     | Paper-Plastic | 50pcs/bag, 4bags/case  |
| 692213  | 25          | 2/10mL  | Red        | Paper-Plastic | 25pcs/bag, 10bags/case |
| 692214  | 50          | 1/2mL   | Purple     | Paper-Plastic | 25pcs/bag, 4bags/case  |
| 692215  | 100         | 1mL     | Black      | Paper-Plastic | 20pcs/bag, 6bags/case  |

Compatible with all kinds of pipettes, suitable for measuring a certain volume of liquid and vacuum suction.

# Pasteur Pipette

## Pasteur pipette

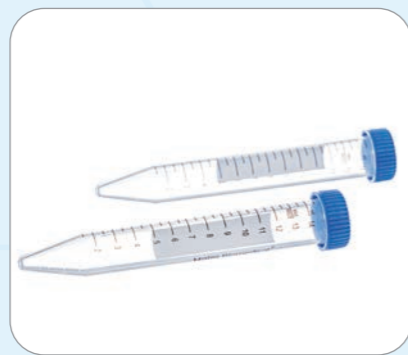


| CAT.NO. | Volume (mL) | Lengths | Package Type          | Sterile | Packing                 |
|---------|-------------|---------|-----------------------|---------|-------------------------|
| 603008  | 1           | 145 mm  | Individually Packaged | ✓       | 250pcs/bag,4 bags/case  |
| 603009  | 2           | 150 mm  | Individually Packaged | ✓       | 250pcs/bag,4 bags/case  |
| 603010  | 3           | 162 mm  | Individually Packaged | ✓       | 250pcs/bag,4 bags/case  |
| 603011  | 3           | 183mm   | Individually Packaged | ✓       | 200pcs/bag,3 bags/case  |
| 603012  | 3           | 183mm   | Bulk                  |         | 200pcs/bag,3 bags/case  |
| 603013  | 1           | 162 mm  | Bulk                  |         | 100pcs/bag,50bags/ case |
| 603014  | 2           | 162 mm  | Bulk                  |         | 100pcs/bag,50bags/ case |
| 603015  | 3           | 162 mm  | Bulk                  |         | 100pcs/bag,50bags/ case |
| 603016  | 3           | 195 mm  | Bulk                  |         | 100pcs/bag,45bags/ case |
| 603017  | 5           | 210 mm  | Bulk                  |         | 100pcs/bag,25bags/ case |
| 603018  | 10          | 285 mm  | Bulk                  |         | 100pcs/bag,12bags/ case |

### Centrifuge Tube



- Cap: HDPE, Tube: PP
- Temperature Range: -80°C -121°C



| CAT.NO. | Volume (mL) | Color    | RCF     | Sterile | Packing                   |
|---------|-------------|----------|---------|---------|---------------------------|
| 311005  | 15          | Blue Cap | 16000xg | √       | 25 pcs/bag, 20 bags/ case |
| 311006  | 50          | Blue Cap | 16000xg | √       | 25 pcs/bag, 20 bags/ case |

### Microcentrifuge Tube



- Holding samples, mixing reagents. Low temperature storage of antibodies, nucleic acids, etc. Sample preparation during the experiment. Centrifuge separation and precipitation of trace samples.

- Temperature Range: -80°C -121°C



| CAT.NO. | Volume (mL) | Material | RCF     | Color | Sterile | Packing                      |
|---------|-------------|----------|---------|-------|---------|------------------------------|
| 311001  | 0.6         | PP       | 20000xg | Clear | ×       | 1000 pcs/box, 10 boxes/ case |
| 311002  | 1.5         | PP       | 20000xg | Clear | ×       | 500 pcs/box, 10 boxes/ case  |
| 311004  | 2.0         | PP       | 20000xg | Clear | ×       | 500 pcs/box, 10 boxes/ case  |

### Centrifuge Bottle

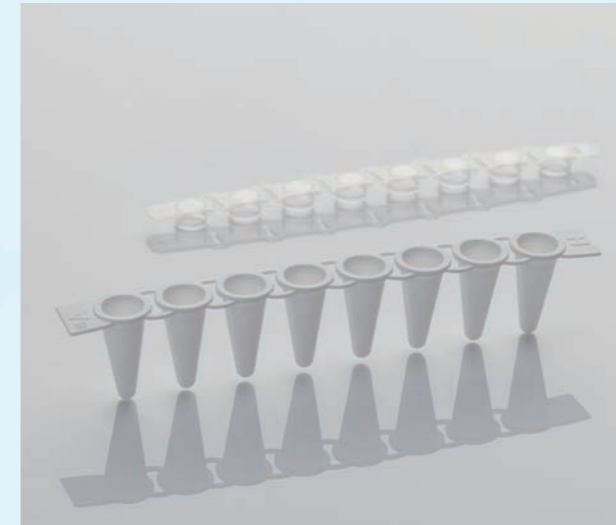


- Volume Selection: 225/250/500 mL
- Temperature Range: -80°C - 121°C

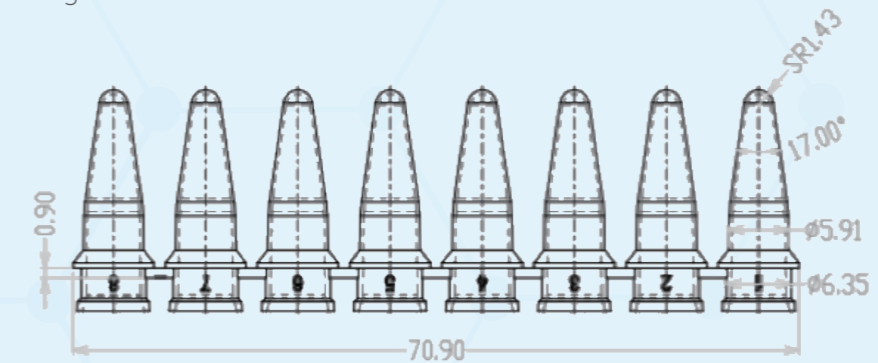
| CAT.NO. | Volume (mL) | Type           | Material           | RCF    | Sterile | Packing                  |
|---------|-------------|----------------|--------------------|--------|---------|--------------------------|
| 321007  | 225         | Conical bottom | Tube: PP;Cap: HDPE | 6000xg | ✓       | 6 pcs/bag, 6 bags/ case  |
| 321008  | 250         | Conical bottom | Tube: PP;Cap: HDPE | 6000xg | ✓       | 6 pcs/bag, 17 bags/ case |
| 321009  | 500         | Conical bottom | Tube: PP;Cap: HDPE | 6000xg | ✓       | 6 pcs/bag, 6 bags/ case  |
| 321010  | 500         | Flat bottom    | PP                 | 8000xg | ×       | 6 pcs/bag, 10 bags/ case |

### PCR Series

### PCR Tube



- Volume Selection: 100/200 µL
- Temperature Range: -80°C - 121°C

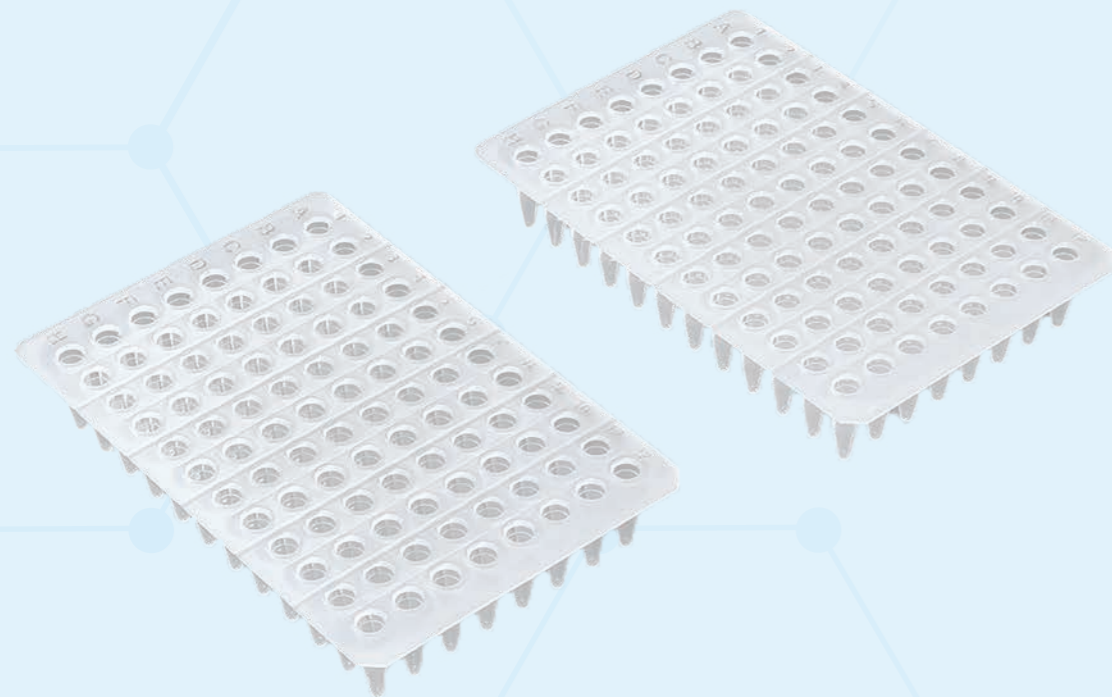


| Product           | CAT.NO. | Volume (mL) | Color | Product Description              | Packing                               |
|-------------------|---------|-------------|-------|----------------------------------|---------------------------------------|
| PCR tubes         | 211001  | 0.2         | Clear | single tube, thin-wall, flat cap | 500pcs/bag, 2 bags/box, 10 boxes/case |
| PCR 8-strip tubes | 222002  | 0.1         | Clear | 8-strip tube,flat cap            | 125 sets/bag, 10 bags/case            |
|                   | 222003  | 0.1         | White | 8-strip tube,flat cap            | 125 sets/bag, 10 bags/case            |
|                   | 292004  | 0.1         | Clear | 8-strip tube--type B,flat cap    | 125 sets/bag, 10 bags/case            |
|                   | 292005  | 0.1         | White | 8-strip tube--type B,flat cap    | 125 sets/bag, 10 bags/case            |
|                   | 292006  | 0.2         | Clear | 8-strip tube--type B,flat cap    | 125 sets/bag, 10 bags/case            |
|                   | 292007  | 0.2         | White | 8-strip tube--type B,flat cap    | 125 sets/bag, 10 bags/case            |
|                   | 222008  | 0.2         | Clear | 8-strip tube, flat cap           | 125 sets/bag, 10 bags/case            |
|                   | 272009  | 0.2         | Clear | 8-strip tube,convex cap          | 125 sets/bag, 10 bags/case            |

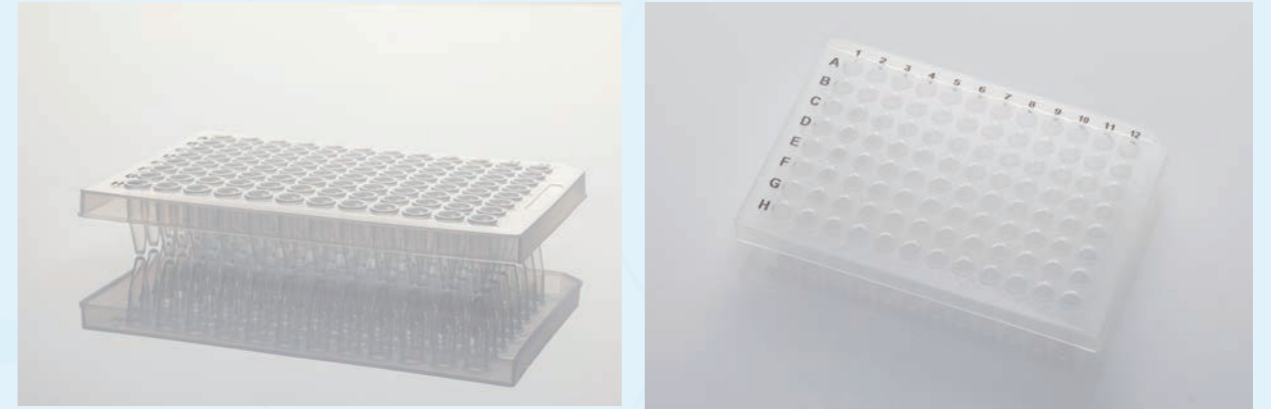
## PCR Plate

The PCR series products(Polymerase Chain Reaction, PCR) are mainly used as primers, Taq DNA polymerase, dNTP, template nucleic acid, Mg, buffer, and other carriers involved ,They are widely used in genetics, biochemistry, immunity, medicine, and other fields. They are not only used in basic research such as gene isolation, cloning, and nucleic acid sequence analysis, but also in disease diagnosis or anywhere with DNA or RNA.

PCR are used in batch samples to meet different user needs and have wide applicability, making them suitable for different automation applications.

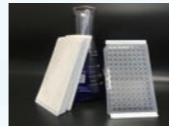


## PCR Series



| CAT.NO. | Volume (mL) | Type                   | Color       | Sterile | Packing                |
|---------|-------------|------------------------|-------------|---------|------------------------|
| 232024  | 0.2         | No Skirt               | Clear       | ×       | 10pcs/box, 5boxes/case |
| 242025  | 0.2         | Half Skirt             | Clear       | ×       | 10pcs/box, 5boxes/case |
| 242026  | 0.2         | Half Skirt,Anti-static | Clear       | ×       | 10pcs/box, 5boxes/case |
| 232029  | 0.1         | No Skirt               | Clear       | ×       | 10pcs/box, 5boxes/case |
| 242030  | 0.1         | Half Skirt             | Clear       | ×       | 10pcs/box, 5boxes/case |
| 242031  | 0.1         | Half Skirt,Anti-static | Clear       | ×       | 10pcs/box, 5boxes/case |
| 252032  | 0.1         | Full Skirt             | Clear       | ×       | 10pcs/box, 5boxes/case |
| 252035  | 0.1         | Full Skirt,H1          | Clear+White | ×       | 10pcs/box, 5boxes/case |
| 252033  | 0.1         | Full Skirt,Anti-static | Clear       | ×       | 10pcs/box, 5boxes/case |

## PCR Plate Seals

| Product   | CAT.NO. | Dimension  | Temperature Range | Packing    |
|---|---------|------------|-------------------|------------|
|  | 202034  | 140mm*80mm | -20°C-120°C       | 100pcs/box |

## Cell Culture Dish

Cell Culture Dish is a small shallow transparent culture vessel with a lid, mainly used for the culture of microorganisms and cells in biological experiments, consists of a flat disk-shaped bottom and a lid.

It is mostly made of polyethylene materials, suitable for inoculation, scribing, separating bacteria and other operations, and are mostly used for the monolayer culture of plant cells and animal cells after TC treatment.



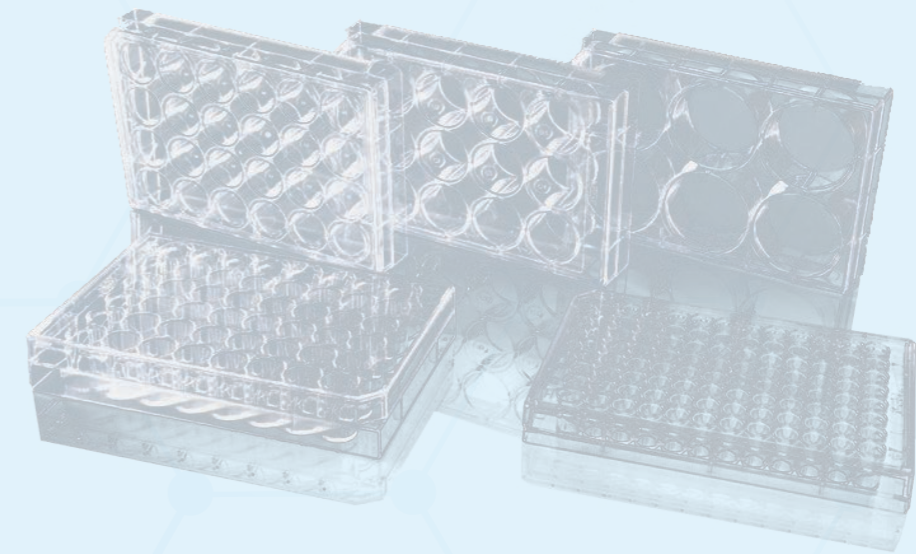
| CAT.NO. | Specifications | Cultivated Area    | Type           | TC Treatment | Sterile | Packing               |
|---------|----------------|--------------------|----------------|--------------|---------|-----------------------|
| 622011  | 60mm           | 21cm <sup>2</sup>  | With easy grip | √            | √       | 10pcs/bag,50bags/case |
| 622125  | 60mm           | 21cm <sup>2</sup>  |                | √            | √       | 10pcs/bag,50bags/case |
| 622012  | 100mm          | 55cm <sup>2</sup>  | With easy grip | √            | √       | 10pcs/bag,30bags/case |
| 622127  | 100mm          | 55cm <sup>2</sup>  |                | √            | √       | 10pcs/bag,30bags/case |
| 622013  | 150mm          | 148cm <sup>2</sup> |                | √            | √       | 5pcs/bag,20bags/case  |
| 621014  | 60mm           | 21cm <sup>2</sup>  | With easy grip |              | √       | 10pcs/bag,50bags/case |
| 622126  | 60mm           | 21cm <sup>2</sup>  |                |              | √       | 10pcs/bag,50bags/case |
| 621015  | 100mm          | 55cm <sup>2</sup>  | With easy grip |              | √       | 10pcs/bag,30bags/case |
| 622128  | 100mm          | 55cm <sup>2</sup>  |                |              | √       | 10pcs/bag,30bags/case |
| 621016  | 150mm          | 148cm <sup>2</sup> |                |              | √       | 5pcs/bag,20bags/case  |

## Cell Culture Series

### Cell Culture Plate

Cell culture plates are indispensable cell culture consumables for cell culture, cell transfection, immunofluorescence, clone formation and other experiments.

6 wells, 12 wells, 24 wells, and 48 wells are mainly used for immunofluorescence, scratch, HE staining, and cell transfection, while 96 wells are mainly used for MTT, CCK8, Elisa, and BCA,384 wells are mainly used for high-throughput screening.



| CAT.NO. | Specifications | Type        | TC Treatment | Sterile | Packing                |
|---------|----------------|-------------|--------------|---------|------------------------|
| 612001  | 96-well        | Flat Bottom | √            | √       | 1pcs/bag, 100bags/case |
| 612002  | 48-well        | Flat Bottom | √            | √       | 1pcs/bag, 100bags/case |
| 612003  | 24-well        | Flat Bottom | √            | √       | 1pcs/bag, 100bags/case |
| 612004  | 12-well        | Flat Bottom | √            | √       | 1pcs/bag, 100bags/case |
| 612005  | 6-well         | Flat Bottom | √            | √       | 1pcs/bag, 50bags/case  |
| 611006  | 96-well        | Flat Bottom |              | √       | 1pcs/bag, 100bags/case |
| 611007  | 48-well        | Flat Bottom |              | √       | 1pcs/bag, 100bags/case |
| 611008  | 24-well        | Flat Bottom |              | √       | 1pcs/bag, 100bags/case |
| 611009  | 12-well        | Flat Bottom |              | √       | 1pcs/bag, 100bags/case |
| 611010  | 6-well         | Flat Bottom |              | √       | 1pcs/bag, 50bags/case  |

### Cell Culture Flask

Cell culture flask are the most suitable culture vessels for long time cell culture and large amount of cell expansion. With smaller mouth, the flasks are not easy to be contaminated by the cells, which can be conveniently and safely handled to ensure that the experimental process is carried out.




### Cell Culture Series

### Erlenmeyer Flask

Erlenmeyer flasks are commonly used in cell culture, suitable for industrial microbial strain screening, large-scale fermentation experiments, suspension cells and bacteria large-scale expansion culture, is the ideal choice for the culture of suspended cells and strains, in addition, it can also be used for medium preparation, storage and liquid transfer, etc., and can be used in conjunction with large capacity culture shaker.



| Vented Cap   | CAT.NO. | Specifications     | TC Treatment | Sterile | Packing               |
|--|---------|--------------------|--------------|---------|-----------------------|
|  | 634018  | 25cm <sup>2</sup>  | √            | √       | 10pcs/bag,20bags/case |
|  | 634020  | 75cm <sup>2</sup>  | √            | √       | 5pcs/bag,20bags/case  |
|  | 634022  | 175cm <sup>2</sup> | √            | √       | 5pcsbag,8bags/case    |
|  | 634024  | 225cm <sup>2</sup> | √            | √       | 5pcs/bag,5bags/case   |
|  | 632026  | 25cm <sup>2</sup>  |              | √       | 10pcs/bag,20bags/case |
|  | 632028  | 75cm <sup>2</sup>  |              | √       | 5pcs/bag,20bags/case  |
|  | 632030  | 175cm <sup>2</sup> |              | √       | 5pcs/bag,8bags/case   |
|  | 632032  | 225cm <sup>2</sup> |              | √       | 5pcs/bag,5bags/case   |

| Plain Type   | CAT.NO. | Specifications | Cap        | Material | Sterile | Packing              |
|--|---------|----------------|------------|----------|---------|----------------------|
|  | 643057  | 125            | Sealed Cap | PC       | √       | 1pcs/bag,24bags/case |
|  | 644061  |                | Vented Cap | PC       | √       | 1pcs/bag,24bags/case |
|  | 643058  | 250            | Sealed Cap | PC       | √       | 1pcs/bag,12bags/case |
|  | 644062  |                | Vented Cap | PC       | √       | 1pcs/bag,12bags/case |
|  | 643059  | 500            | Sealed Cap | PC       | √       | 1pcs/bag,12bags/case |
|  | 644063  |                | Vented Cap | PC       | √       | 1pcs/bag,12bags/case |
|  | 643060  | 1000           | Sealed Cap | PC       | √       | 1pcs/bag,6bags/case  |
|  | 644064  |                | Vented Cap | PC       | √       | 1pcs/bag,6bags/case  |

| Sealed Cap  | CAT.NO. | Specifications     | TC Treatment | Sterile | Packing               |
|---|---------|--------------------|--------------|---------|-----------------------|
|  | 633017  | 25cm <sup>2</sup>  | √            | √       | 10pcs/bag,20bags/case |
|   | 633019  | 75cm <sup>2</sup>  | √            | √       | 5pcs/bag,20bags/case  |
|   | 633021  | 175cm <sup>2</sup> | √            | √       | 5pcsbag,8bags/case    |
|   | 633023  | 225cm <sup>2</sup> | √            | √       | 5pcs/bag,5bags/case   |
|   | 631025  | 25cm <sup>2</sup>  |              | √       | 10pcs/bag,20bags/case |
|   | 631027  | 75cm <sup>2</sup>  |              | √       | 5pcs/bag,20bags/case  |
|   | 631029  | 175cm <sup>2</sup> |              | √       | 5pcs/bag,8bags/case   |
|   | 631031  | 225cm <sup>2</sup> |              | √       | 5pcs/bag,5bags/case   |

| Baffled Type  | CAT.NO. | Specifications | Cap        | Material | Sterile | Packing              |
|---|---------|----------------|------------|----------|---------|----------------------|
|  | 645065  | 125            | Sealed Cap | PC       | √       | 1pcs/bag,24bags/case |
|   | 646069  |                | Vented Cap | PC       | √       | 1pcs/bag,24bags/case |
|   | 645066  | 250            | Sealed Cap | PC       | √       | 1pcs/bag,12bags/case |
|   | 646070  |                | Vented Cap | PC       | √       | 1pcs/bag,12bags/case |
|   | 645067  | 500            | Sealed Cap | PC       | √       | 1pcs/bag,12bags/case |
|   | 646071  |                | Vented Cap | PC       | √       | 1pcs/bag,12bags/case |
|   | 645068  | 1000           | Sealed Cap | PC       | √       | 1pcs/bag,6bags/case  |
|   | 646072  |                | Vented Cap | PC       | √       | 1pcs/bag,6bags/case  |

## Square Serum Bottles

- Raw materials meet the USP standard requirements, no discoloration by irradiation, no precipitate endotoxin, and reduce the pollution of liquid.
- High transparency, the bottle body has a molding scale, easy to visualize the solution capacity.
- One molding process production, gas barrier ability is stronger, the bottle body gloss is high, the inner and outer walls are smooth, the solution is not hanging on the wall.
- Square ergonomic design, easy to grip while also saving space.
- Light weight, impact resistance, material can withstand -80°C low temperature, chemical resistance, good stability.
- Anti-leakage, the lid and the bottle mouth are more closely matched, multiple controls to ensure no leakage.
- DNase / RNase free, non-pyrogenic, non-endotoxin.



| CAT.NO. | Volume (mL) | Material                  | Color   | Sterile | Packing                  |
|---------|-------------|---------------------------|---------|---------|--------------------------|
| 751001  | 30          | Cap:PP & HDPE, Bottle:PET | Natural | √       | 40 pcs/ bag,7 bags/ case |
| 751002  | 60          | Cap:PP & HDPE, Bottle:PET | Natural | √       | 40 pcs/ bag,5 bags/ case |
| 751003  | 125         | Cap:PP & HDPE, Bottle:PET | Natural | √       | 24 pcs/ bag,4 bags/ case |
| 751004  | 250         | Cap:PP & HDPE, Bottle:PET | Natural | √       | 30 pcs/ bag,2 bags/ case |
| 751005  | 500         | Cap:PP & HDPE, Bottle:PET | Natural | √       | 20 pcs/ bag,2 bags/ case |
| 751006  | 1000        | Cap:PP & HDPE, Bottle:PET | Natural | √       | 12 pcs/ bag,2 bags/ case |

## Others

### Syringe Filter



- Made of high quality polycarbonate material, high cleanliness, avoid contamination.
- The surface filter membrane and imported shell material ensure the stability and safety of raw materials.
- The expansion of the filter membrane area increases the flow rate and filtration amount during the filtration operation, and improves the filtration efficiency.
- Each filter is individually packaged for ease of use.
- No pyrogen, no endotoxin, no DNase/RNase.

| CAT.NO. | Diameter | Membrane Material | Pore Size | Sterile | Packing     |
|---------|----------|-------------------|-----------|---------|-------------|
| 1001301 | 30 mm    | PVDF              | 0.22 μm   | √       | 100pcs/case |
| 1001302 | 30 mm    | PES               | 0.22μm    | √       | 100pcs/case |



### Vacuum Filter



- The filter cup and liquid storage bottle are made of polystyrene(PS)with high transparency and comply with USP VI standards.
- Selection of imported high-quality membrane materials, strong bacterial retention ability, bactericidal filtration efficiency: LRV>7.
- A variety of membrane materials, a variety of specifications (500 mL, 1000 mL), to meet different experimental needs.
- The filter cup has high flow rate and large flux, which can shorten the filtration time and improve the filtration efficiency.
- The connection between the filter cup, membrane, filter nozzle, liquid storage bottle and the filter has high firmness and tightness.
- DNase and RNase free, No pyrogen, no endotoxin.

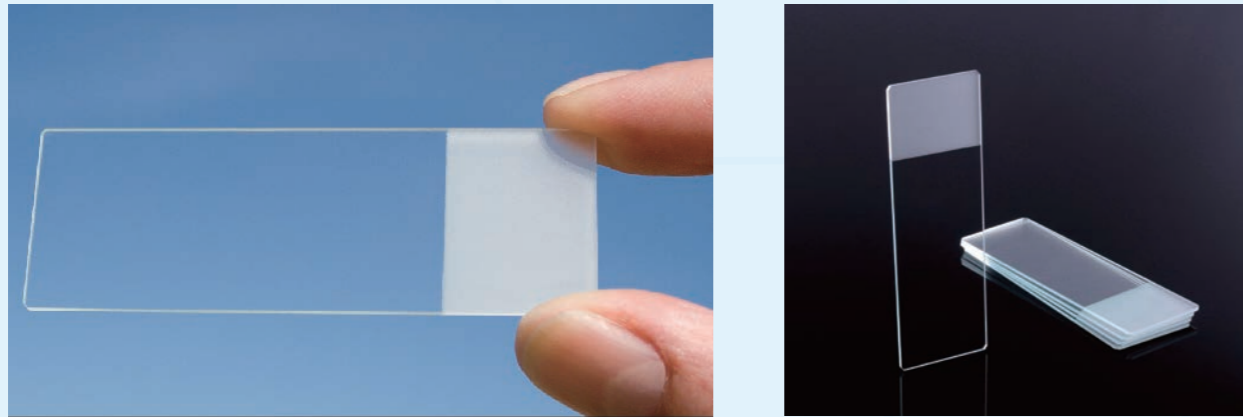
### Others

| Complete | CAT.NO. | Volume (mL) | Membrane Material | Pore Size | Sterile | Packing                |
|----------|---------|-------------|-------------------|-----------|---------|------------------------|
|          | 1002501 | 500         | PES               | 0.22 μm   | √       | 1pcs/bag, 12 bags/case |
|          | 1002502 |             | PES               | 0.45 μm   | √       | 1pcs/bag, 12 bags/case |
|          | 1002503 |             | PVDF              | 0.22 μm   | √       | 1pcs/bag, 12 bags/case |
|          | 1002504 |             | PVDF              | 0.45 μm   | √       | 1pcs/bag, 12 bags/case |
|          | 1002511 | 1000        | PES               | 0.22 μm   | √       | 1pcs/bag, 12 bags/case |
|          | 1002510 |             | PES               | 0.45 μm   | √       | 1pcs/bag, 12 bags/case |
|          | 1002513 |             | PVDF              | 0.22 μm   | √       | 1pcs/bag, 12 bags/case |
|          | 1002512 |             | PVDF              | 0.45 μm   | √       | 1pcs/bag, 12 bags/case |

| Upper cup | CAT.NO. | Volume (mL) | Membrane Material | Pore Size | Sterile | Packing                |
|-----------|---------|-------------|-------------------|-----------|---------|------------------------|
|           | 1002506 | 500         | PES               | 0.22 μm   | √       | 1pcs/bag, 24 bags/case |
|           | 1002507 |             | PES               | 0.45 μm   | √       | 1pcs/bag, 24 bags/case |
|           | 1002508 |             | PVDF              | 0.22 μm   | √       | 1pcs/bag, 24 bags/case |
|           | 1002509 |             | PVDF              | 0.45 μm   | √       | 1pcs/bag, 24 bags/case |
|           | 1002515 | 1000        | PES               | 0.22 μm   | √       | 1pcs/bag, 24 bags/case |
|           | 1002516 |             | PES               | 0.45 μm   | √       | 1pcs/bag, 24 bags/case |
|           | 1002517 |             | PVDF              | 0.22 μm   | √       | 1pcs/bag, 24 bags/case |
|           | 1002518 |             | PVDF              | 0.45 μm   | √       | 1pcs/bag, 24 bags/case |

| Receiver bottle | CAT.NO. | Volume (mL) | Membrane Material | Pore Size | Sterile | Packing                |
|-----------------|---------|-------------|-------------------|-----------|---------|------------------------|
|                 | 1002505 | 500         | /                 | /         | √       | 1pcs/bag, 24 bags/case |
|                 | 1002514 | 1000        | /                 | /         | √       | 1pcs/bag, 12 bags/case |

### Slide



- Pathological grade slide, high quality glass material.
- Use advanced cutting and grinding technology to achieve perfect cutting with precise dimensions and precise edging chamfer.
- Precision screen printing technology, easy to write marks.
- Advanced cleaning technology to ensure ultra-clean surface, no pollution, ready-to-use.
- The imaging is clear, and a variety of biological materials can be observed under the microscope.

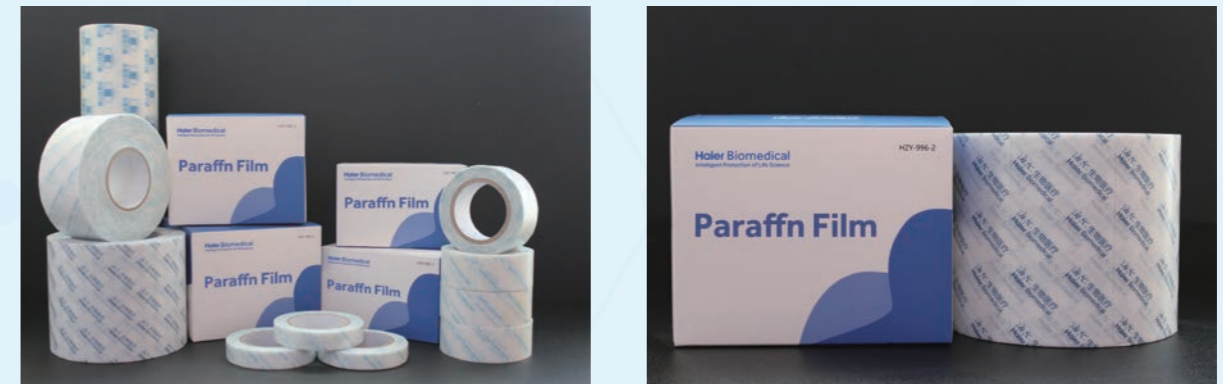
|                      | CAT.NO. | Dimensions | Thickness   | Packing                      |
|----------------------|---------|------------|-------------|------------------------------|
| Microscope Coverslip | 911001  | 20*20mm    | 0.13-0.16mm | 200pcs/box, 120 boxes/ case  |
|                      | 911002  | 24*32mm    | 0.13-0.16mm | 100pcs/box, 120 boxes/ case  |
|                      | 911003  | 24*50mm    | 0.13-0.16mm | 100 pcs/box, 120 boxes/ case |

|                   | CAT.NO. | Product Description  | Packing                    |
|-------------------|---------|--|----------------------------|
| Microscope Slides | 912001  | Single frosted, ground edges 45°corners, non-clamp,float glass,moisture-proof packaging              | 50 pcs/box, 50 boxes/ case |
|                   | 912002  | Single-sided white coating,ground edges 45°corners, non-clamp,float glass,moisture-proof packaging   | 50 pcs/box, 50 boxes/ case |
|                   | 913001  | Positively charged surface, ground edges 45°corners, single-sided white coating,with two "+" symbols | 50pcs/box,40boxes/case     |

### Paraffin Film

The flexible sealing film described is versatile proprietary blend of waxes and polyolefin' s on a paper release liner, the product is suitable for various applications across different industries.

It is highly insensitive to water, moisture loss and moisture absorption, yet is permeable to oxygen and carbon dioxide. Haier Biomedical stretches more than 350% of its original length and is self sealing, allowing it to cling around irregular shapes and surfaces. These unique properties make it ideal for protecting the contents of test tubes, flasks, beakers, and Petri dishes as well as an overwrap to further secure stoppers, lids and caps.



| CAT.NO. | Description (D*W*L) | Case Qty | Packing                |
|---------|---------------------|----------|------------------------|
| 914001  | 125µm*3cm*15m       | 96       | 4pcs/box, 24boxes/case |
| 914002  | 125µm*10cm*38m      | 12       | 1pcs/box, 12boxes/case |
| 914003  | 125µm*50cm*15m      | 4        | 1pcs/box, 4boxes/case  |
| 914004  | 125µm*3cm*15m       | 4        | 4pcs/box               |
| 914005  | 125µm*10cm*38m      | 1        | 1pcs/box               |
| 914006  | 125µm*50cm*15m      | 1        | 1pcs/box               |



**Chromatography  
Refrigerator**

# Chromatography Refrigerator

Used for biochemical chromatographic analysis in laboratories, universities and other facilities.

## Product Advantages



### Professional Chromatography Refrigerator

- Large volume of 1100L
- Waterproof sockets provides power for mixers, shakers and other lab tools
- Robust frame and clamp securely hold experimental apparatus
- UV lamp ensures thorough sterilization within the chamber
- Corrosion-proof and easy-to-clean stainless steel interior



Top-mounted key lock for convenience



Adjustable perforated stainless steel shelves promote better circulation and flexible storage



Two access ports (one on each side wall)



4 swivel casters with 2 leveling feet for easy movement and positioning



Hydrocarbon refrigerant (R290) and CFC-free polyurethane insulation



USB, optional RS485 & optional printer for easy data export and external connection



Microprocessor controller, digital display with 0.1 ° C resolution; hermetically sealed compressor, forced-air circulation with auto defrost to ensure a cabinet temperature between 2-8°C



Heated double-layer tempered glass door featuring self closing hinges and magnetic gasket seals



Multiple alarm functions with audible and visual alerts



Energy-efficient interior LED lighting provides bright low heat lighting

## Specifications



| Model                         |                               | HYC-1100C                                 |                |
|-------------------------------|-------------------------------|---|----------------|
| Technical Data                | Cabinet Type                  | Upright, Glass Door                       |                |
|                               | Climate Class                 | N, 16-32°C                                |                |
|                               | Cooling Type                  | Forced Air Cooling                        |                |
|                               | Defrost Mode                  | Auto                                      |                |
|                               | Refrigerant                   | R290, 90g                                 |                |
|                               | GWP(global warming potential) | 3   |                |
|                               | Sound Level (dB(A))           | 43  |                |
| Performance                   | Temperature Range (°C)        | 2-8                                       |                |
| Control                       | Controller                    | Microprocessor                            |                |
|                               | Display                       | LED                                       |                |
| Electrical Data               | Power Supply (V/Hz)           | 220-240/50/60                             |                |
|                               | Power (W)                     | 600                                       |                |
|                               | Electrical Current (A)        | 2.7                                       |                |
| Dimensions                    | Capacity (L/Cu.Ft)            | 1100/38.8                                 |                |
|                               | Net/Gross Weight (approx)     | (kg)                                      | 340/380        |
|                               |                               | (lbs)                                     | 750/838        |
|                               | Interior Dimension (W*D*H)    | (mm)                                      | 1315*570*1525  |
|                               |                               | (in)                                      | 51.8*22.4*60.0 |
|                               | Exterior Dimension (W*D*H)    | (mm)                                      | 1420*630*1980  |
|                               |                               | (in)                                      | 55.9*24.8*78.0 |
| Packing Dimension (W*D*H)     | (mm)                          | 1550*875*2100                             |                |
|                               | (in)                          | 61.0*34.5*82.7                            |                |
| Container Load (20'/40'/40'H) | 7/15/15                       |   |                |
| Alarms                        | High/Low Temperature          | Y   |                |
|                               | High Ambient Temperature      | Y   |                |
|                               | Door Ajar                     | Y   |                |
|                               | Power Failure                 | Y   |                |
|                               | Low Battery                   | Y   |                |
|                               | Sensor Error                  | Y   |                |
|                               | Communication Failure         | Y   |                |
|                               | Remote Alarm                  | Y   |                |
| Accessories                   | Caster                        | 4   |                |
|                               | Foot                          | 2   |                |
|                               | Porthole                      | 2 L&R on each side                        |                |
|                               | Clamp Fit                     | 2 Sets                                    |                |
|                               | Shelves/Drawers               | 1 Supporting Frame + 2 Adjustable Shelves |                |
|                               | Printer                       | Optional                                  |                |
|                               | Chart Recorder                | Optional                                  |                |
|                               | USB Interface                 | Yes                                       |                |
| Others                        | RS485                         | Optional                                  |                |
|                               | Certification                 | CE  |                |



# Pharmacy Refrigerators

# New Generation Pharmacy Refrigerator

Used for storage of medicines, vaccines, reagents, biological products and other items that require a temperature between 2-8°C in hospitals, pharmacies, pharmaceutical factories, clinics and laboratories as key examples.

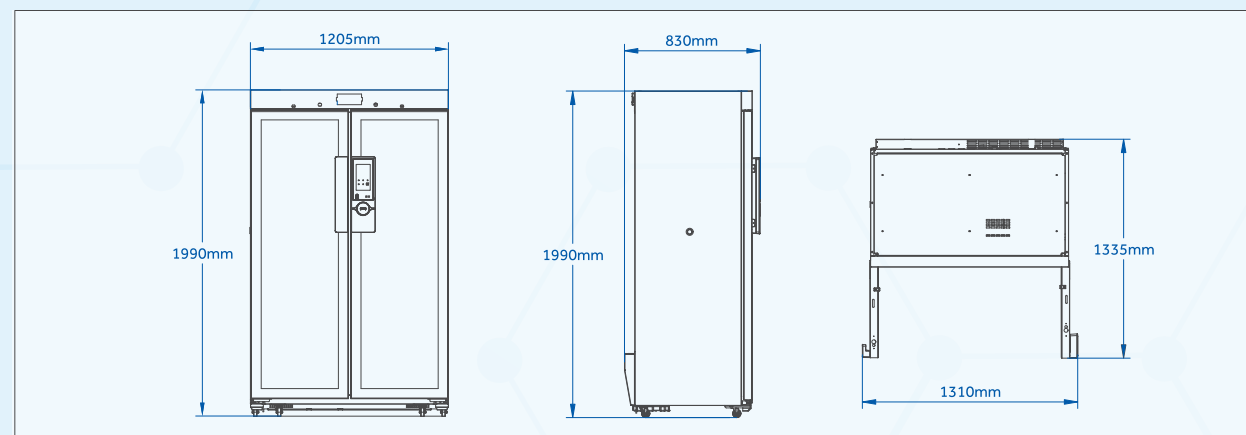
## Product Advantages

- High performance with low noise level: 37dB(A)
- Low energy consumption 2.2kWh /day
- Ergonomic & innovative design, 7" touch screen, easy to check the cabinet temperature, alarm & event records; authority management is standard to avoid unauthorized access or change in settings
- Triple-paned tempered glass door with frame heater to reduce condensation even at 32°C, 80% RH ambient; self-closing door with 90° stop; magnetic gaskets to ensure a positive seal
- Multiple alarm functions for safer monitoring, audible/visual alert with mute function; remote alarm contact is equipped as standard
- Anti-freezing thermostat is available to protect store items from freezing, which is DIN13277 compliance
- Standard USB module to easily record and export cabinet temperature and alarm data; Standard RS485 port and remote alarm contact for ease of external connection; optional printer to efficiently export cabinet temp data
- Microprocessor controller, smart inverter compressor, optimized air-cooling technology with auto defrost to ensure excellent cooling performance, defrost water to evaporate automatically



- Energy efficient interior LED lighting, side-mounted for complete clear visibility of the internal area
- Two 25mm probe access ports on each side wall to accept user-provided monitoring equipment
- Adjustable plastic-coated wire shelves for improved circulation and flexible storage, 4 swivel casters with 2 leveling feet for easy movement and fixing
- Electromagnetic lock is standard to avoid unauthorized access

## Cabinet Temperature



Follow the QR code and learn more about the Pharmacy Refrigerator HYC-1030GT from Haier Biomedical

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HYC-1030GT

## Specifications

| Model                       |                                | HYC-1030GT                      |                |
|-----------------------------|--------------------------------|---------------------------------|----------------|
| Technical Data              | Cabinet Type                   | Upright, Glass Door             |                |
|                             | Climate Class                  | N, 16-32°C                      |                |
|                             | Cooling Type                   | Forced Air Cooling              |                |
|                             | Defrost Mode                   | Auto                            |                |
|                             | Refrigerant                    | R600a                           |                |
|                             | GWP (global warming potential) | 20                              |                |
| Performance                 | Sound Level (dB(A))            | 37                              |                |
|                             | Temperature Range (°C)         | 2-8                             |                |
| Control                     | Controller                     | Microprocessor                  |                |
|                             | Display                        | LED                             |                |
| Electrical Data             | Power Supply (V/Hz)            | 220-240/50/60                   |                |
|                             | Electrical Current (A)         | 2.2                             |                |
| Performance Characteristics | Temperature Sensor             | NTC                             |                |
|                             | Power Consumption (kWh/24h)    | 2.2                             |                |
| Dimensions                  | Capacity (L/Cu.Ft)             | 1030 / 36.4                     |                |
|                             | Net/Gross Weight (approx)      | (lbs)                           | 265/275        |
|                             |                                | (mm)                            | 584/606        |
|                             | Interior Dimensions (W*D*H)    | (kg)                            | 1115*590*1670  |
|                             |                                | (in)                            | 43.9*23.2*65.7 |
|                             | Exterior Dimensions (W*D*H)    | (mm)                            | 1205*830*1990  |
| (in)                        |                                | 47.4*32.7*78.3                  |                |
| Packing Dimensions (W*D*H)  | (mm)                           | 1310*925*2150                   |                |
|                             | (in)                           | 51.6*36.4*84.6                  |                |
| Alarms                      | Container Load (20'/40'/40'H)  | 10/21/21                        |                |
|                             | High/Low Temperature           | Y                               |                |
|                             | High Ambient Temperature       | Y                               |                |
|                             | Door Ajar                      | Y                               |                |
|                             | Power Failure                  | Y                               |                |
|                             | Low Battery                    | Y                               |                |
|                             | Sensor Error                   | Y                               |                |
|                             | Communication Failure          | Y                               |                |
|                             | Condenser Heat                 | Y                               |                |
|                             | Remote Alarm                   | Y                               |                |
|                             | Audible and Visual Alarm       | Y                               |                |
|                             | Accessories                    | Caster                          | 4              |
|                             |                                | Foot                            | 2              |
| Porthole                    |                                | 2                               |                |
| Shelves/Drawers             |                                | 14/-                            |                |
| Printer                     |                                | Optional                        |                |
| Chart Recorder              |                                | N/A                             |                |
| USB Interface               |                                | Standard                        |                |
| Material                    | RS485                          | Optional                        |                |
|                             | Electromagnetic Lock           | Standard                        |                |
|                             | Plastic Basket                 | Optional                        |                |
|                             | Exterior Material              | Painted Steel                   |                |
|                             | Interior Material              | Painted Steel                   |                |
| Others                      | Door Thickness (mm)            | 50                              |                |
|                             | Cabinet Thickness (mm)         | 45                              |                |
|                             | Shelves Material               | Steel Wire, Coated with Plastic |                |
|                             | No. of Shelves                 | 12+2                            |                |
|                             | Certification                  | CE, DIN13277 (Optional)         |                |

# New Generation Pharmacy Refrigerator

Used for storage of medicines, vaccines, reagents, biological products and other items that require a temperature between 2-8 ° C in hospitals, pharmacies, pharmaceutical factories, clinics and laboratories etc.



**HYC-1031GD/FD**

## Innovative Design



High performance with low noise level



Eco-friendly and energy saving



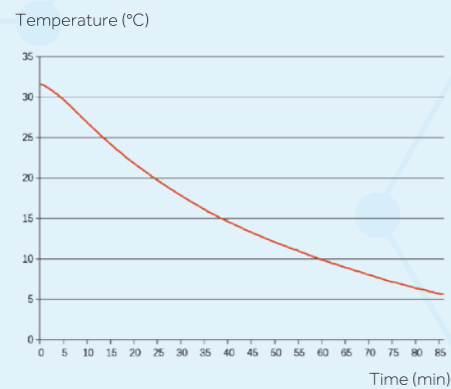
Condensation free even at ambient 32°C & 80% RH



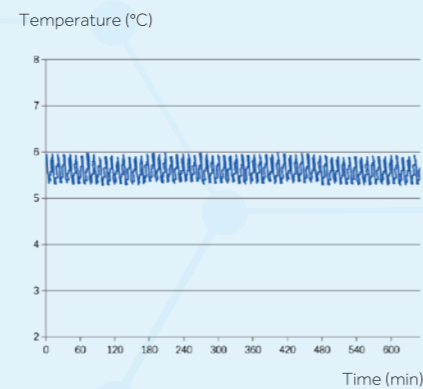
Convenient monitoring and data export

## Cabinet Temperature

**HYC-1031GD**  
Cooling down (ambient 32°C)



**HYC-1031GD**  
Stability (ambient 25°C)



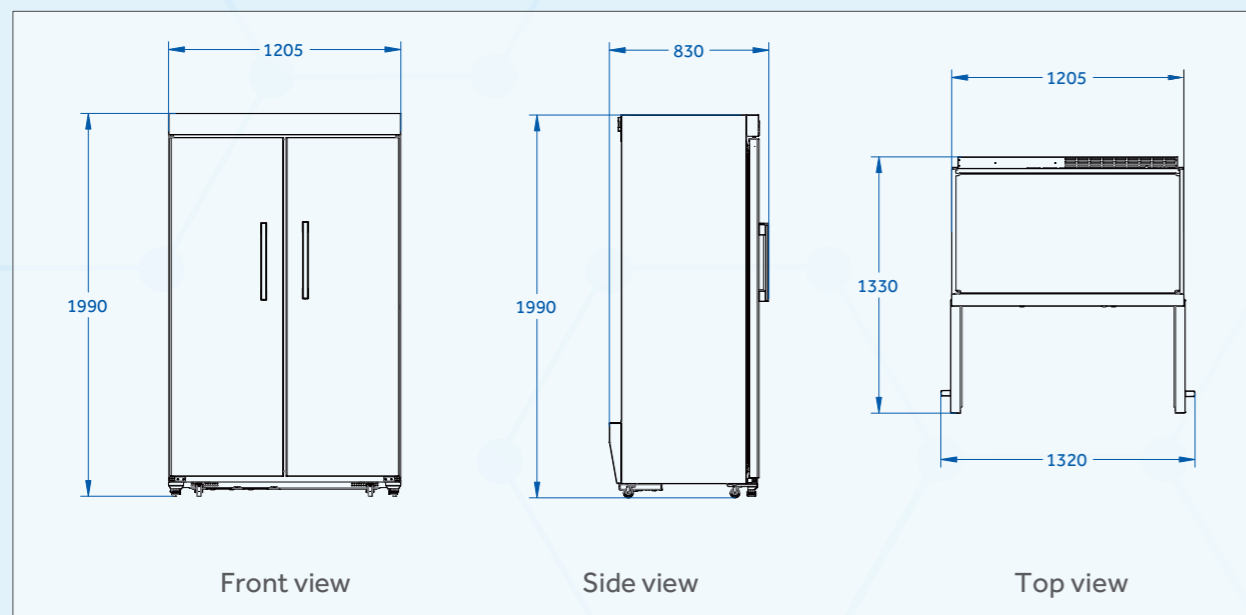
**HYC-1031GD**

# New Generation Pharmacy Refrigerator

## Product Features

- Eco-friendly hydrocarbon refrigerant (R290) and CFC- free polyurethane insulation for reduced global warming potential
- Two 25mm probe access port on each side wall to accept user-provided monitoring equipment
- Hermetically sealed compressor, forced-air circulation with auto defrost to ensure high cooling performance, temperature uniformity  $\leq \pm 1.5^\circ\text{C}$ ; anti-freezing thermostat is available to protect store items from freezing
- Multiple alarm functions for safer monitoring, audible/visual alert with mute function; remote alarm contact is equipped as standard
- HYC-1031GD:** Triple-paned tempered glass door with frame heater to reduce condensation even at  $32^\circ\text{C}$ , 80% RH ambient; self-closing door hinge; magnetic gaskets to ensure a positive seal
- Convenient security with a top-mounted unique-key lock
- HYC-1031FD:** Self-closing door hinge; Magnetic gaskets to ensure a positive seal
- 4 swivel casters with 2 leveling feet for easily movement and fixing
- Energy efficient interior LED lighting, side-mounted to enlighten full space
- Digital controller with  $0.1^\circ\text{C}$  resolution with easy to check min/max temperature in the past 24 hours
- Optional USB module to easily record and export cabinet temperature and alarm data; optional RS485 port for easily external connection; optional printer to easily export cabinet temp data
- Adjustable plastic-coated wire shelves for improved circulation and flexible storage

## Product Dimension



## Specifications



| Model                              | HYC-1031GD                     |                                 | HYC-1031FD      |                         |
|------------------------------------|--------------------------------|---------------------------------|-----------------|-------------------------|
| <b>Technical Data</b>              | Cabinet Type                   | Upright, Glass Door             |                 |                         |
|                                    | Climate Class                  | N, 16-32°C                      |                 |                         |
|                                    | Cooling Type                   | Forced Air Cooling              |                 |                         |
|                                    | Defrost Mode                   | Auto                            |                 |                         |
|                                    | Refrigerant                    | R290                            |                 |                         |
|                                    | GWP (global warming potential) | 3                               |                 |                         |
|                                    | Sound Level (dB(A))            | 39                              |                 |                         |
| <b>Performance</b>                 | Temperature Range (°C)         |                                 | 2-8             |                         |
| <b>Control</b>                     | Controller                     |                                 |                 |                         |
|                                    | Microprocessor                 |                                 |                 |                         |
| <b>Electrical Data</b>             | Display                        |                                 |                 |                         |
|                                    | LED                            |                                 |                 |                         |
| <b>Performance Characteristics</b> | Power Supply (V/Hz)            | 220-240/50/60                   | 115V/60         |                         |
|                                    | Electrical Current (A)         | 2.2                             | 3.6             |                         |
| <b>Performance Characteristics</b> | Temperature Sensor             | NTC                             |                 |                         |
|                                    | Power Consumption (kWh/24h)    | 2.48                            | 2.04            |                         |
| <b>Dimensions</b>                  | Capacity (L/Cu.Ft)             | 1031/36.4                       |                 |                         |
|                                    | Net/Gross Weight (approx)      | (kg)                            | 255/265         |                         |
|                                    |                                | (lbs)                           | 562/584         |                         |
|                                    | Interior Dimensions (W*D*H)    | (mm)                            | 1115*590*1670   |                         |
|                                    |                                | (in)                            | 43.9*23.2*65.7  |                         |
|                                    | Exterior Dimensions (W*D*H)    | (mm)                            | 1205*800*1990   |                         |
|                                    |                                | (in)                            | 47.4*31.5*78.3  |                         |
| Packing Dimensions (W*D*H)         | (mm)                           | 1310*925*2150                   |                 |                         |
|                                    | (in)                           | 51.6*36.4*84.6                  |                 |                         |
| <b>Alarms</b>                      | Container Load (20'/40'/40'H)  | 10/21/21                        |                 |                         |
|                                    | High/Low Temperature           | Y                               |                 |                         |
| <b>Accessories</b>                 | High Ambient Temperature       | Y                               |                 |                         |
|                                    | Door Ajar                      | Y                               |                 |                         |
|                                    | Power Failure                  | Y                               |                 |                         |
|                                    | Low Battery                    | Y                               |                 |                         |
|                                    | Sensor Error                   | Y                               |                 |                         |
|                                    | Communication Failure          | Y                               |                 |                         |
|                                    | Condenser Heat                 | Y                               |                 |                         |
|                                    | Remote Alarm                   | Y                               |                 |                         |
|                                    | Audible and Visual Alarm       | Y                               |                 |                         |
|                                    | Caster                         | 4                               |                 |                         |
|                                    | Foot                           | 2                               |                 |                         |
|                                    | Porthole                       | 2                               |                 |                         |
| <b>Material</b>                    | Shelves/Drawers                | 14/-                            |                 |                         |
|                                    | Printer                        | Optional                        |                 |                         |
|                                    | Chart Recorder                 | N/A                             |                 |                         |
|                                    | USB Interface                  | Optional                        |                 |                         |
|                                    | RS485                          | Optional                        |                 |                         |
|                                    | Electromagnetic Lock           | N/A                             |                 |                         |
|                                    | Plastic Basket                 | Optional                        |                 |                         |
|                                    | Exterior Material              | Painted Steel                   |                 |                         |
|                                    | Interior Material              | Painted Steel                   |                 |                         |
|                                    | Door Thickness (mm)            | 50                              |                 |                         |
| Cabinet Thickness (mm)             | 45                             |                                 |                 |                         |
| <b>Others</b>                      | Shelves Material               | Steel Wire, Coated with Plastic |                 |                         |
|                                    | No. of Shelves                 | 12+2                            |                 |                         |
|                                    | Certification                  | CE, DIN13277 (Optional)         | UL, Energy Star | CE, DIN13277 (Optional) |



# New Generation Pharmacy Refrigerator

Used for storage of medicines, vaccines, reagents, biological products and other items that require a temperature between 2-8° C in hospitals, pharmacies, pharmaceutical factories, clinics and laboratories etc.

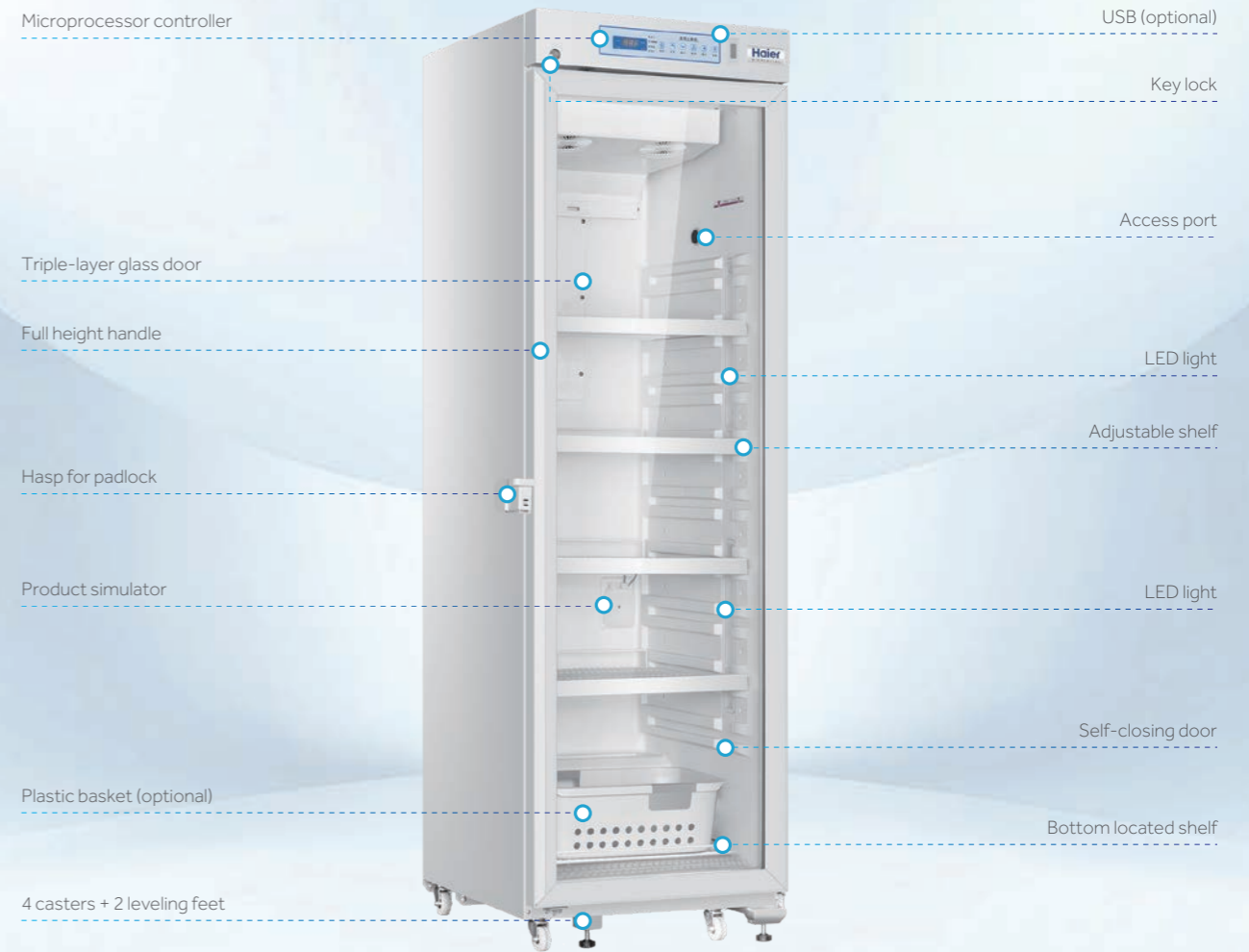


**HYC-461GD/FD**

## Product Advantages

-  Eco-friendly hydrocarbon refrigerant (R600a) and CFC- free polyurethane insulation for reduced global warming potential
-  Hermetically sealed compressor, forced-air circulation with auto defrost to ensure superior cooling performance, temperature uniformity  $\leq \pm 1.5^{\circ}\text{C}$ ; and a anti-freezing thermostat is available to protect store items from freezing
-  Optional USB module to easily record and export cabinet temperature and alarm data; optional RS485 port for effortless external connection; and optional printer to export cabinet temperature data
-  Multiple alarm functions for safer monitoring, audible/visual alert with mute function; remote alarm contact is equipped as standard
-  Convenient security with a top-mounted unique-key lock
-  Adjustable plastic-coated wire shelves for improved circulation and flexible storage
-  **HYC-461GD:** Triple-paned tempered glass door with frame heater to reduce condensation even at 32° C, 80% RH ambient; self- closing door hinge; magnetic gaskets to ensure a positive seal
-  **HYC-461FD:** Self-closing door hinge; Magnetic gaskets to ensure a positive seal
-  Energy efficient interior LED lighting, side-mounted to enlighten full space
-  A  $\phi 25\text{mm}$  probe access port is standard on side wall to accept user-provided monitoring equipment
-  4 swivel casters with 2 leveling feet for easy movement and fixing
-  Microprocessor controller, digital display with 0.1°C resolution; easy to check the min/max temperature in the past 24 hours; password protect function is available to avoid unauthorized setting

**NEW**



**HYC-461GD**

## New Generation Pharmacy Refrigerator

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## Specifications

| Model                       |                                | HYC-461GD               | HYC-461GD (115V)    | HYC-461FD               | HYC-461FD (115V)    |                |
|-----------------------------|--------------------------------|-------------------------|---------------------|-------------------------|---------------------|----------------|
| Technical Data              | Cabinet Type                   | Upright, Glass Door     | Upright, Glass Door | Upright, Solid Door     | Upright, Solid Door |                |
|                             | Climate Class                  | N, 16-32°C              | N, 16-32°C          | N, 16-32°C              | N, 16-32°C          |                |
|                             | Cooling Type                   | Forced Air Cooling      | Forced Air Cooling  | Forced Air Cooling      | Forced Air Cooling  |                |
|                             | Defrost Mode                   | Auto                    | Auto                | Auto                    | Auto                |                |
|                             | Refrigerant                    | R600a                   | R600a               | R600a                   | R600a               |                |
|                             | GWP (global warming potential) | 20                      | 20                  | 20                      | 20                  |                |
|                             | Sound Level (dB(A))            | 37                      | 37                  | 37                      | 37                  |                |
| Performance                 | Temperature Range (°C)         | 2-8                     | 2-8                 | 2-8                     | 2-8                 |                |
| Control                     | Controller                     | Microprocessor          | Microprocessor      | Microprocessor          | Microprocessor      |                |
|                             | Display                        | LED                     | LED                 | LED                     | LED                 |                |
| Electrical Data             | Power Supply (V/Hz)            | 220~240/50              | 115/60              | 220~240/50              | 115/60              |                |
|                             | Power(W)                       | 310                     | 230                 | 310                     | 230                 |                |
|                             | Electrical Current (A)         | 1.7                     | 3.1                 | 1.7                     | 3.1                 |                |
| Performance Characteristics | Temperature Sensor             | NTC                     | NTC                 | NTC                     | NTC                 |                |
|                             | Power Consumption (kWh/24h)    | 1.85                    | 1.33                | 1.85                    | 1.33                |                |
| Dimensions                  | Capacity (L/Cu.Ft)             | 461/16.3                | 461/16.3            | 461 / 16.3              | 461 / 16.3          |                |
|                             | Net/Gross Weight (approx)      | kg                      | 115/125             | 115/125                 | 115/125             | 115/125        |
|                             |                                | lbs                     | 254/276             | 254/276                 | 254/276             | 254/276        |
|                             | Interior Dimensions (W*D*H)    | mm                      | 500*590*1670        | 500*590*1670            | 500*590*1670        | 500*590*1670   |
|                             |                                | in                      | 19.7*23.2*65.7      | 19.7*23.2*65.7          | 19.7*23.2*65.7      | 19.7*23.2*65.7 |
|                             | Exterior Dimensions (W*D*H)    | mm                      | 595*800*1990        | 595*800*1990            | 595*800*1990        | 595*800*1990   |
|                             |                                | in                      | 23.4*31.5*78.3      | 23.4*31.5*78.3          | 23.4*31.5*78.3      | 23.4*31.5*78.3 |
|                             | Packing Dimensions (W*D*H)     | mm                      | 720*930*2100        | 720*930*2100            | 720*930*2100        | 720*930*2100   |
| in                          |                                | 28.3*36.6*82.7          | 28.3*36.6*82.7      | 28.3*36.6*82.7          | 28.3*36.6*82.7      |                |
|                             | Container Load (20'/40'/40'H)  | 18/37/37                | 18/37/37            | 18/37/37                | 18/37/37            |                |
| Alarms                      | High/Low Temperature           | Y                       | Y                   | Y                       | Y                   |                |
|                             | High Ambient Temperature       | Y                       | Y                   | Y                       | Y                   |                |
|                             | Door Ajar                      | Y                       | Y                   | Y                       | Y                   |                |
|                             | Power Failure                  | Y                       | Y                   | Y                       | Y                   |                |
|                             | Low Battery                    | Y                       | Y                   | Y                       | Y                   |                |
|                             | Sensor Error                   | Y                       | Y                   | Y                       | Y                   |                |
|                             | Communication Failure          | Y                       | Y                   | Y                       | Y                   |                |
|                             | Condenser Heat                 | Y                       | Y                   | Y                       | Y                   |                |
|                             | Remote Alarm                   | Y                       | Y                   | Y                       | Y                   |                |
| Accessories                 | Caster                         | 4                       | 4                   | 4                       | 4                   |                |
|                             | Foot                           | 2                       | 2                   | 2                       | 2                   |                |
|                             | Porthole                       | 2                       | 2                   | 2                       | 2                   |                |
|                             | Shelves/Drawers                | 6/-                     | 6/-                 | 6/-                     | 6/-                 |                |
|                             | Printer                        | Optional                | Optional            | Optional                | Optional            |                |
|                             | Chart Recorder                 | N/A                     | N/A                 | N/A                     | N/A                 |                |
|                             | USB Interface                  | Optional                | Optional            | Optional                | Optional            |                |
|                             | RS485                          | Optional                | Optional            | Optional                | Optional            |                |
|                             | Electromagnetic Lock           | N/A                     | N/A                 | N/A                     | N/A                 |                |
|                             | Plastic Basket                 | Optional                | Optional            | Optional                | Optional            |                |
| Material                    | Exterior Material              | Painted Steel           | Painted Steel       | Painted Steel           | Painted Steel       |                |
|                             | Interior Material              | Polystyrene             | Polystyrene         | Polystyrene             | Polystyrene         |                |
|                             | Door Thickness (mm)            | 50                      | 50                  | 50                      | 50                  |                |
|                             | Cabinet Thickness (mm)         | 45                      | 45                  | 45                      | 45                  |                |
| Others                      | Certification                  | CE, DIN13277 (Optional) | UL, Energy Star     | CE, DIN13277 (Optional) | UL, Energy Star     |                |

# New Generation Pharmacy Refrigerator

Used for storage of medicines, vaccines, reagents, biological products and other items in hospitals, pharmacies, pharmaceutical factories, clinics and laboratories etc.



**HYC-130GD/FD**

- Purpose-built for medical and laboratory use
- High performance with low noise level
- Eco-friendly and energy saving
- Condensation free even at ambient 32°C & 80% RH
- Convenient monitoring and data acquisition

## Product Features

- Eco-friendly hydrocarbon refrigerant (R600a) and CFC-free polyurethane insulation for reduced global warming potential
- Hermetically sealed compressor, forced-air circulation with auto defrost to ensure high cooling performance
- Adjustable plastic-coated wire shelves for improved circulation and flexible storage
- 25mm probe access port to accept user- provided monitoring equipment
- Optional USB, optional RS485 for easy data acquisition
- Quiet operation with noise level of only 37dB(A)
- HYC-130GD:** Triple layer glass door with frame heater to achieve condensation free even at 32°C, 80% RH ambient; magnetic gaskets to ensure a positive seal
- HYC-130FD:** Self-closing door hinge with 10° stop; Magnetic gaskets to ensure a positive seal
- Multiple alarm functions for safer monitoring, audible/ visual alert with mute function; remote alarm contacts as standard in rear of the unit
- Easy to check the min/max temperature in the past 24 hours
- Microprocessor controller, wipe clean display with 0.1°C resolution for accurate control
- Energy efficient interior LED lighting

## Product Details



## Specifications

| Model                       | HYC-130GD   | HYC-130GD (115V)   |                |
|-----------------------------|---|--|----------------|
| Technical Data              | Cabinet Type  | Under-Counter, Glass Door                                    |                |
|                             | Climate Class (°C)                                    | N, 16-32   |                |
|                             | Cooling Type  | Forced Air Cooling   |                |
|                             | Defrost Mode  | Auto   |                |
|                             | Refrigerant   | R600a, 30g   |                |
|                             | GWP (Global Warming Potential)                        | 20   |                |
| Performance                 | Sound Level (dB(A))                                   | 37   |                |
|                             | Temperature Range (°C)                                | 2-8  |                |
| Control                     | Will the fan stop automatically when opening the door | Y  |                |
|                             | Controller  | Microprocessor   |                |
|                             | Display   | LED  |                |
| Electrical Data             | Power Supply (V/Hz)                                   | 220-240/50/60  |                |
|                             | Power (W)   | 180  |                |
| Performance Characteristics | Temperature Sensor                                    | NTC  |                |
|                             | Power Consumption (kWh/24h)                           | 1  |                |
| Dimensions                  | Capacity (L/Cu.Ft)                                    | 130 / 4.6  |                |
|                             | Net/Gross Weight (approx)                             | kg   | 48 / 52        |
|                             |   | lbs  | 105.8 / 114.6  |
|                             | Interior Dimensions (W*D*H)                           | mm   | 515*455*625    |
|                             |   | in   | 20.3*17.9*24.6 |
|                             | Exterior Dimensions (W*D*H)                           | mm   | 595*670*840    |
|                             |   | in   | 23.4*26.4*33.1 |
|                             | Packing Dimensions (W*D*H)                            | mm   | 670*730*890    |
| in                          |   | 26.4*28.7*35.0   |                |
| Alarms                      | Container Load (20'/40'/40'H)                         | 48/102/102   |                |
|                             | High/Low Temperature                                  | Y  |                |
|                             | High Ambient Temperature                              | Y  |                |
|                             | Door Ajar   | Y  |                |
|                             | Power Failure   | Y  |                |
|                             | Low Battery   | Y  |                |
|                             | Sensor Error  | Y  |                |
|                             | Communication Failure                                 | Y  |                |
|                             | Condenser Heat  | N  |                |
|                             | Remote Alarm  | Y  |                |
| Audible and Visual Alarm    | Y   |  |                |
| Accessories                 | Caster  | 2  |                |
|                             | Foot  | 2  |                |
|                             | Porthole  | 1 Right Side Wall  |                |
|                             | Shelves/Basket  | 3/1  |                |
|                             | Printer   | N/A  |                |
|                             | Chart Recorder  | N/A  |                |
|                             | USB Interface   | Optional   |                |
|                             | RS485   | Optional   |                |
| Material                    | Exterior Material (mm)                                | Painted Steel  |                |
|                             | Insulation Material (mm)                              | Polystyrene  |                |
|                             | Door Thickness  | 50   |                |
|                             | Cabinet Thickness                                     | 45   |                |
|                             | Shelves Material                                      | Steel Wire, Coated with Plastic                              |                |
| Others                      | Certification   | CE, UKCA, DIN13277 (Optional) UL, Energy Star (to be issued) |                |

# New Generation Pharmacy Refrigerator

| Model                       |   | HYC-130FD                       | HYC-130FD(115V)               |
|-----------------------------|---|---------------------------------|-------------------------------|
| Technical Data              | Cabinet Type  | Under-Counter, Solid Door       |                               |
|                             | Climate Class (°C)                                    | N, 16-32                        |                               |
|                             | Cooling Type  | Forced Air Cooling              |                               |
|                             | Defrost Mode  | Auto                            |                               |
|                             | Refrigerant   | R600a, 30g                      |                               |
|                             | GWP (Global Warming Potential)                        | 20                              |                               |
|                             | Sound Level (dB(A))                                   | 37                              |                               |
| Performance                 | Temperature Range (°C)                                | 2-8                             |                               |
| Control                     | Will the fan stop automatically when opening the door | Y                               |                               |
|                             | Controller  | Microprocessor                  |                               |
|                             | Display   | LED                             |                               |
| Electrical Data             | Power Supply (V/Hz)                                   | 220-240/50/60                   | 115/60                        |
|                             | Power (W)   | 180                             |                               |
| Performance Characteristics | Temperature Sensor                                    | NTC                             |                               |
|                             | Power Consumption (kWh/24h)                           | 0.55                            |                               |
| Dimensions                  | Capacity (L/Cu.Ft)                                    | 130 / 4.6                       |                               |
|                             | Net/Gross Weight (approx)                             | kg                              | 48 / 52                       |
|                             |   | lbs                             | 105.8 / 114.6                 |
|                             | Interior Dimensions (W*D*H)                           | mm                              | 515*455*625                   |
|                             |   | in                              | 20.3*17.9*24.6                |
|                             | Exterior Dimensions (W*D*H)                           | mm                              | 595*670*840                   |
|                             |   | in                              | 23.4*26.4*33.1                |
|                             | Packing Dimensions (W*D*H)                            | mm                              | 670*730*890                   |
|                             |   | in                              | 26.4*28.7*35.0                |
|                             | Container Load (20'/40'/40'H)                         | 48/102/102                      |                               |
| Alarms                      | High/Low Temperature                                  | Y                               |                               |
|                             | High Ambient Temperature                              | Y                               |                               |
|                             | Door Ajar   | Y                               |                               |
|                             | Power Failure   | Y                               |                               |
|                             | Low Battery   | Y                               |                               |
|                             | Sensor Error  | Y                               |                               |
|                             | Communication Failure                                 | Y                               |                               |
|                             | Condenser Heat  | N                               |                               |
|                             | Remote Alarm  | Y                               |                               |
|                             | Audible and Visual Alarm                              | Y                               |                               |
| Accessories                 | Caster  | 2                               |                               |
|                             | Foot  | 2                               |                               |
|                             | Porthole  | 1 Right Side Wall               |                               |
|                             | Shelves/Basket  | 3/1                             |                               |
|                             | Printer   | N/A                             |                               |
|                             | Chart Recorder  | N/A                             |                               |
|                             | USB Interface   | Optional                        |                               |
|                             | RS485   | Optional                        |                               |
| Material                    | Exterior Material (mm)                                | Painted Steel                   |                               |
|                             | Insulation Material (mm)                              | Polystyrene                     |                               |
|                             | Door Thickness  | 50                              |                               |
|                             | Cabinet Thickness                                     | 45                              |                               |
|                             | Shelves Material                                      | Steel Wire, Coated with Plastic |                               |
| Others                      | Certification   | CE, UKCA, DIN13277 (Optional)   | UL, Energy Star(to be issued) |

Used for storage of medicines, vaccines, reagents, biological products and other items that require a temperature between 2-8°C in hospitals, pharmacies, pharmaceutical factories, clinics and laboratories etc.



HYC-85GD/FD

## Product Advantages

- User reversible door hinge
- Excellent performance: temperature uniformity  $\pm 1^{\circ}\text{C}$  <sup>①</sup>
- Quiet operation: 35dB (A)
- Magnetic gasket for positive seal
- Multiple alarms for safer monitoring
- HYC-85GD:** Intelligent anti-condensation: triple-paned tempered glass door with door frame heater, effectively reduces condensation even at 32°C, 80% RH ambient temperature
- HYC-85FD:** CFC-free solid door, highly effective insulation
- Optional USB and RS485, easy to export temperature data
- Eco-friendly hydrocarbon refrigerant (R600a) and CFC-free polyurethane insulation for reduced global warming
- Hermetically sealed compressor, forced-air circulation and automatic defrost to ensure high cooling performance
- Microprocessor controller, display with resolution of 0.1°C

\* ① Tested by TUV according to DIN13277

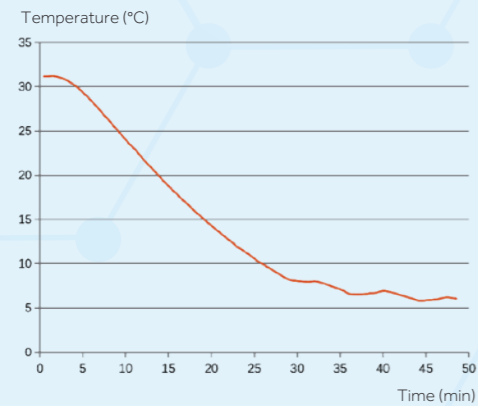
# New Generation Pharmacy Refrigerator



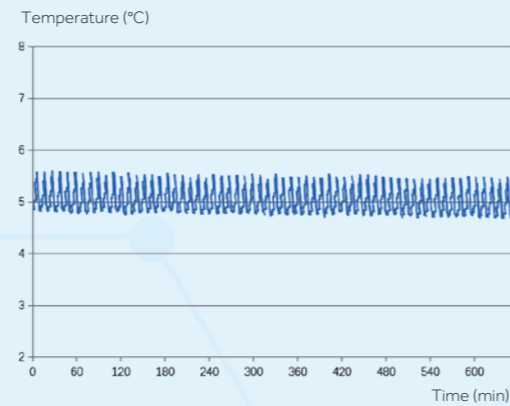
**HYC-85GD**

## Cabinet Temperature

**HYC-85GD**  
Cooling down (ambient 32°C)



**HYC-85GD**  
Stability (ambient 25°C)



## Specifications



| Model                         | HYC-85GD  |   | HYC-85FD                      |  |
|-------------------------------|---|---|-------------------------------|--|
| Technical Data                | Cabinet Type  | Counter-Top / Under-Counter, Glass Door |                               |  |
|                               | Climate Class (°C)                                    | N, 16-32                                |                               |  |
|                               | Cooling Type  | Forced Air Cooling                      |                               |  |
|                               | Defrost Mode  | Auto                                    |                               |  |
|                               | Refrigerant   | R600a, 45g                              |                               |  |
|                               | GWP(global warming potential)                         | 20                                      |                               |  |
|                               | Sound Level (dB(A))                                   | 35                                      |                               |  |
| Performance                   | Temperature Range (°C)                                |   | 2-8                           |  |
| Control                       | Will the fan stop automatically when opening the door | Y                                       |                               |  |
|                               | Controller  | Microprocessor                          |                               |  |
| Electrical Data               | Display   | LED                                     |                               |  |
|                               | Power Supply (V/Hz)                                   | 220-240/50                              | 115V/60                       |  |
|                               | Electrical Current (A)                                | 0.98                                    | 1.2                           |  |
| Performance Characteristics   | Temperature Sensor                                    | NTC                                     |                               |  |
|                               | Power Consumption (kWh/24h)                           | 0.99                                    | 0.72                          |  |
| Dimensions                    | Capacity (L/Cu.Ft)                                    | 85/3.0                                  |                               |  |
|                               | Net/Gross Weight(approx)                              | kg                                      | 36 / 41                       |  |
|                               |   | lbs                                     | 79.4 / 90.4                   |  |
|                               | Interior Dimensions (W*D*H)                           | mm                                      | 405*405*555                   |  |
|                               |   | in                                      | 15.9*15.9*21.9                |  |
|                               | Exterior Dimensions (W*D*H)                           | mm                                      | 495*550*740                   |  |
|                               |   | in                                      | 19.5*21.7*29.1                |  |
|                               | Packing Dimensions (W*D*H)                            | mm                                      | 590*650*830                   |  |
| in                            |   | 23.2*25.6*32.7                          |                               |  |
| Container Load (20'/40'/40'H) | 54/120/180  |   |                               |  |
| Alarms                        | High/Low Temperature                                  | Y                                       |                               |  |
|                               | High Ambient Temperature                              | Y                                       |                               |  |
|                               | Door Ajar   | Y                                       |                               |  |
|                               | Power Failure   | Y                                       |                               |  |
|                               | Low Battery   | Y                                       |                               |  |
|                               | Sensor Error  | Y                                       |                               |  |
|                               | Communication Failure                                 | Y                                       |                               |  |
|                               | Condenser Heat  | N                                       |                               |  |
|                               | Remote Alarm  | Y                                       |                               |  |
|                               | Audible and Visual Alarm                              | Y                                       |                               |  |
|                               | Accessories   | Caster                                  | 2                             |  |
|                               |   | Foot                                    | 2                             |  |
| Porthole                      |   | 1                                       |                               |  |
| Shelves/Basket                |   | 2/1                                     |                               |  |
| Printer                       |   | N/A                                     |                               |  |
| Chart Recorder                |   | N/A                                     |                               |  |
| USB Interface                 |   | Optional                                |                               |  |
| RS485                         |   | Optional                                |                               |  |
| Material                      | Exterior Material                                     | Painted Steel                           |                               |  |
|                               | Interior Material                                     | Polystyrene                             |                               |  |
|                               | Door Thickness (mm)                                   | 50                                      |                               |  |
|                               | Cabinet Thickness (mm)                                | 45                                      |                               |  |
|                               | Shelves Material                                      | Steel Wire, Coated with Plastic         |                               |  |
| Other                         | Certification   | CE, UKCA, DIN13277 (Optional)           | UL, Energy Star               |  |
|                               |   |   | CE, UKCA, DIN13277 (Optional) |  |

# RFID Refrigerator

## Smart Management of Medicine and Reagents Starts with IoT Technology

Perform statistical analysis of market data and medicine or reagents usage to report on market trends providing highly useful feedback to production and sales.



HYC-509R

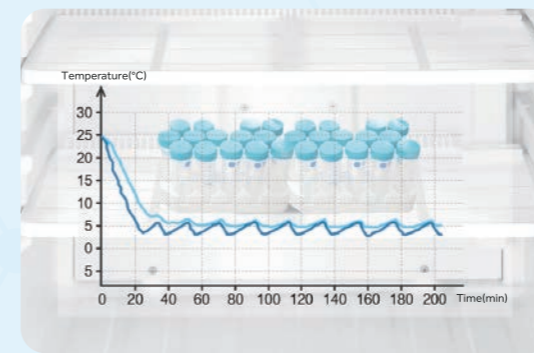


### Authorized Management for Material Flow at Controllable Risk

NFC authorized management system is traceable.



### Statistical Analysis of Test Data, Precise Verification and Scientific Instruction



### Precise Temperature Control Ultimate Safety of Test Reagents

2°C - 8°C storage temperature, real-time monitoring of cabinet temperature

| Drug number | Name                        | Expiry date | Quantity |
|-------------|-----------------------------|-------------|----------|
| KL1Y104     | 重组人干扰素α2b注射液 (重组人干扰素α2b注射液) | 2021/04/01  | 5        |
| KL1Y104     | 重组人干扰素α2b注射液 (重组人干扰素α2b注射液) | 2021/04/01  | 1        |
| KL1Y104     | 重组人干扰素α2b注射液 (重组人干扰素α2b注射液) | 2021/04/01  | 2        |
| KL1Y104     | 重组人干扰素α2b注射液 (重组人干扰素α2b注射液) | 2021/04/01  | 2        |
| KL1Y104     | 重组人干扰素α2b注射液 (重组人干扰素α2b注射液) | 2021/04/01  | 1        |

### Intelligent Accurate Recording

Intelligent touch screen for quick check of warehouse in-and-out records



### Smart IoT System Makes Storage Management Simple, Precise and Effective

RFID based smart IoT management system permits automatic management of stored products are automatically



Smart RFID label



Smart RFID shelf



Industrial-grade IoT Network Module Group



### Manage Market Data to Support Scientific Production Scheduling

Perform statistical analysis of market data and medicine or reagents usage to report on market trends providing highly useful feedback to production and sales.



### Effective Management of Sales Channels

Sales channels can provide timely feedback information to improve shipping, refilling, dispatching and inventory control, to provide continuity on supply and to optimize inventory level.



### Reagent Handling Process is Traceable and Controllable

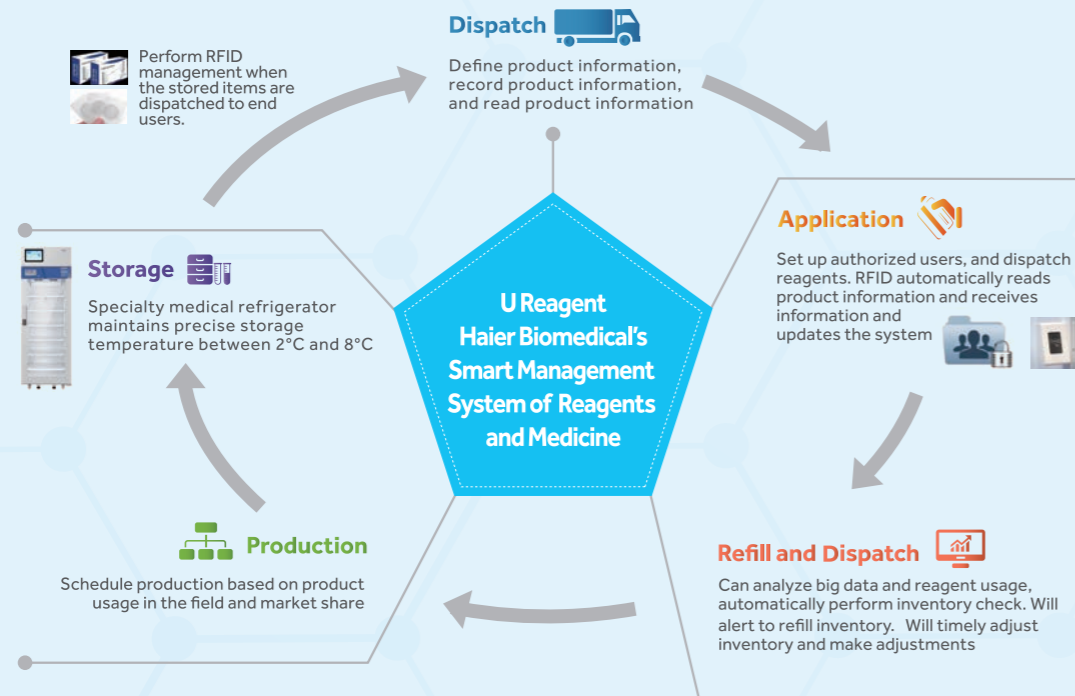
Shipping and receiving processes of reagents are automatically monitored and controlled for authorized users. Every box of reagents is traceable.

# RFID Refrigerator



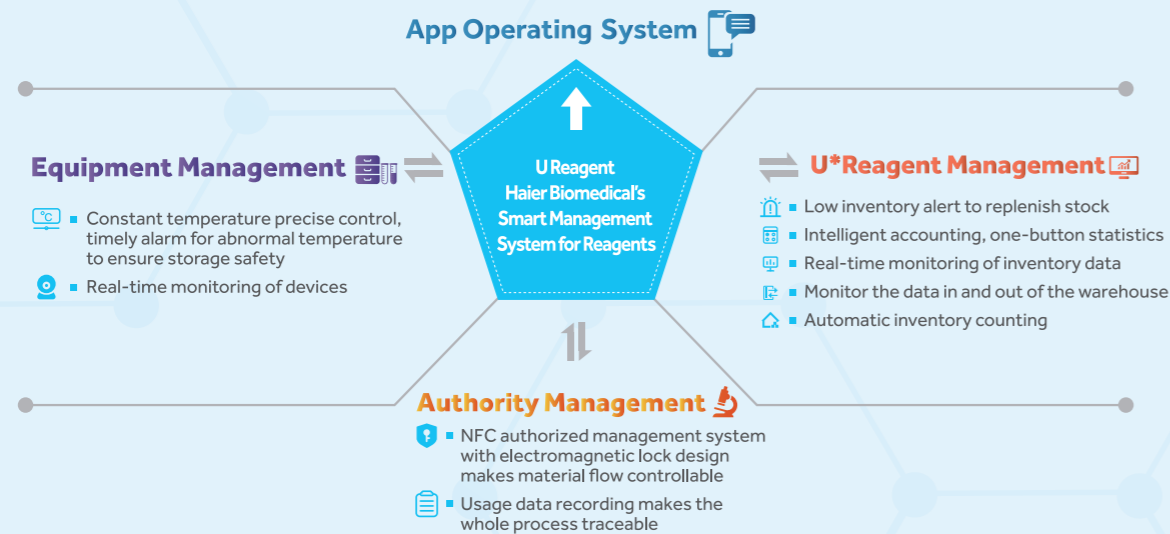
## Smart Management of Products

(It is suitable for manufacturing industry)



## From storage to use, the entire process is automatically and smartly controlled

(It is suitable for pharmaceutical factories, laboratories and hospitals)



## Specifications

|                            | Model                          | HYC-509R                   |                 |
|----------------------------|--------------------------------|----------------------------|-----------------|
| Technical Data             | Cabinet Type                   | Upright, Single Glass Door |                 |
|                            | Climate Class                  | N                          |                 |
|                            | Cooling Type                   | Forced Air Cooling         |                 |
|                            | Defrost Mode                   | Auto                       |                 |
|                            | Refrigerant                    | R600a                      |                 |
|                            | GWP (global warming potential) | 20                         |                 |
| Performance                | Sound Level (dB(A))            | 40                         |                 |
|                            | Temperature Range (°C)         | 2-8                        |                 |
|                            | Controller                     | Microprocessor             |                 |
| Control                    | Display                        | Touchscreen + LED          |                 |
|                            | Power Supply (V/Hz)            | 220-240/50/60              |                 |
| Electrical Data            | Electrical Current (A)         | 2                          |                 |
|                            | Power Consumption (kWh/day)    | 6                          |                 |
|                            | Capacity (L/Cu.Ft)             | 509/17.97                  |                 |
| Dimensions                 | Net/Gross Weight (approx)      | (kg)                       | 180/215         |
|                            |                                | (lbs)                      | 396/473         |
|                            | Interior Dimensions (W*D*H)    | (mm)                       | 593*585*1500    |
|                            |                                | (in)                       | 23.21*22.9*58.8 |
|                            | Exterior Dimensions (W*D*H)    | (mm)                       | 693*813*1981    |
|                            |                                | (in)                       | 27.1*31.9*77.7  |
| Packing Dimensions (W*D*H) | (mm)                           | 835*915*2170               |                 |
|                            | (in)                           | 32.9*36.0*85.4             |                 |
|                            | Container Load (20'/40'/40'H)  | 14/28/28                   |                 |
| Alarms                     | High/Low Temperature           | Y                          |                 |
|                            | High Ambient Temperature       | Y                          |                 |
|                            | Remote Alarm                   | Y                          |                 |
|                            | Power Failure                  | Y                          |                 |
|                            | Low Battery                    | Y                          |                 |
|                            | Door Ajar                      | Y                          |                 |
|                            | Accessories                    | Caster                     | Y               |
| Foot                       |                                | Y                          |                 |
| Porthole                   |                                | Y                          |                 |
| Shelves/Drawers            |                                | 6                          |                 |
| Others                     | USB Interface                  | Y                          |                 |
|                            | Certification                  | CE                         |                 |

## Advanced Pharmacy Refrigerator with Touchscreen

## Advanced Pharmacy Refrigerator with LED Display



HYC-1099TF

HYC-509T

HYC-1099T

HYC-509TF

### Product Advantages

- Microprocessor controller, 7-inch touch screen, easy to check the cabinet temperature graph, alarm & event records and other information; authority management is standard to avoid unauthorized access or incorrect settings
- Eco-friendly hydrocarbon refrigerant (R600a) and CFC-free polyurethane insulation for reduced global warming
- Excellent cooling performance, temperature uniformity  $\leq \pm 2^\circ\text{C}$ ; anti-freezing thermostat is equipped as standard, DIN13277 compliance
- Hermetically sealed compressor, forced-air circulation with auto defrost to ensure high cooling performance
- Double-paned tempered glass door with electronic heater to reduce condensation even at  $32^\circ\text{C}$ , 80% RH ambient; self-closing door hinge with  $90^\circ$  stop; magnetic gaskets to ensure a positive seal (Solid door type is also available upon request)
- Multiple alarm functions for safer monitoring, audible/visual alert with mute function; remote alarm contact is equipped as standard
- Electromagnetic lock is standard to avoid unauthorized access
- Adjustable plastic-coated wire shelves for improved circulation and flexible storage; fully extendable ABS drawer with divider is optional
- Energy efficient interior LED lighting
- 25mm probe access port on side wall to accept user-provided monitoring equipment
- Standard USB module to conveniently record and export cabinet temperature and alarm data; standard RS485 port and remote alarm contact for efficient external connection; optional printer to export cabinet temperature data
- 4 universal casters with 2 leveling feet



HYC-1099F

HYC-509

HYC-1099

HYC-509F

### Product Advantages

- Double-paned tempered glass door with electronic heater to reduce condensation even at  $32^\circ\text{C}$ , 80% RH ambient; self-closing door hinge with  $90^\circ$  stop; magnetic gaskets to ensure a positive seal
- Microprocessor controller, digital display with  $0.1^\circ\text{C}$  resolution; easy to check the min/max temperature in the past 24 hours
- Standard USB module to conveniently record and export cabinet temperature and alarm data; Standard RS485 port and remote alarm contact for efficient external connection; optional printer to export cabinet temperature data
- Multiple alarm functions for safer monitoring, audible/visual alert with mute function; remote alarm contact is equipped as standard
- Excellent cooling performance, temperature uniformity  $\leq \pm 2^\circ\text{C}$ ; anti-freezing thermostat is equipped as standard, DIN13277 compliance
- Hermetically sealed compressor, forced-air circulation with auto defrost to ensure high cooling performance
- Convenient security with a top-mounted unique-key lock; electromagnetic lock is optional to avoid unauthorized access
- Eco-friendly hydrocarbon refrigerant (R600a) and CFC-free polyurethane insulation for reduced global warming
- 25mm probe access port on side wall to accept user-provided monitoring equipment
- Energy efficient interior LED lighting
- 4 universal casters with 2 leveling feet



Follow the QR code and learn more about the Advanced Control Touchscreen Pharmacy Refrigerator from Haier Biomedical



## Advanced Pharmacy Refrigerator with Touchscreen

## Advanced Pharmacy Refrigerator with LED Display

### Specifications



### Specifications

| Model                       |   | HYC-509T                                  | HYC-509TF                                 | HYC-1099T                               | HYC-1099TF                              | HYC-509                                   | HYC-509F                                  | HYC-1099                                | HYC-1099F                               |                |
|-----------------------------|---|---|---|---|---|---|---|---|---|----------------|
| Technical Data              | Cabinet Type  | Upright, Single Glass Door                | Upright, Single Solid Door                | Upright, Double Glass Door              | Upright, Double Solid Door              | Upright, Single Glass Door                | Upright, Single Solid Door                | Upright, Double Glass Door              | Upright, Double Solid Door              |                |
|                             | Climate Class   | N   | N   | N                                       | N                                       | N   | N   | N                                       | N                                       |                |
|                             | Cooling Type  | Forced Air Cooling                        | Forced Air Cooling                        | Forced Air Cooling                      | Forced Air Cooling                      | Forced Air Cooling                        | Forced Air Cooling                        | Forced Air Cooling                      | Forced Air Cooling                      |                |
|                             | Defrost Mode  | Auto                                      | Auto                                      | Auto                                    | Auto                                    | Auto                                      | Auto                                      | Auto                                    | Auto                                    |                |
|                             | Refrigerant   | R600a                                     | R600a                                     | R600a                                   | R600a                                   | R600a                                     | R600a                                     | R600a                                   | R600a                                   |                |
|                             | GWP (global warming potential)                        | 20  | 20  | 20                                      | 20                                      | 20  | 20  | 20                                      | 20                                      |                |
|                             | Sound Level (dB(A))                                   | 40  | 40  | 43                                      | 43                                      | 40  | 40  | 43                                      | 43                                      |                |
| Performance                 | Temperature Range (°C)                                | 2-8                                       | 2-8                                       | 2-8                                     | 2-8                                     | 2-8                                       | 2-8                                       | 2-8                                     | 2-8                                     |                |
| Control                     | Will the fan stop automatically when opening the door | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Controller  | Microprocessor                            | Microprocessor                            | Microprocessor                          | Microprocessor                          | Microprocessor                            | Microprocessor                            | Microprocessor                          | Microprocessor                          |                |
| Electrical Data             | Display   | Touchscreen                               | Touchscreen                               | Touchscreen                             | Touchscreen                             | LED                                       | LED                                       | LED                                     | LED                                     |                |
|                             | Power Supply (V/Hz)                                   | 220-240/50/60                             | 220-240/50/60                             | 220-240/50/60                           | 220-240/50/60                           | 220-240/50/60                             | 220-240/50/60                             | 220-240/50/60                           | 220-240/50/60                           |                |
| Performance Characteristics | Electrical Current (A)                                | 1.85                                      | 1.75                                      | 2.5                                     | 2.25                                    | 1.85                                      | 1.75                                      | 2.5                                     | 2.25                                    |                |
|                             | Temperature Sensor                                    | PT100 + NTC                               | PT100 + NTC                               | PT100 + NTC                             | PT100 + NTC                             | PT100 + NTC                               | PT100 + NTC                               | PT100 + NTC                             | PT100 + NTC                             |                |
| Dimensions                  | Power Consumption (kWh/24h)                           | 5.9                                       | 5.3                                       | 6.8                                     | 6                                       | 5.9                                       | 5.3                                       | 6.8                                     | 6                                       |                |
|                             | Capacity (L/Cu.Ft)                                    | 509/17.97                                 | 509/17.97                                 | 1099/38.5                               | 1099/38.5                               | 509/17.97                                 | 509/17.97                                 | 1099/38.5                               | 1099/38.5                               |                |
|                             | Net/Gross Weight (approx)                             | kg  | 180/215                                   | 175/210                                 | 340/400                                 | 330/390                                   | 180/215                                   | 175/210                                 | 340/400                                 | 330/390        |
|                             |   | lbs                                       | 396/473                                   | 385/462                                 | 748/1000                                | 726/858                                   | 396/473                                   | 385/462                                 | 748/1000                                | 726/858        |
|                             | Interior Dimensions (W*D*H)                           | mm  | 593*585*1500                              | 593*585*1500                            | 1295*585*1500                           | 1295*585*1500                             | 593*585*1500                              | 593*585*1500                            | 1295*585*1500                           | 1295*585*1500  |
|                             |   | in  | 23.21*22.9*58.8                           | 23.21*22.9*58.8                         | 50.7*22.9*58.8                          | 50.7*22.9*58.8                            | 23.21*22.9*58.8                           | 23.21*22.9*58.8                         | 50.7*22.9*58.8                          | 50.7*22.9*58.8 |
|                             | Exterior Dimensions (W*D*H)                           | mm  | 693*813*1981                              | 693*813*1981                            | 1395*813*1981                           | 1395*813*1981                             | 693*813*1981                              | 693*813*1981                            | 1395*813*1981                           | 1395*813*1981  |
|                             |   | in  | 27.1*31.9*77.7                            | 27.1*31.9*77.7                          | 54.7*31.9*77.7                          | 54.7*31.9*77.7                            | 27.1*31.9*77.7                            | 27.1*31.9*77.7                          | 54.7*31.9*77.7                          | 54.7*31.9*77.7 |
|                             | Packing Dimensions (W*D*H)                            | mm  | 835*915*2170                              | 835*915*2170                            | 1550*895*2100                           | 1550*895*2100                             | 835*915*2170                              | 835*915*2170                            | 1550*895*2100                           | 1550*895*2100  |
|                             |   | in  | 32.9*36.0*85.4                            | 32.9*36.0*85.4                          | 61.0*35.3*82.7                          | 61.0*35.3*82.7                            | 32.9*36.0*85.4                            | 32.9*36.0*85.4                          | 61.0*35.3*82.7                          | 61.0*35.3*82.7 |
|                             | Container Load (20'/40'/40'H)                         | 14/28/28                                  | 14/28/28                                  | 7/15/15                                 | 7/15/15                                 | 14/28/28                                  | 14/28/28                                  | 7/15/15                                 | 7/15/15                                 |                |
| Alarms                      | High/Low Temperature                                  | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | High Ambient Temperature                              | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Door Ajar   | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Power Failure   | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Low Battery   | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Sensor Error  | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Communication Failure                                 | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Remote Alarm  | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Audible and Visual Alarm                              | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
| Accessories                 | Condenser Overheat                                    | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Caster  | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Foot  | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Porthole  | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Test Hole   | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       | Y                                       |                |
|                             | Shelves/Drawers                                       | 6 on each side, clearance 19.5cm/Optional | 6 on Each Side, Clearance 19.5cm/Optional | 12/Optional                             | 12/Optional                             | 6 on Each Side, Clearance 19.5cm/Optional | 6 on Each Side, Clearance 19.5cm/Optional | 12/Optional                             | 12/Optional                             |                |
| Drawer Material             | Steel Wire Dipping Plastic                            | Steel Wire Dipping Plastic                | Steel Wire, Coated with Plastic           | Steel Wire, Coated with Plastic         | Steel Wire Dipping Plastic              | Steel Wire Dipping Plastic                | Steel Wire, Coated with Plastic           | Steel Wire, Coated with Plastic         |   |                |
| USB Interface               | Y   | Y   | Y   | Y                                       | Y                                       | Y   | Y   | Y                                       |   |                |
| Material                    | Exterior Material                                     | Painted Steel                             | Painted Steel                             | Painted Steel                           | Painted Steel                           | Painted Steel                             | Painted Steel                             | Painted Steel                           | Painted Steel                           |                |
|                             | Interior Material                                     | Painted Steel; Optional Stainless Steel   | Painted Steel; Optional Stainless Steel   | Painted Steel; Optional Stainless Steel | Painted Steel; Optional Stainless Steel | Painted Steel; Optional Stainless Steel   | Painted Steel; Optional Stainless Steel   | Painted Steel; Optional Stainless Steel | Painted Steel; Optional Stainless Steel |                |
|                             | Door Thickness (mm)                                   | 50  | 50  | 50                                      | 50                                      | 50  | 50  | 50                                      | 50                                      |                |
|                             | Cabinet Thickness (mm)                                | 50  | 50  | 50                                      | 50                                      | 50  | 50  | 50                                      | 50                                      |                |
|                             | Shelves Material                                      | Steel Wire, Coated with Plastic           | Steel Wire, Coated with Plastic           | Steel Wire, Coated with Plastic         | Steel Wire, Coated with Plastic         | Steel Wire, Coated with Plastic           | Steel Wire, Coated with Plastic           | Steel Wire, Coated with Plastic         | Steel Wire, Coated with Plastic         |                |
| Others                      | No. of Shelves  | 6   | 6   | 12                                      | 12                                      | 6   | 6   | 12                                      | 12                                      |                |
|                             | Certification   | CE, UKCA, DIN13277 (Optional)             | CE, UKCA, DIN13277 (Optional)             | CE, UKCA                                | CE, UKCA                                | CE, UKCA, DIN13277 (Optional)             | CE, UKCA, DIN13277 (Optional)             | CE, UKCA, DIN (optional)                | CE, UKCA, DIN (optional)                |                |

# Standard Pharmacy Refrigerator

The product is used to store biological drugs and items at a temperature of 2-8°C. Typically used within pharmacy, pharma production, public health, hospitals and other life science laboratories.



**HYC-309**



## Superior performance

- Microcomputer controller, display/control accuracy 0.1°C
- Temperature range 2-8°C, temperature uniformity  $\pm 2^\circ\text{C}$
- Energy-efficient conversion compressors and non-toxic, environmentally-friendly hydrocarbon refrigerant
- Self-closing door design
- Electrically heated glass door prevents condensation
- Multiple interface options - USB, RS485 and printer

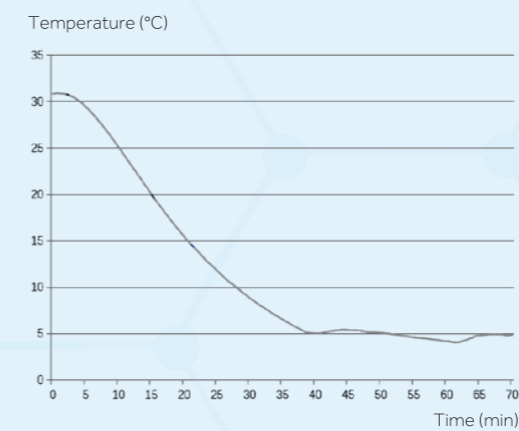


## Safe and reliable

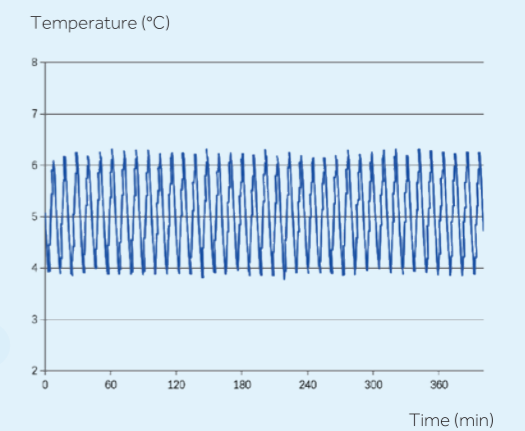
- Key lock and provision for padlock to ensure safe and secure product storage
- Multiple alarms: High/Low temperature alarm, high ambient temperature alarm, door ajar alarm, power failure, low battery, sensor error, comms error and remote alarm contacts
- Alarm mode: Audible/visual and remote alarm with battery back-up which continuously alarms for up to 48 hours in the event of a power failure

## Temperature Curve

**HYC-309**  
Cooling down (ambient 32°C)



**HYC-309**  
Stability (ambient 25°C)



# Standard Pharmacy Refrigerator

New and improved Haier Biomedical pharmacy refrigerators now offer an improved temperature profile and more user-friendly control features.



**HYC-390**



## Technical Advantages

- Accurate temperature control maintains 2°C to 8°C throughout the unit with an adjustable increment at 0.1°C
- Improved user interface includes a data storage capacity of up to 10 years
- Oversized air-cooled condenser improves the robustness of the refrigeration system, reliability and refrigeration efficiency



## Ergonomic Design

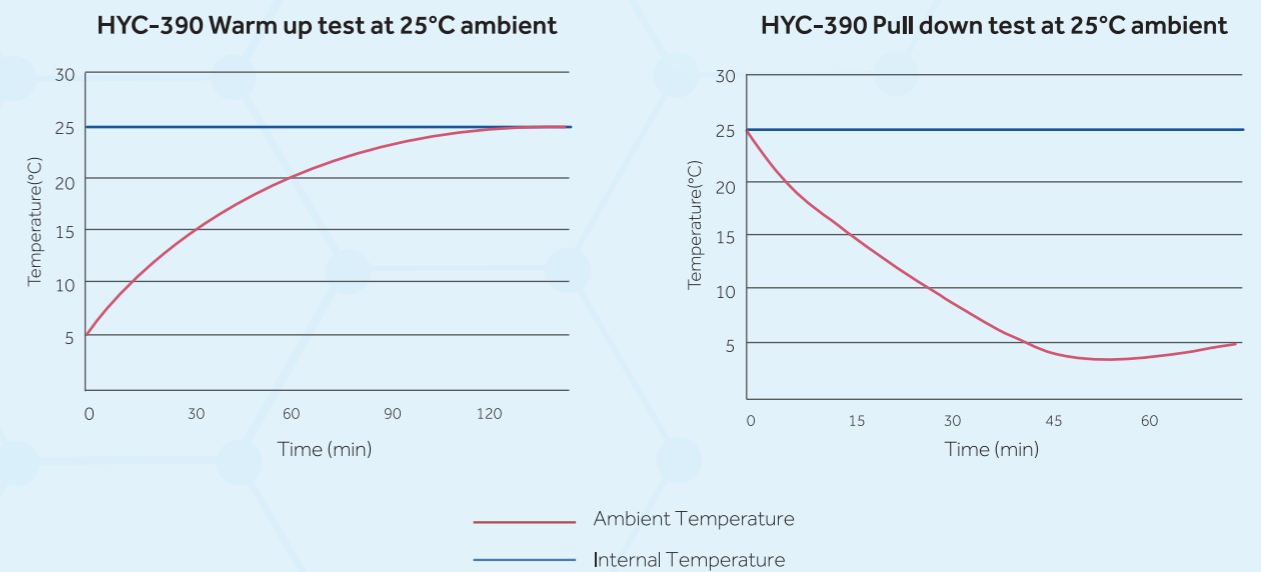
- The temperature data of the newly improved storage management system is downloadable from the USB port
- Traceability of temperature data
- Heated double-pane glass door allows a clear view of stored products without condensation at 32°C and 85% relative humidity ambient conditions
- LED interior light saves energy and provides bright lighting of interior for easy product location and identification
- Shelves with label holders meet demands required for quick and effective product archiving and retrieving



## Safety

- Microprocessor control with digital display
- Temperature uniformity within 3°C
- Malfunction alarms include high/low temperature, door ajar, sensor error, power failure, low battery and remote alarm interface

## Temperature Curve



# Standard Pharmacy Refrigerator

Used for storage of biological products, vaccines, drugs, reagents, etc., the unit is widely used in pharmacies, pharmaceutical factories, hospitals, CDC, laboratories as key examples.



HYC-410



## Superior Performance

- Microcomputer controller, LED temperature display, accuracy 0.1°C
- Fin type evaporator and double fan system, temperature uniformity  $\pm 2^{\circ}\text{C}$
- R600a hydrocarbon refrigerant, LBA foaming agent, energy saving and environmental protection
- Optimized system and structure design, noise down to 41 dB(A)
- Panoramic glass door, LED lighting, goods are clear at a glance
- Heated door to prevent condensation
- Standard with 1 test hole, convenient for user to test interior temperature



## Safe

- Equipped with built-in lock and security latch to accommodate a padlock, ensuring safe and reliable storage
- Multiple alarms: High and low temperature, sensor error, power failure, low battery, door ajar, high ambient temperature and communication fault alarm
- Alarm mode: audible buzzer and flashing light, remote alarm. The alarm will continue for 24 hours after power failure

## Product Details

### Material:

HIPS adsorption liner, sprayed steel case

### Caster and foot:

Standard equipped with 4 universal casters and 2 adjustable feet, the refrigerator is easy to move and stabilize

### Shelves:

Standard with 6 shelves



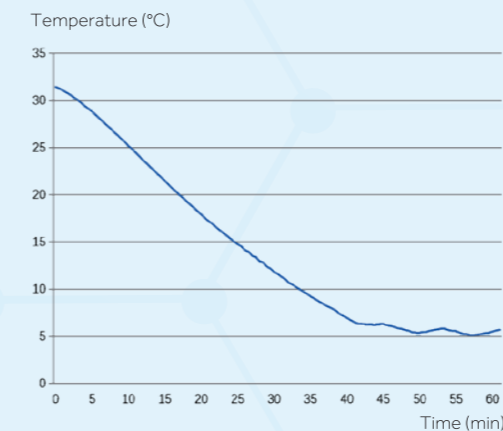
HYC-410



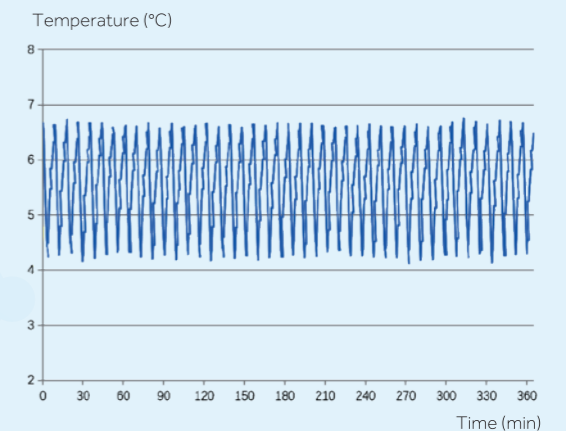
\*Optional: USB, printer, RS485/232 interface

## Product Performance

HYC-410 Cooling down (ambient 32°C)



HYC-410 Stability (ambient 25°C)



# Standard Pharmacy Refrigerator

215/216

Used for storage of medicines, vaccines, reagents, biological products and other items that require a temperature between 2-8°C in hospitals, pharmacies, pharmaceutical factories, clinics and laboratories etc.



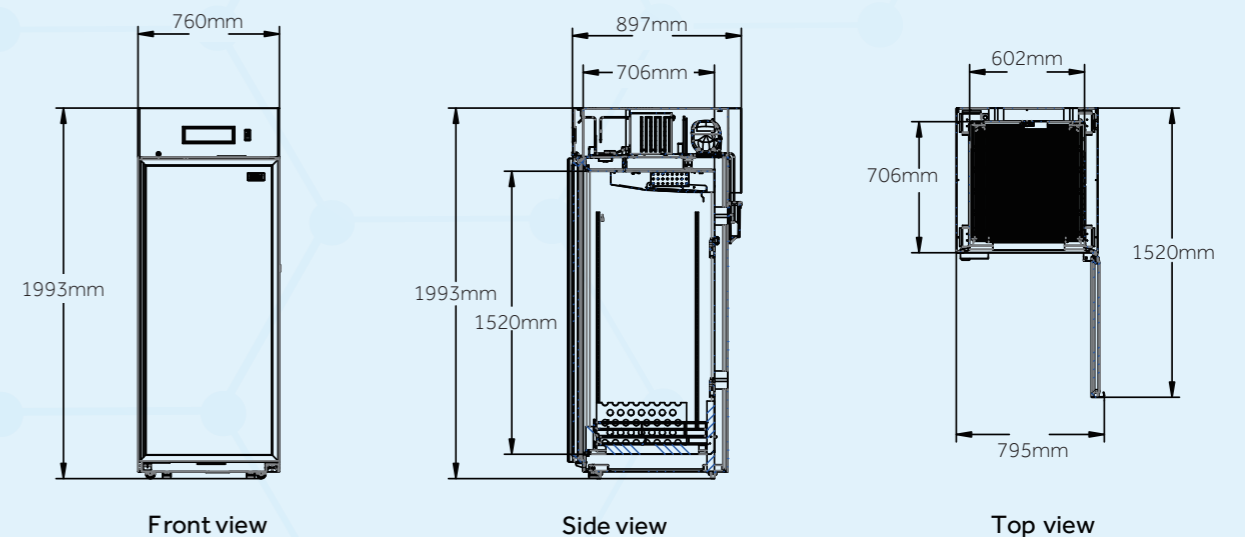
## Product Advantages

- Eco-friendly hydrocarbon refrigerant (R600a) and CFC-free polyurethane insulation for reduced global warming potential
- Microprocessor controller, digital display with 0.1°C resolution for accurate control
- Hermetically sealed compressor, forced-air circulation with auto defrost to ensure high cooling performance to keep cabinet temperature between 2-8°C
- Self-closing door with magnetic gaskets to ensure a positive seal
- Double-layer tempered glass door with electronic heater to reduce condensation even at 32°C, 80% RH ambient
- Multiple alarm functions for safer monitoring, audible/visual alert with mute function; remote alarm contacts as standard in rear of the unit
- Convenient security with a top-mounted unique-key lock
- Easy to check the min/max temperature in the past 24 hours
- Adjustable plastic-coated wire shelves for improved circulation and flexible storage
- Energy efficient interior LED lighting
- 25mm probe access port to accept user- provided monitoring equipment
- Optional printer, optional RS 485
- Dish bottom design to contain spills
- 4 swivel casters with 2 leveling feet

## Product Parts



## Product Dimension



# Standard Pharmacy Refrigerator

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The Haier Biomedical pharmacy refrigerators are suitable for pharmacies, drug stores, pharmaceutical companies, hospitals, clinics and other pharmaceutical storage areas such as storage and logistics.



**HYC-1378**



## Durable and Reliable - Key Features

- Energy efficient hydrocarbon (HC) refrigeration system
- Permanently lubricated cooling fan for safety and longevity
- Forced-air cooling with optimized air distribution system designed to achieve maximum temperature uniformity and stability
- Optimized refrigeration system design for more effective cooling and speedy recovery
- Temperature uniformity within  $\pm 2^{\circ}\text{C}$
- Chamber temperature range 2-8 $^{\circ}\text{C}$
- Microprocessor control with large digital display. Adjustable temperature with an increment of 0.1 $^{\circ}\text{C}$
- Wide voltage tolerance suitable for regions with an unstable voltage supply
- Designed for ambient temperature 10 $^{\circ}\text{C}$ -32 $^{\circ}\text{C}$  with humidity below 85%



## Safety

- Equipped with a complete temperature alarm system featuring audible buzzer and visible flashing light
- Capable of alerting failures due to high or low temperature, sensor error, door ajar, remote alarm, power failure and low battery

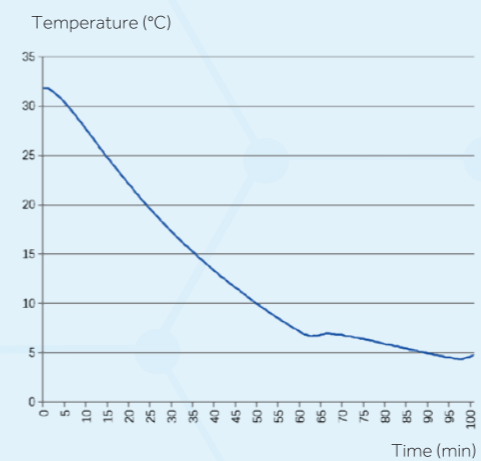


## Ergonomic Design

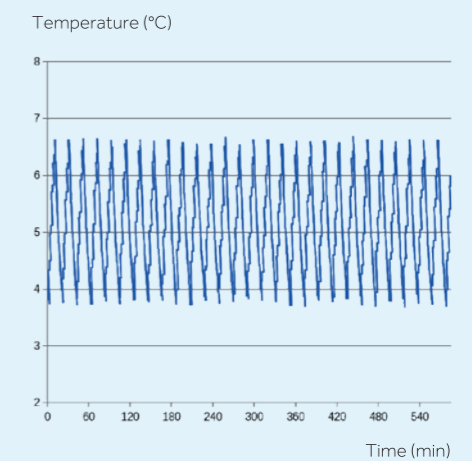
- Optimized space utilization design with multi-level and adjustable shelf height to accommodate the different storage requirements of varied sized pharmaceutical products.
- Safety lock to prevent unauthorized access
- Caster design and levelling feet
- Interior light

## Product Performance

**HYC-1378**  
Cooling down (ambient 32 $^{\circ}\text{C}$ )



**HYC-1378**  
Stability (ambient 25 $^{\circ}\text{C}$ )



# Under-Counter Pharmacy Refrigerator

## Easy to Install, Ergonomic and Reliable

Haier Biomedical are pioneers in under-counter pharmacy refrigerator design and manufacturing, offering ultra-low noise system, safety lock, complete alarm system for sample safety and protection.



HYC-118

HYC-118A



### Reliability and Key Features

- Energy efficient hydrocarbon (HC) refrigeration system
- Permanently lubricated cooling fan for safety and longevity
- Forced-air cooling with optimized air distribution system designed to achieve maximum temperature uniformity and stability
- Optimized refrigeration system design for more effective cooling and speedy recovery
- Temperature uniformity within  $\pm 3^{\circ}\text{C}$
- Chamber temperature range  $2\text{--}8^{\circ}\text{C}$
- Microprocessor control, digital display and temperature adjustment with an increment of  $0.1^{\circ}\text{C}$
- Designed for ambient temperature  $10\text{--}32^{\circ}\text{C}$  with humidity below 70%



### Safety

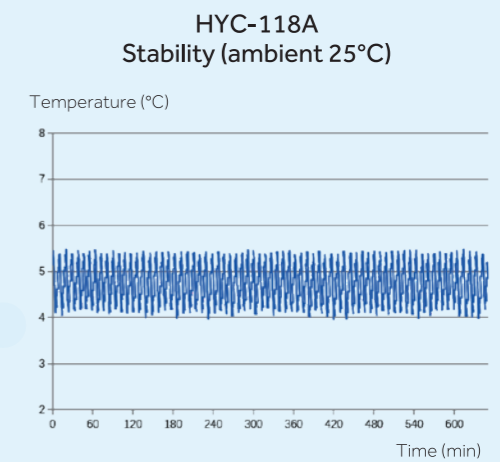
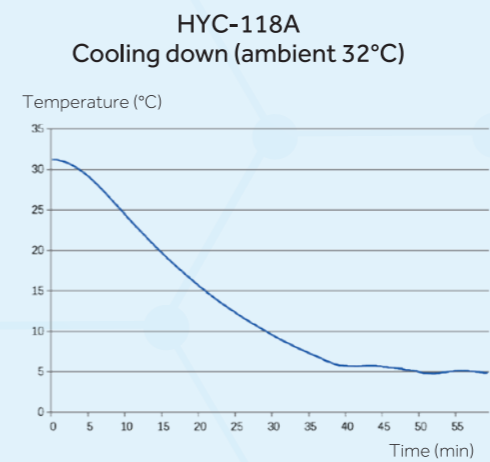
- Equipped with a complete temperature alarm system featuring audible buzzer and visual flashing light
- Capable of alerting failures due to high and low temperature, sensor error, door ajar, power failure, and remote alarm interface



### Ergonomic Design

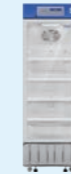
- Interior LED light
- Safety lock to prevent unauthorized access

## Product Performance



# Pharmacy Refrigerator

## Specifications

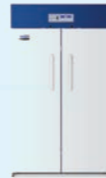


| Model                         |   | HYC-390F                        |                | HYC-610                         |                | HYC-290                         |                | HYC-309                         |                | HYC-390                         |                 | HYC-410                         |                |  |
|-------------------------------|---|---------------------------------|----------------|---------------------------------|----------------|---------------------------------|----------------|---------------------------------|----------------|---------------------------------|-----------------|---------------------------------|----------------|--|
| Technical Data                | Cabinet Type  | Upright, Single door            |                | Upright, Single Door            |                | Upright, Single Door            |                | Upright, Single Door            |                | Upright, Single Door            |                 | Upright, Single Door            |                |  |
|                               | Climate Class   | N                               |                | N                               |                | ST                              |                | N                               |                | N                               |                 | N                               |                |  |
|                               | Cooling Type  | Forced Air Cooling              |                | Forced Air Cooling              |                | Forced Air Cooling              |                | Forced Air Cooling              |                | Forced Air Cooling              |                 | Forced Air Cooling              |                |  |
|                               | Defrost Mode  | Auto                            |                | Auto                            |                | Auto                            |                | Auto                            |                | Auto                            |                 | Auto                            |                |  |
|                               | Refrigerant   | R600a                           |                | R600a                           |                | R600a                           |                | R600a                           |                | R600a                           |                 | R600a                           |                |  |
|                               | GWP (global warming potential)                        | 20                              |                | 20                              |                | 20                              |                | 20                              |                | 20                              |                 | 20                              |                |  |
|                               | Sound Level (dB(A))                                   | 43                              |                | 43   45                         |                | 43                              |                | 41                              |                | 43                              |                 | 41                              |                |  |
| Performance                   | Temperature Range (°C)                                | 2-8                             |                | 2-8                             |                | 2-8                             |                | 2-8                             |                | 2-8                             |                 | 2-8                             |                |  |
| Control                       | Will the fan stop automatically when opening the door | Y                               |                | Y                               |                | Y                               |                | Y                               |                | Y                               |                 | Y                               |                |  |
|                               | Controller  | Microprocessor                  |                | Microprocessor                  |                | Microprocessor                  |                | Microprocessor                  |                | Microprocessor                  |                 | Microprocessor                  |                |  |
|                               | Display   | LED                             |                | LED                             |                | LED                             |                | LED                             |                | LED                             |                 | LED                             |                |  |
| Electrical Data               | Power Supply (V/Hz)                                   | 220-240/50/60   115/60          |                | 220-240/50/60   115/60          |                | 220-240/50/60   115/60          |                | 220-240/50/60                   |                | 220-240/50/60   115/60          |                 | 220-240/50                      |                |  |
|                               | Electrical Current (A)                                | 1   1.5                         |                | 3   6.2                         |                | 1.8   2.2                       |                | 1.9                             |                | 1.8   2.4                       |                 | 2.0                             |                |  |
| Performance Characteristics   | Temperature Sensor                                    | Digital Sensor                  |                | Digital Sensor                  |                | Digital Sensor                  |                | NTC                             |                | Digital Sensor                  |                 | NTC                             |                |  |
|                               | Power Consumption (kWh/24h)                           | 1.5   2.5                       |                | 6.6   5.5                       |                | 4.4   5.1                       |                | 4.5                             |                | 43                              |                 | 5.5                             |                |  |
| Dimensions                    | Capacity (L/Cu.Ft)                                    | 390/13.8                        |                | 610/21.6                        |                | 290/10.2                        |                | 309/10.9                        |                | 390/13.8                        |                 | 410/14.5                        |                |  |
|                               | Net/Gross Weight (approx)                             | (kg)                            | 106/129        |                                 | 204/227        |                                 | 105/127        |                                 | 77/87          |                                 | 116/139         |                                 | 116/139        |  |
|                               |   | (lbs)                           | 233.8/284.5    |                                 | 449.7/500.4    |                                 | 231.6/280.1    |                                 | 170/192        |                                 | 255.8/306.6     |                                 | 255.7/306.4    |  |
|                               | Interior Dimension (W*D*H)                            | (mm)                            | 530*555*1380   |                                 | 680*640*1400   |                                 | 530*555*1080   |                                 | 525*500*1290   |                                 | 530*555*1380    |                                 | 530*590*1380   |  |
|                               |   | (in)                            | 20.9*21.9*54.3 |                                 | 26.8*25.2*55.1 |                                 | 20.9*21.9*42.5 |                                 | 20.7*19.7*50.8 |                                 | 20.9*21.9*54.3  |                                 | 20.9*22.8*54.3 |  |
|                               | Exterior Dimension (W*D*H)                            | (mm)                            | 665*710*1965   |                                 | 780*840*1945   |                                 | 665*710*1665   |                                 | 600*630*1840   |                                 | 665*710*1965    |                                 | 665*710*1965   |  |
|                               |   | (in)                            | 26.2*28.0*77.4 |                                 | 30.7*33.1*76.6 |                                 | 26.2*28.0*65.6 |                                 | 23.6*24.8*72.4 |                                 | 26.2*28.0*77.4  |                                 | 26.2*28.0*77.4 |  |
|                               | Packing Dimension (W*D*H)                             | (mm)                            | 710*810*2130   |                                 | 885*965*2110   |                                 | 700*810*1810   |                                 | 680*690*1940   |                                 | 710*810*2130    |                                 | 710*810*2130   |  |
| (in)                          |   | 27.6*31.9*83.9                  |                | 34.8*38.0*83.1                  |                | 27.6*31.9*71.3                  |                | 26.8*27.1*74.4                  |                | 27.6*31.9*83.9                  |                 | 27.6*31.9*83.9                  |                |  |
| Container Load (20'/40'/40'H) |   | 22/44/44                        |                | 12/26/26                        |                | 22/44/44                        |                | 24/51/51                        |                | 22/44/44                        |                 | 22/44/44                        |                |  |
| Alarms                        | High/Low Temperature                                  | Y                               |                | Y                               |                | Y                               |                | Y                               |                | Y                               |                 | Y                               |                |  |
|                               | Remote Alarm  | Y                               |                | Y                               |                | Y                               |                | Y                               |                | Y                               |                 | Y                               |                |  |
|                               | Power Failure   | Y                               |                | Y                               |                | Y                               |                | Y                               |                | Y                               |                 | Y                               |                |  |
|                               | Sensor Error  | Y                               |                | Y                               |                | Y                               |                | Y                               |                | Y                               |                 | Y                               |                |  |
|                               | Low Battery   | Y                               |                | Y                               |                | Y                               |                | Y                               |                | Y                               |                 | Y                               |                |  |
|                               | Door Ajar   | Y                               |                | Y                               |                | Y                               |                | Y                               |                | Y                               |                 | Y                               |                |  |
|                               | Audible and Visual Alarm                              | Y                               |                | Y                               |                | Y                               |                | Y                               |                | Y                               |                 | Y                               |                |  |
| Accessories                   | Caster  | Y                               |                | Y                               |                | Y                               |                | Y                               |                | Y                               |                 | 4                               |                |  |
|                               | Foot  | Y                               |                | Y                               |                | Y                               |                | Y                               |                | Y                               |                 | 2                               |                |  |
|                               | Porthole  | Y                               |                | Y                               |                | Y                               |                | Y                               |                | Y                               |                 | Y                               |                |  |
|                               | Shelves/Drawers                                       | 7/-                             |                | 6/-                             |                | 5/-                             |                | 5/-                             |                | 7/-                             |                 | 6/-                             |                |  |
|                               | USB Interface   | Optional                        | Y              | Optional                        |                | Optional                        | Y              | Optional                        |                | Optional                        | Y               | Optional                        |                |  |
| Printer                       | Optional  |                                 | /              |                                 | Optional       |                                 | Optional       |                                 | Optional       |                                 | Optional        |                                 |                |  |
| Material                      | Exterior Material                                     | Painted Steel                   |                | Painted Steel                   |                | Painted Steel                   |                | Painted Steel                   |                | Painted Steel                   |                 | Painted Steel                   |                |  |
|                               | Interior Material                                     | Polystyrene                     |                | Stainless Steel                 |                | Polystyrene                     |                | Polystyrene                     |                | Polystyrene                     |                 | Polystyrene                     |                |  |
|                               | Door Thickness (mm)                                   | 40                              |                | 40                              |                | 40                              |                | 40                              |                | 40                              |                 | 45                              |                |  |
|                               | Cabinet Thickness (mm)                                | 40                              |                | 50                              |                | 40                              |                | 38                              |                | 40                              |                 | 40                              |                |  |
|                               | Shelves Material                                      | Steel Wire, Coated with Plastic |                | Steel Wire, Coated with Plastic |                | Steel Wire, Coated with Plastic |                | Steel Wire, Coated with Plastic |                | Steel Wire, Coated with Plastic |                 | Steel Wire, Coated with Plastic |                |  |
|                               | No. of Shelves  | 7                               |                | 6                               |                | 5                               |                | 5                               |                | 7                               |                 | 6                               |                |  |
| Other                         | Certificate   | CE                              | UL             | CE                              | UL             | CE                              | UL             | CE, UKCA                        | CE             | UL                              | CE, ENERGY STAR |                                 |                |  |



# Pharmacy Refrigerator

## Specifications



| Model                       |   | HYC-940                    |                | HYC-940F                   |                | HYC-639                                 |                | HYC-639 (115V)       |                | HYC-1378             |  |  |
|-----------------------------|---|----------------------------|----------------|----------------------------|----------------|---|----------------|----------------------|----------------|----------------------|--|--|
| Technical Data              | Cabinet Type  | Upright, Double Glass Door |                | Upright, Double Solid Door |                | Upright, Single Door                    |                | Upright, Double Door |                |                      |  |  |
|                             | Climate Class   | N                          |                | N                          |                | ST                                      |                | N                    |                |                      |  |  |
|                             | Cooling Type  | Forced Air Cooling         |                | Forced Air Cooling         |                | Forced Air Cooling                      |                | Forced Air Cooling   |                |                      |  |  |
|                             | Defrost Mode  | Auto                       |                | Auto                       |                | Digital (Accuracy 0.1°C)                |                | Auto                 |                | Auto                 |  |  |
|                             | Refrigerant   | R290                       |                | R290                       |                | R600a                                   |                | R290                 |                |                      |  |  |
|                             | GWP (global warming potential)                        | 3                          |                | 3                          |                | 20                                      |                | 3                    |                |                      |  |  |
|                             | Sound Level (dB(A))                                   | 43                         | 45             | 43                         | 43             | 43                                      | 46             | 43                   | 45             |                      |  |  |
|                             | Performance   | Temperature Range (°C)     | 2-8            |                            | 2-8            |   | 2-8            |                      | 2-8            |                      |  |  |
| Control                     | Will the fan stop automatically when opening the door | Y                          |                | Y                          |                | Y                                       |                | Y                    |                |                      |  |  |
|                             | Controller  | Microprocessor             |                | Microprocessor             |                | Microprocessor                          |                | Microprocessor       |                |                      |  |  |
|                             | Display   | LED                        |                | LED                        |                | LED                                     |                | LED                  |                |                      |  |  |
| Electrical Data             | Power Supply (V/Hz)                                   | 220-240/50/60 115/60       |                | 220-240/50/60              |                | 220-240/50                              |                | 115/60               |                | 220-240/50/60 115/60 |  |  |
|                             | Electrical Current (A)                                | 3.5                        | 7.5            | 2.7                        | 2.15           | 2.5                                     | 3              | 7.35                 |                |                      |  |  |
| Performance Characteristics | Temperature Sensor                                    | NTC                        |                | NTC                        |                | NTC                                     |                | NCT                  |                |                      |  |  |
|                             | Power Consumption (kWh/24h)                           | 11                         |                | 11                         |                | 5                                       |                | 11                   |                | 12.47                |  |  |
| Dimensions                  | Capacity (L/Cu.Ft)                                    | 890/31.4                   |                | 890/31.4                   |                | 639/22.6                                |                | 600/21.2             |                | 1378/48.7            |  |  |
|                             | Net/Gross Weight (approx)                             | (kg)                       | 227/279        |                            | 207/259        |   | 200/240        |                      | 310/360        |                      |  |  |
|                             |   | (lbs)                      | 500.4/615.1    |                            | 456.4/571.1    |   | 551.15/639.33  |                      | 683.4/793.7    |                      |  |  |
|                             | Interior Dimension (W*D*H)                            | (mm)                       | 1030*590*1425  |                            | 1030*590*1425  |   | 620*706*1520   |                      | 1320*700*1500  |                      |  |  |
|                             |   | (in)                       | 40.6*23.2*56.1 |                            | 40.6*23.2*56.1 |   | 24.4*27.8*59.8 |                      | 52.0*27.6*59.1 |                      |  |  |
|                             | Exterior Dimension (W*D*H)                            | (mm)                       | 1130*755*1980  |                            | 1130*755*1980  |   | 760*897*1993   |                      | 1440*950*1980  |                      |  |  |
|                             |   | (in)                       | 44.5*29.7*78.0 |                            | 44.5*29.7*78.0 |   | 29.9*35.3*78.5 |                      | 56.7*37.4*78.0 |                      |  |  |
|                             | Packing Dimension (W*D*H)                             | (mm)                       | 1250*850*2170  |                            | 1250*850*2170  |   | 910*1030*2170  |                      | 1620*1040*2140 |                      |  |  |
| (in)                        |   | 49.2*33.5*85.4             |                | 49.2*33.5*85.4             |                | 35.8*40.6*85.4                          |                | 63.8*41.0*84.3       |                |                      |  |  |
|                             | Container Load (20'/40'/40'H)                         | 10/22/22                   |                | 10/22/22                   |                | 12/24/24                                |                | 6/14/14              |                |                      |  |  |
| Alarms                      | High/Low Temperature                                  | Y                          |                | Y                          |                | Y                                       |                | Y                    |                |                      |  |  |
|                             | Remote Alarm  | Y                          |                | Y                          |                | Y                                       |                | Y                    |                |                      |  |  |
|                             | Power Failure   | Y                          |                | Y                          |                | Y                                       |                | Y                    |                |                      |  |  |
|                             | Sensor Error  | Y                          |                | Y                          |                | Y                                       |                | Y                    |                |                      |  |  |
|                             | Low Battery   | Y                          |                | Y                          |                | Y                                       |                | Y                    |                |                      |  |  |
|                             | Door Ajar   | Y                          |                | Y                          |                | Y                                       |                | Y                    |                |                      |  |  |
|                             | Audible and Visual Alarm                              | Y                          |                | Y                          |                | Y                                       |                | Y                    |                |                      |  |  |
| Accessories                 | Caster  | Y                          |                | Y                          |                | Y/4                                     |                | Y                    |                |                      |  |  |
|                             | Foot  | Y                          |                | Y                          |                | Y/2                                     |                | Y                    |                |                      |  |  |
|                             | Porthole  | Y                          |                | Y                          |                | Y                                       |                | Y                    |                |                      |  |  |
|                             | Shelves/Drawers                                       | 12/-                       |                | 12/-                       |                | 4/-                                     |                | 12/-                 |                |                      |  |  |
|                             | USB Interface   | Optional                   |                | Optional                   |                | Y                                       |                | Y                    |                |                      |  |  |
|                             | Printer   | Optional                   |                | Optional                   |                | Optional                                |                | Optional             |                |                      |  |  |
|                             | Chart Recorder  | N/A                        |                | N/A                        |                | Optional                                |                | Optional             |                |                      |  |  |
| Material                    | Exterior Material                                     | Painted Steel              |                | Painted Steel              |                | Painted Steel                           |                | Painted Steel        |                |                      |  |  |
|                             | Interior Material                                     | Painted Steel              |                | Painted Steel              |                | Painted Steel, Optional Stainless Steel |                | Painted Steel        |                |                      |  |  |
| Other                       | Certificate   | CE                         | UL             | CE                         | CE, UKCA       | UL, Energy Star, ANSI 456               | CE             | UL                   |                |                      |  |  |

## Pharmacy Refrigerator

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## Specifications



| Model                       |   | HYC-68                          |                | HYC-68A                         |                | HYC-118                         |                | HYC-118A                        |                |      |
|-----------------------------|---|---------------------------------|----------------|---------------------------------|----------------|---------------------------------|----------------|---------------------------------|----------------|------|
| Technical Data              | Cabinet Type  | Upright, Solid Door             |                | Upright, Glass Door             |                | Upright, Solid Door             |                | Upright, Glass Door             |                |      |
|                             | Climate Class   | N                               |                | N                               |                | N                               |                | N                               |                |      |
|                             | Cooling Type  | Forced Air Cooling              |                | Forced Air Cooling              |                | Forced Air Cooling              |                | Forced Air Cooling              |                |      |
|                             | Defrost Mode  | Auto                            |                | Auto                            |                | Auto                            |                | Auto                            |                |      |
|                             | Refrigerant   | R600a                           |                | R600a                           |                | R600a                           |                | R600a                           |                |      |
|                             | GWP (global warming potential)                        | 20                              |                | 20                              |                | 20                              |                | 20                              |                |      |
|                             | Sound Level (dB(A))                                   | 41                              |                | 41                              |                | 41                              |                | 41                              |                |      |
| Performance                 | Temperature Range (°C)                                | 2-8                             |                | 2-8                             |                | 2-8                             |                | 2-8                             |                |      |
| Control                     | Will the fan stop automatically when opening the door | Y                               |                | Y                               |                | Y                               |                | Y                               |                |      |
|                             | Controller  | Microprocessor                  |                | Microprocessor                  |                | Microprocessor                  |                | Microprocessor                  |                |      |
|                             | Display   | LED                             |                | LED                             |                | LED                             |                | LED                             |                |      |
| Electrical Data             | Power Supply (V/Hz)                                   | 220-240/50                      | 115/60         | 220-240/50                      | 115/60         | 220-240/50/60                   | 115/60         | 220-240/50/60                   | 115/60         |      |
|                             | Electrical Current (A)                                | 0.85                            | 2.5            | 0.85                            | 1.7            | 1.4                             |                | 1.5                             |                |      |
| Performance Characteristics | Temperature Sensor                                    | NTC                             |                | NTC                             |                | NTC                             |                | NTC                             |                |      |
|                             | Power Consumption (kWh/24h)                           | 0.6                             |                | 0.9                             |                | 0.67                            |                | 1.7                             |                | 1.94 |
|                             | Temperature Sensor or Not                             | Y                               |                | Y                               |                | Y                               |                | Y                               |                |      |
| Dimensions                  | Capacity (L/Cu.Ft)                                    | 68/2.4                          |                | 68/2.4                          |                | 118/4.2                         |                | 118/4.2                         |                |      |
|                             | Net/Gross Weight (approx)                             | (kg)                            | 38/40          |                                 | 38/40          |                                 | 41/46          |                                 | 46/51          |      |
|                             |   | (lbs)                           | 83.8/88.2      |                                 | 83.8/88.2      |                                 | 90.5/101.5     |                                 | 101.5/112.5    |      |
|                             | Interior Dimension (W*D*H)                            | (mm)                            | 415*385*505    |                                 | 415*385*505    |                                 | 515*415*630    |                                 | 515*415*630    |      |
|                             |   | (in)                            | 16.3*15.2*19.9 |                                 | 16.3*15.2*19.9 |                                 | 20.3*16.3*24.8 |                                 | 20.3*16.3*24.8 |      |
|                             | Exterior Dimension (W*D*H)                            | (mm)                            | 495*580*660    |                                 | 495*580*660    |                                 | 597*635*810    |                                 | 597*635*810    |      |
|                             |   | (in)                            | 19.5*22.8*26.0 |                                 | 19.5*22.8*26.0 |                                 | 23.5*25.0*31.9 |                                 | 23.5*25.0*31.9 |      |
|                             | Packing Dimension (W*D*H)                             | (mm)                            | 570*670*750    |                                 | 570*670*750    |                                 | 700*710*930    |                                 | 700*710*930    |      |
| (in)                        |   | 22.5*26.4*29.5                  |                | 22.5*26.4*29.5                  |                | 27.6*28.0*36.6                  |                | 27.6*28.0*36.6                  |                |      |
|                             | Container Load (20'/40'/40'H)                         | 102/207/207                     |                | 102/207/207                     |                | 48/96/96                        |                | 48/96/96                        |                |      |
| Alarms                      | High/Low Temperature                                  | Y                               |                | Y                               |                | Y                               |                | Y                               |                |      |
|                             | Remote Alarm  | Y                               |                | Y                               |                | Y                               |                | Y                               |                |      |
|                             | Power Failure   | Y                               |                | Y                               |                | Y                               |                | Y                               |                |      |
|                             | Sensor Error  | Y                               |                | Y                               |                | Y                               |                | Y                               |                |      |
|                             | Low Battery   | Y                               |                | Y                               |                | Y                               |                | Y                               |                |      |
|                             | Audible and Visual Alarm                              | Y                               |                | Y                               |                | Y                               |                | Y                               |                |      |
|                             | Door Ajar   | Y                               |                | Y                               |                | Y                               |                | Y                               |                |      |
| Accessories                 | Foot  | Y/2                             |                | Y/2                             |                | Y/2                             |                | Y/2                             |                |      |
|                             | Porthole  | Y; 1 Right Side Wall            |                | Y; 1 Right Side Wall            |                | Y; 1 Left Side Wall             |                | Y; Left Side Wall               |                |      |
|                             | Shelves/Drawers                                       | 2/1                             |                | 2/1                             |                | 3/1                             |                | 3/1                             |                |      |
|                             | USB Interface   | Optional                        |                | Optional                        |                | /                               |                | /                               |                |      |
| Material                    | Exterior Material                                     | Painted Steel                   |                | Painted Steel                   |                | Painted Steel                   |                | Painted Steel                   |                |      |
|                             | Interior Material                                     | Polystyrene                     |                | Polystyrene                     |                | Polystyrene                     |                | Polystyrene                     |                |      |
|                             | Drawers Material                                      | Steel Wire Dipping Plastic      |                | Steel Wire Dipping Plastic      |                | Steel Wire Dipping Plastic      |                | Steel Wire Dipping Plastic      |                |      |
|                             | Door Thickness (mm)                                   | 30                              |                | 30                              |                | 40                              |                | 40                              |                |      |
|                             | Cabinet Thickness (mm)                                | 30                              |                | 30                              |                | 40                              |                | 40                              |                |      |
|                             | Shelves Material                                      | Steel Wire, Coated with Plastic |                | Steel Wire, Coated with Plastic |                | Steel Wire, Coated with Plastic |                | Steel Wire, Coated with Plastic |                |      |
|                             | No. of Shelves  | 2                               |                | 2                               |                | 3                               |                | 3                               |                |      |
| Other                       | Certificate   | CE, UKCA                        | UL             | CE, UKCA                        | UL             | CE, UKCA                        | UL             | CE, UKCA                        | UL             |      |

# Combined Refrigerator and Freezer

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## Scope of Application

This product is designed to store biomaterials, vaccines, electronic devices and low temperature tests of special materials, in hospitals, epidemic prevention stations, universities, scientific research institutes, electronic chemical industry and other enterprise laboratories.



### Multipurpose and Space Efficient

- One cabinet with two independent chambers, both are self-contained and independently controlled with individual doors
- Refrigerator chamber is equipped with a double-paned glass viewing window and LED interior lighting



### Environment Friendly

Hydrocarbon refrigerant (R600a for refrigerator/ R290 for freezer) and CFC-free polyurethane insulation for reduced global warming



### Stainless Steel Interior

The interior of refrigerator and freezer are both made of stainless steel, which is easy to clean and corrosion-proof



### Microprocessor Controller with Digital Display

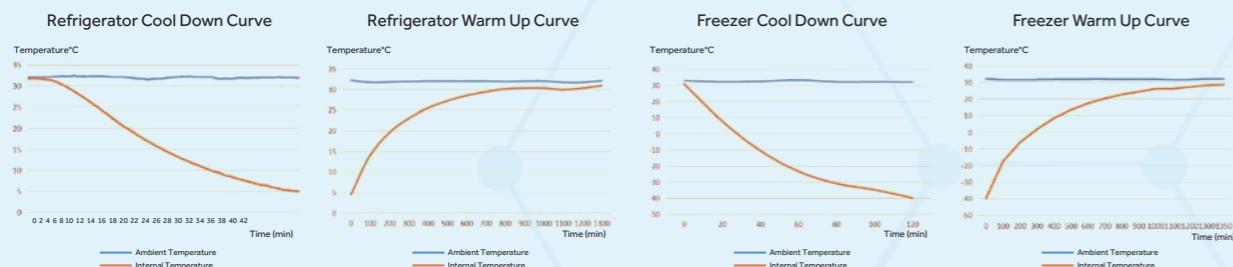
- Refrigerator temperature 2~8°C with resolution of 0.1°C
- Freezer temperature -40~-10°C with resolution of 1°C
- Multiple alarm functions with remote alarm contact to ensure safe monitoring



### High Performance

- Refrigerator: Forced-air cooling system with cycle defrost, temperature uniformity±3°C
- Freezer: Cold wall cooling system, manual defrost, temperature uniformity±5°C
- Standard USB port & optional printer, easy to get temperature record

## Product Performance



## Specifications



|                            | Model                          | HYCD-282                        |                | HYCD-282A                       |                |                |
|----------------------------|--------------------------------|---------------------------------|----------------|---------------------------------|----------------|----------------|
|                            |                                | Refrigerator                    | Freezer        | Refrigerator                    | Freezer        |                |
| Technical Data             | Cabinet Type                   | Upright                         |                | Upright                         |                |                |
|                            | Climate Class                  | N                               |                | N                               |                |                |
|                            | Cooling Type                   | Forced air cooling              | Direct cooling | Forced air cooling              | Direct cooling |                |
|                            | Defrost Mode                   | Auto                            | Manual         | Auto                            | Manual         |                |
|                            | Refrigerant                    | HC                              | HC             | HC                              | HC             |                |
|                            | GWP (global warming potential) | R600a:20                        | R290:3         | R600a:20                        | R290:3         |                |
|                            | Sound Level (dB(A))            | 43                              |                | 43                              |                |                |
| Performance                | Temperature Range (°C)         | 2~8                             | -10~-40        | 2~8                             | -10~-40        |                |
| Control                    | Controller                     | Microprocessor                  |                | Microprocessor                  |                |                |
|                            | Display                        | LED                             |                | LED                             |                |                |
| Electrical Data            | Power Supply (V/Hz)            | 220-240/50/60                   |                | 220-240/50/60                   |                |                |
|                            | Power (W)                      | 410                             |                | 410                             |                |                |
|                            | Electrical Current (A)         | 2.5                             |                | 2.5                             |                |                |
| Dimensions                 | Capacity (L/Cu.Ft)             | 185/6.5                         | 97/3.4         | 185/6.5                         | 97/3.4         |                |
|                            | Net/Gross Weight (approx)      | kg                              | 145/160        |                                 | 145/160        |                |
|                            |                                | lbs                             | 319.7/352.7    |                                 | 319.7/352.7    |                |
|                            | Interior Dimensions (W*D*H)    | mm                              | 605*510*720    | 515*465*440                     | 605*510*720    | 515*465*440    |
|                            |                                | in                              | 23.8*20*28.3   | 20.2*18.3*17.3                  | 23.8*20*28.3   | 20.2*18.3*17.3 |
|                            | Exterior Dimensions (W*D*H)    | mm                              | 735*660*1810   |                                 | 735*660*1810   |                |
|                            |                                | in                              | 28.9*26.0*71.3 |                                 | 28.9*26.0*71.3 |                |
| Packing Dimensions (W*D*H) | mm                             | 795*740*2010                    |                | 795*740*2010                    |                |                |
|                            | in                             | 31.3*29.1*79.1                  |                | 31.3*29.1*79.1                  |                |                |
|                            | Container Load (20'/40'/40'H)  | 21/43/43                        |                | 21/43/43                        |                |                |
| Alarms                     | High/Low Temperature           | Y                               |                | Y                               |                |                |
|                            | Door Ajar                      | Y                               |                | Y                               |                |                |
|                            | Remote Alarm                   | Y                               |                | Y                               |                |                |
|                            | Power Failure                  | Y                               |                | Y                               |                |                |
|                            | Sensor Error                   | Y                               |                | Y                               |                |                |
|                            | Low Battery                    | Y                               |                | Y                               |                |                |
|                            | High Ambient Temp              | Y                               |                | Y                               |                |                |
| Accessories                | Caster                         | Y/4                             |                | Y/4                             |                |                |
|                            | Foot                           | Y/2                             |                | Y/2                             |                |                |
|                            | Porthole                       | Y/2                             |                | Y/2                             |                |                |
|                            | Shelves/Drawers                | 3/1                             | 1/2            | 3/1                             | 1/2            |                |
|                            | Stylus Printer                 | Optional                        |                | Optional                        |                |                |
|                            | USB Interface                  | Y                               |                | Y                               |                |                |
|                            | Others                         | Certification                   | CE             |                                 | CE             |                |
| Compressor Type            |                                | Frequency Conversion Compressor |                | Frequency Conversion Compressor |                |                |
| Compressor Quantity        |                                | 2                               |                | 2                               |                |                |

# Combined Refrigerator and Freezer

## Main Application

This product is designed to store biomaterials, vaccines, electronic devices and low temperature tests of special materials.



HYCD-469



Temperature Control



Security Guaranteed



Variable Frequency Hydrocarbon Refrigeration System



Data Storage

## Key Features



### Temperature Control

- Refrigerator temperature ranges from 2°C to 8°C
- Freezer temperature ranges adjustable from -10°C to -40°C
- Microprocessor temperature control accuracy 0.1°C (refrigerator) and 1°C (freezer)



### Safety

- Separate doors for refrigerator and freezer with independent lock catches, dual padlocks available to ensure product safety
- Multiple alarm functions including high or low temperature, sensor error, high ambient temp, power failure and remote alarm
- Two types of alarm indicators: audible buzzer and visible flashing light



### Refrigerator System

- Refrigerator and freezer have independently controlled variable frequency refrigeration systems, standalone displays as well as separate on and off controls
- Robust compressor system operating with environmentally friendly hydrocarbon refrigerant
- Refrigerator with high quality and high efficiency cooling fan provides better temperature uniformity and stability



### Ergonomic Design

- Large LED screen display for excellent user interface experience
- USB port automatically saves temperature data for up to 10 years for convenient inquiry and record keeping
- Optional printer to simultaneously print out temperatures of the refrigerator and the freezer
- Four casters and two levelling legs design for ease of maneuvering

## Specifications



| Model                  | HYCD-319A (115V)               |  | HYCD-469           |                            | HYCD-469A          |  | HYCD-469A (115V)   |  |
|------------------------|--------------------------------|--|--------------------|----------------------------|--------------------|--|--------------------|--|
| <b>Technical Data</b>  | Cabinet Type                   |  | Upright            |                            | Upright            |  | Upright            |  |
|                        | Climate Class                  |  | N                  |                            | N(16-32°C)         |  | N(16-32°C)         |  |
|                        | Cooling Type                   |  | Forced air cooling | Direct cooling             | Forced air cooling | Direct cooling                                     | Forced air cooling | Direct cooling                                     |
|                        | Defrost Mode                   |  | Auto               | Manual                     | Auto               | Manual   | Auto               | Manual   |
|                        | Refrigerant                    |  | R600a              | R290                       | R600a              | R290   | R600a              | R290   |
|                        | GWP (global warming potential) |  | 20                 | 3                          | 20                 | 3  | 20                 | 3  |
|                        | Sound Level(dB(A))             |  | 50                 |                            | 45                 |  | 52                 |  |
| <b>Performance</b>     | Temperature Range (°C)         |  | 2-8                | -15~-40                    | 2-8                | -10~-40  | 2-8                | -15~-40  |
| <b>Control</b>         | Controller                     |  | Microprocessor     |                            | Microprocessor     |  | Microprocessor     |  |
|                        | Display                        |  | LED                |                            | LED                |  | LED                |  |
| <b>Electrical Data</b> | Power Supply (V/Hz)            |  | 115/60             |                            | 220-240/50/60      |  | 220-240/50/60      |  |
|                        | Power (W)                      |  | 450                |                            | 640                |  | 640                |  |
|                        | Electrical Current (A)         |  | 6                  |                            | 3                  |  | 7                  |  |
|                        | Capacity (L/Cu.Ft)             |  | 200/7.06           | 100/3.53                   | 269/9.5            | 200/7.1  | 269/9.5            | 200/7.1  |
|                        | Net/Gross Weight (approx)      |  | kg 145/160         | 176/207                    | kg 176/207         | 388.0/456.4  | kg 176/207         | 388.0/456.4  |
|                        |                                |  | lbs 319.7/352.7    | 388.0/456.4                | lbs 388.0/456.4    | 388.0/456.4  | lbs 388.0/456.4    | 388.0/456.4  |
|                        | Interior Dimensions (W*D*H)    |  | mm 605*510*720     | 515*465*440                | 593*585*800        | 553*545*660  | 593*585*800        | 553*545*660  |
|                        |                                |  | in 23.8*20*28.3    | 20.2*18.3*17.3             | 23.3*23.0*31.5     | 21.8*21.5*26.0                                     | 23.3*23.0*31.5     | 21.8*21.5*26.0                                     |
|                        | Exterior Dimensions (W*D*H)    |  | mm 735*660*1810    | 738*834*1975               | 738*834*1975       | 738*834*1975                                       | 738*834*1975       | 738*834*1975                                       |
|                        |                                |  | in 28.9*26.0*71.3  | 29.1*32.8*77.8             | 29.1*32.8*77.8     | 29.1*32.8*77.8                                     | 29.1*32.8*77.8     | 29.1*32.8*77.8                                     |
|                        | Packing Dimensions (W*D*H)     |  | mm 795*740*2010    | 840*910*2170               | 840*910*2170       | 840*910*2170                                       | 840*910*2170       | 840*910*2170                                       |
|                        |                                |  | in 31.3*29.1*79.1  | 33.1*35.8*85.4             | 33.1*35.8*85.4     | 33.1*35.8*85.4                                     | 33.1*35.8*85.4     | 33.1*35.8*85.4                                     |
|                        | Container load (20'/40'/40'H)  |  | 21/43/43           |                            | 12/28/28           |  | 12/28/28           |  |
| <b>Alarms</b>          | High/Low Temperature           |  | Y                  |                            | Y                  |  | Y                  |  |
|                        | Sensor Error                   |  | Y                  |                            | Y                  |  | Y                  |  |
|                        | Power Failure                  |  | Y                  |                            | Y                  |  | Y                  |  |
|                        | Door Ajar                      |  | Y                  |                            | Y                  |  | Y                  |  |
|                        | Remote Alarm                   |  | Y                  |                            | Y                  |  | Y                  |  |
|                        | High Ambient Temperature       |  | Y                  |                            | Y                  |  | Y                  |  |
|                        | Low Battery                    |  | Y                  |                            | Y                  |  | Y                  |  |
| <b>Accessories</b>     | Caster                         |  | Y/4                |                            | Y                  |  | Y                  |  |
|                        | Foot                           |  | Y/2                |                            | Y                  |  | Y                  |  |
|                        | Porthole                       |  | Y/2                |                            | Y                  |  | Y                  |  |
|                        | Shelves/Drawers                |  | 3/1                | 1/2 (without sliding rack) | 3/0                | 3/0 (Max 3 Drawers optional, without sliding rack) | 3/0                | 3/0 (Max 3 Drawers optional, without sliding rack) |
|                        | USB Interface                  |  | Y                  |                            | Y                  |  | Y                  |  |
| <b>Others</b>          | Certification                  |  | UL                 |                            | CE                 |  | UL                 |  |

# Fluid Warming Cabinet

## Application

Heating applications include warming of liquid medicine, nutrient solution, rinsing liquid and physiological saline. Installations can be found in operating rooms, ICU, emergency rooms, wards and other related areas.



UV Sterilization Lamp

### Product Features

- Fast heating speed: variable power PTC heating module with fast heating speed and energy saving.
- UV sterilization: UV light sterilization in the cabinet with a variety of optional sterilization methods for effective prevention of possible contamination.
- Multiple overheat protections: electronic control + mechanical temperature control + overheat protection, multiple temperature control to ensure heating safety.
- Environmentally friendly: no compressor or external fan, extremely quiet with no disturbance to the airflow in the operating room and no effect on temperature, reduces risks of cross-contamination.

### Product Advantages

- Fast and efficient heating.
- Standard UV sterilization for effective sterilization and other sterilization options available.
- Multiple over heating protections to ensure product viability.
- Two-sensor.



7 Inch LCD Screen

### Ergonomic Design

- Large and clear 7-inch LCD touch screen.
- Easy to clean stainless steel interior and flat external surfaces.
- Multiple alarms for over-heating protection.

## Specifications



| Model           |                               | HYR-111                              |                  |
|-----------------|-------------------------------|--------------------------------------|------------------|
| Technical Data  | Cabinet Type                  | Upright, One Glass Door              |                  |
|                 | Climate Class                 | SN                                   |                  |
|                 | Warming Type                  | Forced Air Warming                   |                  |
|                 | Sound Level (dB(A))           | 42                                   |                  |
| Performance     | Temperature Range (°C)        | 26°C-50°C, Above Ambient Temperature |                  |
| Control         | Controller                    | Microprocessor                       |                  |
|                 | Display                       | LCD Touch Screen                     |                  |
| Electrical Data | Power Supply (V/Hz)           | 220-240/50/60                        |                  |
|                 | Power(W)                      | 130                                  |                  |
|                 | Power Consumption (kWh/24h)   | 0.59                                 |                  |
| Dimensions      | Capacity (L/Cu.Ft)            | 111/3.9                              |                  |
|                 | Net/Gross Weight (approx)     | kg                                   | 58/68            |
|                 |                               | lbs                                  | 127.6/149.6      |
|                 | Interior Dimensions (W*D*H)   | mm                                   | 477*528*462      |
|                 |                               | in                                   | 18.67*20.67*18.1 |
|                 | Exterior Dimensions (W*D*H)   | mm                                   | 597*682*833      |
|                 |                               | in                                   | 23.37*26.7*32.61 |
|                 | Packing Dimensions (W*D*H)    | mm                                   | 700*775*960      |
| in              |                               | 27.6*30.5*37.8                       |                  |
|                 | Container load (20'/40'/40'H) | 46/94/94                             |                  |
| Alarms          | High/Low Temperature          | Y                                    |                  |
|                 | Sensor Error                  | Y                                    |                  |
|                 | Door Ajar                     | Y                                    |                  |
| Accessories     | Caster                        | Y                                    |                  |
|                 | Foot                          | Y                                    |                  |
|                 | Porthole                      | Y                                    |                  |
|                 | Shelves                       | Y                                    |                  |



# Blood Bank Solutions

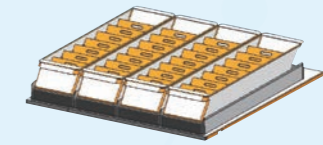


Follow the QR code and learn more about the Blood Bank Solutions from Haier Biomedical

# Automated Blood Management Refrigerator



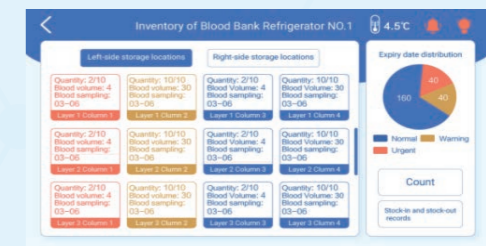
## Information Flow



RFID Tag Information



RFID Tag Information

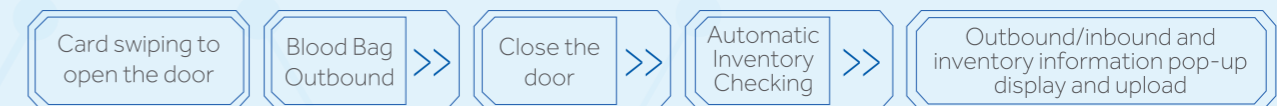


## Operation Instructions

### Blood Bag Inbound:



### Blood Bag Outbound:



- Microcomputer Control**  
 The temperature inside the unit is controlled within 4±1°C with temperature control accuracy of 0.1°C and the large high-definition LCD touch screen display makes it convenient to observe.
- Multiple Fault Alarms**  
 High/low temperature alarm, power failure alarm, door ajar, sensor error alarm, and low battery alarm. It is configured with remote alarm interface with two alarm modes (sound buzzer alarm and light flashing alarm).
- Inverter Compressor**  
 High efficiency and energy saving, low noise and long service life.
- Speed Control Condenser Fan**  
 High efficiency and energy saving, low noise and long service life.
- Three-layer Glass Foam Door**  
 With large viewing three-layer glass foam door design, surface glass with LOW-E film to reduce heat transfer efficiency with no condensation at 25°C and 85% humidity environment.
- Double Protection of Mechanical Door Lock and Electromagnetic Lock**  
 Electromagnetic lock can realize NFC card punching unlocking and fingerprint unlocking function.
- Standard USB Port**  
 With optional disc temperature recorder.

# Automated Blood Management Refrigerator

## Specifications

| Model                         |   | HXC-629TR          | HXC-1369TR         |                |
|-------------------------------|---|--------------------|--------------------|----------------|
| Technical Data                | Type                                      | Basket-Type        | Basket-Type        |                |
|                               | Climate Class                             | N                  | N                  |                |
|                               | Cooling Type                              | Forced Air Cooling | Forced Air Cooling |                |
|                               | Defrost Mode                              | Auto               | Auto               |                |
|                               | Refrigerant                               | R600a              | R600a              |                |
|                               | Sound Level (dB(A))                       | 40                 | 41                 |                |
| Performance                   | Temperature Range (°C)                    | 4±1                | 4±1                |                |
|                               | Ambient Temperature (°C)                  | 16-32              | 16-32              |                |
| Control                       | Controller                                | Microprocessor     | Microprocessor     |                |
|                               | Display                                   | LCD                | LCD                |                |
| Electrical Data               | Power Supply (V/Hz)                       | 220-50/60          | 220-50/60          |                |
|                               | Power (W)                                 | 255                | 320                |                |
|                               | Electrical Current (A)                    | 1.5                | 2                  |                |
| Dimensions                    | Capacity (L/Cu.Ft)                        | 629                | 1369               |                |
|                               | Blood Storage Capacity (400ml Blood Bags) | 192                | 384                |                |
|                               | Net/Gross Weight (approx)                 | kg                 | 252/292            | 430/495        |
|                               |   | lbs                | 556/644            | 948/1091       |
|                               | Interior Dimensions (W*D*H)               | mm                 | 645*680*1455       | 1425*680*1455  |
|                               |   | in                 | 25.2*26.5*56.7     | 55.6*26.5*56.7 |
|                               | Exterior Dimensions (W*D*H)               | mm                 | 765*940*1980       | 1545*940*1980  |
|                               |   | in                 | 29.8*36.7*77.2     | 60.3*36.7*77.2 |
|                               | Packing Dimensions (W*D*H)                | mm                 | 880*1010*2090      | 1678*1044*2085 |
|                               |   | in                 | 34.6*39.8*82.3     | 66.1*41.1*82.1 |
| Container Load (20'/40'/40'H) |   | 12/26/26           | 7/14/14            |                |
| Alarms                        | High/Low Temperature                      | Y                  | Y                  |                |
|                               | Power Failure                             | Y                  | Y                  |                |
|                               | Sensor Error                              | Y                  | Y                  |                |
|                               | Low Battery                               | Y                  | Y                  |                |
|                               | Door Ajar                                 | Y                  | Y                  |                |
|                               | Alarm of Dirty Condenser                  | Y                  | Y                  |                |
|                               | Remote Alarm                              | Y                  | Y                  |                |
| Accessories                   | Caster                                    | 4                  | 4                  |                |
|                               | Foot                                      | 2                  | 2                  |                |
|                               | Porthole                                  | Y                  | Y                  |                |
|                               | Baskets                                   | 24                 | 48                 |                |
|                               | Shelves/Drawers                           | 6/0                | 12/0               |                |
|                               | Inner Doors                               | N                  | N                  |                |
| Others                        | USB Interface                             | Y                  | Y                  |                |
|                               | Temperature Recorder                      | Y                  | Y                  |                |
|                               | Certification                             | N                  | N                  |                |

Suitable for blood transfusion departments, operating rooms, and emergency rooms, etc. of the hospitals



HXC-149R/429R/629R

## Product Advantages

### Drastically Improves the Speed of Delivery

Innovative blood bank system, enables the blood to be advanced to the operating room to achieve 1-minute rapid blood collection.

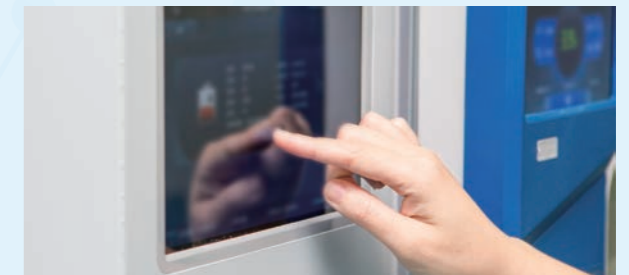
### Reduce Waste and Improve Efficiency

Electronic blood matching within 1 minute, reducing the cross matching time and reagent consumption. Quick and precise blood matching, combined with intelligent lighting indicators guide, guarantees the accurate identification and safe use of blood, without waste.



### Intelligent Blood Management System

Allows integration and coordination of blood recovery within hospitals and blood allocation between hospitals and even across regions through the blood network cloud platform. Enabling the rational use of blood upon demand, thus reducing resource consumption.



## Intelligent Blood Management System

- Quickly and accurately identify blood bag location using onboard blood information management system.
- The patient's blood matching information is shown and a blood bag automatically selected and a request for the bag is sent.
- The system reads the blood information and light up indicators guide the user to the correct blood bag location.
- Blood information is cross-checked and blood is issued. Inventory is automatically updated within the blood management system.



# Automated Blood Management Refrigerator

## Specifications

| Model                         | HXC-149R                                  |                    | HXC-429R       |                    | HXC-629R       |                    |                |  |
|-------------------------------|---|--------------------|----------------|--------------------|----------------|--------------------|----------------|--|
| Technical Data                | Type                                      | Drawer-Type        |                | Drawer-Type        |                | Drawer-Type        |                |  |
|                               | Climate Class                             | N                  |                | N                  |                | N                  |                |  |
|                               | Cooling Type                              | Forced Air Cooling |                | Forced Air Cooling |                | Forced Air Cooling |                |  |
|                               | Defrost Mode                              | Auto               |                | Auto               |                | Auto               |                |  |
|                               | Refrigerant                               | R600a              |                | R600a              |                | R600a              |                |  |
|                               | Sound Level (dB(A))                       | 40                 |                | 41                 |                | 41                 |                |  |
| Performance                   | Temperature Range (°C)                    | 4±1                |                | 4±1                |                | 4±1                |                |  |
|                               | Ambient Temperature (°C)                  | 16-32              |                | 16-32              |                | 16-32              |                |  |
| Control                       | Controller                                | Microprocessor     |                | Microprocessor     |                | Microprocessor     |                |  |
|                               | Display                                   | LCD                |                | LCD                |                | LCD                |                |  |
| Electrical Data               | Power Supply (V/Hz)                       | 220-240/50         | 230/50/60      | 220-240/50         | 230/50/60      | 220-240/50         | 230/50/60      |  |
|                               | Power (W)                                 | 250                |                | 280                |                | 300                |                |  |
|                               | Electrical Current (A)                    | 1.5                |                | 1.8                |                | 1.9                |                |  |
|                               | Power Consumption (kWh/24h)               | 2.6                |                | 2.9                |                | 3.1                |                |  |
| Construction                  | Capacity (L/Cu.Ft)                        | 149/5.3            |                | 429/15.1           |                | 629/22.2           |                |  |
|                               | Blood Storage Capacity (450ml blood bags) | 18                 |                | 60                 |                | 88                 |                |  |
|                               | Net/Gross Weight (approx)                 | kg                 | 129/179        |                    | 245/280        |                    | 295/335        |  |
|                               |   | lbs                | 283.8/ 393.8   |                    | 539/616        |                    | 649/737        |  |
|                               | Interior Dimensions (W*D*H)               | mm                 | 505*560*610    |                    | 505*680*1315   |                    | 645*680*1455   |  |
|                               |   | in                 | 19.7*32.3*23.8 |                    | 19.7*26.5*51.3 |                    | 25.2*26.5*56.7 |  |
|                               | Exterior Dimensions (W*D*H)               | mm                 | 625*820*1425   |                    | 925*940*1830   |                    | 1065*940*1980  |  |
|                               |   | in                 | 24.4*30.2*55.6 |                    | 36.1*36.7*71.4 |                    | 41.5*36.7*77.2 |  |
|                               | Packing Dimensions (W*D*H)                | mm                 | 740*945*1575   |                    | 725*985*1940   |                    | 875*995*2090   |  |
|                               |   | in                 | 28.9*36.9*61.4 |                    | 28.3*38.4*75.7 |                    | 34.1*38.8*81.5 |  |
| Container load (20'/40'/40'H) | 18/36/36                                  |                    | 18/35/35       |                    | 12/26/26       |                    |                |  |
| Alarms                        | High/Low Temperature                      | Y                  |                | Y                  |                | Y                  |                |  |
|                               | Power Failure                             | Y                  |                | Y                  |                | Y                  |                |  |
|                               | Sensor Error                              | Y                  |                | Y                  |                | Y                  |                |  |
|                               | Low Battery                               | Y                  |                | Y                  |                | Y                  |                |  |
|                               | Door Ajar                                 | Y                  |                | Y                  |                | Y                  |                |  |
| Accessories                   | Caster                                    | 4                  |                | 4                  |                | 4                  |                |  |
|                               | Foot                                      | 2                  |                | 2                  |                | 2                  |                |  |
|                               | Porthole                                  | Y                  |                | Y                  |                | Y                  |                |  |
|                               | Drawers                                   | 9                  |                | 30                 |                | 44                 |                |  |
|                               | USB Interface                             | Y                  |                | Y                  |                | Y                  |                |  |
|                               | Temperature Recorder                      | Y                  |                | Y                  |                | Y                  |                |  |
|                               | Remote Alarm                              | Y                  |                | Y                  |                | Y                  |                |  |
|                               | RS485                                     | Y                  |                | Y                  |                | Y                  |                |  |
| Others                        | CE  | Y                  | /              | Y                  | /              | Y                  | /              |  |
|                               | UL  | /                  | Y              | /                  | Y              | /                  | Y              |  |
|                               | MDR                                       | Y                  | Y              | Y                  | Y              | Y                  | Y              |  |

R suffix - RFID with IoT model for blood bag management  
Product appearance and specifications are subject to change without notice

Suitable for blood transfusion departments, operating rooms, and emergency rooms.



HXC-429RV/629RV

## Product Advantages

**Reduce Waste and Improve Efficiency**  
Rapid, electronic cross matching, the RFID electronic tagged blood bag's position illuminates for quick retrieval. Request blood at bedside, allocate, collect and transfer whilst monitoring the temperature across the whole process.

**Intelligent Blood Management System**  
Allows integration and coordination of blood recovery within hospitals and blood allocation between hospitals and even across regions through the blood network cloud platform. Enabling the rational use of blood upon demand, thus reducing resource consumption.

**Multi-mode Operation**

- Blood transfusion department mode: write the blood bag information into the RFID tag, read the tag information through the antenna board, and view the blood type, expiration date and other information
- Forward mode: operating room, emergency, ICU and other scenes
- Temporary storage mode: surgical blood preparation is temporarily stored. It can be stored if it is not used up

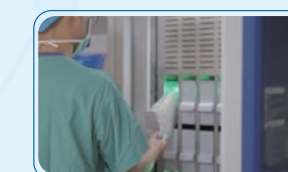
**Drastically Improves the Speed of Delivery**  
Innovative blood bank system, enables the blood to be advanced to the operating room to achieve 1-minute rapid blood collection

**Safe and Security**  
Each drawer is equipped with an independent electronic lock to ensure that only the unique and correct blood bag can be taken out in each blood collection operation

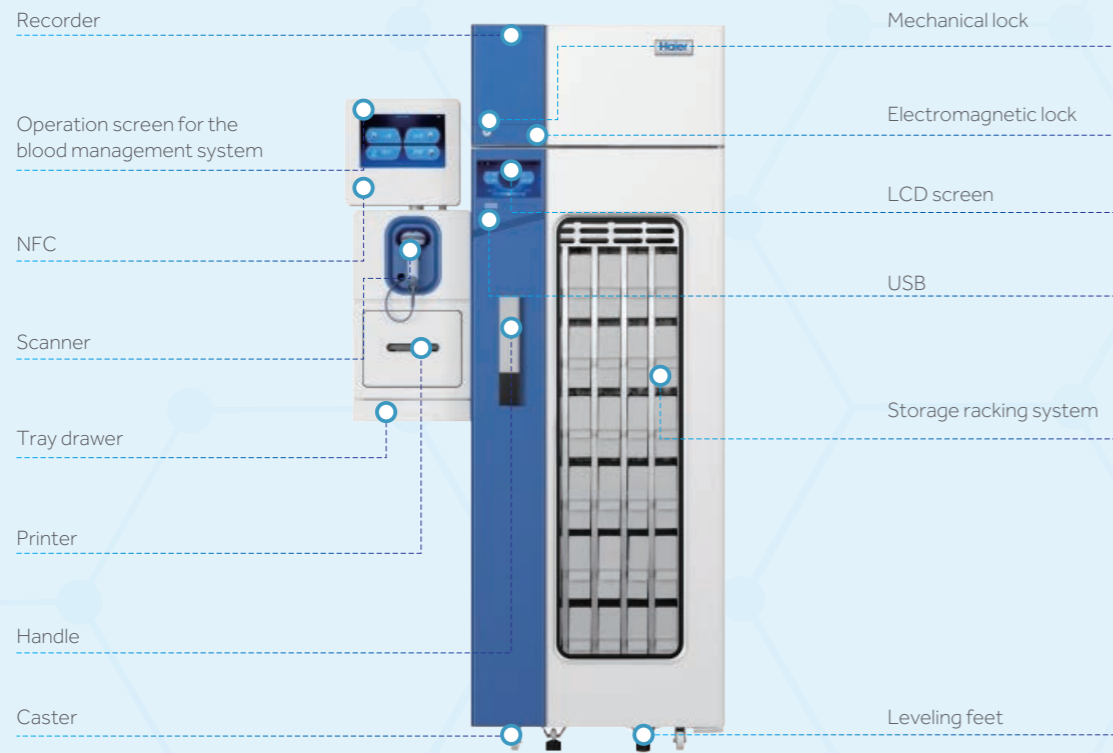
## Ergonomic Design

**Ozone Sterilization**  
Standard ozone module, according to the actual need to set regular disinfection time, without manual disinfection

**Automatic Inventory**  
Automatic inventory and blood bag information at a glance

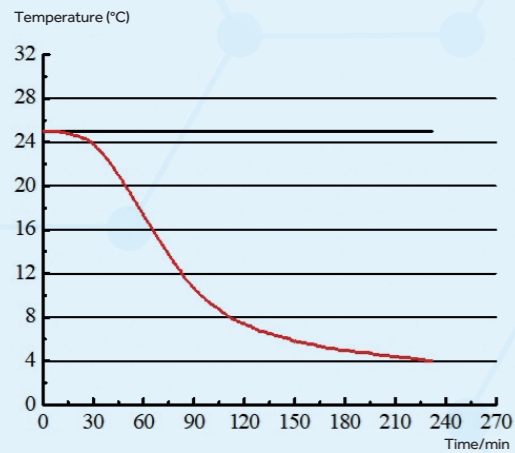


# Automated Blood Management Refrigerator

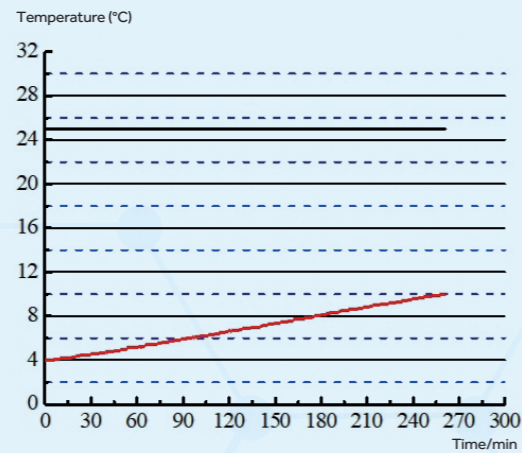


## Product Performance

Cool down curve (empty loaded)



Warm up curve (empty loaded)



## Specifications



| Model                         |   | HXC-429RV          | HXC-629RV          |                |
|-------------------------------|---|--------------------|--------------------|----------------|
| Technical Data                | Type                                      | Drawer-Type        | Drawer-Type        |                |
|                               | Climate Class                             | N                  | N                  |                |
|                               | Cooling Type                              | Forced Air Cooling | Forced Air Cooling |                |
|                               | Defrost Mode                              | Auto               | Auto               |                |
|                               | Refrigerant                               | R600a              | R600a              |                |
|                               | Sound Level (dB(A))                       | 41                 | 41                 |                |
| Performance                   | Temperature Range (°C)                    | 4±1                | 4±1                |                |
|                               | Ambient Temperature (°C)                  | 16-32              | 16-32              |                |
| Control                       | Controller                                | Microprocessor     | Microprocessor     |                |
|                               | Display                                   | LCD                | LCD                |                |
| Electrical Data               | Power Supply (V/Hz)                       | 220-240/50         | 220-240/50         |                |
|                               | Power (W)                                 | 280                | 300                |                |
|                               | Electrical Current (A)                    | 1.8                | 1.9                |                |
| Dimensions                    | Capacity (L/Cu.Ft)                        | 429/15.1           | 629/22.2           |                |
|                               | Blood Storage Capacity (450ml blood bags) | 36                 | 48                 |                |
|                               | Net/Gross Weight (approx)                 | kg                 | 245/280            | 295/335        |
|                               |   | lbs                | 539/616            | 649/737        |
|                               | Interior Dimensions (W*D*H)               | mm                 | 505*680*1315       | 645*680*1455   |
|                               |   | in                 | 19.7*26.5*51.3     | 25.2*26.5*56.7 |
|                               | Exterior Dimensions (W*D*H)               | mm                 | 925*940*1830       | 1065*940*1980  |
|                               |   | in                 | 36.1*36.7*71.4     | 41.5*36.7*77.2 |
|                               | Packing Dimensions (W*D*H)                | mm                 | 725*985*1940       | 875*995*2090   |
|                               |   | in                 | 28.3*38.4*75.7     | 34.1*38.8*81.5 |
| Container Load (20'/40'/40'H) |   | 18/35/35           | 12/26/26           |                |
| Alarms                        | High/Low Temperature                      | Y                  | Y                  |                |
|                               | Power Failure                             | Y                  | Y                  |                |
|                               | Sensor Error                              | Y                  | Y                  |                |
|                               | Low Battery                               | Y                  | Y                  |                |
|                               | Door Ajar                                 | Y                  | Y                  |                |
|                               | Remote Alarm                              | Y                  | Y                  |                |
|                               |   |                    |                    |                |
| Accessories                   | Caster                                    | 4                  | 4                  |                |
|                               | Foot                                      | 2                  | 2                  |                |
|                               | Porthole                                  | Y                  | Y                  |                |
|                               | Drawers                                   | 36                 | 48                 |                |
|                               | USB Interface                             | Y                  | Y                  |                |
| Others                        | Certification                             | CE, MDR            | CE, MDR            |                |

# Unattended Self-service Blood Distribution Refrigerator

## Self-Service Blood Distribution with Smart IoT Technology

### Self-service blood distribution for blood transfusion departments

- After blood cross matching is completed for the blood bags, specified blood collection permissions will be allocated to the different blood using departments to achieve self-help blood distribution; self-help blood collection at night can save labor cost and improve efficiency

### Mobile blood storage points set up by blood stations

- The refrigerators may be used as mobile blood storage points in hospitals to guarantee the applications of emergency blood use, achieve zero waiting for blood use, and guarantee the timely blood use of patients.



HXC-629ZZ

## Product Advantages

### Electronic checking and bar code management

- Blood bag warehouse-in and warehouse-out management can be achieved by scanning the blood donation codes and the product codes on the bags.
- The system can take the specified blood bags for the work staff accurately after identifying the operators and checking the blood bags to be error-free.

### Safe and reliable, making blood collection process traceable



A drawer corresponds to a lock

- Equipped with fingerprint module and NFC card punching module, providing dual permission modes to open the electromagnetic lock;
- Each drawer is equipped with an independent electronic lock to ensure that only the unique and correct blood bag can be taken out in each blood collection operation;
- The camera module can take photos of the operators automatically and transmit them to the platform to achieve operation information traceability.

### Ergonomic Design



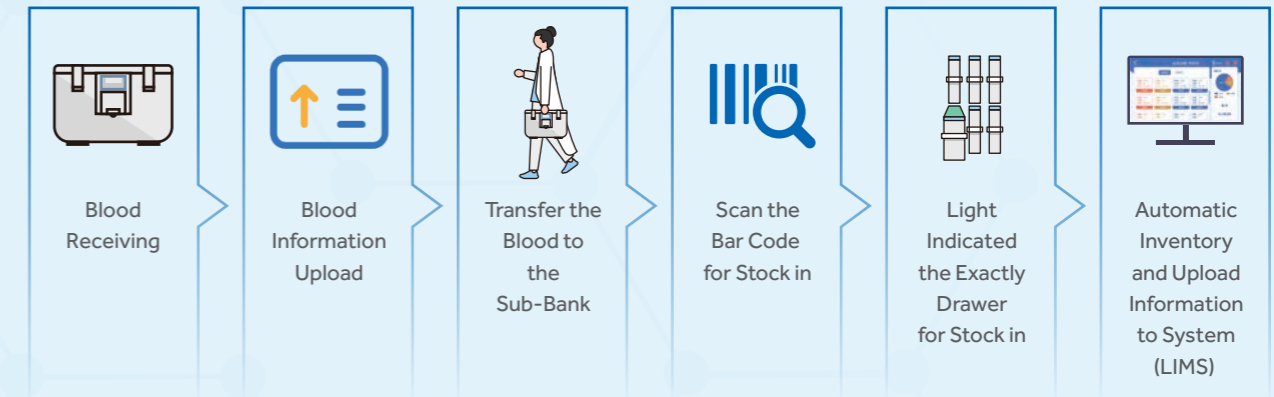
Self-service printing

- Smart dual screen setting realizes simple and intuitive LCD screen display and better user-machine interactions.
- Upon checking of the warehouse-out blood bag's information, self-help printing of Blood Collection Sheet for Clinical Blood Transfusion and Blood Distribution Record Sheet is available.

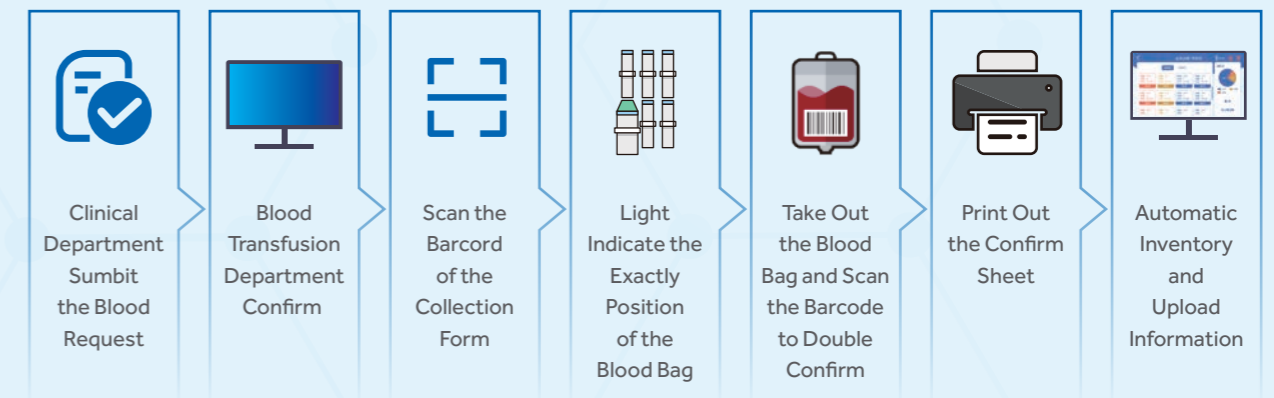
### User-machine interaction, making management visual

- The intelligent blood management system can display the blood donation codes, product codes, blood types, blood quantities, expiry dates and other information of the stored blood bags in real time, realizing one-key query of the stock blood information.
- It can clearly show the storage location of the blood bag with the closest expiry date and follow the first-in-first-out management practices.

## Stock-in Work Flow



## Stock-out Work Flow



The following improvements were experienced by individual hospitals after implementing the

### Unattended Self-service Blood Distribution Refrigerator& Haier Blood Management System

- Blood collection time reduced from 20 minutes to 2 minutes
- Blood waste rate reduced to 0
- 85% reduction in blood bank staff time
- 80% reduction in clinical staff time

# Unattended Self-service Blood Distribution Refrigerator

## How does the Haier Intelligent Blood Management system interact with Haier refrigerator and with Hospital system (LIMS)

- Self-service blood distribution: self-service operation through the blood collection form
- Realize real-time management of Stock-in and Stock-out blood;
- Quick and accurate positioning management of target blood;
- Multiple protection: Security management, electromagnetic lock, camera, NFC authorization card
- Real-time monitoring and management of refrigerator temperature



- The refrigerator is placed on the front line of blood use, and can be used on demand (need to apply in advance).
- Emergency blood support (Type O blood and other emergency blood guarantee at the first time).



- Only the blood that has been applied for can be taken each time, and all the others are locked to ensure safety.
- Real-time monitoring of the entire refrigerator and blood collection environment.



- The refrigerator is linked to the blood transfusion department in real time, and the blood crossmatching process and blood handover can all be realized through intelligent equipment;
- Unattended design, can realize 7×24h self-service management.

## Real-time control of freezer temperature

- Double temperature control composed of 6 high precision sensors and mechanical thermostat against low temperature makes control more accurate and maintains the refrigerator temperature constant at 4±1°C.

## Specifications



| Model                         |   | HXC-629ZZ          |                  |
|-------------------------------|---|--------------------|------------------|
| Technical Data                | Type                                      | Drawer-Type        |                  |
|                               | Climate Class                             | N                  |                  |
|                               | Cooling Type                              | Forced Air Cooling |                  |
|                               | Defrost Mode                              | Auto               |                  |
|                               | Refrigerant                               | R600a              |                  |
|                               | Sound Level (dB(A))                       | 41                 |                  |
| Performance                   | Temperature Range (°C)                    | 4±1                |                  |
|                               | Ambient Temperature (°C)                  | 16-32              |                  |
| Control                       | Controller                                | Microprocessor     |                  |
|                               | Display                                   | LCD                |                  |
| Electrical Data               | Power Supply (V/Hz)                       | 220-240-50/60      |                  |
|                               | Power (W)                                 | 300                |                  |
|                               | Electrical Current (A)                    | 1.9                |                  |
| Dimensions                    | Capacity (L/Cu.Ft)                        | 629/22.2           |                  |
|                               | Blood Storage Capacity (450ml Blood Bags) | 72                 |                  |
|                               | Net/Gross Weight (approx)                 | kg                 | 305/350          |
|                               |   | lbs                | 671/770          |
|                               | Interior Dimensions (W*D*H)               | mm                 | 645*680*1455     |
|                               |   | in                 | 25.2*26.5*56.7   |
|                               | Exterior Dimensions (W*D*H)               | mm                 | 1290*940*1980    |
|                               |   | in                 | 50.3*36.7*77.2   |
|                               | Packing Dimensions (W*D*H)                | mm                 | 1454*1058*2131   |
|                               |   | in                 | 57.2*41.65*83.89 |
| Container Load (20'/40'/40'H) |   | 8/16/16            |                  |
|                               |   |                    |                  |
| Alarms                        | High/Low Temperature                      | Y                  |                  |
|                               | Power Failure                             | Y                  |                  |
|                               | Sensor Error                              | Y                  |                  |
|                               | Low Battery                               | Y                  |                  |
|                               | Door Ajar                                 | Y                  |                  |
|                               | Remote Alarm                              | Y                  |                  |
| Accessories                   | Caster                                    | 6                  |                  |
|                               | Foot                                      | 2                  |                  |
|                               | Porthole                                  | Y                  |                  |
|                               | Shelves/Drawers                           | 0/72               |                  |
|                               | USB Interface                             | Y                  |                  |
| Others                        | Temperature Recorder                      | N                  |                  |
|                               | Certification                             | CE, MDR            |                  |

# Unattended Self-service Blood Distribution Refrigerator

## Scope of Application

Self-service blood bank refrigerator suitable for blood stations, haematology departments and other hospital areas to provide secure and convenient access to blood.

## Product Advantages



### Electronic Checking and Bar Code Management

- Blood bag inventory management (in/out) is achieved by scanning the bags' blood donation codes and product codes
- The system ensures error-free blood bag collection by accurately checking blood bag and operator information



### Ergonomic Design

- The intelligent, dual-screen LCDs have been designed for better user-machine interactions
- Users can print Blood Collection Sheets for Blood Transfusion and Blood Distribution Records after blood check-out



### Visual and Clear Management via User Interface

- The intelligent blood management system can display the blood donation codes, product codes, blood types, blood quantities, expiry dates and other information of the stored blood bags in real time, realizing one-key query of the stock blood information
- It can clearly show the storage location of the blood bag with the closest expiry date and follow the first-in-first-out management practices



### Real-time Control of Freezer Temperature

Six high-precision sensors and a mechanical thermostat accurately control the temperature in real-time to maintain the refrigerator temperature at  $4 \pm 1^\circ\text{C}$



### Safe, Reliable and Traceable

- Equipped with fingerprint and NFC access modules providing dual permission modes to open the electromagnetic lock
- Each drawer is equipped with an independent electronic lock to ensure that only the unique and correct blood bag can be taken out in each blood collection operation
- The camera module can take photos of the operators automatically and transmit them to the platform to achieve operation information trace-ability



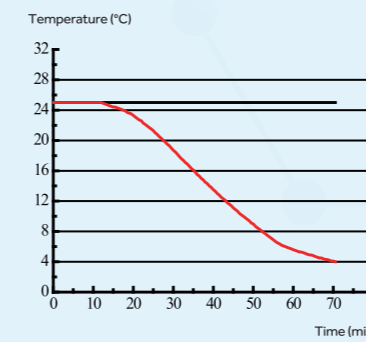
A drawer corresponds to a lock



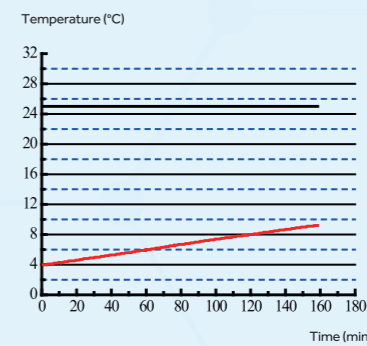
HXC-149ZZ

## Product Performance

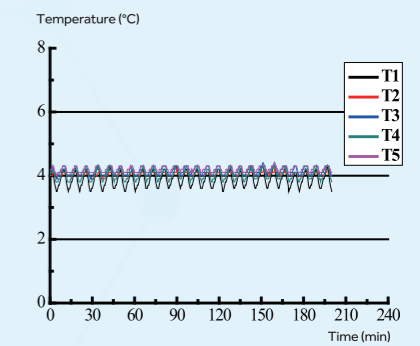
Cool down curve (empty loaded)



Warm up curve (empty loaded)



Stable operating curve (empty loaded)



## Specifications

| Model                      |   | HXC-149ZZ          |                |
|----------------------------|---|--------------------|----------------|
| Technical Data             | Type                                      | Drawer-Type        |                |
|                            | Climate Class                             | N                  |                |
|                            | Cooling Type                              | Forced Air Cooling |                |
|                            | Defrost Mode                              | Auto               |                |
|                            | Refrigerant                               | R600a              |                |
|                            | Sound Level (dB(A))                       | 40                 |                |
| Performance                | Temperature Range (°C)                    | 4±1                |                |
|                            | Ambient Temperature (°C)                  | 16-32              |                |
| Control                    | Controller                                | Microprocessor     |                |
|                            | Display                                   | LCD                |                |
| Electrical Data            | Power Supply (V/Hz)                       | 220-240-50         |                |
|                            | Power (W)                                 | 240                |                |
|                            | Electrical Current (A)                    | 1.4                |                |
| Dimensions                 | Capacity (L/Cu.Ft)                        | 149/5.26           |                |
|                            | Blood Storage Capacity (450ml Blood Bags) | 12                 |                |
|                            | Net/Gross Weight (approx)                 | kg                 | 129/179        |
|                            |   | lbs                | 283.8/ 393.8   |
|                            | Interior Dimensions (W*D*H)               | mm                 | 505*560*610    |
|                            |   | in                 | 19.7*32.3*23.8 |
|                            | Exterior Dimensions (W*D*H)               | mm                 | 625*820*1425   |
|                            |   | in                 | 24.4*30.2*55.6 |
| Packing Dimensions (W*D*H) | mm  | 748*958*1610       |                |
|                            | in  | 29.44*37.72*63.38  |                |
| Alarms                     | Container Load (20'/40'/40'H)             | 18/36/36           |                |
|                            | High/Low Temperature                      | Y                  |                |
|                            | Power Failure                             | Y                  |                |
|                            | Sensor Error                              | Y                  |                |
|                            | Low Battery                               | Y                  |                |
|                            | Door Ajar                                 | Y                  |                |
| Accessories                | Remote Alarm                              | Y                  |                |
|                            | Caster                                    | 4                  |                |
|                            | Foot                                      | 2                  |                |
|                            | Porthole                                  | Y                  |                |
| Others                     | Shelves/Drawers                           | 0/12               |                |
|                            | USB Interface                             | Y                  |                |
|                            | Temperature Recorder                      | Optional           |                |
| Certification              | CE, MDR                                   |                    |                |

## Advanced Blood Bank Refrigerator with LCD Touchscreen

## Advanced Blood Bank refrigerator with LED Display



HXC-1369T

HXC-629T

HXC-429T

HXC-149T

### Product Advantages



#### Control Interface

- The simple and intuitive high-definition LCD touch screen can display temperature graph, working status, events and alarm record.



#### Microprocessor Control

- A dual control system of six high-precision sensors and mechanical thermostat ensures that the temperature inside the cabinet is maintained at  $4\pm 1^\circ\text{C}$ .



#### Stable and Reliable Operation

- The refrigeration system is powered with a high-quality, energy-efficient inverter compressor and variable speed fan motors. Temperature control responds quickly and reliably for a more uniform temperature using less power and lower noise.



#### Multiple Safety Protection

- Multiple alarms include high and low temperature, power failure, door ajar, sensor error, and low battery. Sound buzzer, visual flashing light and remote contacts are standard alarm features. Built-in battery provides power to the alarm system in the event of a main power failure. Fingerprint and standard NFC swipe card module are optional.
- Optional fingerprint and standard NFC swipe card module.



HXC-1369

HXC-629/629B

HXC-429

HXC-149

### Product Advantages



#### With Multiple Temperature Control to Guarantee Constant and Precise Temperature

- The inside temperature is constant within  $4\pm 1^\circ\text{C}$ , the digital temperature display resolution at  $0.1^\circ\text{C}$ .
- Equipped with 6 high-precision sensors and a mechanical thermostat which enables more accurate air cooling and temperature control to ensure uniform temperature inside the unit, maintained within the specified temperature range. The multi-layer inner door design reduces thermal loss after door openings and further ensures the temperature stability inside the cabinet.



#### With Multiple Safety Guarantees to Provide Worry-Free Service

- Equipped with complete alarm function, including alarm on high and low temperature, power failure, door ajar, sensor error, and low battery. Two alarm modes including audible buzzer and visual lights with remote alarm interface.
- Back-up battery design ensures alarm and temperature readings continue to operate in the event of a main power failure.
- NFC swipe card module, with safer storage management.



#### Standard USB Interface

- Ability to record temperature data for ten years by using the USB interface, an optional disc temperature recorder is also available



Follow the QR code and learn more about the Advanced Blood Bank Refrigerator with Touchscreen from Haier Biomedical

# Blood Bank Refrigerator

## Specifications



| Model                         |   | HXC-149              |                | HXC-429              |                | HXC-629              |                | HXC-629B       |                | HXC-1369             |                | HXC-149T             |                | HXC-279T           |                | HXC-429T             |                | HXC-629T             |                | HXC-1369T            |                |                    |  |
|-------------------------------|---|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------|----------------|----------------------|----------------|----------------------|----------------|--------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|--------------------|--|
| Technical Data                | Type                                      | Basket-Type          |                |                      |                | Basket-Type          |                |                |                | Basket-Type          |                |                      |                | Drawer-Type        |                | Drawer-Type          |                | Drawer-Type          |                | Drawer-Type          |                | Drawer-Type        |  |
|                               | Climate Class                             | N                    |                |                      |                | N                    |                |                |                | N                    |                |                      |                | N                  |                | N                    |                | N                    |                | N                    |                | N                  |  |
|                               | Cooling Type                              | Forced Air Cooling   |                |                      |                | Forced Air Cooling   |                |                |                | Forced Air Cooling   |                |                      |                | Forced Air Cooling |                | Forced Air Cooling   |                | Forced Air Cooling   |                | Forced Air Cooling   |                | Forced Air Cooling |  |
|                               | Defrost Mode                              | Auto                 |                |                      |                | Auto                 |                |                |                | Auto                 |                |                      |                | Auto               |                | Auto                 |                | Auto                 |                | Auto                 |                | Auto               |  |
|                               | Refrigerant                               | R600a                |                |                      |                | R600a                |                |                |                | R600a                |                |                      |                | R600a              |                | R600a                |                | R600a                |                | R600a                |                | R600a              |  |
|                               | Sound Level (dB(A))                       | 39                   |                | 40                   |                | 40                   |                | 41             |                | 41                   |                | 39                   |                | 39                 |                | 40                   |                | 40                   |                | 41                   |                | 41                 |  |
| Performance                   | Temperature Range (°C)                    | 4±1                  |                | 4±1                  |                | 4±1                  |                | 4±1            |                | 4±1                  |                | 4±1                  |                | 4±1                |                | 4±1                  |                | 4±1                  |                | 4±1                  |                | 4±1                |  |
|                               | Ambient Temperature (°C)                  | 16-32                |                | 16-32                |                | 16-32                |                | 16-32          |                | 16-32                |                | 16-32                |                | 16-32              |                | 16-32                |                | 16-32                |                | 16-32                |                | 16-32              |  |
| Control                       | Controller                                | Microprocessor       |                |                      |                | Microprocessor       |                |                |                | Microprocessor       |                |                      |                | Microprocessor     |                | Microprocessor       |                | Microprocessor       |                | Microprocessor       |                | Microprocessor     |  |
|                               | Display                                   | LED                  |                |                      |                | LED                  |                |                |                | LED                  |                |                      |                | LCD                |                | LCD                  |                | LCD                  |                | LCD                  |                | LCD                |  |
| Electrical Data               | Power Supply (V/Hz)                       | 220-240/50 230-50/60 |                | 220-240/50 230-50/60 |                | 220-240/50 230-50/60 |                | 115/60         |                | 220-240/50 230-50/60 |                | 220-240/50 230-50/60 |                | 230-50/60          |                | 220-240/50 230-50/60 |                | 220-240/50 230-50/60 |                | 220-240/50 230-50/60 |                |                    |  |
|                               | Power (W)                                 | 240                  |                | 245                  |                | 255                  |                | 255            |                | 400                  |                | 240                  |                | 295                |                | 245                  |                | 255                  |                | 400                  |                |                    |  |
|                               | Electrical Current (A)                    | 1.4                  |                | 1.5                  |                | 1.5                  |                | 3              |                | 2                    |                | 1.4                  |                | 1.5                |                | 1.5                  |                | 1.5                  |                | 2                    |                |                    |  |
| Dimensions                    | Capacity (L/Cu.Ft)                        | 149/5.3              |                | 429/15.15            |                | 629/22.21            |                | 629/22.21      |                | 1369/48.35           |                | 149/5.3              |                | 279/9.85           |                | 429/15.15            |                | 629/22.21            |                | 1369/48.35           |                |                    |  |
|                               | Blood Storage Capacity (450ml Blood Bags) | 60                   |                | 195                  |                | 312                  |                | 312            |                | 624                  |                | 60                   |                | 48.34577874        |                | 195                  |                | 312                  |                | 624                  |                |                    |  |
|                               | Net/Gross Weight (approx)                 | kg                   | 97/125         |                      | 169/204        |                      | 187/217        |                | 187/217        |                      | 345/410        |                      | 108/136        |                    | 113/130        |                      | 182/217        |                      | 212/252        |                      | 380/445        |                    |  |
|                               |   | lbs                  | 213.4/275      |                      | 371.8/448.8    |                      | 411.4/477.4    |                | 411.4/477.4    |                      | 759/902        |                      | 237.6/299.2    |                    | 249/286.6      |                      | 400.4/477.4    |                      | 466.4/554.4    |                      | 836/979        |                    |  |
|                               | Interior Dimensions (W*D*H)               | mm                   | 505*560*610    |                      | 505*680*1315   |                      | 645*680*1455   |                | 645*680*1455   |                      | 1425*680*1455  |                      | 505*560*610    |                    | 505*410*1315   |                      | 505*680*1315   |                      | 645*680*1455   |                      | 1425*680*1455  |                    |  |
|                               |   | in                   | 19.7*32.3*23.8 |                      | 19.7*26.5*51.3 |                      | 25.2*26.5*56.7 |                | 25.2*26.5*56.7 |                      | 55.6*26.5*56.7 |                      | 19.7*32.3*23.8 |                    | 19.9*16.1*51.8 |                      | 19.7*26.5*51.3 |                      | 25.2*26.5*56.7 |                      | 55.6*26.5*56.7 |                    |  |
|                               | Exterior Dimensions (W*D*H)               | mm                   | 625*820*1150   |                      | 625*940*1830   |                      | 765*940*1980   |                | 765*940*1980   |                      | 1545*940*1980  |                      | 625*820*1150   |                    | 630*705*1750   |                      | 625*940*1830   |                      | 765*940*1980   |                      | 1545*940*1980  |                    |  |
|                               |   | in                   | 24.4*30.2*44.9 |                      | 24.4*36.7*71.4 |                      | 29.8*36.7*77.2 |                | 29.8*36.7*77.2 |                      | 60.3*36.7*77.2 |                      | 24.4*30.2*44.9 |                    | 24.8*27.8*68.9 |                      | 24.4*36.7*71.4 |                      | 29.8*36.7*77.2 |                      | 60.3*36.7*77.2 |                    |  |
| Packing Dimensions (W*D*H)    | mm  | 730*926*1236         |                | 749*1008*1960        |                | 880*1010*2090        |                | 880*1010*2090  |                | 1678*1044*2085       |                | 730*926*1236         |                | 748*777*1881       |                | 749*1008*1960        |                | 880*1010*2090        |                | 1678*1044*2085       |                |                    |  |
|                               | in  | 28.7*36.5*48.7       |                | 29.5*39.7*77.2       |                | 34.7*39.8*82.3       |                | 34.7*39.8*82.3 |                | 66.1*41.1*82.1       |                | 28.7*36.5*48.7       |                | 29.4*30.6*74.1     |                | 29.5*39.7*77.2       |                | 34.7*39.8*82.3       |                | 66.1*41.1*82.1       |                |                    |  |
| Container load (20'/40'/40'H) | 18/38/76                                  |                      | 18/35/35       |                      | 12/26/26       |                      | 12/26/26       |                | 7/14/14        |                      | 18/38/76       |                      | 14/45/45       |                    | 18/35/35       |                      | 12/26/26       |                      | 7/14/14        |                      |                |                    |  |
| Alarms                        | High/Low Temperature                      | Y                    |                | Y                    |                | Y                    |                | Y              |                | Y                    |                | Y                    |                | Y                  |                | Y                    |                | Y                    |                | Y                    |                |                    |  |
|                               | Power Failure                             | Y                    |                | Y                    |                | Y                    |                | Y              |                | Y                    |                | Y                    |                | Y                  |                | Y                    |                | Y                    |                | Y                    |                |                    |  |
|                               | Sensor Error                              | Y                    |                | Y                    |                | Y                    |                | Y              |                | Y                    |                | Y                    |                | Y                  |                | Y                    |                | Y                    |                | Y                    |                |                    |  |
|                               | Low Battery                               | Y                    |                | Y                    |                | Y                    |                | Y              |                | Y                    |                | Y                    |                | Y                  |                | Y                    |                | Y                    |                | Y                    |                |                    |  |
|                               | Door Ajar                                 | Y                    |                | Y                    |                | Y                    |                | Y              |                | Y                    |                | Y                    |                | Y                  |                | Y                    |                | Y                    |                | Y                    |                |                    |  |
|                               | Remote Alarm                              | Y                    |                | Y                    |                | Y                    |                | Y              |                | Y                    |                | Y                    |                | Y                  |                | Y                    |                | Y                    |                | Y                    |                |                    |  |
| Accessories                   | Caster                                    | 4                    |                | 4                    |                | 4                    |                | 4              |                | 4                    |                | 4                    |                | 4                  |                | 4                    |                | 4                    |                | 4                    |                |                    |  |
|                               | Foot                                      | 2                    |                | 2                    |                | 2                    |                | 2              |                | 2                    |                | 2                    |                | 2                  |                | 2                    |                | 2                    |                | 2                    |                |                    |  |
|                               | Porthole                                  | Y                    |                | Y                    |                | Y                    |                | Y              |                | Y                    |                | Y                    |                | Y                  |                | Y                    |                | Y                    |                | Y                    |                |                    |  |
|                               | Baskets                                   | 6                    |                | 15                   |                | 24                   |                | 24             |                | 48                   |                | 6                    |                | 15                 |                | 15                   |                | 24                   |                | 48                   |                |                    |  |
|                               | Shelves/Drawers                           | 2/0                  |                | 5/0                  |                | 6/0                  |                | 6/0            |                | 12/0                 |                | 0/2                  |                | 5/0                |                | 0/5                  |                | 0/6                  |                | 0/12                 |                |                    |  |
|                               | Inner doors                               | 2                    |                | 5                    |                | 6                    |                | 6              |                | 12                   |                | 0                    |                | 5                  |                | 0                    |                | 0                    |                | 0                    |                |                    |  |
|                               | USB Interface                             | Y                    |                | Y                    |                | Y                    |                | Y              |                | Y                    |                | Y                    |                | Y                  |                | Y                    |                | Y                    |                | Y                    |                |                    |  |
| Temperature Recorder          | Y   |                      | Y              |                      | Y              |                      | Y              |                | Y              |                      | Y              |                      | /              |                    | Y              |                      | Y              |                      | Y              |                      |                |                    |  |
| Others                        | Certification                             | CE, MDR              | UL             | CE, MDR              | UL             | CE, MDR              | UL             | UL             | CE, MDR        | UL                   | CE, MDR        | UL                   | CE, MDR        | CE, MDR            | UL             | CE, MDR              | UL             | CE, MDR              | UL             | CE, MDR              | UL             |                    |  |

# 4°C Blood Bank Refrigerator

Applicable for the storage of blood and blood related products and other items that need to be stored at 2-6°C in hospitals and blood stations.



HXC-106



### Microprocessor Control System

The temperature range is 4±1°C, with temperature accuracy of 0.1°C.



### Air Cooling Design

The temperature in all corners of the cabinet is maintained within the calibrated temperature range, and the test hole design is added to meet the actual needs of the user.



### Multiple Fault Alarms

High and low temperature alarm, power failure alarm, door ajar alarm, sensor error alarm, low battery with a remote alarm interface, two alarm modes (sound beeping alarm and light flashing alarm).



### Multiple Protection

Startup delay protection, stop interval protection, display panel password protection, power failure memory data protection, sensor error protection.



### Remote Alarm Function

Can connect alarm to other rooms to achieve alarm function.



### Automatic Evaporation of Condensed Water after Collection

Avoid the trouble of manual treatment of condensed water.

## Product Features

### Door design

Vertical single door design, double layer electric heated glass door and self-closing function.

### Materials

The shell and inner liner are sprayed with steel plate, which is anticorrosive and bacteriostatic.

### Compressor

Deeply optimized refrigeration system, international brand compressor, energy saving, low noise, long service life.

### Interior lighting:

The cabinet is equipped with LED lights and external independent light switches.

### Door lock and door lock alarm:

Prevent random door opening.

### Door handle:

Easy to open.

### Foot:

Stable and adjustable.

### LED digital display:

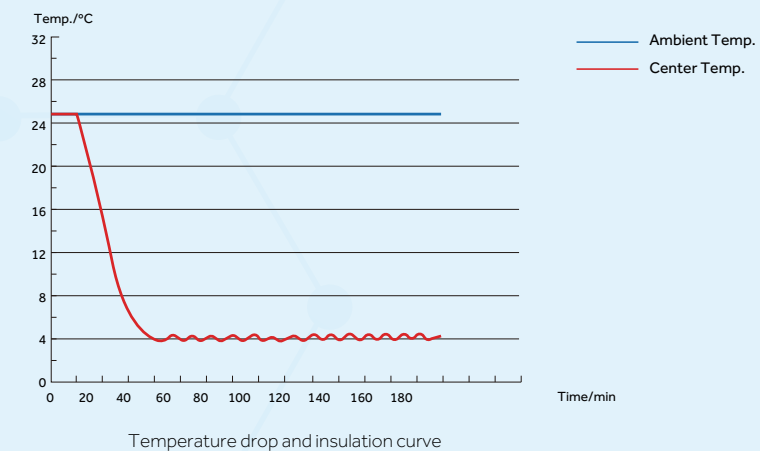
The internal temperature 2-6°C, digital display of upper and lower temperature, the average temperature display and the resolution of 0.1°C.

### Air cooling design:

Ensure that the temperature in any corner of the box is maintained within the calibration temperature range.

The temperature measuring box is used to monitor the temperature in the cabinet in real time.

3 shelves, 4 blood baskets, blood basket with a label slot, easy to label. Capable of storing 54 bags of 400ml blood totally.





# 4°C Blood Bank Refrigerator



## Specifications

| Model                         |   | HXC-106            |                   |  |
|-------------------------------|---|--------------------|-------------------|--|
| Technical Data                | Type                                      | Basket-Type        |                   |  |
|                               | Climate Class                             | N                  |                   |  |
|                               | Cooling Type                              | Forced Air Cooling |                   |  |
|                               | Defrost Mode                              | Auto               |                   |  |
|                               | Refrigerant                               | R600a              |                   |  |
|                               | Noise Level (dB(A))                       | 41                 |                   |  |
| Performance                   | Temperature Range (°C)                    | 4±1                |                   |  |
|                               | Ambient Temperature (°C)                  | 16-32              |                   |  |
| Control                       | Controller                                | Microprocessor     |                   |  |
|                               | Display                                   | LED                |                   |  |
| Electrical Data               | Power Supply (V/Hz)                       | 220-240-50/60      |                   |  |
|                               | Power (W)                                 | 253                |                   |  |
|                               | Electrical Current (A)                    | 1.6                |                   |  |
| Dimensions                    | Capacity (L/Cu.Ft)                        | 106                |                   |  |
|                               | Blood Storage Capacity (400ml Blood Bags) | 54                 |                   |  |
|                               | Net/Gross Weight (approx)                 | kg                 | 49/52             |  |
|                               |   | lbs                | 108.03/114.64     |  |
|                               | Interior Dimensions (W*D*H)               | mm                 | 430*350*830       |  |
|                               |   | in                 | 16.93*13.78*32.68 |  |
|                               | Exterior Dimensions (W*D*H)               | mm                 | 500*514*1055      |  |
|                               |   | in                 | 19.69*20.34*41.54 |  |
|                               | Packing Dimensions (W*D*H)                | mm                 | 565*615*1145      |  |
|                               |   | in                 | 22.24*24.21*45.08 |  |
| Container Load (20'/40'/40'H) | 36/72/72                                  |                    |                   |  |
| Alarms                        | High/Low Temperature                      | Y                  |                   |  |
|                               | Power Failure                             | Y                  |                   |  |
|                               | Sensor Error                              | Y                  |                   |  |
|                               | Low Battery                               | Y                  |                   |  |
|                               | Door Ajar                                 | Y                  |                   |  |
|                               | Remote Alarm                              | Y                  |                   |  |
| Accessories                   | Caster                                    | 0                  |                   |  |
|                               | Foot                                      | 4                  |                   |  |
|                               | Porthole Hole                             | 1                  |                   |  |
|                               | Shelves/Baskets                           | 3/4                |                   |  |
|                               | Inner doors                               | 0                  |                   |  |
|                               | USB Interface                             | N                  |                   |  |
|                               | Temperature Recorder                      | N                  |                   |  |
| Others                        | Certificate                               | CE, MDR            |                   |  |

The blood bank refrigerator is designed for blood collection housing, providing a safe and secure 2-6°C storage environment after the blood has been collected.



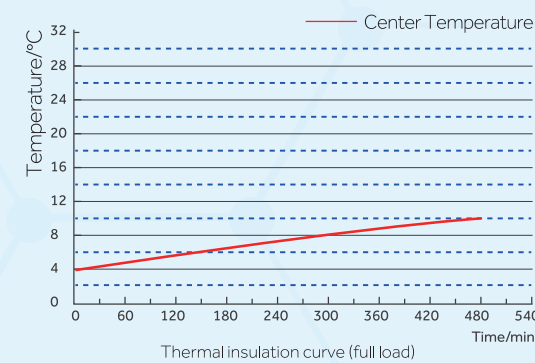
HXC-279

### Safe storage and optimum operation experience

- 60mm thick foam layer, superior insulation, ensuring the temperature is stable in the refrigerator;
- Five shelves and five inner doors design minimizes the cold loss;
- 15 blood baskets with labels. The maximum blood storage capacity is 135 bags (400/450ml);

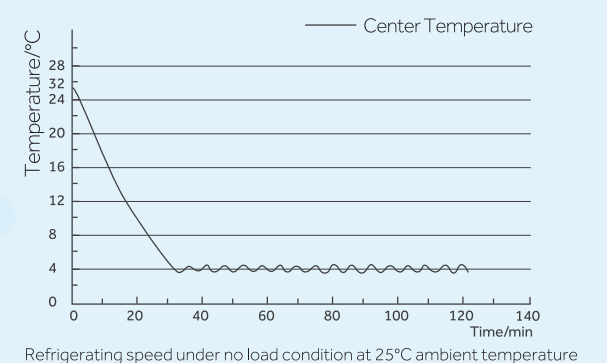
### Long insulation time

Under full load and power off conditions, holdover time for 4°C to 6°C is more than 150 minutes, more secure.



### Rapid refrigeration, high efficiency

It can reach set temperature within 35 mins under no load condition at room temperature.



## 4°C Blood Bank Refrigerator



### Specifications

| Model                         |   | HXC-279 (Vehicle Mounted) |                 |  |
|-------------------------------|---|---------------------------|-----------------|--|
| Technical Data                | Type                                      | Drawer-Type               |                 |  |
|                               | Climate Class                             | N                         |                 |  |
|                               | Cooling Type                              | Forced Air Cooling        |                 |  |
|                               | Defrost Mode                              | Auto                      |                 |  |
|                               | Refrigerant                               | R134a                     |                 |  |
|                               | Sound Level (dB(A))                       | 39                        |                 |  |
| Performance                   | Temperature Range (°C)                    | 4±1                       |                 |  |
|                               | Ambient Temperature (°C)                  | 16-32                     |                 |  |
| Control                       | Controller                                | Microprocessor            |                 |  |
|                               | Display                                   | LCD                       |                 |  |
| Electrical Data               | Power Supply (V/Hz)                       | 230-50                    |                 |  |
|                               | Power (W)                                 | 400                       |                 |  |
|                               | Electrical Current (A)                    | 1.5                       |                 |  |
| Dimensions                    | Capacity (L/Cu.Ft)                        | 279/9.85                  |                 |  |
|                               | Blood Storage Capacity (450ml Blood Bags) | 135                       |                 |  |
|                               | Net/Gross Weight (approx)                 | kg                        | 113/130         |  |
|                               |   | lbs                       | 249/286.6       |  |
|                               | Interior Dimensions (W*D*H)               | mm                        | 505*410*1315    |  |
|                               |   | in                        | 19.9*16.1*51.8  |  |
|                               | Exterior Dimensions (W*D*H)               | mm                        | 660*705*1750    |  |
|                               |   | in                        | 25.98*27.8*68.9 |  |
|                               | Packing Dimensions (W*D*H)                | mm                        | 748*777*1881    |  |
|                               |   | in                        | 29.4*30.6*74.1  |  |
| Container load (20'/40'/40'H) | 14/45/45                                  |                           |                 |  |
| Alarms                        | High/Low Temperature                      | Y                         |                 |  |
|                               | Power Failure                             | Y                         |                 |  |
|                               | Sensor Error                              | Y                         |                 |  |
|                               | Low Battery                               | Y                         |                 |  |
|                               | Door Ajar                                 | Y                         |                 |  |
|                               | Remote Alarm                              | Y                         |                 |  |
|                               | Accessories                               | Caster                    | 4               |  |
| Foot                          |   | 2                         |                 |  |
| Porthole                      |   | Y                         |                 |  |
| Baskets                       |   | 15                        |                 |  |
| Shelves/Drawers               |   | 5/0                       |                 |  |
| Inner doors                   |   | 5                         |                 |  |
| USB Interface                 |   | Y                         |                 |  |
| Temperature Recorder          |   | /                         |                 |  |
| Others                        | Certification                             | /                         |                 |  |

## Blood Bank Refrigerators

Applicable for the storage of blood and blood related products and other items that need to be stored at 2-6°C in hospitals and blood stations.



HXC-158



HXC-158B

### Innovative Design

- Frequency Conversion Compressor
- Adjustable Shelf And Basket
- Condensation Free Design
- Intelligent Alarm

### Product Advantages



#### Adjustable Shelves

The shelves are adjustable to any height to fulfill different requirements



#### Three Types of Alarm

Audible buzzer, visible flashing light, remote alarm



#### Five Alarm Functions

High/low temperature, power failure, sensor error, low battery, door ajar



#### Superior Performance

Adopting air cooling technology for the inside temperature uniformity and stability

# Blood Bank Refrigerators

## Specifications



| Model                         |   | HXC-158            | HXC-158B           |                |
|-------------------------------|---|--------------------|--------------------|----------------|
| Technical Data                | Type                                      | Basket-Type        | Drawer-Type        |                |
|                               | Climate Class                             | ST                 | ST                 |                |
|                               | Cooling Type                              | Forced Air Cooling | Forced Air Cooling |                |
|                               | Defrost Mode                              | Auto               | Auto               |                |
|                               | Refrigerant                               | HC                 | HC                 |                |
|                               | Sound Level (dB(A))                       | 42                 | 42                 |                |
| Performance                   | Temperature Range (°C)                    | 4±1                | 4±1                |                |
|                               | Ambient Temperature (°C)                  | 10-38              | 10-38              |                |
| Control                       | Controller                                | Microprocessor     | Microprocessor     |                |
|                               | Display                                   | LED                | LED                |                |
| Electrical Data               | Power Supply (V/Hz)                       | 220-240/50 /60     | 220-240/50 /60     |                |
|                               | Power (W)                                 | 320                | 320                |                |
|                               | Electrical Current (A)                    | 1.9                | 1.9                |                |
| Dimensions                    | Capacity (L/Cu.Ft)                        | 158/5.6            | 158/5.6            |                |
|                               | Blood Storage Capacity (450ml Blood Bags) | 84                 | 84                 |                |
|                               | Net/Gross Weight (approx)                 | kg                 | 107/120            | 113/126        |
|                               |   | lbs                | 235.9/264.6        | 249.1/277.8    |
|                               | Interior Dimensions (W*D*H)               | mm                 | 460*370*950        | 460*370*950    |
|                               |   | in                 | 18.1*14.6*37.4     | 18.1*14.6*37.4 |
|                               | Exterior Dimensions (W*D*H)               | mm                 | 560*570*1530       | 560*570*1530   |
|                               |   | in                 | 22.0*22.4*60.2     | 22.0*22.4*60.2 |
|                               | Packing Dimensions (W*D*H)                | mm                 | 645*675*1680       | 645*675*1680   |
|                               |   | in                 | 25.4*26.6*66.1     | 25.4*26.6*66.1 |
| Container Load (20'/40'/40'H) |   | 27/54/54           | 27/54/54           |                |
| Alarms                        | High/Low Temperature                      | Y                  | Y                  |                |
|                               | Remote Alarm                              | Y                  | Y                  |                |
|                               | Power Failure                             | Y                  | Y                  |                |
|                               | Sensor Error                              | Y                  | Y                  |                |
|                               | Low Battery                               | Y                  | Y                  |                |
|                               | Door Ajar                                 | Y                  | Y                  |                |
|                               | Accessories                               | Castor             | Y                  | Y              |
|                               | Foot                                      | Y                  | Y                  |                |
|                               | Porthole                                  | Y                  | Y                  |                |
|                               | Shelves/Baskets                           | 4/4                | -                  |                |
|                               | Drawers/Inner Doors                       | -/2                | 4/-                |                |
|                               | USB Interface                             | Optional           | Optional           |                |
|                               | Temperature Recorder                      | Optional           | Y                  |                |
| Others                        | Certificate                               | CE, MDR            | CE, MDR            |                |

## Plasma Freezer

### RFID Solution with Real-Time IoT Technology



**DW-30L1280FT (Intelligent)**

- RFID radio frequency, accurate management of plasma information, with automatic inventory and quick inquiry function.
- Hydrocarbon refrigeration, efficient and quick.
- Mobile terminal bio-link APP ensures real-time monitoring.
- Multiple alarms, safe and reliable.
- 10-inch large screen, easy to operate and more intuitive display.
- NFC permission management system combined with an electromagnetic lock, controllable flow direction and traceable information.

#### 10-inch large touch screen, easy to operate, intuitive display.



- The 10-inch large touch screen ensures an easier operating experience. Capable of displaying interior real-time temperature, ambient temperature, temperature set point, input voltage, network status, user login status, temperature curve and new message/notebook, etc. Query interface can display plasma donation code, product code, blood type, blood volume, period of validity, etc.

#### Equipped with IoT function, ensuring real-time temperature monitoring.

- Equipped with IoT function, capable of sending users the equipment alarm information in the form of text messages. Download bio-link APP to monitor and check cabinet temperature, alarms and event logs from anywhere at anytime.



#### Bottom air inlet system, low noise

- Equipped with a special filter, ensuring the cleanness and safety of interior air.



Specifications

| Model                         |                             | DW-30L1280FT (Intelligent) |                |
|-------------------------------|-----------------------------|----------------------------|----------------|
| Technical Data                | Cabinet Type                | Upright                    |                |
|                               | Climate Class               | N                          |                |
|                               | Cooling Type                | Forced Air Cooling         |                |
|                               | Defrost Mode                | Automatic Defrost          |                |
|                               | Refrigerant                 | R290                       |                |
|                               | Sound Level (dB(A))         | 46                         |                |
| Performance                   | Cooling Performance (°C)    | -30                        |                |
|                               | Temperature Range(°C)       | -10--30                    |                |
| Control                       | Controller                  | Microprocessor             |                |
|                               | Display                     | LCD                        |                |
| Electrical Data               | Power Supply (V/Hz)         | 220/50                     |                |
|                               | Power (W)                   | 900                        |                |
|                               | Electrical Current (A)      | 5                          |                |
| Dimensions                    | Capacity (L/Cu.Ft)          | 1280/45.2                  |                |
|                               | Net/Gross Weight (approx)   | kg                         | 620/680        |
|                               |                             | lbs                        | 1366/1499      |
|                               | Interior Dimensions (W*D*H) | mm                         | 1320*752*1260  |
|                               |                             | in                         | 52*29.6*49.6   |
|                               | Exterior Dimensions (W*D*H) | mm                         | 1520*1065*1996 |
|                               |                             | in                         | 59.8*41.9*78.6 |
|                               | Packing Dimensions (W*D*H)  | mm                         | 1580*1100*2100 |
| in                            |                             | 62.2*43.3*82.7             |                |
| Container Load (20'/40'/40'H) | 6*14*14                     |                            |                |
| Alarms                        | High/Low Temperature        | Y                          |                |
|                               | Remote Alarm                | Y                          |                |
|                               | Power Failure               | Y                          |                |
|                               | Sensor Error                | Y                          |                |
|                               | Low Battery                 | Y                          |                |
|                               | High Ambient Temperature    | Y                          |                |
|                               | Door Ajar                   | Y                          |                |
| Accessories                   | Castor                      | Y                          |                |
|                               | Foot                        | Y                          |                |
|                               | Porthole                    | Y                          |                |
|                               | Drawers/Inner Doors         | N                          |                |
|                               | Temperature Recorder        | Y                          |                |
|                               | USB Interface               | Y                          |                |
| RS485                         | Y                           |                            |                |

Multistage Plasma Storage Basket

- Multistage plasma storage basket design, streamlines plasma storage and placement, easy to access



Dual Cooling System, Frost Free

- Equipped with dual cooling system, if one system fails, the other system can maintain the interior temperature at -25°C for an extended period, safe and reliable
- RFID read-write board can read plasma label information, providing inventory plasma information statistics. Supports automatic inventory, one-key inventory and plasma in-out stock storage information



# Plasma Apheresis System

Process is completely traceable with intelligent interconnection methods, this design improves the safety and security for the donor.



### Identity Recognition

Built-in intelligent identity recognition system can identify a person immediately and accurately through multiple sources, such as face, ID card and fingerprint as key examples.



### Intelligent identification, safe and effective error prevention system

Precise control and accurate identification of the anticoagulant bags, improved safety, reliability and security.



### Smart IoT

Intelligent interconnection with the management system, data at a glance, clear and convenient.



### Ergonomic

Suitable for plasma stations and mobile collections with limited space.

## Ergonomic Design



Intelligent connectivity which ensures automatic data collection and processing.



Large color touch screen, easy to operate.



The unit is small in size, movable and easy to use, which reduces the burden of users.



Optimized system and structural noise reduction design, low operating noise.



## The whole process of blood component (plasma) separation is traceable

- The whole process can be automatically monitored and managed.
- Automatic recording and uploading data.
- Precise control of data is immediate.



### Data and identity protection system

The separator can collect information in multiple dimensions including ID card, face, fingerprint and bar code. Then the system will recognize the accurate information from the database, ensuring no inaccuracy of donor or recipient information is contaminated.



### Automatic data processing

The separator can record and upload consumables and collect data automatically and intelligently without manpower, this improves efficiency and prevents errors, which saves medical staff precious time and reduces stress.



### The monitor prevents manual process errors

The separator will emit an alarm sound and corresponding text prompt when there is any misaligned of anticoagulant. If this occurs the system is unable to carry out the next operation, which completely eliminates the risk of infusion error, and avoids any accident that endangers the safety of the plasma donor.



### Comprehensive monitoring surveillance system

All-directional multi-angle monitoring plasma collection process. Exclusive design of blood pump and anticoagulation pump. Adaptive compensation function is more compatible with consumables from different manufacturers. No wearing parts. Stable flow. Accurate control of blood cell access ratio. Multi-level alarm system can find any errors.



### Maintain & Protect Blood

Centrifuge cup adopts new patented technology to gently protect blood activity so that blood is safer.



### Compatible with accurate capacity optimization

It can be used with 160ml anticoagulant bags to accurately match actual needs which means cost reduction and environmentally friendly improvements. Consumables are versatile and compatible with multiple models.

## Specifications

| Model  | Power supply (V/Hz) | Exterior dimensions (W*D*H) (mm) | Gross weight (kg) |
|--------|---------------------|----------------------------------|-------------------|
| XJ-III | 110-240-50/60       | 540*510*770                      | 29                |

| Parameters | Amount collected per cycle (g) | Total plasma collection (g) | Pump speed (ml/min) | Return speed (ml/min) | Anticoagulant (Citrate) to whole blood ratio | Centrifuge speed (r/min) |
|------------|--------------------------------|-----------------------------|---------------------|-----------------------|--|--------------------------|
| Range      | 0-300                          | 0-1000                      | 20-100              | 20-100                | 1:12-1:16                                    | 7000                     |
| Preset     | 230                            | 600                         | 80                  | 80                    | 1:16   | 7000                     |
| Precision  | 1                              | 1                           | ≤2                  | ≤2                    | <1   | ≤2.5%                    |

This product is composed of a mainframe (Centrifuge, blood pump, anticoagulant pump, weighing scale, display screen, air detector, pressure detector, control panel) and a pressure cuff, excluding the matching disposable pipe consumables.

# Plasma Blast Freezer

Mainly applicable to the quick-frozen treatment of plasma products in blood stations or medical institutions.

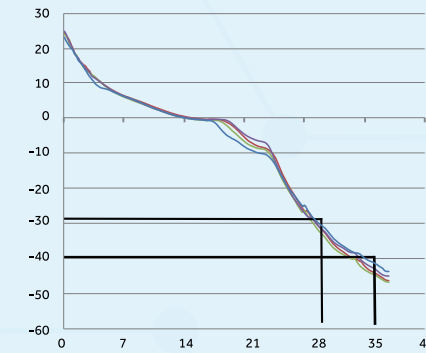


XSD-24FL

## Features

- Traceability of each freezing cycle
- Pneumatic lift
- Maximum freezing efficiency
- Rollable, ready-to-plug in or external solution
- Able to freeze all types and different sized plasma bags
- Night storage control
- Easy-to-use interface
- Stainless steel plates
- Fast pre-cooling process
- Air cooled solutions

## Performance Curve



Core temperature of plasma reaches -30°C within 30mins

## Standard Parts List

| Picture | Description   | Basic Solution | Premium Solution | List of Configuration   | Features & Functions  |
|---------|---------------|----------------|------------------|---|---|
|         | Blast Freezer | ●              | ●                | 1. XSD-24FL Blast Freezer<br>2. Analog sensor × 1<br>3. User's Manual × 1<br>4. Plug-in power cord × 1<br>5. Host computer software × 1<br>6. Dummy bag × 2 | 1. Rapid freezing of plasma, defrosting and locking<br>2. Pulls down the central temperature of blood bag to -30°C within 30mins<br>3. Standard software for host computer, to support query and printing of refrigeration data |

## Optional Parts List

| Picture | Description   | Basic Solution | Premium Solution | List of Configuration               | Features & Functions  |
|---------|---------------|----------------|------------------|-------------------------------------|---|
|         | Scanner       | ●              | ●                | Wireless scanner × 1                | 1. Enables the user to input the barcode of blood bag<br>2. Wireless device for more convenient operation<br>3. Ensures accurate and quick scanning |
|         | Pallet Cart   | ●              | ●                | Pallet cart for plasma transfer × 1 | 1. Made of aluminum alloy sections, firm and durable<br>2. Universal wheels, for convenient operation   |
|         | Tray          | ●              | ●                | Tray for plasma transfer × 1        | 1. Made of aluminum to ensure high thermal conductivity<br>2. Put in and take out conveniently and effectively plasma by using the tray             |
|         | Analog Sensor | ●              | ●                | Analog sensor × 1                   | Supports the accurate regulation of blood bag   |
|         | Dummy Bag     | ●              | ●                | Dummy bag × 1                       | Equipped with internal temperature measuring tube, convenient for determining the temperature at the center of blood bag                            |

# Plasma Blast Freezer



XSD-24WFL

XSD-48WFL

Mainly intended for the quick-frozen treatment of blood plasma or biological samples to a core below -30°C in blood stations or medical institutions

| Model  | XSD-24FL   |
|--|--|
| Freezing Capacity (Plasma Bag)                   | 16 at 1000ml / 24 at 400ml / 40 at 200ml   |
| Freezing Plate Temperature (°C)                  | -59  |
| Storage Temperature (°C)                         | Manual Adjustment Between -30° to -50°   |
| Freezing Time to Core Temperature of -30 °C      | 24 unit (450ML) ±30min<br>16 unit (1000ML) ±45min  |
| Defrosting                                       | Integrated thermal defrosting, defrosting delay time about 10 minutes; Defrost for 15 minutes. |
| Noise Level (db(A))                              | ≤56  |
| Refrigerant Type                                 | R507   |
| Cooling Type                                     | Forced Air Cooling   |
| Operating Voltage Range                          | 3~380V~400V/50Hz(60Hz)   |
| Power (W)  | 7000   |
| Dimension of Indoor Machine (W*D*H)(mm)          | Open Status: 1455*915*1665<br>Close Status: 1455*915*1465                                      |
| Packing Demension of Indoor Machine (W*D*H)(mm)  | 1570*1000*1620   |
| Dimension of Outside Machine (W*D*H)(mm)         | /  |
| Packing Demension of Outdoor Machine (W*D*H)(mm) | /  |
| Net Weight of Indoor Machine(kg)/Gross Weight    | 480/540  |
| Net Weight of Outside Machine(kg)/Gross Weight   | /  |
| GWP  | 3985   |

## Ergonomic Design



### Flexible set up

The storage temperature, freezing time, and defrosting time can be flexibly set as required



### Electric lifting system

Height control is more accurate and quieter than pneumatic lifting system



### Simple operation

All pre-cooling, freezing, defrosting procedures are controlled by PLC control module, simple operation, avoid wrong operation, ensure plasma safety



### Password protection

Parameter setting is password protected to ensure plasma safety



### Rapid-freezing tray design

Rapid-freezing tray design, not only to improve the efficiency of plasma rapid-freezing, but also easy to save labor



### Friendly interface

Friendly interface display design, clearer temperature observation

# Plasma Blast Freezer

269/270

## Product Advantages

**Low rapid-freezing temperature**  
 Rapid-freezing temperature can be reduced to -60°C, superior performance

**Data is printable and the information traceable**  
 Plasma storage data and corresponding curves can be exported via USB, which is convenient for information traceability

**Precise temperature control, control precision 1°C**  
 PLC control module, the system is stable and reliable, temperature control precision 1°C, to ensure the safety of plasma

**Plate Rapid-Freezing, efficient Cooling**  
 The central temperature of full-load plasma can be quickly frozen to below -30°C within 45 minutes, which effectively guarantees the activity of factor VIII

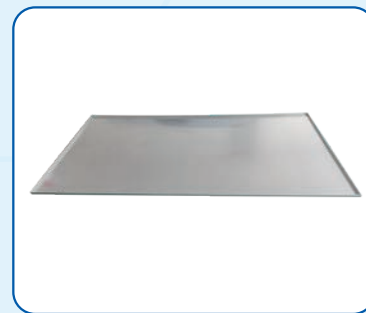
**Efficient core components, energy saving**  
 High efficiency compressor and dual-cooling system, better performance; Hydrocarbon refrigerant, energy saving and environmental protection



## Optional Accessories

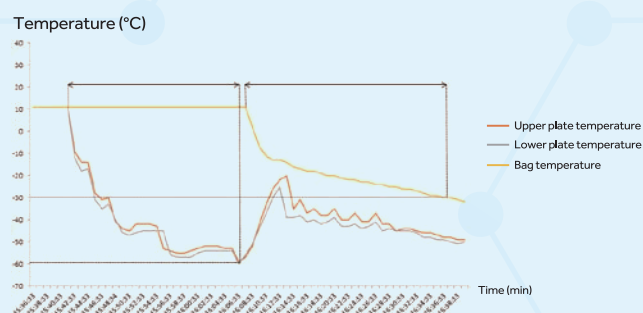


Trolley

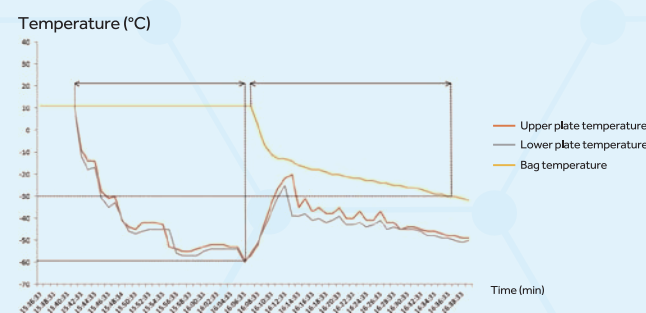


Tray

## Temperature Curve



XSD-24WFL



XSD-48WFL

| Model  | XSD-24WFL  | XSD-48WFL  |
|--|--|--|
| Freezing Capacity (Plasma Bag)                   | 16 at 1000ml /24 at 400ml /40 at 200ml   | 32 at 1000ml /48 at 400ml /80 at 200ml   |
| Freezing Plate Temperature (°C)                  | -59  | -59  |
| Storage Temperature (°C)                         | Manual Adjustment Between -30° to -50°   | Manual Adjustment Between -30° to -50°   |
| Freezing Time to Core Temperature of -30 °C      | 24 unit (450ML) ±30min<br>16 unit (1000ML) ±45min  | 48 unit (450ML) ±30min<br>32 unit (1000ML) ±45min  |
| Defrosting                                       | Integrated thermal defrosting, defrosting delay time about 10 minutes; Defrost for 15 minutes. | Integrated thermal defrosting, defrosting delay time about 10 minutes; Defrost for 15 minutes. |
| Noise Level (db(A))                              | ≤40  | ≤40  |
| Refrigerant Type                                 | R507   | R507   |
| Cooling Type                                     | Forced Air Cooling   | Forced Air Cooling   |
| Operating Voltage Range                          | 3-380V/50Hz(60Hz)  | 3-380V/50Hz(60Hz)  |
| Power (W)  | 7000   | 14000  |
| Dimension of Indoor Machine (W*D*H)(mm)          | Open Status: 1455*915*1665<br>Close Status: 1455*915*1465                                      | 2040*880*1895mm  |
| Packing Dimension of Indoor Machine (W*D*H)(mm)  | 1570*1000*1620   | 2205*1105*2100   |
| Dimension of Outdoor Machine (W*D*H)(mm)         | 1340*760*1640  | 1340*760*1640  |
| Packing Dimension of Outdoor Machine (W*D*H)(mm) | 1595*910*1998  | 1595*910*1998  |
| Net Weight of Indoor Machine(kg)/Gross Weight    | 320/380  | 640/720  |
| Net Weight of Outdoor Machine(kg)/Gross Weight   | 360/410  | 360*2/410*2  |
| GWP  | 3985   | 3985   |



# Platelet Incubator with Agitator

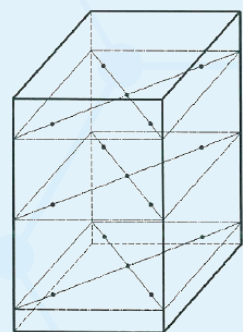
This incubator includes an integrated platelet agitator and is designed to create the optimal storage environment of platelets after collection. Suitable for hospitals, blood stations and research applications.



HXZ-149

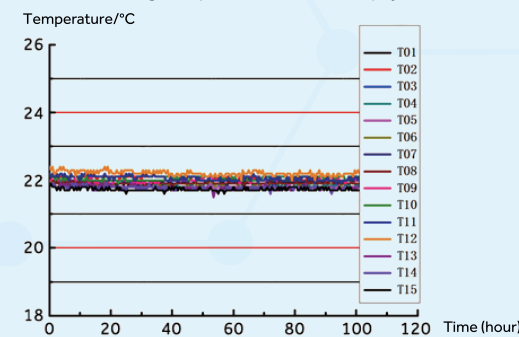
HXZ-1369

## Product Performance



HXZ-149 15 test points

HXZ-149 Running temperature curve (Empty loaded)



Temperature uniformity: 22±1°C  
Single point temperature fluctuation < 0.5°C

## Product Advantages

**Data Traceability**

- Real-time temperature monitoring, records and stores historical data, alarm records and events
- USB interface, convenient and safe data transfer

**Energy Saving**

Peltier technology, PID algorithm adjustment, energy saving 13% than the traditional compressor

**Multiple Alarms**

Multiple alarms including high and low temperature alarm, power failure alarm, sensor failure alarm, door ajar alarm, low battery alarm, abnormal alarm of oscillating motor, remote alarm ensures maximum safety

**Superior Insulation Performance**

60mm thickened foam layer. In the event of a power failure within a 25°C ambient and a full load, the warm up time from 22°C to 24°C in the center of the chamber is more than 4 hours

**Reliable Oscillation**

The agitator mechanism is equipped with an alarm and calibration device to ensure platelet quality

**Peltier Technology**

Semiconductor temperature control, internal temperature is maintained at 22°C±1°C

**Low Noise**

Semiconductor and EBM oscillating motor provide a quiet working environment

**Ultraviolet Disinfection**

The UV disinfection function helps maintain a sterile environment

**Variable Agitation Speed control from Touch Screen**

Adjust Oscillation Frequency (30-100 cycles/minute) to meet the customer needs

**Robust Structure**

Internal material is stainless steel 304 and External material is powder coated cold-roll steel sheets without sharp edges, easy to disinfect

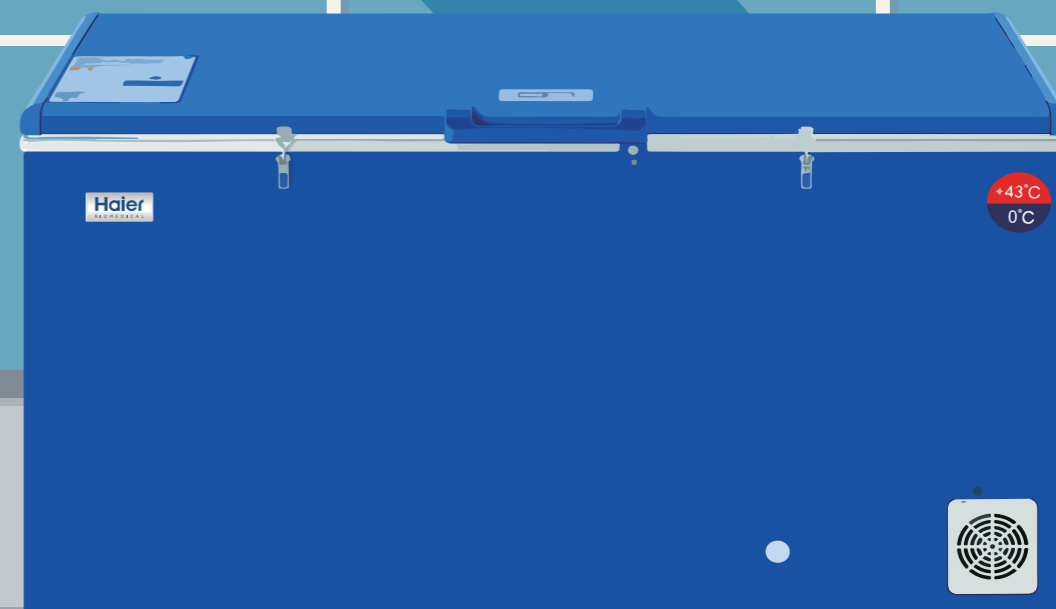
## Specifications

| Model           |   | HXZ-149   | HXZ-1369  |                |
|-----------------|---|---|---|----------------|
| Performance     | Temperature Range (°C)                    | 20~24   | 20~24   |                |
|                 | Ambient Temperature (°C)                  | 10~32   | 10~32   |                |
|                 | Amplitude                                 | 50±5mm Amplitude  | 50±5mm Amplitude  |                |
|                 | Display Accuracy (°C)                     | 0.1   | 0.1   |                |
|                 | Noise                                     | 50  | 55  |                |
|                 | Variable Agitation Speed (cycles/min)     | 30~80   | 30~80   |                |
| Control         | Controller                                | Microprocessor  | Microprocessor  |                |
|                 | System Temperature Control                | Peltier Technology (Semi-Conductor Heating and Cooling) | Peltier Technology (Semi-Conductor Heating and Cooling) |                |
| Electrical Data | Display                                   | LCD   | LCD   |                |
|                 | Power Supply (V/Hz)                       | 200-240/50  | 200-240/50  |                |
| Dimensions      | Power (W)                                 | 300   | 1500  |                |
|                 | Capacity (L/Cu.Ft)                        | 149/5.26  | 1369/48.35  |                |
|                 | Blood Storage Capacity (300ml Blood Bags) | 36  | 216   |                |
|                 | Net/Gross Weight (approx)                 | kg  | 94/122  | 412/480        |
|                 |   | lbs   | 207/269   | 908/1058       |
|                 | Interior Dimensions (W*D*H)               | mm  | 505*560*610   | 1425*680*1455  |
|                 |   | in  | 19.8*22*24  | 56.1*26.8*57.3 |
|                 | Exterior Dimensions (W*D*H)               | mm  | 625*795*1050  | 1545*915*1945  |
|                 |   | in  | 24.6*31.3*41.3  | 60.8*36*76.6   |
|                 | Packing Dimensions (W*D*H)                | mm  | 718*815*1228  | 1610*995*2090  |
| in              |   | 28.3*36.2*48  | 63.4*39.2*82.08   |                |
| Alarms          | Container Load (20'/40'/40'H)             | 18/38/76  | 7/14/14   |                |
|                 | High/Low Temperature                      | Y   | Y   |                |
|                 | Power Failure                             | Y   | Y   |                |
|                 | Sensor Error                              | Y   | Y   |                |
|                 | Low Battery                               | Y   | Y   |                |
|                 | Door Ajar                                 | Y   | Y   |                |
|                 | Remote Alarm                              | Y   | Y   |                |
|                 | Abnormal Oscillation Motor Alarm          | Y   | Y   |                |
|                 | Accessories                               | Caster  | Y   | Y              |
|                 |   | Foot  | Y   | Y              |
| Porthole        |   | Y   | Y   |                |
| Baskets         |   | N   | N   |                |
| Shelves/Drawers |   | 8   | 18  |                |
| Inner Doors     |   | N   | N   |                |
| Others          | USB Interface                             | Y   | Y   |                |
|                 | IoT Function                              | Optional  | Optional  |                |
| Others          | Certification                             | CE  | CE  |                |



Follow the QR code and learn more about the Platelet Incubator with Agitator from Haier Biomedical

# Vaccine Storages



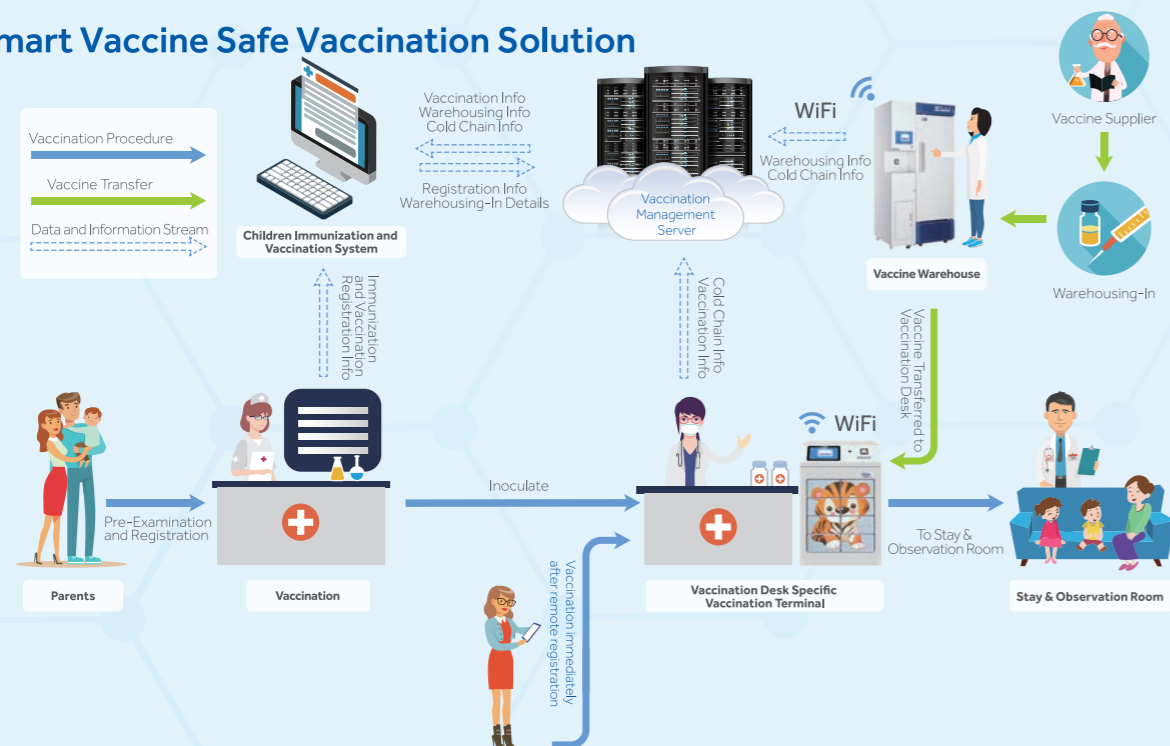
# Smart Vaccine Refrigerator

## Haier Smart Vaccine

Haier Biomedical developed the Smart Vaccination Solution, by improving the conventional vaccination process, adopting advanced refrigeration technology, automation and intelligent vaccine delivery by incorporating IoT technologies. By connecting and leveraging the existing digital outpatient service system, the vaccination process can be managed as follows:

- After the vaccination record is scanned, the IoT based vaccination refrigerator will automatically and immediately eject the required vaccine.
- A 'double check' scan of the medical code to confirm a "Correct" & "Valid" vaccine prior to patient administration.
- Standardised vaccination process produces zero error.
- The vaccination records will be uploaded in real-time to the system. Records are traceable, making it possible to trace a specific vaccine code back to a specific child.

## Smart Vaccine Safe Vaccination Solution



## Safe, Worry-free and Intelligent Vaccine Management

### 3 Key Advantages

- Right patient-vaccine information management system (VIMS) confirms correct patient required for the vaccination
- Right vaccine-vaccine is automatically selected and delivered and double-checked by VIMS to ensure right medicine can and should be administered
- Exchange of vaccine, child and vaccination information, end-to-end visibility and transparency, plus immediate freezing of vaccines upon expiration or in question, ensure the high reliability of the vaccination programme.

## Smart Vaccine Storage Solution

Vaccine storage management is an essential step to ensure vaccine safety. However, most of the vaccine storage refrigerators used by the vaccination stations are household refrigerators or ordinary medical refrigerators, without storage management functions, making it difficult to operate a first-in-first-out methodology. Haier's intelligent vaccine preservation refrigerator solves the problem of manual (pen and paper) vaccine management, which is time-consuming and laborious.

## Smart Vaccine Refrigerator

Smart Vaccine Preservation Refrigerator and Smart Vaccination Refrigerator are provided with a VIMS (Vaccine Information Management System) software to improve the vaccination experience.

- 1 Smart Vaccine Preservation Refrigerator can improve the work efficiency of nurses by removing manual inventory-taking and warehouse operations by leveraging the classification based storage, electronic regulatory code based management, data and information stream management.



HYC-361

### Classification based storage

Each standard refrigerator is provided with 21 compartments in 7 layers. Each compartment can distinguish different lots of vaccines by applying specific first-in-first-out rules. Different kinds of vaccines can be stored upon such classification to effectively reduce the errors during the warehousing-in / out operations.



### The smallest package units

The warehousing-in/out operations are verified based on the electronic regulatory codes to realize the full digitalization and automation of vaccine management, and guarantee the accuracy and validity of vaccine storage data.



### Data and information streams

The data can be exchanged quickly between the vaccine warehouse and the vaccination desk. Vaccination program manager or disease control centre manager utilizes the vaccination management server, to monitor in real-time all vaccines stored by each vaccination station/centre.



- 2 The Smart Vaccination Refrigerator, used at vaccination stations, can reduce the workload of nurses during the dispensing and checking of vaccines. The automated accurate vaccine dispensing, minimum temperature fluctuation, reconfirmation of vaccine information, electronic information system, integrated nurse station and other functions ensure zero vaccination error.



HYC-61

### Automated accurate vaccine dispensing

The vaccine will be ejected automatically after the Vaccination Record is scanned. The Regulatory Code will be scanned automatically to reconfirm the information of vaccine, including the inventory, expiration dates and cold chain early warnings. The time of dispensing can be shortened, and the rate of vaccination errors can be reduced effectively.



### Reduce temperature fluctuation

The refrigerator is divided into 8 independent chambers, and the small door of each chamber can be opened for taking out the vaccine required as quick as possible, to minimize the door opening time. The internal temperature fluctuation can be minimized to ensure the safe storage of vaccines.



### A Double Check

The warehousing-in/out and dispensing of vaccines can be verified by using the electronic regulatory codes. The vaccination can be conducted only after the vaccine to be used is verified by scanning the code. This function can guarantee the accurate vaccination effectively.



### Integrated nurse workstation

The queue management, vaccination management, vaccination information input, real-time cold chain control and authorization management are integrated into the vaccination desk vaccine refrigerator. Multiple tasks are centralized to streamline the overall management.



## Specifications

|                               | Model   | HYC-61                 | HYC-361              | HYC-361 Scanner Cabinet |              |
|-------------------------------|---|------------------------|----------------------|-------------------------|--------------|
| Technical Data                | Cabinet Type  | Upright                | Upright              | Upright                 |              |
|                               | Climate Class                                       | N                      | N                    | N                       |              |
|                               | Cooling Type  | Forced Air Cooling     | Forced Air Cooling   | /                       |              |
|                               | Defrost Mode  | Manual+ Auto defrost   | Manual+ Auto defrost | /                       |              |
|                               | Refrigerant   | HC                     | HC                   | /                       |              |
|                               | Sound Level (dB (A))                                | ≤41                    | ≤41                  | /                       |              |
| Performance                   | Temperature Range (°C)                              | 2-8                    | 2-8                  | /                       |              |
|                               | Controller  | Microprocessor         | Microprocessor       | /                       |              |
|                               | Display   | 10.1 inch touch screen | /                    | 10.1 inch touch screen  |              |
| Electrical Data               | Power Supply (V/Hz)                                 | 220/50                 | 220/50               | /                       |              |
|                               | Power (W)   | 230                    | 254                  | /                       |              |
|                               | Electrical Current (A)                              | 1.5                    | 1.6                  | /                       |              |
|                               | Power Consumption (kWh/24h)                         | 1.8                    | 1.5                  | /                       |              |
| Dimensions                    | Capacity (L/Cu.Ft)                                  | 61/2.15                | 361/12.75            | /                       |              |
|                               | Net/Gross Weight (approx)                           | kg                     | 80/90                | 116/139                 | 36/42        |
|                               |   | lbs                    | 176/198              | 255.7/306.4             | 79.2/92.4    |
|                               | Interior Dimensions (W*D*H)                         | mm                     | 560*460*630          | 530*555*1380            | /            |
|                               |   | in                     | 22*18.1*24.8         | 20.8*21.9*54.3          | /            |
|                               | Exterior Dimensions (W*D*H)                         | mm                     | 600*600*935          | 980*680*1980            | 315*710*1965 |
|                               |   | in                     | 23.5*22.6*37.1       | 38.6*26.8*78            | 12.4*28*77.4 |
| Packing Dimensions (W*D*H)    | mm  | 670*660*1110           | 1055*755*2110        | 420*744*2042            |              |
| in                            | 26.4*26*43.7  | 41.6*29.8*83.1         | 16.5*29.3*80.4       |                         |              |
| Container load (20'/40'/40'H) |   | 54/102/102             | 23/46/46             | /                       |              |
|                               | High/Low Temperature                                | Y                      | Y                    | /                       |              |
| Alarms                        | Remote Alarm  | Y                      | Y                    | /                       |              |
|                               | Power Failure                                       | Y                      | Y                    | /                       |              |
|                               | Sensor Error  | Y                      | Y                    | /                       |              |
|                               | Door Ajar   | /                      | Y                    | /                       |              |
|                               | Caster  | Y                      | Y                    | /                       |              |
| Accessories                   | Foot  | Y                      | Y                    | /                       |              |
|                               | Porthole  | /                      | Y                    | /                       |              |
|                               | Shelves/Drawers                                     | Y                      | Y                    | /                       |              |
|                               | USB Interface                                       | /                      | Y                    | /                       |              |
|                               | Registration certification for medical equipment CE | Y                      | Y                    | /                       |              |
| Others                        |   | Y                      | Y                    | /                       |              |

# Solar Direct Drive Combined Refrigerator/Freezer

277/278

The combined refrigerator with freezer is designed to store vaccines, reagents and to freeze ice packs. Suitable for remote and sunny regions where power shortages are common. Freezers are only designed to freeze the ice packs and not applicable for the storage of vaccines.



HTCD-160B

## Product Features



### Safety System

- Sensor error alarm, high and low temperature alarm
- Alarm mode: sound buzzer alarm and light flashing alarm
- Key components such as compressors and fans are designed for purpose to ensure the reliability and safety of stored items



### Superior Performance

- Complies with WHO PQS specification Vaccine freeze protection classification: Grade A
- Low temperature thermal compensation to prevent vaccine freezing
- 140mm insulation provides excellent thermal efficiency
- Broad working ambient temperature range of 5~43°C, outstanding performance
- Double door sealing strips design and adjustable door lock catch to ensure superior insulation performance



### Temperature Control

- Electronic temperature controller, digital temperature display, the display precision is 0.1°C and the control range is 2~8°C
- Solar energy temperature display indicates clearly the internal temperature.



### Shelves

- Equipped with 2 plastic dipping shelves (refrigerator), with large packing volume to meet different requirements



### Casters and feet

- 4 one-way casters +2 bottom feet for easy movement and leveling.

## Product Advantages



### Environmental Protection

- Ultra low GWP value
- Without any battery
- Environmentally friendly hydrocarbon refrigerant R600a and foam material LBA
- The shell is coated with cold rolled steel plate, and the inner liner is made of 1.0mm alumina, easy to recycle



### Ergonomic Design

- Safety door lock
- Intelligent control
- Low DC voltage ensures personal safety
- The height of the temperature display screen is moderate, and the inner temperature can be checked at any time
- Plug-and-play type quick plug, positive and negative pole error-proof
- Built-in handgrips on both sides of the cabinet facilitate overall movement
- The waterpack freezing capacity is 2.0kg/24h, meeting the daily requirement



### Durable Construction Materials

- Interior is made of aluminum oxide, the exterior is coated with cold rolled steel plate, easy to clean and corrosion-resistant



### 30-Day Electronic Temperature Logger

- Easy to view data with a recording capacity of up to 30 days



### Door Design

- Outer door: foamed outer door, dual sealing strips, good insulation performance
- Inner door: high density PE foamed inner door effectively reduces cold loss

## Specifications



| Model                  |  | HTCD-160B                      |   |
|------------------------|--|--------------------------------|---|
| Technical Data         | Cabinet Type   | Upright                        |   |
|                        | Ambient Temperature (°C)   | 5-43                           |   |
|                        | Cooling Type   | Direct cooling                 |   |
|                        | Defrost Mode   | Manual                         |   |
|                        | Refrigerant  | HC                             |   |
|                        | Sound Level (dB(A))  | < 38                           |   |
| Performance            | Temperature Range (°C)   | Freezer ≤-10 Refrigerator: 2-8 |   |
|                        | Controller   | Microprocessor                 |   |
|                        | Display  | Solar LCD Temperature Display  |   |
|                        | Power supply (V)   | 24                             |   |
| Control                | Maximal Current (A)  | 6                              |   |
|                        | Energy Consumption: stable running (KWh/24h)                       | 0.99                           |   |
| Electrical Data        | Energy Consumption: cool down test (KWh/24h)                       | 1.1                            |   |
|                        | Holdover time at 43°C  | /                              |   |
|                        | Holdover time at 32°C  | 230hrs10mins                   |   |
|                        | Autonomy Time at 43°C  | 139hrs27mins                   |   |
|                        | Autonomy Time at 32°C  | /                              |   |
|                        | At a Solar Radiation Reference Period of (kwh/m <sup>2</sup> /day) | 3.5                            |   |
|                        | Vaccine Storage Capacity (L/Cu.Ft)                                 | 100/3.5                        |   |
| Gross Volume (L/Cu.Ft) | Refrigerator: 120/4.2 Freezer:40/1.4                               |                                |   |
| Construction           | Net/Gross Weight (approx)  | kg                             | 150/186   |
|                        |  | lbs                            | 330/410   |
|                        | Interior Dimensions (W*D*H)  | mm                             | Cooling Chamber: 545*500*530<br>Freezer Chamber: 560*520*150      |
|                        |  | in                             | Cooling Chamber: 21.5*19.7*20.9<br>Freezer Chamber: 22.0*20.5*5.9 |
|                        | Exterior Dimensions (W*D*H)  | mm                             | 865*825*1695  |
|                        |  | in                             | 34.1*32.6*66.9  |
|                        | Packing Dimensions (W*D*H)   | mm                             | 985*920*1860  |
|                        |  | in                             | 38.8*36.2*73.2  |
|                        | Waterpack Storage Capacity(kg)                                     | 22.4                           |   |
|                        | Waterpack Freezing Capacity(kg/24h)                                | 2                              |   |
| Loading Quantities     | Container Load (20'/40'/40'H)                                      | 12/24/24                       |   |
| Alarm                  | High/Low Temperature   | Y                              |   |
|                        | Sensor Error   | Y                              |   |
| Accessories            | Baskets  | /                              |   |
|                        | Shelves  | 2 (Part)                       |   |
| Others                 | CE, WHO/PQS  | Y                              |   |

# Solar Direct Drive Combined Refrigerator/Freezer

279/280

The combined refrigerator with freezer is designed to store vaccines, reagents and to freeze ice packs. Suitable for remote and sunny regions where power shortages are common. Freezers are only designed to freeze the ice packs and not applicable for the storage of vaccines.



HTCD-90



### Temperature Control

- Electronic temperature controller, digital temperature display, the display precision is 0.1°C and the control range is 2-8°C
- Solar energy temperature display system, without battery



### High Performance

- Complies with WHO PQS specification E003
- Vaccine freeze protection classification: Grade A
- Low temperature thermal compensation to prevent vaccine freezing
- 140mm insulation provides excellent thermal efficiency
- Broad working ambient temperature range of 5-43°C, outstanding performance
- Internal and external double-door designs to ensure superior insulation performance



### Ergonomic Design

- Intelligent control
- The height of the temperature display screen is moderate, and the inner temperature can be checked at any time
- Safety door lock
- Low DC voltage ensures personal safety
- Plug-and-play type quick plug, positive and negative pole error-proof
- External door handle with door lock design to prevent random opening of the door to ensure vaccine safety
- Built-in handgrips on both sides of the cabinet facilitate overall movement
- The waterpack freezing capacity is 2.4kg/24h, meeting the daily requirement



### Safety System

- Sensor error alarm, high and low temperature alarm
- Alarm mode: sound buzzer alarm and light flashing alarm
- Key components such as compressors and fans are designed for purpose to ensure the reliability and safety of stored items



### Environmental Protection

- Environmentally friendly hydrocarbon refrigerant R600a and foam material LBA
- The shell is coated with cold rolled steel plate, and the inner liner is made of 1.0mm alumina, easy to recycle
- Ultra low GWP value
- Without any battery



### Specifications

| Model                               |  | HTCD-90   |   |
|-------------------------------------|--|---|---|
| Technical Data                      | Cabinet Type   | Chest   |   |
|                                     | Ambient Temperature (°C)   | 5-43  |   |
|                                     | Cooling Type   | Direct Cooling  |   |
|                                     | Defrost Mode   | Manual  |   |
|                                     | Refrigerant  | HC  |   |
|                                     | Sound Level (dB (A))   | < 38  |   |
| Performance                         | Temperature Range (°C)   | Freezer ≤-10 Refrigerator: 2-8                        |   |
| Control                             | Controller   | Microprocessor  |   |
|                                     | Display  | Solar LCD Temperature Display                         |   |
| Electrical Data                     | Power supply(V)  | 24  |   |
|                                     | Maximal Current(A)   | 7   |   |
|                                     | Energy Consumption: stable running (KWh/24h)                       | 0.858   |   |
|                                     | Energy Consumption: cool down test (KWh/24h)                       | 0.81  |   |
|                                     | Holdover time at 43°C  | 137hrs47mins  |   |
|                                     | Holdover time at 32°C  | 169hrs6mins   |   |
|                                     | Autonomy Time at 43°C  | 114hrs 56mins   |   |
|                                     | Autonomy Time at 32°C  | /   |   |
| Construction                        | At a Solar Radiation Reference Period of (kwh/m <sup>2</sup> /day) |   | 3.5   |
|                                     | Vaccine Storage Capacity (L/Cu.Ft)                                 |   | 37.5/1.3  |
|                                     | Gross Volume (L/Cu.Ft)   |   | Refrigerator: 58/2.1 Freezer:32/1.1                               |
|                                     | Net/Gross Weight (approx)  | kg  | 83/113  |
|                                     |  | lbs   | 183.0/250.0   |
|                                     | Interior Dimensions (W*D*H)  | mm  | Cooling Chamber: 270*345*555<br>Freezer Chamber: 170*370*555      |
|                                     |  | in  | Cooling Chamber: 10.6*13.6*21.9<br>Freezer Chamber: 6.7*14.6*21.9 |
|                                     | Exterior Dimensions (W*D*H)  | mm  | 1128*654*875  |
|                                     |  | in  | 44.4*25.7*34.3  |
|                                     | Packing Dimensions (W*D*H)   | mm  | 1190*770*1080   |
|                                     |  | in  | 46.9*30.3*42.5  |
|                                     | Container Load (20'/40'/40'H)                                      |   | 26/56/56  |
| Waterpack Storage Capacity(kg)      |  | 12.52   |   |
| Waterpack Freezing Capacity(kg/24h) |  | 2.43  |   |
| Alarm                               | High/Low Temperature   | Y   |   |
|                                     | Sensor Error   | Y   |   |
| Accessories                         | Baskets  | 2 (Refrigerator Parts) & 2 Ice Holder (Freezer Parts) |   |
|                                     | Shelves  | /   |   |
| Others                              | CE, WHO/PQS  | Y   |   |

# Solar Direct Drive Vaccine Refrigerator

Applicable for the storage of biological products and items that need to be stored under the condition of 2-8°C within pharmacies, pharmaceutical factories, epidemic prevention stations, health centers and hospitals as key examples.



HTC-40/110/112



## Temperature Control

- Electronic temperature controller, digital temperature display, the display precision is 0.1°C and the control range is 2°C~8°C
- Solar power temperature display system, without battery



## Ergonomic Design

- Intelligent control
- The height of the temperature display screen is moderate, and the inner temperature can be checked at any time
- Safety door lock
- Low DC voltage ensures personal safety
- Plug-and-play type quick plug, positive and negative pole error-proof
- External door handle with door lock design to prevent random door to ensure vaccine safety
- Built-in handgrips on both sides of the box body facilitate overall movement



## Superior Performance

- Complies with WHO PQS specification E003
- Vaccine freeze protection classification: Grade A
- Excellent hold-over times ensure the safety of vaccines
- Low temperature thermal compensation to prevent vaccine freezing
- 140mm insulation provides excellent thermal efficiency
- Wide working ambient temperature range of 5°C ~43°C
- Internal and external double door design, better thermal insulation performance



## Safety System

- Sensor error alarm, high and low temperature alarm
- Alarm mode: sound buzzer alarm and light flashing alarm
- Key components like compressors and fans are designed for purpose to ensure reliability and safety of stored items



## Environmental Protection

- Environmentally friendly hydrocarbon refrigerant R600a and foam material LBA
- The shell is coated with cold rolled steel plate, and the inner liner is made of 1.0mm alumina, which is easy to recycle
- Ultra low GWP value
- Without any battery

## Specifications



| Model  |  | HTC-40  | HTC-110                       | HTC-112                       |                |
|--|--|---|-------------------------------|-------------------------------|----------------|
| Technical Data   | Cabinet Type                                 | Chest   | Chest                         | Chest                         |                |
|  | Ambient Temperature (°C)                     | 5-43  | 5-43                          | 5-43                          |                |
|  | Cooling Type                                 | Direct Cooling  | Direct Cooling                | Direct Cooling                |                |
|  | Defrost Mode                                 | /   | /                             | /                             |                |
|  | Refrigerant                                  | HC  | HC                            | HC                            |                |
|  | Sound Level (dB (A))                         | < 30  | < 30                          | < 30                          |                |
| Performance  | Temperature Range (°C)                       | 2-8   | 2-8                           | 2-8                           |                |
| Control  | Controller                                   | Microprocessor  | Microprocessor                | Microprocessor                |                |
|  | Display                                      | Solar LCD Temperature Display                         | Solar LCD Temperature Display | Solar LCD Temperature Display |                |
| Electrical Data  | Power supply(V)                              | 24  | 24                            | 24                            |                |
|  | Maximal Current(A)                           | 5   | 5                             | 5                             |                |
|  | Energy Consumption: stable running (KWh/24h) | 0.688   | 0.58                          | 0.59                          |                |
|  | Energy Consumption: cool down test (KWh/24h) | 0.71  | 0.62                          | 0.62                          |                |
|  | Holdover time at 43°C                        | 122hrs18mins  | 106hrs17mins                  | /                             |                |
|  | Holdover time at 32°C                        | 162hrs36mins  | 152hrs28mins                  | /                             |                |
|  | Autonomy Time at 43°C                        | 117hrs18mins  | 96hrs24mins                   | 92hrs46mins                   |                |
| Autonomy Time at 32°C  | /  | /   | 145hrs29mins                  |                               |                |
| At a Solar Radiation Reference Period of (kwh/m <sup>2</sup> /day) |  | 3.5   | 3.5                           | 3.5                           |                |
| Vaccine Storage Capacity (L/Cu.Ft)                                 |  | 22.5/0.8  | 59/2.08                       | 75/2.65                       |                |
| Gross Volume (L/Cu.Ft)   |  | 40/1.4  | 110/3.88                      | 110/3.88                      |                |
| Construction   | Net/Gross Weight (approx)                    | kg  | 55/82                         | 69/105                        | 69/105         |
|  |  | lbs   | 125.6/180.7                   | 165/231.5                     | 165/231.5      |
|  | Interior Dimensions (W*D*H)                  | mm  | 200*345*555                   | 545*345*555                   | 545*345*555    |
|  |  | in  | 7.9*13.6*21.9                 | 21.5*13.6*21.9                | 21.5*13.6*21.9 |
|  | Exterior Dimensions (W*D*H)                  | mm  | 788*654*875                   | 1128*654*875                  | 1128*654*875   |
|  |  | in  | 31.0*25.7*34.4                | 44.4*25.7*34.4                | 44.4*25.7*34.4 |
| Packing Dimensions (W*D*H)   | mm   | 850*770*1080  | 1190*770*1080                 | 1190*770*1080                 |                |
|  | in   | 33.4*30.3*42.5  | 46.9*30.3*42.5                | 46.9*30.3*42.5                |                |
| Container Load (20'/40'/40'H)                                      |  | 36/78/78  | 26/56/56                      | 26/56/56                      |                |
| Alarm  | High/Low Temperature                         | Y   | Y                             | Y                             |                |
|  | Sensor Error                                 | Y   | Y                             | Y                             |                |
| Accessories  | Baskets                                      | 2 (Refrigerator Parts) & 2 Ice Holder (Freezer Parts) | 4                             | 4                             |                |
|  | Shelves                                      | /   | /                             | /                             |                |
| Others   | CE,WHO/PQS                                   | Y   | Y                             | Y                             |                |

# Solar Direct Drive Vaccine Refrigerator

283/284

Applicable for the storage of vaccines and reagents within clinics, health centres, hospitals, public health and research organisations in remote and sunny regions where power shortages are common.



HTC-120

HTC-240



### Ergonomic Design

- Intelligent control
- High performance insulation with superior thermal efficiency
- Safety door lock
- Low DC voltage ensures personal safety



### Temperature Control

- Electronic temperature controller, digital temperature display, the display precision is 0.1°C and the control range is 2°C-8°C
- Low temperature thermal compensation to prevent vaccine freezing



### Safe and Reliable

- Plug-and-play type quick plug, positive and negative pole error-proof
- Without battery



### Superior Insulation Performance

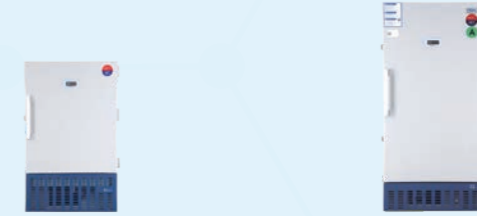
- Complies with WHO PQS specification E003
- Excellent autonomy time ensures the safety of vaccines
- 140mm insulation provides excellent thermal efficiency
- Broad working ambient temperature range of 5-43°C
- Door construction, seals and door handles maximizes door sealing effectiveness to reduce thermal loss



### Safety System

- Sensor error alarm, high and low temperature alarm
- Alarm mode: sound buzzer alarm and light flashing alarm
- Key components like compressors and fans are designed for purpose to ensure reliability and safety of stored items

## Specifications



| Model                         |  | HTC-120                       | HTC-240                       |                |
|-------------------------------|--|-------------------------------|-------------------------------|----------------|
| Technical Data                | Cabinet Type   | Upright                       | Upright                       |                |
|                               | Ambient Temperature (°C)   | 5-43                          | 5-43                          |                |
|                               | Cooling Type   | Direct Cooling                | Direct Cooling                |                |
|                               | Defrost Mode   | /                             | /                             |                |
|                               | Refrigerant  | HC                            | HC                            |                |
|                               | Sound Level (dB (A))   | ≤43                           | ≤43                           |                |
| Performance                   | Temperature Range (°C)   | 2-8                           | 2-8                           |                |
| Control                       | Controller   | Microprocessor                | Microprocessor                |                |
|                               | Display  | Solar LCD Temperature Display | Solar LCD Temperature Display |                |
| Electrical Data               | Power supply (V)   | 24                            | 24                            |                |
|                               | Maximal Current (A)  | 5                             | 5                             |                |
|                               | Energy Consumption: stable running (KWh/24h)                       | 0.44                          | 0.35                          |                |
|                               | Energy Consumption: cool down test (KWh/24h)                       | 0.48                          | 0.54                          |                |
|                               | Holdover time at 43°C  | /                             | /                             |                |
|                               | Holdover time at 32°C  | /                             | /                             |                |
|                               | Autonomy Time at 43°C  | 112Hrs24mins                  | 95Hrs23mins                   |                |
|                               | Autonomy Time at 32°C  | 183hrs20mins                  | 151hrs10mins                  |                |
|                               | At a Solar Radiation Reference Period of (kwh/m <sup>2</sup> /day) | 3.5                           | 3.5                           |                |
| Construction                  | Vaccine Storage Capacity (L/Cu.Ft)                                 | 100/3.5                       | 200/7.1                       |                |
|                               | Gross Volume (L/Cu.Ft)   | 120/4.2                       | 240/8.5                       |                |
|                               | Net/Gross Weight (approx)  | kg                            | 130/160                       | 150/185        |
|                               |  | lbs                           | 286/352                       | 330/407.9      |
|                               | Interior Dimensions (W*D*H)  | mm                            | 530*500*530                   | 530*500*960    |
|                               |  | in                            | 20.9*19.7*20.9                | 20.9*19.7*37.8 |
|                               | Exterior Dimensions (W*D*H)  | mm                            | 865*825*1422                  | 865*825*1815   |
|                               |  | in                            | 34*32*56                      | 34*32*71       |
|                               | Packing Dimensions (W*D*H)   | mm                            | 980*920*1585                  | 980*920*1980   |
| in                            |  | 38.6*36.2*62.4                | 38.6*36.2*78                  |                |
| Container Load (20'/40'/40'H) |  | 12/24/24                      | 12/24/24                      |                |
| Alarm                         | High/Low Temperature   | Y                             | Y                             |                |
|                               | Sensor Error   | Y                             | Y                             |                |
| Accessories                   | Baskets  | /                             | /                             |                |
|                               | Shelves  | 3                             | 4                             |                |
| Others                        | CE, WHO/PQS  | Y                             | Y                             |                |

# Ice Pack Freezer

This product is designed to freeze ice packs in remote and sunny regions where power shortages are common.



## Specifications



| Model           |  | HTD-40                        |   |
|-----------------|--|-------------------------------|---|
| Technical Data  | Cabinet Type   | Chest                         |   |
|                 | Ambient Temperature (°C)   | ≤43                           |   |
|                 | Cooling Type   | Direct Cooling                |   |
|                 | Defrost Mode   | Manual                        |   |
|                 | Refrigerant  | HC                            |   |
| Performance     | Sound Level (dB (A))   | <30                           |   |
|                 | Temperature Range (°C)   | < -10                         |   |
| Control         | Controller   | Microprocessor                |   |
|                 | Display  | Solar LCD Temperature Display |   |
| Electrical Data | Power supply (V)   | 24                            |   |
|                 | Maximal Current (A)  | 5                             |   |
|                 | Energy Consumption: stable running (KWh/24h)                       | 0.46                          |   |
|                 | Energy Consumption: cool down test (KWh/24h)                       | 0.50                          |   |
|                 | Holdover time at 43°C  | /                             |   |
|                 | Holdover time at 32°C  | /                             |   |
|                 | Autonomy Time at 43°C  | /                             |   |
|                 | Autonomy Time at 32°C  | /                             |   |
|                 | At a Solar Radiation Reference Period of (kwh/m <sup>2</sup> /day) | 3.5                           |   |
|                 | Vaccine Storage Capacity (L/Cu.Ft)                                 | /                             |   |
| Construction    | Gross Volume (L/Cu.Ft)   | 48/1.7                        |   |
|                 | Net/Gross Weight (approx)  | kg                            | 65/85   |
|                 |  | lbs                           | 143.0/187.4   |
|                 | Interior Dimensions (W*D*H)  | mm                            | Cooling chamber: 135*370*310<br>Freezer chamber: 265*370*555      |
|                 |  | in                            | Cooling chamber: 3.3*14.6*12.2<br>Freezer chamber: 10.4*14.6*21.9 |
|                 | Exterior Dimensions (W*D*H)  | mm                            | 788*654*875   |
|                 |  | in                            | 31.0*25.7*34.3  |
|                 | Packing Dimensions (W*D*H)   | mm                            | 850*770*1080  |
|                 |  | in                            | 33.4*30.3*42.5  |
|                 | Container Load (20'/40'/40'H)                                      | 36/78/78                      |   |
| Alarm           | High/Low Temperature   | N                             |   |
|                 | Sensor Error   | Y                             |   |
| Accessories     | Baskets  | 2                             |   |
|                 | Shelves  | /                             |   |
| Others          | CE, WHO/PQS  | Y                             |   |

- ### High Performance
- Complies with WHO PQS specification E003
  - Equipped with ice pack pressing device, enabling the ice-pack plastered to the liner, speed up the water pack freezing
  - The thickness of insulation layer is 140mm to better store the frozen ice-packs
  - Broad working ambient temperature range of below 43°C, outstanding performance
  - Internal and external double door design, superior insulation performance

- ### Environmental Protection
- Environmentally friendly hydrocarbon refrigerant R600a and foam material LBA
  - The shell is coated with cold rolled steel plate, and the inner liner is made of 1.0mm alumina, which is easy to recycle
  - Ultra low GWP value
  - Without any battery

- ### Ergonomic Design
- Intelligent control
  - The height of the temperature display screen is moderate, and the inner temperature can be checked at any time
  - Safety door lock
  - Low DC voltage ensures personal safety
  - Plug-and-play type quick plug, positive and negative pole error-proof
  - Built-in handgrips on both sides of the box body facilitate overall movement
  - Compressor indicator light, indicating the system work status
  - Two-chamber design: Ice pack freezer and ice pack storage chamber

- ### Temperature Control
- Electronic temperature controller, digital temperature display, the display precision is 0.1°C, during the day the temperature can reach -10°C
  - Solar energy temperature display system, driven by natural light

- ### Safety System
- High performance key components (compressor, fan, controller, etc.), safe and reliable



# Solar Direct Drive Blood Refrigerator

Applicable for storing whole blood, medicines, biological products and other laboratory products that need to be stored at 4°C.  
Suitable for the storage of blood and blood articles in areas that have power shortages.



HTXC-240



Lock Catch Designed to Match Padlock

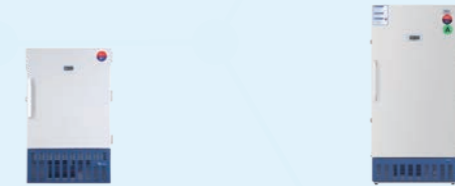


Handgrip



Display Panel

## Specifications



| Model                         | HTXC-120   | HTXC-240                           |                               |                |
|-------------------------------|--|------------------------------------|-------------------------------|----------------|
| Technical Data                | Cabinet Type   | Upright                            | Upright                       |                |
|                               | Ambient Temperature (°C)   | 5-43                               | 5-43                          |                |
|                               | Cooling Type   | Direct Cooling                     | Direct Cooling                |                |
|                               | Defrost Mode   | /                                  | /                             |                |
|                               | Refrigerant  | HC                                 | HC                            |                |
|                               | Sound Level (dB (A))   | ≤43                                | ≤43                           |                |
| Performance                   | Temperature Range (°C)   | 2-8                                | 2-8                           |                |
| Control                       | Controller   | Microprocessor                     | Microprocessor                |                |
|                               | Display  | Solar LCD Temperature Display      | Solar LCD Temperature Display |                |
| Electrical Data               | Power supply(V)  | 24                                 | 24                            |                |
|                               | Maximal Current(A)   | 5                                  | 5                             |                |
|                               | Energy Consumption: stable running (KWh/24h)                       | 0.44                               | 0.35                          |                |
|                               | Energy Consumption: cool down test (KWh/24h)                       | 0.48                               | 0.54                          |                |
|                               | Holdover time at 43°C  | /                                  | /                             |                |
|                               | Holdover time at 32°C  | /                                  | /                             |                |
|                               | Autonomy Time at 43°C  | 112Hrs24mins                       | 95Hrs23mins                   |                |
|                               | Autonomy Time at 32°C  | 183hrs20mins                       | 151hrs10mins                  |                |
|                               | At a Solar Radiation Reference Period of (kwh/m <sup>2</sup> /day) | 3.5                                | 3.5                           |                |
|                               | Construction   | Vaccine Storage Capacity (L/Cu.Ft) | 100/3.5                       | 200/7.1        |
| Gross Volume (L/Cu.Ft)        |  | 120/4.2                            | 240/8.5                       |                |
| Net/Gross Weight (approx)     |  | kg                                 | 130/160                       | 150/185        |
|                               |  | lbs                                | 286/352                       | 330/407.9      |
| Interior Dimensions (W*D*H)   |  | mm                                 | 530*500*530                   | 530*500*960    |
|                               |  | in                                 | 20.9*19.7*20.9                | 20.9*19.7*37.8 |
| Exterior Dimensions (W*D*H)   |  | mm                                 | 865*825*1422                  | 890*825*1815   |
|                               |  | in                                 | 34*32*56                      | 35*32*71       |
| Packing Dimensions (W*D*H)    |  | mm                                 | 980*920*1585                  | 985*920*1980   |
|                               |  | in                                 | 38.6*36.2*62.4                | 38.8*36.2*78   |
| Container Load (20'/40'/40'H) |  | 12/24/24                           | 12/24/24                      |                |
| Alarm                         | High/Low Temperature   | Y                                  | Y                             |                |
|                               | Sensor Error   | Y                                  | Y                             |                |
| Accessories                   | Baskets  | 9                                  | 12                            |                |
|                               | Shelves  | 3                                  | 4                             |                |
| Others                        | CE, WHO/PQS  | N                                  | N                             |                |



It is equipped with 16 blood baskets, each basket can hold 12 blood bags, and a total of 192 blood bags can be stored (350ml blood bags)



Electronic temperature controller, digital temperature display, the display precision is 0.1°C and the control range is 2°C~8°C



Excellent autonomy time ensures the safety of blood



Broad working ambient temperature range of 5~43°C



Solar direct drive refrigerator without battery



Vertical structure, first-in first-out, easy operation



Environmentally friendly hydrocarbon refrigerant R600a and foam material LBA



Automatic drainage design

# Combined Refrigerator and Freezer

289/290

The combined refrigerator with freezer is designed to store vaccines, reagents and to freeze ice packs. Suitable for vaccination stations, epidemic prevention stations, healthcare centers, pharmaceutical factories as key examples. Freezers are only designed to freeze the ice packs and not applicable for the storage of vaccines.



HBCD-90

## Specifications



| Model                               |   | HBCD-90                               |  |
|-------------------------------------|---|---------------------------------------|--|
| Technical Data                      | Cabinet Type                                | Chest                                 |  |
|                                     | Ambient Temperature                         | 5-43                                  |  |
|                                     | Cooling Type                                | Direct Cooling                        |  |
|                                     | Defrost Mode                                | Manual                                |  |
|                                     | Refrigerant                                 | HC                                    |  |
|                                     | Sound Level (dB (A))                        | < 40                                  |  |
| Performance                         | Temperature Range (°C)                      | Freezer ≤-10 Refrigerator: 2-8        |  |
|                                     | Freezer Protection Level                    | A                                     |  |
| Control                             | Controller                                  | Microprocessor                        |  |
|                                     | Display                                     | Solar LCD Temperature Display         |  |
| Electrical Data                     | Power Supply (V/Hz)                         | 220V-240V/50Hz                        |  |
|                                     | Power (W)                                   | 190                                   |  |
|                                     | Electrical Current (A)                      | 1.5                                   |  |
|                                     | Power Consumption: stable running (KWh/24h) | 0.7                                   |  |
|                                     | Power Consumption: cool down test (KWh/24h) | 0.66                                  |  |
|                                     | Holdover Time at 43°C                       | 63hrs48mins                           |  |
|                                     | Holdover Time at 32°C                       | 132hrs21mins                          |  |
| Dimensions                          | Vaccine Storage Capacity (L/Cu.Ft)          | 30/1.1                                |  |
|                                     | Gross Volume (L/Cu.Ft)                      | Refrigerator:42/1.5<br>Freezer:32/1.1 |  |
|                                     | Net/Gross Weight (approx)                   | kg                                    | 105/135  |
|                                     |   | lbs                                   | 231/298  |
|                                     | Interior Dimensions (W*D*H)                 | mm                                    | Refrigerator Chamber:279*273*556<br>Freezer Chamber:166*366*580    |
|                                     |   | in                                    | Refrigerator Chamber:11*10.8*21.9<br>Freezer Chamber:6.5*14.4*22.8 |
|                                     | Exterior Dimensions (W*D*H)                 | mm                                    | 1128*654*875   |
|                                     |   | in                                    | 44.4*25.7*34.4   |
|                                     | Packing Dimensions (W*D*H)                  | mm                                    | 1190*770*1080  |
|                                     |   | in                                    | 47*30*42.5   |
| Container Load (20'/40'/40'H)       |   | 26/56/56                              |  |
| Waterpack Storage Capacity(kg)      |   | 16                                    |  |
| Waterpack Freezing Capacity(kg/24h) |   | 4                                     |  |
| Functions                           | High/Low Temperature                        | Y                                     |  |
|                                     | Power Failure                               | N                                     |  |
| Accessories                         | Sensor Error                                | Y                                     |  |
|                                     | Foot  | N                                     |  |
| Others                              | CE, WHO/PQS                                 | Y                                     |  |

### Temperature Control

- Electronic temperature controller, digital temperature display, the display precision is 0.1°C and the control range is 2-8°C
- Solar powered display panel shows interior temperature through natural light sources

### Ergonomic Design

- Intelligent control
- The height of the temperature display screen is moderate, and the inner temperature can be checked at any time
- External door handle with door lock design to prevent random opening of the door to ensure vaccine safety
- Built-in handgrips on both sides of the cabinet facilitate overall movement

### Safety System

- Sensor error alarm, high/low temperature alarm
- Alarm mode: sound buzzer alarm and light flashing alarm
- Key components such as compressors and fans are designed for purpose to ensure the reliability and safety of stored items

### Environmental Protection

- Environmentally friendly hydrocarbon refrigerant R600a and foam material LBA
- The shell is coated with cold rolled steel plate, and the inner liner is made of 1.0mm alumina, easy to recycle
- Ultra low GWP value
- Without any battery

### Superior Performance

- Complies with WHO PQS specification E003/RF03.4
- Super long holdover time to ensure vaccine safety
- The waterpack freezing capacity is 4.0kg/24h, meeting the daily requirement
- Broad working ambient temperature range of 5-43°C, outstanding performance

# Ice-Lined Refrigerator

Suitable for pharmacies, pharmaceutical factories, epidemic prevention stations, health centers, hospitals as key examples. Used to store biological products and items that need to be stored under the condition of 2-8°C.



Solar Energy Display Panel



HBC-80/150/260

### Temperature Control

- Electronic temperature control, temperature digital display and the precision is 0.1°C, internal temperature range is 2°C~8°C
- Solar powered display panel shows interior temperature through natural light sources

### Safety system

- Sensor error alarm, high/low temperature alarm
- Alarm mode: sound buzzer alarm and light flashing alarm
- All independent components are securely earthed
- Key components such as compressors and fans are QC approved

### Superior performance

- Complies with WHO PQS specification E003
- Broad ambient temperature range of 5°C~43°C
- Broad voltage design, stable operation within ± 20% voltage range

### Ergonomic design

- Intelligent control, no adjustment required
- High performance insulation with superior thermal efficiency
- Safety door lock

## Specifications



| Model                         |  | HBC-80(50/60Hz)               |                     | HBC-150(50/60Hz)              |                     | HBC-260                       |  |
|-------------------------------|--|-------------------------------|---------------------|-------------------------------|---------------------|-------------------------------|--|
| Technical Data                | Cabinet Type                               | Chest                         |                     | Chest                         |                     | Chest                         |  |
|                               | Ambient Temperature (°C)                   | 5-43                          |                     | 5-43                          |                     | 5-43                          |  |
|                               | Cooling Type                               | Direct Cooling                |                     | Direct Cooling                |                     | Direct Cooling                |  |
|                               | Defrost Mode                               | /                             |                     | /                             |                     | /                             |  |
|                               | Refrigerant                                | HC                            |                     | HC                            |                     | HC                            |  |
|                               | Sound Level (dB (A))                       | <40                           |                     | <40                           |                     | <40                           |  |
| Performance                   | Temperature Range (°C)                     | 2-8                           |                     | 2-8                           |                     | 2-8                           |  |
|                               | Freezer Protection Level                   | A                             |                     | A                             |                     | A                             |  |
| Control                       | Controller                                 | Microprocessor                |                     | Microprocessor                |                     | Microprocessor                |  |
|                               | Display                                    | Solar LCD Temperature Display |                     | Solar LCD Temperature Display |                     | Solar LCD Temperature Display |  |
| Electrical Data               | Power Supply(V/Hz)                         | 220-240/50                    | 220V~240V (50/60Hz) | 220-240/50                    | 220V~240V (50/60Hz) | 220V~240V (50/60Hz)           |  |
|                               | Power(W)                                   | 110                           | 140                 | 120                           | 150                 | 165                           |  |
|                               | Electrical Current(A)                      | 1                             | 1.3                 | 1                             | 1.5                 | 1.4                           |  |
|                               | Power Consumption: stable running(KWh/24h) | 0.57                          | 0.55                | 0.54                          | 0.72                | 1.47                          |  |
|                               | Power Consumption: cool down test(KWh/24h) | 0.63                          | 0.65                | 0.62                          | 0.76                | 1.62                          |  |
|                               | Holdover Time at 43°C                      | 59hrs51mins                   | 57hrs34mins         | 60hrs50mins                   | 57hrs34mins         | 62hrs                         |  |
|                               | Holdover Time at 32°C                      | 98hrs26mins                   | /                   | 96hrs23mins                   | /                   | 117hrs24mins                  |  |
|                               | Vaccine Storage Capacity (L/Cu.Ft)         | 61/2.2                        |                     | 122/4.3                       |                     | 211/7.5                       |  |
|                               | Gross Volume (L/Cu.Ft)                     | 80/2.8                        |                     | 150/5.3                       |                     | 260/9.2                       |  |
| Dimensions                    | Net/Gross Weight (approx)                  | kg                            | 85/110              | 105/140                       | 160/200             |                               |  |
|                               |  | lbs                           | 187.6/242.7         | 231.7/308.9                   | 353/441.3           |                               |  |
|                               | Interior Dimensions (W*D*H)                | mm                            | 500*366*560         | 840*366*560                   | 1359*366*560        |                               |  |
|                               |  | in                            | 19.7*14.4*22        | 33.1*14.4*22                  | 53.5*14.4*22        |                               |  |
|                               | Exterior Dimensions (W*D*H)                | mm                            | 788*654*875         | 1128*654*875                  | 1650*654*940        |                               |  |
|                               |  | in                            | 31*25.7*34.4        | 44.4*25.7*34.4                | 64.8*25.7*37        |                               |  |
| Packing Dimensions (W*D*H)    | mm   | 850*770*1080                  | 1190*770*1080       | 1720*770*1080                 |                     |                               |  |
| Container load (20'/40'/40'H) | in   | 33.5*30*42.5                  | 47*30*42.5          | 67.7*30*42.5                  |                     |                               |  |
| Functions                     | High/Low Temperature                       | Y                             |                     | Y                             |                     | Y                             |  |
|                               | Power Failure                              | N                             |                     | N                             |                     | N                             |  |
| Accessories                   | Sensor Error                               | Y                             |                     | Y                             |                     | Y                             |  |
|                               | Foot/Castor                                | N                             |                     | N                             |                     | Y                             |  |
| Others                        | CE, WHO/PQS                                | Y                             |                     | Y                             |                     | Y                             |  |

This product is applicable for the storage of biological products and items that need to be stored under the condition of 2~8°C. This product is used by pharmacies, pharmaceutical factories, epidemic prevention stations, health centers and hospitals as key examples.



HBC-120



HBC-240

**Microprocessor Control System**

- Microprocessor electronic temperature controller, LED temperature display, the temperature display precision is 0.1°C and the control range is 2°C~8°C
- Solar powered display panel shows refrigerator and freezer interior temperature

**Safe, Secure and Reliable**

- Sensor error alarm, high and low temperature alarm
- Alarm mode: sound buzzer alarm and light flashing alarm
- All discrete units are properly grounded
- Key units like the compressor and the fan are safe and reliable

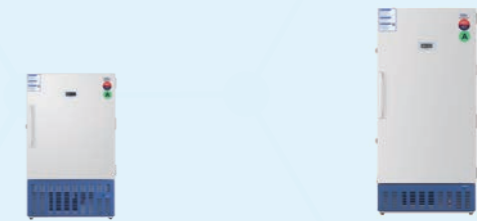
**Superior Performance**

- Complies with WHO PQS specification
- Extra-long holdover time (It can maintain the interior temperature with only 8hrs power supply per day)
- Broad working ambient range of 5~43°C
- Operates within wide voltage range, ±20% volt

**Ergonomic Design**

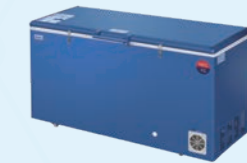
- Intelligent control
- High performance insulation layer with superior thermal insulation
- Ergonomic designed safety lock

Specifications



| Model                      |   | HBC-120                       | HBC-240                       |                   |
|----------------------------|---|-------------------------------|-------------------------------|-------------------|
| Technical Data             | Cabinet Type                                | Upright                       | Upright                       |                   |
|                            | Ambient Temperature (°C)                    | 5-43                          | 5-43                          |                   |
|                            | Cooling Type                                | Direct Cooling                | Direct Cooling                |                   |
|                            | Defrost Mode                                | /                             | /                             |                   |
|                            | Refrigerant                                 | HC                            | HC                            |                   |
| Performance                | Sound Level (dB (A))                        | < 40                          | < 40                          |                   |
|                            | Temperature Range (°C)                      | 2-8                           | 2-8                           |                   |
|                            | Freezer Protection Level                    | A                             | A                             |                   |
| Control                    | Controller                                  | Microprocessor                | Microprocessor                |                   |
|                            | Display                                     | Solar LCD Temperature Display | Solar LCD Temperature Display |                   |
| Electrical Data            | Power Supply (V/Hz)                         | 220V~240V (50/60Hz)           | 220V~240V (50/60Hz)           |                   |
|                            | Power (W)                                   | 145                           | 145                           |                   |
|                            | Electrical Current (A)                      | 1                             | 1                             |                   |
|                            | Power Consumption: stable running (KWh/24h) | 0.4                           | 0.44                          |                   |
|                            | Power Consumption: cool down test (KWh/24h) | 0.35                          | 0.4                           |                   |
|                            | Holdover Time at 43°C                       | 128hrs48min                   | 87h14min                      |                   |
|                            | Holdover Time at 32°C                       | 185H                          | 165H                          |                   |
|                            | Vaccine Storage Capacity(L/Cu.Ft)           | 100/3.6                       | 200/7.2                       |                   |
| Dimensions                 | Gross Volume (L/Cu.Ft)                      | 120/4.3                       | 240/8.5                       |                   |
|                            | Net/Gross Weight (approx)                   | kg                            | 128/160                       | 152/186           |
|                            |   | lbs                           | 281.6/352                     | 334.4/409.2       |
|                            | Interior Dimensions (W*D*H)                 | mm                            | 530*500*530                   | 530*500*960       |
|                            |   | in                            | 20.87*19.69*20.87             | 20.87*19.69*37.8  |
|                            | Exterior Dimensions (W*D*H)                 | mm                            | 890*829*1425                  | 890*829*1820      |
|                            |   | in                            | 35.04*32.64*56.10             | 35.04*32.64*71.65 |
| Packing Dimensions (W*D*H) | mm  | 980*920*1585                  | 980*920*1980                  |                   |
|                            | in  | 38.6*36.2*62.4                | 38.6*36.2*78                  |                   |
| Functions                  | Container load (20'/40'/40'H)               | 12/24/24                      | 12/24/24                      |                   |
|                            | High/Low Temperature                        | Y                             | Y                             |                   |
| Accessories                | Power Failure                               | N                             | N                             |                   |
|                            | Sensor Error                                | Y                             | Y                             |                   |
| Others                     | Foot/Castor                                 | Y                             | Y                             |                   |
|                            | CE, WHO/PQS                                 | Y                             | Y                             |                   |

Specifications

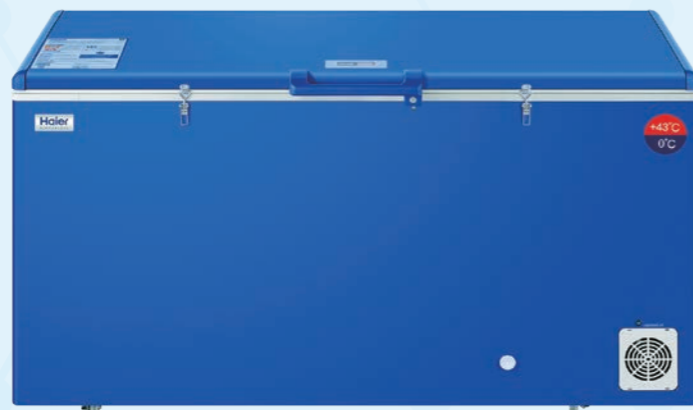


| Model                               |   | HBD-86                      | HBD-265                            |               |
|-------------------------------------|---|-----------------------------|------------------------------------|---------------|
| Technical Data                      | Cabinet Type                                | Chest                       | Chest                              |               |
|                                     | Ambient Temperature                         | 0-43                        | 0-43                               |               |
|                                     | Cooling Type                                | Direct Cooling              | Direct Cooling                     |               |
|                                     | Defrost Mode                                | Manual                      | Manual                             |               |
|                                     | Refrigerant                                 | HC                          | HC                                 |               |
| Performance                         | Sound Level (dB (A))                        | 40.6                        | 39.3                               |               |
|                                     | Temperature Range (°C)                      | -25~-15                     | -25~-15                            |               |
| Control                             | Controller                                  | Microprocessor              | Microprocessor                     |               |
|                                     | Display                                     | LCD                         | LCD                                |               |
| Electrical Data                     | Power Supply (V/Hz)                         | 220-240V 50/60Hz            | 220-240V 50/60Hz                   |               |
|                                     | Power (W)                                   | 120                         | 210                                |               |
|                                     | Electrical Current (A)                      | 1.1                         | 1.6                                |               |
|                                     | Power Consumption: Cool Down Test (kWh/24h) | 0.98                        | 1.43                               |               |
|                                     | Power Consumption: Stable Running (kWh/24h) | 0.95                        | 1.41                               |               |
| Dimensions                          | Holdover Time at 43°C                       | More than 7hrs (up to -5°C) | More than 11hrs 25min (up to -5°C) |               |
|                                     | Vaccine Storage Capacity (L/Cu.Ft)          | 61/2.2                      | 211/7.5                            |               |
|                                     | Gross Volume (L/Cu.Ft)                      | 86/3                        | 265/9.4                            |               |
|                                     | Net/Gross Weight (approx)                   | kg                          | 65/90                              | 135/160       |
|                                     |   | lbs                         | 143/198                            | 297/352       |
|                                     | Interior Dimensions (W*D*H)                 | mm                          | 500*366*560                        | 1359*366*560  |
|                                     |   | in                          | 19.7*14.4*22                       | 53.5*14.4*22  |
|                                     | Exterior Dimensions (W*D*H)                 | mm                          | 788*717*872                        | 1647*717*940  |
|                                     |   | in                          | 31*28.2*34.3                       | 64.8*28.2*37  |
|                                     | Packing Dimensions (W*D*H)                  | mm                          | 850*770*1080                       | 1720*770*1080 |
| in                                  |   | 33.5*30*42.5                | 67.7*30*42.5                       |               |
| Container Load (20'/40'/40'H)       |   | 36/78/78                    | 18/38/38                           |               |
| Waterpack Storage Capacity(kg)      |   | 61                          | 211                                |               |
| Waterpack Freezing Capacity(kg/24h) |   | 17.6                        | 32.4                               |               |
| Accessories                         | Foot/Castor                                 | N                           | N                                  |               |
|                                     | Sensor Error                                | Y                           | Y                                  |               |
| Others                              | Baskets                                     | 3                           | 9                                  |               |
|                                     | CE, WHO/PQS                                 | Y                           | Y                                  |               |

This product is applicable for cryogenic storage of biological reagents in hospitals, CDC, health facilities and other units in areas with insufficient or unstable power supply.



HBD-86



HBD-265



Refrigeration System

- High quality compressor
- CFC-free high-density foam insulation
- Optimized refrigeration system design



Temperature Control

- Electronic temperature controller with digital display
- Internal temperature range is -25°C to -15°C



Ergonomic Design

- Safety lock to safeguard against unauthorized access
- Internal configuration suitable for various sizes of storage baskets
- Drainage port for ease of cabinet cleaning
- LCD temperature display



Alarms

- Power failure alarm, high temperature alarm, sensor error alarm
- Two alarm modes: sound alarm and light alarm

## Voltage Stabilizer

### Scope of Application

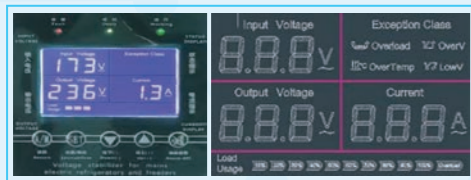
The HVS-1000U voltage stabilizer is developed, designed and manufactured according to the latest PQS standards. The product consists of single-phase multi-tap dry type transformer, relay integrated board, single-chip intelligent detection board and supporting display, external protection and control circuit. The voltage stabilizer central control system adopts single-chip intelligent control, which highlights the safety, reliability and stability of the voltage stabilizer under bad power supply conditions. With intelligent control, high safety, high reliability and other significant advantages! IoT modules can be selected to remotely view the power supply and power quality analysis, and achieve remote alarm of abnormal situations.



HVS-1000U

### Fundamental Functions

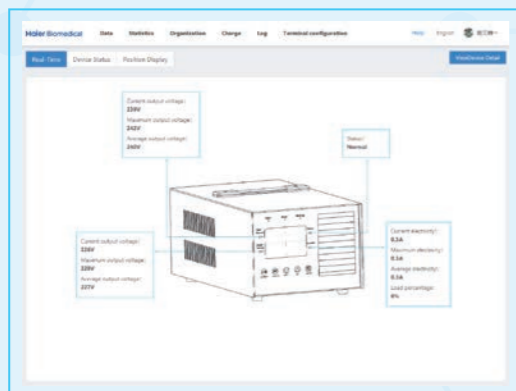
- Requires no maintenance
- Microprocessor controlled stabiliser
- Very wide input withstand range (0-500V)
- Meet the latest WHO/PQS standards (VS01.6)
- With LCD screen, display input/output/working status information
- Fault record/protection record, can be viewed locally
- Frequency real-time detection, out of range protection
- Record the number of relay actions, which can be viewed locally
- The IoT function is optional to remotely view and analyze power supply information
- The product integrates a microcontroller-based intelligent detection board and a display, and the operation panel has been equipped with parameter setting buttons so that users or technicians can modify the working parameters of the voltage stabilizer.



### Specifications

| Model                                | HVS-1000U   |
|--------------------------------------|---|
| Output Voltage Range (V)             | 230 ±10%  |
| Input Voltage Range (V)              | 110-264 AC  |
| Continuous Input Withstand Range (V) | 0-500 AC  |
| Input Frequency (Hz)                 | 47-63   |
| Display                              | Output Voltage/Input Voltage/Current Value/Alarm State  |
| Protection Function                  | Overvoltage, overcurrent, undervoltage, overload, over frequency, under frequenc; Short circuit, high temperature |
| Packing Dimension (W*D*H)(mm)        | 450*370*300   |
| Gross Weight (kg)                    | 11  |

IoT modules can be selected to remotely view the power supply and power quality analysis, and achieve remote alarm of abnormal situations.



## Walk-In Cold/Freezer Room



### Application Scenario

The storage temperature of 2-8°C and -20°C is suitable for vaccine storage in CDC, hospitals, inoculation sites and other places.

### Solution of Vaccine Cold Room-Mono Block Unit Cold Room

- The inner temperature is kept constantly at 2 ~ 8°C (or -25~-15°C).
- Dual refrigeration systems, one system can backup the other system, extremely safe.
- The refrigeration system has a variety of protection functions for start delay, overheat, overload, high and low pressure, over-voltage, under-voltage, etc.
- Automatic defrosting by electric or hot gas.
- Over temperature alarm, and power failure alarm.
- Complies with WHO PQS specification.

### Specifications

#### Insulation System

- Stainless steel eccentric locking device is embedded under the insulation plate. The room is connected in hexahedral locking method which makes the room solid with good insulation effect
- Double-sided color steel plate, the intermediate insulation material is rigid high pressure foaming fluorine-free polyurethane. Stainless steel panel is optional
- Cold room plate thickness: 100mm; Freezer room plate thickness: 120mm; Steel plate thickness: 0.5mm; Polyurethane density: 42kg/m<sup>3</sup>; Thermal conductivity: ≤0.021W/(m.k); Adhesive strength: 0.14 MPa; Compressive strength: 258kPa; Bending bearing capacity: 5.67mm
- Door dimension 800\*1975\*100mm. Semi-buried design provides good insulation effect and the size of the door can be customized
- The door is equipped with anti-lock device to prevent the personnel from being locked in the warehouse

#### Refrigeration System

- Dual refrigeration system is safe and reliable, which will automatically switch to the other system when failure occurs to one
- Dual system will switch regularly so that uniform wear of refrigeration unit will prolong the service life of the unit
- Fluorine-free refrigerant: R448A, ODP: 0
- Automatic defrosting by electric or hot gas
- The technology of liquid-subcooling and exhaust-precooling via defrosting water is adopted to save energy

### Shelves

The main body of the shelf is designed with aluminum profile, and the partition is made of stainless steel. Overall strong and durable to prevent corrosion

The shelf has 5 layers of partitions, and the distance between the partitions can be adjusted



### Illumination



- Equipped with three-proof LED lights, water-proof grade ≥IP68
- The illumination on the vertical surface of the lowest shelf ≥150Lux

### Accessories

- 3mm thick non-slip embossed aluminum plate improve the compressive and wear resistance of the cold room floor and extends its service life
- PVC curtain can reduce the leakage of cold air when opening the door and reduce temperature fluctuation

### Parameter--Cold/Freezer Room

| Product Category                | Monobloc        |              |              |               |              |              |              |              | Combi. 40 cbm WIC/WIF |              |
|---------------------------------|-----------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|-----------------------|--------------|
|                                 | WIC (10 cbm)    | WIF (10 cbm) | WIC (20 cbm) | WIF (20 cbm)  | WIC (30 cbm) | WIC (30 cbm) | WIC (40 cbm) | WIF (40 cbm) | WIC (25 cbm)          | WIF (15 cbm) |
|                                 | Model           | ZK-G10AWX01U | ZK-D10AWX01U | ZK-G20AWX01U  | ZK-D20AWX01U | ZK-G30AWX01U | ZK-D30AWX01U | ZK-G40AWX01U | ZK-D40BWX01U          | ZK-D40AWX01U |
| External Dimension (L*W*H)(m)   | 2*2.6*2.6       | 2*2.88*2.6   | 3.84*2.5*2.6 | 3.84*2.6*2.6  | 4.8*2.93*2.6 | 4.8*3*2.8    | 4.8*3.8*2.6  | 4.8*3*2.8    | 5.2*3.8*2.6           |              |
| Interior Dimension (L*W*H)(m)   | 1.8*2.4*2.4     | 1.7*2.58*2.3 | 3.64*2.3*2.4 | 3.6*2.36*2.36 | 4.6*2.73*2.4 | 4.5*2.9*2.5  | 4.6*3.6*2.4  | 4.5*3.6*2.5  | 4.96*3.56*2.36        |              |
| WHO PQS Code                    | E001/003        |              |              |               |              |              |              |              |                       |              |
| Refrigerant                     | R448A           |              |              |               |              |              |              |              |                       |              |
| Defrost Mod                     | Hot Gas Defrost |              |              |               |              |              |              |              |                       |              |
| Internal Temperature Range (°C) | 2-8             | -20          | 2-8          | -20           | 2-8          | -20          | 2-8          | -20          | -20                   |              |
| Power Supply (V/ph-Hz)          | 220/1N~/50      | 220/1N~/50   | 220/1N~/50   | 380/3N~/50    | 380/3N~/50   | 380/3N~/50   | 380/3N~/50   | 380/3N~/50   | 380/3N~/50            |              |
| Power (W)/ Unit                 | 894             | 1057         | 1285         | 1670          | 1590         | 2200         | 1590         | 2950         | 1670                  |              |
| Refrigeration Output (W)/Unit   | 1425            | 1330         | 2427         | 2090          | 3700         | 3030         | 3700         | 4290         | 2090                  |              |
| Condensation Temperature (°C)   | 43              |              |              |               |              |              |              |              |                       |              |
| Density (Kg/Cbm)                | 40+/-2          |              |              |               |              |              |              |              |                       |              |
| Insulation Thickness (mm)       | 100             | 150          | 100          | 120           | 100          | 150          | 100          | 150          | 120                   |              |

| Product Category                | Split              |              |              |               |              |              |              |              | Combi. 40 cbm WIC/WIF |              |
|---------------------------------|--------------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|-----------------------|--------------|
|                                 | WIC (10 cbm)       | WIF (10 cbm) | WIC (20 cbm) | WIF (20 cbm)  | WIC (30 cbm) | WIC (30 cbm) | WIC (40 cbm) | WIF (40 cbm) | WIC (25 cbm)          | WIF (15 cbm) |
|                                 | Model              | ZK-G10AWX02U | ZK-D10AWX02U | ZK-G20AWX02U  | ZK-D20AWX02U | ZK-G30AWX02U | ZK-D30AWX02U | ZK-G40AWX02U | ZK-D40BWX02U          | ZK-D40AWX02U |
| External Dimension (L*W*H)(m)   | 2*2.6*2.6          | 2*2.88*2.6   | 3.84*2.5*2.6 | 3.84*2.6*2.6  | 4.8*2.93*2.6 | 4.8*3*2.8    | 4.8*3.8*2.6  | 4.8*3.9*2.8  | 5.2*3.8*2.6           |              |
| Interior Dimension (L*W*H)(m)   | 1.8*2.4*2.4        | 1.7*2.58*2.3 | 3.64*2.3*2.4 | 3.6*2.36*2.36 | 4.6*2.73*2.4 | 4.5*2.9*2.5  | 4.6*3.6*2.4  | 4.5*3.6*2.5  | 4.96*3.56*2.36        |              |
| WHO PQS Code                    | E001/003           |              |              |               |              |              |              |              |                       |              |
| Refrigerant                     | R448A              |              |              |               |              |              |              |              |                       |              |
| Defrost Mod                     | Electrical Heating |              |              |               |              |              |              |              |                       |              |
| Internal Temperature Range (°C) | 2-8                | -20          | 2-8          | -20           | 2-8          | -20          | 2-8          | -20          | 2-8 -20               |              |
| Power Supply (V/ph-Hz)          | 380/3N~/50         | 380/3N~/50   | 380/3N~/50   | 380/3N~/50    | 380/3N~/50   | 380/3N~/50   | 380/3N~/50   | 380/3N~/50   | 380/3N~/50 380/3N~/50 |              |
| Power (W)/ Unit                 | 1260               | 1540         | 1260         | 1670          | 1590         | 2200         | 1860         | 2950         | 1590 1670             |              |
| Refrigeration Output (W)/Unit   | 2510               | 1660         | 2510         | 2090          | 3700         | 3030         | 4600         | 4290         | 3700 2090             |              |
| Condensation Temperature (°C)   | 43                 |              |              |               |              |              |              |              |                       |              |
| Density (Kg/Cbm)                | 40+/-2             |              |              |               |              |              |              |              |                       |              |
| Insulation Thickness (mm)       | 100                | 150          | 150          | 120           | 100          | 150          | 100          | 150          | 120                   |              |

## Solar Direct Drive Cold Room

### Scope of Application

This product is a complete vaccine storage solution. It consists of a cold room and power supply system. The cold room is powered directly by solar panels and does not require batteries. It uses inexhaustible solar energy to drive energy to the room, which is especially suitable for remote areas, or areas lacking power.



### Product Advantages



**Compared with traditional solar cold rooms, Haier Biomedical's SDD cold room does not use batteries**

Traditional solar cold storage solutions: solar panel + battery + controller, high TCO. Haier Biomedical's SDD cold room refrigeration system and electronic control components are all DC driven and can be directly powered by solar panels. They do not need any batteries.



**Large operating voltage range**

The solar power supply system has complete lightning protection and grounding devices. It can effectively prevent electrical components from being damaged by lightning strikes. The maximum power voltage of solar panels is 50V, and the working voltage of DC compressors is 32 – 60VDC, which is relatively wide.



**No electricity bills**

Haier Biomedical's SDD cold room completely uses DC power supply and does not use alternating current. It is calculated that a 10 m³ solar cold room can save 700 USD in electricity bills per year (the electricity bill is based on 0.14 USD/1kWh).



**The room complies with the requirements of the UN sustainable development strategy**

As Haier Biomedical's SDD cold room is fully DC driven and does not use batteries, no fossil energy is used and no harmful gases are produced. In order to reduce our excessive dependence on fossil energy, Haier Biomedical's SDD cold room refrigeration system and electronic control components are all directly driven by solar panels and do not use batteries, truly achieving energy conservation and environmental protection.



**Compared with ordinary cold rooms using generators for power supply, Haier Biomedical's SDD cold room has less noise and no fuel costs.**

### Product Features



**Temperature control**

Electronic thermostat control, temperature digital display, temperature display accuracy 0.1°C, temperature control range is 2°C-8°C. Large LCD display, 60 days of historical data can be viewed online. The 7-inch display screen can more intuitively display the temperature, humidity and temperature curve in the warehouse.



**Environmentally friendly design**

Uses environmentally friendly refrigerant R1234yf, GWP=4, ODP=0 The main refrigeration system does not use batteries.

# Solar Direct Drive Cold Room



### Outstanding performance

Ultra-long hold-over time, at an ambient temperature of 32-50°C, the hold-over time is up to 285.16Hrs, ensuring the safety of vaccine storage; Condensed water collection, excellent dehumidification performance, prevents the vaccine box from getting wet; 200mm thick insulation layer is beneficial to heat preservation; Wide ambient temperature design, outstanding performance under ambient temperature of 5°C-43°C;PVC door curtain design to prevent cooling loss.



### User-friendly design

Intelligent and worry-free control method, no adjustment required Moderate display screen height. Safety locks and other User-friendly designs.Low DC voltage, ensuring personal safety; Plug and play, Positive and negative pole error prevention; Equipped with a remote monitoring system, staff can check the operation, temperature and other parameters on mobile phones, computers and other terminals Modular design:storage boards, water tanks, units, and shelves are Modularly designed and can be expanded to 10 to 40 cubic meters; Silent design in the cold room; condensation collection design.



### Safety system

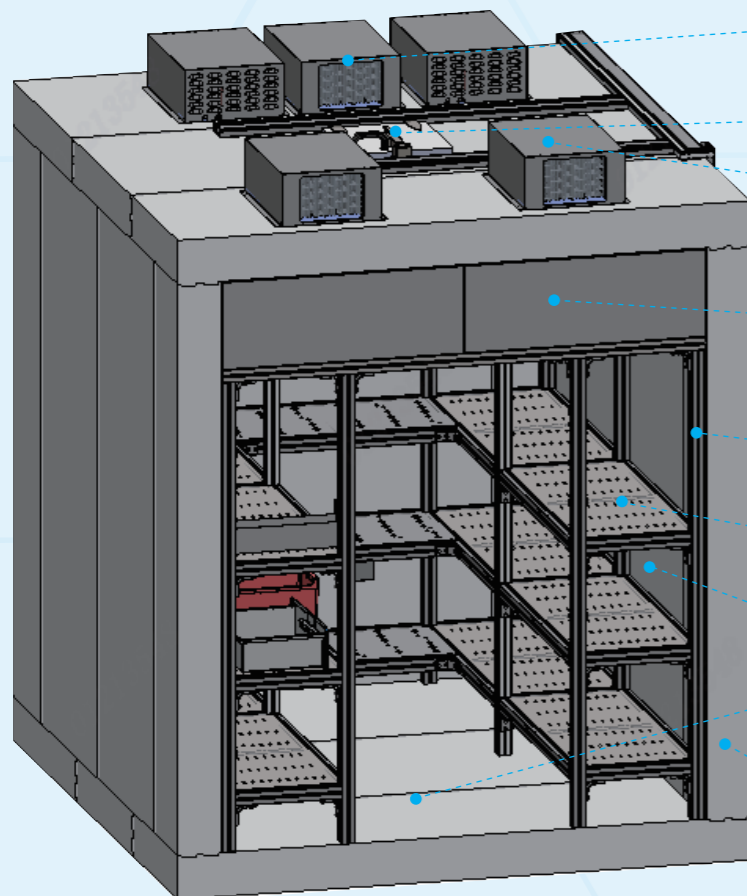
Sensor failure alarm, high and low temperature alarm, door opening alarm, and personnel safety alarm in the warehouse;Alarm mode:sound buzzer alarm,light flash alarm,Query alarm status,warehouse light status cold storage door status,High-performance key components (compressors, fans, etc.), safe and reliable.



### Intelligent IoT Module

10 inch intelligent screen displays real-time temperature, humidity, power supply voltage, current and other power information for the past 2 hours, 24 hours, 7 days and one month; Data can also be uploaded to cloud servers. The IoT module can automatically connect to the network, select time zones and collate times. It also has remote diagnostic function.

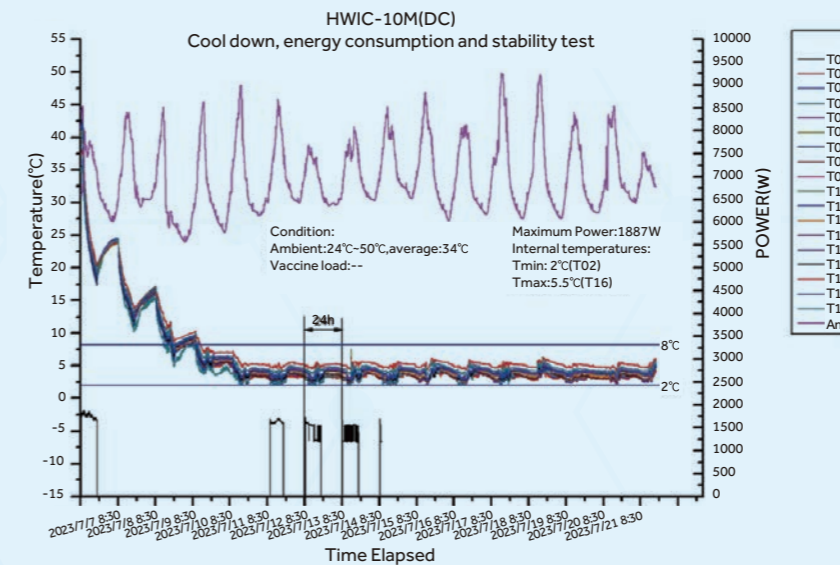
## Product Parts



- Dehumidification unit Reduce inside humidity and accelerate cooling process
- Water level observation hole-Easy for observation
- Top compressor unit -Easy to connect with evaporator
- Top mounted cold storage water tank and evaporator inside the cold room-Designed for cold air to flow equally inside the room
- Aluminum support for water tank
- Aluminum and stainless-steel shelves
- 1mm embossed aluminum plate/3mm anti-slip aluminum plate excellent thermal conductivity to support temperature uniformity
- 200mm high-density insulation layer for long insulation performance

## Product Performance

### Cool down test

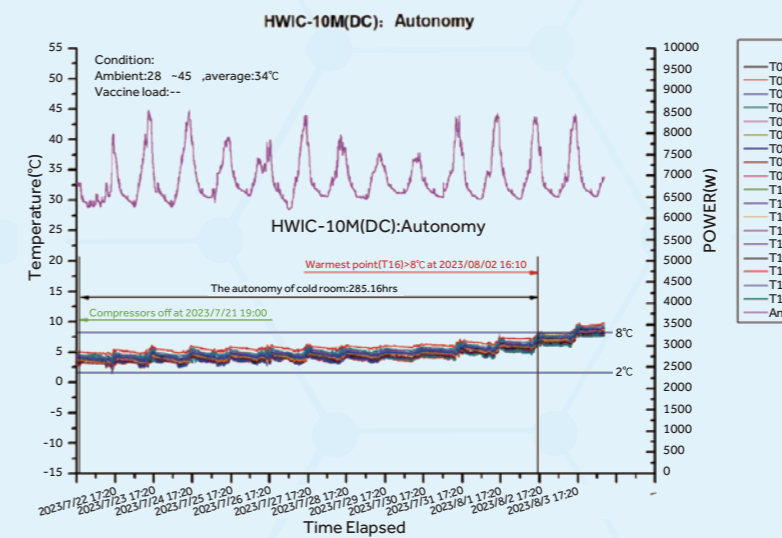


### Cool down test

#### Test Conclusion:

1. Load inside cold room: No load;
2. The cooling time is about 6 days;
3. After stabilization, the temperature inside the cold room is 2°C (Tmin), 5°C (Tmax).

### Autonomy



### Test Conclusion:

1. Load inside cold room: No load;
2. At this ambient temperature, the time for highest temperature point to raise to 8°C: 285.16 hours (approximately 12 days)



## Specifications

| Model   |  | HWIC-10M (DC)                     |                |
|---|--|-----------------------------------|----------------|
| Technical Data  | Ambient Temperature (°C)                     | 5-43                              |                |
|   | Cooling Type                                 | Direct cooling+forced air cooling |                |
|   | Refrigerant                                  | HFO                               |                |
| Performance   | Temperature Range (°C)                       | 2-8                               |                |
| Control   | Controller                                   | Microprocessor                    |                |
|   | Display                                      | LCD temperature display           |                |
| Electrical Data                                       | Power supply (V)                             | 48Vdc*5                           |                |
|   | Maximal Current (A)                          | 7A*5                              |                |
|   | Energy Consumption: stable running (kWh/24h) | 14                                |                |
|   | Energy Consumption: cool down test (kWh/24h) | 17.5                              |                |
|   | Holdover time at 28°C-45°C (Hrs)             | 285.16                            |                |
| At a Solar Radiation Reference Period of (kWh/m2/day) |  | 3.5                               |                |
| Dimensions  | Gross Volume (L/Cu.Ft)                       | > 10m <sup>3</sup>                |                |
|   | Interior Dimensions (W*D*H)                  | mm                                | 2600*2200*2600 |
|   |  | in                                | 102*86.6*102   |
|   | Exterior Dimensions (W*D*H)                  | mm                                | 3000*2600*3250 |
| in  |  | 118*102*128                       |                |
| Alarms  | High/Low Temperature                         | Y                                 |                |
|   | Sensor Error                                 | Y                                 |                |
|   | Low Battery                                  | Y                                 |                |
| Optional  | Shelves                                      | Optional                          |                |
|   | Number of shelves                            | 3 Levels                          |                |



## Vaccine Refrigerated Vehicle

- High chassis, excellent cross-country capacity.
- Euro-2 standard, easy and low-cost maintenance in African area with backup power.
- Complies with WHO/PQS standard requirements.
- Backup power supply.
- Heating system to use in -20°C ambient temperature.

## U-COOL Remote Temperature Monitoring Device

### Remote Temperature Recording:

- The external temperature sensor measures the temperature, records and stores the measured temperature values automatically, and transmits them to the cloud platform.

### Application Scenarios:

- It can be used for real-time monitoring of storage and distribution of medicine, vaccine, blood, reagents, biological products, biological sample tissue, food and other items. The application scenarios include refrigerated trucks, incubators, cold rooms, cold packs, refrigerated cabinets, refrigerators, freezers and so on.

Cloud Platform Website <http://ems.haierbiomedical.com>

### U-COOL



- Once powered on, the device immediately uploads the data automatically to the portal. Plug and play - one simple activation - no technical skills needed, easy and user friendly.
- Remote portal management platform, which can track temperature, signal strength information and has multiple data analysis reports.
- Powered by mains supply with battery back up (10 days) in the event of power failure (In good signal area).
- The device supports sound and visual alarms (Optional function).
- High precision sensors: -40°C ~ +65°C (NTC) -200°C ~ +150°C (PT100).
- High precision, wide range of temperature measurements.
- IP66 protection, waterproof, shockproof and dustproof to fit a variety of complex environments.
- Complies with WHO Standards, WHO prequalified code: E006/060.

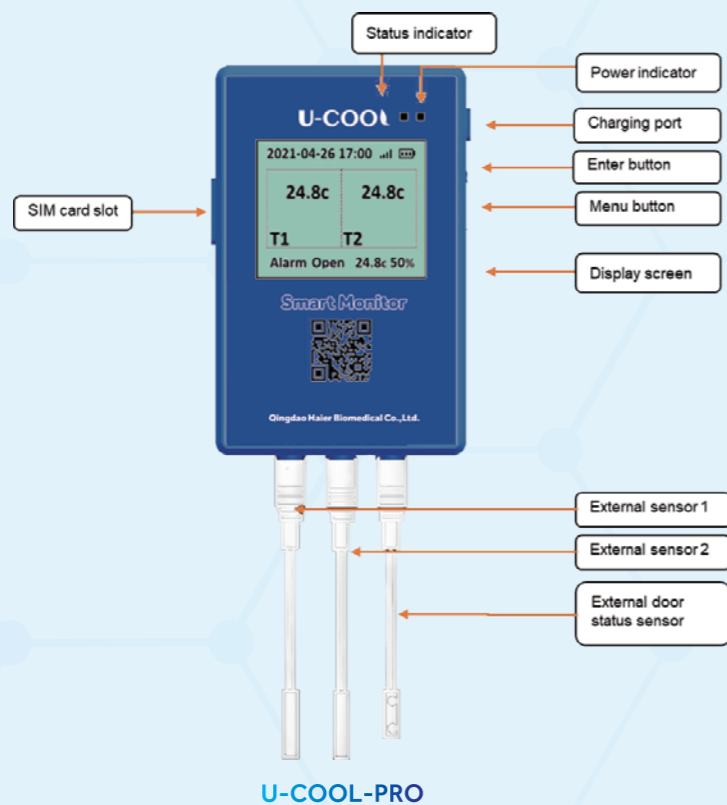
### Specifications

| Item               | Specifications   |
|--------------------|--|
| Temperature sensor | NTC sensor: -40°C~+65°C (±0.5°C within 0°C to +65°C, ±1°C within -40°C to +0°C)<br>PT100 sensor (optional): -200°C~+150°C (±0.3°C) |
| Environment Sensor | Temperature: -10°C~+55°C<br>Humidity: 0%RH-99%RH   |
| 2G                 | 850M/900M/1800M/1900M  |
| 4G                 | LTE FDD: B1/B3/B5/B8    LTE TDD: B38/B39/B40/B41<br>WCDMA: B1/B8    TD-SCDMA: B34/B39CDMA: BC0<br>GSM: 900/1800MHz                 |
| Storage capacity:  | 60,000 sets of data  |
| Battery            | Charging voltage: 5V~12V<br>Charging current ≤ 1.5A  |
| Alarm              | Audio-visual: Buzzer + LED light   |
| SIM card           | Built-in Nano SIM  |
| Map location       | Google map and LBS(Location Based Service)   |
| USB                | Micro USB: download data /Charging   |
| Material           | Shell: PC / Shell jacket: ABS  |
| IP                 | IP66   |
| Dimensions         | 114.5 mm *71.5 mm *22mm  |

# U-COOL Remote Temperature Monitoring Device

305/306

For the real-time temperature monitoring of activities including the warehousing, distribution and laboratory preparation and storage of medicines, vaccines, blood, reagents, biological products and tissues etc. Primarily focused on cold storage from -196°C to +8°C, it can also be used for incubators, climate chambers and drying ovens up to +150°C.



- Support 4G/3G/2G signal
- Live sensor location can be displayed on GoogleMaps
- USB data export
- The device supports a local sound/light alarm
- One full charge, more than 5 days of battery life (In good signal area)

## Specifications

| Item                       | Specifications   |
|----------------------------|--|
| Model                      | U-Cool-Pro   |
| Temperature Sensor         | 2 Pluggable Digital temperature sensors (or PT100 optional)  |
| Temperature Range          | NTC sensor: -40°C~+65°C<br>PT100 sensor(optional): -200°C~+150°C   |
| Accuracy                   | NTC sensor:±0.5°C within 0°C to +65°C, ±1°C within -40°C to +0°C<br>PT100 sensor (optional) ±0.3°C   |
| Door Sensor                | 1 Pluggable Reed Switch sensor   |
| Battery                    | Lithium battery: 4000mAh   |
| Alarm                      | Audio-visual: buzzer + LED light   |
| Map Location               | Google map and LBS<br>(Location Based Service-Mobile Base Station Positioning)   |
| USB                        | Micro USB: download data /charging   |
| Material                   | Shell: PC  |
| IP                         | IP64   |
| Dimension                  | 112mm*75mm*21mm  |
| Communication Network Mode | 4G/3G/2G   |
| Charging Voltage           | 5V-12V   |
| Charging Current           | ≤1A  |
| Working Current            | ≤2A  |
| Working Temperature        | -10°C~+55°C  |
| SIM Card                   | Micro SIM Card   |
| USB                        | Micro USB, supports charging; When the device is turned off, it can be connected to the computer as a Flash drive to export data in PDF/TXT format. When the device is turned on, it can be connected to the computer as a virtual serial port, which can then be configured using the configuration tool. |

## Innovative Design

- Remote platform monitoring
- LBS base station positioning
- Sensor is user configurable, and automatically uploads data to the online portal
- High accuracy
- User configurable
- Unplug and replace sensors as required

# U-COOL Remote Temperature Monitoring System

For the real-time temperature monitoring of activities including the warehousing, distribution and laboratory preparation/storage of medicines, vaccines, blood, reagents, biological products and tissues etc. Primarily focused on cold storage from -196°C to +8°C, they can also be used for incubators, climate chambers and drying ovens up to +150°C. Can also monitor power/door status and humidity.



**YB-HC600-01**  
Temperature Data Logger



**YB-HC600-02**  
Door On-off Monitor



**YB-HC600-03**  
Power Outage Monitor



**YB-HZ600-01**  
Smart Gateway

## Innovative Design

- LoRa wireless ad hoc network communication technology, strong adaptability
- Smart gateway with backup battery, supports data breakpoint with continued transmission
- Sensors are battery powered, with an expected battery life of up to 3 years
- Real-time display of measurement data
- Suitable for monitoring temperature, door and power status

## Technical Parameters



| Product              | Temperature Data Logger   | Door On-off Monitor          | Power Outage Monitor           |
|----------------------|---|------------------------------|--------------------------------|
| Model                | YB-HC600-01   | YB-HC600-02                  | YB-HC600-03                    |
| Sensor               | One line (5m) digital sensor  | One line (3m) digital sensor | One line (3+3m) digital sensor |
| Measuring Function   | Temperature Range:<br>NTC Sensor:<br>-40°C~+80°C<br>PT100 Sensor (optional):<br>-199°C~+199°C<br>Precision: 0.1°C<br>Accuracy: ±0.5°C | Door open-close monitoring   | Power supply monitoring        |
| Dimension (H*W*D mm) | 125*73*23   |                              |                                |
| Battery              | 3.6V/5400mAh  |                              |                                |
| Communication        | LoRa  |                              |                                |
| Display              | LCD display, real-time display of measured data, such as battery level, signal strength, etc.   |                              |                                |
| Local-storage        | Local storage data of 60000 sets and it supports breakpoint continued transmission  |                              |                                |

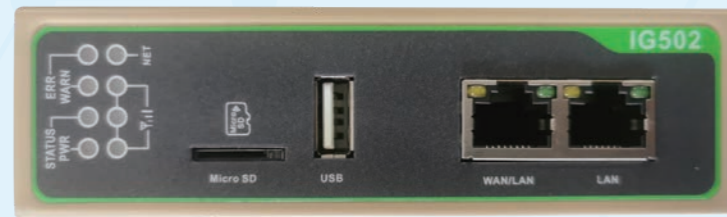


| Product   | Smart Gateway   |
|---|-----------------|
| Model   | YB-HZ600-01     |
| Transit Network                                       | 4G SIM card/LAN |
| Maximum Number of Transmitters That Can Be Used (pcs) | 60              |
| Dimension (W*H*D mm)                                  | 160*100*33      |
| Battery   | 3.7V/10000mAh   |
| Communication   | LoRa            |
| Local-storage   | 60000 sets      |

## Equipment Management

User can monitor data in real time  
(Ultra-low temperature refrigerator, Liquid nitrogen tank, etc)

Making it easy to collect data from onsite Haier Biomedical equipment, and then transmit recorded data to the cloud-based monitoring platform, the IOT module allows the remote viewing of various parameters which would usually only be available on the unit itself. The platform also facilitates remote alarming, allowing users to be alerted to an excursion even when you are not on site. Suitable for the monitoring of a variety of equipment, including Ultra-Low Temperature freezers and Liquid Nitrogen storage, it is perfect for hospitals, academia, laboratories and more.



## Product Advantages



Easy configuration, plug and play



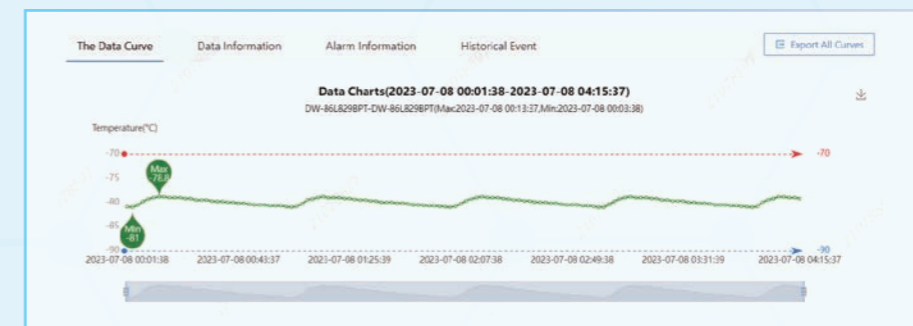
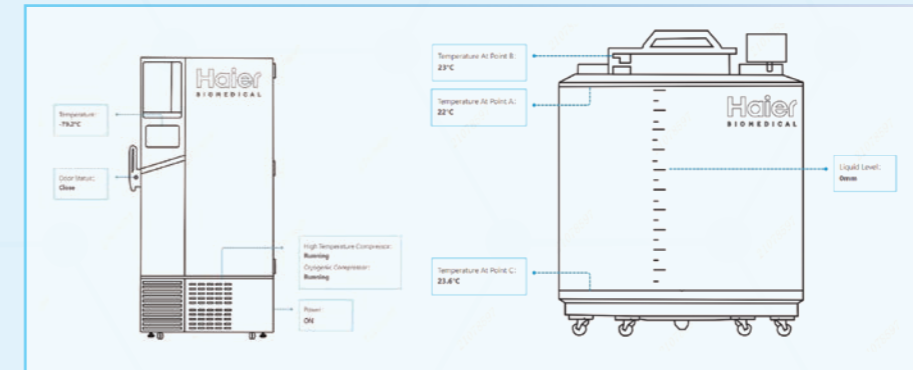
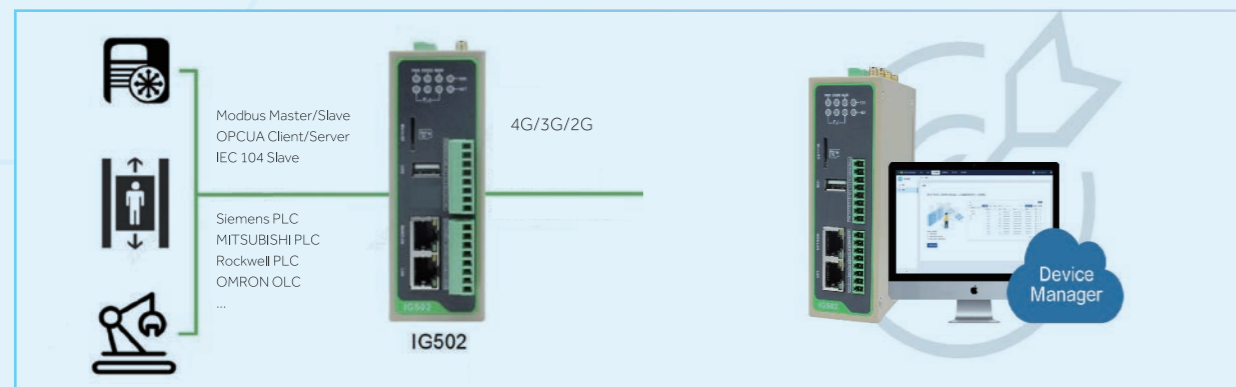
Uninterrupted and highly reliable connectivity through the 2G/3G/4G network, with data uploaded to the cloud-based monitoring platform.



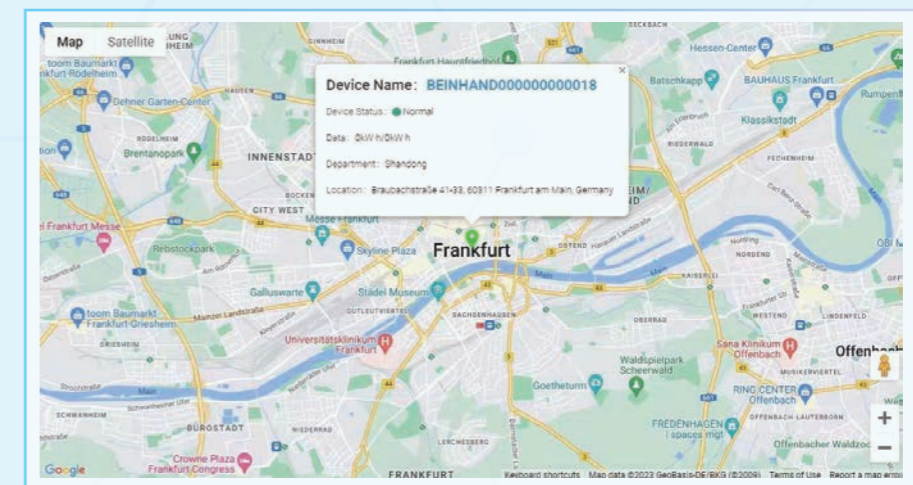
Easy for Remote Management  
Through remote monitoring and centralized management, you can easily track your devices and enjoy better efficiency for large scale deployment and preventive maintenance.



Purposely Designed for Industrial Scenarios  
EMC level 3, IP30 protection rating, and wide temperature and voltage ranges make it enduring in challenging environments.



## Map Display



## Hardware Specifications

|                          | Model                      | IG502   |
|--------------------------|----------------------------|---|
| Hardware Platform        | CPU                        | ARM Cortex-A8   |
|                          | Memory Capacity            | 512MB   |
|                          | FLASH                      | 8GB eMMC  |
| Port                     | Ethernet Port              | 2*10/100Mbps fast Ethernet port, 1*WAN+1*LAN or 2*LAN                                     |
|                          | Serial Port (optional)     | RS485*1, RS232*1 or RS485*2   |
|                          | Wi-Fi (optional)           | 2.4G (802.11/b/g/n)   |
|                          | GPS (optional)             | GPS, SMAx1  |
|                          | USB                        | USB2.0x1  |
|                          | IO Port (optional)         | 4*DI, 4*DO  |
|                          | Reset Key                  | Pinhole reset button  |
|                          | TF                         | Support MicroSD   |
|                          | Bluetooth (optional)       | BLE4.0  |
|                          | Mechanical Features        | Installation Methods  |
| Cooling Type             |                            | Fan-free cooling  |
| Shell                    |                            | Metal shell   |
| IP Grade                 |                            | IP30  |
| Power Supply             | Power Input                | DC12-48V, Anti-reverse protection   |
|                          | Standby Power Loss         | 200mA@12V   |
|                          | Peak Power                 | 500mA@12V   |
|                          | Power Port                 | CLIPLINE  |
|                          | Working Power Consumption  | 250mA@12V   |
| Environment              | Working Temperature        | -20~70°C  |
|                          | Environment Humidity       | 5-95% (Frost-free)  |
|                          | Storage Temperature        | -40~85°C  |
| Indicator Light          | LED                        | PWR, STATUS, WARN, ERR, Signal strength indicator lamps (3), LTE                          |
| EMC                      | Static Electricity         | EN61000-4-2, level3   |
|                          | Radiation Electric Field   | EN61000-4-3, level3   |
|                          | Pulsed Electric Field      | EN61000-4-4, level3   |
|                          | Surge                      | EN61000-4-5, level3   |
|                          | Onducted Emission          | EN61000-4-6, level3   |
|                          | PFMF                       | EN61000-4-8, Horizontal direction/vertical direction 400A/m (>level3)                     |
|                          | Oscillation Wave Immunity  | EN61000-4-12, level3  |
| Physical Characteristics | Quakeproof                 | IEC60068-2-27   |
|                          | Drop                       | IEC60068-2-32   |
|                          | Vibration                  | IEC60068-2-6  |
| Others                   | Authentication Certificate | CE/UKCA/FCC/PTCRB/UL/C1D2 (Class 1Division 2)/<br>VerizonWireless/AT&T/IC/RCM/NBTC/ANATEL |

|                         | Model                 | IG502  |
|-------------------------|-----------------------|--|
| Operating System        | Operating System      | Customized Linux   |
| Network Interconnection | Network Access        | APN/VPDN   |
|                         | Access Authentication | CHAP/PAP/MS-CHAP/MS-CHAPV2   |
|                         | Network Standard      | 5G SA/NSA/LTECat4/LTECat1  |
|                         | LAN Protocol          | ARP/Ethernet   |
|                         | WAN Protocol          | Support static IP/DHCP   |
| Network Protocol        | IP Application        | ICMP/DNS/TCP/UDP/TCPserver/DHCP  |
|                         | IP Routing            | Support static routing   |
| Network Security        | Multilevel User       | Support multi-level administrative permissions   |
|                         | Data Security         | Support OpenVPN, support IPsecVPN  |
| Reliability             | Backup Function       | Support dual SIM cards   |
|                         | Link Online Detection | Heartbeat packet detection is sent, and the disconnection is automatically reconnected.  |
|                         | Embedded Watchdog     | Self-inspection technology of equipment operation, self-repair of equipment operation failure  |
| Open Platform           | Open Platform         | Support Python development platform  |
|                         | Access Cloud Platform | Support cloud platforms such as AWS, Azure and Ali   |
| Protocol Type           | Protocol Type         | Modbusclient/slave, Modbusserver/slave, EtherNet/IP, ISOonTCP, OPCUAclient/Server, MitsubishiMC 3C/3E/3COverTCP, MitsubishiCPUPort, FINSUDP, HostLink, PPI, DLT645-2007, IEC104Server and other protocols. |
| Maintenance Management  | Collocation Method    | Configuration of Web interface   |
|                         | Configure Backup      | Support the import and export of configuration files   |
|                         | Upgrade Mode          | Support proprietary upgrade mechanism, and upgrade firmware locally or remotely.   |
|                         | Log Function          | Support local system logs and remote logs, and save important logs in case of power failure.   |
|                         | Remote Administration | Support InHand Device Manager network management cloud platform, InConnet platform and iSCADA cloud platform; HTTPS, Telnet, SSH, etc.   |

## 30-Day Electronic Temperature Logger

### Haier Biomedical Vaccine Cold Chain Storage Safety Solution

- Continuous, real-time, whole-process traceable monitoring for vaccine safety storage
- WHO approved and sourced by WHO procurement

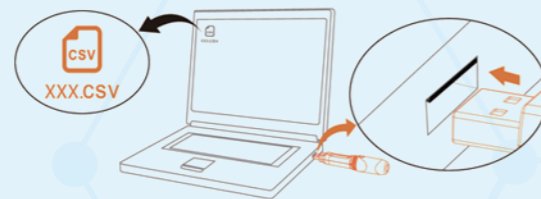
## 30-Day Electronic Temperature Logger



HETL-01



WHO Prequalified  
PQS code:E006/042



Easy to download data



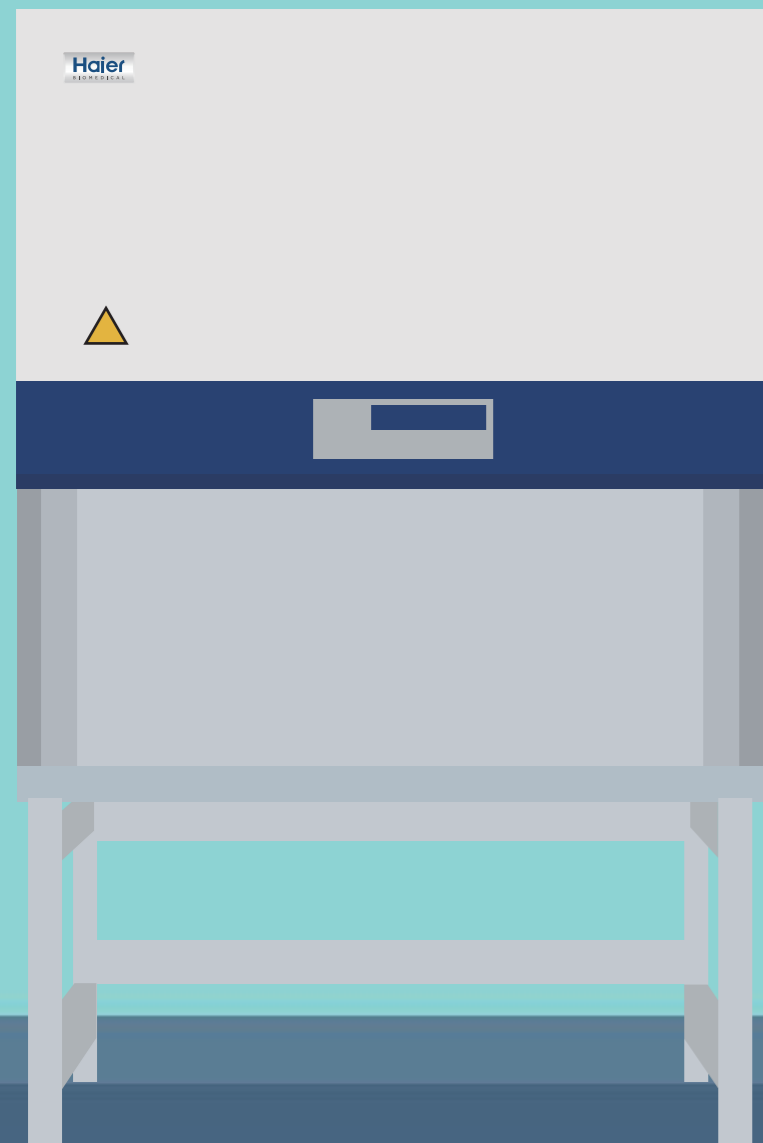
Accessory: Bracket

### Product Features

- Approved by WHO's PQS, PQS code:E006/042
- Designed specifically for 2~8°C vaccine storage, equipped with high/low temperature visual alarm to meet the WHO standard
- Recording capacity is over 30 days, recording interval is 6 minutes, outdated data will be overwritten by new one automatically, when the recording volume is full
- LCD screen displays temperature
- Integrated sensor device, dust and water resistant to IP65 protection standard, can be placed in Cold Box or vaccine refrigerator to monitor the temperature
- The logger can be plugged into the USB port of any PC to automatically generate a CSV file including temperature data and temperature graph which can be generated by data management software
- Built-in disposable wide temperature range lithium battery (Non-replaceable) with a minimum operating life of two years after a maximum shelf life of one year
- The bracket is included as standard

### Specifications

| Model                     | HETL-01                                     |
|---------------------------|---|
| Temperature Range (°C)    | -20~+50                                     |
| Main Material             | ABS (Transparent Shield: PC)                |
| Data Interface            | USB Interface                               |
| Display Medium            | LCD   |
| Resolution (°C)           | 0.1   |
| Accuracy                  | ±0.5°C for -20°C~+40°C, ±1°C for the others |
| Recording Volume          | 8192 Data Points(34 days)                   |
| Logging Interval          | 6 min                                       |
| Power Source              | Non-Replaceable Battery                     |
| Size (Length*Diameter mm) | 131*24                                      |
| Service Life              | 2~3 years                                   |



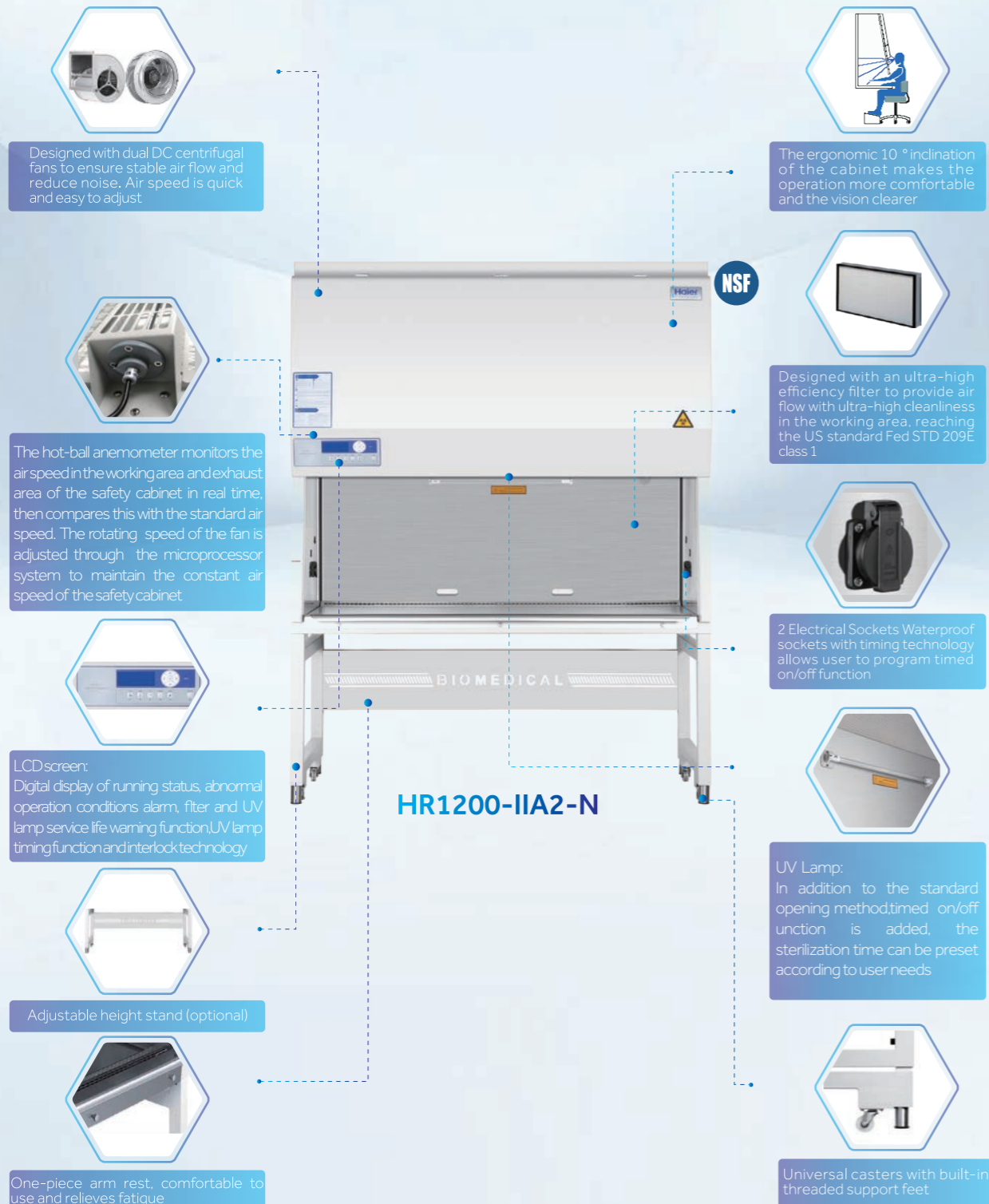
**Clean Air  
Solutions**

# NSF Series Biological Safety Cabinet

317/318

## Scope of Application

Professional air purification equipment suitable for pharmaceuticals, medical and health industries, scientific research laboratories of universities and colleges as well as other related fields.



## Product Advantages

- Multiple Voltage Options, Suitable for Many Countries and Regions**  
 Full voltage coverage (100-230V 50/60Hz), suitable for a wide range of countries and regions.
- Microprocessor Control System**
  - Intuitive and informative interactive digital LCD display.
  - The hot-ball anemometer monitors the downflow and inflow air speed of the safety cabinet in real time and compares it with the standard air speed. The rotating speed of the fan is adjusted through the microprocessor system to maintain the constant air speed of the safety cabinet.
  - Real-time display of operational information and parameters including downflow air velocity, flow rate, temperature, humidity, positive pressure, negative pressure, fan cumulative running time and filter remaining service life.
  - One button UV lamp timer function, allows users to set 0 to 24 hours of automatic on/off time.
- Ultra-low Noise, Uniform Airflow**  
 Designed with Dual DC centrifugal fans, combined with an innovative air distribution system, with lower noise, and more uniform air flow.
- Superior Filter, Multiple Protection**
  - ULPA is made of moisture-proof and flame-retardant glass fiber filter paper which can intercept 99.9995% solid particles with a diameter of 0.12 μm to ensure high cleanliness of air supply flow and exhaust flow.
  - Perfect air distribution design, no turbulence in the working area.
  - Sound and light alarm function for abnormal parameters.
- One-piece Welded Cabinet Structure, Leak Proof**  
 Prevention of leakage performance of dangerous factors conforms to NSF specification.



### Specifications

| Model                        |   | HR900-IIA2-N   | HR1200-IIA2-N  | HR1500-IIA2-N  | HR1800-IIA2-N  |  |
|------------------------------|---|--|--|--|--|--|
| General Specification        | Power Supply(V/Hz)                                  | 100-230/50/60  | 100-230/50/60  | 100-230/50/60  | 100-230/50/60  |  |
|                              | Power (VA)  | 1300   | 1300   | 1400   | 1400   |  |
|                              | Power of Blower (W)                                 | DC 190W 112W   | DC 120W 112W   | DC 190W 112W   | DC 120W 112W   |  |
|                              | Airflow Circulation                                 | 70%Downflow,30%Exhaust   | 70%Downflow,30%Exhaust   | 70%Downflow,30%Exhaust   | 70%Downflow,30%Exhaust   |  |
|                              | Main Filter Typical Efficiency                      | ULPA,U15,99,9995%@0.12um                                       | ULPA,U15,99,9995%@0.12um                                       | ULPA,U15,99,9995%@0.12um                                       | ULPA,U15,99,9995%@0.12um                                       |  |
|                              | Exhaust Filter Typical Efficiency                   | ULPA,U15,99,9995%@0.12um                                       | ULPA,U15,99,9995%@0.12um                                       | ULPA,U15,99,9995%@0.12um                                       | ULPA,U15,99,9995%@0.12um                                       |  |
|                              | Filter's Brand                                      | AAF  | AAF  | AAF  | AAF  |  |
|                              | Downflow Velocity (m/s)                             | 0.35   | 0.35   | 0.35   | 0.35   |  |
|                              | Inflow Velocity (m/s)                               | 0.53   | 0.53   | 0.53   | 0.53   |  |
|                              | Lighting Intensity (Lux)                            | 946  | 1323   | TBD  | 1292   |  |
| Sound Level (dB(A))          | 67  | 64   | TBD  | 67   |  |  |
| Dimensions                   | Net/Gross Weight                                    | kg   | 225/280  | 275/335  | 325/376  | 375/460  |
|                              |   | lbs  | 496/584  | 617/750  | 716.5/804.7  | 827/1014   |
|                              | Internal Dimensions (W*D*H)                         | mm   | 930*600*650  | 1230*600*650   | 1530*600*650   | 1830*600*650   |
|                              |   | in   | 36.6*23.6*25.6   | 48.4*23.6*25.6   | 60.2*23.6*25.6   | 72.0*23.6*25.6   |
|                              | External Dimensions (W*D*H) (Width without Armrest) | mm   | 1040*850(790)*2160   | 1340*850(790)*2160   | 1640*850(790)*2160   | 1940*850(790)*2160                                       |
|                              |   | in   | 40.9*33.5(31.1)*85   | 52.8*33.5(31.1)*85   | 64.6*33.5(31.1)*85   | 76.4*33.5(31.1)*85                                       |
|                              | Packing Dimensions (W*D*H)                          | mm   | 1105*935*1720  | 1435*945*1700  | 1705*940*1720  | 2038*945*1700  |
|                              |   | in   | 43.5*36.8*67.7   | 56.5*37.2*66.9   | 67.1*37.0*67.7   | 80.2*37.2*66.9   |
|                              | Support Stand (mm)                                  |  | 680mm (standard), 680-900mm adjustable height (optional)       | 680mm (standard), 680-900mm adjustable height (optional)       | 680mm (standard), 680-900mm adjustable height (optional)       | 680mm (standard), 680-900mm adjustable height (optional) |
|                              | Sash Opening (mm)                                   |  | 200 (Max 460)  | 200 (Max 460)  | 200 (Max 460)  | 200 (Max 460)  |
| Container Load (20/40/40H)   |   | 12/24/24   | 8/16/16  | 6/12/12  | 6/12/12  |  |
| Alarms Functions             | Alarm   | Sound and Flash  | Sound and Flash  | Sound and Flash  | Sound and Flash  |  |
|                              | Closing Fan Alarm After Door Opening                | Y  | Y  | Y  | Y  |  |
|                              | Door Ajar   | Y  | Y  | Y  | Y  |  |
|                              | Abnormal Inflow                                     | Y  | Y  | Y  | Y  |  |
|                              | Abnormal Downflow                                   | Y  | Y  | Y  | Y  |  |
|                              | Door Open More than Limit                           | Y  | Y  | Y  | Y  |  |
|                              | Filter Clogging                                     | Y  | Y  | Y  | Y  |  |
|                              | Filter Damage                                       | Y  | Y  | Y  | Y  |  |
|                              | Filter Lifetime Lack                                | Y  | Y  | Y  | Y  |  |
|                              | UV Light Lifetime Lack                              | Y  | Y  | Y  | Y  |  |
| Accessories                  | UV Lamp   | Y  | Y  | Y  | Y  |  |
|                              | Socket  | 2 sockets (optional GFCI socket)                               | 2 sockets (optional GFCI socket)                               | 2 sockets (optional GFCI socket)                               | 2 sockets (optional GFCI socket)                               |  |
|                              | Valve Port  | Optional   | Optional   | Optional   | Optional   |  |
|                              | Side Wall Service Taps                              | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap |  |
|                              | Antimicrobial Coating                               | Optional   | Optional   | Optional   | Optional   |  |
|                              | 316SS Work Surface                                  | Optional   | Optional   | Optional   | Optional   |  |
|                              | Work Surface  | One-piece  | One-piece  | One-piece  | One-piece  |  |
|                              | Touch Screen  | Optional   | Optional   | Optional   | Optional   |  |
|                              | Motorized Window                                    | N  | N  | N  | N  |  |
|                              | Foot Switch   | N  | N  | N  | N  |  |
| Armrest                      | Y   | Y  | Y  | Y  |  |  |
| Exhaust Duct Connection Kits | Optional  | Optional   | Optional   | Optional   |  |  |
| Others                       | Certification                                       | UL, NSF  | UL, NSF  | UL, NSF  | UL, NSF  |  |

### Smart IoT Series Biological Safety Cabinet

#### Scope of Application

The X series of standard Class II microbiological safety cabinets are suitable for basic cell biology, microbiology, biomedicine, biosafety laboratories and other laboratories.



Follow the QR code and learn more about the Smart IoT Series Biological Safety Cabinet from Haier Biomedical



# Smart IoT Series Biological Safety Cabinet

## Product Advantages

### Microprocessor Control System

- Utilizing intelligent constant air speed design to monitor the downward airflow and the inlet airflow in real-time. The dual airspeed sensors adjust the fan speed through a microcomputer system so as to maintain constant airspeed inside the cabinet
- Intuitive and informative interactive touch screen
- Real-time display of operational information and parameters including downflow air velocity, flow rate, temperature, humidity, positive pressure, negative pressure, fan cumulative running time and filter remaining service life

### Ultra-low Noise, Uniform Airflow

Designed with dual DC fans, for up to 50% energy savings vs AC motor, meeting the low-noise, energy-saving and high-reliability requirements

### One-touch UV Lamp Operation

One-button UV lamp timer, learns and retains users' UV lamp usage habits for convenient one-key start-up of the UV lamp timing function

### Foot Switch (optional)

The foot switch will open or close the front sash to allow users to access samples without direct contact with the sash handle

### Electronic Front Sash (optional)

With push button simplicity the front window automatically opens to the correct aperture mandated by regional regulation to help ensure proper working conditions

### Easy to Clean

The armrest can be removed and the unique drop-down front sash can be removed in seconds to enable easy cleaning and full access to the cabinet interior work space for thorough cleaning/disinfection

### Dual Cameras (optional)

As an option, two surveillance cameras can monitor and record the conditions at each side of the working area. The camera is positioned to avoid any splashback within the working area, minimizing cleaning required

### Interlocking Design to Ensure Maximum Safety and Reliability

UV lamp, front sash, fan and interior light operation are interlocked together to protect against harmful UV rays and to prevent leakage of microorganisms

### Intelligent IoT Module (optional)

An IoT module is an option available to enable users to simply manage the biosafety cabinets, any time anywhere, using our app. The system monitors the cabinet in real-time and alerts in the event of any abnormal alarms. Users can view operational parameters, operation performance curves, event and alarm records as well as other useful information

### PIR Detection

In intelligent mode, the PIR sensor will detect when the operating area has been clear of personnel for more than 15 minutes and automatically switch to LNS green-saving mode to reduce the noise level, save energy and prolong the service life of filter

## Specifications

| Model                         |   | HR1200-IIA2-X  | HR1500-IIA2-X  | HR1800-IIA2-X  |                      |
|-------------------------------|---|--|--|--|----------------------|
| General Specification         | Power Supply(V/Hz)                                  | 220-240 50/60  | 220-240 50/60  | 220-240 50/60  |                      |
|                               | Power (VA)  | 1600   | 1670   | 1850   |                      |
|                               | Power of Blower (W)                                 | DC 120,DC 112  | DC 190,DC 112  | DC 120,DC 112  |                      |
|                               | Airflow Circulation                                 | 70% Downflow,30% Exhaust                                       | 70% Downflow, 30% Exhaust                                      | 70% Downflow,30% Exhaust                                       |                      |
|                               | Main Filter Typical Efficiency                      | ULPA, U15.99.9995%@0.12um                                      | ULPA, U15.99.9995%@0.12um                                      | ULPA, U15.99.9995%@0.12um                                      |                      |
|                               | Exhaust Filter Typical Efficiency                   | ULPA, U15.99.9995%@0.12um                                      | ULPA, U15.99.9995%@0.12um                                      | ULPA, U15.99.9995%@0.12um                                      |                      |
|                               | Exhaust Filter                                      | Single   | Single   | Single   |                      |
|                               | Filter's Brand                                      | AAF  | AAF  | AAF  |                      |
|                               | Downflow Velocity (m/s)                             | 0.30   | 0.30   | 0.30   |                      |
|                               | Inflow Velocity (m/s)                               | 0.45   | 0.45   | 0.45   |                      |
| Lighting Intensity (Lux)      | 1317  | 1396   | 1133   |  |                      |
| Sound Level (dB(A))           | 59.3  | 61   | 63.5   |  |                      |
| Dimensions                    | Net/Gross Weight                                    | kg   | 280/340  | 320/400  | 380/465              |
|                               |   | lbs  | 617/750  | 705/882  | 838/1025             |
|                               | Internal Dimensions (W*D*H)                         | mm   | 1230*600*655   | 1530*600*655   | 1830*600*655         |
|                               |   | in   | 48.4*23.6*25.8   | 60.2*23.6*25.8   | 72.0*23.6*25.8       |
|                               | External Dimensions (W*D*H) (Width without Armrest) | mm   | 1336*845(790)*2120   | 1636*845(790)*2120   | 1936*845(790)*2120   |
|                               |   | in   | 52.6*33.3(31.1)*83.5   | 64.4*33.3(31.1)*83.5   | 76.2*33.3(31.1)*83.5 |
|                               | Packing Dimensions (W*D*H)                          | mm   | 1435*945*1700  | 1720*945*1700  | 2038*945*1700        |
|                               |   | in   | 56.5*37.2*66.9   | 67.7*37.2*66.9   | 80.2*37.2*66.9       |
| Support Stand (mm)            | 680-900mm adjustable height (standard)              |  | 680-900mm adjustable height (standard)                         | 680-900mm adjustable height (standard)                         |                      |
| Sash Opening (mm)             | 200 (Max 480)                                       |  | 200 (Max 480)  | 200 (Max 480)  |                      |
| Container Load (20'/40'/40'H) | 8/16/16   |  | 6/12/12  | 6/12/12  |                      |
| Alarms Functions              | Alarm   | Sound and Flash  |  | Sound and Flash  |                      |
|                               | Closing Fan Alarm After Door Opening                | Y  | Y  | Y  |                      |
|                               | Door Ajar   | Y  | Y  | Y  |                      |
|                               | Abnormal Inflow                                     | Y  | Y  | Y  |                      |
|                               | Abnormal Downflow                                   | Y  | Y  | Y  |                      |
|                               | Door Open More than Limit                           | Y  | Y  | Y  |                      |
|                               | Filter Clogging                                     | Y  | Y  | Y  |                      |
|                               | Filter Damage                                       | Y  | Y  | Y  |                      |
|                               | Filter Lifetime Lack                                | Y  | Y  | Y  |                      |
|                               | UV Light Lifetime Lack                              | Y  | Y  | Y  |                      |
| Accessories                   | UV Lamp   | Y  | Y  | Y  |                      |
|                               | Socket  | 2 sockets  | 2 sockets  | 2 sockets  |                      |
|                               | Valve Port  | Optional   | Optional   | Optional   |                      |
|                               | Side Wall Service Taps                              | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap |                      |
|                               | Antimicrobial Coating                               | Optional   | Optional   | Optional   |                      |
|                               | 316SS Work Surface                                  | Optional   | Optional   | Optional   |                      |
|                               | Work Surface  | One-piece  | One-piece  | One-piece  |                      |
|                               | Touch Screen  | Y  | Y  | Y  |                      |
|                               | Motorized Window                                    | Optional   | Optional   | Optional   |                      |
|                               | Foot Switch   | Optional   | Optional   | Optional   |                      |
| Armrest                       | Y   | Y  | Y  |  |                      |
| Exhaust Duct Connection Kits  | Optional  | Optional   | Optional   |  |                      |
| Others                        | Certification                                       | CE, TUV  | CE, TUV  | CE, TUV  |                      |

# Biological Safety Cabinet (Single/Double exhaust filter)

323/324

## Scope of Application

Suitable for microbiology, biomedicine, biosafety laboratories and other laboratories. It offers three levels of protection-operator, product and environment



## Product Advantages

- Ultra-efficient Filtration**  
 High efficiency moisture proof and flame-retarded filter achieving a retention efficiency of 99.9995% for 0.12 micron solid particle system
- Intelligent Constant Air Velocity System**  
 Designed with intelligent constant air speed technology, which can ensure that the working area could have its downflow and inflow velocities in line with the standard requirements
- Side Glass Windows**  
 Tempered glass side walls increase visibility and prevents the operator from experiencing a "boxed-in" feeling
- Multiple Alarm Functions**  
 Audible and visual alarm functions: filter and UV end-of-life alerts, fan turned-off after door opening alert and door open alarm
- Ergonomic Design**
  - A comfortable platform-type armrest can reduce hand and arm fatigue
  - 10-degree angle inclination design, in accordance with ergonomic principles for more comfortable operation
  - With height adjustable stand, users can adjust the height of the work bench to requirements
- Easy to Clean**  
 The armrest can be removed and the unique drop-down front sash can be removed in seconds to enable easy cleaning and full access to the cabinet interior work space for thorough cleaning/disinfection
- Patented IP-44 Rated Socket with Timer**  
 The sockets can be programmed to supply power at a specified time to meet the users' experiment schedules
- Lower Noise and Airflow Uniformity**  
 DC&EC fans operate with lower noise and deliver excellent air flow uniformity
- UV Lamp**  
 Patented one-button UV lamp technology allows users to automatically activate or deactivate based on usage habits or at specific sterilization intervals to minimise waiting time
- PIR Detection**  
 In intelligent mode, the PIR sensor will detect when the operating area has been clear of personnel for more than 15 minutes and automatically switch to LNS green-saving mode to reduce the noise level, save energy and prolong the service life of filter



Follow the QR code and learn more about the Biological Safety Cabinet from Haier Biomedical

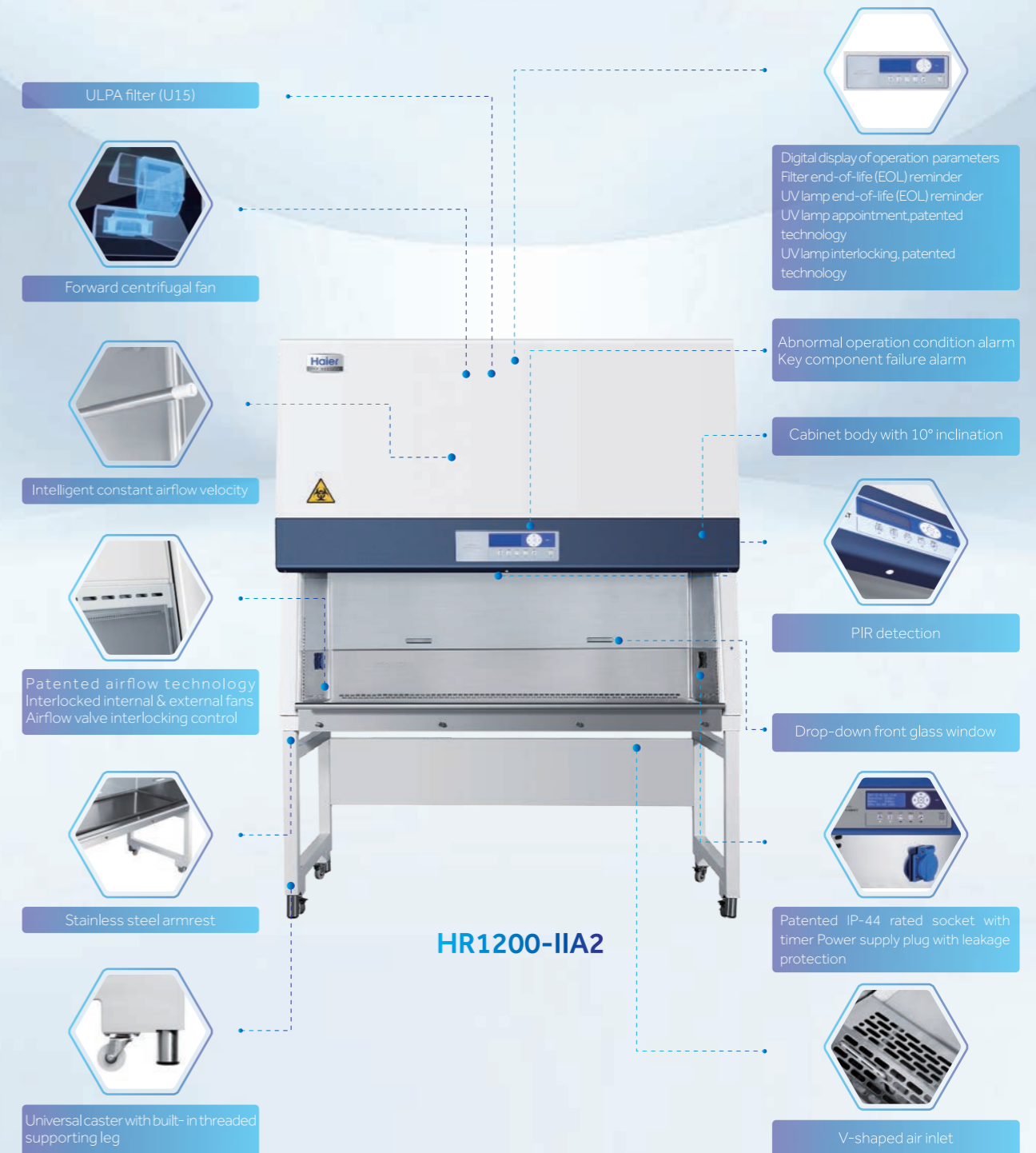
### Specifications

| Model  | HR900-IIA2-S   | HR1200-IIA2-S  | HR900-IIA2-D   | HR1200-IIA2-D  |                      |
|--|--|--|--|--|----------------------|
| Power Supply(V/Hz)                                     | 220-240/50/60  | 220-240/50/60  | 220-240/50/60  | 220-240/50/60  |                      |
| Power (VA)   | 1500   | 1600   | 1500   | 1600   |                      |
| Power of Blower (W)                                    | DC 120W/EC170W   | DC 120,DC 112  | DC 120W/EC170W   | DC 190,DC 170  |                      |
| Airflow Circulation                                    | 70% Downflow,30% Exhaust                                       | 70% Downflow,30% Exhaust                                       | 70% Downflow,30% Exhaust                                       | 70% Downflow,30% Exhaust                                       |                      |
| Main Filter Typical Efficiency                         | ULPA,U15,99.9995%@0.12um                                       | HEPA,H14,99.995%@0.3um   | ULPA,U15,99.9995%@0.12um                                       | ULPA,U15,99.9995%@0.12um                                       |                      |
| Exhaust Filter Typical Efficiency                      | ULPA,U15,99.9995%@0.12um                                       | HEPA,H14,99.995%@0.3um   | ULPA*2,U15,99.9995%@0.12um                                     | HEPA*2,H14,99.995%@0.3um                                       |                      |
| Exhaust Filter   | Single   | Single   | Double   | Dual   |                      |
| Filter's Brand   | AAF  | AAF  | AAF  | AAF  |                      |
| Downflow Velocity (m/s)                                | 0.30   | 0.30   | 0.30   | 0.30   |                      |
| Inflow Velocity (m/s)                                  | 0.45   | 0.45   | 0.45   | 0.45   |                      |
| Lighting Intensity (Lux)                               | ≥1300  | ≥1000  | ≥1300  | ≥1000  |                      |
| Sound Level (dB(A))                                    | 57.1   | 60   | 59.7   | 60   |                      |
| Net/Gross Weight                                       | kg   | 290/320  | 320/339  | 290/320  | 320/339              |
|  | lbs  | 639/705  | 705.5/747.4  | 639/705  | 705.5/747.4          |
| Internal Dimensions (W*D*H)                            | mm   | 936*620*635  | 1310*620*635   | 936*620*635  | 1310*620*635         |
|  | in   | 36.9*24.4*25   | 51.6*24.4*25   | 36.9*24.4*25   | 51.6*24.4*25         |
| External Dimensions (W*D*H)<br>(Width without Armrest) | mm   | 1002*856(796)*1485   | 1380*856(796)*2164   | 1002*856(796)*1485   | 1380*856(796)*1485   |
|  | in   | 39.5*33.7(31.3)*58.5   | 54.3*33.7(31.3)*85.2   | 39.5*33.7(31.3)*58.5   | 54.3*33.7(31.3)*58.5 |
| Packing Dimensions (W*D*H)                             | mm   | 1185*925*1720  | 1475*935*1720  | 1105*932*1730  | 1475*935*1720        |
|  | in   | 46.7*36.4*67.7   | 58.1*36.8*67.7   | 43.5*36.7*68.1   | 58.1*36.8*67.7       |
| Support Stand (mm)                                     | No. 680-900mm adjustable height (optional)                     | 680-900mm adjustable height (standard)                         | No. 680-900mm adjustable height (optional)                     | No. 680-900mm adjustable height (optional)                     |                      |
| Sash Opening (mm)                                      | 200 (Max 490)  | 200 (Max 490)  | 200 (Max 490)  | 200 (Max 490)  |                      |
| Container Load (20"/40"/40"H)                          | 11/21/21   | 8/16/16  | 11/21/21   | 8/16/16  |                      |
| Alarm  | Sound and Flash  | Sound and Flash  | Sound and Flash  | Sound and Flash  |                      |
| Closing Fan Alarm After Door Opening                   | Y  | Y  | Y  | Y  |                      |
| Door Ajar Alarm  | Y  | Y  | Y  | Y  |                      |
| Abnormal Inflow Alarm                                  | Y  | Y  | Y  | Y  |                      |
| Abnormal Downflow Alarm                                | Y  | Y  | Y  | Y  |                      |
| Door Open More than Limit Alarm                        | Y  | Y  | Y  | Y  |                      |
| Filter Clogging Alarm                                  | Y  | Y  | Y  | Y  |                      |
| Filter Damage Alarm                                    | Y  | Y  | Y  | Y  |                      |
| Filter Lifetime Lack Alarm                             | Y  | Y  | Y  | Y  |                      |
| UV Light Lifetime Lack Alarm                           | Y  | Y  | Y  | Y  |                      |
| UV Lamp  | Y  | Y  | Y  | Y  |                      |
| Socket   | 2 sockets  | 2 sockets  | 2 sockets  | 2 sockets  |                      |
| Valve Port   | Optional   | Optional   | Optional   | Optional   |                      |
| Side Wall Service Taps                                 | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap |                      |
| Antimicrobial Coating                                  | Optional   | Optional   | Optional   | Optional   |                      |
| 316SS Work Surface                                     | Optional   | Optional   | Optional   | Optional   |                      |
| Work Surface   | Three-piece  | Four-piece   | Three-piece  | Three-piece  |                      |
| Touch Screen   | N  | N  | N  | N  |                      |
| Motorized Window                                       | Optional   | Optional   | Optional   | Optional   |                      |
| Foot Switch  | Optional   | Optional   | Optional   | Optional   |                      |
| Armrest  | Y  | Y  | Y  | Y  |                      |
| Exhaust Duct Connection Kits                           | Optional   | Optional   | Optional   | Optional   |                      |
| Others   | Certification  | CE, UKCA   | CE, UKCA, TUV  | CE, UKCA   | CE, UKCA, TUV        |

### Biological Safety Cabinet

#### Scope of Application

This Class II microbiological safety cabinet is designed to protect the operator, laboratory environment and samples from being exposed to the infective aerosol produced from samples with bacteria strains, diagnostic materials, and other infective substances. It provides the operator with comfortable and safer working conditions. It is widely used in medical health, disease prevention, food safety, biological pharmacy and environment monitoring.



## Product Advantages

### V V-shaped Air Inlet

The V-shaped air inlet can prevent the samples or arms of operator from blocking the air flow. The work surface can be easily lifted using the handles for cleaning purposes

### One-touch UV Lamp Operation

UV lamp records and remembers users' setting and habits and can be preset with a startup delay with one-key operation for ease and convenience

### Energy Conservation

#### PIR detection

In intelligent mode, the PIR sensor will detect when the operating area has been clear of personnel for more than 15 minutes and automatically switch to LNS green-saving mode to reduce the noise level, save energy and prolong the service life of filter

### Ergonomic

#### • 10° inclination design of cabinet body

The front operation interface has an ergonomic design of 10° inclination for ensuring more comfortable operation

#### • Stainless steel armrest

A comfortable platform-type armrest can reduce hand and arm fatigue

### Easy to Clean

The armrest can be removed and the unique drop-down front sash can be removed in seconds to enable easy cleaning and full access to the cabinet interior work space for thorough cleaning/disinfection

### Intelligent

#### Constant airflow velocity

The hot-bulb airflow velocity transducer performs real-time monitoring of the air velocity of the working area, compares it with the standard air velocity, and keeps a constant air velocity in the cabinet by regulating the fan speed with a microcomputer system

### IP 44 Rated Power Sockets with Timer

The sockets can be programmed to supply power at a specified time to meet the users' demands for timing of experiments

### Safe

#### • Abnormal operation condition alarm

Audible and visual alarms in form of voice or text will be present when air turbulence level exceeds 20% and door height (high or low) or work area temperature exceeds limits

#### • Patented technology: filter end-of-life reminder

Pressure transducer monitors the resistance variation of filter to determine the remaining life of filter and will remind the user by warning when the remaining life is below 10%

#### • Patented technology: UV lamp end-of-life reminder

The microcomputer will add up the service time of UV lamp, and will remind by warning the user to replace the UV lamp when its remaining life is less than 10%

### Offers a Broad Range of Sizes to Fit any Available Laboratory Space

## Mini Biological Safety Cabinet

### Scope of Application

Small size microbiological safety cabinet for single person operations and small working spaces, suitable for testing stations within warehouse, airports and mobile laboratories.



HR700-IIA2



# Mini Biological Safety Cabinet

## Product Advantages



### Safe and Reliable

Adopts AAF filters, class 1 cleanliness to provide maximum protection for people, environment and samples



### LCD Display

LCD screen displays various parameters and service life of accessories in real time, and the operational condition of the equipment is clear at a glance



### One-click Operation

UV lamp one-click reservation allows users to set 0 min to 24 hours of automatic on/off time and sterilization interval, reducing the waiting time



### Two Waterproof Sockets

Sockets include timing technology to allow users to program socket on/off times



### Interlocking Function

The product features an interlocking function between UV disinfection, fluorescent lamp, front sash and fan



### Alarms

Audible and visual alarm functions: hardware failure alarm, operation parameter overrun alarm, filter and UV lamp life warning



### Uniform Airflow

The EBM fan, combined with Haier Biomedical's professional air distribution design, provides lower noise operation and a uniform air flow



### Safety Certified

Complies with EN12469



## Specifications

| Model                             | HR700-IIA2                           | HR900-IIA2   | HR1200-IIA2  | HR1500-IIA2  |  |                      |
|-----------------------------------|--------------------------------------|--|--|--|--|----------------------|
| Power Supply(V/Hz)                | 220-240/50                           | 220-240/50   | 220-240/50   | 220-240/50   |  |                      |
| Power (VA)                        | 1200                                 | 1500   | 1500   | 1900   |  |                      |
| Power of Blower (W)               | 210W                                 | AC L=330,M=465,H=735   | AC L=330,M=465,H=735   | AC 650   |  |                      |
| Airflow Circulation               | 70% Downflow,30% Exhaust             | 70% Downflow,30% Exhaust                                       | 70% Downflow,30% Exhaust   | 70% Downflow,30% Exhaust   |  |                      |
| Main Filter Typical Efficiency    | HEPA,H14,99.995%@0.3um               | ULPA,U15,99.9995%@0.12um                                       | ULPA,U15,99.9995%@0.12um   | ULPA,U15,99.9995%@0.12um   |  |                      |
| Exhaust Filter Typical Efficiency | ULPA,U15,99.9995%@0.12um             | ULPA,U15,99.9995%@0.12um                                       | HEPA,H14,99.995%@0.3um   | HEPA,H14,99.995%@0.3um   |  |                      |
| Exhaust Filter                    | Single                               | Single   | Single   | Single   |  |                      |
| Filter's Brand                    | AAF                                  | AAF  | AAF  | AAF  |  |                      |
| Downflow Velocity (m/s)           | 0.30                                 | 0.33   | 0.34   | 0.31   |  |                      |
| Inflow Velocity (m/s)             | 0.53                                 | 0.55   | 0.55   | 0.55   |  |                      |
| Lighting Intensity (Lux)          | ≥780                                 | ≥900   | ≥900   | ≥900   |  |                      |
| Sound Level(dB(A))                | < 65                                 | 60   | 60   | 62   |  |                      |
| Dimensions                        | Net/Gross Weight                     | kg   | 100/130  | 290/310  | 320/339  | 350/393              |
|                                   |                                      | lbs  | 220.4/286.52   | 639.3/683.4  | 705.5/747.4  | 771.6/866.4          |
|                                   | Internal Dimensions (W*D*H)          | mm   | 600*550*540  | 920*620*650  | 1220*620*650   | 1520*620*650         |
|                                   |                                      | in   | 23.62*21.65*21.26  | 36.2*24.4*25.6   | 48.0*24.4*25.6   | 59.9*24.4*25.6       |
|                                   | External Dimensions (W*D*H)          | mm   | 700*720*1200   | 1080*845(790)*2160   | 1380*845(790)*2160   | 1680*845(790)*2160   |
|                                   |                                      | in   | 27.56*28.35*47.24  | 42.5*33.3(31.1)*85.0   | 54.3*33.3(31.1)*85.0   | 66.1*33.5(31.1)*85.0 |
| Packing Dimensions (W*D*H)        | mm                                   | 800*810*1385 (without stand)<br>825*820*1495 (with stand)      | 1185*925*1720  | 1475*935*1720  | 1785*932*1720  |                      |
|                                   | in                                   | 31.5*31.9*54.5(without stand)<br>32.5*32.3*58.9(with stand)    | 46.7*36.4*67.7   | 58.1*36.8*67.7   | 70.3*36.7*67.7   |                      |
| Support Stand (mm)                | No.700mm (optional)                  |  | 680-900mm adjustable height (standard)                                     | 680-900mm adjustable height (standard)                                     | 680-900mm adjustable height (standard)                                     |                      |
| Sash Opening (mm)                 | 200 (Max)                            |  | 200 (Max 490)  | 200 (Max 490)  | 200 (Max 490)  |                      |
| Container Load (20'/40'/40'H)     | 14/28/28                             |  | 11/21/21   | 8/16/16  | 6/12/12  |                      |
| Alarms Functions                  | Alarm                                | Sound and Flash  |  | Sound and Flash  | Sound and Flash  |                      |
|                                   | Closing Fan Alarm After Door Opening | Y  | Y  | Y  | Y  |                      |
|                                   | Door Ajar Alarm                      | Y  | Y  | Y  | Y  |                      |
|                                   | Abnormal Inflow Alarm                | Y  | Y  | Y  | Y  |                      |
|                                   | Abnormal Downflow Alarm              | Y  | Y  | Y  | Y  |                      |
|                                   | Door Open More than Limit Alarm      | Y  | Y  | Y  | Y  |                      |
|                                   | Filter Clogging Alarm                | Y  | Y  | Y  | Y  |                      |
|                                   | Filter Damage Alarm                  | Y  | Y  | Y  | Y  |                      |
|                                   | Filter Lifetime Lack Alarm           | Y  | Y  | Y  | Y  |                      |
| UV Light Lifetime Lack Alarm      | Y                                    | Y  | Y  | Y  |  |                      |
| Accessories                       | UV Lamp                              | Y  | Y  | Y  | Y  |                      |
|                                   | Socket                               | 2 sockets  | 2 sockets  | 2 sockets  | 2 sockets  |                      |
|                                   | Valve Port                           | Optional   | Standard with 2 valve port   | Standard with 2 valve port   | Standard with 2 valve port   |                      |
|                                   | Side Wall Service Taps               | Optional gas tap, vacuum tap, compressed air tap and water tap | Standard gas tap and vacuum tap; optional compressed air tap and water tap | Standard gas tap and vacuum tap; optional compressed air tap and water tap | Standard gas tap and vacuum tap; optional compressed air tap and water tap |                      |
|                                   | Antimicrobial Coating                | Optional   | Optional   | Optional   | Optional   |                      |
|                                   | 316SS Work Surface                   | Optional   | Optional   | Optional   | Optional   |                      |
|                                   | Work Surface                         | One-piece  | One-piece  | One-piece  | One-piece  |                      |
|                                   | Touch Screen                         | N  | N  | N  | N  |                      |
|                                   | Electric Front Sash                  | Y  | Optional   | Optional   | Optional   |                      |
|                                   | Foot Switch                          | Optional   | Optional   | Optional   | Optional   |                      |
|                                   | Armrest                              | N  | Y  | Y  | Y  |                      |
| Exhaust Duct Connection Kits      | N                                    | Optional   | Optional   | Optional   |  |                      |
| Others                            | Certification                        | CE, TUV  | CE, UKCA, TUV  | CE, UKCA, TUV  | CE, UKCA, TUV  |                      |

## Classic Series Biological Safety Cabinet (Type A2)

331/332

### Scope of Application

Professional partial air purification equipment, it is suitable for cell biology, microbiology, biomedicine, biosafety and other related laboratories.



### Product Advantages

- Patented air flow blocking technology is designed at the upper edge and both edges of front window to eliminate the exposure of microorganisms
- Real-time display of key parameters: down-flow velocity, inflow velocity, airflow volume, static pressure, negative pressure, accumulative running time off an accumulative running time of UV lamp, and remaining life of filter
- The internal walls on three sides of operation area is constructed by a single plate, and the 12mm arc angle corner for optimal cleaning
- The volume of liquid tank is over 4L, designed with outlet valve for convenient cleaning and maintenance
- Quality 304 stainless steel work surface without screws, no accumulation of contaminant
- Safe**
  - Abnormal operation condition alarm**  
Audible and visual alarms in form of voice or text will be present when air turbulence level exceeds 20% and door height (high or low)
  - Filter end-of-life reminder**  
Pressure transducer monitors the resistance variation of filter to determine the remaining life of filter and reminds the user by warning when the remaining life is below 10%
  - UV lamp end-of-life reminder**  
The microcomputer records service times of the UV lamp and will alert the user to replace the UV lamp when its remaining life is less than 10%
  - Interlocking feature to ensure high safety and reliability**  
Patented technology: UV lamp interlocking control UV lamp, sash, fan and interior light operation are interlocked together to protect against harmful UV rays and to prevent leakage of microorganisms
- Audible and visual alarms for abnormal parameters
- Digital LCD screen
- Dismountable air in-flow plate, easy to clean and sterilize
- UV lamp one-click reservation allows users to set 0 min to 24 hours of automatic on/off time and sterilization interval, reducing the waiting time
- Professional**
  - Digital display of operating parameters**  
Real-time digital display of down flow, inflow, exhaust volume, filter remaining life, UV lamp remaining life, negative pressure and positive pressure



Follow the QR code and learn more about the Classic Series Biological Safety Cabinet from Haier Biomedical

## Classic Series Biological Safety Cabinet (Type A2)

## Classic Series Biological Safety Cabinet (Type B2)

### Specifications

| Model                         |                                      | HR30-IIA2  | HR40-IIA2  |  |   |
|-------------------------------|--------------------------------------|--|--|--|---|
| General Specification         | Power Supply(V/Hz)                   | 220-240/50/60  | 115/60   | 220-240/50/60  |   |
|                               | Power (VA)                           | 1300   | 1300   | 1300   |   |
|                               | Power of Blower (W)                  | AC 540/625   | AC 540/625   | AC 540/625   |   |
|                               | Airflow Circulation                  | 70% Downflow,30% Exhaust   | 70% Downflow,30% Exhaust   | 70% Downflow,30% Exhaust   |   |
|                               | Main Filter Typical Efficiency       | ULPA,U15.99.9995%@0.12um   | ULPA,U15.99.9995%@0.12um   | ULPA,U15.99.9995%@0.12um   |   |
|                               | Exhaust Filter Typical Efficiency    | HEPA,H14.99.9995%@0.3um  | HEPA,H14.99.9995%@0.3um  | HEPA,H14.99.9995%@0.3um  |   |
|                               | Exhaust Filter                       | Single   | Single   | Single   |   |
|                               | Filter's Brand                       | AirePlus   | AAF  | AAF  |   |
|                               | Downflow Velocity (m/s)              | 0.3  | 0.28   | 0.3  |   |
|                               | Inflow Velocity (m/s)                | 0.53   | 0.55   | 0.53   |   |
|                               | Lighting Intensity (Lux)             | ≥1100  | ≥1200  | ≥1200  |   |
|                               | Sound Level (dB(A))                  | 61   | 64   | 64   |   |
|                               | Bench or Stand Only                  | Stand only   | Stand only   | Stand only   |   |
| Dimensions                    | Net/Gross Weight                     | kg   | 220/248  | 258/305  | 258/305   |
|                               |                                      | lbs  | 485/546.7  | 568.8/672.4  | 568.8/672.4   |
|                               | Internal Dimensions (W*D*H)          | mm   | 900*610*680  | 1167*610*680   | 1167*610*680  |
|                               |                                      | in   | 35.4*24.0*26.8   | 45.9*24.0*26.8   | 45.9*24.0*26.8  |
|                               | External Dimensions (W*D*H)          | mm   | 1100*820*2200  | 1360*820*2200  | 1360*820*2200   |
|                               |                                      | in   | 43.3*32.3*86.6   | 53.5*32.3*86.6   | 53.5*32.3*86.6  |
|                               | Packing Dimensions (W*D*H)           | mm   | 1185*945*1750  | 1445*945*1720  | 1445*945*1720   |
|                               |                                      | in   | 46.7*37.2*68.9   | 56.9*37.2*67.7   | 56.9*37.2*67.7  |
|                               | Support Stand (mm)                   |  | 680mm (standard),<br>680-900mm adjustable height (optional)                | 680mm (standard),<br>680-900mm adjustable height (optional)                | 680mm (standard),<br>680-900mm adjustable height (optional) |
| Sash Opening (mm)             |                                      | 190 (Max 490)  | 190 (Max 490)  | 190 (Max 490)  |   |
| Container Load (20'/40'/40'H) |                                      | 10/20/20   | 8/16/16  | 8/16/16  |   |
| Alarms Functions              | Alarm                                | Sound and Flash  | Sound and Flash  | Sound and Flash  |   |
|                               | Closing Fan Alarm After Door Opening | Y  | Y  | Y  |   |
|                               | Door Ajar                            | Y  | Y  | Y  |   |
|                               | Abnormal Inflow                      | Y  | Y  | Y  |   |
|                               | Abnormal Downflow                    | Y  | Y  | Y  |   |
|                               | Door Open More than Limit            | Y  | Y  | Y  |   |
|                               | Filter Clogging                      | Y  | Y  | Y  |   |
|                               | Filter Damage                        | Y  | Y  | Y  |   |
|                               | Filter Lifetime Lack                 | Y  | Y  | Y  |   |
|                               | UV Light Lifetime Lack               | Y  | Y  | Y  |   |
| Accessories                   | UV Lamp                              | Y  | Y  | Y  |   |
|                               | Socket                               | 1 Socket   | 1 Socket   | 1 Socket   |   |
|                               | Valve Port                           | Standard with 2 Valve Port   | Standard with 2 Valve Port   | Standard with 2 Valve Port   |   |
|                               | Side Wall Service Taps               | Standard gas tap and vacuum Tap; optional compressed air tap and water tap | Standard gas tap and vacuum Tap; optional compressed air tap and water tap | Standard gas tap and vacuum Tap; optional compressed air tap and water tap |   |
|                               | Antimicrobial Coating                | Optional   | Optional   | Optional   |   |
|                               | 316SS Work Surface                   | Optional   | Optional   | Optional   |   |
|                               | Work Surface                         | One-piece  | One-piece  | One-piece  |   |
|                               | Touch Screen                         | N  | N  | N  |   |
|                               | Motorized Window                     | N  | N  | N  |   |
|                               | Foot Switch                          | N  | N  | N  |   |
|                               | Armrest                              | Y  | Y  | Y  |   |
| Others                        | Exhaust Duct Connection Kits         | Optional   | Optional   | Optional   |   |
|                               | Certification                        | CE, TUV  | /  | CE, TUV  |   |

### Scope of Application

Professional partial air purification equipment, it is suitable for cell biology, microbiology, biomedicine, biosafety and other related laboratories.

### Product Advantages

- 100% exterior exhaust
- 4m corrosion-resistant corrugated hose (standard)
- Haier Biomedical exterior exhaust fan (optional)
- Interlocking between safety cabinet and exterior exhauster, enables remote control of exterior exhauster parameters with safety cabinet



HR40-IIB2



Specifications

| Model                         |  | HR40-IIB2  |                |
|-------------------------------|--|--|----------------|
| General Specification         | Power Supply(V/Hz)                                       | 220-240/50/60  |                |
|                               | Power (VA)   | 1700   |                |
|                               | Power of Blower (W)                                      | AC 115   |                |
|                               | Airflow Circulation                                      | 100% Exhaust   |                |
|                               | Main Filter Typical Efficiency                           | ULPA,U15,99.9995%@0.12um   |                |
|                               | Exhaust Filter Typical Efficiency                        | HEPA ,H14,99.995%@0.3um  |                |
|                               | Exhaust Filter   | Single   |                |
|                               | Filter's Brand   | AAF  |                |
|                               | Downflow Velocity (m/s)                                  | 0.28   |                |
|                               | Inflow Velocity (m/s)                                    | 0.55   |                |
|                               | Lighting Intensity (Lux)                                 | ≥1200  |                |
|                               | Sound Level (dB(A))                                      | 64   |                |
|                               | Bench or Stand Only                                      | Stand only   |                |
|                               | Dimensions   | Net/Gross Weight   | kg             |
| lbs                           |  |  | 555.6/679.0    |
| Internal Dimensions (W*D*H)   |  | mm   | 1167*610*680   |
|                               |  | in   | 45.9*24.0*26.8 |
| External Dimensions (W*D*H)   |  | mm   | 1360*820*2330  |
|                               |  | in   | 53.5*32.3*91.7 |
| Packing Dimensions (W*D*H)    |  | mm   | 1445*945*1930  |
|                               |  | in   | 56.9*37.2*76.0 |
| Support Stand (mm)            | 680mm (standard), 680-900mm adjustable height (optional) |  |                |
| Sash Opening (mm)             | 190 (Max 490)  |  |                |
| Container Load (20'/40'/40'H) | 8/16/16  |  |                |
| Alarms Functions              | Alarm  | Sound and Flash  |                |
|                               | Closing Fan Alarm After Door Opening                     | Y  |                |
|                               | Door Ajar  | Y  |                |
|                               | Abnormal Inflow  | Y  |                |
|                               | Abnormal Downflow  | Y  |                |
|                               | Door Open More than Limit                                | Y  |                |
|                               | Filter Clogging  | Y  |                |
|                               | Filter Damage  | Y  |                |
|                               | Filter Lifetime Lack                                     | Y  |                |
|                               | UV Light Lifetime Lack                                   | Y  |                |
| Accessories                   | UV Lamp  | Y  |                |
|                               | Socket   | 1 Socket   |                |
|                               | Valve Port   | Standard with 2 Valve Port   |                |
|                               | Side Wall Service Taps                                   | Standard gas tap and vacuum tap; optional compressed air tap and water tap |                |
|                               | Antimicrobial Coating                                    | Optional   |                |
|                               | 316SS Work Surface                                       | Optional   |                |
|                               | Work Surface   | One-piece  |                |
|                               | Touch Screen   | N  |                |
|                               | Motorized Window   | N  |                |
|                               | Foot Switch  | N  |                |
| Others                        | Armrest  | Y  |                |
|                               | Exhaust Duct Connection Kits                             | N  |                |
|                               | Certification  | CE, TUV  |                |

Scope of Application

Applicable for laboratory animal operations (surgery, weighing, etc.) in experimental animal centers of scientific research institutions, hospitals, colleges and universities, or experimental animal research and development projects and breeding institutions.



HR1500-IIA2-DW

## Animal Containment Workstation

### Product Advantages

- Low Maintenance Costs**  
Experimental animal hair and debris are captured to eliminate the impact of hair debris and other debris on the service life of the fans and filters which ensures the cabinet is more durable
- Sectioned Pre-filter**  
The interior of the sectioned pre-filter is easy to clean, and the pre-filter with a rear-mounted work surface is designed in sections, meaning the filter is easy to disassembled and sterilized as needed
- The Dual System Ensures Maximum Safety**  
Each independent-controlled down flow and inlet airflow system is designed with dual fans, which ensures the stable airflow in the cabinet even if the pre-filter is 50% blocked. In the case of either damage to either fan, the air supply and exhaust system ensure safe air and protection
- Stable Laminar Flow Offers Safety**  
The intelligent constant air speed design means that if abnormal air velocity is detected the fan adjust automatically to ensure the air speed stay within normal range

### Product Features

- Safety Interlock**  
Ultraviolet lamp, sash window, fans, and lamps are interlocked to eliminate hidden dangers of ultraviolet and microorganism leakage
- Traceable**  
The work area in the cabinet is monitored by camera and the images are stored for future reference (optional)
- Real-time Status Display**  
The digital screen displays in real time the flow rate of downflow and inflow airflow, the volume of discharged air, the temperature and humidity of the working area, the remaining service life of the filter, the UV lamp, the pressure in the negative pressure area, and positive pressure area. Users are alerted if abnormal operation is detected
- Electric Foot Switch**  
When it is inconvenient to open the safety cabinet door with both hands, the electric front sash can be opened by foot switch (optional)

### Specifications

| Model                           | HR1500-IIA2-DW |
|---------------------------------|----------------|
| Power (W)                       | 1400           |
| Downflow Velocity (m/s)         | 0.3            |
| Inflow Velocity (m/s)           | 0.53           |
| Lighting Intensity (Lux)        | ≥1100          |
| Net/Gross Weight (kg)           | 350/400        |
| Interior Dimensions (W*D*H)(mm) | 1530*600*653   |
| Exterior Dimensions (W*D*H)(mm) | 1636*790*2170  |
| Packing Dimensions (W*D*H)(mm)  | 1700*925*1715  |
| Container Load (20'/40'/40'H)   | 6/12/12        |

## Laminar Flow Cabinet

### Scope of Application

A professional localized air purification equipment suitable for pharmaceuticals, medical and health, scientific research laboratories of universities and colleges, photoelectric/microelectronics manufacturing and other fields

**Horizontal Airflow HCB-1600H**

- HEPA, with high efficiency up to 99.99% @ 0.3µm**  
Special design for conducting filter integrity testing
- Ergonomic design with top air inflow**  
Built-in interior lighting, to avoid eyestrain
- Special design for ensuring uniform air outflow**
- Pre-cleaning function**
- One-piece drug hanger made of stainless steel**
- One-piece workbench made of 304 stainless steel 6mm ultraviolet-proof tempered glass**  
Special design for ensuring uniform airflow along back plate
- UV lamp interlocking**  
Patented technology UV lamp one-touch appointment/start up delay patented technology
- Universal caster for moving conveniently**  
Special underframe design for ensuring high stability

### Product Advantages

- Moisture-proof and flame-retardant glass fiber high efficiency particulate air filters (HEPA), ensure a filtration efficiency of 99.99% or above for particles of 0.3µm or above**
- With the industry's first pre-cleaning function:** namely pre-cleaning the workspace before sample treatment so as to further improve the protection of samples
- The air cleanliness conforms to Class 5 of the ISO14644.1 Standard, and is better than Class 100 cleanliness requirements**
- One-key operation, convenient and secure:**
  - With a timed UV lamp turn off function, it is adjustable between 0 and 99 minutes
  - With the lighting lamp and UV lamp interlock function; the UV lamp can only be lit when the lighting lamp is off. The UV lamp is turned off immediately if the fluorescent lighting is turned on to prevent mis-operation
- Built-in lighting prevents exposure to fluorescent lamp to avoid eye stain**

Specifications

| Model                        |                                   | HCB-900V   | HCB-1300V  | HCB-1600H  |  |                |
|------------------------------|-----------------------------------|--|--|--|--|----------------|
| <b>General Specification</b> | Flow Type                         | Vertical   | Vertical   | Vertical   | Horizontal   |                |
|                              | Power Supply(V/Hz)                | 220/50   | 115/60   | 220/50   | 220/50/60  |                |
|                              | Power (W)                         | 1200   | 1200   | 1200   | 350  |                |
|                              | Vibration Amplitude (UM)          | 2  | 2  | 2  | 2  |                |
|                              | Exhaust Filter Typical Efficiency | H13 HEPA, 99.99%@0.3um   | H13 HEPA, 99.99%@0.3um   | H13 HEPA, 99.99%@0.3um   | H13 HEPA, 99.99%@0.3um   |                |
|                              | Average Velocity (M/S)            | 0.2-0.4  | 0.2-0.4  | 0.2-0.4  | 0.2-0.4  |                |
|                              | Lighting Intensity (Lux)          | ≥300   | ≥300   | ≥300   | ≥1000  |                |
|                              | Sound Level (dB(A))               | 60   | 60   | 60   | 61   |                |
|                              | Sash Opening(mm)                  | Max 310  | Max 310  | Max 310  | /  |                |
| <b>Dimensions</b>            | Net/Gross Weight                  | kg   | 115/145  | 145/171  | 145/171  | 165/214        |
|                              |                                   | lbs  | 254/319  | 320/376  | 320/376  | 363.7/471      |
|                              | Internal Dimensions (W*D*H)       | mm   | 900*530*520  | 1300*530*520   | 1300*530*520   | 1710*550*750   |
|                              |                                   | in   | 35.4*20.9*20.5   | 51.2*20.9*20.5   | 51.2*20.9*20.5   | 67.3*21.7*29.6 |
|                              | External Dimension (W*D*H)        | mm   | 970*630*1730   | 1370*630*1730  | 1370*630*1730  | 1780*790*1960  |
|                              |                                   | in   | 38.2*24.8*68.1   | 53.9*24.8*68.1   | 53.9*24.8*68.1   | 70.1*31.1*77.2 |
|                              | Packing Dimensions (W*D*H)        | mm   | 1100*750*1290  | 1510*770*1280  | 1510*770*1280  | 1875*940*1410  |
|                              |                                   | in   | 43.3*29.5*50.8   | 59.4*30.3*50.4   | 59.4*30.3*50.4   | 73.8*37.0*55.5 |
| Support Stand(mm)            | 755mm (standard)                  | 755mm (standard)   | 755mm (standard)   | 765mm (standard)   |  |                |
| Container Load (20'40'40'H)  | 15/33/33                          | 10/22/22   | 10/22/22   | 6/12/12  |  |                |
| <b>Accessories</b>           | UV Lamp                           | Y  | Y  | Y  | Y  |                |
|                              | Power Outlet Socket               | 2 Sockets  | 2 Sockets  | 2 Sockets  | /  |                |
|                              | Conversion Socket                 | Optional   | Optional   | Optional   | /  |                |
|                              | Cleanliness Classification        | ISO 14644.1 Class 5  | ISO 14644.1 Class 5  | ISO 14644.1 Class 5  | ISO 14644.1 Class 5  |                |
|                              | Valve Port                        | Optional   | Optional   | Optional   | Optional   |                |
|                              | Side Wall Service Taps            | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap |                |
|                              | Antimicrobial Coating             | Optional   | Optional   | Optional   | Optional   |                |
|                              | 316SS Work Surface                | Optional   | Optional   | Optional   | Optional   |                |
|                              | Work Surface                      | Single-piece   | Single-piece   | Single-piece   | Single-piece   |                |
|                              | Touch Screen                      | /  | /  | /  | /  |                |
|                              | Motorized Window                  | /  | /  | /  | /  |                |
|                              | Foot Switch                       | /  | /  | /  | /  |                |
|                              | Armrest                           | Y  | Y  | Y  | Y  |                |
|                              | Exhaust Duct Connection Kits      | /  | /  | /  | /  |                |
|                              | <b>Others</b>                     | Certification  | CE   | /  | CE   | CE             |

Vertical Airflow  
HCB-900V/1300V

**HEPA, with high efficiency up to 99.99%@0.3um**  
Special design for conducting filter integrity testing

**Ergonomic design with top air inflow**  
Built-in interior lighting, to avoid eyestrain

**Special design for ensuring uniform air outflow**

**Pre-cleaning function**

**One-piece workbench made of 304 stainless steel 6mm ultraviolet-proof tempered glass**  
Special design for ensuring uniform airflow along back plate

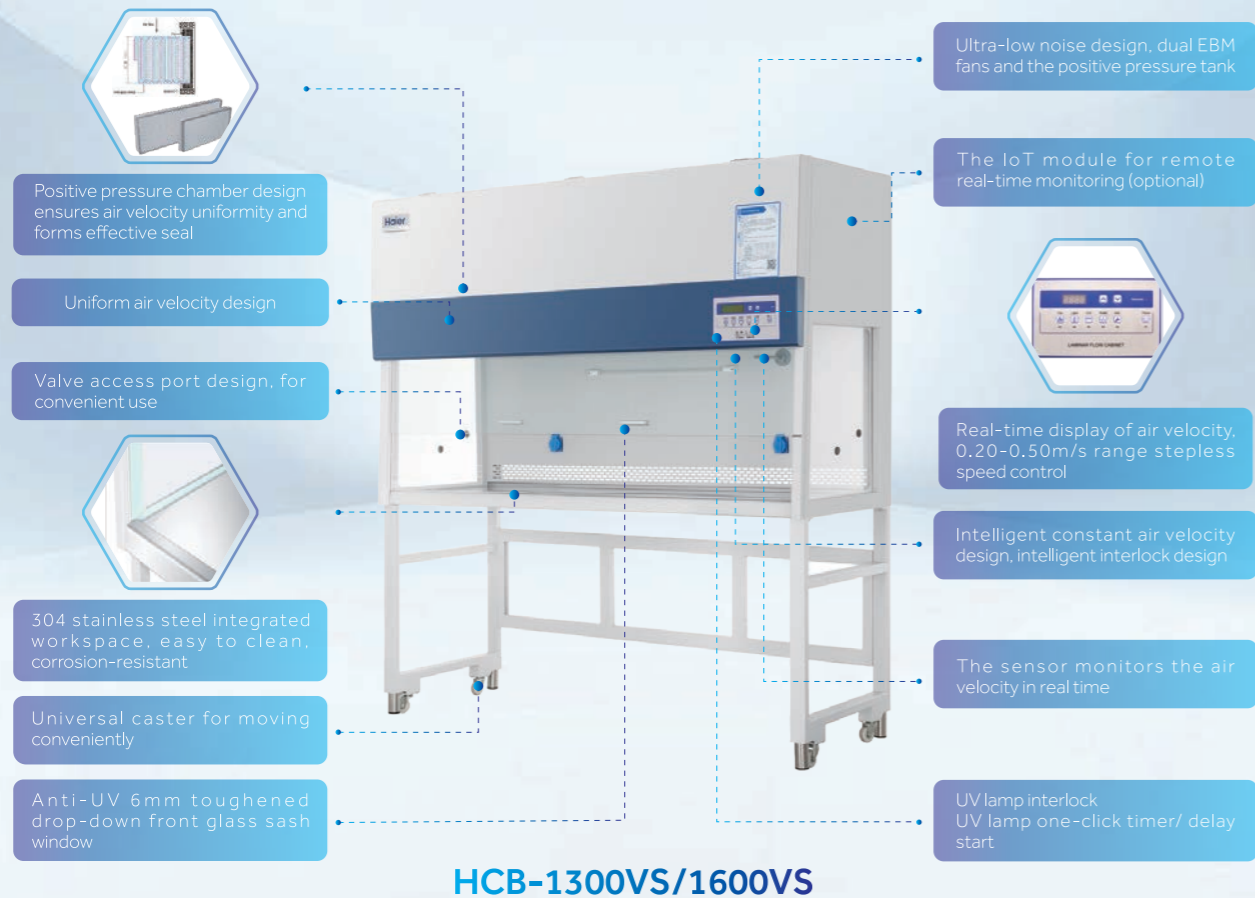
**Ergonomic design of drop-down front sash**

**Universal caster for moving conveniently**  
Heavy-duty stand

**UV lamp interlocking**  
Patented technology UV lamp one-touch appointment/startup delay patented technology

# Laminar Flow Cabinet

341/342



HCB-1300VS/1600VS

## Product Advantages

- Positive pressure chamber design ensures air velocity uniformity and forms effective seal
- Ergonomic cabinet design with a 10° inclination, to improve user comfort during operation
- The workspace is made of easy-to-clean, high-quality, anti-corrosion 304 stainless steel
- The front sash window and the left & right-side glass panels are all non-reflective tempered UV glass to maximise natural light during operation, which also makes the glass easy to clean
- Designed with access ports on left and right sides, easy and convenient to mount valves such as gas supply

## Specifications

| Model                        |                                   | HCB-1300VS   | HCB-1600VS   |                  |
|------------------------------|-----------------------------------|--|--|------------------|
| General Specification        | Flow Type                         | Vertical   | Vertical   |                  |
|                              | Power Supply(V/Hz)                | 220/50/60  | 220/50/60  |                  |
|                              | Power (W)                         | 1350   | 1200/1350  |                  |
|                              | Vibration Amplitude (UM)          | 2  | 2  |                  |
|                              | Exhaust Filter Typical Efficiency | H13 HEPA,99.99%@0.3um  | H13 HEPA,99.99%@0.3um  |                  |
|                              | Average Velocity (M/S)            | 0.20-0.50  | 0.20-0.50  |                  |
|                              | Lighting Intensity (Lux)          | ≥600   | ≥1000  |                  |
|                              | Sound Level (dB(A))               | 60   | 63   |                  |
|                              | Dimensions                        | Sash Opening(mm)   | Max 360  | Max 360          |
| Net/Gross Weight             |                                   | kg   | 180/232  | 202/260          |
|                              |                                   | lbs  | 397/511.5  | 445.3/573        |
| Internal Dimensions (W*D*H)  |                                   | mm   | 1300*510*550   | 1600*510*550     |
|                              |                                   | in   | 51.2*20.1*21.7   | 60.0*20.1*21.7   |
| External Dimension (W*D*H)   |                                   | mm   | 1370*640*1820  | 1670*640*1820    |
|                              |                                   | in   | 53.9*25.2*71.7   | 65.7*25.2*71.7   |
| Packing Dimensions (W*D*H)   |                                   | mm   | 1480*845*1290  | 1780*840*1270    |
|                              |                                   | in   | 58.3*33.3*50.8   | 70.1*33.1*50.0   |
| Support Stand(mm)            |                                   |  | 750mm (standard)   | 750mm (standard) |
| Container Load (20'40'40'H)  |                                   | 11/20/20   | 7/14/14  |                  |
| Accessories                  | UV Lamp                           | Y  | Y  |                  |
|                              | Power Outlet Socket               | 2 sockets  | 2 sockets  |                  |
|                              | Conversion Socket                 | Optional   | Optional   |                  |
|                              | Cleanliness Classification        | ISO 14644.1 Class 4  | ISO 14644.1 Class 4  |                  |
|                              | Valve Port                        | 2 on each side   | 2 on each side   |                  |
|                              | Side Wall Service Taps            | Optional gas tap, vacuum tap, compressed air tap and water tap | Optional gas tap, vacuum tap, compressed air tap and water tap |                  |
|                              | Antimicrobial Coating             | Optional   | Optional   |                  |
|                              | 316SS Work Surface                | Optional   | Optional   |                  |
|                              | Work Surface                      | Single-piece   | Single-piece   |                  |
|                              | Touch Screen                      | /  | /  |                  |
| Motorized Window             | /                                 | /  |  |                  |
| Foot Switch                  | /                                 | /  |  |                  |
| Armrest                      | Y                                 | Y  |  |                  |
| Exhaust Duct Connection Kits | /                                 | /  |  |                  |
| Others                       | Certification                     | /  | /  |                  |

# Ductless Fume Hood

## Scope of Application

Haier Biomedical Ductless Fume Hood utilizes carbon filtration to protect laboratory personnel and the environment from toxic chemical fumes, odours, and particles. It is widely used in universities, public health, chemical and petrochemical industry, drug testing, museums and many other fields which involve the use of chemicals

- Intelligent constant speed design, ensures the best adsorption effect of the filter
- Energy-efficient EC fan for a longer service life and reliable operation
- Offers a broad range of accessories and options to meet clients' different requirements

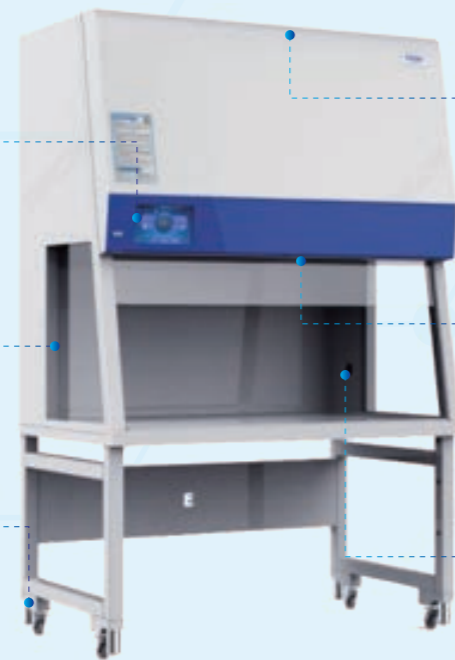
- Standard VOC sensor detects presence of volatile organic compounds in the exhaust and alarms to indicate filter saturation
- Multiple stackable filter types: remove vapor contaminants from the air, can be combined to handle different types of chemicals and particulates during the same application

## Product Details

**10-inch touch screen**  
Real-time display of VOC concentration, wind speed, filter service life and UV lamp running time. Alerts when filter or UV lamp lifespan falls below 10%

**Air velocity sensor**  
Intelligent constant air velocity ensures the stability

**Universal casters with built-in threaded support legs**



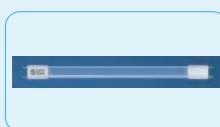
HTF-1200W/1500W

**EC fan**  
Energy-efficient EC fan for a longer service life and reliable and quieter operation

**PIR detection**  
In intelligent mode, the PIR sensor will detect when the operating area has been clear of personnel for more than 15 minutes and automatically switch to LNS green-saving mode

**Electrical sockets**  
Included as standard are two, waterproof sockets with timing technology, which allows the user to program timed on/off function

## Optional Components



UV lamp



Dual surveillance cameras



Electrically operated glass sash



IoT module

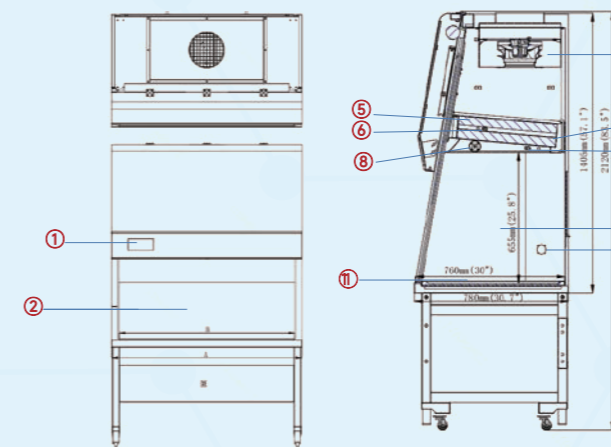


Height adjustable stand



PVC worktable

## Product Dimension



1. Microprocessor Control System
2. Tempered Glass Sliding Sash Window
3. EC fan
4. First filter
5. Second filter (optional)
6. VOC sensor
7. Temperature and humidity sensor
8. Wind velocity sensor
9. Tempered Glass Side
10. Electrical sockets (2 on each side)
11. Powder coated steel worktop

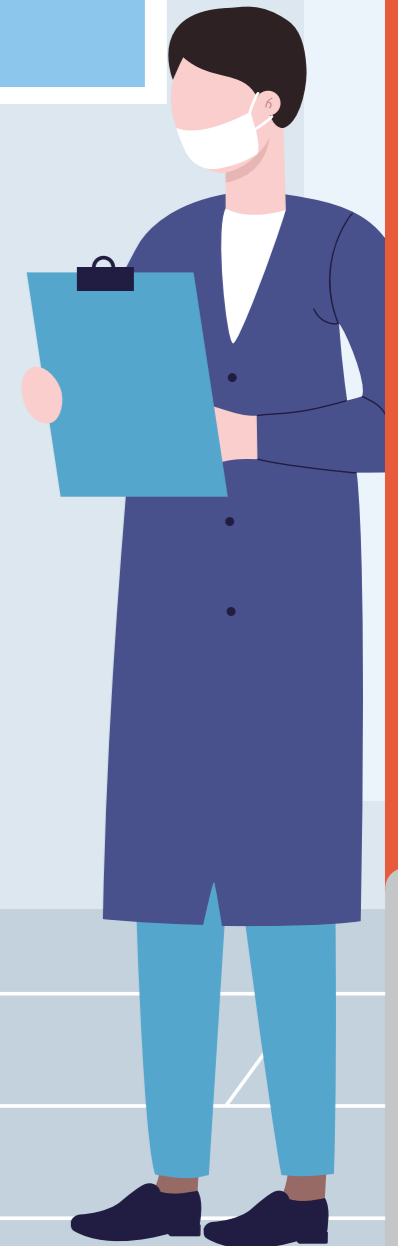
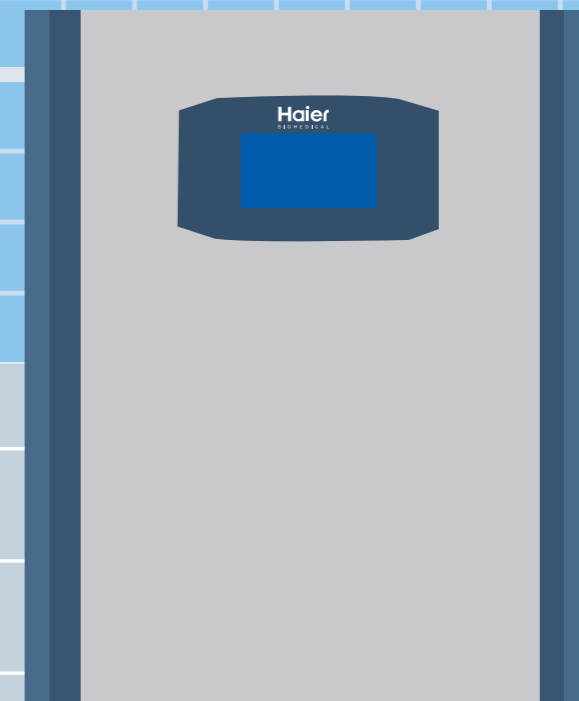
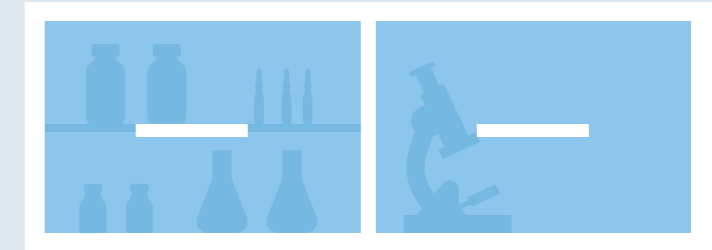
## Types of Filters

Carbon filters are used to remove toxic gases, hazardous fumes, and odors. These filters are constructed from high-quality carbon pellets and durable chemical-resistant cases. Below is Haier Biomedical filters list.

| Code No | Name  | Suitable Applications   |
|---------|---|---|
| A       | Standard Filter (Mixed with N4A1, N4B1 and N4G1 activated carbon) | Suitable for all common laboratory chemicals, especially with organics. When no specific requirements are present, or when more than one type of chemical is used |
| B       | Organic Solvent Filter (N4G1 activated carbon)                    | Removal of toluene, benzene, xylene, acetone, acetic acid, carbon tetrachloride, chloroform, CxHy, VOC, etc   |
| C       | Acid Gas Filter (N4A1 activated carbon)                           | Removal of hydrochloric acid, sulfuric acid, hydrofluoric acid, hydrogen sulfide, sulfur dioxide, etc   |
| D       | Alkaline Gas Filter (N4B1 activated carbon)                       | Removal of ammonia, amine, etc.   |
| E       | Formaldehyde Filter   | Mainly used for adsorption of formaldehyde  |
| F       | Particle Filter   | Mainly used to absorb dust  |

## Specifications

| Model                             | HTF-1200W                | HTF-1500W  |
|-----------------------------------|--------------------------|--|
| Power Supply (V/Hz)               | 220/50/60                | 220/50/60  |
| Power (W)                         | 1200                     | 1300   |
| Sound Level (dB(A))               | ≤58                      | ≤58  |
| Inflow Air Velocity (m/s)         | 0.4-0.6                  | 0.4-0.6  |
| Fluorescent Light Intensity (lux) | ≥1000                    | ≥1000  |
| Filtration                        | First Filter             | Activated Carbon with Granular Media bed (6 different filter types available, codes A-F) |
| Elements                          | Second Filter (optional) | Activated Carbon with Granular Media bed (6 different filter types available, codes A-F) |
| Exterior Dimensions (W*D*H)(mm)   | 1336*780*2120            | 1636*780*2120  |
| Operation Dimensions (W*D*H)(mm)  | 1230*760*655             | 1530*760*655   |
| Packaging Dimensions (W*D*H)(mm)  | 1400*925*1665            | 1700*925*1665  |
| Net Weight (Kg)                   | 230                      | 250  |
| Packaging Weight (Kg)             | 290                      | 330  |
| Display                           | 10 inch screen           | 10 inch screen   |
| VOC Sensor                        | Standard (1)             | Standard (1)   |
| Others                            | CE                       | CE   |



# Incubators

Haier Biomedical CO<sub>2</sub> incubator with 180°C dry heat sterilisation provides a safe and secure reproducible growth environment for cell cultures.



**IR Sensitive Control of CO<sub>2</sub> Concentration**

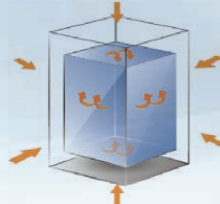
The new IR sensor with high temperature resistance of 190°C is based on the NDIR measurement principle and uses a silicon MEMS transmitter to replace the traditional light source. It can withstand more than 300 dry heat sterilization cycles with a service life of up to 15 years and control accuracy of ±0.1%. German IR infrared sensing technology, zero drift, without need for calibration, drift less than 0.3% within 2 years



**7-inch Touchscreen**

Displays CO<sub>2</sub> concentration and temperature data in real time. 15 years of data can be exported via USB

**6-sided heating sketch**

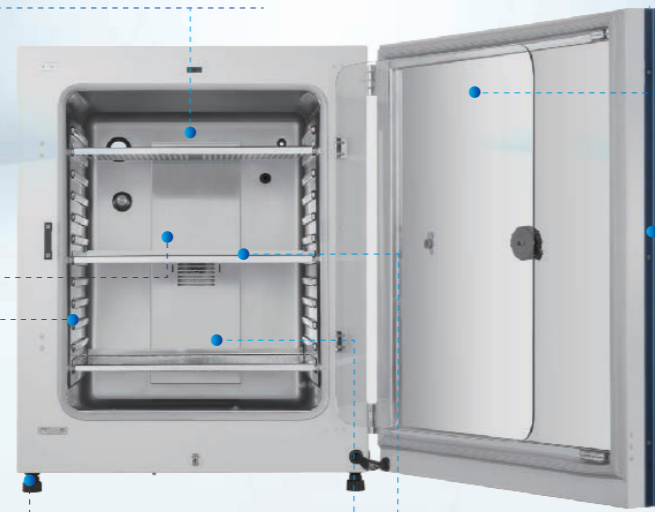


**304 Stainless Interior**



**Adjustable Feet**

It can be double stacked



**Inner Door**

The door ensures the inside of the cabinet is sealed

**Outer Door**

The heated outer door prevents the condensation of the inner door

**Internal Partition**

Safety anti-slip design of pull out shelves

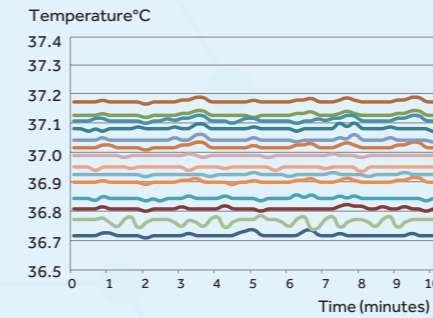


**180°C Dry-heat Sterilization**

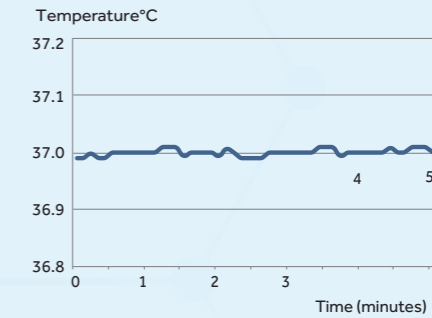
All internal components do not need to be disassembled and do not need separate autoclave sterilization to prevent secondary pollution. Cleaning consumables are not needed, one-button sterilization. The unit can withstand sterilization at 180°C with no disassembly and no manual calibration

**Precise and Accurate Temperature Control**

Controls the temperature precisely, within ±0.1°C, with six-sided heating based on the fuzzy PID control principle, to provide a stable temperature to ensure the normal growth of cells throughout their life cycle.



Uniformity of 27 measuring points <±0.3°C

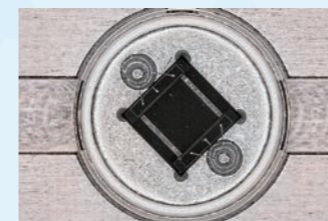


Central consistency point <±0.1°C

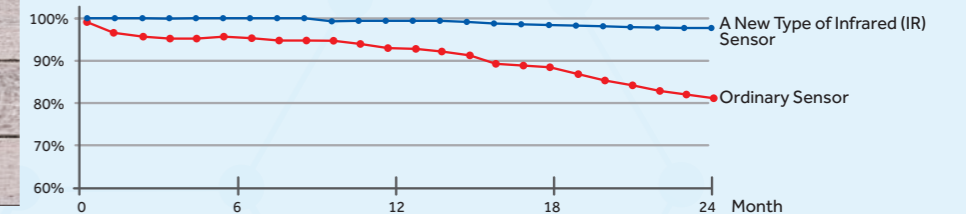
\*The above data were measured at a set temperature of 37°C and an ambient temperature of 22±3°C.

**Precise CO<sub>2</sub> Concentration Using New IR Sensor Control Technology**

Haier Biomedical's new IR Sensor technology uses NDIR measurement principles and withstands high temperatures of 190°C. The silicon MEMS transmitter can carry out more than 300 dry heat sterilization cycles to extend the service life to 15 years. Built-in temperature and humidity compensation technology reduces the impact of changes in humidity and temperature without the need for calibration after the high temperature sterilization. Five point calibration yields a higher measuring accuracy, sensitivity with less drift.



Silicon-based mems transmitter



Sketch of drift less than 0.3%

**Fast Environment Recovery for Optimal Cell Growth**

Adopting active air flow control technology, and based on the fuzzy PID control principle, the parameters can be restored without overshoot. After opening the door for 30 seconds, the temperature and CO<sub>2</sub> concentration can be quickly restored within 4 minutes. Even if multiple users share a CO<sub>2</sub> incubator and frequently open and close the door, the stability and uniformity of the incubator can be ensured.

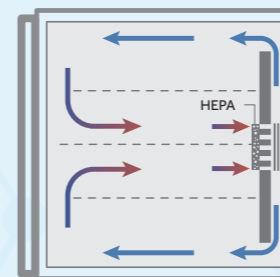
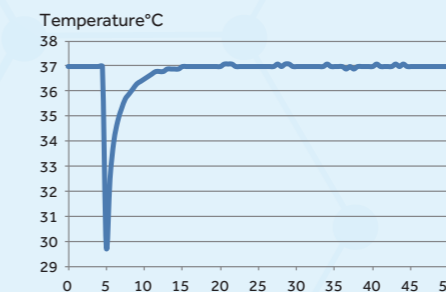
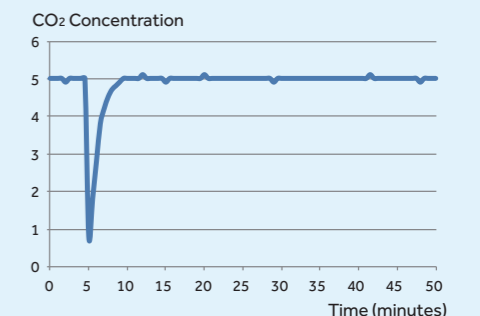


Illustration of purified airflow



Temperature recovery curve (door open for 30s)



CO<sub>2</sub> concentration recovery curve (door open for 30s)



Follow the QR code and learn more about the CO<sub>2</sub> Incubator from Haier Biomedical

## CO<sub>2</sub> Incubator

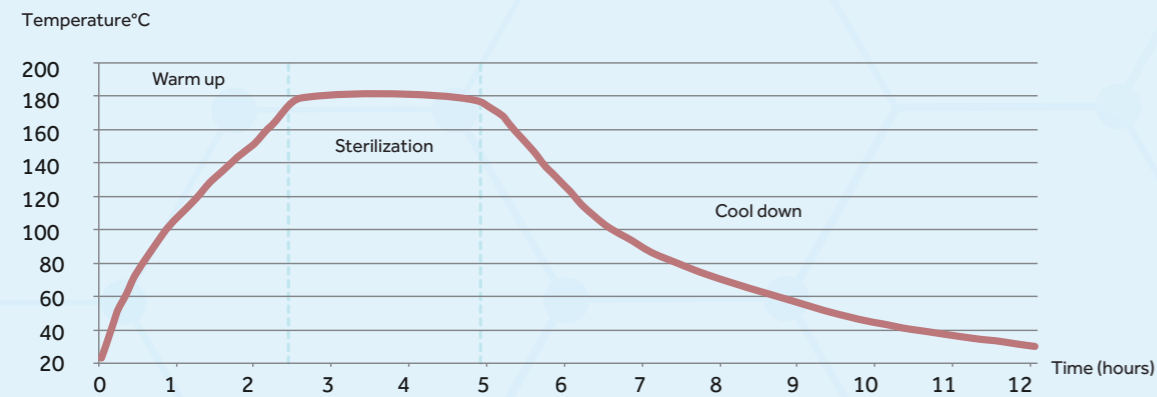
349/350

### 180°C Dry-Heat Sterilization Technology Minimises Contamination

Easy and effective sterilization of microorganisms including bacteria, fungi and microplasma with strong resistance, at 180°C high temperatures without the need for consumables. Simply press the "sterilization key" to activate and complete the sterilization process automatically in just 12 hours.

Delivers sterility level within the chamber of all surfaces to meet WS/T367-2012 standards.

All components are sterilized during the process, there is no need to disassemble internal components (including CO<sub>2</sub> sensors) and decontaminate separately, thus avoiding secondary pollution.



### High Efficiency Microbial Filter



The CO<sub>2</sub> inlet is equipped with a high-efficiency microbial filter, with 99.99% filtration efficiency for particles larger than or equal to 0.2µm in diameter. It can effectively filter bacteria and dust particles in the CO<sub>2</sub> gas line to ensure the safety of experimental results.

### Seamless Stainless Steel Inner Chamber Easy to Clean



The working chamber is plasma electro polished, stamped stainless steel with wide-arc. Bracketless shelving design ensures that it is quick and easy to clean.

### Interactive Intelligent Display with Easy Touch Operation

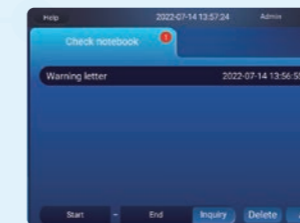
Touch-sensitive screen with rapid sensing even in rubber gloves. Green indicates normal operational parameters, while a red warning display indicates abnormal, making it easy to view data at a glance. A red warning display and audible buzzer will alarm when water level is low.



Home screen red warning.



Real-time display of operation data & real-time display of temperature, for CO<sub>2</sub> concentration and O<sub>2</sub> concentration, and the data during the culture cycle can be viewed at any time.



Announcement function designed for multiple persons to use the same incubator making it clear to all users on important matters.



Operation mode clear management authority: three-levels of authority to ensure the security of data.

### Real-time Monitoring



An IoT module with multi-screen interface provides real-time uploaded parameters, operation parameters, operation curves, records and event records through the IoT cloud platform. The operation of the incubator can be monitored anytime and anywhere through a computer terminal. Alarm function and service function are available through a one-button touch.

### Anti-Condensation Heating System to Reduce Pollution Risk

The door on the CO<sub>2</sub> incubator radiates heat to the inner glass door, effectively preventing the glass door from forming condensation.

The possibility of microbial contamination caused by the condensate water is eliminated.

### Intelligent Control of Circulating Air Maintains Uniformity

Automatically adjusts the circulation of the air flow, optimising the air flow to avoid air volatilization of samples and ensuring proper uniformity throughout the chamber.

### Comprehensive Safety Alarm System

The system ensures the safety of experiments and processes by utilizing an independent temperature alarm system, including a sound light and remote reminder.

Other alarms include CO<sub>2</sub> concentration, door ajar and water shortage.

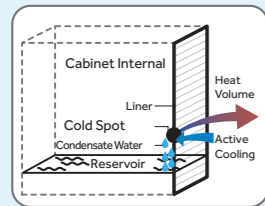




Safe anti-slip design with pull out shelves.



Drainage design

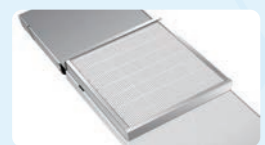


Active heat pipe condensation technology with any condensation directly returning to the reservoir.



Data traceable for 15 years with large storage capacity and data exportable through USB.

The Quality of ISO Class 5 Clean Room Can Ensure a Better Cell Growth Environment



The optional HEPA high-efficiency filtration system combined with the unique air duct circulation design can continuously filter pollutants (biological pollutants and suspended particles) in the cabinet, ensuring that the incubator can reach the ISO class 5 clean room within 5 minutes after the external door is closed, which is equivalent to the class 100 environment of the 209 E standard of the united states

Optional Accessories

| Name                             | Material Description   |
|----------------------------------|--|
| Oxygen Module                    | Zirconia O <sub>2</sub> sensor, control accuracy: 0.1%; control range: 1-21% or 5-90%  |
| 3 Inner Door (for HCP-168/B)     | Reduce the temperature, humidity and carbon dioxide concentration in the box after opening the door, and minimize the mutual influence of multiple cultures  |
| 6 Inner Door (for HCP-168/B)     | Reduce the temperature, humidity and carbon dioxide concentration in the box after opening the door, and minimize the mutual influence of multiple cultures  |
| 8 Inner Door (for HCP-258/B)     | Reduce the temperature, humidity and carbon dioxide concentration in the box after opening the door, and minimize the mutual influence of multiple cultures  |
| Water Tray                       | Provides different bottom humidification methods   |
| Roller Base                      | Easy to move, prevent the ground bacteria contamination  |
| HEPA Filter                      | Ensure the cleanliness of the cabinet, suitable for users who open and close the door frequently: After opening the door for 30 seconds, the air inside the cabinet can be passed through HEPA filters within 5 minutes and reach ISO 5 clean room quality |
| Pressure Reducing Valve          | Suitable for users with cylinder gas supply  |
| Shelf                            | Increase the number of samples cultured<br>4 materials:<br>SUS304 single mirror surface<br>SUS304 double mirror surface<br>tempering glass<br>Pure copper  |
| Humidity Display (for HCP-168/B) | Real time monitoring of humidity inside the box  |
| Cylinder Switching               | Supports switching between multiple steel cylinders to ensure uninterrupted air intake into the incubator  |
| Electromagnetic Lock (HCP-168/B) | Important tests can be dedicated by dedicated personnel to ensure test safety  |
| Heightening Stand                | Keeping away from ground contamination   |
| 4-20mA                           | The analog acquisition interface for carbon dioxide and oxygen concentrations<br>Multiple incubators can have the temperatures and carbon dioxide concentration data of all the incubators monitored at one computer terminal                              |
| Liner                            | SUS 304<br>SUS 316<br>Pure copper  |

Specifications

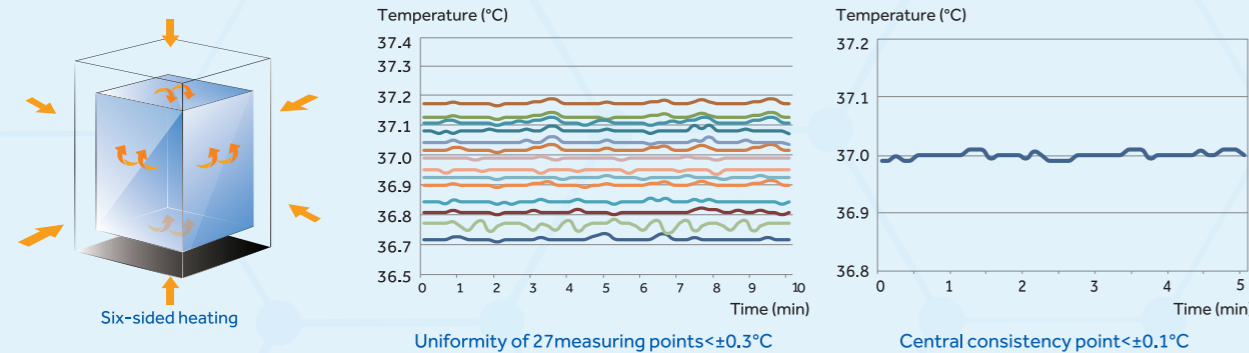
| Type                              | Model   | HCP-80                          | HCP-80B        | HCP-168           | HCP-168B       | HCP-258           | HCP-258B   |
|-----------------------------------|---|---------------------------------|----------------|-------------------|----------------|-------------------|------------|
| Construction                      | Chamber Volume (L/Cu.Ft)  | 80/2.8                          |                | 170/6.0           |                | 258/9.1           |            |
|                                   | Interior Chamber  | 304 Stainless Steel             |                |                   |                |                   |            |
|                                   | Exterior Chamber  | Cold-Rolled Steel Powder Coated |                |                   |                |                   |            |
|                                   | Access Port   | /                               |                | 42mm Diameter     |                | 35mm Diameter     |            |
|                                   | Data Outputs  | Remote Alarm Contacts, USB      |                |                   |                |                   |            |
| Dimensions                        | Net/Gross Weight (approx)   | kg                              | 75/95          | 95/130            | 110/155        |                   |            |
|                                   |   | lbs                             | 165/209        | 209.4/286.6       | 243/341        |                   |            |
|                                   | Interior Dimensions (W*D*H)   | mm                              | 400*420*490    | 490*560*650       | 570*610*745    |                   |            |
|                                   |   | in                              | 15.7*16.5*19.3 | 19.3*22*25.6      | 22.4*24.0*29.3 |                   |            |
|                                   | Exterior Dimensions (W*D*H)   | mm                              | 625*684*735    | 714*812*887       | 794*867*985    |                   |            |
|                                   |   | in                              | 24.6*26.9*28.5 | 28.1*32*34.9      | 31.3*34.1*38.8 |                   |            |
| Packing Dimensions (W*D*H)        | mm  | 700*770*910                     | 800*890*1050   | 870*950*1150      |                |                   |            |
|                                   | in  | 27.6*30.3*35.8                  | 31.5*35.0*41.3 | 34.2*37.4*45.3    |                |                   |            |
| Shelves                           | Dimensions (W*D)  | mm 380*300                      |                | 473*434           |                | 550*484           |            |
|                                   | Number Standard/Maximum   | 3/8                             |                | 3/11              |                | 3/13              |            |
|                                   | Max.Load Per Shelf/Total Load   | kg 15/45                        |                | 15/45             |                | 15/45             |            |
|                                   | Construction  | Perforated, Adjustable          |                |                   |                |                   |            |
| Electrical                        | Sterilization power (W)   | 850                             | 750            | 1300              | 1100           | 1350              | 1200       |
|                                   | Rated Voltage Power Supply (V/Hz)                                       | 220-240/50/60                   | 115/60         | 220-240/50/60     | 115/60         | 220-240/50/60     | 115/60     |
|                                   | Power Consumption (kw) (Steri-Run)                                      | 0.08 (0.85)                     | 0.08 (0.75)    | 0.095 (1.3)       | 0.095 (1.1)    | 0.12 (1.35)       | 0.12 (1.2) |
| Control                           | Controller  | Microprocessor                  |                |                   |                |                   |            |
|                                   | Display   | 7" LCD Screen                   |                |                   |                |                   |            |
| CO <sub>2</sub>                   | Control Accuracy  | 0.10%                           |                |                   |                |                   |            |
|                                   | Range   | 0-20%                           |                |                   |                |                   |            |
|                                   | Alarm Range   | ±0.5%                           |                |                   |                |                   |            |
|                                   | Inlet Pressure  | 12-17Psi (0.8-1.2 Bar)          |                |                   |                |                   |            |
|                                   | Gas Purity  | min.99.5% or Medical Quality    |                |                   |                |                   |            |
|                                   | CO <sub>2</sub> Inlet   | 1/4" Hose (Barbed)              |                |                   |                |                   |            |
|                                   | Sensor  | IR                              |                |                   |                |                   |            |
|                                   | Recovery Time ** (after 30s door opening, .98% from initial value) Min  | 4                               |                |                   |                |                   |            |
| CO <sub>2</sub> Inlet Filter (µm) | 0.2   |                                 |                |                   |                |                   |            |
| Alarms                            | High/Low Temperature  | Y                               |                |                   |                |                   |            |
|                                   | Remote Alarm  | Y                               |                |                   |                |                   |            |
|                                   | Sensor Error  | Y                               |                |                   |                |                   |            |
|                                   | Excessive CO <sub>2</sub> Concentration                                 | Y                               |                |                   |                |                   |            |
|                                   | Water Shortage Reminder   | Y                               |                |                   |                |                   |            |
|                                   | Door Ajar   | Y                               |                |                   |                |                   |            |
| Temperature Parameter             | Control Accuracy (°C)   | 0.1                             |                |                   |                |                   |            |
|                                   | Range   | Ambient Temperature+3-55°C      |                |                   |                |                   |            |
|                                   | Uniformity (°C) @ 37°C  | ±0.3                            |                |                   |                |                   |            |
|                                   | Ambient range (°C)  | 18-32                           |                |                   |                |                   |            |
|                                   | Temperature Fluctuations (°C) @ 37°C                                    | ±0.1                            |                |                   |                |                   |            |
|                                   | Sensor  | 2*PT1000                        |                |                   |                |                   |            |
| Sterilization Cycle               | Recovery time *** (after 30s door opening, .98% from initial value) Min | 4                               |                |                   |                |                   |            |
|                                   | Cycle Temperature   | 180°C Dry-Heat Sterilization    |                |                   |                |                   |            |
| Humidity                          | Cycle Duration  | Under 12 Hours                  |                |                   |                |                   |            |
|                                   | RH  | 93% ± 3% @ 37°C                 |                |                   |                |                   |            |
|                                   | Humidity Reservoir  | Max.1.75L/Min 0.5L              |                | Max.3.5L/Min 0.5L |                | Max.5.5L/Min 0.5L |            |
| Optional                          | HEPA Filter   | Y                               |                | Y                 |                | Y                 |            |
|                                   | Pressure Reducing Valve   | Y                               |                | Y                 |                | Y                 |            |
|                                   | 4-20mA  | Y                               |                | Y                 |                | Y                 |            |
|                                   | The Cylinder Switch   | Y                               |                | Y                 |                | Y                 |            |
|                                   | Shelf   | Y                               |                | Y                 |                | Y                 |            |
|                                   | Water Tray  | Y                               |                | Y                 |                | Y                 |            |
|                                   | 3 Inner Door  | N                               |                | Y                 |                | N                 |            |
|                                   | 6 Inner Door  | N                               |                | Y                 |                | N                 |            |
|                                   | 8 Inner Door  | N                               |                | N                 |                | Y                 |            |
|                                   | Roller Base   | Y                               |                | Y                 |                | Y                 |            |
|                                   | Pure Copper Inner Liner   | Y                               |                | Y                 |                | Y                 |            |
|                                   | Pure Copper Shelf   | Y                               |                | Y                 |                | Y                 |            |
|                                   | Humidity Display  | N                               |                | Y                 |                | N                 |            |
|                                   | Oxygen Module   | Y                               |                | Y                 |                | Y                 |            |
| Electromagnetic Lock              | N   |                                 | Y              |                   | N              |                   |            |
| heightening Stand                 | Y   |                                 | Y              |                   | Y              |                   |            |
| IoT                               | Y   |                                 | Y              |                   | Y              |                   |            |
| Others                            | Certification   | CE                              | UL             | CE                | UL             | CE                | UL         |

\*\* For CO<sub>2</sub> not exceeding 5.2%  
\*\*\* For temperature not exceeding 37°C



**Precise and Accurate Temperature Control**

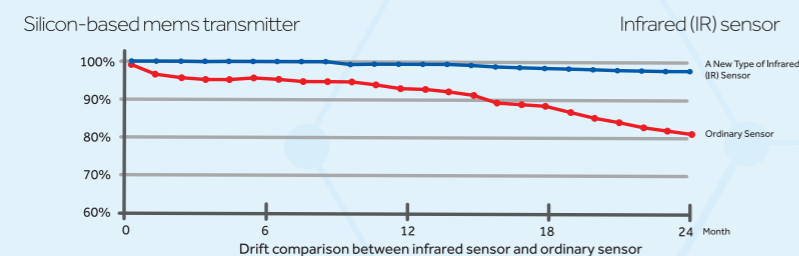
Controls the temperature precisely, within  $\pm 0.1^{\circ}\text{C}$ , with six-sided heating based on the fuzzy PID control principle, to provide a stable temperature to ensure the normal growth of cells throughout their life cycle.



\*The above data were measured at a set temperature of 37°C and an ambient temperature of 22±3°C.

**Precise CO<sub>2</sub> Concentration Using New IR Sensor Control Technology**

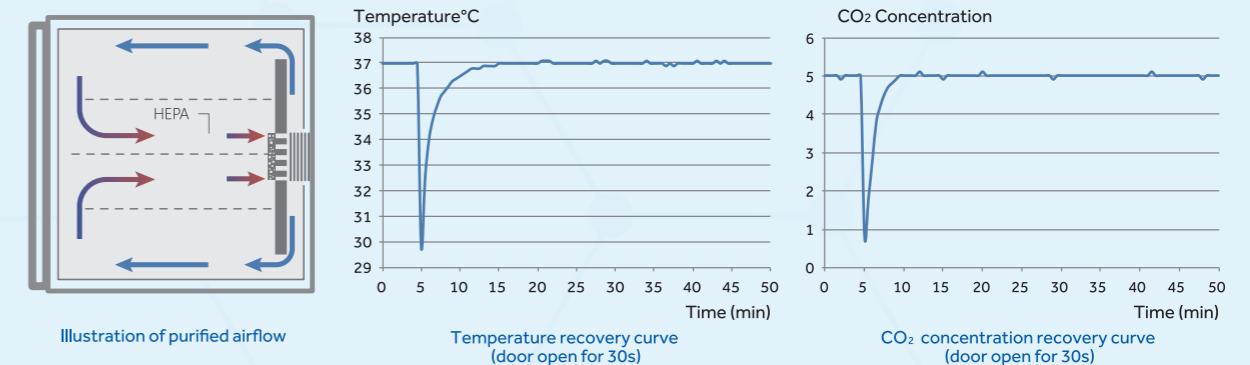
Haier Biomedical's new IR Sensor technology uses NDIR measurement principles and withstands high temperature of 100°C. The silicon MEMS transmitter can carry out more than 300 dry heat sterilization cycles to extend the service life to 15 years. Built-in temperature and humidity compensation technology reduce the impact of changes in humidity and temperature without the need for calibration after the high temperature sterilization. Five points calibration yields a higher measuring accuracy, sensitivity with less drift (less than 3% within 2 years).



\*The equipment is tested by Haier in a controlled environment. Haier does not guarantee that the results of field tests under different conditions will be consistent. The test model is HCP-168E

**Fast Environment Recovery for Optimal Cell Growth**

Adopting active air flow control technology, based on the fuzzy PID control principle, the parameters can be restored without overshoot. After opening the door for 30 seconds, the temperature and CO<sub>2</sub> concentration can be quickly restored within 4 minutes. Even if multiple users share a CO<sub>2</sub> incubator and frequently open and close the door, the stability and uniformity of the incubator can be ensured.

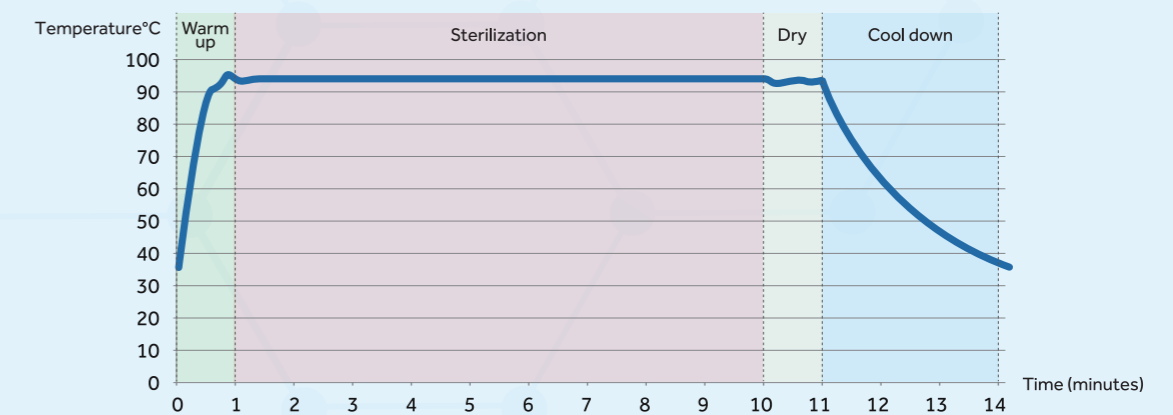


**90°C Moist Heat Sterilization Technology**

Effective sterilization of microorganisms including bacillus and spores with strong resistance, at 90°C under moist heat, without the need for consumables. Simply press the "sterilization button", to activate and complete the sterilization process automatically in 14 hours.

Delivers sterility level within the chamber of all surfaces to meet WS/T367-2012 standards.

All components are sterilized during the process, there is no need to disassemble internal components (including CO<sub>2</sub> sensors) and decontaminate separately, thus avoiding secondary pollution.



**Sterilization Temperature Profile**

Forty-seven points were tested in the working chamber, including glass inner doors and partitions. All regions reached 90°C and maintained for 9 hours.

\*The equipment is tested by Haier in a controlled environment. Haier does not guarantee that the results of field tests under different conditions will be consistent. The test model is HCP-168E

**Air Jacketed With Six-sides Heating Design**

- Fast temperature recovery and superior temperature uniformity
- High temperature sterilization can ensure that the temperature of each surface can reach 90°C

**CO<sub>2</sub> Sensor**

- The new IR sensor with high temperature resistance of 100°C, can withstand more than 300 high heat sterilization cycles
- Based on the NDIR measurement principle and uses a silicon MEMS transmitter to replace the traditional light source
- Zero drift and without need for calibration

**Inner Door**

- Tempered glass provides easy observation of sample growth
- Three/six inner doors optional

**Operation Panel**

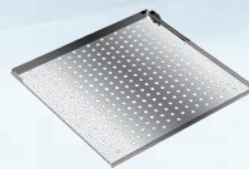
- 4-inch LCD screen, vivid display and easy operation
- Abnormal operation sound and light alarm to ensure sample safety
- Running data can be traced, large capacity storage, data can be exported through USB

**Door Switch**

When the door opens, heating, air intake and fan automatically stop to minimize the risk of cross contamination

**Partition**

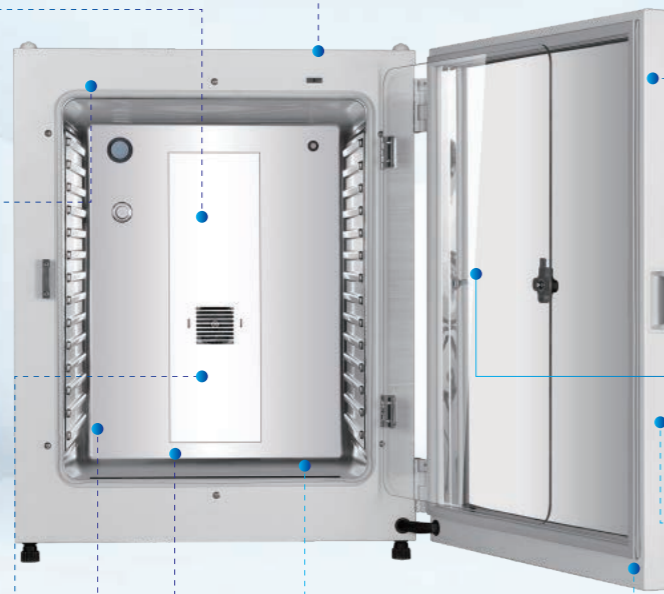
- Anti-slip design
- High levelness ensures uniform growth of adherent cells
- Mirror stainless steel to ensure high surface cleanliness, easy to clean

**Air Flow System**

The air flow circulation ensures proper uniformity throughout the chamber

**Integrated Liner**

Integral design, large arc design, easy to clean

**Test Hole**

Providing access for convenient measurement of internal statistics

**Outer Door**

- Prevents the condensation of the inner door
- Left/right hand door optional

**Inner and Outer Door Seal**

- Silicone material, prevent aging after heating
- Close the inner cavity to ensure the cleanliness and uniformity of the inner chamber

**Bottom Reservoir Humidification**

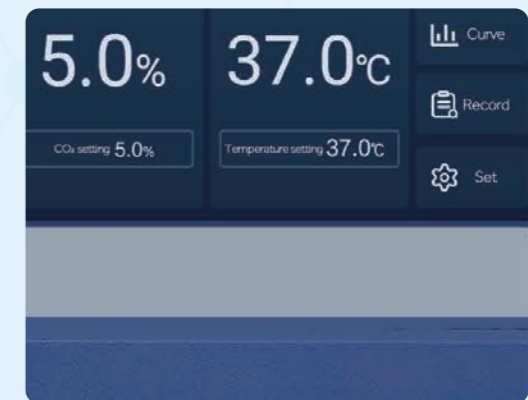
- Reservoir humidification method, no water tray, easy to clean, avoid breeding bacteria
- Large evaporation area and fast humidity recovery

**Seamless Stainless Steel Inner Chamber Easy to Clean**

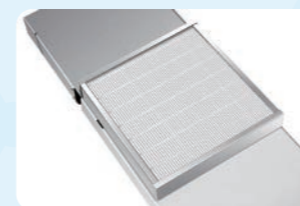
The working chamber is plasma electro polished, stamped stainless steel with wide-arc. Bracketless shelving design ensures that it is quick and easy to clean.

**Innovative Design with Attention to Detail**

Safe anti-slip design of pull-out shelves.



Data traceable for 15 years with large storage capacity and data exportable through USB.

**The Quality of ISO Class 5 Clean Room Can Ensure a Better Cell Growth Environment**

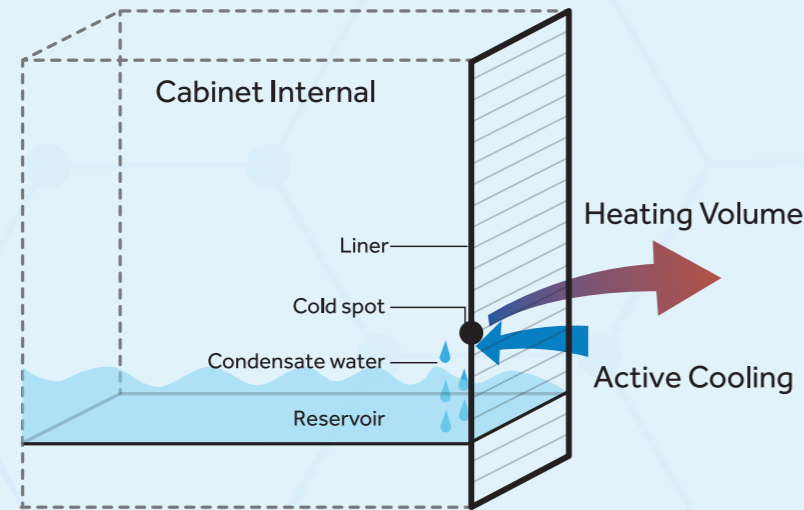
The optional HEPA high-efficiency filtration system combined with the unique air duct circulation design can continuously filter pollutants (biological pollutants and suspended particles) in the cabinet, ensuring that the incubator can reach the ISO class 5 clean room within 5 minutes after the external door is closed, which is equivalent to the class 100 environment of the 209 E standard of the united states

# CO<sub>2</sub> Incubator

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## Reservoir Humidification Without Condensation

Active heat pipe condensation technology with condensate water directly returns to the reservoir, to ensure no condensation.



## Optional Accessories

| Name                        | Material Description   |
|-----------------------------|--|
| Oxygen Module               | Zirconia O <sub>2</sub> sensor, control accuracy: 0.1%; control range: 1~21% or 5~90%  |
| 3 Inner Door (for HCP-168E) | Reduce the temperature, humidity and carbon dioxide concentration in the box after opening the door, and minimize the mutual influence of multiple cultures  |
| 6 Inner Door (for HCP-168E) | Reduce the temperature, humidity and carbon dioxide concentration in the box after opening the door, and minimize the mutual influence of multiple cultures  |
| 8 Inner Door (for HCP-258E) | Reduce the temperature, humidity and carbon dioxide concentration in the box after opening the door, and minimize the mutual influence of multiple cultures  |
| Water Tray                  | Provides different bottom humidification methods   |
| Roller Base                 | Easy to move, prevent the ground bacteria contamination  |
| HEPA Filter                 | Ensure the cleanliness of the cabinet, suitable for users who open and close the door frequently; After opening the door for 30 seconds, the air inside the cabinet can be passed through HEPA filters within 5 minutes and reach ISO 5 clean room quality |
| Pressure Reducing Valve     | Suitable for users with cylinder gas supply  |
| Shelf                       | Increase the number of samples cultured<br>4 materials:<br>SUS304 single mirror surface<br>SUS304 double mirror surface<br>tempering glass<br>Pure copper  |
| Cylinder Switching          | Supports switching between multiple steel cylinders to ensure uninterrupted air intake into the incubator  |
| Heightening Stand           | Keeping away from ground contamination   |
| 4~20mA                      | The analog acquisition interface for carbon dioxide and oxygen concentrations<br>Multiple incubators can have the temperatures and carbon dioxide concentration data of all the incubators monitored at one computer terminal                              |
| Liner                       | SUS 304<br>SUS 316<br>Pure copper  |

## Specifications

| Type                                    | Model   | HCP-80E                         | HCP-168E              | HCP-258E          |                |
|---|---|---------------------------------|-----------------------|-------------------|----------------|
| Construction                            | Chamber Volume (L/Cu.Ft)  | 80/2.8                          | Air Jacket<br>170/6.0 | 258/9.1           |                |
|   | Interior Chamber  | 304 Stainless Steel             |                       |                   |                |
|   | Exterior Chamber  | Cold-Rolled Steel Powder Coated |                       |                   |                |
|   | Access Port   | /                               | 42mm Diameter         | 35mm Diameter     |                |
|   | Data Outputs  | Remote Alarm Contacts, USB      |                       |                   |                |
| Dimensions                              | Net/Gross Weight (approx)   | kg                              | 75/90                 | 95/125            |                |
|   |   | lbs                             | 165/198               | 209.4/275         |                |
|   | Interior Dimensions (W*D*H)   | mm                              | 400*420*490           | 490*560*650       | 570*610*745    |
|   |   | in                              | 15.7*16.5*19.3        | 19.3*22*25.6      | 22.4*24.0*29.3 |
|   | Exterior Dimensions (W*D*H)   | mm                              | 625*684*735           | 714*812*887       | 794*867*985    |
|   |   | in                              | 24.6*26.9*28.5        | 28.1*32*34.9      | 31.3*34.1*38.8 |
| Packing Dimensions (W*D*H)              | mm  | 700*770*910                     | 800*890*1050          | 870*950*1150      |                |
|   | in  | 27.6*30.3*35.8                  | 31.5*35.0*41.3        | 34.2*37.4*45.3    |                |
| Shelves                                 | Dimensions (W*D)  | mm                              | 380*300               | 473*434           |                |
|   | Number Standard/maximum   |                                 | 3/8                   | 3/11              |                |
|   | max.Load Per Shelf/total Load   | kg                              | 15/45                 |                   |                |
|   | Construction  | Perforated, Adjustable          |                       |                   |                |
| Electrical                              | Rated Voltage Power Supply (V/hz)                                     | 220-240/50/60                   | 220-240/50/60         | 220-240/50/60     |                |
|   | Power consumption (kw) (Steri-Run)                                    | 0.08 (1.0)                      | 0.095 (1.5)           | 0.12 (1.8)        |                |
| Control                                 | Sterilization power (W)   | 1000                            | 1500                  | 1800              |                |
|   | Controller  | Microprocessor                  |                       |                   |                |
| CO <sub>2</sub>                         | Display   | 4 inch LED Button Screen        |                       |                   |                |
|   | Control Accuracy  | 0.10%                           |                       |                   |                |
|   | Range   | 0-20%                           |                       |                   |                |
|   | Alarm Range   | ±0.5%                           |                       |                   |                |
|   | Inlet Pressure  | 12-17PSI (0.8-1.2bar)           |                       |                   |                |
|   | Gas Purity  | Min.99.5% or Medical Quality    |                       |                   |                |
|   | CO <sub>2</sub> Inlet   | 1/8" Hose (Barbed)              |                       |                   |                |
|   | Sensor  | IR                              |                       |                   |                |
|   | Recovery Time ** (after 30s door opening, 98% from initial value) Min | 4                               |                       |                   |                |
|   | CO <sub>2</sub> Inlet Filter (µm)                                     | <0.2                            |                       |                   |                |
|   | Alarms  | High/Low Temperature            | Y                     |                   |                |
| Remote Alarm                            |   | Y                               |                       |                   |                |
| Sensor Error                            |   | Y                               |                       |                   |                |
| Excessive CO <sub>2</sub> Concentration |   | Y                               |                       |                   |                |
| Water Shortage Reminder                 |   | N                               |                       |                   |                |
| Door Ajar                               |   | Y                               |                       |                   |                |
| Temperature Parameter                   | Control Accuracy (°C)   | 0.1                             |                       |                   |                |
|   | Range   | Ambient Temperature+3-55°C      |                       |                   |                |
|   | Uniformity  | ±0.3                            |                       |                   |                |
|   | Ambient Range (°C)  | 18-34                           |                       |                   |                |
|   | Temperature Fluctuations (°C)   | ±0.1                            |                       |                   |                |
|   | Sensor  | 1*PT1000                        |                       |                   |                |
| Sterilization Cycle                     | Cycle Temperature   | 90°C Moist Heat Sterilization   |                       |                   |                |
|   | Cycle Duration  | Under 14 Hours                  |                       |                   |                |
| Humidity                                | RH  | 93% ± 3% @ 37°C                 |                       |                   |                |
|   | Humidity Reservoir  | Max.1.75L/Min 0.5L              | Max. 3.5L/Min 0.5L    | Max.5.5L/Min 0.5L |                |
| Optional                                | HEPA Filter   | Y                               | Y                     | Y                 |                |
|   | Pressure Reducing Valve   | Y                               | Y                     | Y                 |                |
|   | 4~20mA  | Y                               | Y                     | Y                 |                |
|   | The Cylinder Switch   | Y                               | Y                     | Y                 |                |
|   | Shelf   | Y                               | Y                     | Y                 |                |
|   | Water Tray  | Y                               | Y                     | Y                 |                |
|   | 3 Inner Door  | N                               | Y                     | N                 |                |
|   | 6 Inner Door  | N                               | Y                     | N                 |                |
|   | 8 Inner Door  | N                               | N                     | Y                 |                |
|   | Roller Base   | Y                               | Y                     | Y                 |                |
|   | Pure Copper Inner Liner   | Y                               | Y                     | Y                 |                |
|   | Pure Copper Shelf   | Y                               | Y                     | Y                 |                |
|   | Humidity Display  | N                               | N                     | N                 |                |
|   | Oxygen Module   | Y                               | Y                     | Y                 |                |
| Electromagnetic Lock                    | N   | N                               | N                     |                   |                |
| Heightening Stand                       | Y   | Y                               | Y                     |                   |                |
| IoT                                     | Y   | Y                               | Y                     |                   |                |
| Others                                  | Certification   | CE                              | CE                    | CE                |                |

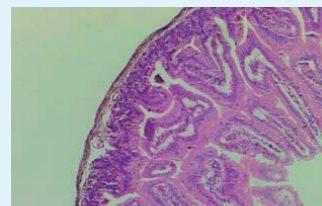
\*\* For CO<sub>2</sub> not exceeding 5.2%  
\*\*\* For temperature not exceeding 37°C

# Standard Incubator

359/360

## Scope of Application

The solution is widely used in bacteria, fungi and other microorganism cultures; as well as enzyme digestion reaction, ligation reaction, embedded incubation and other related constant temperature experiments.



Embedded incubation



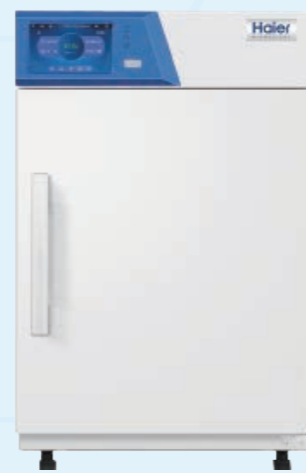
Bacteria



Fungus



HZP-168



HFP-80

## Product Advantages



### Personalized interface, easy to link

Equipped with USB and RS485 interfaces to meet the different needs of users to transfer data



### Data traceability

Data traceable up to 15 years with base storage 8GB and data exportable through USB



### Multiple protection benefits for increased security

Overheat protection (OPT), over current protection (FU), sensor error detection, independent temperature limit, compliance with DIN 12880 requirements and EU 3.1 safety level. Sound, light and remote alarms (optional) which guarantee experiment safety. Multiple alarms, such as over temperature alarm, high and low temperature alarm, door ajar, and sensor error alarm



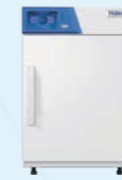
### High thermal insulation performance, energy saving and environmental protection

The unit is manufactured with aluminum foil insulation cotton, which improves the overall insulation performance and reduces energy consumption, lowering costs while also being environmentally friendly

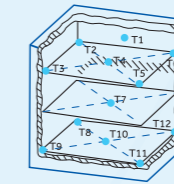
## Fuzzy PID Control Technology



HZP-168  
Natural Convection



HFP-80  
Forced Convection



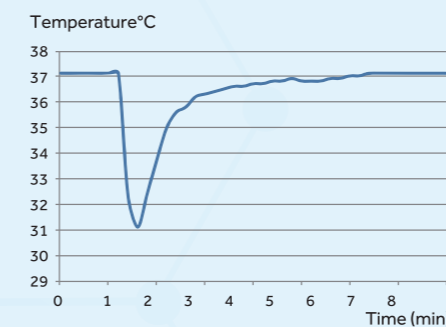
ASTM standard,  
12 points testing

Based on PID control principle, manufactured with U-shaped 3-sided heating to achieve superior temperature control and uniformity control.

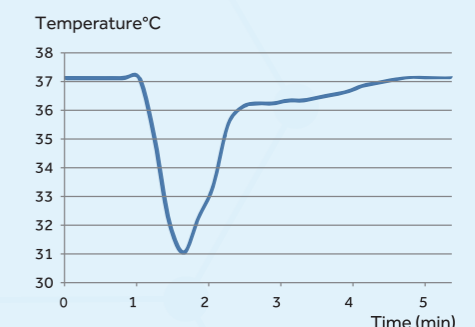
## Rapid Recovery After Door Open

Rapid warming: the temperature inside the unit quickly recovers after opening the door to reduce the influence of temperature fluctuation on the sample.

The temperature rise curve to 37°C after opening the door for 30 sec at 22°C ambient temperature



HZP-168



HFP-80

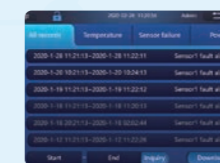
## Convenient and Intelligent Management at a Glance



7-inch touchscreen, easy to operate and sensitive, it can respond quickly even when wearing rubber gloves.



Real-time display of temperature data, one-touch to review previous data.



Records abnormal information in real time, eliminating any hidden abnormalities which ensures the culturing is more secure.



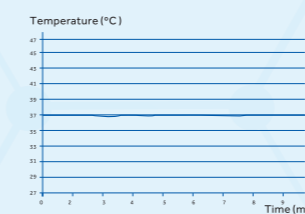
Multiple operating modes.



The program can be edited and set at any number of segments to meet the needs of various detection tests.

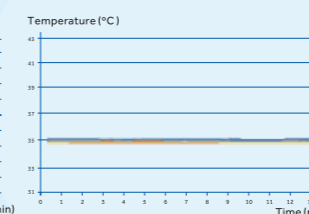
## Precise Temperature Control, Energy-efficient and Environment-friendly

An energy-efficient model with superior control and heating mechanisms, high-quality insulation material and cabinet structure to ensure heating requirements are met while keeping power consumption to a minimum.

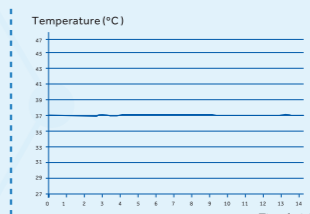


Temperature fluctuation ±0.1°C (37°C)

HZP-168

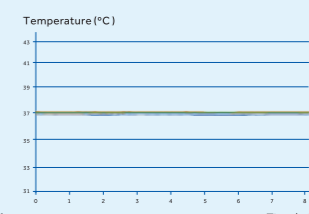


Temperature uniformity ±0.5°C (37°C)



Temperature fluctuation ±0.1°C (37°C)

HFP-80



Temperature uniformity ±0.3°C (37°C)

# Standard Incubator

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## Optional IoT Technology for Real-time Remote Monitoring



Through the mobile app, the status of the incubator can be checked in real time, and information such as temperature alarm sensor error alarm, and door ajar can be controlled with one button, which provides more security for the experiment process.

## Pictures in Details



Seamless, curved internal chamber for easy cleaning and decontamination.



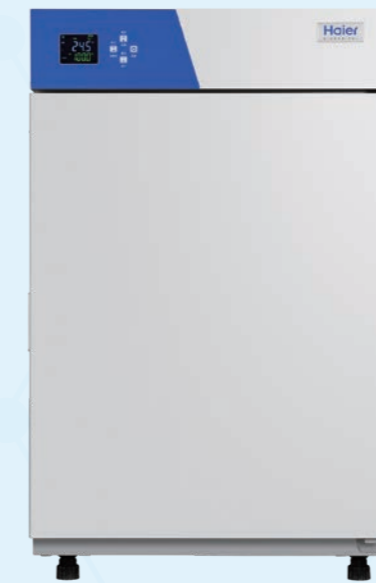
Standard independent intelligent temperature safety controller to ensure experimental safety; RS485 achieves seamless IoT data connection.

## Product Parameters

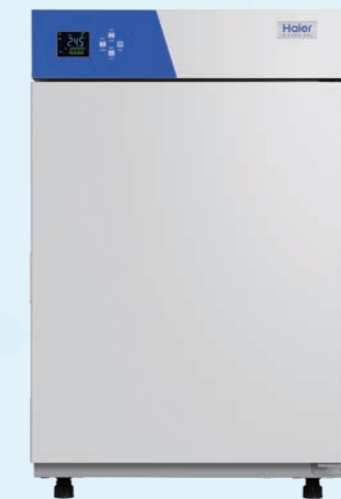
| Model             |  | HZP-168                  | HFP-80                   |                |
|-------------------|--|--------------------------|--------------------------|----------------|
| Performance       | Temperature Sensor                           | PT100                    | PT100                    |                |
|                   | Control Accuracy                             | ±0.1                     | ±0.1                     |                |
|                   | Control Range                                | RT+5-105                 | RT+5-105                 |                |
|                   | Temperature Fluctuation (37°C)               | ±0.1                     | ±0.1                     |                |
|                   | Temperature Uniformity (37°C)                | ±0.5at 37°C              | ±0.3at 37°C              |                |
|                   | Recovery Time After Open Door for 30s (37°C) | 5                        | 2.5                      |                |
| Control           | Heating Mode                                 | Direct heating           | Direct heating           |                |
|                   | Control Principle                            | Fuzzy PID                | Fuzzy PID                |                |
|                   | Display                                      | 7" LCD Touchscreen       | 7" LCD Touchscreen       |                |
| Electrical        | Power Supply (V/Hz)                          | 220-240-50/60            | 220-240-50/60            |                |
|                   | Power (W)                                    | 640                      | 510                      |                |
|                   | Capacity (L/Cu.Ft)                           | 168/5.9                  | 80/2.8                   |                |
| Construction      | Net/Gross Weight                             | kg                       | 99/110                   | 72/80          |
|                   |  | lbs                      | 217.8/242                | 158.4/176      |
|                   | Interior Dimension (W*D*H)                   | mm                       | 490*550*626              | 400*400*480    |
|                   |  | in                       | 19.3*21.7*24.6           | 15.7*15.7*18.9 |
|                   | Exterior Dimension (W*D*H)                   | mm                       | 650*782*1028             | 560*662*870    |
|                   |  | in                       | 25.6*30.8*40.5           | 22.0*26.1*34.3 |
|                   | Packing Dimension (W*D*H)                    | mm                       | 800*900*1200             | 720*770*1060   |
|                   |  | in                       | 31.4*35.4*47.2           | 28.3*30.2*41.6 |
|                   | Shelves                                      |                          | 2/17                     | 2/12           |
|                   | Shelf Capacity                               | kg                       | 20                       | 20             |
| Partition Spacing | mm   | 20                       | 20                       |                |
| Alarms            | High/Low Temperature                         | Y                        | Y                        |                |
|                   | Over-Temperature Protection                  | Y                        | Y                        |                |
|                   | Sensor Error                                 | Y                        | Y                        |                |
|                   | Door Ajar                                    | Y                        | Y                        |                |
|                   | End of Program                               | Y                        | Y                        |                |
|                   | Alarm Mode                                   | Sound and Light / Buzzer | Sound and Light / Buzzer |                |
| Accessories       | Mechanical Independent Temperature           | Y                        | Y                        |                |
|                   | RS485  | Y                        | Y                        |                |
|                   | USB  | Y                        | Y                        |                |
|                   | IoT Module                                   | Optional                 | Optional                 |                |
| Certification     | CE   | Y                        | Y                        |                |

## Scope of Application

Widely used in medical and health, pharmaceutical, biochemistry, and agricultural science sectors for bacterial culture, fermentation, and constant temperature tests. It can be used for the culture and determination of microorganisms like bacteria, molds, fungi (e.g. Staphylococcus aureus, Streptococcus, Escherichia coli), food and beverage testing, and preheating of cell culture equipment.



HFP-168E



HZP-80E

## Product Advantages



### Multiple Security Protection

Multiple protection systems such as overheating, overcurrent, and independent temperature limiting; overtemperature, high and low temperature and other smart alarms for safety



### Smart IoT Module (optional)

The status of the incubator can be checked in real-time



### Broad Temperature Range

Temperatures from 5°C above ambient up to 105°C



### High Thermal Insulation Performance

Superior insulation that improves chamber stability and reduces heat load output to the laboratory and operating power consumption, that lowers operating costs



### Ergonomic Design

Efficient utilization of interior with flexible shelf system



### 4-inch Display Screen

The real-time display of the set temperature and running temperature makes the operation more convenient



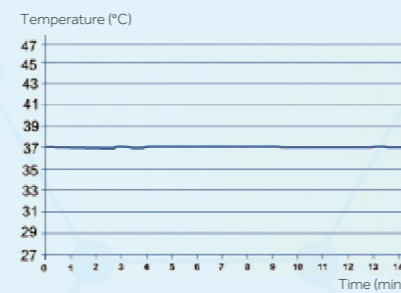
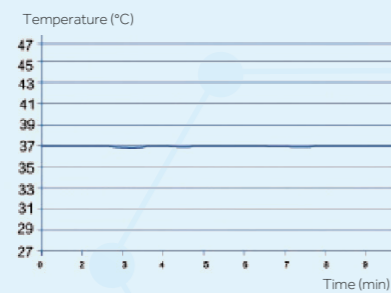
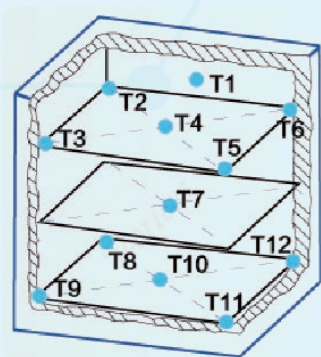
### 100°C Decontamination

The disinfection routine at 100°C minimizes the risk of contamination



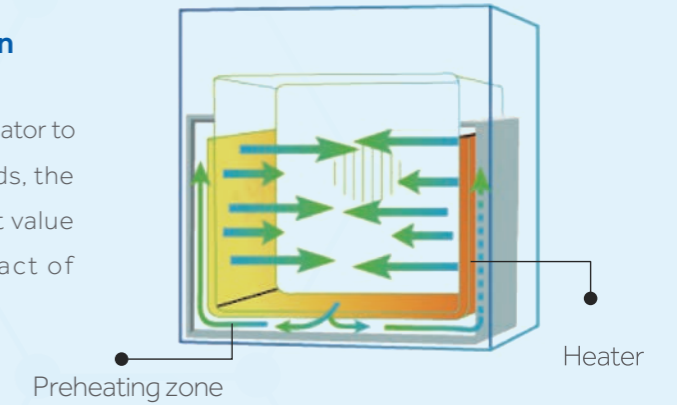
Precise Temperature Control

Validated through ASTM standard 12 points temperature detection method, the incubator can achieve high-precision temperature control with a temperature fluctuation of only  $\pm 0.1^{\circ}\text{C}$



Rapid Temperature Recovery After Door Open

The U-shaped 3-sided heating design enables the incubator to heat up quickly. After opening the door for 30 seconds, the temperature inside the chamber recovers to the set value within 3 minutes, significantly reducing the impact of temperature fluctuations on the experiments



Product Parameters

| Model             | HZP-80E                                      | HFP-168E                 |                     |                |
|-------------------|--|--------------------------|---------------------|----------------|
| Performance       | Temperature Sensor                           | PT100                    | PT100               |                |
|                   | Control Accuracy                             | $\pm 0.1$                | $\pm 0.1$           |                |
|                   | Control Range                                | $RT+5-105$               | $RT+5-105$          |                |
|                   | Temperature Fluctuation (37°C)               | $\pm 0.1$                | $\pm 0.1$           |                |
|                   | Temperature Uniformity (37°C)                | $\pm 0.5$ at 37°C        | $\pm 0.3$ at 37°C   |                |
| Control           | Recovery Time After Open Door for 30s (37°C) | 5                        | 2.5                 |                |
|                   | Heating Mode                                 | Direct heating           | Direct heating      |                |
|                   | Control Principle                            | Fuzzy PID                | Fuzzy PID           |                |
| Electrical        | Display                                      | 1.4 inch LCD screen      | 1.4 inch LCD screen |                |
|                   | Power Supply (W/Hz)                          | 220-240-50/60            | 220-240-50/60       |                |
|                   | Power (W)                                    | 350                      | 520                 |                |
|                   | Capacity (L/Cu.Ft)                           | 80/2.8                   | 168/5.9             |                |
| Construction      | Net/Gross Weight                             | kg                       | 72/80               | 99/110         |
|                   |  | lbs                      | 158.4/176           | 217.8/242      |
|                   | Interior Dimension (W*D*H)                   | mm                       | 400*400*480         | 490*560*630    |
|                   |  | in                       | 15.7*15.7*18.9      | 19.3*21.7*24.6 |
|                   | Exterior Dimension (W*D*H)                   | mm                       | 560*620*870         | 650*780*1028   |
|                   |  | in                       | 22.0*26.1*34.3      | 25.6*30.8*40.5 |
|                   | Packing Dimension (W*D*H)                    | mm                       | 720*770*1060        | 800*900*1200   |
|                   |  | in                       | 28.3*30.2*41.6      | 31.4*35.4*47.2 |
|                   | Shelves Qty (standard/max.)                  | 2/12                     | 2/17                |                |
|                   | Max. Load Per Shelf                          | 20                       | 20                  |                |
| Partition Spacing | 20   | 20                       |                     |                |
| Alarms            | High/Low Temperature                         | Y                        | Y                   |                |
|                   | Over-Temperature Protection                  | Y                        | Y                   |                |
|                   | Sensor Error                                 | N                        | N                   |                |
|                   | Door Ajar                                    | Y                        | Y                   |                |
|                   | End of Program                               | Y                        | Y                   |                |
| Alarm Mode        | Sound and Light / Buzzer                     | Sound and Light / Buzzer |                     |                |
| Accessories       | Mechanical Independent Temperature           | Y                        | Y                   |                |
|                   | RS485  | Optional                 | Optional            |                |
|                   | USB  | N                        | N                   |                |
| Certification     | IoT Module                                   | Optional                 | Optional            |                |
|                   | CE   | N                        | N                   |                |

# Climate Chamber

Drug stability tests, cosmetic stability tests, food shelf life tests, electronic components aging tests, packaging material stability tests.



HHS-256/756/506

## Product Advantages



### Silent

Peltier technology ensures low vibration and noise output with no pollution into the environment



### Precise control

Accurate temperature and humidity control, long-term stability, 40 °C temperature uniformity  $\pm 0.5^{\circ}\text{C}$  and central temperature fluctuation  $\pm 0.2^{\circ}\text{C}$ , 75% humidity fluctuation  $\pm 1\%$

\* Ambient temp. 22°C, ambient humidity 40% RH



### Water-saving

Intelligent control of PTC humidification, daily water consumption of 120-320ml, no need to recycle waste water, saving space

\* test condition: 40°C, 75%rh



### Power saving

Peltier technology means the daily power consumption is as low as 5kWh; 90% more energy efficient than compressor technologies

## Product Parts



HHS-756

Incubators  
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## Product Features



Multiple protection protocols - equipped with delay start, high/low temperature and light intensity protection in line with DIN12880 requirement for over/under temperature protection



High precision temperature sensor, dual PT1000 sensors for more accurate temperature control



Optional electromagnetic lock, suitable for multiple users with independent management for safety



### Microprocessor control system

- PID control principle, 10-inch touch screen, temperature control precision 0.1°C, humidity control precision 0.1%, temperature range 5-70°C, humidity range 10%-90%
- USB, RS485 interface as standard
- Temperature alarm, humidity alarm, door alarm, sensor alarm and water shortage warning
- Display temperature, humidity and ambient temperature; users can query the historical curve



Expandable large capacity data storage, the touchscreen memory can be expanded to 64GB, storing up to 15 years data which can be exported via a USB



An access port with a diameter of 35mm on the left side of the cabinet to facilitate independent testing of temperature and humidity



High insulating performance polythene foam provides excellent insulation and stable cabinet temperatures reducing energy consumption



High precision capacitive humidity sensor



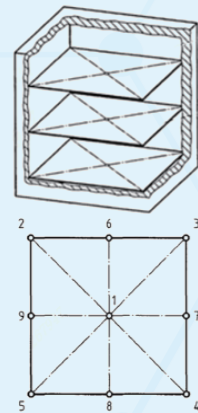
With ICH-compliant Light Source and Light-dose Control (optional)



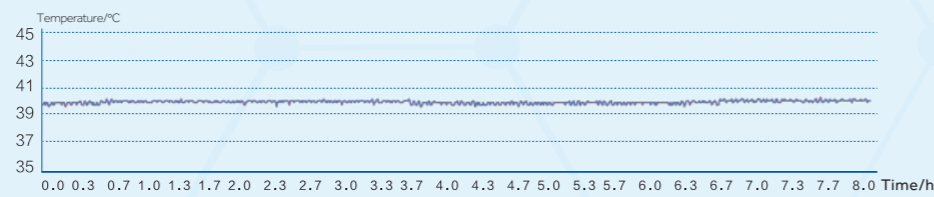
ICH compliant illumination for photo-stability testing [0-10000LUX, UV-A 320-400nm, 0~1.1W/m<sup>2</sup>]  
Positionable illumination cassettes with ICH-compliant UV/Vis-light source Independent light-dose control of UV-A and visible light with sensors

International Quality Assurance

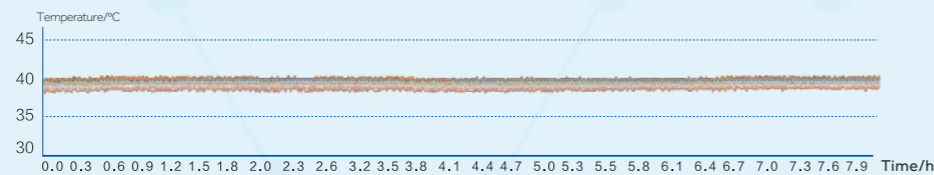
Accurate Temperature Control



DIN12880 standard 27 test points

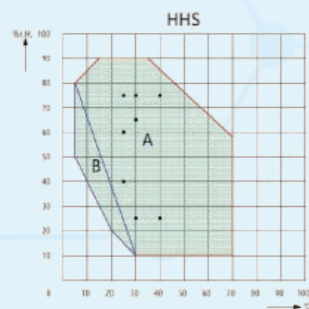


Central point temperature fluctuation within ±0.2°C (ambient temperature: 22°C, setting temperature: 40°C)

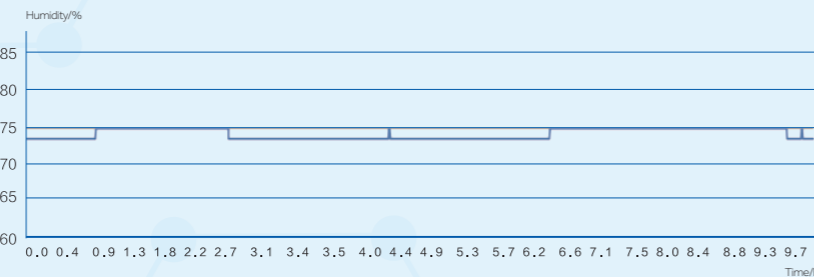


27 test points temperature uniformity is ±0.5°C (ambient temperature: 22°C, setting temperature: 40°C)

Accurate Humidity Control



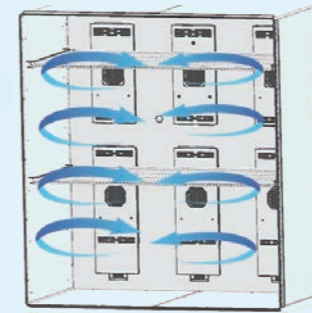
A area: Stable temperature and relative humidity control range.  
B area: Ambient temperature and humidity requirements, less than 22°C, 40%RH  
• Temperature and relative humidity measurement points required in ICH guidelines



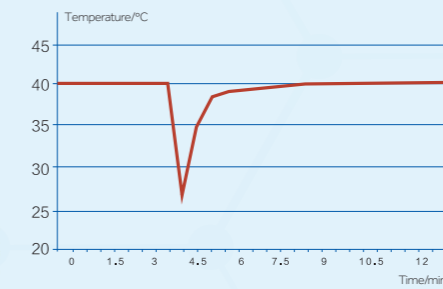
Humidity fluctuation ±1%rh; Accurate temperature control (ambient temperature: 22°C, ambient humidity: 40%rh, setting temperature: 40°C, setting humidity: 75%rh)

- There shall be some gap around the product, and there must be no less than 150cm gap on the back side, so as to facilitate heat dissipation of pletier module and cut off the power supply in case of emergency;
- Sample dehumidification is not applicable, which may cause humidity deviation from the initial setup;
- The ambient temperature changes may cause the temperature and humidity to fluctuate beyond the limit;
- In area B, ensure that the ambient temperature is less than 22°C and the ambient humidity is less than 40%Rh. If the ambient temperature exceeds the range, the humidity may deviate from the setup.

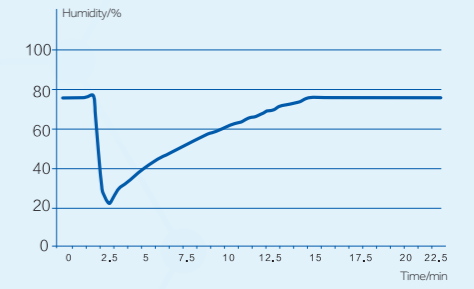
Internal Cabinet Environment Quick Recovery System



Professional air duct design, ensuring temperature and humidity uniformity



The time required for temperature to return to 40°C after 30s door opening is <4 minutes



The time required for humidity recovery to 75% after opening door for 30s is <14 minutes

Intelligent Management

Convenient and intelligent management to improve working efficiency



- The intelligent 10-inch touchscreen controller is easy to operate and sensitive to touch, even in rubber gloves. The PID control algorithm ensures the accuracy of temperature control



- Data and multi-user authority management and permissions conforms to FDA 21 CFR Part 11



- Unlimited programs with infinite humidity and temperature settings to allow users to customise to their needs

High quality manufacture and reliable operation



Capacitive humidity sensor, long-term operating reliability

- Interference-free humidity data collection.
- Long-term reliability without the need for calibration.
- High precision ±0.1%.
- Anti-condensation design for more accurate humidity monitoring.



High precision temperature sensor, accurate and reliable

- Adopts PT1000 temperature sensors for accurate, stable and repeatable measurement without deviation.
- Dual sensors further improve accuracy.



Peltier heating and refrigerating system, superior energy-saving and mute effect

- Peltier temperature control technology is based on the thermoelectric principle and can achieve environmental protection, no vibration and low noise.

Intelligent control, ensures temperature and humidity accuracy



Intelligent control PTC humidification, energy-saving and water-saving

- The temperature and purity of vapour is accurately controlled by the intelligent water supply system and ceramic high-temperature heating apparatus.



Intelligent dehumidification, accurate humidity control

- Dehumidification by cold trap using the Peltier technology accurately controls heating and cooling.

# Climate Chamber

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Drug stability testing, food shelf-life testing, electronic component aging testing, microbiological research, sample storage.

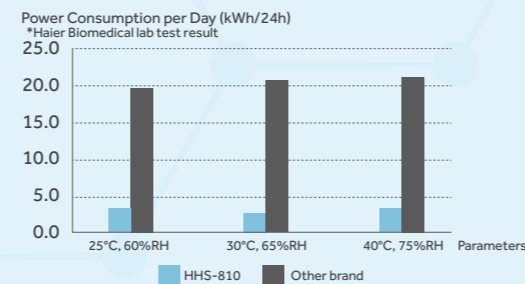


HHS-500/810/1060

## Product Advantages

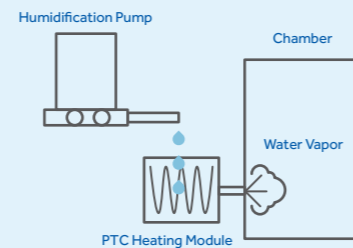
### ART Intelligent Sensing and Control Technology

Intelligent dynamic control to optimize refrigerant levels, prevent evaporator frosting, and deliver excellent energy efficiency.



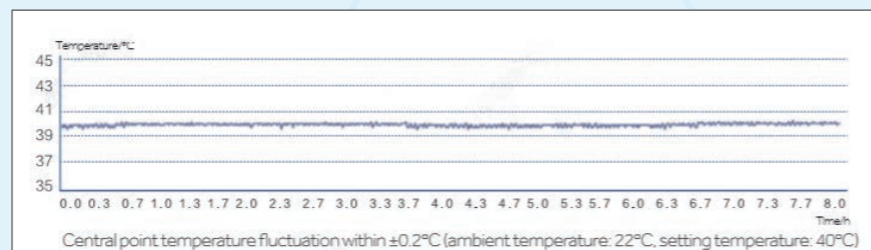
### Preheats and vaporizes water droplets. Water consumption < 320 ml per day

Latest high-temperature steam injection humidification technology. Conserve both energy and water. Reduce the need for frequent water refills.



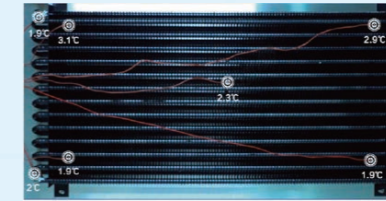
### Intelligent fuzzy algorithm. Temperature fluctuation of ±0.2°C

Intelligent temperature control system. PT100 temperature sensor. Precise regulation. Temperature fluctuation of ±0.2°C.



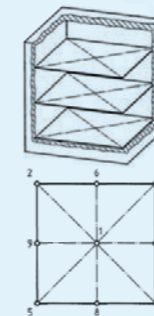
### Dual evaporator system ensures a frost-free environment at a stable 4°C

Dual evaporators operate independently. Intelligent defrosting. Consistent frost-free operation and a stable internal temperature as low as 4°C.

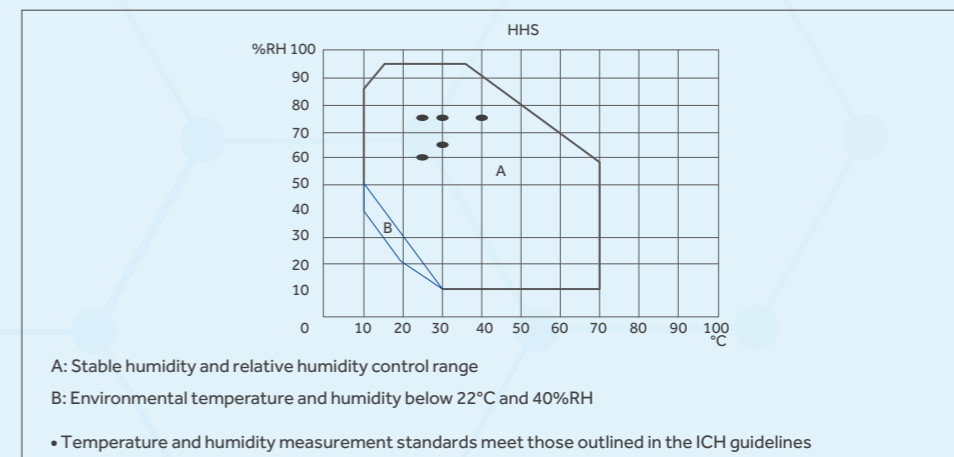
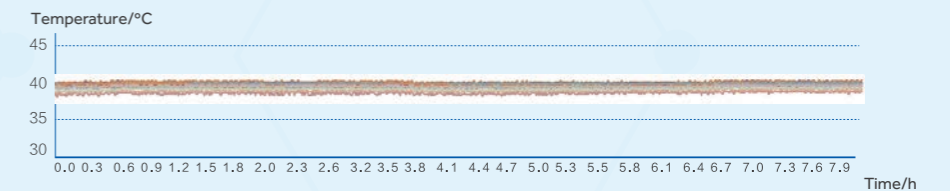


### Circulating air flow system. Temperature uniformity ±0.5°C

10 adjustable wind speed levels. Pre-mixed and split-flow circulation system. Lattice-type airflow structure. Temperature uniformity ±0.5°C.



DIN12880 standard 27 test points



### Imported humidity sensor with a wide humidity range of 10%RH–95%RH

A wider range of humidity control to accommodate even the most stringent testing requirements.

There needs to be some clearance around the product, and the clearance on the back should be no less than 150 cm to facilitate heat dissipation and cut off the power supply in case of an emergency;

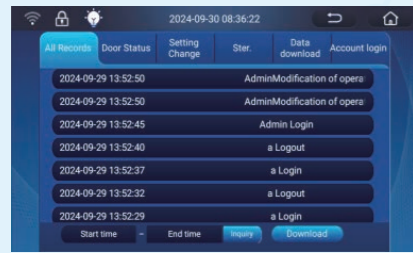
- Sample dehumidification is not applicable, which may cause the humidity to deviate from the initial setting;
- Changes in the ambient temperature may cause the temperature and humidity to fluctuate beyond the limit;
- In Area B, make sure the ambient temperature is lower than 22°C and the ambient humidity is less than 40% Rh. If the ambient temperature exceeds the range, the humidity may deviate from the setting.

# Climate Chamber

371/372



Safe and traceable. Data can be traced for up to 15 years.



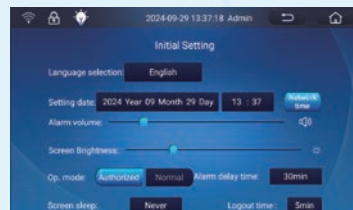
8G data storage. Store and track data for up to 15 years.

Optional IoT module. Real-time monitoring of equipment operational status.

## User-Friendly Design

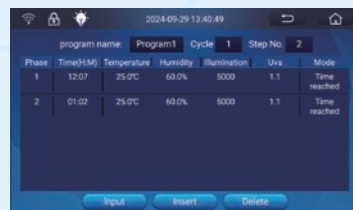


- 7-inch LCD touch screen for easy operation.  
PID control algorithm ensures precise temperature control.



### • Compliant with GMP requirements, meeting audit trail

Multi-level user management system for safety and compliance.  
Electronic signature and records meet US FDA PART11 certification requirements.



- Programmable mode up to 50 segments and 99 cycles. Simplify temperature and humidity settings for diverse testing and detection needs.



### • UV sensor & illuminance sensor

ICH Q1B-compliant illumination for photostability testing [0–10000 lux, UV-A 320–400 nm, 0–1.1 W/m] Positionable illumination cassettes with ICH-compliant UV/Vis-light sources. Independent light-dose control for UV-A and visible light with sensor.



### • Observation test hole

Equipped with a 35-mm diameter test hole on the left side of the chamber, allowing easy observation and recording of the test conditions inside to meet various testing requirements.



### • Optional lock module

Provides two secure unlocking options: electromagnetic and mechanical locks to ensure the safety of test samples.

## Specifications

| Model   |  | HHS-500                                | HHS-810                                | HHS-1060                               |                   |
|---|--|--|--|--|-------------------|
| Construction  | Chamber Volume (L)                         | 515                                    | 810                                    | 1070                                   |                   |
|   | Interior Chamber                           | Stainless Steel                        | Stainless Steel                        | Stainless Steel                        |                   |
|   | Exterior Chamber                           | Coated Cold Rolled Steel               | Coated Cold Rolled Steel               | Coated Cold Rolled Steel               |                   |
|   | Access Port                                | 35mm Diameter                          | 35mm Diameter                          | 35mm Diameter                          |                   |
| Dimensions  | Net/Gross Weight                           | kg                                     | 248/305                                | 320/383                                | 360/430           |
|   |  | lbs                                    | 546.75/672.41                          | 705.48/844.37                          | 793.66/947.99     |
|   | Interior Dimensions (W*D*H)                | mm                                     | 650*630*1260                           | 1100*590*1260                          | 1350*630*1260     |
|   |  | in                                     | 25.61*24.82*49.64                      | 43.34*23.25*49.64                      | 53.19*24.82*49.64 |
|   | Exterior Dimensions (W*D*H)                | mm                                     | 1300*1000*1858                         | 1380*1050*1858                         | 1750*1000*1858    |
|   |  | in                                     | 51.22*39.40*73.21                      | 54.37*41.37*72.89                      | 68.95*39.40*73.21 |
|   | Packing Dimensions (W*D*H)                 | mm                                     | 1080*1060*1990                         | 1495*1010*1990                         | 1780*1050*1990    |
|   |  | in                                     | 42.55*41.76*78.41                      | 58.9*39.79*78.41                       | 70.13*41.37*78.41 |
| Container Load (20'/40'/40'H)                             |  | 10/22/22                               | 7/15/15                                | 6/13/13                                |                   |
| Shelves   | Dimension (W*D)(mm)                        | 598*528                                | 1048*528                               | 1298*528                               |                   |
|   | Shelves qty (standard/max.)                | 2/16                                   | 2/16                                   | 2/16                                   |                   |
|   | Max. load per shelf                        | 45                                     | 45                                     | 45                                     |                   |
|   | Structure                                  | Slide Rail, Adjustable                 | Slide Rail, Adjustable                 | Slide Rail, Adjustable                 |                   |
|   | Shelves Material                           | SUS304                                 | SUS304                                 | SUS304                                 |                   |
| Electrical  | Voltage/ Frequency (V/Hz)                  | 220-240/50/60                          | 220-240/50/60                          | 220-240/50/60                          |                   |
|   | Power (W)                                  | 2000                                   | 2000                                   | 2600                                   |                   |
|   | Daily Consumption at 25°C & 40%RH (kWh)    | 4.3                                    | 4.3                                    | 6.5                                    |                   |
| Control   | Controller                                 | Microprocessor                         | Microprocessor                         | Microprocessor                         |                   |
|   | Display                                    | 7"LCD Screen                           | 7"LCD Screen                           | 7"LCD Screen                           |                   |
| Temperature Parameter                                     | Setting Range (°C)                         | without Humidity without Light: 0-70°C | without Humidity without Light: 0-70°C | without Humidity without Light: 0-70°C |                   |
|   |  | with Humidity without Light: 10-70°C   | with Humidity without Light: 10-70°C   | with Humidity without Light: 10-70°C   |                   |
|   |  | with Humidity with Light: 10-60°C      | with Humidity with Light: 10-60°C      | with Humidity with Light: 10-60°C      |                   |
|   | Control Precision (°C)                     | ±0.1                                   | ±0.1                                   | ±0.1                                   |                   |
|   | Temperature Uniformity at 25°C             | ±0.5                                   | ±0.5                                   | ±0.5                                   |                   |
|   | Temperature Fluctuation at 25°C            | ±0.2                                   | ±0.2                                   | ±0.2                                   |                   |
|   | Sensor                                     | PT100*1                                | PT100*1                                | PT100*1                                |                   |
| 30 Seconds Recovery Time after Door Opening at 40°C (min) | ≤4min                                      | ≤4min                                  | ≤4min                                  |  |                   |
| Humidity Parameter  | Humidity Setting Range (%RH)               | 10-95                                  | 10-95                                  | 10-95                                  |                   |
|   | Humidity Setting Accuracy (%RH)            | 0.1                                    | 0.1                                    | 0.1                                    |                   |
|   | Humidity Fluctuation at 40°C & 75%RH (%RH) | ±2                                     | ±2                                     | ±2                                     |                   |
|   | Daily Water Consumption (ml)               | 240                                    | 320                                    | 400                                    |                   |
| Optional  | Electromagnetic Lock (Password)            | Y                                      | Y                                      | Y                                      |                   |
|   | Printer                                    | Y                                      | Y                                      | Y                                      |                   |
|   | IoT Module                                 | Y                                      | Y                                      | Y                                      |                   |
| Standard  | Remote Alarm Interface                     | Y                                      | Y                                      | Y                                      |                   |
|   | RS485                                      | Y                                      | Y                                      | Y                                      |                   |
|   | Water Level Alarm                          | Y                                      | Y                                      | Y                                      |                   |

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

Specifications

| Model                     |   | HHS-256  | HHS-506  | HHS-756  |
|---------------------------|---|--|--|--|
| Construction              | Chamber Volume (L)  | 256L   | 506L   | 756L   |
|                           | Interior Chamber  | Stainless Steel  | Stainless Steel  | Stainless Steel  |
|                           | Exterior Chamber  | Coated Cold Rolled Steel   | Coated Cold Rolled Steel   | Coated Cold Rolled Steel   |
|                           | Access Port   | 35mm Diameter  | 35mm Diameter  | 35mm Diameter  |
| Dimensions                | Net/Gross Weight  | kg 175/188   | 225/260  | 280/328  |
|                           | Interior Dimensions (W*D*H)                                   | mm 650*570*700   | 740*570*1200   | 1100*570*1200  |
|                           | Exterior Dimensions (W*D*H)                                   | mm 835*890*1190  | 930*890*1690   | 1290*890*1690  |
|                           | Packing Dimensions (W*D*H)                                    | mm 1030*955*1280   | 1110*955*1780  | 1380*955*1780  |
| Shelves                   | Shelves Qty (standard/max.)                                   | 597*531  | 687*531  | 1048*531   |
|                           | Standard Qty / Max Qty  | 2/16   | 2/31   | 2/31   |
|                           | Max. Load Per Shelf   | kg 20  | 20   | 20   |
|                           | Structure   | Slide Rail, Adjustable   | Slide Rail, Adjustable   | Slide Rail, Adjustable   |
| Electrical                | Voltage / Frequency (V/Hz)                                    | 220-240-50/60  | 220-240-50/60  | 220-240-50/60  |
|                           | Power (W)   | 750  | 1100   | 1760   |
|                           | Day Consumption at 25°C & 40% RH (kwh)                        | 4.6  | 5.4  | 5.6  |
| Control                   | Controller  | The Microprocessor   | The Microprocessor   | The Microprocessor   |
|                           | Display   | 10" Smart LCD Screen   | 10" Smart LCD Screen   | 10" Smart LCD Screen   |
| The Temperature Parameter | The Set Range (°C)  | without Humidity without Light: 5-70°C with Humidity without Light: 5-70°C with Humidity with Light: 15-60°C | without Humidity without Light: 5-70°C with Humidity without Light: 5-70°C with Humidity with Light: 15-60°C | without Humidity without Light: 5-70°C with Humidity without Light: 5-70°C with Humidity with Light: 15-60°C |
|                           | Control Precision (°C)  | ±0.1   | ±0.1   | ±0.1   |
|                           | Temperature Uniformity at 25°C                                | ±0.5   | ±0.5   | ±0.5   |
|                           | Temperature Fluctuation at 25°C                               | ±0.2   | ±0.2   | ±0.2   |
|                           | The Sensor  | PT1000*2   | PT1000*2   | PT1000*2   |
|                           | Rate of Temperature Rise (°C / min)                           | 1  | 0.8  | 0.6  |
|                           | 30 Seconds Recovery Time After Door Opening at 40°C (min)     | 3  | 3.8  | 5  |
| Humidity Parameter        | Humidity Setting Range (% RH)                                 | 10-90  | 10-90  | 10-90  |
|                           | Humidity Setting Accuracy (% RH)                              | 0.1  | 0.1  | 0.1  |
|                           | Humidity Fluctuation at 25°C & 60% RH (% RH)                  | ±1   | ±1   | ±1   |
|                           | Daily Water Consumption (ml)                                  | 120  | 240  | 320  |
| Optional                  | Electromagnetic lock (password)                               | Y  | Y  | Y  |
|                           | Printer   | Y  | Y  | Y  |
|                           | ICH compliant illumination for photo-stability testing [lx]   | 0-10000  | 0-10000  | 0-10000  |
|                           | ICH compliant illumination for photo-stability testing [W/m2] | 0-1.1  | 0-1.1  | 0-1.1  |
| Standard                  | Remote Alarm Interface  | Y  | Y  | Y  |
|                           | RS485   | Y  | Y  | Y  |
|                           | Water Level Alarm   | Y  | Y  | Y  |
| Others                    | Certification   | CE   | CE   | CE   |

Cooled Incubator

Scope of Application



The equipment finds extensive use across variety of settings, including the scientific research institutions, university laboratories and production departments, in the realms of environmental conservation, public health and epidemic prevention, agriculture and animal husbandry, drug testing, and aquatic industries. It is highly specialized in cultivation, enabling it to meet the cultivation and preservation of most bacteria, molds, and microorganisms, as well as to serve purposes such as water analysis and biochemical oxygen demand (BOD) determination, and it can also conduct darkroom cultivation of plant tissues.



HSP-260

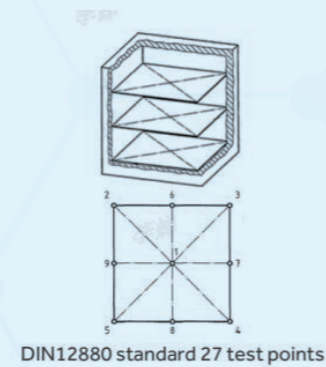
HSP-160

Product Advantages

- 
**Temperature Range**  
 The temperature control ranges from 0°C to +70°C regardless of ambient conditions
- 
**Multiple Operating Modes**  
 Meet a variety of experimental requirements.
- 
**Safe and Stable**  
 Multiple protection systems such as overheating, overcurrent, and independent temperature limiting; overtemperature, high and low temperature and other smart alarms for safety
- 
**Smart IoT (Optional)**  
 7-inch intelligent touchscreen with optional IoT technology for real-time checking the operating status via mobile phones or PC, simple and reliable
- 
**Data Traceability**  
 Data traceable up to 15 years with base storage 8GB and data exportable through USB
- 
**High Thermal Insulation Performance, Energy Saving and Environmental Protection**  
 The chamber features a two doors (one inner door ;another is outer door) configuration and utilizes separate inner liner foam to enhance thermal insulation performance, reduces energy consumption, while also being environmentally friendly

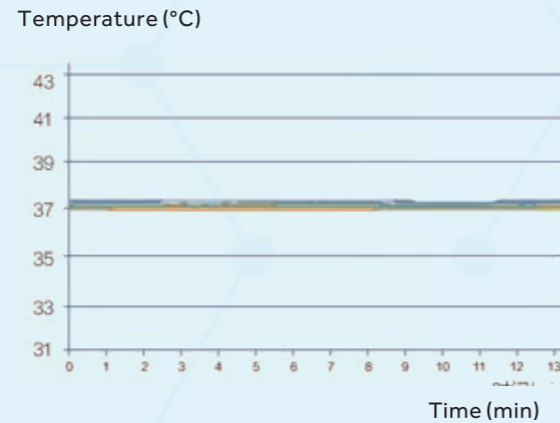
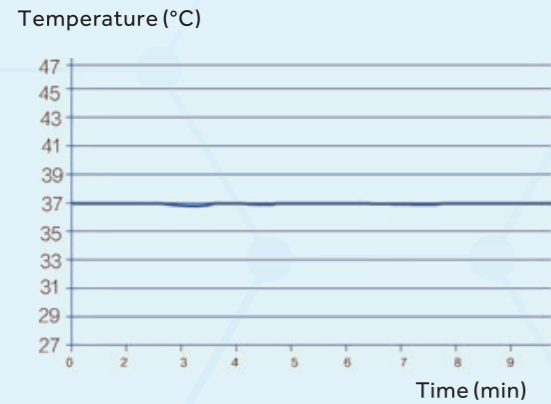
Fuzzy PID Control Technology

Based on the principle of fuzzy PID control, this product achieves high-precision temperature control. Referring to the DIN 12880 standard, with 27-point testing, the temperature fluctuation is  $\pm 0.2^{\circ}\text{C}$  (@ $37^{\circ}\text{C}$ , ambient temperature  $22^{\circ}\text{C}$ ).



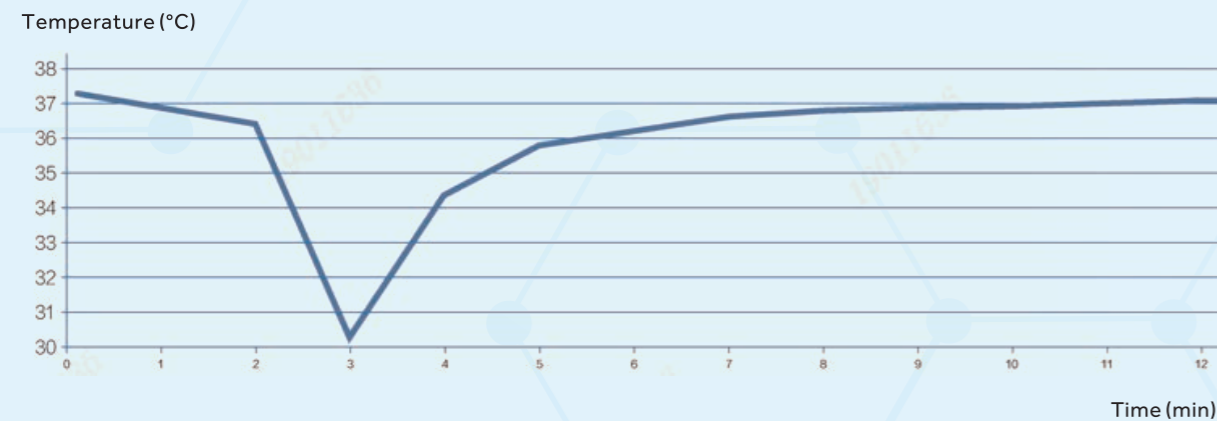
Precise Temperature Control, Energy Efficiency, and Eco-friendly

High-quality insulation materials, and professional air duct design to ensure precise temperature control while keeping power consumption to a minimum



Rapid Temperature Recovery After Door Opening

Fast recovery: the temperature inside the unit quickly recovers after opening the door to reduce the influence of temperature fluctuation on the sample



HSP-160/260

**7-inch touch screen**  
with intuitive operation and display

**The rotating handle on the inner door**  
it convenient to open the door and easy to operate

**The design of the glass inner door**  
Make the observation clear at a glance and minimize the impact on the sample during observation.

**Mechanical lock**  
prevent the door from opening arbitrarily

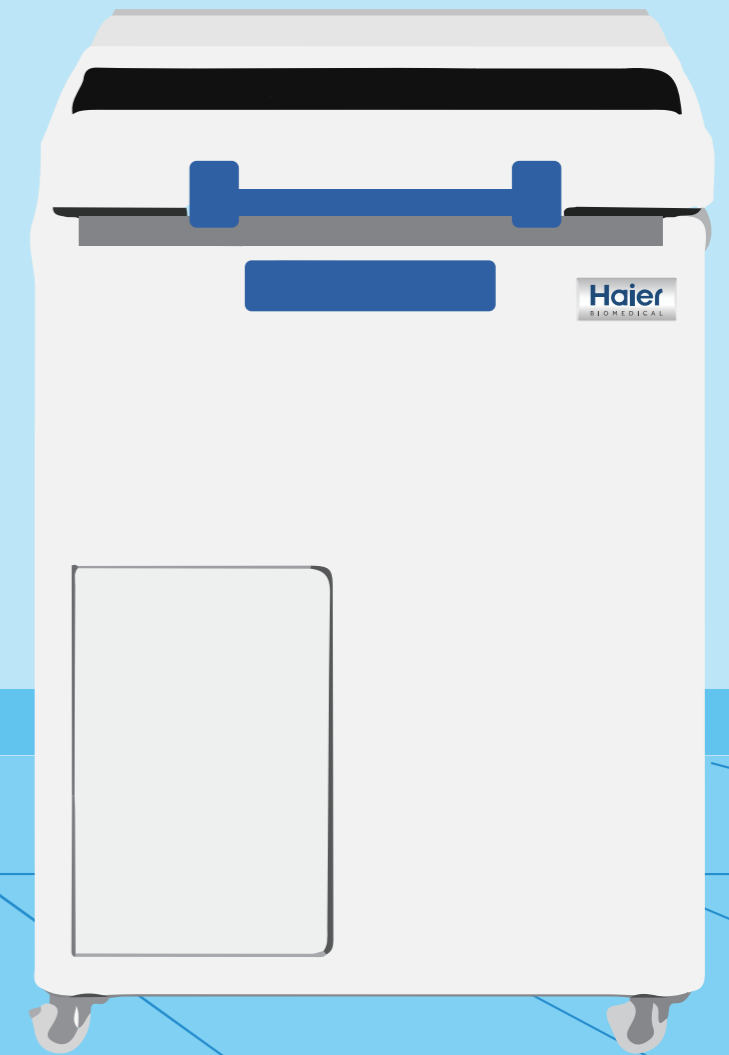
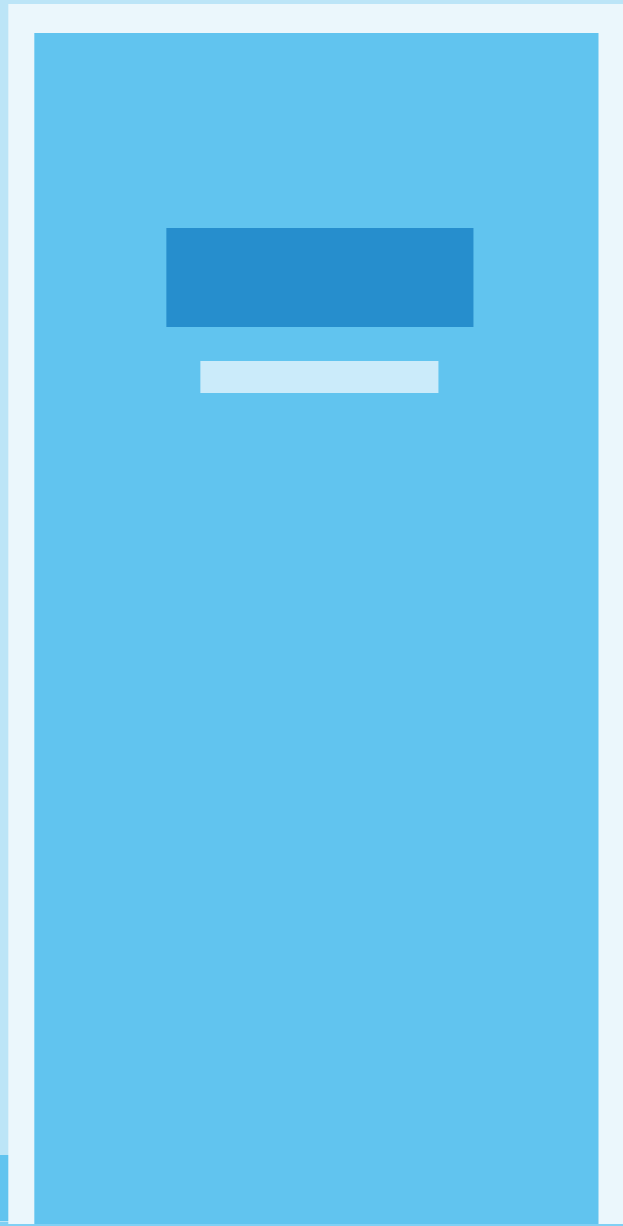
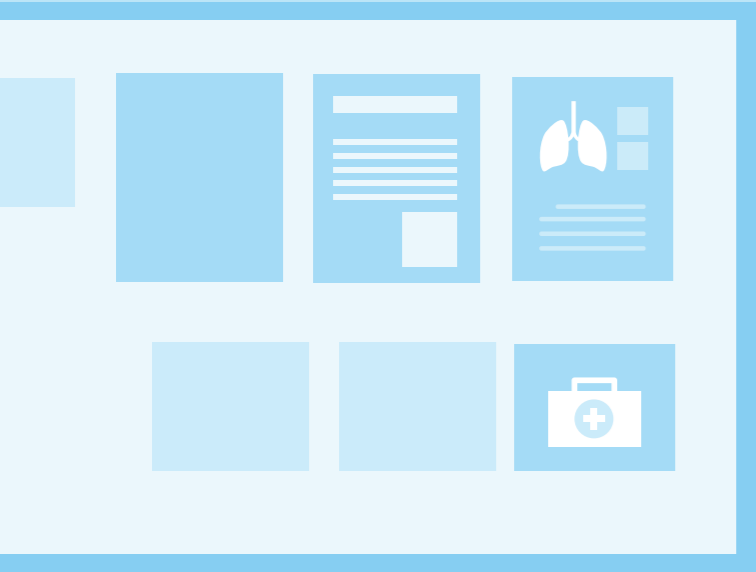
**Adjust shelf**  
Multi-tier shelf holes, adjustable space utilization  
**Stainless steel mirror inner**  
low adhesion, seamless corners, and is easy to clean

**Easy to move**  
The front braking limit sliding bottom angle makes the operation of the equipment stable

Product Parameters

| Model         |   | HSP-160                           | HSP-260                           |
|---------------|---|-----------------------------------|-----------------------------------|
| Performance   | Temperature Sensor  | PT100                             | PT100                             |
|               | Control Accuracy  | $\pm 0.1$                         | $\pm 0.1$                         |
|               | Control Range   | $0-70$                            | $0-70$                            |
|               | Temperature Fluctuation ( $37^{\circ}\text{C}$ )                              | $\pm 0.2$                         | $\pm 0.2$                         |
|               | Temperature Uniformity ( $37^{\circ}\text{C}$ )                               | $\pm 0.6$ at $37^{\circ}\text{C}$ | $\pm 0.6$ at $37^{\circ}\text{C}$ |
| Control       | Recovery Time After Open Door for 30s ( $37^{\circ}\text{C}$ ) Restore to 98% | 7                                 | 7                                 |
|               | Heating Mode  | Direct heating                    | Direct heating                    |
| Electrical    | Control Principle   | Fuzzy PID                         | Fuzzy PID                         |
|               | Display   | 7" LCD Touchscreen                | 7" LCD Touchscreen                |
| Construction  | Power Supply (V/Hz)   | 220-240-50/60                     | 220-240-50/60                     |
|               | Power (W)   | 1760                              | 1870                              |
| Alarms        | Capacity (L/Cu.Ft)  | 160/5.7                           | 260/9.2                           |
|               | Net/Gross Weight  | 105/135                           | 125/165                           |
|               | Interior Dimension (W*D*H)  | 520*568*610                       | 520*568*1000                      |
|               | Exterior Dimension (W*D*H)  | 640*800*1255                      | 640*800*1650                      |
|               | Packing Dimension (W*D*H)   | 745*865*1440                      | 745*865*1835                      |
|               | Container load (20'/40'/40'H)   | 12/28/28                          | 12/28/28                          |
|               | Shelves Qty (standard/max.)   | 3/7                               | 4/11                              |
|               | Max. Load Per Shelf   | 15                                | 15                                |
|               | High/Low Temperature  | Y                                 | Y                                 |
|               | Over-temperature Protection   | Y                                 | Y                                 |
| Accessories   | Sensor Error  | Y                                 | Y                                 |
|               | Door Ajar   | Y                                 | Y                                 |
| Optional      | End of program  | Y                                 | Y                                 |
|               | Alarm Mode  | Sound and Light / Buzzer          | Sound and Light / Buzzer          |
| Certification | Mechanical Independent Temperature Limiting Switch                            | Y                                 | Y                                 |
|               | RS485   | Y                                 | Y                                 |
| Cooling Mode  | USB   | Y                                 | Y                                 |
|               | Electromagnetic lock(password)  | Y                                 | Y                                 |
| Cooling Mode  | Printer   | Y                                 | Y                                 |
|               | UV-lamp   | Y                                 | Y                                 |
| Cooling Mode  | IoT Module  | Y                                 | Y                                 |
|               | CE  | Y                                 | Y                                 |
| Cooling Mode  | Refrigerant   | R134A                             | R134A                             |

• The power includes a reserved 1000W for the BOD socket;  
 • The temperature will return to 98% of the set value after opening the door;  
 • When the set temperature is less than  $20^{\circ}\text{C}$ , the temperature may fluctuate during the default low-temperature automatic defrosting of the device, which is a normal phenomenon. Do not use it beyond the working environment range.



**Sterilization**

# Drying Oven

## Scope of Application

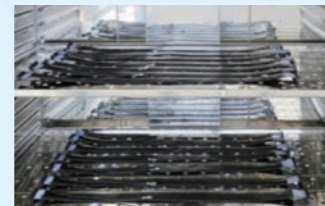
Typically used for drying and sterilization of laboratory consumables, instruments and samples; as well as heating and curing, drying and dehydration, heat removal, moisture content determination of materials and samples in the fields of medicine, chemical industry, agricultural products. Other uses include, high temperature heat resistance tests and thermal aging tests of rubber, plastic products and electrical insulation materials. The solution is widely used in medical, enterprise, universities, scientific research institutions, environmental monitoring centers, pharmaceutical, food and drug quality monitoring centers and other related industries.



Laboratory consumables



Instruments



Thermal aging test



HFS-160

HZS-60

## Product Advantages



### High thermal insulation performance, energy saving and environmental protection

Environmentally-friendly aluminium foil cotton insulation provides excellent insulation performance to reduce energy consumption and lower running costs.



### Personalized interface, easy to transfer data

Equipped with USB and RS485 interfaces to better meet the different needs of users for transfer data.



### Precise high temperature control

Superior preheating technology with an innovative air duct structure.



### Safe and stable

Multiple safety protection features.



### Multiple safety protections

Overheat protection (OPT), over current protection (FU), sensor error detection, independent temperature limit, compliance with DIN 12880 requirements and EU 3.1 safety level. Sound, light and remote alarms guarantee experiment safety.



### Scalable bulk data storage

The touch-screen can be increased to 64GB with capacity to store 15 years' data. The data can be exported using a USB flash drive.



### Smart interface

7-inch intelligent touchscreen with optional IoT technology for real-time remote monitoring via an app.



### Operation mode

Four operation modes for multiple temperature requirements.

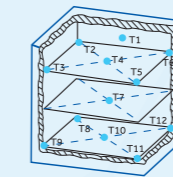
## PID Control Technology



HFS-160



HZS-60

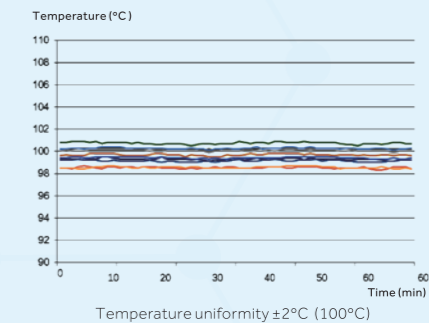
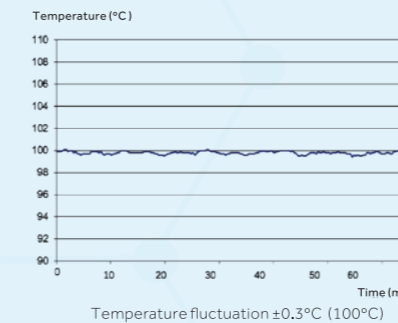


ASTM standard, 12 points testing

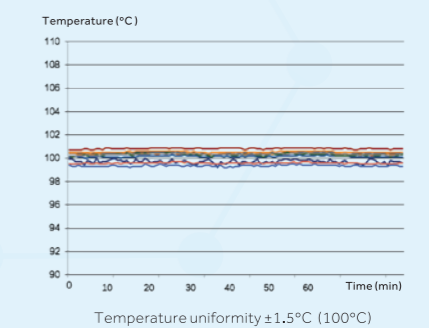
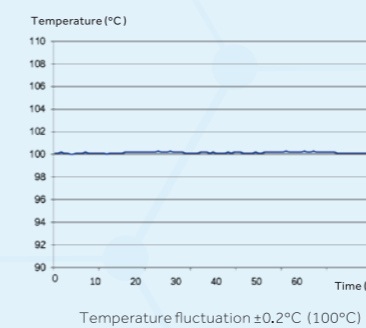
Based on PID control principle, manufactured with U-shaped 3-sided heating to achieve superior temperature control and uniformity control.

## Precise Temperature Control, Energy-efficient and Quiet

High performance 3-sided heating and professional air duct design, high-quality fan components and insulation materials ensures precise temperature control while keeping power consumption to minimum.



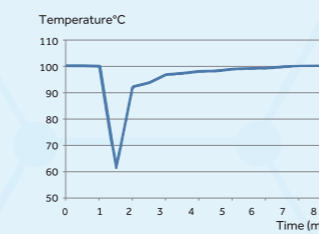
HFS-160



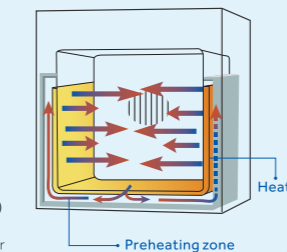
HZS-60

## Rapid Recovery After Door Open

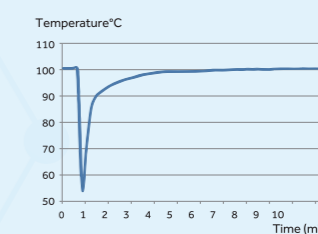
The temperature inside the unit quickly recovers after opening the door without overshoot.



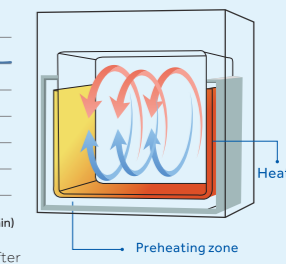
Temperature recovery curve to 100°C after opening the door for 30s



HFS-160

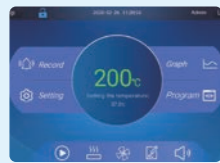


Temperature recovery curve to 100°C after opening the door for 30s

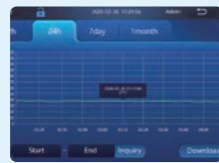


HZS-60

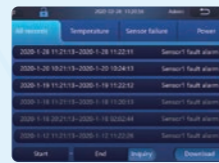
Convenient and Intelligent Management at a Glance



7-inch touchscreen, easy to operate and sensitive, it can respond quickly even when wearing rubber gloves



Real-time display of temperature data, one-touch to review previous data.



Records abnormal information in real time, to eliminate hidden errors.



Multiple operating modes.



The program can be edited and set at any number of segments to meet the needs of various detection tests

Optional IoT Technology for Real-time Remote Monitoring



The status of the dry chamber can be checked in real time, and information such as temperature abnormal alarm, sensor error alarm and door ajar can be controlled with one button, which provides more security for the experiment process.

Pictures in Details



Ergonomic self-locking handle, firm and durable, easy to use.



Large arc angle 304 mirror stainless steel inner liner, easy to clean.



Standard independent intelligent temperature safety controller to ensure experimental safety.



It is equipped with portholes to facilitate external equipment monitoring to record the experimental process.

Product Parameters

| Model                                 |  | HZS-60                      | HFS-160                     |                          |
|---------------------------------------|--|-----------------------------|-----------------------------|--------------------------|
| Performance                           | Control Accuracy                                   | °C                          | ±0.1                        | ±0.1                     |
|                                       | Control Range                                      | °C                          | RT+10-200                   | RT+10-200                |
|                                       | Temperature Fluctuation                            | °C                          | ±0.2 at 100                 | ±0.2 at 100              |
|                                       |  |                             | ±0.3 at 150                 | ±0.3 at 150              |
|                                       | Temperature Uniformity                             | °C                          | ±1.5 at 100                 | ±1.2 at 100              |
|                                       |  |                             | ±2.5 at 150                 | ±2 at 150                |
|                                       | Heating Rate (Ambient 22°C)                        | 40 min to 100°C             | 20 min to 100°C             |                          |
| 50 min to 150°C                       |  | 30 min to 150°C             |                             |                          |
| Recovery Time After Open Door for 30s | 9 min to 100°C                                     | 4 min to 100°C              |                             |                          |
|                                       | 20 min to 150°C                                    | 5 min to 150°C              |                             |                          |
| Control                               | Heating Mode                                       | Pre-Heating Air Jacket Type | Pre-Heating Air Jacket Type |                          |
|                                       | Control Principle                                  | Fuzzy PID                   | Fuzzy PID                   |                          |
|                                       | Display  | 7" LCD Touchscreen          | 7" LCD Touchscreen          |                          |
| Electrical                            | Power Supply (V/Hz)                                | 220-240-50/60               | 220-240-50/60               |                          |
|                                       | Power (W)  | 900                         | 2500                        |                          |
| Dimensions                            | Capacity (L/Cu.Ft)                                 |                             | 60/2.1                      | 160/5.7                  |
|                                       | Net/Gross Weight                                   | kg                          | 77/85                       | 113/125                  |
|                                       |  | lbs                         | 169.4/187                   | 248.6/275                |
|                                       | Interior Dimension (W*D*H)                         | mm                          | 370*385*420                 | 550*492*600              |
|                                       |  | in                          | 14.6*15.2*16.5              | 21.7*19.4*23.7           |
|                                       | Exterior Dimension (W*D*H)                         | mm                          | 572*719*792                 | 752*809*973              |
|                                       |  | in                          | 22.5*28.3*31.2              | 29.6*31.9*38.3           |
|                                       | Packing Dimension (W*D*H)                          | mm                          | 730*830*970                 | 910*920*1140             |
|                                       |  | in                          | 28.6*32.6*38.1              | 35.7*36.2*44.8           |
|                                       | Shelves (Standard/Maximum)                         |                             | 2/9                         | 2/15                     |
| Shelves Dimensions (W*D)              |  | 340*345                     | 520*445                     |                          |
| Max. Load Per Shelf                   | kg   | 20                          | 20                          |                          |
| Partition Spacing                     | mm   | 20                          | 20                          |                          |
| Alarms                                | Temperature Control Failure                        |                             | Y                           | Y                        |
|                                       | Timer End  |                             | Y                           | Y                        |
|                                       | Sensor Error                                       |                             | Y                           | Y                        |
|                                       | Door Ajar  |                             | Y                           | Y                        |
|                                       | End of Program                                     |                             | Y                           | Y                        |
|                                       | Alarm Mode   |                             | Sound and Light / Buzzer    | Sound and Light / Buzzer |
| Accessories                           | Mechanical Independent Temperature Limiting Switch |                             | Y                           | Y                        |
|                                       | Air Vents  |                             | Y                           | Y                        |
|                                       | Porthole   |                             | Y                           | Y                        |
|                                       | Observation Window                                 |                             | /                           | Y                        |
|                                       | RS485  |                             | Y                           | Y                        |
|                                       | USB  |                             | Y                           | Y                        |
|                                       | IoT Module   |                             | Optional                    | Optional                 |
| Certification                         | CE   |                             | Y                           | Y                        |



# Drying Oven

## Scope of Application

Typically used for drying and sterilization of laboratory consumables, instruments and samples as well as heating and curing, drying and dehydration, heat removal, moisture content determination of materials and samples. The solution is widely used in medical, enterprise, universities, scientific research institutions, environmental monitoring centers, pharmaceutical, food and drug quality monitoring centers and other related industries.

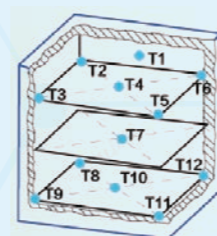
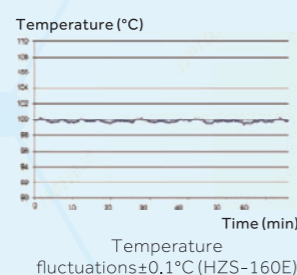
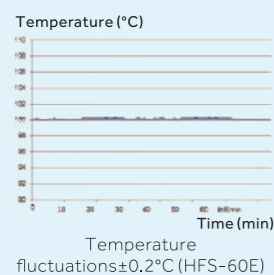


## Product Advantages

- Wide Temperature Range**  
Operating from 10°C above ambient temperature up to 250°C
- PID Control Technology**  
Ensures superior temperature and uniformity control
- Smart IoT Module (optional)**  
Through the mobile app, the status of the drying oven can be checked in real time
- 4-inch Display Screen**  
Intuitive user interface and easy-to-read display
- Multiple Safety Protections**  
Multiple protection systems such as overheating, overcurrent, and independent temperature limiting; overtemperature, high and low temperature and other alarms for safety
- Innovative Air Duct Structure**  
Improved level of temperature uniformity inside the chamber as good as  $\pm 2^\circ\text{C}$  at  $100^\circ\text{C}$  (HFS-60E)

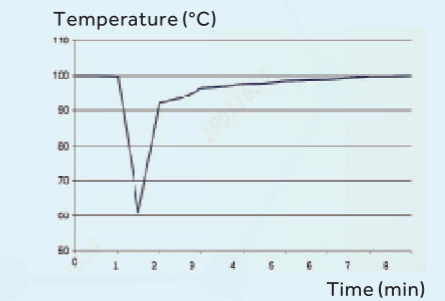
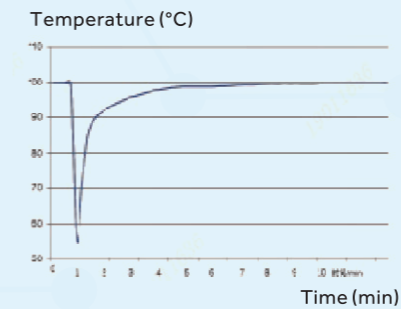
## Precise Temperature Control

Based on the principle of fuzzy PID control, the product achieves high-precision temperature control. The temperature fluctuation measured using the ASTM standard 12 points temperature detection method is less than  $0.3^\circ\text{C}$ . (Test environment temperature  $22^\circ\text{C}$ , set temperature  $100^\circ\text{C}$ )



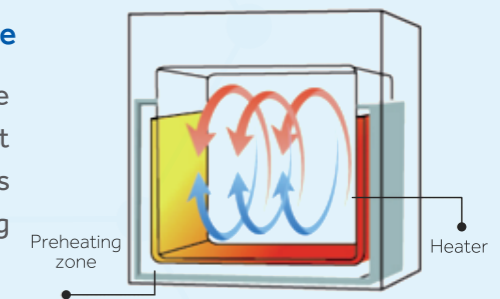
## Rapid Temperature Recovery After Door Opening

The U-shaped 3- sided heating system provides a continuous source of power for quick temperature recovery when opening the door, and high-performance insulation materials reduces heat loss



## Air Jacket Heating Without Overshoot of Temperature

By adopting pre-heated air jacket heating (HFS-60E), the temperature remains stable and recovers quickly without any overshoot, enabling precise temperature control across the entire range of temperature segments, and enhancing the temperature uniformity of the chamber



- 4-inch LCD screen with simple operation and clear display
- Standard independent intelligent temperature safety controller to ensure experimental safety
- New ergonomic handle design
- Multiple shelves of adjustable height
- Smooth inner chamber with easy to clean rounded corners
- Adjustable feet for easy positioning and leveling

## Product Parameters

| Model                                 |  | HFS-60E                     | HZS-160E                    |                 |
|---------------------------------------|--|-----------------------------|-----------------------------|-----------------|
| Performance                           | Control Accuracy                                   | °C                          | ±0.1                        | ±0.1            |
|                                       | Control Range                                      | °C                          | RT+10-250                   | RT+10-250       |
|                                       | Temperature Fluctuation                            | °C                          | ±0.2 at 100                 | ±0.2 at 100     |
|                                       |  |                             | ±0.3 at 150                 | ±0.3 at 150     |
|                                       | Temperature Uniformity                             | °C                          | ±1.2 at 100                 | ±1.5 at 100     |
|                                       |  |                             | ±2 at 150                   | ±2.5 at 150     |
|                                       | Heating Rate (Ambient 22°C)                        |                             | 20 min to 100°C             | 40 min to 100°C |
|                                       |  | 30 min to 150°C             | 50 min to 150°C             |                 |
| Recovery Time After Open Door for 30s |  | 4 min to 100°C              | 9 min to 100°C              |                 |
|                                       |  | 5 min to 150°C              | 20 min to 150°C             |                 |
| Control                               | Heating Mode                                       | Pre-Heating Air Jacket Type | Pre-Heating Air Jacket Type |                 |
|                                       | Control Principle                                  | 4 inch LCD                  | 4 inch LCD                  |                 |
|                                       | Display  | 4" Pen Segment Screen       | 4" Pen Segment Screen       |                 |
| Electrical                            | Power Supply (V/Hz)                                | 220-240-50/60               | 220-240-50/60               |                 |
|                                       | Power (W)  | 900                         | 1900                        |                 |
| Dimensions                            | Capacity (L/Cu.Ft)                                 |                             | 60/2.1                      | 160/5.7         |
|                                       | Net/Gross Weight                                   | kg                          | 72/80                       | 99/110          |
|                                       |  | lbs                         | 158/176                     | 217.8/242       |
|                                       | Interior Dimension (W*D*H)                         | mm                          | 370*385*420                 | 550*492*600     |
|                                       |  | in                          | 14.6*15.2*16.5              | 21.7*19.4*23.7  |
|                                       | Exterior Dimension (W*D*H)                         | mm                          | 572*719*792                 | 752*809*973     |
|                                       |  | in                          | 22.5*28.3*31.2              | 29.6*31.9*38.3  |
|                                       | Packing Dimension (W*D*H)                          | mm                          | 730*800*970                 | 920*890*1150    |
|                                       |  | in                          | 28.6*32.6*38.1              | 36.2*35*45.2    |
|                                       | Shelves (Standard/Maximum)                         |                             | 2/9                         | 2/15            |
| Shelves Dimensions (W*D)              |  | 340*345                     | 520*445                     |                 |
| Max. Load Per Shelf                   | kg   | 20                          | 20                          |                 |
| Partition Spacing                     | mm   | 20                          | 20                          |                 |
| Alarms                                | Temperature Control Failure                        |                             | Y                           | Y               |
|                                       | Timer End  |                             | Y                           | Y               |
|                                       | Sensor Error                                       |                             | N                           | N               |
|                                       | Door Ajar  |                             | Y                           | Y               |
|                                       | End of Program                                     |                             | Y                           | Y               |
| Alarm Mode                            |  | Sound and Light / Buzzer    | Sound and Light / Buzzer    |                 |
| Accessories                           | Mechanical Independent Temperature Limiting Switch |                             | Y                           | Y               |
|                                       | Air Vents  |                             | Y                           | Y               |
|                                       | Porthole   |                             | Y                           | Y               |
|                                       | Observation Window                                 |                             | N                           | N               |
|                                       | RS485  |                             | Optional                    | Optional        |
|                                       | USB  |                             | N                           | N               |
| IoT Module                            |  | Optional                    | Optional                    |                 |
| Certification                         | CE   |                             | N                           | N               |

## Vertical Autoclave

## Scope of Application

A top-loading autoclave for automatic, rapid steam sterilization, utilizing high temperature saturated steam; suitable for a wide range of applications used within laboratories, disease control centers and other biomedical/biomedical research. Applications include instrument and glassware sterilization, media preparation, biohazard and waste sterilization.



HRLM-80

## Product Advantages

**Automatic Program Control**

One-click program control to automate the whole process-water injection, heat, exhaust, sterilization, pressure relief, drainage and drying.

**Automatic Drying Function (Auxiliary Drying)**

The drying time can be set after the sterilization is completed.

**Warm-up Control and Timing Start**

The preheating control function supports the sterilizer heating process, which shortens the heating time of the sterilizer and improves the efficiency of the process; equipped with timed starter function, the sterilization program can be set to a predetermined time and users can organise the processing time to suit.

**Multiple Exhaust Methods**

A variety of exhaust methods such as regular temperature setting exhaust, dynamic exhaust and full-process air escape, completely eliminates the cold air in the sterilizer and improves steam saturation, ensuring effective sterilization.

**One-click Start of Stored Procedures**

Equipped with quick programs for instruments, dressings, rubber and liquids, one-button start for easy operation.

**Two Pressure Relief Methods**

Two pressure relief methods are available: fast pressure relief and slow pressure relief. The slow pressure relief method for liquid sterilization can prevent liquid overflow caused by rapid buildup of pressure.

# Vertical Autoclave

## Safety Mechanisms

- Automatic overpressure pressure relief:**  
 When the set pressure is exceeded, the safety valve opens automatically to release the pressure.
- Automatic over-temperature protection:**  
 When the set temperature is exceeded, the system cuts off the power supply and alarms automatically generated.
- Anti-drying protection:**  
 When the water level is too low, the power will automatically cut off, the operation is stopped, and an alarm is automatically generated.
- Door safety protection:**  
 Real-time detection of door status, sterilization procedures cannot be started if the door is not tightly closed and there is a reminder to open the door; the sterilization can only start when the door is normally closed. However, when there is pressure in the sterilizer, the sealing door cannot be opened to prevent damage caused by steam leakage.
- Sensor disconnection detection:**  
 Monitors the status of the sensor in real time to ensure that the sensor is working properly to prevent excessive temperature caused by abnormal sensors.
- Full protection thermal insulated door cover:**  
 The door cover is made of high-performance thermal insulation material which completely covers the metal door, which prevents the operator from being burned.
- Standard over-current, over-voltage protection and leakage protection.**

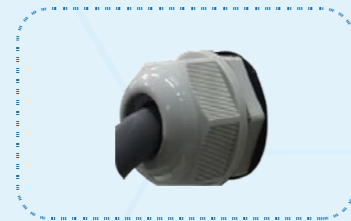
## Air Switch Solution

### More secure and reliable connection

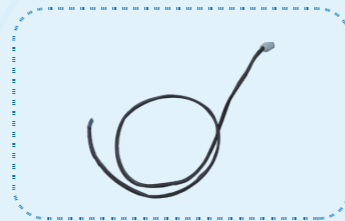
Over-current, overvoltage, current leakage protection, in case of tripping operation, the other equipment connected to the air switch will not be affected.



Air switch



Nylon connector  
Fix, waterproof



External cable  
2m

**Shell material**  
ABS Box/ PC Transparent Cover

**Waterpro of level**  
IP65

**Features**  
Waterproof, dustproof, corrosion-resistant, high-strength insulation

| Model | HT Switch Box | Dimension (mm) |
|-------|---------------|----------------|
| HT-5  | Length        | 120            |
|       | Width         | 160            |
|       | Height        | 95             |

### Standard configuration

Nylon connector + external cable (2m) + air switch (residual current operated circuit-breaker + protection box)

## Specifications

|                        | Model   | HRLM-80   |                   |
|------------------------|---|---|-------------------|
| <b>Technical Data</b>  | Cabinet Type  | Upright   |                   |
|                        | Temp Range (°C)   | 5-40  |                   |
|                        | Heating Type  | Electric Heating Tube                             |                   |
|                        | Cool Air Removal Type   | Gravity Displacement, Positive Pressure Pulsation |                   |
|                        | Drainage Method   | Auto  |                   |
|                        | Dry Function  | Y/Auxiliary                                       |                   |
|                        | Water Tank  | Y   |                   |
|                        | Sterilization Process   | Auto  |                   |
|                        | Water Infusion  | Auto  |                   |
|                        | Chamber Materials   | SUS304  |                   |
| Protection             | Anti-dry burning, over-temperature power failure, automatic over-pressure relief, over-current protection, sensor disconnection detection |   |                   |
| Scheduled Start        | Y   |   |                   |
| Sensor Type            | PT100   |   |                   |
| Open the Door          | Hand Wheel Horizontal Opening   |   |                   |
| <b>Performance</b>     | Temperature Range (°C)  | 105-136   |                   |
| <b>Control</b>         | Controller  | Microprocessor                                    |                   |
|                        | Display   | LCD Screen  |                   |
| <b>Electrical Data</b> | Power Supply (V/Hz)   | 220-240-50/60                                     |                   |
|                        | Power (W)   | 4200  |                   |
|                        | Electrical Current (A)  | 15.5  |                   |
| <b>Dimensions</b>      | Capacity (L/Cu.Ft)  | 80  |                   |
|                        | Net/Gross Weight (approx)   | Kg  | 105/140           |
|                        |   | lbs   | 231.5/308.65      |
|                        | Interior Dimension (mm)   | mm  | φ386*695          |
|                        |   | in  | φ15*27            |
|                        | Exterior Dimensions (W*D*H)   | mm  | 546*750*1085      |
|                        |   | in  | 21*29*43          |
|                        | Packing Dimensions (W*D*H)  | mm  | 633*847*1246      |
|                        |   | in  | 24.61*33.19*48.43 |
|                        | Container Load (20'/40'/40'H)   | 21/42/84  |                   |
| <b>Alarms</b>          | Design Pressure (Mpa)   | 0.28  |                   |
|                        | Design Temperature (°C)   | 150   |                   |
|                        | Rated Working Pressure (Mpa)  | 0.22  |                   |
|                        | Pressure Display Range (Mpa)  | -0.1-0.3  |                   |
|                        | Sterilization Temperature Range (°C)  | 105-136   |                   |
|                        | Temperature Control Precision (°C)  | ±0.1  |                   |
|                        | Dynamic Pulse Exhaust Times   | 0-99(Settable)                                    |                   |
|                        | Dynamic Pulse Exhaust Temperature (°C)  | 110-136   |                   |
|                        | Dissolution Temperature (°C)  | 40-100  |                   |
|                        | Heat Preservation Temperature (°C)  | 40-100  |                   |
| <b>Accessories</b>     | Sterilization Time (min)  | 1-999   |                   |
|                        | Printer   | Optional  |                   |
|                        | Instruction   | 1   |                   |
|                        | Basket  | 2(∅364.5x270)                                     |                   |
|                        | Beaker  | 1   |                   |
| <b>Others</b>          | Drain Pipe  | 1   |                   |
|                        | Power Cord  | 1   |                   |
|                        | Certificate   | PED, CE   |                   |

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

# Vertical Autoclave

## Scope of Application

Suitable for a wide range of applications used within laboratories, operating rooms, disease control centers and other biomedical/medical research areas. Intended for the sterilization of a wide range of liquids and solids such as glassware, rubber and other laboratory items.



HRLM-60A/80A

HRLM-110A

## Product Advantages

- Dual Cooling System**  
High density finned condenser and high air volume cooling fan are connected in series to provide two-stage cooling for the outdoor steam exhaust of sterilization, ensuring the condensation effect of the exhaust steam.
- Linkage Door Lock System**  
Pressing self-locking structure, safety electromagnetic lock, door pressure mechanical interlocking, locking in place before connecting to the power supply.
- Anti-Dry Burning Protection**  
The use of floating balls and manual reset temperature controllers ensures sterilization safety and can extend the service life of the equipment.

- Ten-Model Exhaust Control Technology**  
Adopting PID control technology to achieve controllable cooling time and non boiling liquid, selecting a suitable exhaust mode scheme can save time and improve efficiency.
- Pneumatic Pressure Door Lock**  
The detection of pressure in the internal chamber will automatically lock to ensure absolute safety, and this function is also available even under conditions such as power off and out of control.
- Multiple Options**  
Optional IoT module, fast cooling module, 316 stainless steel sterilization chamber, stainless steel bucket, matrix printer, high-efficiency sterilization filter, and item temperature sensor.

## Drainage Without Exhaust



Dual cooling system and ten-model exhaust control technology ensures zero steam discharge during the entire process of program equipment operation, this is to ensure environmental cleanliness, and avoid aerosol generation and biological laboratory hazards.

## One-Click Start of Sterilization

Standardizing dressings, instruments, rubber, liquid one click start program.

## Ergonomic Design

- Ergonomic and anti-scald door handle.**
- Mechanical safety valve.**
- 4-inch LCD display screen and touch buttons.**
- Vaporous protection plate of door cover.**
- Waterway and electrical circuit of correspond to independent access door.**

## Specifications

| Model                                  | HRLM-60A  | HRLM-80A  | HRLM-110A   |
|--|---|---|---|
| Cabinet Type                           | Upright   | Upright   | Upright   |
| Temp Range                             | 5-40  | 5-40  | 5-40  |
| Heating Type                           | Electric Heating Tube   | Electric Heating Tube   | Electric Heating tube*3   |
| Cool air removal Type                  | Gravity Displacement, Positive Pressure Pulsation   | Gravity Displacement, Positive Pressure Pulsation   | Gravity displacement, Positive Pressure Pulsation   |
| Drainage Method                        | Standard: Hand Movement; Optional: Auto   | Standard: Hand Movement; Optional: Auto   | Standard: Hand Movement; Optional: Auto   |
| Dry Function                           | Optional  | Optional  | Optional  |
| Water Tank                             | Condensate Water Tank   | Condensate Water Tank   | Condensate Water Tank   |
| Sterilization Process                  | Auto  | Auto  | Auto  |
| Water Infusion                         | Standard: Hand Movement; Optional: Auto   | Standard: Hand Movement; Optional: Auto   | Standard: Hand Movement; Optional: Auto   |
| Chamber Materials                      | SUS304  | SUS304  | SUS304  |
| Protection                             | Anti-dry burning, over-temperature power failure, automatic over-pressure relief, over-current protection, sensor disconnection detection | Anti-dry burning, over-temperature power failure, automatic over-pressure relief, over-current protection, sensor disconnection detection | Anti-dry burning, over-temperature power failure, automatic over-pressure relief, over-current protection, sensor disconnection detection |
| Scheduled Start                        | Y   | Y   | Y   |
| Sensor Type                            | PT100   | PT100   | PT100   |
| Open the Door                          | Action Bars+Upward Flipping Door  | Action Bars+Upward Flipping Door  | Action Bars+Upward Flipping Door  |
| <b>Performance</b>                     |   |   |   |
| Sterilization Temperature Range(°C)    | 105-136   | 105-136   | 105-136   |
| <b>Control</b>                         |   |   |   |
| Controller                             | Micro-Computer  | Micro-Computer  | Micro-Computer  |
| Display                                | TFT   | TFT   | TFT   |
| <b>Electrical Data</b>                 |   |   |   |
| Power Supply (V/Hz)                    | 220-240-50/60   | 220-240-50/60   | 3-380-50/60   |
| Power (W)                              | 4000  | 4000  | 9000  |
| Electrical Current (A)                 | 15  | 15  | 12  |
| <b>Dimensions</b>                      |   |   |   |
| Capacity (L/Cu.Ft)                     | 60/2.1  | 80/2.8  | 110/3.9   |
| Net/Gross Weight (Approx)              | kg  | 100/125   | 130/160   |
|  | lbs   | 220.5/275.6   | 286.6/352.7   |
| Interior Dimension (mm)                | mm  | Φ386*520  | Φ386*695  |
|  | in  | Φ15*20.5  | Φ15*27  |
| Exterior Dimensions (W*D*H)            | mm  | 581*706*903   | 581*706*1020  |
|  | in  | 23*28*35.5  | 23*28*41  |
| Packing Dimensions (W*D*H)             | mm  | 665*860*1200  | 665*860*1230  |
|  | in  | 26.2*34*47.24   | 26.2*34*48.43   |
| Container Load (20/40/40'H)            | 18/39/78  | 18/39/78  | 18/28/56  |
| Design Pressure (Mpa)                  | 0.28  | 0.28  | 0.28  |
| Design Temperature (°C)                | 150   | 150   | 150   |
| Rated Working Pressure (Mpa)           | 0.22  | 0.22  | 0.22  |
| Pressure Display Range (Mpa)           | -0.1-0.3  | -0.1-0.3  | -0.1-0.3  |
| Sterilization Temperature Range (°C)   | 105-136   | 105-136   | 105-136   |
| Temperature Control Precision (°C)     | ±0.1  | ±0.1  | ±0.1  |
| Dynamic Pulse Exhaust Times            | 0-99 (Settable)   | 0-99 (Settable)   | 0-99 (Settable)   |
| Dynamic Pulse Exhaust Temperature (°C) | 105-132   | 105-132   | 105-132   |
| Dissolution Temperature (°C)           | 40-100  | 40-100  | 40-100  |
| Heat Preservation Temperature (°C)     | 40-100  | 40-100  | 40-100  |
| Sterilization Time (min)               | 0-9999  | 0-9999  | 0-9999  |
| Printer                                | Optional  | Optional  | Optional  |
| Instruction                            | 1   | 1   | 1   |
| Basket                                 | 2x(Φ364.5x190)  | 2x(Φ364.5x270)  | 2x(Φ430*265)  |
| Beaker                                 | 1   | 1   | 1   |
| Drain Pipe                             | 1   | 1   | 1   |
| Power Cord                             | N, Air Switch   | N, Air Switch   | N   |
| <b>Certificate</b>                     |   |   |   |
| PED                                    | Y   | Y   | NO  |
| CE                                     | Y   | Y   | Y   |

# Horizontal Bench-top Autoclaves

## Scope of Application

For medical, healthcare, scientific research and other related industries to disinfect medical devices, laboratory appliances and materials that may come into contact with blood or body fluids. Mainly used in ophthalmology, stomatology, beauty clinics, pet clinics, community service stations and other associated scenarios.



**HRTM-18/HRTM-23/HRTM-45**

## Ergonomic Design

**Programmable Mode**  
The program can be edited to meet different requirements.

**New Steam Generator Technology**  
An efficient steam generator with high heat exchange efficiency and large gas output has been developed to meet the requirements of rapid temperature rise and sterilization which ensures thorough sterilization of the equipment.

**High Efficiency Vacuum Pump**  
The sterilization cycle is greatly shortened, and the sterilization and drying effects are improved.

**Large Capacity Water Storage Tank**  
Open water storage tank, easy to clean. High water level display, low water level alarm, when the low water level alarm is activated, the water storage capacity will also meet the requirements of primary sterilization.

**Advanced Structure Design**  
One-piece stretch liner with 304 stainless steel, without dead angles and is easy to clean.

## Product Advantages

**Triple Protection of Temperature and Pressure Monitoring, Electronic Lock and Mechanical Safety Devices**  
When the set pressure is exceeded, the safety valve opens automatically to release the pressure.

**High Degree of Security by Extensive Safety Devices**  
Automatic over-temperature protection, over-current, over-voltage protection and leakage protection, anti-drying protection, sensor disconnection detection, door safety protection, and full protection thermal insulated door cover.

**Optimized Total Operating time**  
A vacuum forced cooling system and under pressure blast drying system ensures rapid sterilization, greatly shortening the sterilization time, which improves the drying effect.

**4- inch LCD color screen**  
4- inch LCD color screen makes graphics and figures clear at a glance, easy to use

**New Technology**  
Adopts a new generation steam generator to increase the saturation of the saturated steam which ensures thorough sterilization.

## Specifications

| Model                         |  | HRTM-18  | HRTM-23  | HRTM-45  |                |
|-------------------------------|--|--|--|--|----------------|
| Technica Data& Dimensions     | Display  | 4 inch TFT screen                                |  | 7-inch Touchscreen                               |                |
|                               | Chamber Volume (L)   | 18/0.6   |  | 45/1.6   |                |
|                               | Capacity (L/Cu.Ft)   | 23/0.8   |  | 45/1.6   |                |
|                               | Internal Dimensions (w*d*h)                                | mm   | Φ247*350   | Φ247*450   | Φ316*615       |
|                               |  | in   | Φ9.7*13.8  | Φ9.7*17.7  | Φ24.2*47.2     |
|                               | External Dimensions (w*d*h)                                | mm   | 490*600*455                                      | 490*690*455                                      | 640*840*575    |
|                               |  | in   | 19.3*23.6*7.9                                    | 19.3*27.2*17.9                                   | 25.2*33.1*22.6 |
|                               | Packing Dimensions (w*d*h) (With Packaging Bottom Support) | mm   | 590*680*620                                      | 590*760*620                                      | 720*965*730    |
|                               |  | in   | 23.2*26.8*24.4                                   | 23.2*29.9*24.4                                   | 28.3*38*28.7   |
|                               | Net/Gross Weight (approx)                                  | kg   | 47/56  | 53/64  | 120/140        |
| lbs                           |  | 103.6/123.5                                      | 116.8/141.1                                      | 264.6/308.6                                      |                |
| Container Load (20'/40'/40'H) |  | 72/153/204                                       | 63/126/168                                       | 54/72/108  |                |
| Inner Material                |  | 304 stainless steel (option:316 stainless steel) | 304 stainless steel (option:316 stainless steel) | 304 stainless steel (option:316 stainless steel) |                |
| The Main Body Material        |  | Coated cold rolled steel                         | Coated cold rolled steel                         | Coated cold rolled steel                         |                |
| Electrical Data               | Power (W)  | 2800   | 3200   | 4800   |                |
|                               | Power Supply(V/Hz)   | 220-240-50/60                                    | 220-240-50/60                                    | 220-240-50/60                                    |                |
|                               | Electrical Current (A)                                     | 13.0   | 14.5   | 22   |                |
|                               | The sterilization temperature range (°C)                   | 105-138  | 105-138  | 115-134  |                |
| Performance                   | Temperature fluctuations (°C)                              | 0-3  | 0-3  | 0-3  |                |
|                               | Temperature uniformity (°C)                                | <2   | <2   | <2   |                |
|                               | Design Temperature (°C)                                    | 150  | 150  | 150  |                |
|                               | Design Pressure (Mpa)                                      | 0.3  | 0.3  | 0.3  |                |
|                               | Rated Working Pressure (Mpa)                               | 0.22   | 0.22   | 0.22   |                |
|                               | Dynamic Pulse Exhaust Times                                | 1-9 (settable)                                   | 1-9 (settable)                                   | 1-9 (settable)                                   |                |
|                               | Sterilization Time (min)                                   | 1-999  | 1-999  | 1-999  |                |
|                               | Noise (dB(A))  | ≤65  | ≤65  | ≤65  |                |
|                               | Temperature Sensor   | PT100  | PT100  | PT100  |                |
|                               | Ambient Range (°C)   | 5-40   | 5-40   | 5-40   |                |
| Accessories                   | Humidity Reservoir (L)                                     | 2.6  | 2.6  | 8.5  |                |
|                               | Shelves Dimensions (w*d)(mm)                               | 281*183  | 376*183  | 500*215  |                |
|                               | Shelves Number Standard/Maximum                            | 3/5  | 3/5  | 3/5  |                |
|                               | USB  | Y  | Y  | Y  |                |
| Others                        | Printer  | Optional   | Optional   | Standard   |                |
|                               | CE   | Y  | Y  | Y  |                |
|                               | PED  | Optional   | Optional   | Optional   |                |

# Hydrogen Peroxide Disinfectant

## Scope of Application

The product is applicable to biosafety cabinets, pass-through boxes, incubators, airlocks and channels, flow cytometer, PIVAS, microbiological incubators, robot arm work bins, desktop sealed operating bins, mobile biosafety vehicles, ambulances, first aid inflatable tents and military mobile experimental isolators as key examples

## Product Parts



## Scope of Application

The product is applicable to high-risk areas in medical institutions, biosafety laboratories, intensive care units, operating rooms, laboratories, infection wards, general wards, biopharmaceutical enterprises, public areas, and places with disinfection requirements.

## Product Parts



## Ergonomic Design

- With small volume and total weight of 12kg, it is easy to carry and store
- Pre-warning function of the program: sound and light alarm before the disinfection program starts
- It takes less than 2 hours for total disinfection, saving time
- One-button disinfection, no other operation is needed during the disinfection

## Product Advantages

- Safety**  
Safe, non-toxic disinfection method
- High Penetrability**  
Small diameter particles of strong penetrability for HEPA filter
- Easy to Clean**  
Electrostatic epoxy powder coated, which is corrosion resistant and easy to clean
- Quick Connection**  
Standard DN quick connector, which can be quickly connected to the equipment
- Portable**  
Compact size, light weight and convenient to handle and carry
- High Disinfection Level**  
Higher disinfection level with less consumption of hydrogen peroxide
- High-efficiency**  
Disinfection time is less than 1 hour  
Reduced equipment downtime, users only need to ventilate for 30-60 minutes after disinfection before the equipment can be put back into operation

## Product Advantages

- Larger Disinfection Space**  
The disinfection coverage is up to 300m<sup>3</sup>
- High Disinfection Level**  
It provides a 6-log sporicidal kill on exposed surfaces
- High-efficiency**  
It takes less than 3 hours for total disinfection, saving time
- Eco-Friendly 7%-7.5% Hydrogen Peroxide Sterilizing**  
Safe 'non-toxic disinfection method
- Ergonomic Design**  
Compact design with wheels, easy to move and store as required

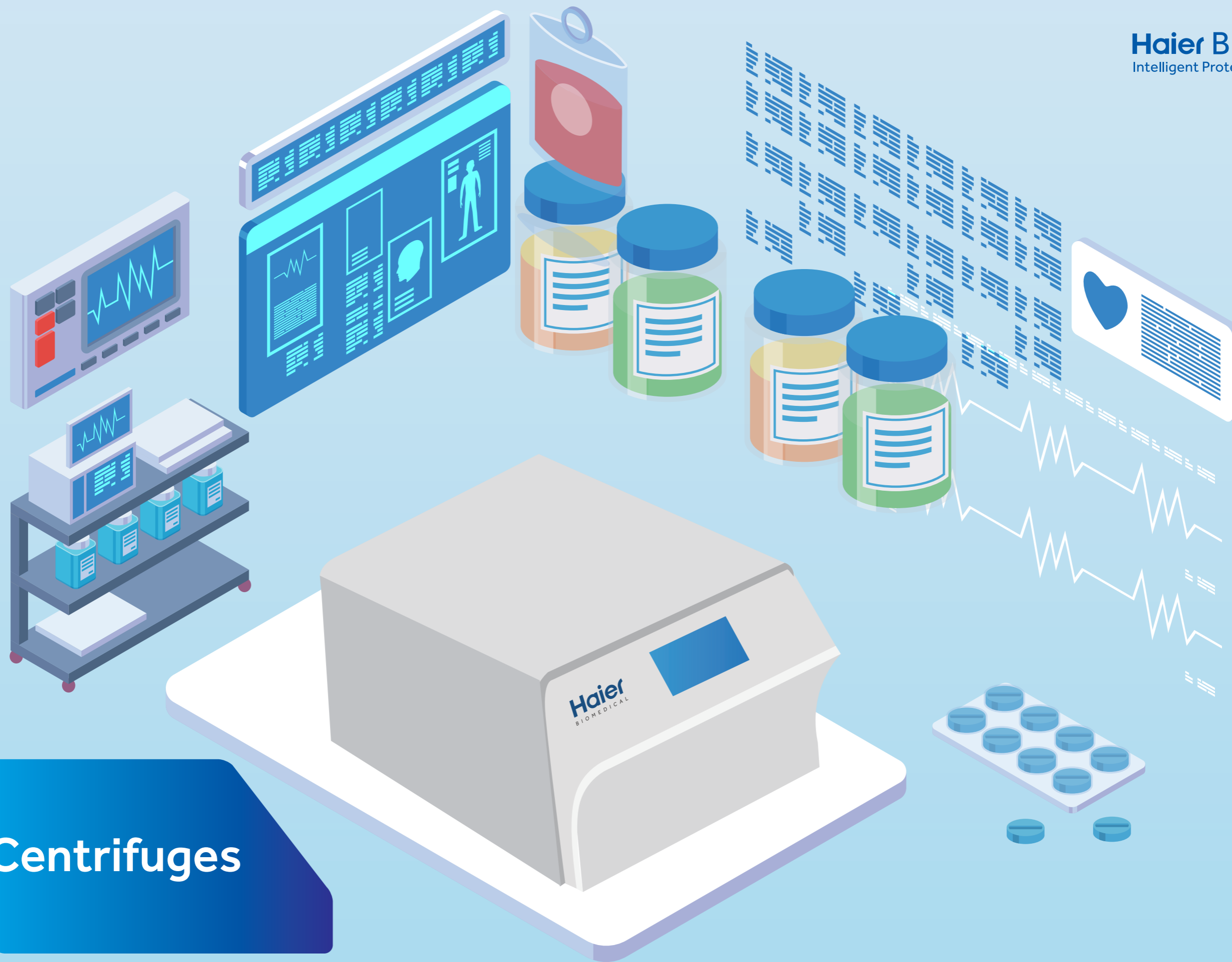
## Ergonomic Design

- PIR Sensor Technology**  
With the PIR sensor, equipment does not work if any persons are detected.
- Multiple Alarms**  
Audible and visual alarm functions: high/low temperature alarm, high and low humidity alarm, and residual liquid volume alarm.
- Energy Saving and Environmental Protection**  
Using a hydrogen peroxide solution, it decomposes into water and oxygen after disinfection.
- Unique Patented Nozzle**  
The spray system has unique patented sprinkler head and the spray particle size average is  $\leq 3\mu\text{m}$ .
- Real Time Detection of Temperature and Humidity**  
Real time monitoring and recording of data during operation.
- USB Interface**  
Capable of storing more than 10 years of data.

## Specifications

| Model     | Power Supply (V) | Power (W) | Vaporization Rate (ml/min) | Maximum Vaporization (ml) | Disinfection Time | Disinfection Efficiency | Net/Gross Weight (kg) | Exterior Dimensions (W*D*H)(mm) | Packing Dimensions (W*D*H)(mm) |
|-----------|------------------|-----------|----------------------------|---------------------------|-------------------|-------------------------|-----------------------|---------------------------------|--------------------------------|
| HGYX-Y100 | 220              | 700       | 1-10                       | 500                       | <2h               | >99.9%                  | 12/15                 | 300*300*350                     | 410*405*495                    |
| HGYX-Y500 | 220              | 1100      | 15-25                      | 5000                      | <4h               | >99.9%                  | 30/35                 | 350*350*950                     | 590*430*1100                   |

# Centrifuges



## Floor-Standing Low-Speed Refrigerated Centrifuge

397/398



LX-75L2400R

### Advanced Centrifugation Solutions for Modern Blood Banking

Step into a realm of unmatched convenience with the Haier Biomedical LX-75L2400R Blood Banking Centrifuge, tailored to exceed the demanding needs of blood bank centrifugation. Redefine efficiency as the LX-75L2400R effortlessly accommodates up to 16 x 500 ml blood bags or 6 x 2400 ml centrifuge bottles, delivering optimal sedimentation results with each run.

Elevate your laboratory's capabilities with the LX-75L2400R's extensive rotor options, its formidable motor, and user-friendly control panel, all complemented by a robust refrigeration system and an array of versatile accessories.

Crafted for excellence, the LX-75L2400R is the centrifuge of choice for blood banks and transfusion centers. Its superior design also finds extensive application in the forefront of biopharmaceuticals, cell therapy, biological culture, vaccine production, and academic research, making it a pivotal tool in diverse scientific fields.

### Excellent Performance

Unlock the full potential of your blood processing center with the LX-75L2400R's expansive capacity and cutting-edge selection of rotors, carriers, and adapters, masterfully designed to handle a diverse array of high-capacity applications. This powerhouse is the epitome of versatility, perfect for sophisticated bioprocessing, clinical diagnostics, and comprehensive blood sample preparation.

Quiet yet powerful, the LX-75L2400R redefines operational convenience, setting a new standard in the industry. At its heart lies a microprocessor-controlled frequency motor, delivering robust torque and rapid acceleration, all while ensuring an extended motor lifespan. Achieve peak performance with speeds soaring up to 7,500 rpm and forces reaching 13,376 x g, propelling your research to new heights with unmatched precision and reliability.



#### Expansive Memory

Maximize efficiency with over 1000 program memories, ready to streamline your workflow.



#### Rapid Cooling

Achieve 4°C in just 15 minutes from room temperature, speeding up your readiness.



#### Quiet Operation

Work in peace with a sound design that keeps noise levels below 60 dB, even at maximum speed.



#### Precise Control

Tailor your operations with 15 acceleration and 16 deceleration stages for unparalleled precision.



#### Maintenance-Free Motor

Enjoy seamless operation with our brushless induction motor that requires no maintenance and ensures a clean lab environment.



#### Stability

Trust in the stability of our low-center-of-gravity design for consistent performance and optimal centrifugal results.



Follow the QR code and learn more about the Floor-Standing Low-Speed Refrigerated Centrifuge from Haier Biomedical



# Floor-Standing Low-Speed Refrigerated Centrifuge

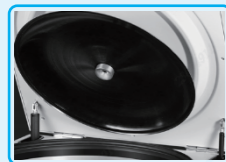
399/400

## Ergonomic Design



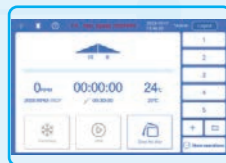
### One-Touch Automation

Experience unparalleled convenience with our one-button automatic door mechanism that seamlessly opens and closes from front to back, ensuring quick and easy access while maintaining sterility standards.



### Automated Rotor Lid Management

With our centrifuge, the rotor lid opens and closes automatically, complete with lid storage, reducing manual effort and enhancing workflow efficiency.



### Intuitive 10-Inch Touch Screen

The expansive 10-inch touch screen interface provides operators with user-friendly navigation through settings and features, making operation straightforward and minimizing training time.



### Motorized Gas Springs

Engineered for safety, the motorized gas springs offer smooth and controlled opening and closing of the centrifuge chamber, providing an extra layer of protection to users.



### 316 Stainless Steel Chamber

The premium 316 stainless steel construction of the centrifuge chamber ensures a rust-free and contaminant-resistant environment that is exceptionally easy to clean and maintain.



### Versatile Rotor Capacity

Our centrifuge accommodates a variety of research needs with three rotors designed for 250ml, 500ml, 1000ml, 2000ml, and 2400ml centrifuge bottles, as well as 500ml blood bags, maximizing your laboratory's throughput capabilities.



### Emergency Lid Release

The lid can be opened by utilizing the reset hole on the side plate. Rotate a 5mm hex key clockwise several times to open the lid.

## Interactive 10-Inch LCD Touchscreen



### Glove-Friendly and Ergonomic

The 45° angled, glove-friendly touchscreen offers a wide viewing angle, making it comfortable and practical for users of all heights.



### Enhanced Access Controls

Equipped with user login and password protection, ensuring individualized program data management for each user.



### Visibility and Monitoring

Enlarged track bar display of set and actual run conditions during centrifugation, ensuring clear visibility from a distance.



### Program Recall and Efficiency

Quick recall feature for over 1000+ programs with alpha-numeric naming, minimizing time between runs and facilitating quick starts for routine users.



### Adjustable On-the-Fly

Users can alter speed, centrifugal force, time, and temperature during the centrifugation process for precise control.

The screenshot shows the following interface elements:

- Progress bar:** A horizontal bar at the top with a needle pointing to a value between 8 and 10.
- Target speed/centrifugal force and real-time speed display:** Shows '0 RPM' and '2000 RPM / RCF'.
- Acceleration/deceleration stages:** Indicated by a small graph above the progress bar.
- Temperature set-point and real-time temperature display:** Shows '24°C' set-point and '22°C' real-time temperature.
- Control buttons:** 'Precooling' (snowflake icon), 'Start' (play icon), and 'Close the door' (door icon).
- Program list:** A vertical list of 5 numbered programs (1-5) on the right side.
- More operations:** A button at the bottom right with a plus sign and a folder icon.
- Header information:** 'FA Max. Speed 7500RPM', date '2023-10-11', time '15:46:30', and user '\*Admin'.

# Floor-Standing Low-Speed Refrigerated Centrifuge

401/402

Multiple operation setting modes, including unique blood bank mode function, convenient for blood bank users to use



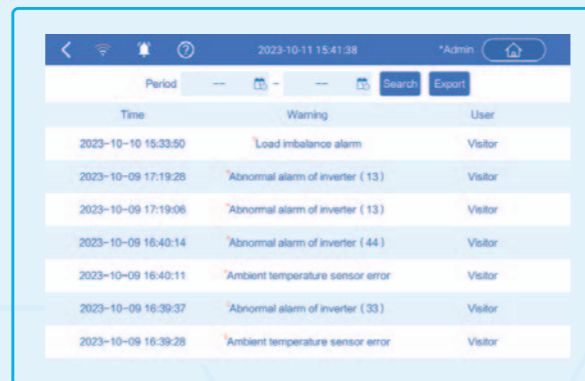
Multi-echelon program running mode, achieving continuous operation of multiple speed steps for special users



Electronic level assists in installation and leveling, making installation easier and simpler



The operation record including speed, time and temperature, operation curve with alarm messages etc. can be tracked on the screen and exported by USB port



## Enhanced Safety



### Immediate Imbalance Detection & Shutdown

Offers real-time loading imbalance detection with instant shutdown to protect against imbalances.



### Stable Installation

Φ120mm adjustable feet ensure the centrifuge is securely and stably installed in any setting.



### Comprehensive Alarm System

Features a multi-faceted alarm system for abnormal voltage, high temperature, overspeed, load imbalance, rotor absence, brake anomalies, and rotor life.



### Anti-Vibration Lid Lock

Prevents accidental opening during operation, ensuring sample integrity and operator safety.



### Robust Construction

Fully covered steel plate protective sleeve and a 12mm steel shell provide enhanced durability and user safety.



### High-Quality Connectivity

Equipped with an imported 5-core aviation plug for easy, fast, and safe usage.

# Floor-Standing Low-Speed Refrigerated Centrifuge

## Real-World Efficacy

Blood Station User: Blood centrifugal test



## Precision Layering

Clear Separation with Distinct Leukocyte Layer, Eliminating the Need for Re-Separation

Scientific Research User: Seaweed centrifugal test



## Optimal Centrifugation

Clear Layering, High Yield, and Zero Wall Adhesion

## Technical Data

| Model                           | LX-75L2400R   |
|---------------------------------|---|
| Maximum Capacity                | 8*2000ml* or 16*500ml blood bags  |
| Max Speed (rpm)                 | 7,500   |
| Max RCF (xg)                    | 13,376  |
| Speed Accuracy (rpm)            | ±5  |
| Time Setting Range              | 1min-99h59m59s (1-second increment)   |
| Precooling Function             | Yes   |
| Temperature Setting Range       | -20°C-40°C, adjustment increment: 1°C   |
| Display                         | 10 inch touch screen  |
| Noise (dB(A))                   | ≤60   |
| Power Supply                    | 3-400V 50/60Hz  |
| Power (W)                       | 6400  |
| Exterior Dimensions (W*D*H)(mm) | 900*1050*1020   |
| Lid Opening Height (mm)         | 1780  |
| Net Weight (kg)                 | 620   |
| Packing Dimensions (W*D*H)(mm)  | 1092*1279*1720  |
| Gross Weight (kg)               | 750   |
| Other Functions                 | Rotation speed/RCF switchover, inching operation, running process indicator, sound alert, adjustable acceleration/deceleration, user logging, user lock-out, automatic door opening, on-screen display for imbalance, over temperature, stainless steel chamber |
| Certification                   | CE  |

\*Buckets for 2000ml centrifuge bottles can be customized depending on requirements.

## Fixed-Angle Rotor



| BE No.                   | BE12DC000                  | BE12JP002                         | BE12JQ002                         | BE12K1000                                  |
|--------------------------|----------------------------|-----------------------------------|-----------------------------------|--|
| Type                     | Fixed-angle rotor (Sealed) | Adapter (Sets of 6) for BE12DC000 | Adapter (Sets of 6) for BE12DC000 | Centrifuge Bottle(Sets of 6) for BE12DC000 |
| Max Capacity             | 6*1000ml                   | 500ml                             | 250ml                             | 1000ml                                     |
| Max RCF(xg)              | 13,376                     | -                                 | -                                 | -  |
| Max Speed (rpm)          | 7,500                      | -                                 | -                                 | -  |
| Max Bottle Capacity (ml) | 1000                       | 500                               | 250                               | -  |
| Bottles Per Rotor        | 6                          | 6                                 | 6                                 | -  |
| Bottle Type              | Flat bottom                | Flat bottom                       | Flat bottom                       | -  |

## Floor-Standing Low-Speed Refrigerated Centrifuge

### Swing-Out Rotor



| BE No.           | BE12F5001 | BE No.       | BE12H4000                    |
|------------------|-----------|--------------|------------------------------|
| Max. RCF (xg)    | 5,331     | Max Capacity | 2*500ml blood bags or 2400ml |
| Max. speed (rpm) | 4,000     | Bucket Type  | Flat bottom                  |

Swing-Out Rotor 12 Blood Bags

Adapter/Bottle(Sets of 6) for BE12H4000

| BE No.                       | BE12JT001                | BE12K0000         |
|------------------------------|--------------------------|-------------------|
| Type                         | Double blood bag adapter | Centrifuge bottle |
| Max Capacity                 | 2*500ml blood bags       | 2400ml            |
| Blood bags/Bottles per rotor | 12 blood bags            | 6 bottles         |



| BE No.           | BE12FP001 | BE No.       | BE12H9000          |
|------------------|-----------|--------------|--------------------|
| Max. RCF (xg)    | 5,706     | Max Capacity | 2*500ml blood bags |
| Max. speed (rpm) | 4,000     | Bucket Type  | Flat bottom        |

Swing-Out Rotor 16 Blood Bags

Adapter(Sets of 8) for BE12H9000

| BE No.               | BE12JF002                |
|----------------------|--------------------------|
| Type                 | Double blood bag adapter |
| Max Capacity         | 2*500ml blood bags       |
| Blood bags per rotor | 16                       |







## Floor-Standing Low-Speed Refrigerated Centrifuge

### Scope of Application

Haier Biomedical LX-60L1000R Blood Banking Centrifuge seamlessly integrates a remarkably compact footprint with top-tier performance. It can handle up to 6x500ml blood bags at a time, providing excellent accuracy in speed and temperature control. This ensures optimal sample integrity and consistency throughout each centrifugation cycle.



### Excellent Performance

- 
**Precision Control**  
 Ensure excellent speed and temperature control accuracy, and maintain the integrity and consistency of samples in each centrifugation cycle, thus achieving high-quality blood treatment.
- 
**Rapid Cooling**  
 The unique refrigeration technology enables rapid cooling. It achieves 4°C in just 10 minutes from room temperature under pre-cooling mode, offering impressive time savings.
- 
**Expansive Memory**  
 Maximize efficiency with over 1000 program memories, enabling the streamlining of the workflow.
- 
**Automated Door Management**  
 Featuring a one-touch automatic opening and closing function for both the centrifuge door and the rotor lid, it also comes with a storage solution for the rotor lid.
- 
**Quick-Lock Rotor Exchange**  
 Patented tool-free rotor exchange technology enables the installation and removal of rotors on the centrifuge automatically and securely without the need for tools.
- 
**Quiet Operation**  
 The sound design is optimized for low noise levels (≤ 54dB(A)).

# Floor-Standing Low-Speed Refrigerated Centrifuge

407/408

## Product Parts

Automatic rotor lid opening and closing with lid storage.

Quick rotor exchange design for installation and removal with no tools required.

Motorized gas springs offer smooth and controlled opening and closing of the centrifuge door.

316 stainless steel centrifuge chamber is rust-free and easy to clean.

7-inch touch screen interface for convenient operation.

Emergency lid release: Pry out the side - plate's white plug with a tool and pull the release cord 7+ times to open the lid.

USB port for exporting operation records, including data on speed, time, temperature, operation curves, and alarm messages.

## Intuitive Interface

15 Acceleration/16 Deceleration stages

Progress bar

Target speed/centrifugal force and real-time speed display

Temperature set-point and real-time temperature display

Quick access to stored programs. 1000+ program storage, supports customized programs for convenient

Clear one-touch buttons for fast refrigeration, fast centrifugation, intelligent start-stop and lid-closing status

Multiple operation setting modes, including unique blood bank mode function, convenient for blood bank users to use.

Door opening mode: Manual, Auto, Key name, Don't show, Show

Temperature: °C, °F, Timing mode: Count-up, Count Down

Refrigeration function: Open, Close, Alarm interval: 60min

Blood station mode: Open, Close, Full screen delay: 5min

Precooling temperature control: Sample, Air, Compressor stop delay after opening the door: 5min

Setting A, Setting B

Multi-echelon program running mode, achieving continuous operation of multiple speed steps for special users

1, 2, 3, test-1

0 RPM, 4000 RPM/RCF, 00:00:00, 22°C

Precooling, Start, Open the door, More operations

Electronic level assists in installation and leveling, making installation easier and simpler.

Leveling

X: -0.1°

Y: -0.2°

Calibration

Note: check all four feet of the centrifuge touch the bench and adjust the leveling of the bench until the dot centered and turn green.

The operation record including speed, time and temperature, operation curve, alarm messages etc. can be tracked on the screen and exported by USB port.

| Time                | Warning                          | User    |
|---------------------|----------------------------------|---------|
| 2023-10-10 15:33:50 | Load imbalance alarm             | Visitor |
| 2023-10-09 17:19:28 | Abnormal alarm of inverter (13)  | Visitor |
| 2023-10-09 17:19:06 | Abnormal alarm of inverter (13)  | Visitor |
| 2023-10-09 16:40:14 | Abnormal alarm of inverter (44)  | Visitor |
| 2023-10-09 16:40:11 | Ambient temperature sensor error | Visitor |
| 2023-10-09 16:39:37 | Abnormal alarm of inverter (33)  | Visitor |
| 2023-10-09 16:39:28 | Ambient temperature sensor error | Visitor |

## Intuitive Interface

### Large, bright, interactive 7-inch LCD interface offers:

The 45° angled, glove-compatible touchscreen provides a wide viewing angle for easy visibility and comfortable use by technicians of all heights.

Advanced user settings and password protection ensure safe operation. Multiple user profiles can be created to customize access and settings, improving workflow and sample safety.

During operation, the display of settings and actual operating conditions can be easily monitored through the enlarged tracking bar, so as to obtain a clear vision and ensure that the operator can see them from a distance.


Store more than 1,000 programs, and can directly access 5 or 10 commonly used programs, depending on the model. Programs can be named alphanumerically, ensuring easy identification and selection, minimizing the risk of errors during operation.


Users can change the speed, centrifugal force, time and temperature during the centrifugation.


# Floor-Standing Low-Speed Refrigerated Centrifuge


409/410


## Enhanced Safety

 Automatic radio - frequency rotor identification (RFID) enables immediate identification of a rotor once it is securely placed in the centrifuge chamber, avoids over-speed, reduces error messages, and enhances the safety.

 Real time loading imbalance detection and intelligent lid locking monitoring, immediate shutdown protection in case of imbalance or lid opening.

 Use of brushless induction motors to provide maintenance-free operation, eliminating carbon particle emissions.

 Multiple alarms including abnormal voltage alarm, high temperature alarm, overspeed alarm, load imbalance alarm, rotor absent alarm, brake abnormal alarm, rotor life reminder alarm, and other alarm functions can effectively ensure the safety of the centrifuge.

 A triple - layer construction paired with a fully covered steel plate protective sleeve provides an effective safeguard.

## Specifications

| Model                            | LX-60L1000R                         |
|----------------------------------|-------------------------------------|
| Max Capacity                     | 6*1000ml or 6*500ml blood bags      |
| Speed Rang (rpm)                 | 500-6,000                           |
| Max RCF (xg)                     | 6,279                               |
| Speed Accuracy (rpm)             | ±5                                  |
| Time Setting Range               | 1min~99h59m59s (1-second increment) |
| Precooling Function              | Yes                                 |
| Temperature Setting Range        | -20°C~40°C, adjustable to 1°C       |
| Display                          | 7 inch touch screen                 |
| Noise (dB (A))                   | ≤54                                 |
| Power Supply (V/Hz)              | AC220/50/60                         |
| Power (W)                        | 3500                                |
| Exterior Dimensions (W*D*H) (mm) | 740*920*990                         |
| Lid Opening Height (mm)          | 1720                                |
| Net Weight (kg)                  | 338                                 |
| Packing Dimensions (W*D*H) (mm)  | 940*1150*1270                       |
| Gross Weight (kg)                | 423                                 |

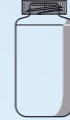


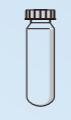





## Fixed-Angle Rotor



| BE No.          | BE12DL001 |
|-----------------|-----------|
| Type            | Sealed    |
| Max Capacity    | 6*500ml   |
| Max RCF (xg)    | 6,279     |
| Max Speed (rpm) | 6,000     |

Adapter(Sets of 6) for BE12DL001



| BE No.                         | No adapter needed   | BE12JT002   | BE12JU002   | BE12JV002   | BE12JW002   | BE12JX002   | BE12JY002   | BE12JZ002   | BE12J0003   | BE12J1003   |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|
| Max Capacity                   | 500ml   | 250ml   | 100ml   | 2*50ml  | 2*50ml  | 4*30ml  | 7*15ml  | 8*10ml  | 10*5ml  | 14*1.5/2ml  |
| Tubes Per Adapter/Rotor        | 6   | 1/6   | 1/6   | 2/12  | 2/12  | 4/24  | 7/42  | 8/48  | 10/60   | 14/84   |
| Tube                           |  |  |  |  |  |  |  |  |  |  |
| Max Tube Dimensions (Ø x L mm) | 69.5*170  | 62*123  | 38*120  | 29*105  | 29*118  | 25*102  | 17*121  | 16*86   | 13*54   | 11*38   |
| Tube Type                      | Flat bottom   | Flat bottom   | Round bottom  | Round bottom  | Conical bottom  | Round bottom  | Conical bottom  | Round bottom  | Round bottom  | Conical/Round bottom  |

# Floor-Standing Low-Speed Refrigerated Centrifuge

411/412

## Swing-Out Rotor



**Swing-out Rotor Block**

| BE No.           | BE12FT001 |
|------------------|-----------|
| Max. RCF (xg)    | 5,100     |
| Max. speed (rpm) | 4,200     |



**Round Bucket (Sets of 6)**


| BE No.            | BE12G9000   |
|-------------------|-------------|
| Max Capacity (ml) | 1000        |
| Bucket Type       | Flat bottom |








Adapter(Sets of 6) for BE12G9000



| BE No.                         | No adapter needed   | BE12J8004   | BE12J9004   | BE12J7004   | BE12J6004   | BE12J5004   | BE12JA004   |
|--------------------------------|---|---|---|---|---|---|---|
| Max Capacity                   | 1000ml  | 500ml   | 500ml   | 300ml   | 250ml   | 200ml   | 4*100ml   |
| Bottles Per Adapter /Rotor     | 6   | 1/6   | 1/6   | 1/6   | 1/6   | 1/6   | 4/24  |
| Tube                           |  |  |  |  |  |  |  |
| Max Tube Dimensions (Ø x L mm) | 102*179   | 96*150  | 80*136  | 60*138  | 60*165  | /   | 38*120  |
| Tube Type                      | Flat Bottom   | Conical Bottom  | Flat Bottom   | Flat Bottom   | Conical Bottom  | Blood Bag   | Round Bottom  |

Adapter(Sets of 6) for BE12G9000



| BE No.                         | BE12JB004   | BE12JC004   | BE12JD004   | BE12JE004   | BE12JH004   | BE12JF004   | BE12JG004   |
|--------------------------------|---|---|---|---|---|---|---|
| Max Capacity                   | 5*50ml  | 5*50ml  | 14*15ml   | 14*15ml   | 37*7ml  | 24*5/7ml  | 28*1.5/2ml  |
| Tubes Per Adapter /Rotor       | 5/30  | 5/30  | 14/84   | 14/84   | 37/222  | 24/144  | 28/168  |
| Tube                           |  |  |  |  |  |  |  |
| Max Tube Dimensions (Ø x L mm) | 29*118  | 29*105  | 17*121  | 17*121  | 12*100  | 13*75/106   | 11*38   |
| Tube Type                      | Conical Bottom  | Round Bottom  | Conical Bottom  | Round Bottom  | Round Bottom  | Small/Large Blood Collection Tube   | Conical / Round Bottom  |



**Swing-out Rotor Block**


| BE No.           | BE12FT001 |
|------------------|-----------|
| Max. RCF (xg)    | 5,100     |
| Max. speed (rpm) | 4,200     |



**Square Bucket (Sets of 6)**

| BE No.            | BE12HD000   |
|-------------------|-------------|
| Max Capacity (ml) | 1000        |
| Bucket Type       | Flat bottom |

Adapter(Sets of 6) for BE12HD000



| BE No.                        | BE12J3004         |
|-------------------------------|-------------------|
| Type                          | Blood bag adapter |
| Max Capacity                  | 500ml blood bag   |
| Blood Bags Per Adapter /Rotor | 1/6               |

## Floor-Standing Highspeed Refrigerated Centrifuge







### Product Parts

Haier Biomedical LX-210L750R is a floor-standing highspeed refrigerated centrifuge features with 3L capacity and performance up to 47,400 xg, which is ideal for all-purpose use in the industrial and research sectors.

NEW









LX-210L750R

-  Offering a broad portfolio of fixed-angle and swing-out rotors, which can accommodate tubes and bottles from 1.5 ml to 750 ml, as well as deep-well plates
-  Automatic radio-frequency rotor identification (RFID) that enables immediate identification of a rotor once it is securely placed in the centrifuge chamber, avoid over-speed, reduce error messages, and enhance the safety
-  Low center of gravity design, amplitude less than 0.02mm, ensuring stable operation and good centrifugal effect
-  Use of brushless induction motors to provide maintenance-free operation, eliminating carbon particle emissions
-  Optimized multi-layer shock absorption technology makes the sound level  $\leq 56$ (dB(A))
-  High-strength, aero-aluminum rotor, which is acid and alkali corrosion-resistant, greatly increases the service life, and allows for 50,000 uses



### Intuitive Interface

-  The 7-inch 45° glove-friendly touchscreen, the wide viewing angle more comfortable and practical for users of all heights
-  Further enhanced with access controls such as user login with password protection, the independent program data of each user is managed separately
-  Easily monitor the display of set and actual run conditions with enlarged track bar during the run for clear visibility, which ensures the operator can see them from a distance
-  Quick recall of up to 1000+ programs with alpha-numeric naming to minimize time between runs and for quick run start by routine users
-  The speed, centrifugal force, time and temperature can be changed by user during the centrifugation process
-  11 acceleration + 12 deceleration stages



# Floor-Standing Highspeed Refrigerated Centrifuge

415/416

Progress bar

Target speed/centrifugal force and real-time speed display

Temperature set-point and real-time temperature display

Quick access to stored programs. 1000+ program storage, supports customized programs for convenient

Clear one-touch buttons for fast refrigeration, fast centrifugation, intelligent start-stop and lid-closing status

## Fixed-angle Rotor



|                 |           |
|-----------------|-----------|
| BE No.          | BE12D0001 |
| Type            | Sealed    |
| Max Capacity    | 6*500ml   |
| Max RCF (xg)    | 17,778    |
| Max Speed (rpm) | 10,000    |

## Enhanced Safety

- Real time loading imbalance detection and intelligent lid locking monitoring, immediate shutdown protection in case of imbalance or lid opening
- Adopting  $\Phi 80$ mm adjustable feet for more stable installation
- Multiple alarm including abnormal voltage alarm, high temperature alarm, overspeed alarm, load imbalance alarm, rotor absent alarm, brake abnormal alarm, rotor life reminder alarm, and other alarm functions
- Fully covered steel plate protective sleeve and 12mm steel shell

## Specifications

| Model                           | LX-210L750R                        |
|---------------------------------|------------------------------------|
| Max Capacity                    | 4*750ml                            |
| Speed Range (rpm)               | 500-21,000                         |
| Max RCF (xg)                    | 47,400                             |
| Speed Accuracy (rpm)            | $\pm 10$                           |
| Time Setting Range              | 1min-99h59m59s(1-second increment) |
| Precooling Function             | Yes                                |
| Temperature Setting Range (°C)  | -20~40, adjustable to 1            |
| Display                         | 7 inch touch screen                |
| Noise (dB(A))                   | $\leq 56$                          |
| Power Supply(V/Hz)              | AC220 50/60                        |
| Power (W)                       | 3400                               |
| Exterior Dimensions (W*D*H)(mm) | 740*920*990                        |
| Lid Opening Height (mm)         | 1720                               |
| Net Weight (kg)                 | 375                                |
| Packing Dimensions (W*D*H)(mm)  | 940*1150*1270                      |
| Gross Weight (kg)               | 470                                |
| Certification                   | CE                                 |

Laboratory centrifuges contain fluorinated greenhouse gases in the sealing equipment.

Adapter(Sets of 6) for BE12D0001



| BE No.                         | No adapter needed | BE12JT002   | BE12JU002    | BE12JV002    | BE12JW002      | BE12JX002    | BE12JY002      | BE12JZ002    | BE12J0003    | BE12J1003            |
|--------------------------------|-------------------|-------------|--------------|--------------|----------------|--------------|----------------|--------------|--------------|----------------------|
| Max Capacity                   | 500ml             | 250ml       | 100ml        | 2*50ml       | 2*50ml         | 4*30ml       | 7*15ml         | 8*10ml       | 10*5ml       | 14*1.5/2ml           |
| Tubes Per Adapter/Rotor        | 6                 | 1/6         | 1/6          | 2/12         | 2/12           | 4/24         | 7/42           | 8/48         | 10/60        | 14/84                |
| Tube                           |                   |             |              |              |                |              |                |              |              |                      |
| Max Tube Dimensions (Ø x L mm) | 69.5*170          | 62*123      | 38*120       | 29*105       | 29*120         | 25*102       | 17*121         | 16*82        | 13*54        | 11*38                |
| Tube Type                      | Flat bottom       | Flat bottom | Round bottom | Round bottom | Conical bottom | Round bottom | Conical bottom | Round bottom | Round bottom | Conical/Round bottom |



# Floor-Standing Highspeed Refrigerated Centrifuge

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## Fixed-angle Rotor



|                        |                  |
|------------------------|------------------|
| <b>BE No.</b>          | <b>BE12D1001</b> |
| <b>Type</b>            | Sealed           |
| <b>Max Capacity</b>    | 6*250ml          |
| <b>Max RCF (xg)</b>    | 25,115           |
| <b>Max Speed (rpm)</b> | 12,000           |



|                        |                  |
|------------------------|------------------|
| <b>BE No.</b>          | <b>BE12D5001</b> |
| <b>Type</b>            | Sealed           |
| <b>Max Capacity</b>    | 4*250ml          |
| <b>Max RCF (xg)</b>    | 29,440           |
| <b>Max Speed (rpm)</b> | 14,000           |

Adapter(Sets of 6) for BE12D1001, BE12D5001



| BE No.                                     | No adapter needed | BE12JF003    | BE12JG003    | BE12JH003      | BE12JJ003      |
|--|-------------------|--------------|--------------|----------------|----------------|
| <b>Max Capacity</b>                        | 250ml             | 100ml        | 50ml         | 50ml           | 5*15ml         |
| <b>Tubes per adapter/rotor (BE12D1001)</b> | 6                 | 1/6          | 1/6          | 1/6            | 5/30           |
| <b>Tubes per adapter/rotor (BE12D5001)</b> | 4                 | 1/4          | 1/4          | 1/4            | 5/20           |
| <b>Tube</b>                                |                   |              |              |                |                |
| <b>Max Tube Dimensions (Ø x L mm)</b>      | 62*123            | 38*120       | 29*105       | 29*120         | 17*121         |
| <b>Tube Type</b>                           | Flat bottom       | Round bottom | Round bottom | Conical bottom | Conical bottom |

## Fixed-angle Rotor



|                        |                  |
|------------------------|------------------|
| <b>BE No.</b>          | <b>BE12D4001</b> |
| <b>Type</b>            | Sealed           |
| <b>Max Capacity</b>    | 10*100ml         |
| <b>Max RCF (xg)</b>    | 21,280           |
| <b>Max Speed (rpm)</b> | 12,000           |

Adapter(Sets of 6) for BE12D0001



| BE No.                                | No adapter needed | BE12JS003    | BE12JR003      | BE12JQ003    | BE12JN003    | BE12JP003      | BE12JT003    |
|---------------------------------------|-------------------|--------------|----------------|--------------|--------------|----------------|--------------|
| <b>Max Capacity</b>                   | 100ml             | 50ml         | 50ml           | 25ml         | 15ml         | 15ml           | 2*10ml       |
| <b>Tubes Per Adapter/Rotor</b>        | 10                | 1/10         | 1/10           | 1/10         | 1/10         | 1/10           | 2/20         |
| <b>Tube</b>                           |                   |              |                |              |              |                |              |
| <b>Max Tube Dimensions (Ø x L mm)</b> | 38*120            | 29*105       | 29*120         | 22*110       | 17*121       | 17*121         | 16*82        |
| <b>Tube Type</b>                      | Round bottom      | Round bottom | Conical bottom | Round bottom | Round bottom | Conical bottom | Round bottom |

# Floor-Standing Highspeed Refrigerated Centrifuge



| BE No.          | BE12D7001 |
|-----------------|-----------|
| Type            | Sealed    |
| Max Capacity    | 8*50ml    |
| Max RCF (xg)    | 38,460    |
| Max Speed (rpm) | 18,000    |



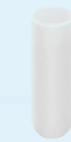
Adapter(Sets of 8) for BE12D7001

| BE No.                         | No adapter needed   | BE12JK003   |
|--------------------------------|---|---|
| Max Capacity (ml)              | 50  | 15  |
| Tubes Per Adapter/Rotor        | 1/8   | 1/8   |
| Tube                           |  |  |
| Max Tube Dimensions (Ø x L mm) | 29*105  | 17*121  |
| Tube Type                      | Round bottom  | Round bottom  |




## Fixed-angle Rotor



| BE No.          | BE12D6001            |
|-----------------|----------------------|
| Type            | Sealed, round bottom |
| Max Capacity    | 6*50ml               |
| Max RCF (xg)    | 44,800               |
| Max Speed (rpm) | 20,000               |



Adapter(Sets of 6) for BE12D6001

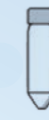
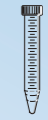
| BE No.                         | No adapter needed   | BE12JM003   | BE12JL003   |
|--------------------------------|---|---|---|
| Max Capacity (ml)              | 50  | 30  | 15  |
| Tubes Per Adapter/Rotor        | 1/6   | 1/6   | 1/6   |
| Tube                           |  |  |  |
| Max Tube Dimensions (Ø x L mm) | 29*105  | 25*102  | 17*121  |
| Tube Type                      | Round bottom  | Round bottom  | Round bottom  |



| BE No.          | BE12D8001              |
|-----------------|------------------------|
| Type            | Sealed, conical bottom |
| Max Capacity    | 6*50ml                 |
| Max RCF (xg)    | 44,800                 |
| Max Speed (rpm) | 20,000                 |



Adapter(Sets of 6) for BE12D8001

| BE No.                         | No adapter needed   | BE12JC002   |
|--------------------------------|---|---|
| Max Capacity (ml)              | 50  | 15  |
| Tubes Per Adapter/Rotor        | 1/6   | 1/6   |
| Tube                           |  |  |
| Max Tube Dimensions (Ø x L mm) | 29*120  | 17*121  |
| Tube Type                      | Conical bottom  | Conical bottom  |

# Floor-Standing Highspeed Refrigerated Centrifuge

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## Fixed-Angle Rotor



| BE No.          | BE12D3001 |
|-----------------|-----------|
| Type            | Sealed    |
| Max Capacity    | 12*15ml   |
| Max RCF (xg)    | 28,618    |
| Max Speed (rpm) | 16,000    |



### Tube for BE12D3001

|                                |                |
|--------------------------------|----------------|
| Max Tube Capacity (ml)         | 15             |
| Tubes per Rotor                | 12             |
| Max Tube Dimensions (Ø x L mm) | 17*121         |
| Tube Type                      | Conical bottom |



| BE No.          | BE12D2001 |
|-----------------|-----------|
| Type            | Sealed    |
| Max Capacity    | 16*10ml   |
| Max RCF (xg)    | 47,400    |
| Max Speed (rpm) | 21,000    |



### Tube for BE12D2001

|                                |              |
|--------------------------------|--------------|
| Max Tube Capacity (ml)         | 10           |
| Tubes per Rotor                | 16           |
| Max Tube Dimensions (Ø x L mm) | 16*82        |
| Tube Type                      | Round bottom |

## Swing-out Rotor

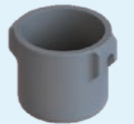


Swing-out Rotor Block



| BE No.           | BE12FS001 |
|------------------|-----------|
| Max. RCF (xg)    | 3,488     |
| Max. speed (rpm) | 4,000     |

Round Bucket (Sets of 4)



| BE No.            | BE12G5000   |
|-------------------|-------------|
| Max. RCF (xg)     | 3,488       |
| Max. speed (rpm)  | 4,000       |
| Max Capacity (ml) | 750         |
| Bucket Type       | Flat bottom |

Adapter (Sets of 4) for BE12G5000



| BE No.                         | No adapter needed | BE12J3003      | BE12J4003      | BE12J5003    | BE12J6003      | BE12J7003      | BE12J8003                           | BE12J9003                        | BE12JA003            |
|--------------------------------|-------------------|----------------|----------------|--------------|----------------|----------------|-------------------------------------|----------------------------------|----------------------|
| Max Capacity                   | 750ml             | 500ml          | 250ml          | 4*100ml      | 7*50ml         | 16*15ml        | 23*10ml                             | 31*5/7ml                         | 56*1.5/2ml           |
| Tubes Per Adapter/Rotor        | 4                 | 1/4            | 1/4            | 4/16         | 7/28           | 16/64          | 23/92                               | 31/124                           | 56/224               |
| Tube                           |                   |                |                |              |                |                |                                     |                                  |                      |
| Max Tube Dimensions (Ø x L mm) | 99*140            | 96*150         | 60*165         | 38*120       | 29*118         | 17*121         | 16*106                              | 13*75/106                        | 11*38                |
| Tube Type                      | Flat bottom       | Conical bottom | Conical bottom | Round bottom | Conical bottom | Conical bottom | Large blood collection tube (Ø16mm) | Short/long blood collection tube | Conical/Round bottom |

# Floor-Standing Highspeed Refrigerated Centrifuge

## Swing-out Rotor

| BE No.           | BE12FS001 | + | BE No.           | BE12HB000   |
|------------------|-----------|---|------------------|-------------|
| Max. RCF (xg)    | 3,488     |   | Max. RCF (xg)    | 3,488       |
| Max. speed (rpm) | 4,000     |   | Max. speed (rpm) | 4,000       |
| Max Capacity     | -         |   | Max Capacity     | -           |
| Bucket Type      | -         |   | Bucket Type      | Flat bottom |

Adapter(Sets of 4) for BE12HB000

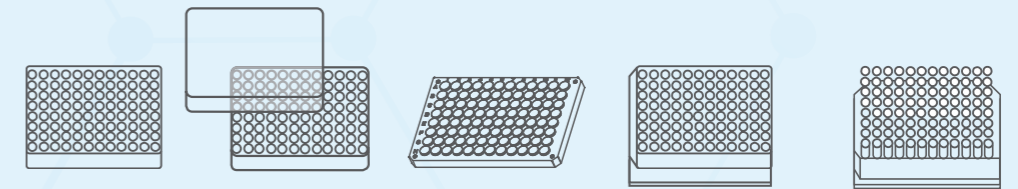


| BE No.                             | BE12JB003      | BE12JC003      | BE12JD003                           | BE12JE003                        |
|------------------------------------|----------------|----------------|-------------------------------------|----------------------------------|
| Max Capacity                       | 9*50ml         | 20*15ml        | 30*10ml                             | 39*5/7ml                         |
| Tubes Per Adapter/Rotor            | 9/36           | 20/80          | 30/120                              | 39/156                           |
| Tube                               |                |                |                                     |                                  |
| Maximum Tube Dimensions (Ø x L mm) | 29*118         | 17*121         | 16*106                              | 13*75/106                        |
| Tube Type                          | Conical bottom | Conical bottom | Large blood collection tube (Ø16mm) | Short/long blood collection tube |

## Swing-out Rotor

| BE No.           | BE12FS001 | + | BE No.           | BE12HC000                             |
|------------------|-----------|---|------------------|---------------------------------------|
| Max. RCF (xg)    | 3,488     |   | Max. RCF (xg)    | 3,148                                 |
| Max. speed (rpm) | 4,000     |   | Max. speed (rpm) | 4,000                                 |
| Max Capacity     | -         |   | Max Capacity     | -                                     |
| Bucket Type      | -         |   | Bucket Type      | Rectangular bottom<br>Max height 60mm |

Plates for BE12HC000



| Plates per bucket/rotor | 4/16              | 3/12           | 3/12              | 1/4         | 1/4          |
|-------------------------|-------------------|----------------|-------------------|-------------|--------------|
| W*D*H (mm)              | 128*86*15         | 128*86*17.5    | 128*86*20         | 128*86*44.5 | 128*86*60    |
| Plate Type              | MTP (without lid) | MTP (with lid) | PCR plate 96-fold | DWP         | Filter plate |

## Floor-Standing Large-Capacity Refrigerated Centrifuge

Haier Biomedical LX-100L1000R is a conventional centrifuge designed for biopharmaceuticals with large capacity 6L, which is widely used in fields such as biopharmaceuticals and academic research. It plays an important role in the processes of protein collection, separation, and purification for samples like macromolecular proteins and bacteria.

NEW



LX-100L1000R



Satisfy the changing application requirements that extend from academic research to production facilities. Offer up to 18,590 x g of centrifugal force and a maximum capacity of 6 liters



Automatic radio-frequency rotor identification (RFID) that enables immediate identification of a rotor once it is securely placed in the centrifuge chamber, avoid over-speed, reduce error messages, and enhance the safety



Optimized multi-layer shock absorption technology makes the sound level  $\leq 63$  (dB (A))



Low center of gravity design, amplitude less than 0.02mm, ensuring stable operation and good centrifugal effect

### Product Parts



# Floor-Standing Large-Capacity Refrigerated Centrifuge

427/428

## Extensive Rotor Portfolio

Offering 6\*1000ml, 6\*500ml fixed-angle rotor with carbon fiber/aluminum alloy for option, and a variety of adapters available, which can accommodate tubes and bottles from 1.5 ml to 1 L



- The high-efficiency carbon fiber rotor achieves the maximum centrifugal force, faster acceleration and deceleration times, and greatly improves centrifugal efficiency
- Corrosion resistance and high strength can ensure the security and durability of the rotor
- The service life can reach up to 15 years



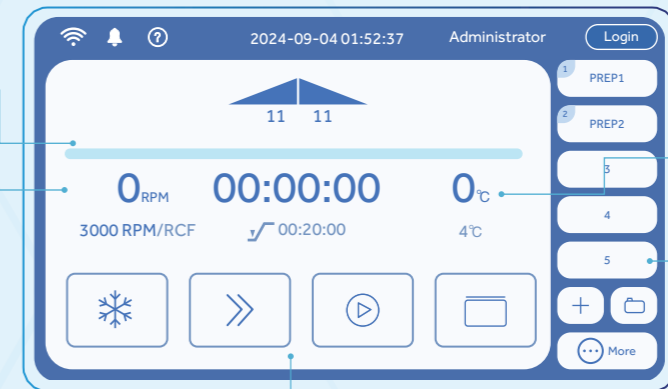
- High-strength, aero-aluminum rotor, which is acid and alkali corrosion-resistant, greatly increases the service life
- A comprehensive adapter portfolio, which is compatible with 500ml, 250ml, 100ml, 50ml, 15ml, 10ml, 5ml tubes and bottles
- The safe usage times can reach up to 50,000

## Intuitive Interface

- The 7-inch 45° glove-friendly touchscreen, the wide viewing angle more comfortable and practical for users of all heights
- Easily monitor the display of set and actual run conditions with enlarged track bar during the run for clear visibility, which ensures the operator can see them from a distance
- The speed, centrifugal force, time and temperature can be changed by user during the centrifugation process
- Further enhanced with access controls such as user login with password protection, the independent program data of each user is managed separately
- Quick recall of up to 1000+ programs with alpha-numeric naming to minimize time between runs and for quick run start by routine users
- 11 acceleration + 12 deceleration stages

Progress bar

Target speed/centrifugal force and real-time speed display



Temperature set-point and real-time temperature display






Quick access to stored programs. 1000+ program storage, supports customized programs for convenient

Clear one-touch buttons for fast refrigeration, fast centrifugation, intelligent start-stop and lid-opening button

# Floor-Standing Large-Capacity Refrigerated Centrifuge

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## Enhanced Safety

-  Real time loading imbalance detection and intelligent lid locking monitoring, immediate shutdown protection in case of imbalance or lid opening
-  Multiple alarms including abnormal voltage alarm, high temperature alarm, overspeed alarm, load imbalance alarm, rotor absent alarm, brake abnormal alarm, rotor life reminder alarm, and other alarm functions
-  Adopting  $\Phi 80\text{mm}$  adjustable foot for more stable installation
-  Fully covered steel plate protective sleeve and 12mm steel shell
-  Use of brushless induction motors to provide maintenance-free operation, eliminating carbon particle emissions

## Technical Data

| Model                            | LX-100L1000R                        |
|----------------------------------|-------------------------------------|
| Max Capacity                     | 6*1000ml                            |
| Speed Range (rpm)                | 500-10,000                          |
| Max RCF (xg)                     | 18,590                              |
| Speed Accuracy (rpm)             | $\pm 10$                            |
| Time Setting Range               | 1min-99h59m59s (1-second increment) |
| Precooling Function              | Yes                                 |
| Temperature Setting Range (°C)   | -20-40, adjustable to 1             |
| Display                          | 7 inch touch screen                 |
| Noise (dB (A))                   | $\leq 63$                           |
| Power Supply (V/Hz)              | 400/3N-50/60                        |
| Power (W)                        | 8800                                |
| Exterior Dimensions (W*D*H) (mm) | 740*920*990                         |
| Lid Opening Height (mm)          | 1720                                |
| Net Weight (kg)                  | 380                                 |
| Packing Dimensions (W*D*H) (mm)  | 940*1150*1270                       |
| Gross Weight (kg)                | 475                                 |
| Certification                    | CE                                  |

Laboratory centrifuges contain fluorinated greenhouse gases in the sealing equipment.

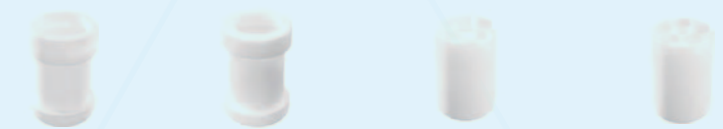
## Fixed-Angle Rotor







| BE No.          | BE12DW000 |
|-----------------|-----------|
| Type            | Sealed    |
| Max Capacity    | 6*1000ml  |
| Max RCF (xg)    | 14,472    |
| Max Speed (rpm) | 8,000     |



| BE No.          | BE12DY000            |
|-----------------|----------------------|
| Type            | Carbon fiber, Sealed |
| Max Capacity    | 6*1000ml             |
| Max RCF (xg)    | 16,660               |
| Max Speed (rpm) | 8,600                |



Adapter (Sets of 6) for BE12DW000, BE12DY000

| BE No.                       | No adapter needed   | BE12JP002   | BE12JQ002   | BE12JR002   | BE12JS002   |
|------------------------------|---|---|---|---|---|
| Max Capacity                 | 1000ml  | 500ml   | 250ml   | 6*50ml  | 5*50ml  |
| Tubes per adapter/rotor      | 6   | 1/6   | 1/6   | 6/36  | 5/30  |
| Tube                         |  |  |  |  |  |
| Max Tube Dimensions (ØxL mm) | 97.5*196  | 69.5*170  | 62*123  | 29*105  | 29*120  |
| Tube Type                    | Flat bottom   | Flat bottom   | Flat bottom   | Round bottom  | Conical bottom  |



# Floor-Standing Large-Capacity Refrigerated Centrifuge

## Fixed-Angle Rotor



| BE No.          | BE12DW000 |
|-----------------|-----------|
| Type            | Sealed    |
| Max Capacity    | 6*500ml   |
| Max RCF (xg)    | 17,700    |
| Max Speed (rpm) | 10,000    |



| BE No.          | BE12DY000            |
|-----------------|----------------------|
| Type            | Carbon fiber, Sealed |
| Max Capacity    | 6*500ml              |
| Max RCF (xg)    | 18,590               |
| Max Speed (rpm) | 10,000               |

Adapter (Sets of 6) for BE12DX000, BE12DZ000



| BE No.                      | No adapter needed | BE12JT002   | BE12JU002    | BE12JV002    | BE12JW002      |
|-----------------------------|-------------------|-------------|--------------|--------------|----------------|
| Max Capacity                | 500ml             | 250ml       | 100ml        | 2*50ml       | 2*50ml         |
| Tubes per adapter/rotor     | 6                 | 1/6         | 1/6          | 2/12         | 2/12           |
| Tube                        |                   |             |              |              |                |
| Max Tube Dimensions (ØxLmm) | 69.5*170          | 62*123      | 38*120       | 29*105       | 29*118         |
| Tube Type                   | Flat bottom       | Flat bottom | Round bottom | Round bottom | Conical bottom |

Adapter (Sets of 6) for BE12DX000, BE12DZ000



| BE No.                      | BE12JX002    | BE12JY002      | BE12JZ002    | BE12J0003    | BE12J1003            |
|-----------------------------|--------------|----------------|--------------|--------------|----------------------|
| Max Capacity                | 4*30ml       | 7*15ml         | 8*10ml       | 10*5ml       | 14*1.5/2ml           |
| Tubes per adapter/rotor     | 4/24         | 7/42           | 8/48         | 10/60        | 14/84                |
| Tube                        |              |                |              |              |                      |
| Max Tube Dimensions (ØxLmm) | 25*102       | 17*121         | 16*82        | 13*54        | 11*38                |
| Tube Type                   | Round bottom | Conical bottom | Round bottom | Round bottom | Conical/Round bottom |

# Benchtop High-Speed Refrigerated Microcentrifuge

## Scope of Application

It is widely used in fields such as life sciences, biology, medical research, pharmaceuticals, geology, agriculture and forestry, petrochemicals, light industry, and metal particles, for rapid separation and extraction of trace samples. It can also be used as IVD (In vitro diagnostic) laboratory equipment if used together with IVD tubes and IVD diagnostic analysis systems. The centrifuge separates human blood, which is used in numerous diagnostic tests such as hematological screening, immunological screening and cardiovascular system assessment.



LX-165T2R

## Product Features

- Short pre-cooling time of only 5 minutes from room temperature to 4°C
- Fast sample processing at maximum speeds of up to 16,500 rpm (25,872xg)
- Precise temperature and centrifugal speed control ensures optimal separation results
- Use of brushless induction motors to provide maintenance-free operation, eliminating carbon particle emissions
- Optimized sound design for low noise levels (≤52dB(A))
- Automatic radio-frequency rotor identification (RFID) and rotor life monitoring for maximum operational safety
- Real time loading imbalance detection, immediate shutdown protection in case of imbalance

## Intuitive Interface

- The 7-inch 45° glove-friendly touchscreen, the wide viewing angle more comfortable and practical for users of all heights
- Further enhanced with access controls such as user login with password protection, the independent program data of each user is managed separately
- Quick recall of up to 1000+ programs with alpha-numeric naming to minimize time between runs and for quick run start by routine users
- The speed, centrifugal force, time and temperature can be changed by user during the centrifugation process
- 2 acceleration + 3 deceleration stages

# Benchtop High-Speed Refrigerated Microcentrifuge

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## Product Parts



## Fixed-Angle Rotor



| BE No.                                | BE12C0Z00             | BE11D0Z00             | BE12D0Z00    | BE12E0Z00          | BE12DR000                  |
|---------------------------------------|-----------------------|-----------------------|--------------|--------------------|----------------------------|
| <b>Type</b>                           | Plastic cover         | Sealed                | Sealed       | Sealed             | Sealed                     |
| <b>Max Capacity</b>                   | 24*1.5/2ml            | 24*1.5/2ml            | 12*5ml       | 4*8*0.2ml          | 12*10ml                    |
| <b>Max RCF (xg)</b>                   | 25,872                | 21,382                | 21,407       | 18,891             | 2,753                      |
| <b>Max Speed (rpm)</b>                | 16,500                | 15,000                | 15,000       | 15,000             | 5,000                      |
| <b>Tubes per Rotor</b>                | 24                    | 24                    | 12           | 4                  | 12                         |
| <b>Tube</b>                           |                       |                       |              |                    |                            |
| <b>Max Tube Capacity (ml)</b>         | 1.5/2                 | 1.5/2                 | 5            | 0.2 ml 8-strip PCR | 7                          |
| <b>Max Tube Dimensions (Ø x L mm)</b> | 11*38                 | 11*38                 | 13.5*75      | 6*18               | 13*106                     |
| <b>Tube Type</b>                      | Round /Conical bottom | Round /Conical bottom | Round bottom | PCR                | Long blood collection tube |

## Specifications

| Model     | Maximum Capacity | Speed Range(rpm) | Max RCF(xg) | Speed Accuracy (rpm) | Time Setting Range                  | Precooling Function | Temperature Setting Range(°C) | Display             |
|-----------|------------------|------------------|-------------|----------------------|-------------------------------------|---------------------|-------------------------------|---------------------|
| LX-165T2R | 12*10ml          | 500-16,500       | 25,872      | ±10                  | 1s ~ 99h59m59s (1-second increment) | Yes                 | -20 ~40, adjustable to 1      | 7 inch touch screen |

| Cooling        | NoiseLevel dB(A) | Power Supply (V/Hz) | Power(W) | Exterior Dimensions (W*D*H)(mm) | Net Weight (kg) | Packing Dimensions (W*D*H)(mm) | Gross Weight(kg) | Certifications |
|----------------|------------------|---------------------|----------|---------------------------------|-----------------|--------------------------------|------------------|----------------|
| Direct Cooling | ≤52              | AC220/50/60         | 480      | 340*625*248                     | 34              | 425*795*430                    | 48               | CE             |

Laboratory centrifuges contain fluorinated greenhouse gases in the sealing equipment.

### Adapter(Sets of 50) for BE12DR000

| BE No.                                | BE12JC002                   |
|---------------------------------------|-----------------------------|
| <b>Max Capacity(ml)</b>               | 5                           |
| <b>Tube</b>                           |                             |
| <b>Max Tube Dimensions (Ø x L mm)</b> | 13*75                       |
| <b>Tube Type</b>                      | Short blood collection tube |

\*Haier Biomedical also can provide 0.2ml adapter (sets of 24) (BE12J2003),0.5ml adapter (sets of 24) (BE12JN002) for 1.5/2ml tube rotor

## Benchtop High-Speed Microcentrifuge

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### Scope of Application

It is widely used in fields such as life sciences, biology, medical research, pharmaceuticals, geology, agriculture and forestry, petrochemicals, light industry, and metal particles, for rapid separation and extraction of trace samples.

It can also be used as IVD (In vitro diagnostic) laboratory equipment if used together with IVD tubes and IVD diagnostic analysis systems. The centrifuge separates human blood, which is used in numerous diagnostic tests such as hematological screening, immunological screening and cardiovascular system assessment.



LX-165T2-J

### Product Features



Fast sample processing at maximum speeds of up to 16,500rpm (25,872xg)



Compact footprint with a wide array of microcentrifuge tubes from 0.2 to 5 ml



Use of brushless induction motors to provide maintenance-free operation, eliminating carbon particle emissions



Automatic rotor identification with over speed protection



Optimized sound design for low noise levels(≤58dB(A))



Each rotor use frequency monitoring to guarantee maximum operational safety



Real time loading imbalance detection, immediate shutdown protection in case of imbalance

### Intuitive Interface



LED keypad and control knob for easy operation, the wide viewing angle more comfortable and practical for users of all heights.



Quick recall of up to 99 programs for quick run start by routine users



2 acceleration + 3 deceleration stages



The speed, centrifugal force, time and temperature can be changed by user during the centrifugation process.

Target speed/centrifugal force/time and real-time operation data display.



Screen lock function to prevent press errors

One key to recall stored programs for more convenient operation

Acceleration/Deceleration rates

## Benchtop High-Speed Microcentrifuge Product Parts

439/440



## Fixed-Angle Rotor



| BE No.                         | BE12C5Z00   | BE12C4Z00   | BE12D4Z00   | BE12E4Z00   |
|--------------------------------|---|---|---|---|
| Type                           | Plastic cover   | Sealed  | Sealed  | Sealed  |
| Max Capacity                   | 24*1.5/2ml  | 24*1.5/2ml  | 12*5ml  | 4*8*0.2ml   |
| Max RCF (xg)                   | 25,872  | 21,382  | 21,407  | 18,891  |
| Max Speed (rpm)                | 16,500  | 15,000  | 15,000  | 15,000  |
| Tubes per Rotor                | 24  | 24  | 12  | 4   |
| Tube                           |  |  |  |  |
| Max Tube Capacity (ml)         | 1.5/2   | 1.5/2   | 5   | 0.2 ml<br>8-strip PCR   |
| Max Tube Dimensions (Ø x L mm) | 11*38   | 11*38   | 13.5*75   | 6*18  |
| Tube Type                      | Round /Conical bottom   | Round /Conical bottom   | Round bottom  | PCR   |

\*Haier Biomedical also can provide 0.2ml adapter (sets of 24) (BE12J2003), 0.5ml adapter (sets of 24) (BE12JN002) for 1.5/2ml tube rotor

## Specifications

| Model      | Maximum Capacity | Speed Range (rpm) | Max RCF(xg) | Speed Accuracy (rpm) | Time Setting Range                  | Display |
|------------|------------------|-------------------|-------------|----------------------|-------------------------------------|---------|
| LX-165T2-J | 12*5 ml          | 500-16,500        | 25,872      | ±10                  | 1s-99h/59min<br>(1s/1min increment) | LED     |

| Noise Level dB(A) | Power Supply (V/Hz) | Power(W) | Exterior Dimensions (W*D*H)(mm) | Lid Opening Height(mm) | Net Weight (kg) | Packing Dimensions (W*D*H)(mm) | Gross Weight(kg) | Certifications |
|-------------------|---------------------|----------|---------------------------------|------------------------|-----------------|--------------------------------|------------------|----------------|
| ≤58               | AC220/50/60         | 230      | 270*375*252                     | 526                    | 18              | 375*560*370                    | 20               | CE             |

Laboratory centrifuges contain fluorinated greenhouse gases in the sealing equipment.

# Benchtop Multipurpose Refrigerated Centrifuge

441/442

## Scope of Application

It is widely used in fields such as life sciences, biology, medical research, pharmaceuticals, geology, agriculture and forestry, petrochemicals, light industry, and metal particles, for rapid separation and extraction of trace samples. It also serves as IVD lab equipment for separating human blood, used in diagnostic tests like hematological, immunological screening, and cardiovascular assessment.



LX-155T500R

## Product Features

- Short pre-cooling time and precise temperature control performance
- Wide range of rotors for application flexibility, compatible with tubes/ bottles from 0.2 ml to 500ml
- Use of brushless induction motors to provide maintenance-free operation, eliminating carbon particle emissions
- ECO shut-off function reduce energy consumption and extend compressor life
- Optimized sound design for low noise levels ( $\leq 55\text{dB(A)}$ )
- Automatic radio-frequency rotor identification (RFID) with over speed protection
- Real time loading imbalance detection, immediate shutdown protection in case of imbalance
- Each rotor use frequency monitoring to guarantee maximum operational safety

## Intuitive Interface

- The 7-inch 45° glove-friendly touchscreen, the wide viewing angle more comfortable and practical for users of all heights
- Equipped with user login and password protection, ensuring individualized program data management for each user
- Quick recall feature for over 1000+ programs, minimizing time between runs and facilitating quick starts for routine users
- The speed, centrifugal force, time and temperature can be changed by user during the centrifugation process
- 9 acceleration+ 10 deceleration stages

Acceleration/ Deceleration setting.

Target speed/ centrifugal force and real-time speed display.

Temperature set-point and real-time temperature display.

Quick access to stored programs. 1000+ program storage, supports customized programs for convenient.

Clear one-touch buttons for fast refrigeration, fast centrifugation, intelligent start-stop and lid-closing status.

# Benchtop Multipurpose Refrigerated Centrifuge

443/444

## Product Parts

## Specifications

| Model       | Maximum Capacity | Speed Range (rpm) | Max RCF(xg) | Speed Accuracy (rpm) | Time Setting Range                | Precooling Function | Temperature Setting Range(°C) | Display             |
|-------------|------------------|-------------------|-------------|----------------------|-----------------------------------|---------------------|-------------------------------|---------------------|
| LX-155T500R | 4*500ml          | 500-15,500        | 26,322      | ±10                  | 1s-99h59m59s (1-second increment) | Yes                 | -20-40, adjustable to 1       | 7 inch touch screen |

| Noise Level dB(A) | Power Supply (V/Hz) | Power(W) | Exterior Dimensions (W*D*H)(mm) | Lid Opening Height(mm) | Net Weight (kg) | Packing Dimensions (W*D*H)(mm) | Gross Weight(kg) | Certifications |
|-------------------|---------------------|----------|---------------------------------|------------------------|-----------------|--------------------------------|------------------|----------------|
| ≤55               | AC220/50/60         | 1200     | 658*673*358                     | 860                    | 112             | 741*799*555                    | 133              | CE             |

Laboratory centrifuges contain fluorinated greenhouse gases in the sealing equipment.

## Fixed-Angle Rotor



| BE No.                         | BE12C9000             | BE12CE000             | BE12C7000             | BE12DS000    | BE12DT000      | BE12DU000    |
|--------------------------------|-----------------------|-----------------------|-----------------------|--------------|----------------|--------------|
| Type                           | Sealed                | Sealed                | Sealed                | Sealed       | Sealed         | Sealed       |
| Max Capacity (ml)              | 24*1.5/2ml            | 30*1.5/2ml            | 48*1.5/2ml            | 12*10ml      | 12*15ml        | 6*50ml       |
| Max RCF (xg)                   | 23,100                | 26,322                | 22,132                | 16,071       | 21,912         | 17,065       |
| Max Speed (rpm)                | 15,500                | 15,500                | 14,000                | 12,500       | 14,000         | 12,000       |
| Max Tubes Per Rotor            | 24                    | 30                    | 48                    | 12           | 12             | 6            |
| Tube                           |                       |                       |                       |              |                |              |
| Max Tube Capacity (ml)         | 1.5/2                 | 1.5/2                 | 1.5/2                 | 10           | 15             | 50           |
| Max Tube Dimensions (Ø x L mm) | 11*38                 | 11*38                 | 11*38                 | 16*86        | 17*121         | 29*105       |
| Tube Type                      | Round /Conical bottom | Round /Conical bottom | Round /Conical bottom | Round bottom | Conical bottom | Round bottom |

\*Haier Biomedical also can provide 0.2ml adapter (sets of 24) (BE12J2003), 0.5ml adapter (sets of 24) (BE12JN002) for 1.5/2ml tube rotor

## Key Features of Quick-Flip Biocontainment Safety Lids

- Quick-Flip Hinge Design**  
 Our hinged lids do not need to be removed from the rotor. Just a quick flip gives you fast access to your samples
- Low-Pressure Closing Clip**  
 The simple low-pressure clip offers a secure closure with an audible "click" and visual cues, enhancing safety and replacing multi-turn screw caps or complex lever systems
- Ambidextrous & Glove-Friendly**  
 Designed for ease of use, our lids can be operated with either hand and are glove-friendly, ensuring seamless operation
- Premium Polymer Construction**  
 Made from Polyetherimide (PEI), our lids provide excellent chemical resistance, transparency, and durability
- Certified Safety and Reliability**  
 Independently tested and certified per IEC-61010 Section 2-020 Annex AA, ensuring top-level safety and performance



Choose our Quick-Flip biocontainment safety lids for innovative, safe, and durable lab solutions.

# Benchtop Multipurpose Refrigerated Centrifuge



| BE No.                         | BE12DB000      | BE12E5000             | BE12DF000            | BE12DG000                  | BE12DE000     |
|--------------------------------|----------------|-----------------------|----------------------|----------------------------|---------------|
| Type                           | Sealed         | Sealed                | Steel sleeves        | Steel sleeves              | Steel sleeves |
| Max Capacity (ml)              | 6*50ml         | 12*8*0.2ml            | 42*15ml              | 12*50(15)ml                | 10*100ml      |
| Max RCF (xg)                   | 16,421         | 14,892                | 4,472                | 4,640                      | 3,350         |
| Max Speed (rpm)                | 12,000         | 12,000                | 5,000                | 5,000                      | 4,500         |
| Max Tubes Per Rotor            | 6              | 12                    | 42                   | 12pcs(50ml)<br>12pcs(15ml) | 10            |
| Tube                           |                |                       |                      |                            |               |
| Max Tube Capacity (ml)         | 50             | 0.2 ml<br>8-strip PCR | 15                   | 50(15)                     | 100           |
| Max Tube Dimensions (Ø x L mm) | 29*118         | 6*18                  | 17*121               | 29*118<br>17*121           | 41*120        |
| Tube Type                      | Conical bottom | PCR                   | Round/Conical bottom | Round/Conical bottom       | Round bottom  |

Adapter(Sets of 6) for BE12DB000

| BE No.                         | BE12JC002      |
|--------------------------------|----------------|
| Max Capacity (ml)              | 15             |
| Tube                           |                |
| Max Tube Dimensions (Ø x L mm) | 17*121         |
| Tube Type                      | Conical bottom |

## Swing-Out Rotor



Swing-Out Rotor with Round Buckets

| BE No.           | BE12FJ001 |
|------------------|-----------|
| Max. RCF (xg)    | 3,184     |
| Max. speed (rpm) | 4,000     |



Round Bucket (Sets of 4)

| BE No.            | BE12G0000   |
|-------------------|-------------|
| Max Capacity (ml) | 500         |
| Bucket Type       | Flat bottom |



Swing-Out Rotor with Biocontainment Round Buckets

| BE No.           | BE12FJ001 |
|------------------|-----------|
| Max. RCF (xg)    | 3,184     |
| Max. speed (rpm) | 4,000     |



Round Bucket & Lid (sets of 4)

| BE No.            | BE12G8000   | BE12J2004 |
|-------------------|-------------|-----------|
| Max Capacity (ml) | 500         | NA        |
| Bucket Type       | Flat bottom | NA        |



Adapter (Sets of 4) for BE12G0000, BE12G8000

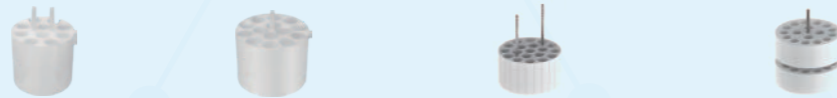
| BE No.                         | No Adapter Needed | BE12JP001   | BE12FG001      | BE12FF001    | BE12JS001      |
|--------------------------------|-------------------|-------------|----------------|--------------|----------------|
| Max Capacity                   | 500ml             | 250ml       | 225ml          | 100ml        | 4*50ml         |
| Tubes Per Adapter/Rotor        | 4                 | 1/4         | 1/4            | 1/4          | 4/16           |
| Tube                           |                   |             |                |              |                |
| Max Tube Dimensions (Ø x L mm) | 80*136            | 62*123      | 60*136         | 38*120       | 29*118         |
| Tube Type                      | Flat bottom       | Flat bottom | Conical bottom | Round bottom | Conical bottom |

\*Haier Biomedical also can provide 0.2ml adapter (sets of 24) (BE12J2003), 0.5ml adapter (sets of 24) (BE12JN002) for 1.5/2ml tube rotor



## Benchtop Multipurpose Refrigerated Centrifuge

Adapter (Sets of 4)  
for BE12G0000, BE12G8000



| BE No.                             | BE12JR001      | BE12JQ001                           | BE12JD002                        | BE12JE002            |
|------------------------------------|----------------|-------------------------------------|----------------------------------|----------------------|
| Max Capacity                       | 10*15ml        | 14*10ml                             | 19*5/7ml                         | 30*1.5/2ml           |
| Tubes Per Adapter/Rotor            | 10/40          | 14/56                               | 19/76                            | 30/120               |
| Tube                               |                |                                     |                                  |                      |
| Maximum Tube Dimensions (Ø x L mm) | 17*121         | 16*106                              | 13*75/106                        | 11*38                |
| Tube Type                          | Conical bottom | Large blood collection tube (Ø16mm) | Short/Long blood collection tube | Round/Conical bottom |

\*Haier Biomedical also can provide 0.2ml adapter (sets of 24) (BE12J2003), 0.5ml adapter (sets of 24) (BE12JN002) for 1.5/2ml tube rotor



Swing-Out Rotor Block





Plate Bucket (Sets of 4)

| BE No.           | BE12FJ001 |
|------------------|-----------|
| Max. RCF (xg)    | 2,612     |
| Max. speed (rpm) | 4,000     |

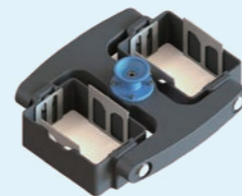
| BE No.       | BE12H5000          |
|--------------|--------------------|
| Max Capacity | 1 plate            |
| Bucket Type  | Rectangular bottom |



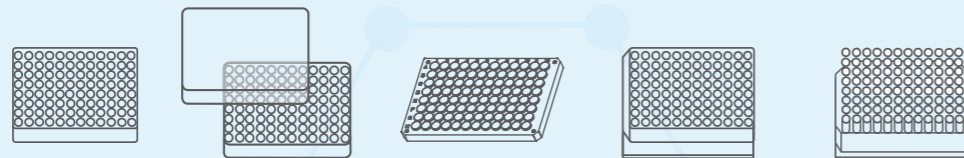
Swing-Out Rotor with Plate Buckets

### Plate Swing-out Rotor

| BE No.           | BE12FQZ01                             |
|------------------|---------------------------------------|
| Max. RCF (xg)    | 2,381                                 |
| Max. Speed (rpm) | 4,000                                 |
| Max Capacity     | -                                     |
| Bucket Type      | Rectangular bottom<br>Max height 60mm |



### Plates for BE12FQZ01



| Plates per bucket/rotor | 4/8               | 3/6            | 3/6               | 1/2         | 1/2          |
|-------------------------|-------------------|----------------|-------------------|-------------|--------------|
| W*D*H (mm)              | 128*86*15         | 128*86*17.5    | 128*86*20         | 128*86*44.5 | 128*86*60    |
| Plate Type              | MTP (without lid) | MTP (with lid) | PCR plate 96-fold | DWP         | Filter plate |

## Benchtop High-Speed Refrigerated Centrifuge

447/448

### Scope of Application









It is widely used in fields such as life sciences, biology, medical research, pharmaceuticals, geology, agriculture and forestry, petrochemicals, light industry, and metal particles, for rapid separation and extraction of trace samples.

It also serves as IVD lab equipment for separating human blood, used in diagnostic tests like hematological, immunological screening, and cardiovascular assessment.








LX-185T100R

### Product Features

-  Wide range of rotors for application flexibility, compatible with tubes/bottles from 0.2 ml to 100ml
-  Fast sample processing at maximum speeds of up to 18,500 rpm (30,130xg)
-  Optimized sound design for low noise levels (≤52dB(A))
-  Each rotor use frequency monitoring to guarantee maximum operational safety
-  Short pre-cooling time and precise temperature control performance
-  Use of brushless induction motors to provide maintenance-free operation, eliminating carbon particle emissions
-  Automatic radio-frequency rotor identification (RFID) with over speed protection
-  Real time loading imbalance detection, immediate shutdown protection in case of imbalance

### Intuitive Interface

-  The 7-inch 45°glove-friendly touchscreen, the wide viewing angle more comfortable and practical for users of all heights
-  Quick recall of up to 1000+ programs with alpha-numeric naming to minimize time between runs and for quick run start by routine users
-  9 acceleration + 10 deceleration stages
-  Further enhanced with access controls such as user login with password protection, the independent program data of each user is managed separately
-  The speed, centrifugal force, time and temperature can be changed by user during the centrifugation process

# Benchtop High-Speed Refrigerated Centrifuge

449/450

## Product Parts



## Specifications

| Model       | Maximum Capacity | Speed Range (rpm) | Max RCF(xg) | Speed Accuracy (rpm) | Time Setting Range                  | Precooling Function | Temperature Setting Range(°C) | Display            |
|-------------|------------------|-------------------|-------------|----------------------|-------------------------------------|---------------------|-------------------------------|--------------------|
| LX-185T100R | 6*100 ml         | 500-18500         | 30,130      | ±10                  | 1s - 99h59m59s (1-second increment) | Yes                 | -20 - 40, adjustable to 1     | 7 inch touchscreen |

| Noise Level dB(A) | Power Supply (V/Hz) | Power(W) | Exterior Dimensions (W*D*H)(mm) | Lid Opening Height(mm) | Net Weight (kg) | Packing Dimensions (W*D*H)(mm) | Gross Weight(kg) | Certifications |
|-------------------|---------------------|----------|---------------------------------|------------------------|-----------------|--------------------------------|------------------|----------------|
| ≤52               | AC220/50/60         | 1200     | 420*680*330                     | 860                    | 57              | 508*806*528                    | 73               | CE             |

Laboratory centrifuges contain fluorinated greenhouse gases in the sealing equipment.

## Fixed-Angle Rotor

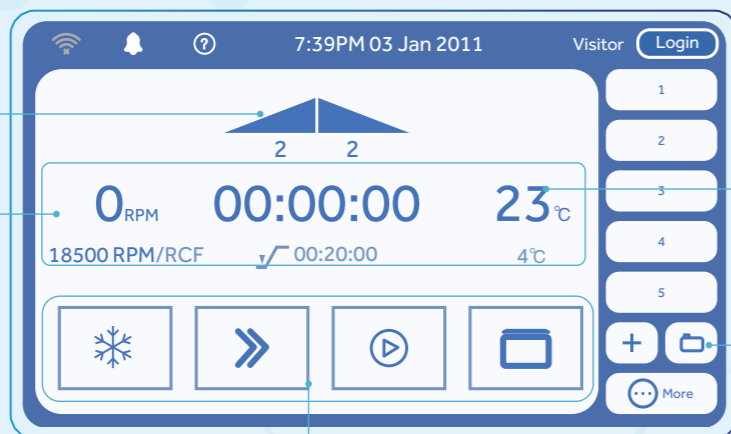


| BE No.                         | BE12DKZ00             | BE12C6000             | BE12CB000             | BE12DJZ00    | BE12CC000    | BE12CA000      |
|--------------------------------|-----------------------|-----------------------|-----------------------|--------------|--------------|----------------|
| Type                           | Sealed                | Sealed                | Sealed                | Sealed       | Sealed       | Sealed         |
| Max Capacity                   | 12*1.5/2ml            | 24*1.5/2ml            | 48*1.5/2ml            | 12*5ml       | 12*10ml      | 8*15ml         |
| Max RCF (xg)                   | 25,636                | 30,130                | 19,083                | 20,124       | 15,547       | 14,972         |
| Max Speed (rpm)                | 18,500                | 17,500                | 13,000                | 15,000       | 12,500       | 12,000         |
| Tubes per Rotor                | 12                    | 24                    | 48                    | 12           | 12           | 8              |
| Tube                           |                       |                       |                       |              |              |                |
| Max Tube Capacity (ml)         | 1.5/2                 | 1.5/2                 | 1.5/2                 | 5            | 10           | 15             |
| Max Tube Dimensions (Ø x L mm) | 11*38                 | 11*38                 | 11*38                 | 13.5*75      | 16*86        | 17*121         |
| Tube Type                      | Round /Conical bottom | Round /Conical bottom | Round /Conical bottom | Round bottom | Round bottom | Conical bottom |

\*Haier Biomedical also can provide 0.2ml adapter (sets of 24) (BE12J2003), 0.5ml adapter (sets of 24) (BE12JN002) for 1.5/2ml tube rotor

Acceleration/Deceleration setting.

Target speed/centrifugal force and real-time speed display.



Clear one-touch buttons for fast refrigeration, fast centrifugation, intelligent start-stop and lid-closing status.

Temperature set-point and real-time temperature display.

Quick access to stored programs. 1000+ program storage, supports customized programs for convenient.

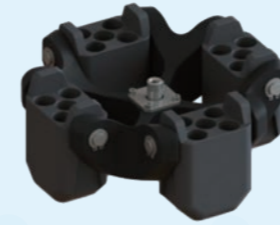
# Benchtop High-Speed Refrigerated Centrifuge

451/452



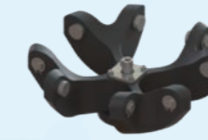
| BE No.                         | BE12CD000    | BE12DD000      | BE12DLZ00         | BE12DPZ00             | BE12DMZ00                  | BE12DNZ00    |
|--------------------------------|--------------|----------------|-------------------|-----------------------|----------------------------|--------------|
| Type                           | Sealed       | Sealed         | Sealed            | Steel sleeve          | Steel sleeve               | Steel sleeve |
| Max Capacity                   | 6*50ml       | 6*50ml         | 12*8*0.2ml        | 18*15ml               | 6*50/15ml                  | 6*100ml      |
| Max RCF (xg)                   | 15,616       | 16,421         | 14,891            | 3,577                 | 3,577                      | 3,348        |
| Max Speed (rpm)                | 12,000       | 12,000         | 12,000            | 5,000                 | 5,000                      | 4,800        |
| Tubes per Rotor                | 6            | 6              | 12                | 18                    | 6 pcs(50ml)<br>6 pcs(15ml) | 6            |
| Tube                           |              |                |                   |                       |                            |              |
| Max Tube Capacity (ml)         | 50           | 50             | 0.2ml 8-strip PCR | 15                    | 50(15)                     | 100          |
| Max Tube Dimensions (Ø x L mm) | 29*105       | 29*118         | 6*18              | 17*121                | 29*118<br>17*121           | 41*120       |
| Tube Type                      | Round bottom | Conical bottom | PCR               | Round /Conical bottom | Round /Conical bottom      | Round bottom |

## Swing-Out Rotor



Swing-Out Rotor Block

| BE No.           | BE12FD001 |
|------------------|-----------|
| Max. RCF (xg)    | 3,347     |
| Max. speed (rpm) | 4,600     |



Bucket (Sets of 4)

| BE No.                         | BE12H1000                           |
|--------------------------------|-------------------------------------|
| Max Capacity (ml)              | 10                                  |
| Tubes per bucket/rotor         | 5/20                                |
| Tube                           |                                     |
| Max Tube Dimensions (Ø x L mm) | 16*106                              |
| Tube Type                      | Large blood collection tube (Ø16mm) |

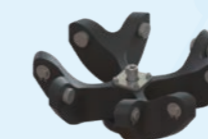
Adapter (Sets of 50) for BE12H1000

| BE No.                         | BE12JN001                   |
|--------------------------------|-----------------------------|
| Max Capacity (ml)              | 5                           |
| Tube                           |                             |
| Max Tube Dimensions (Ø x L mm) | 13*75                       |
| Tube Type                      | Short blood collection tube |



Swing-Out Rotor Block

| BE No.           | BE12FD001 |
|------------------|-----------|
| Max. RCF (xg)    | 3,347     |
| Max. speed (rpm) | 4,600     |



Bucket (Sets of 4)

| BE No.                         | BE12H2000      |
|--------------------------------|----------------|
| Max Capacity                   | 2*15ml         |
| Tubes per bucket/rotor         | 2/8            |
| Tube                           |                |
| Max Tube Dimensions (Ø x L mm) | 17*121         |
| Tube Type                      | Conical bottom |

Adapter (Sets of 6) for BE12DD000

| BE No.                         | BE12JC002      |
|--------------------------------|----------------|
| Max Capacity (ml)              | 15             |
| Tube                           |                |
| Max Tube Dimensions (Ø x L mm) | 17*121         |
| Tube Type                      | Conical bottom |

# Benchtop High-Speed Refrigerated Centrifuge



**Swing-Out Rotor Block**

|                  |           |
|------------------|-----------|
| BE No.           | BE12FD001 |
| Max. RCF (xg)    | 3,347     |
| Max. speed (rpm) | 4,600     |

**Bucket (Sets of 4)**

|                                |   |
|--------------------------------|---|
| BE No.                         | BE12H3000   |
| Max Capacity (ml)              | 50  |
| Tubes per bucket/rotor         | 1/4   |
| Tube                           |  |
| Max Tube Dimensions (Ø x L mm) | 29*118  |
| Tube Type                      | Conical bottom  |



**Swing-Out Rotor Block**

|                  |           |
|------------------|-----------|
| BE No.           | BE12FD001 |
| Max. RCF (xg)    | 3,347     |
| Max. speed (rpm) | 4,600     |

**Bucket (Sets of 4)**


|                   |             |           |
|-------------------|-------------|-----------|
| BE No.            | BE12G7000   | BE12J1004 |
| Max Capacity (ml) | 100         | NA        |
| Bucket Type       | Flat bottom | NA        |

Adapter(Sets of 4) for BE12G7000



| BE No.                         | BE12JU003   | BE12JV003   | BE12JW003*  | BE12JX003   | BE12JY003   | BE12JZ003   | BE12J0004   |
|--------------------------------|---|---|---|---|---|---|---|
| Max Capacity                   | 100ml   | 50ml  | 2*15ml  | 15ml  | 4*10ml  | 4*5/7ml   | 4*1.5/2ml   |
| Tubes per adapter/rotor        | 1/4   | 1/4   | 2/8   | 1/4   | 4/16  | 4/16  | 4/16  |
| Tube                           |  |  |  |  |  |  |  |
| Max Tube Dimensions (Ø x L mm) | 41*120  | 29*118  | 17*121  | 17*121  | 16*106  | 13*75/106   | 11*38   |
| Tube Type                      | Round bottom  | Conical bottom  | Conical bottom  | Conical bottom  | Large blood collection tube (Ø16mm)   | Short/Long blood collection tube  | Round/Conical bottom  |


\*During the use of this adapter, the biocontainment lid is in an unavailable state.



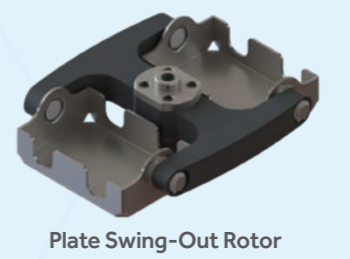
**Swing-Out Rotor Block**

|                  |           |
|------------------|-----------|
| BE No.           | BE12FD001 |
| Max. RCF (xg)    | 3,347     |
| Max. speed (rpm) | 4,600     |

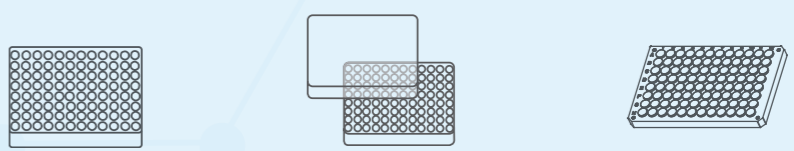
**BD CPT Tube Bucket (Sets of 4)**

|                                |   |
|--------------------------------|---|
| BE No.                         | BE12G6000   |
| Max Capacity (ml)              | 8   |
| Tubes per bucket/rotor         | 1/4   |
| Tube                           |  |
| Max Tube Dimensions (Ø x L mm) | 16*130  |
| Tube Type                      | Round bottom  |

|                  |                    |
|------------------|--------------------|
| BE No.           | BE12FC001          |
| Max. RCF (xg)    | 2,245              |
| Max. speed (rpm) | 4,500              |
| Max Capacity     | 2 plates           |
| Bucket Type      | Rectangular bottom |



Plates for BE12H5000



| Plates per rotor | 2                 | 2              | 2                 |
|------------------|-------------------|----------------|-------------------|
| W*D*H (mm)       | 128*86*15         | 128*86*17.5    | 128*86*20         |
| Plate Type       | MTP (without lid) | MTP (with lid) | PCR plate 96-fold |

## Benchtop High-Speed Centrifuge

455/456

### Scope of Application

Mainly applied to the experimental processes of collecting, separating, and purifying samples such as cells, macromolecular proteins, blood, body fluids, DNA/RNA, plasmids, and viruses. Widely used in universities, third party testing organizations, disease prevention, medical and health, biological pharmaceutical and other related fields.



LX-185T100-J

### Product Features



Wide range of rotors for application flexibility, compatible with tubes/bottles from 0.2 ml to 100ml.



Optimized sound design for low noise levels ( $\leq 63\text{dB(A)}$ ).



Fast sample processing at maximum speeds of up to 18,500 rpm (30,130 xg).



Automatic rotor identification locks the maximum rotational speed to prevent overspeed operation.



Use of brushless induction motors to provide maintenance-free operation, eliminating carbon particle emissions.



Real time loading imbalance detection, immediate shutdown protection in case of imbalance.

### Intuitive Interface



LED keypad and control knob for easy operation, the wide viewing angle more comfortable and practical for users of all heights.



9 acceleration + 10 deceleration stages.



Quick recall of up to 99 programs for quick run start by routine users.



The speed, centrifugal force, time and temperature can be changed by user during the centrifugation process.

Target speed/centrifugal force/time and real-time operation data display.

Screen lock function to prevent press errors.



Screen lock function to prevent press errors.

Acceleration/Deceleration rates.

Specifications

| Model        | Maximum Capacity | Speed Range (rpm) | Max RCF (xg) | Speed Accuracy (rpm) | Time Setting Range                | Display | Noise dB (A) | Power Supply (V/Hz) |
|--------------|------------------|-------------------|--------------|----------------------|-----------------------------------|---------|--------------|---------------------|
| LX-185T100-J | 6*100ml          | 500-18,500        | 30,130       | ±10                  | 1s-99h59m59s (1-second increment) | LED     | ≤63          | AC220/50/60         |

| Power (W) | Exterior Dimensions (W*D*H) (mm) | Lid Opening Height (mm) | Net Weight (kg) | Packing Dimensions (W*D*H)(mm) | Gross Weight(kg) |
|-----------|----------------------------------|-------------------------|-----------------|--------------------------------|------------------|
| 500       | 440*600*346                      | 795                     | 47              | 541*695*510                    | 54               |



| BE No.                        | BE12CK000             | BE12CL000             | BE12CH000             | BE12DF001    | BE12DH001    | BE12DJ001      |
|-------------------------------|-----------------------|-----------------------|-----------------------|--------------|--------------|----------------|
| Type                          | Sealed                | Sealed                | Sealed                | Sealed       | Sealed       | Sealed         |
| Max Capacity                  | 12*1.5/2ml            | 24*1.5/2ml            | 48*1.5/2ml            | 12*5ml       | 12*10ml      | 8*15ml         |
| Max RCF (xg)                  | 26,019                | 30,130                | 19,083                | 18,090       | 16,071       | 13,200         |
| Max Speed (rpm)               | 18,500                | 17,500                | 13,000                | 16,000       | 12,500       | 12,000         |
| Tubes per Rotor               | 12                    | 24                    | 48                    | 12           | 12           | 8              |
| Tube                          |                       |                       |                       |              |              |                |
| Max Tube Capacity (ml)        | 1.5/2ml               | 1.5/2ml               | 1.5/2ml               | 5ml          | 10ml         | 15ml           |
| Max Tube Dimensions (Ø xL mm) | 11*38                 | 11*38                 | 11*38                 | 13.5*75      | 16*86        | 17*121         |
| Tube Type                     | Round /Conical bottom | Round /Conical bottom | Round /Conical bottom | Round bottom | Round bottom | Conical bottom |

Patented anti-seismic door lock. In case of abnormal vibration, the cover can be locked reliably.

Triple-layer construction to ensure safe use.

Unique air duct structure design, the heat inside the centrifugal chamber can dissipate quickly.

316 stainless steel centrifuge chamber is rust-free and easy to clean.

Dual gas springs for easy door opening and with safety protection.

Emergency lid release, pry out the white plastic plug on the side plate with a tool and pull the attached release cord to open the lid.

# Benchtop High-Speed Centrifuge

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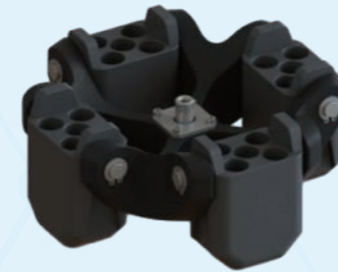
## Fixed-Angle Rotor



| BE No.                         | BE12DG001    | BE12DK001      | BE12E6000         | BE12DE001             | BE12DD001                  | BE12DC001    |
|--------------------------------|--------------|----------------|-------------------|-----------------------|----------------------------|--------------|
| Type                           | Sealed       | Sealed         | Sealed            | Steel sleeve          | Steel sleeve               | Steel sleeve |
| Max Capacity                   | 6*50ml       | 6*50ml         | 12*8*0.2ml        | 18*15ml               | 6*50/15ml                  | 6*100ml      |
| Max RCF (xg)                   | 15,294       | 16,421         | 18,516            | 4,749                 | 3,577                      | 3,348        |
| Max Speed (rpm)                | 12,000       | 12,000         | 12,000            | 5,000                 | 5,000                      | 4,800        |
| Tubes per Rotor                | 6            | 6              | 12                | 18                    | 6 pcs(50ml)<br>6 pcs(15ml) | 6            |
| Tube                           |              |                |                   |                       |                            |              |
| Max Tube Capacity (ml)         | 50ml         | 50ml           | 0.2ml 8-strip PCR | 15ml                  | 50(15)ml                   | 100ml        |
| Max Tube Dimensions (Ø x L mm) | 29*105       | 29*118         | 6*18              | 17*121                | 29*118<br>17*121           | 41*120       |
| Tube Type                      | Round bottom | Conical bottom | PCR               | Round /Conical bottom | Round /Conical bottom      | Round bottom |

### Adapter(Sets of 6) for BE12DK001

| BE No.                         | BE12JC002      |
|--------------------------------|----------------|
| Max Capacity (ml)              | 15             |
| Tube                           |                |
| Max Tube Dimensions (Ø x L mm) | 17*121         |
| Tube Type                      | Conical bottom |



Swing-Out Rotor Block

| BE No.           | BE12FR001 |
|------------------|-----------|
| Max. RCF (xg)    | 3,322     |
| Max. speed (rpm) | 4,600     |

Bucket (Sets of 4)

| BE No.                         | BE12H1000                   |
|--------------------------------|-----------------------------|
| Max Capacity                   | 5*10ml                      |
| Tubes per bucket/rotor         | 5/20                        |
| Tube                           |                             |
| Max Tube Dimensions (Ø x L mm) | 16*106                      |
| Tube Type                      | Large blood collection tube |

### Adapter (Sets of 50) for BE12H1000

| BE No.                         | BE12JN001                   |
|--------------------------------|-----------------------------|
| Max Capacity (ml)              | 5                           |
| Tube                           |                             |
| Max Tube Dimensions (Ø x L mm) | 13*75                       |
| Tube Type                      | Small blood collection tube |

# Benchtop High-Speed Centrifuge

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## Fixed-Angle Rotor



Swing-Out Rotor Block

| BE No.           | BE12FR001 |
|------------------|-----------|
| Max. RCF (xg)    | 3,322     |
| Max. speed (rpm) | 4,600     |

+



Bucket (Sets of 4)

| BE No.                         | BE12H2000   |
|--------------------------------|---|
| Max Capacity                   | 2*15ml  |
| Tubes per bucket/rotor         | 2/8   |
| Tube                           |  |
| Max Tube Dimensions (Ø x L mm) | 17*121  |
| Tube Type                      | Conical bottom  |



Swing-Out Rotor Block

| BE No.           | BE12FR001 |
|------------------|-----------|
| Max. RCF (xg)    | 3,322     |
| Max. speed (rpm) | 4,600     |

+




Bucket (Sets of 4)

| BE No.            | BE12G7000   | BE12J1004 |
|-------------------|-------------|-----------|
| Max Capacity (ml) | 100         | NA        |
| Bucket Type       | Flat bottom | NA        |

## Swing-Out Rotor



Swing-Out Rotor Block

| BE No.           | BE12FR001 |
|------------------|-----------|
| Max. RCF (xg)    | 3,322     |
| Max. speed (rpm) | 4,600     |

+










Bucket (Sets of 4)

| BE No.                         | BE12H3000   |
|--------------------------------|---|
| Max Capacity (ml)              | 50  |
| Tubes per bucket/rotor         | 1/4   |
| Tube                           |  |
| Max Tube Dimensions (Ø x L mm) | 29*118  |
| Tube Type                      | Conical bottom  |

Adapter (Sets of 4) for BE12G7000



| BE No.                         | BE12JU003   | BE12JV003   | BE12JW003*  | BE12JX003   | BE12JY003   | BE12JZ003   | BE12J0004   |
|--------------------------------|---|---|---|---|---|---|---|
| Max Capacity                   | 100ml   | 50ml  | 2*15ml  | 15ml  | 4*10ml  | 4*5/7ml   | 4*1.5/2ml   |
| Tubes per adapter/rotor        | 1/4   | 1/4   | 2/8   | 1/4   | 4/16  | 4/16  | 4/16  |
| Tube                           |  |  |  |  |  |  |  |
| Max Tube Dimensions (Ø x L mm) | 41*120  | 29*118  | 17*121  | 17*121  | 16*106  | 13*75/106   | 11*38   |
| Tube Type                      | Round bottom  | Conical bottom  | Conical bottom  | Conical bottom  | Large blood collection tube   | Short/long blood collection tube  | Round/Conical bottom  |

\*During the use of this adapter, the biocontainment lid is in an unavailable state.



## Benchtop High-Speed Centrifuge

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### Swing-Out Rotor



| BE No. BE12FR001 |       | BE No. BE12G6000               |   |
|------------------|-------|--------------------------------|---|
| Max. RCF (xg)    | 3,322 | Max Capacity (ml)              | 8   |
| Max. speed (rpm) | 4,600 | Tubes per bucket/rotor         | 1/4   |
|                  |       | Tube                           |  |
|                  |       | Max Tube Dimensions (Ø x L mm) | 16*130  |
|                  |       | Tube Type                      | Round bottom  |

## Benchtop Low-Speed Centrifuge






### Scope of Application

It is widely used in fields such as life sciences, biology, medical research, pharmaceuticals, geology, agriculture and forestry, petrochemicals, light industry, and metal particles, for rapid separation and extraction of trace samples. It also serves as IVD lab equipment for separating human blood, used in diagnostic tests like hematological, immunological screening, and cardiovascular assessment.







LX-60T100-J

### Product Features

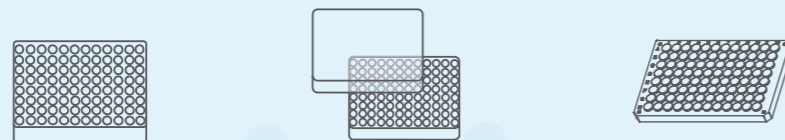
-  Offer a compact footprint and compatible with 5ml, 10ml, 15ml, 50ml or 100ml sample tube, small and large blood collection tubes
-  Optimized sound design for low noise levels ( $\leq 56\text{dB(A)}$ )
-  Real time loading imbalance detection, immediate shutdown protection in case of imbalance
-  Use of brushless induction motors to provide maintenance-free operation, eliminating carbon particle emissions
-  Automatic rotor identification with over speed protection

### Intuitive Interface

-  LED keypad and control knob for easy operation, the wide viewing angle more comfortable and practical for users of all heights
-  9 acceleration + 10 deceleration stages
-  Quick recall of up to 99 programs for quick run start by routine users
-  The speed, centrifugal force, time and temperature can be changed by user during the centrifugation process

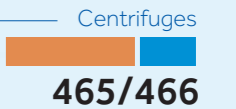
| BE No. BE12CJ000 |                    | <br>Plate Swing-Out Rotor |
|------------------|--------------------|--|
| Max. RCF (xg)    | 2,287              |  |
| Max. speed (rpm) | 4,500              |  |
| Max Capacity     | 2 plates           |  |
| Bucket Type      | Rectangular bottom |  |

Plates for BE12H5000



| Plates per rotor | 2                 | 2              | 2                 |
|------------------|-------------------|----------------|-------------------|
| W*D*H (mm)       | 128*86*15         | 128*86*17.5    | 128*86*20         |
| Plate Type       | MTP (without lid) | MTP (with lid) | PCR plate 96-fold |

# Benchtop Low-Speed Centrifuge



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Target speed/centrifugal force/time and real-time operation data display



Screen lock function to prevent press errors

One key to recall stored programs for more convenient operation

Acceleration/Deceleration rates

## Product Parts

Patented anti-seismic door lock. In case of abnormal vibration, the cover can be locked reliably

Unique air duct structure design, the heat inside the centrifugal chamber can dissipate quickly

Gas springs with safety protection

316 stainless steel centrifuge chamber is rust-free and easy to clean

Emergency lid release, pry out the white plastic plug on the side plate with a tool and pull the attached release cord at least 7 times to open the lid

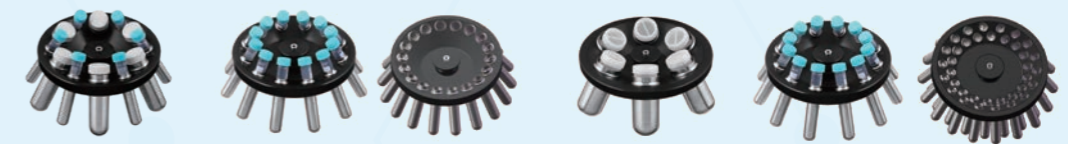
Triple-layer construction to ensure safe use

## Specifications

| Model       | Maximum Capacity                | Speed Range (rpm)       | Max RCF(xg)     | Speed Accuracy (rpm)           | Time Setting Range               | Display        | Noise Level dB(A) | Power Supply (V/Hz) |
|-------------|---------------------------------|-------------------------|-----------------|--------------------------------|----------------------------------|----------------|-------------------|---------------------|
| LX-60T100-J | 6*100ml                         | 500-6,000               | 4,749           | ±10                            | 1s-99h/59min (1s/1min increment) | LED            | ≤56               | 220/50/60           |
| Power(W)    | Exterior Dimensions (W*D*H)(mm) | Lid Opening Height (mm) | Net Weight (kg) | Packing Dimensions (W*D*H)(mm) | Gross Weight (kg)                | Certifications |                   |                     |
| 175         | 340*447*281                     | 627                     | 25              | 441*544*421                    | 28                               | CE             |                   |                     |

Laboratory centrifuges contain fluorinated greenhouse gases in the sealing equipment.

## Fixed-Angle Rotor





| BE No.                                | BE11D6000                  | BE11D5000   | BE11DT000            | BE11D7000    | BE12D6000                           | BE11DU000                           |
|---------------------------------------|----------------------------|---|----------------------|--------------|-------------------------------------|-------------------------------------|
| <b>Type</b>                           | Steel sleeve               | Steel sleeve  | Steel sleeve         | Steel sleeve | Steel sleeve                        | Steel sleeve                        |
| <b>Max Capacity</b>                   | 6*50(15)ml                 | 12*15ml<br>12*15ml  | 18*15ml              | 6*100ml      | 12*10ml                             | 36*10ml                             |
| <b>Max RCF (xg)</b>                   | 3,578                      | 4,749   | 3,578                | 3,349        | 2,683                               | 2,465                               |
| <b>Max Speed (rpm)</b>                | 5,000                      | 6,000   | 5,000                | 4,800        | 5,000                               | 4,200                               |
| <b>Max Tubes Per Rotor</b>            | 6 pcs(50ml)<br>6 pcs(15ml) | 12  | 18                   | 6            | 12                                  | 36                                  |
| <b>Tube</b>                           |                            |   |                      |              |                                     |                                     |
| <b>Max Tube Capacity (ml)</b>         | 50 & 15                    | 15<br>10ml blood tube                                       | 15                   | 100          | 10                                  | 10                                  |
| <b>Max Tube Dimensions (Ø x L mm)</b> | 29*118<br>17*121           | 17*121<br>16*106  | 17*121               | 41*120       | 15*106                              | 15*106                              |
| <b>Tube Type</b>                      | Round/Conical bottom       | Round/Conical bottom<br>Large blood collection tube (Φ16mm) | Round/Conical bottom | Round bottom | Large blood collection tube (Φ15mm) | Large blood collection tube (Φ15mm) |

# Benchtop Low-Speed Centrifuge

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Adapter(Sets of 50) for BE12D6000, BE11DU000

| BE No.                         |  | BE12JN001   |   |
|--------------------------------|--|---|---|
| Max Capacity (ml)              |  | 5   |  |
| Tube                           |  |  |   |
| Max Tube Dimensions (Ø x L mm) |  | 13*75   |   |
| Tube Type                      |  | Small blood collection tube   |   |

## Swing-Out Rotor



+



| BE No.           |  | BE12F2001 |  |
|------------------|--|-----------|--|
| Max. RCF (xg)    |  | 2,770     |  |
| Max. speed (rpm) |  | 4,200     |  |



+



| BE No.                         |  | BE12H8000   |  |
|--------------------------------|--|---|--|
| Max Capacity                   |  | 1*15ml<br>2*10ml<br>2*5ml   |  |
| Tubes per bucket/rotor         |  | 15ml(1/4),10ml(2/8)<br>5ml(2/8)   |  |
| Tube                           |  |  |  |
| Max Tube Dimensions (Ø x L mm) |  | 17*121<br>16*106<br>13*75   |  |
| Tube Type                      |  | 15ml(Conical bottom)<br>10ml/5ml(Round bottom)                                      |  |



+



| BE No.           |  | BE12F2001 |  |
|------------------|--|-----------|--|
| Max. RCF (xg)    |  | 2,770     |  |
| Max. speed (rpm) |  | 4,200     |  |





+



| BE No.                         |  | BE12H1000   |  |
|--------------------------------|--|---|--|
| Max Capacity                   |  | 5*10ml  |  |
| Tubes per bucket/rotor         |  | 5/20  |  |
| Tube                           |  |  |  |
| Max Tube Dimensions (Ø x L mm) |  | 16*106  |  |
| Tube Type                      |  | Large blood collection tube (Ø16mm)   |  |

Adapter(Sets of 50) for BE12H1000

| BE No.                         |  | BE12JN001   |   |
|--------------------------------|--|---|---|
| Max Capacity (ml)              |  | 5   |  |
| Tube                           |  |  |   |
| Max Tube Dimensions (Ø x L mm) |  | 13*75   |   |
| Tube Type                      |  | Small blood collection tube   |   |



+




| BE No.           |  | BE12F2001 |  |
|------------------|--|-----------|--|
| Max. RCF (xg)    |  | 2,770     |  |
| Max. speed (rpm) |  | 4,200     |  |




+




| BE No.                         |  | BE12H2000   |  |
|--------------------------------|--|---|--|
| Max Capacity                   |  | 2*15ml  |  |
| Tubes per bucket/rotor         |  | 2/8   |  |
| Tube                           |  |  |  |
| Max Tube Dimensions (Ø x L mm) |  | 17*121  |  |
| Tube Type                      |  | Conical bottom  |  |



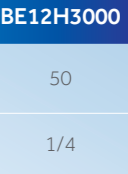
+




| BE No.           |  | BE12F2001 |  |
|------------------|--|-----------|--|
| Max. RCF (xg)    |  | 2,770     |  |
| Max. speed (rpm) |  | 4,200     |  |



+



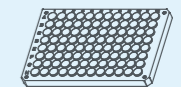
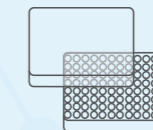
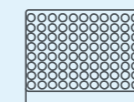
| BE No.                         |  | BE12H3000   |  |
|--------------------------------|--|---|--|
| Max Capacity (ml)              |  | 50  |  |
| Tubes per bucket/rotor         |  | 1/4   |  |
| Tube                           |  |  |  |
| Max Tube Dimensions (Ø x L mm) |  | 29*118  |  |
| Tube Type                      |  | Conical bottom  |  |

| BE No.           |  | BE12F3001          |  |
|------------------|--|--------------------|--|
| Max. RCF (xg)    |  | 2,130              |  |
| Max. speed (rpm) |  | 4,200              |  |
| Max Capacity     |  | 2 plates           |  |
| Bucket Type      |  | Rectangular bottom |  |



Plate Swing-Out Rotor

Plates for BE12H5000



| Plates per rotor | 2                 | 2              | 2                 |
|------------------|-------------------|----------------|-------------------|
| W*D*H (mm)       | 128*86*15         | 128*86*17.5    | 128*86*20         |
| Plate Type       | MTP (without lid) | MTP (with lid) | PCR plate 96-fold |

## Benchtop Low-Speed Large-Capacity Centrifuge

### Scope of Application

It is widely used in fields such as life sciences, biology, medical research, pharmaceuticals, geology, agriculture and forestry, petrochemicals, light industry, and metal particles, for rapid separation and extraction of trace samples. It also serves as IVD lab equipment for separating human blood, used in diagnostic tests like hematological, immunological screening, and cardiovascular assessment.



LX-60T500-J

### Product Features

- Wide range of rotors for application flexibility, compatible with tubes/bottles from 0.2 ml to 500ml
- Use of brushless induction motors to provide maintenance-free operation, eliminating carbon particle emissions
- Optimized sound design for low noise levels(≤63dB(A))
- Automatic rotor identification with over speed protection
- Real time loading imbalance detection, immediate shutdown protection in case of imbalance

### Intuitive Interface

- LED keypad and control knob for easy operation, the wide viewing angle more comfortable and practical for users of all heights
- Quick recall of up to 99 programs for quick run start by routine users
- 9 acceleration + 10 deceleration stages
- The speed, centrifugal force, time and temperature can be changed by user during the centrifugation process

Target speed/centrifugal force/time and real-time operation data display.



Screen lock function to prevent press errors

One key to recall stored programs for more convenient operation

Acceleration/Deceleration rates

### Product Parts

- Patented anti-seismic door lock. In case of abnormal vibration, the cover can be locked reliably
- Emergency lid release, pry out the white plastic plug on the side plate with a tool and pull the attached release cord to open the lid
- Triple-layer construction to ensure safe use
- Unique air duct structure design, the heat inside the centrifugal chamber can dissipate quickly
- Gas springs with safety protection
- 316 stainless steel centrifuge chamber is rust-free and easy to clean

### Key Features of Quick-Flip Biocontainment Safety Lids

- Quick-Flip Hinge Design**  
Our hinged lids do not need to be removed from the rotor. Just a quick flip gives you fast access to your samples
- Low-Pressure Closing Clip**  
The simple low-pressure clip offers a secure closure with an audible "click" and visual cues, enhancing safety and replacing multi-turn screw caps or complex lever systems
- Ambidextrous & Glove-Friendly**  
Designed for ease of use, our lids can be operated with either hand and are glove-friendly, ensuring seamless operation
- Premium Polymer Construction**  
Made from Polyetherimide (PEI), our lids provide excellent chemical resistance, transparency, and durability
- Certified Safety and Reliability**  
Independently tested and certified per IEC-61010 Section 2-020 Annex AA, ensuring top-level safety and performance



Choose our Quick-Flip biocontainment safety lids for innovative, safe, and durable lab solutions.

# Benchtop Low-Speed Large-Capacity Centrifuge

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## Specifications

| Model       | Maximum Capacity | Speed Range (rpm) | Max RCF(xg) | Speed Accuracy (rpm) | Time Setting Range                  | Display | Noise Level dB(A) | Power Supply (V/Hz) |
|-------------|------------------|-------------------|-------------|----------------------|-------------------------------------|---------|-------------------|---------------------|
| LX-60T500-J | 4*500 ml         | 500-6,000         | 5,353       | ±10                  | 1s-99h/59min<br>(1s/1min increment) | LED     | ≤63               | AC220/50/60         |

| Power(W) | Exterior Dimensions (W*D*H)(mm) | Lid Opening Height (mm) | Net Weight (kg) | Packing Dimensions (W*D*H)(mm) | Gross Weight (kg) | Certifications |
|----------|---------------------------------|-------------------------|-----------------|--------------------------------|-------------------|----------------|
| 700      | 478*624*365                     | 840                     | 60              | 560*752*562                    | 75                | CE             |

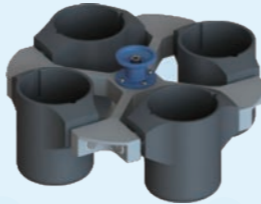
Laboratory centrifuges contain fluorinated greenhouse gases in the sealing equipment.

## Fixed-Angle Rotor




| BE No.                         | BE12DA000                  | BE12D7000                    | BE12C8000            | BE12D8000            | BE12D9000    | BE12DQ000                           |
|--------------------------------|----------------------------|------------------------------|----------------------|----------------------|--------------|-------------------------------------|
| Type                           | Steel sleeve               | Steel sleeve                 | Steel sleeve         | Steel sleeve         | Steel sleeve | Steel sleeve                        |
| Max Capacity                   | 6*50 (15)ml                | 12*50 (15)ml                 | 12*15ml              | 42*15ml              | 10*100ml     | 60*10ml                             |
| Max RCF (xg)                   | 5,353                      | 4,528                        | 5,353                | 4,528                | 3,260        | 2,576                               |
| Max Speed (rpm)                | 6,000                      | 5,000                        | 6,000                | 5,000                | 4,500        | 4,000                               |
| Max Tubes Per Rotor            | 6 pcs(50ml)<br>6 pcs(15ml) | 12 pcs(50ml)<br>12 pcs(15ml) | 12                   | 42                   | 10           | 60                                  |
| Tube                           |                            |                              |                      |                      |              |                                     |
| Max Tube Capacity (ml)         | 50 (15)                    | 50 (15)                      | 15                   | 15                   | 100          | 10                                  |
| Max Tube Dimensions (Ø x L mm) | 29*118<br>17*121           | 29*118<br>17*121             | 17*121               | 17*121               | 41*120       | 15*106                              |
| Tube Type                      | Round/Conical bottom       | Round/Conical bottom         | Round/Conical bottom | Round/Conical bottom | Round bottom | Round bottom with attached snap cap |

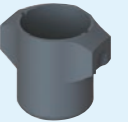
## Swing-Out Rotor



Swing-out rotor with round buckets



Swing-Out Rotor Block



Round Bucket (Sets of 4)

| BE No.           | BE12FK001 | + | BE No.            | BE12G0000   |
|------------------|-----------|---|-------------------|-------------|
| Max. RCF (xg)    | 3,184     |   | Max Capacity (ml) | 500         |
| Max. speed (rpm) | 4,000     |   | Bucket Type       | Flat bottom |



Swing-Out Rotor with Biocontainment Round Buckets



Swing-Out Rotor Block



Round Bucket & Lid (Sets of 4)

| BE No.           | BE12FK001 | + | BE No.            | BE12G8000   | BE12J2004 |
|------------------|-----------|---|-------------------|-------------|-----------|
| Max. RCF (xg)    | 3,184     |   | Max Capacity (ml) | 500         | NA        |
| Max. speed (rpm) | 4,000     |   | Bucket Type       | Flat bottom | NA        |

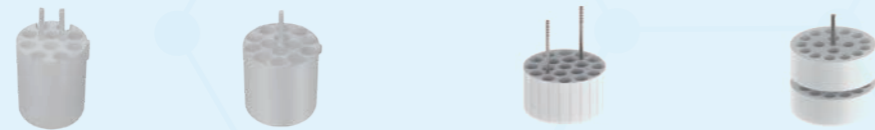
Adapter (Sets of 4) for BE12G0000, BE12G8000

| BE No.                         | No Adapter Needed | BE12JP001   | BE12FG001      | BE12FF001    | BE12JS001      |
|--------------------------------|-------------------|-------------|----------------|--------------|----------------|
| Max Capacity                   | 500ml             | 250ml       | 225ml          | 100ml        | 4*50ml         |
| Tubes Per Adapter/Rotor        | 4                 | 1/4         | 1/4            | 1/4          | 4/16           |
| Tube                           |                   |             |                |              |                |
| Max Tube Dimensions (Ø x L mm) | 80*136            | 62*123      | 60*136         | 38*120       | 29*118         |
| Tube Type                      | Flat bottom       | Flat bottom | Conical bottom | Round bottom | Conical bottom |

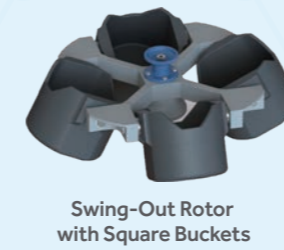
# Benchtop Low-Speed Large-Capacity Centrifuge

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Adapter (Sets of 4) for BE12G0000, BE12G8000



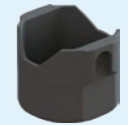
| BE No.                             | BE12JR001      | BE12JQ001                           | BE12JD002                        | BE12JE002            |
|------------------------------------|----------------|-------------------------------------|----------------------------------|----------------------|
| Max Capacity                       | 10*15ml        | 14*10ml                             | 19*5/7ml                         | 30*1.5/2ml           |
| Tubes Per Adapter/Rotor            | 10/40          | 14/56                               | 19/76                            | 30/120               |
| Tube                               |                |                                     |                                  |                      |
| Maximum Tube Dimensions (Ø x L mm) | 17*121         | 16*106                              | 13*75/106                        | 11*38                |
| Tube Type                          | Conical bottom | Large blood collection tube (Ø16mm) | Short/Long blood collection tube | Round/Conical bottom |



Swing-Out Rotor Block

| BE No.           | BE12FK001 |
|------------------|-----------|
| Max. RCF (xg)    | 3,184     |
| Max. speed (rpm) | 4,000     |

Square Bucket (Sets of 4)



| BE No.            | BE12HA000   |
|-------------------|-------------|
| Max Capacity (ml) | 500         |
| Bucket Type       | Flat bottom |

Decap Adapter (Sets of 4) for BE12HA000



| BE No.                         | BE12JV001                        |
|--------------------------------|----------------------------------|
| Max Capacity                   | 24*5/7ml                         |
| Tubes Per Adapter/Rotor        | 24/96                            |
| Tube                           |                                  |
| Max Tube Dimensions (Ø x L mm) | 13*75/106                        |
| Tube Type                      | Short/Long blood collection tube |

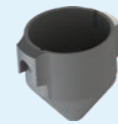


Swing-Out Rotor Block

| BE No.           | BE12FK001 |
|------------------|-----------|
| Max. RCF (xg)    | 3,506     |
| Max. speed (rpm) | 4,000     |



Conical Bucket (Sets of 4)



| BE No.            | BE12G1000      |
|-------------------|----------------|
| Max Capacity (ml) | 500            |
| Bucket Type       | Conical bottom |

Swing-Out Rotor with Conical Buckets

Adapter (Sets of 4) for BE12G1000



| BE No.                         | No adapter needed | BE12JB002      |
|--------------------------------|-------------------|----------------|
| Max Capacity (ml)              | 500               | 250            |
| Tubes Per Adapter/Rotor        | 4                 | 1/4            |
| Tube                           |                   |                |
| Max Tube Dimensions (Ø x L mm) | 96*150            | 60*165         |
| Tube Type                      | Conical bottom    | Conical bottom |



Swing-Out Rotor Block

| BE No.           | BE12FK001 |
|------------------|-----------|
| Max. RCF (xg)    | 2,612     |
| Max. speed (rpm) | 4,000     |

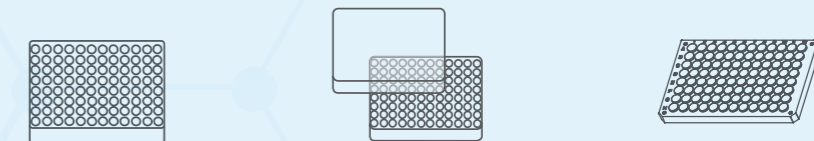
Plate Bucket (Sets of 4)



| BE No.       | BE12H5000          |
|--------------|--------------------|
| Max Capacity | 1 plate            |
| Bucket Type  | Rectangular bottom |

Swing-Out Rotor with Plate Buckets

Plates for BE12H5000



| Plates per rotor | 4                 | 4              | 4                 |
|------------------|-------------------|----------------|-------------------|
| W*D*H (mm)       | 128*86*15         | 128*86*17.5    | 128*86*20         |
| Plate Type       | MTP (without lid) | MTP (with lid) | PCR plate 96-fold |

# Mini-Centrifuge

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## Scope of Application

This product is used in micro centrifugal scenarios (single tube capacity is less than or equal to 2ml)



LX-120T2Z / 50T2Z

## Product Advantages



LX-120T2Z



LX-50T2Z



**Quiet**

Suspension with shock absorber reduces noise output



**Convenient**

Simple and fast operation



**Small**

Can be held in your hand



**Safe**

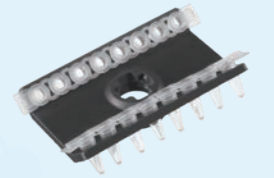
- Safety interlock lid with automatic shut-off if lid is open
- Anti vibration & absorption suction cup  
Splash and leak protection

## Specifications

| Model                           | LX-120T2Z     | LX-50T2Z      |
|---------------------------------|---------------|---------------|
| Maximum Capacity                | 8*1.5/2 ml    | 8*1.5/2 ml    |
| Max Speed (rpm)                 | 12,000        | 5,000         |
| Max RCF (xg)                    | 7,325         | 1,270         |
| Time Setting Range              | 10s-99m50s    | -             |
| Display                         | OLED          | -             |
| Noise (dB(A))                   | ≤50           | ≤40           |
| Power Supply (V/Hz)             | 100-240/50/60 | 100-240/50/60 |
| Power (W)                       | 35            | 25            |
| Exterior Dimensions (W*D*H)(mm) | 152*142*122   | 152*142*122   |
| Net Weight (kg)                 | 1.2           | 1.2           |
| Packing Dimensions (W*D*H)(mm)  | 265*205*200   | 265*205*200   |
| Gross Weight (kg)               | 3             | 3             |

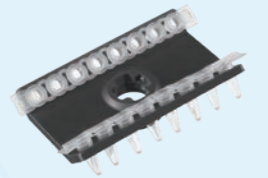
Laboratory centrifuges contain fluorinated greenhouse gases in the sealing equipment.

## LX-120T2Z Rotor List



| Type                          | Fixed-Angle Rotor    | Fixed-Angle Rotor |
|-------------------------------|----------------------|-------------------|
| Max Capacity                  | 8*1.5/2 ml           | 2*8*0.2 ml        |
| Max RCF (xg)                  | 7,325                | 6,225             |
| Max Speed (rpm)               | 12,000               | 12,000            |
| Tubes per Rotor               | 8                    | 2                 |
| Tube                          |                      |                   |
| Max Tube Capacity(ml)         | 1.5/2                | 0.2 8-strip PCR   |
| Max Tube Dimension (Ø x L mm) | 11*38                | 6*18              |
| Tube Type                     | Round/Conical bottom | PCR               |

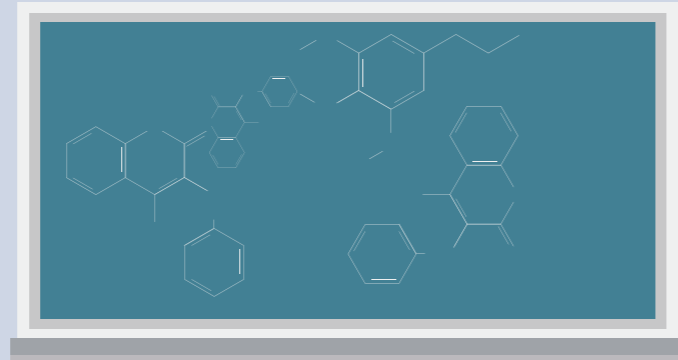
## LX-50T2Z Rotor List



| Type                          | Fixed-Angle Rotor    | Fixed-Angle Rotor |
|-------------------------------|----------------------|-------------------|
| Max Capacity                  | 8*1.5/2 ml           | 2*8*0.2 ml        |
| Max RCF (xg)                  | 1,270                | 1,150             |
| Max Speed (rpm)               | 5,000                | 5,000             |
| Tubes per Rotor               | 8                    | 2                 |
| Tube                          |                      |                   |
| Max Tube Capacity (ml)        | 1.5/2                | 0.2 8-strip PCR   |
| Max Tube Dimension (Ø x L mm) | 11*38                | 6*18              |
| Tube Type                     | Round/Conical bottom | PCR               |

### Adapter(Sets of 24) for 1.5/2ml Fixed-Angle Rotor

| BE No.                         | BE12J2003      | BE12JN002      |
|--------------------------------|----------------|----------------|
| Max Capacity (ml)              | 0.2            | 0.5            |
| Tube                           |                |                |
| Max Tube Dimensions (Ø x L mm) | 6.3*23         | 8*35           |
| Tube Type                      | Conical bottom | Conical bottom |



LN<sub>2</sub> Storages



Biobank series for large scale storage is designed to ensure the maximum storage capacity with the minimum consumption of liquid nitrogen to lower the overall cost of operation .

- LN<sub>2</sub> Splash Proof
- Data Logging
- Hot Gas Bypass
- 5 Year Vacuum Warranty
- From 13,000 to 94,875 Cryovials
- IoT Enabled
- Vapour Phase Storage
- Lockable Lid
- Liquid Phase Storage
- One-touch Defogging
- Vapour Phase Storage



**Key Features**

- Massive capacity between 13,000 to 94,875×2ml Vials
- Vapour phase storage is the only guaranteed method to prevent cross-contamination
- Vapour phase storage at -190°C
- 5-Year vacuum warranty
- One-touch defogging for easier access
- LN<sub>2</sub> splash proof ensures a safer operation
- Suitable for wide variety of sample storage

**Product Advantages**

**Optimal Use of Storage Space**

Racks are stored on the rotating tray with an appropriate distance from the wall of the chamber. Liquid nitrogen or supercooled nitrogen vapour is filled in the space between the tray and the wall to maintain temperature uniformity. Storage space is equally divided into four or six fan-shaped storage areas which are clearly labelled. Each storage room is easily rotated to the opening of the tank for convenient sample access.



**Designed for Both Liquid and Vapor Phase Storages**

Each model from the Biobank series for large scale storage is designed for both liquid and vapor phase storage. For the vapor phase storage operation process, samples are located away from the liquid nitrogen at a uniform temperature close to that of liquid nitrogen.

**Advanced Vacuum Technology and Superinsulation Technology**

Haier Biomedical's Liquid Nitrogen Storage System Biobank series for large scale storage applies advanced vacuum technology and superinsulation technology to ensure storage safety and temperature uniformity while reducing the consumption of liquid nitrogen. The temperature difference of the entire storage area does not exceed 10°C, even during the vapor phase storage process, the temperature near the top of the shelf is as low as -190°C.



**Cryosmart Level Monitoring System ITC-800N201(N4.1)**

Haier Biomedical's Liquid Nitrogen Storage System Biobank series for large scale storage feature the Cryosmart system for complete monitoring and control. High-precision temperature and liquid level sensors are used to ensure accuracy. All data and samples are protected by a secure access control system.

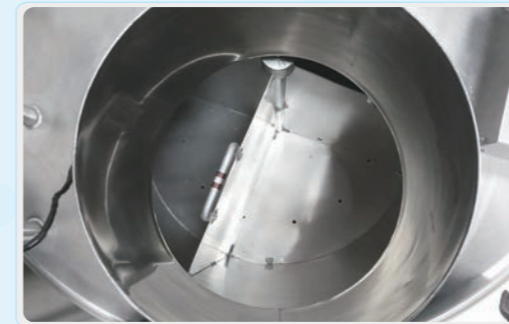
# Biobank Series for Large Scale Storage

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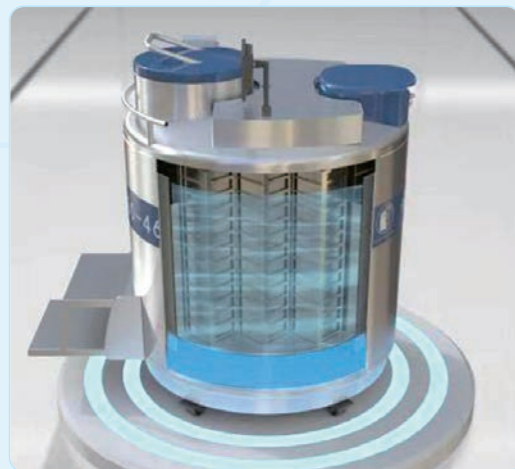
The unique design can reduce the amount of water vapor solidification on the outer surface of the neck, the container is reinforced at liquid nitrogen temperature to extend the physical service life of the container.

The large-caliber stainless steel liquid nitrogen biological container is matched with a self pressurizing replenishment tank, which is suitable for scientific research institutions with a small sample storage capacity.

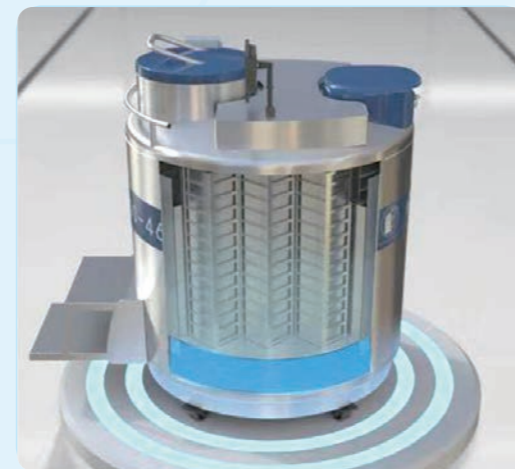


## Liquid and Gas Phase

### Liquid Phase



### Gas Phase



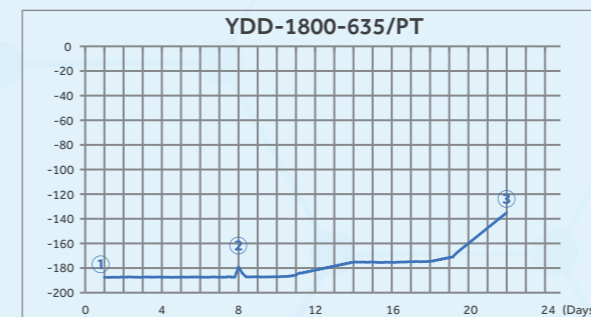
### Top of the Container



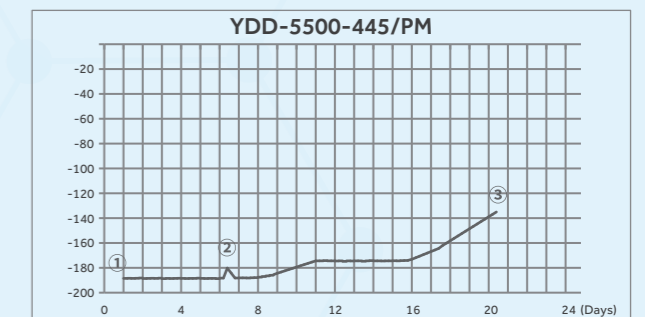
### Liquid Feed System



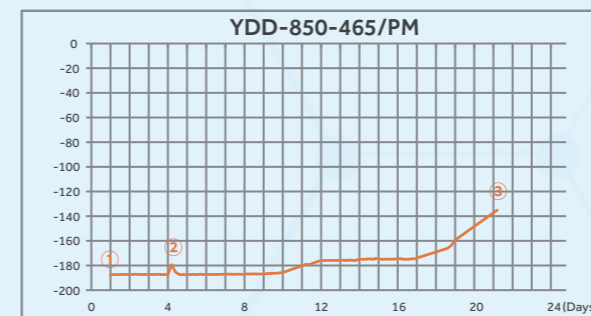
## Temperature Test Graph



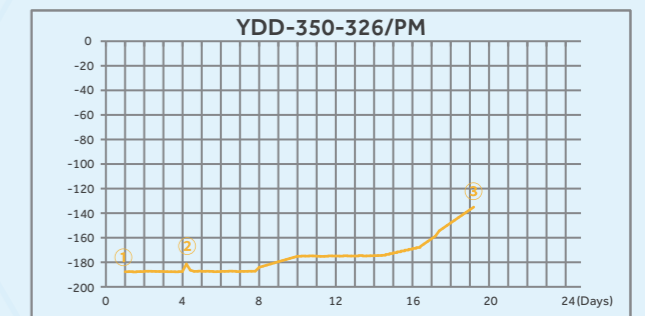
- ① Precooling stage when freezer filled to high level
- ② Lid open test, -179.2°C max
- ③ With no liquid nitrogen supply, the temperature maintained below -135°C for 22 days



- ① Precooling stage when freezer filled to high level
- ② Lid open test, -180.2°C max
- ③ With no liquid nitrogen supply, the temperature maintained below -135°C for 20 days



- ① Precooling stage when freezer filled to high level
- ② Lid open test, -179.4°C max
- ③ With no liquid nitrogen supply, the temperature maintained below -135°C for 21 days



- ① Precooling stage when freezer filled to high level
- ② Lid open test, -181.4°C max
- ③ With no liquid nitrogen supply, the temperature maintained below -135°C for 19 days

Temp Test indicates typical performance of Haier Biobank freezer with factory recommended level settings. Actual performance may vary with atmospheric conditions and usage.

# Biobank Series for Large Scale Storage

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## Technical Parameters



| Model  | YDD-350-326/PM | YDD-370-326/PM | YDD-450-326/PT | YDD-550-445/PM | YDD-750-445/PM |
|--|----------------|----------------|----------------|----------------|----------------|
| 2ml Volume                                   | 13K            | 16K            | 21K            | 27K            | 38K            |
| Maximum Storage Capacity                     |                |                |                |                |                |
| 2 ml Vials (Internal Thread)                 | 13000          | 15600          | 21000          | 27000          | 37800          |
| Freeze Rack (100 wells)                      | 12             | 12             | 12             | 24             | 24             |
| Freeze Rack (25 wells)                       | 4              | 4              | 8              | 12             | 12             |
| Layers of each Rack                          | 10             | 12             | 15             | 10             | 14             |
| 5 ml Vials (Internal Thread)                 | 5360           | 6432           | 10548          | 11220          | 17952          |
| Freeze Rack (81 wells)                       | 12             | 12             | 12             | 24             | 24             |
| Freeze Rack (25 wells)                       | 4              | 4              | 8              | 12             | 12             |
| Layers of each Rack                          | 5              | 6              | 9              | 5              | 8              |
| Performance                                  |                |                |                |                |                |
| Volume of LN <sub>2</sub> (L)                | 350            | 370            | 480            | 587            | 783            |
| Volume of LN <sub>2</sub> under the Tray (L) | 55             | 55             | 55             | 80             | 80             |
| Dimensions                                   |                |                |                |                |                |
| Inside Neck Diameter (mm)                    | 326            | 326            | 326            | 445            | 445            |
| Effective Internal Height (mm)               | 600            | 704            | 900            | 600            | 828            |
| Height (mm)                                  | 1263           | 1370           | 1570           | 1266           | 1486           |
| Operating Height (mm)                        | 1263           | 1096           | 1060           | 1266           | 995            |
| Outside Diameter (mm)                        | 875            | 875            | 875            | 1104           | 1104           |
| Door Width Requirement(mm)                   | 895            | 895            | 895            | 1124           | 1124           |
| Empty Weight (kg)                            | 245            | 283            | 308            | 328            | 372            |
| Full Weight (kg)                             | 528            | 582            | 696            | 802            | 1005           |
| Shipping Weight (kg)                         | 384            | 536            | 501            | 520            | 616            |

## Blood Bag Capacity

| Model             | YDD-350-326/PM    |             |              | YDD-370-326/PM    |             |              | YDD-450-326/PT    |             |              | YDD-550-445/PM    |             |              | YDD-750-445/PM    |             |              |
|-------------------|-------------------|-------------|--------------|-------------------|-------------|--------------|-------------------|-------------|--------------|-------------------|-------------|--------------|-------------------|-------------|--------------|
|                   | Total No. of Bags | Rack Layers | No. of Racks | Total No. of Bags | Rack Layers | No. of Racks | Total No. of Bags | Rack Layers | No. of Racks | Total No. of Bags | Rack Layers | No. of Racks | Total No. of Bags | Rack Layers | No. of Racks |
| 25 ml (791 OS/U)  | 1176              | 6           | 196          | 1372              | 7           | 196          | 1602              | 9           | 178          | 2208              | 6           | 368          | 2944              | 8           | 368          |
| 50 ml (4R9951)    | 720               | 6           | 120          | 840               | 7           | 120          | 990               | 9           | 110          | 1392              | 6           | 232          | 1856              | 8           | 232          |
| 250 ml (DF-200)   | 264               | 3           | 88           | 352               | 4           | 88           | 450               | 5           | 90           | 516               | 3           | 172          | 860               | 5           | 172          |
| 500 ml (4R9953)   | 168               | 3           | 56           | 168               | 3           | 56           | 270               | 5           | 54           | 336               | 3           | 112          | 560               | 5           | 112          |
| 500 ml (4R9955)   | 144               | 3           | 48           | 192               | 4           | 48           | 370               | 5           | 74           | 288               | 3           | 96           | 480               | 5           | 96           |
| 700 ml (DF - 700) | 96                | 3           | 32           | 96                | 3           | 32           | 260               | 5           | 52           | 204               | 3           | 68           | 272               | 4           | 68           |

## Technical Parameters



| Model  | YDD-850-465/PM | YDD-1000-465/PT | YDD-1300-635/PM | YDD-1600-635/PM | YDD-1800-635/PT |
|--|----------------|-----------------|-----------------|-----------------|-----------------|
| 2ml Volume                                   | 43K            | 51K             | 59K             | 76K             | 95K             |
| Maximum Storage Capacity                     |                |                 |                 |                 |                 |
| 2 ml Vials (Internal Thread)                 | 42900          | 51000           | 58500           | 76050           | 94875           |
| Freeze Rack (100 wells)                      | 32             | 30              | 54              | 54              | 60              |
| Freeze Rack (25 wells)                       | 4              | 16              | 18              | 18              | 13              |
| Layers of each Rack                          | 13             | 15              | 10              | 13              | 15              |
| 5 ml Vials (Internal Thread)                 | 18844          | 25470           | 28944           | 33768           | 46665           |
| Freeze Rack (81 wells)                       | 32             | 30              | 54              | 54              | 60              |
| Freeze Rack (25 wells)                       | 4              | 16              | 18              | 18              | 13              |
| Layers of each Rack                          | 7              | 9               | 6               | 7               | 9               |
| Performance                                  |                |                 |                 |                 |                 |
| Volume of LN <sub>2</sub> (L)                | 890            | 1014            | 1340            | 1660            | 1880            |
| Volume of LN <sub>2</sub> under the Tray (L) | 135            | 135             | 265             | 300             | 320             |
| Dimensions                                   |                |                 |                 |                 |                 |
| Inside Neck Diameter (mm)                    | 465            | 465             | 635             | 635             | 635             |
| Effective Internal Height (mm)               | 773            | 900             | 620             | 791             | 900             |
| Height (mm)                                  | 1499           | 1619            | 1341            | 1534            | 1661            |
| Operating Height (mm)                        | 980            | 1090            | 997             | 967             | 1097            |
| Outside Diameter (mm)                        | 1190           | 1190            | 1565            | 1565            | 1565            |
| Door Width Requirement(mm)                   | 1210           | 1210            | 1585            | 1585            | 1585            |
| Empty Weight (kg)                            | 441            | 495             | 851             | 914             | 985             |
| Full Weight (kg)                             | 1160           | 1314            | 1934            | 2255            | 2504            |
| Shipping Weight (kg)                         | 702            | 926             | 1168            | 1426            | 1520            |

## Blood Bag Capacity

| Model             | YDD-850-465/PM    |             |              | YDD-1000-465/PT   |             |              | YDD-1300-635/PM   |             |              | YDD-1600-635/PM   |             |              | YDD-1800-635/PT   |             |              |
|-------------------|-------------------|-------------|--------------|-------------------|-------------|--------------|-------------------|-------------|--------------|-------------------|-------------|--------------|-------------------|-------------|--------------|
|                   | Total No. of Bags | Rack Layers | No. of Racks | Total No. of Bags | Rack Layers | No. of Racks | Total No. of Bags | Rack Layers | No. of Racks | Total No. of Bags | Rack Layers | No. of Racks | Total No. of Bags | Rack Layers | No. of Racks |
| 25 ml (791 OS/U)  | 2996              | 7           | 428          | 3852              | 9           | 428          | 4536              | 6           | 756          | 5292              | 7           | 756          | 7218              | 9           | 802          |
| 50 ml (4R9951)    | 1904              | 7           | 272          | 2394              | 9           | 266          | 2808              | 6           | 468          | 3276              | 7           | 468          | 4446              | 9           | 494          |
| 250 ml (DF-200)   | 832               | 4           | 208          | 1020              | 5           | 204          | 1062              | 3           | 354          | 1770              | 5           | 354          | 1940              | 5           | 388          |
| 500 ml (4R9953)   | 544               | 4           | 136          | 670               | 5           | 134          | 666               | 3           | 222          | 888               | 4           | 222          | 1290              | 5           | 258          |
| 500 ml (4R9955)   | 464               | 4           | 116          | 520               | 5           | 104          | 594               | 3           | 198          | 792               | 4           | 198          | 1090              | 5           | 218          |
| 700 ml (DF - 700) | 320               | 4           | 80           | 400               | 5           | 80           | 396               | 3           | 132          | 528               | 4           | 132          | 775               | 5           | 155          |

Racks (vertical type) and Blood bag Frame

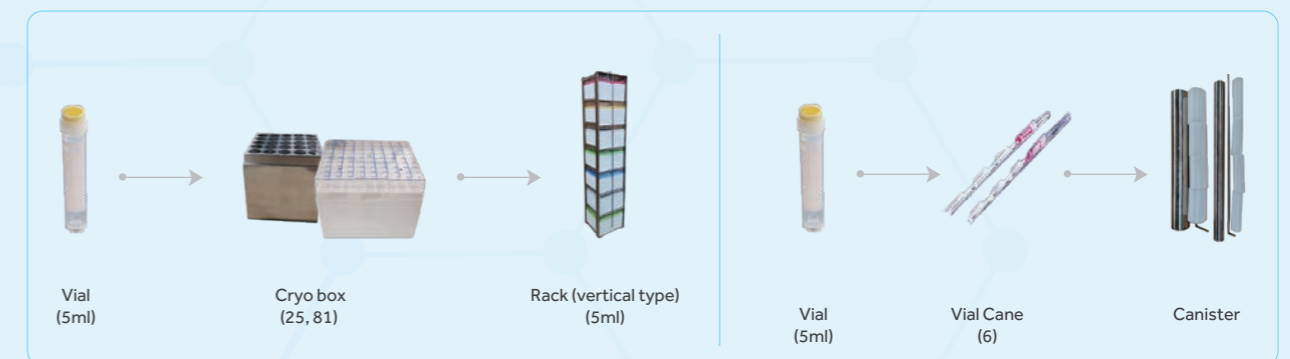
|                                    | Racks (vertical type) | 25 ml Blood bag Frame | 50 ml Blood bag frame |
|------------------------------------|-----------------------|-----------------------|-----------------------|
| YDD-350-326/PM<br>YDD-370-326/PM   |                       |                       |                       |
| YDD-450-326/PT                     |                       |                       |                       |
| YDD-550-445/PM<br>YDD-750-445/PM   |                       |                       |                       |
| YDD-850-465/PM                     |                       |                       |                       |
| YDD-1000-465/PT                    |                       |                       |                       |
| YDD-1300-635/PM<br>YDD-1600-635/PM |                       |                       |                       |
| YDD-1800-635/PT                    |                       |                       |                       |

Biological Sample Bank-YDD Series

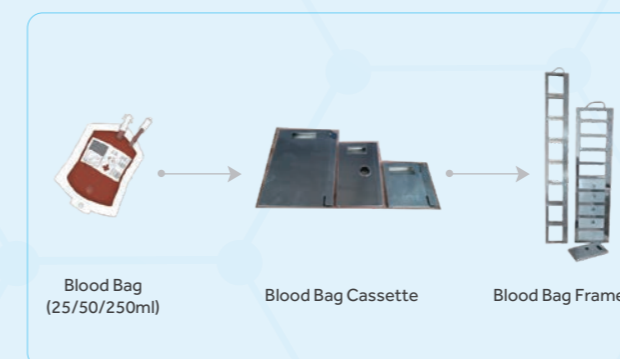
Storage Example of 2ml Internally Threaded Vial



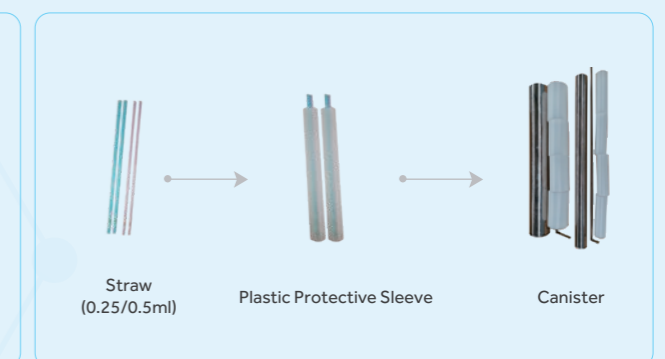
Storage Example of Tall 5ml Cryovials



Blood Bag Storage Example



Straw Storage Example



Product List

| Model                   | Product                           | Product Model   | Description and Accessories  |
|-------------------------|-----------------------------------|-----------------|--|
| YDD-350-326/<br>PM(13K) | Biobank freezer (Smart type)      | YDD-350-326 /PM | Includes vacuum isolated hose (GRG-DN10/2.0), 4pcs of 10-tier rack (5*5), 12 pcs of 10-tier rack (9*9), 40pcs of cryo boxes for 2ml vial(5*5), 120pcs of cryo boxes for 2ml vial (9*9), 1 set of cryo smart (level monitoring system)  |
|                         | Biobank freezer                   | YDD-350-326/PM  | Includes vacuum isolated hose (GRG-DN10/2.0). Rack and intelligent level monitoring system are optional  |
|                         | Rack (vertical type)              | FDCJ-25-10      | Used for storing 5*5 cryoboxes (2ml), ten layers in total, suitable for YDD-350/550/1300 (excluding cryoboxes)   |
|                         | Rack (vertical type)              | FDCJ-81-10      | Used for storing 9*9 cryoboxes (2ml). Ten layers in total. Suitable for YDD-350/550/1300 (excluding cryoboxes)   |
|                         | Plastic cryo box                  | FH-25           | Used for storing 1.8ml/2ml vial (25 holes)   |
|                         | Plastic cryo box                  | FH-81           | Used for storing 1.8ml/2ml vial (81 holes)   |
|                         | Plastic cryo box                  | FH-100          | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)  |
|                         | Cryosmart level monitoring system | ITC-800N        | Suitable for all capacitive measurement of gas phase liquid nitrogen containers, including the liquid inlet system and excluding the wireless data transmission module   |
| YDD-370-326/<br>PM(16K) | Biobank freezer (Smart type)      | YDD-370-326 /PM | Includes vacuum isolated hose (GRG-DN10/2.0). 4pcs of 12-tier rack (5*5). 12 pcs of 12-tier rack (9*9). 48pcs of cryo boxes for 2ml vial (5*5), 144pcs of cryo boxes for 2ml vial (9*9), 1 set of cryosmart (level monitoring system)  |
|                         | Biobank freezer                   | YDD-370-326 /PM | Includes vacuum isolated hose (GRG-DN10/2.0). Rack and intelligent level monitoring system are optional  |
|                         | Rack (vertical type)              | FDCJ-25-12      | Used for storing 5*5 cryoboxes (2ml), Twelve layers in total. suitable for YDD-370 (excluding cryoboxes)   |
|                         | Rack (vertical type)              | FDCJ-81-12      | Used for storing 9*9 cryoboxes (2ml), Twelve layers in total, suitable for YDD-370 (excluding cryoboxes)   |
|                         | Plastic cryo box                  | FH-25           | Used for storing 1.8ml/2ml vial (25 holes)   |
|                         | Plastic cryo box                  | FH-81           | Used for storing 1.8ml/2ml vial (81 holes)   |
|                         | Plastic cryo box                  | FH-100          | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)  |
|                         | Cryosmart level monitoring system | ITC-800N        | Suitable for all capacitive measurement of gas phase liquid nitrogen containers, including the liquid inlet system and excluding the wireless data transmission module   |
| YDD-450-326/<br>PT(21K) | Biobank freezer (Smart type)      | YDD-450-326 /PT | Includes vacuum isolated hose (GRG-DN10/2.0). 8pcs of 15-tier rack (5*5). 12 pcs of 15-tier rack (9*9), 120pcs of cryo boxes for 2ml vial (5*5), 180pcs of cryo boxes for 2ml vial (9*9), 1 set of cryosmart (level monitoring system) |
|                         | Biobank freezer                   | YDD-450-326 /PT | Includes vacuum isolated hose (GRG-DN10/2.0). Rack and intelligent level monitoring system are optional  |
|                         | Rack (vertical type)              | FDCJ-25-15      | Used for storing 5*5 cryoboxes (2ml), Fifteen layers in total, suitable for YDD-1000/1800 (excluding cryoboxes)  |
|                         | Rack (vertical type)              | FDCJ-81-15      | Used for storing 9*9 cryoboxes (2ml), Fifteen layers in total, suitable for YDD-1000/1800 (excluding cryoboxes)  |
|                         | Plastic cryo box                  | FH-25           | Used for storing 1.8ml/2ml vial (25 holes)   |
|                         | Plastic cryo box                  | FH-81           | Used for storing 1.8ml/2ml vial (81 holes)   |
|                         | Plastic cryo box                  | FH-100          | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)  |
|                         | Cryosmart level monitoring system | ITC-800N        | Suitable for all capacitive measurement of gas phase liquid nitrogen containers, including the liquid inlet system and excluding the wireless data transmission module   |

Product List

| Model                   | Product                           | Product Model   | Description and Accessories   |
|-------------------------|-----------------------------------|-----------------|---|
| YDD-550-445/<br>PM(27K) | Biobank freezer (Smart type)      | YDD-550-445 /PM | Includes vacuum isolated hose (GRG-DN10/2.0). 12pcs of 10-tier rack (5*5). 24 pcs of 10-tier rack (9*9). 120pcs of cryo boxes for 2ml vial (5*5). 240pcs of cryo boxes for 2ml vial (9*9), 1 set of cryosmart (level monitoring system) |
|                         | Biobank freezer                   | YDD-550-445/PM  | Includes vacuum isolated hose (GRG-DN10/2.0). Rack and intelligent level monitoring system are optional   |
|                         | Rack (vertical type)              | FDCJ-25-10      | Used for storing 5*5 cryoboxes (2ml), ten layers in total. suitable for YDD-350/550/1300 (excluding cryoboxes)  |
|                         | Rack (vertical type)              | FDCJ-81-10      | Used for storing 9*9 cryoboxes (2ml), Ten layers in total, Suitable for YDD-350/550/1300 (excluding cryoboxes)  |
|                         | Plastic cryo box                  | FH-25           | Used for storing 1.8ml/2ml vial (25 holes)  |
|                         | Plastic cryo box                  | FH-81           | Used for storing 1.8ml/2ml vial (81 holes)  |
|                         | Plastic cryo box                  | FH-100          | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)   |
|                         | Cryosmart level monitoring system | ITC-800N        | Suitable for all capacitive measurement of gas phase liquid nitrogen containers, including the liquid inlet system and excluding the wireless data transmission module  |
| YDD-750-445/<br>PM(38K) | Biobank freezer (Smart type)      | YDD-750-445 /PM | Includes vacuum isolated hose (GRG-DN10/2.0). 12pcs of 14-tier rack (5*5). 24 pcs of 14-tier rack (9*9). 168pcs of cryo boxes for 2ml vial (5*5). 336pcs of cryo boxes for 2ml vial (9*9), 1 set of cryosmart (level monitoring system) |
|                         | Biobank freezer                   | YDD-750-445 /PM | Includes vacuum isolated hose (GRG-DN10/2.0). Rack and intelligent level monitoring system are optional   |
|                         | Rack (vertical type)              | FDCJ-25-14      | Used for storing 5*5 cryoboxes (2ml), Fourteen layers in total. suitable for YDD-450/750 (excluding cryoboxes)  |
|                         | Rack (vertical type)              | FDCJ-81-14      | Used for storing 9*9 cryoboxes (2ml), Fourteen layers in total, suitable for YDD-450/750 (excluding cryoboxes)  |
|                         | Plastic cryo box                  | FH-25           | Used for storing 1.8ml/2ml vial (25 holes)  |
|                         | Plastic cryo box                  | FH-81           | Used for storing 1.8ml/2ml vial (81 holes)  |
|                         | Plastic cryo box                  | FH-100          | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)   |
|                         | Cryosmart level monitoring system | ITC-800N        | Suitable for all capacitive measurement of gas phase liquid nitrogen containers, including the liquid inlet system and excluding the wireless data transmission module  |
| YDD-850-465/<br>PM(43K) | Biobank freezer (Smart type)      | YDD-850-465 /PM | Includes vacuum isolated hose (GRG-DN10/2.0). 4 pcs of 13-tier rack (5*5). 32 pcs of 13-tier rack (9*9), 52pcs of cryo boxes (5*5) for 2ml vial. 416pcs of cryo boxes (9*9) for 2ml vial, 1 set of cryosmart (level monitoring system)  |
|                         | Biobank freezer                   | YDD-850-465 /PM | Includes vacuum isolated hose (GRG-DN10/2.0). Rack and intelligent level monitoring system are optional   |
|                         | Rack (vertical type)              | FDCJ-25-13      | Used for storing 5*5 cryoboxes (2ml), Thirteen layers in total, suitable for YDD-850/1600 (excluding cryoboxes)   |
|                         | Rack (vertical type)              | FDCJ-81-13      | Used for storing 9*9 cryoboxes (2ml), Thirteen layers in total, suitable for YDD-850/1600 (excluding cryoboxes)   |
|                         | Plastic cryo box                  | FH-25           | Used for storing 1.8ml/2ml vial (25 holes)  |
|                         | Plastic cryo box                  | FH-81           | Used for storing 1.8ml/2ml vial (81 holes)  |
|                         | Plastic cryo box                  | FH-100          | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)   |
|                         | Cryosmart level monitoring system | ITC-800N        | Suitable for all capacitive measurement of gas phase liquid nitrogen containers, including the liquid inlet system and excluding the wireless data transmission module  |

# Biobank Series for Large Scale Storage

## Product List

| Model                | Product                           | Product Model    | Description and Accessories  |
|----------------------|-----------------------------------|------------------|--|
| YDD-1000-465/PT(51K) | Biobank freezer (Smart type)      | YDD-1000-465 /PT | Includes vacuum isolated hose (GRG-DN10/2.0), 16 pcs of 15-tier rack (5*5), 30 pcs of 15-tier rack (9*9), 240pcs of cryo boxes (5*5) for 2ml vial, 450pcs of cryo boxes (9*9) for 2ml vial. 1 set of cryosmart (level monitoring system) |
|                      | Biobank freezer                   | YDD-1000-465/PT  | Includes vacuum isolated hose (GRG-DN10/2.0), Rack and intelligent level monitoring system are optional  |
|                      | Rack (vertical type)              | FDCJ-25-15       | Used for storing 5*5 cryoboxes (2ml), Fifteen layers in total, suitable for YDD-1000/1800 (excluding cryoboxes)  |
|                      | Rack (vertical type)              | FDCJ-81-15       | Used for storing 9*9 cryoboxes (2ml), Fifteen layers in total, suitable for YDD-1000/1800 (excluding cryoboxes)  |
|                      | Plastic cryo box                  | FH-25            | Used for storing 1.8ml/2ml vial (25 holes)   |
|                      | Plastic cryo box                  | FH-81            | Used for storing 1.8ml/2ml vial (81 holes)   |
|                      | Plastic cryo box                  | FH-100           | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)  |
|                      | Cryosmart level monitoring system | ITC-800N         | Suitable for all capacitive measurement of gas phase liquid nitrogen containers, including the liquid inlet system and excluding the wireless data transmission module   |
| YDD-1300-635/PM(59K) | Biobank freezer (Smart type)      | YDD-1300-635 /PM | Includes vacuum isolated hose(GRG-DN10/2.0), 18pcs of 10-tier rack(5*5), 54 pcs of 10-tier rack(9*9), 180pcs of cryo boxes for 2ml vial(5*5), 540pcs of cryo boxes for 2ml vial(9*9), 1 set of cryosmart(level monitoring system)        |
|                      | Biobank freezer                   | YDD-1300-635 /PM | Includes vacuum isolated hose (GRG-DN10/2.0), Rack and intelligent level monitoring system are optional  |
|                      | Rack (vertical type)              | FDCJ-25-10       | Used for storing 5*5 cryoboxes (2ml), ten layers in total, suitable for YDD-350/550/1300 (excluding cryoboxes)   |
|                      | Rack (vertical type)              | FDCJ-81-10       | Used for storing 9*9 cryoboxes (2ml), Ten layers in total, Suitable for YDD-350/550/1300 (excluding cryoboxes)   |
|                      | Plastic cryo box                  | FH-25            | Used for storing 1.8ml/2ml vial (25 holes)   |
|                      | Plastic cryo box                  | FH-81            | Used for storing 1.8ml/2ml vial (81 holes)   |
|                      | Plastic cryo box                  | FH-100           | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)  |
|                      | Cryosmart level monitoring system | ITC-800N         | Suitable for all capacitive measurement of gas phase liquid nitrogen containers, including the liquid inlet system and excluding the wireless data transmission module   |
| YDD-1600-635/PM(76K) | Biobank freezer (Smart type)      | YDD-1600-635 /PM | Includes vacuum isolated hose(GRG-DN10/2.0), 18pcs of 13-tier rack(5*5), 54 pcs of 13-tier rack(9*9), 234pcs of cryo boxes for 2ml vial(5*5), 702pcs of cryo boxes for 2ml vial(9*9), 1 set of cryosmart(level monitoring system)        |
|                      | Biobank freezer                   | YDD-1600-635 /PM | Includes vacuum isolated hose (GRG-DN10/2.0), Rack and intelligent level monitoring system are optional  |
|                      | Rack (vertical type)              | FDCJ-25-13       | Used for storing 5*5 cryoboxes (2ml), Thirteen layers in total, suitable for YDD-850/1600 (excluding cryoboxes)  |
|                      | Rack (vertical type)              | FDCJ-81-13       | Used for storing 9*9 cryoboxes (2ml), Thirteen layers in total, suitable for YDD-850/1600 (excluding cryoboxes)  |
|                      | Plastic cryo box                  | FH-25            | Used for storing 1.8ml/2ml vial (25 holes)   |
|                      | Plastic cryo box                  | FH-81            | Used for storing 1.8ml/2ml vial (81 holes)   |
|                      | Plastic cryo box                  | FH-100           | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)  |
|                      | Cryosmart level monitoring system | ITC-800N         | Suitable for all capacitive measurement of gas phase liquid nitrogen containers, including the liquid inlet system and excluding the wireless data transmission module   |

## Product List

| Model                | Product                           | Product Model   | Description and Accessories  |
|----------------------|-----------------------------------|---|--|
| YDD-1800-635/PT(95K) | Biobank freezer (Smart type)      | YDD-1800-635 /PT  | Includes vacuum isolated hose (GRG-DN10/2.0), 13 pcs of 15-tier rack (5*5), 60 pcs of 15-tier rack (9*9), 195pcs of cryo boxes (5*5) for 2ml vial, 900pcs of cryo boxes (9*9) for 2ml vial, 1 set of cryosmart (level monitoring system) |
|                      | Biobank freezer                   | YDD-1800-635/PT   | Includes vacuum isolated hose (GRG-DN10/2.0), Rack and intelligent level monitoring system are optional  |
|                      | Rack (vertical type)              | FDCJ-25-15  | Used for storing 5*5 cryoboxes (2ml), Fifteen layers in total, suitable for YDD-1000/1800 (excluding cryoboxes)  |
|                      | Rack (vertical type)              | FDCJ-81-15  | Used for storing 9*9 cryoboxes (2ml), Fifteen layers in total, suitable for YDD-1000/1800 (excluding cryoboxes)  |
|                      | Plastic cryo box                  | FH-25   | Used for storing 1.8ml/2ml vial (25 holes)   |
|                      | Plastic cryo box                  | FH-81   | Used for storing 1.8ml/2ml vial (81 holes)   |
|                      | Plastic cryo box                  | FH-100  | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)  |
|                      | Cryosmart level monitoring system | ITC-800N  | Suitable for all capacitive measurement of gas phase liquid nitrogen containers, including the liquid inlet system and excluding the wireless data transmission module   |
| Other Racks          | Data Repeater                     | RP-400  | Data transmitted to cloud platform through GPRS, with SIM card included, suitable for all YDD products of Haier  |
|                      | Blood bag frame                   | DCJ-250-3   | 3 layers frame used for storing 250ml blood bag, each layer storing one blood bag, with blood bag cassettes included. Suitable for YDD-350/550/1300  |
|                      | Blood bag frame                   | DCJ-250-4   | 4 layers frame used for storing 250ml blood bag, each layer storing one blood bag, with blood bag cassettes included. Suitable for YDD-850   |
|                      | Blood bag frame                   | DCJ-250-5H  | 5 layers frame used for storing 250ml blood bag, each layer storing one blood bag, with blood bag cassettes included. Suitable for YDD-450/750/1000/1800   |
|                      | Blood bag frame                   | DCJ-25-6  | 6 layers frame used for storing 25ml blood bag, each layer storing one blood bag, with blood bag cassettes included, suitable for YDD-350/550/1300   |
|                      | Blood bag frame                   | DCJ-25-7H   | 7 layers frame used for storing 25ml blood bag, each layer storing one blood bag, with blood bag cassettes included, suitable for YDD-850/1600   |
|                      | Blood bag frame                   | DCJ-25-8H   | 8 layers frame used for storing 25ml blood bag, each layer storing one blood bag, with blood bag cassettes included, suitable for YDD-450/750  |
|                      | Blood bag frame                   | DCJ-25-9H   | 9 layers frame used for storing 25ml blood bag, each layer storing one blood bag, with blood bag cassettes included, suitable for YDD-450-326/PT, YDD-1000-465/PM, YDD-1800-625/PT   |
|                      | Blood bag frame                   | DCJ-50-6H   | 6 layers frame used for storing 50ml blood bag, each layer storing one blood bag, with blood bag cassettes included, suitable for YDD-350/550/1300   |
|                      | Blood bag frame                   | DCJ-50-7H   | 7 layers frame used for storing 50ml blood bag, each layer storing one blood bag, with blood bag cassettes included, suitable for YDD-850/1600   |
|                      | Blood bag frame                   | DCJ-50-8H   | 8 layers frame used for storing 50ml blood bag, each layer storing one blood bag, with blood bag cassettes included, suitable for YDD-450/750  |
|                      | Blood bag frame                   | DCJ-50-9H   | 9 layers frame used for storing 50ml blood bag, each layer storing one blood bag, with blood bag cassettes included, suitable for YDD-1000/1800  |
|                      | Rack (vertical type)              | FDCJ-25-5/5.0   | Used for storing 5*5 cryoboxes (5ml), five layers in total, suitable for YDD-350/550/1300 (excluding cryoboxes)  |
|                      | Rack (vertical type)              | FDCJ-25-7/5.0   | Used for storing 5*5 cryoboxes (5ml), seven layers in total, suitable for YDD-850/1600 (excluding cryoboxes)   |
|                      | Rack (vertical type)              | FDCJ-25-9/5.0   | Used for storing 5*5 cryoboxes(5ml), nine layers in total, suitable for YDD-450\750\1000\1800(excluding cryoboxes)   |
|                      | Rack (vertical type)              | FDCJ-81-5/5.0   | Used for storing 9*9 cryoboxes (5ml), Five layers in total, suitable for YDD-350/550 (excluding cryoboxes)   |
|                      | Rack (vertical type)              | FDCJ-81-6/5.0   | Used for storing 9*9 cryo boxes (5ml), 7 layers in total, suitable for YDD-370/1300 (excluding cryoboxes)  |
|                      | Rack (vertical type)              | FDCJ-81-7/5.0   | Used for storing 9*9 cryoboxes (5ml), Seven layers in total, suitable for YDD-850/1600 (excluding cryoboxes)   |
|                      | Rack (vertical type)              | FDCJ-81-9/5.0   | Used for storing 9*9 cryoboxes (5ml), nine layers in total, suitable for YDD-450/750/1000/1800 (excluding cryoboxes)   |
|                      | Rack (vertical type)              | XDCJ-8-12   | Used for storing 8 holes aluminium cryoboxes (2ml), Twelve layers in total, with aluminium cryoboxes included, suitable for YDD-450/750/850/1600   |
| Rack (vertical type) | XDCJ-8-9                          | Used for storing 8 holes aluminium cryoboxes (2ml), Nine layers in total, with aluminium cryoboxes included, suitable for YDD-350/550/1300  |  |
| Round Rack           | YDCJ-97-2                         | With 2 stainless steel canisters (φ97/276mm), 4 plastic goblets SNT-97 and 2 pick up lifter for goblets in total, the storage capacity for 0.5ml straw is 3016, suitable for YDD-350\YDD-550\YDD-1300 |  |

# CryoBio Biobank Series Liquid Nitrogen Container

491/492

Innovative design with advanced CryoSmart Pro control system for optimal sample security. It is ideal storage equipment for storing cord blood, tissue cells, biomaterials and so on to keep the activity of cell samples.



CryoBio 13



CryoBio 43

### •Ten-inch LCD touch screen

10-inch LCD touch screen, easy to operate. The storage life of charts and digital data records is up to 5 years.

### •Safe and secure

Cryosmart Level Monitoring System ZJY-800N Pro, which supports fingerprint and NFC access, providing multiple safeguards for sample safety.

### •Innovative frost-free design

Unique exhaust structure to avoid frost on the neck. Brand-new drainage structure to avoid internal water accumulation.

### •Auto-fill function

Manual and automatic liquid nitrogen filling modes available. With hot gas bypass function, the unit effectively reduces the temperature fluctuation in the tank when liquid nitrogen is filled, improving sample security.

### Ergonomic Design

### Designed for both liquid and vapor phase storages

Vapour phase storage can reach -190°C

### Real-time run monitoring for sample protection

Real-time level, temperature monitoring  
Remote alarm can also be made through APP, SMS, email, etc

### User-friendly design

Universal casters, easy to move, and equipped with brakes

The newly designed one-button pedal (CryoBio 43) and hydraulic opening cover make it easier to pick and place samples



### Product Parameters

| Model  | 2ml Vials (Internal Thread) | Freeze Rack (100 Wells)     | Freeze Rack (25 Wells)    | Layers of Each Rack | 5ml Vials (Internal Thread) | Freeze Rack (81 Wells)       | Freeze Rack (25 Wells) | Layers of Each Rack | Volume of LN <sub>2</sub> (L) |
|--|-----------------------------|-----------------------------|---------------------------|---------------------|-----------------------------|------------------------------|------------------------|---------------------|-------------------------------|
| CryoBio 13                                   | 13000                       | 12                          | 4                         | 10                  | 5360                        | 12                           | 4                      | 5                   | 350                           |
| Volume of LN <sub>2</sub> Under the tray (L) | Operating Height (mm)       | Usable Internal Height (mm) | Inside Neck Diameter (mm) | Height (mm)         | Outside Diameter (mm)       | Door Width Requirements (mm) | Empty Weight (kg)      | Full Weight (kg)    |                               |
| 55   | 990                         | 600                         | 326                       | 1505                | 910                         | 930                          | 290                    | 575                 |                               |

| Model                 | 1.2ml/1.8ml Vials (Internal Thread) | Freeze Rack (100 Wells)   | Freeze Rack (25 Wells) | Layers of Each Rack   | Volume of LN <sub>2</sub> (L) | Volume of LN <sub>2</sub> Under the tray (L) |                              |
|-----------------------|-------------------------------------|---------------------------|------------------------|-----------------------|-------------------------------|--|------------------------------|
| CryoBio 43            | 42900                               | 32                        | 4                      | 13                    | 890                           | 135  |                              |
| Operating Height (mm) | Usable Internal Height (mm)         | Inside Neck Diameter (mm) | Height (mm)            | Outside Diameter (mm) | Empty Weight (kg)             | Full Weight (kg)                             | Door Width Requirements (mm) |
| 1000                  | 773                                 | 465                       | 1810                   | 1240                  | 567                           | 1262   | 1260                         |

### Blood Bag Capacity

| Model            | CryoBio 13         |                   |             | CryoBio 43   |                   |             |
|------------------|--------------------|-------------------|-------------|--------------|-------------------|-------------|
|                  | Bag Specifications | Total No. of Bags | Rack Layers | No. of Racks | Total No. of Bags | Rack Layers |
| 25ml (791 OS/U)  | 1176               | 6                 | 196         | 2944         | 8                 | 368         |
| 50ml (4R9951)    | 720                | 6                 | 120         | 1856         | 8                 | 232         |
| 250ml (4R9953)   | 264                | 3                 | 88          | 860          | 5                 | 172         |
| 500ml (DF-200)   | 168                | 3                 | 56          | 560          | 5                 | 112         |
| 500ml (4R9955)   | 144                | 3                 | 48          | 480          | 5                 | 96          |
| 700ml (DF - 700) | 96                 | 3                 | 3           | 272          | 4                 | 68          |

### Product List

| Model            | Product                      | Product Model | Description and Accessories   |
|------------------|------------------------------|---------------|---|
| CryoBio 13 (13K) | Biobank Freezer (Smart type) | CryoBio 13    | Includes vacuum isolated hose (GRG-DN10/2.0). 4 pcs of 10-tier rack (5*5). 12 pcs of 10-tier rack (9*9). 40pcs of cryo boxes (5*5) for 2ml vial, 120pcs of cryo boxes (9*9) for ml vial, 1 set of cryosmart (level monitoring system)   |
|                  | Biobank freezer              | CryoBio 13    | Includes vacuum isolated hose (GRG-DN10/2.0) and 1 set of cryosmart (level monitoring system)   |
|                  | Rack (vertical type)         | FDCJ-25-10    | Used for storing 5*5 cryoboxes (2ml), ten layers in total, suitable for YDD-350/550/1300 (excluding cryoboxes)  |
|                  | Rack (vertical type)         | FDCJ-81-10    | Used for storing 9*9 cryoboxes (2ml), ten layers in total. Suitable for YDD-350/550/1300 (excluding cryoboxes)  |
|                  | Plastic cryo box             | FH-25         | Used for storing 1.8ml/2ml vial (25 holes)  |
|                  | Plastic cryo box             | FH-81         | Used for storing 1.8ml/2ml vial (81 holes)  |
| CryoBio 43 (43K) | Biobank Freezer (Smart type) | CryoBio 43    | Includes vacuum isolated hose (GRG-DN10/2.0). 4 pcs of 12-tier rack (5*5). 32 pcs of 12-tier rack (9*9). 52pcs of cryo boxes (5*5) for 2ml vial, 416pcs of cryo boxes (9*9) for 2ml vial, 1 set of cryo smart (level monitoring system) |
|                  | Biobank Freezer              | CryoBio 43    | Includes vacuum isolated hose (GRG-DN10/2.0). 1 set of cryosmart (level monitoring system)  |
|                  | Rack (vertical type)         | FDCJ-25-13    | Used for storing 5*5 cryo boxes (2ml), Thirteen layers in total, suitable for YDD-850/1600 (excluding cryo boxes)   |
|                  | Rack (vertical type)         | FDCJ-81-13    | Used for storing 9*9 cryo boxes (2ml), Thirteen layers in total, suitable for YDD-850/1600 (excluding cryo boxes)   |
|                  | Plastic cryo box             | FH-25         | Used for storing 1.8ml/2ml vial (25 holes)  |
|                  | Plastic cryo box             | FH-81         | Used for storing 1.8ml/2ml vial (81 holes)  |
|                  | Plastic cryo box             | FH-100        | Used for storing 1.8ml/2ml vial (internally threaded, 100 holes)  |



Follow the QR code and learn more about the CryoBio 43 from Haier Biomedical

# Biobank Series Liquid Nitrogen Container

493/494

## Safe, Secure and Stable Cryogenic Storage Solutions for Biobanking.

The main purpose is suitable for scientific research institutes, pharmaceuticals laboratories, blood stations, hospitals, centers for disease control and prevention. It is an ideal storage equipment for storing umbilical cord blood, tissue cells, biological materials, providing enhanced sample security, and real-time data retrieval.



CryoBio 27



CryoBio 95

### Core Features



#### Intelligent Control

- Intelligent Cockpit
- 10 inch LCD Touchscreen
- Effortless operation



#### Built-In Protection

- Smart LN<sub>2</sub> level monitoring
- Secure access via fingerprint and NFC card
- Autofill function



#### Built-In Stability

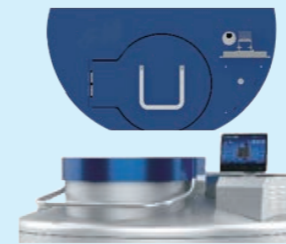
- High-efficiency design
- Designed for gas or liquid phase
- Low evaporation rates



#### Built-In Connectivity

- LN<sub>2</sub> supply level monitoring if connected to YDZ tank
- Manual and automatic LN<sub>2</sub> filling modes
- IoT connectivity for realtime temperature and level monitoring

### Ergonomic Design



#### Modular

- The design allows for gas or liquid phase storage.
- When used in the gas phase, the temperature at the top of the freezing storage rack holds at -190 °C.



#### Comfortable

- CryoBio 27**
- Split-step ladder, comfortable operating height.
- Universal casters with built-in brakes makes it ease to move and position in place.
- The hinge cover of the liquid inlet system opens with ease, saving you both time and effort.
- CryoBio 95**
- With special technology enabling easy opening, it saves you time and effort.
- Integrated step ladder, comfortable operating height.
- Universal casters, easy to move, and with built-in brakes.



#### Innovative

- Real-time and accurate monitoring of temperature and liquid level.
- The brand new drainage design prevents the build-up of condensate water around the neck which combined with the unique exhaust design avoids frost build up around the neck.



# Intelligent Liquid Nitrogen Biological Container

495/496

## Intelligent Control: The CryoSmart Touchscreen – Beyond Temperature and LN<sub>2</sub> Monitoring, Total Control at Your Fingertips

## Specifications



### 10" High-Visibility Touchscreen

Engineered for biobank environments, the Cryobio 27 features a 10-inch touchscreen. Its crystal-clear display allows technicians to check system status and alarms at a glance - even from across the lab. The intuitive interface ensures quick, responsive control in even the most demanding workflows.

### Secure Access for Critical Samples

With CryoSmart, you control who accesses your LN<sub>2</sub> storage. Biometric fingerprint login, optional swipe card access, and customizable user profiles protect your samples from unauthorized handling. Password-protected settings and authority management tools make security effortless - without slowing down your team.



### Android-Powered Control for Total Oversight

Powered by an advanced Android-based system, the Cryobio 27 offers a user-friendly interface for seamless operation and precise control. The intuitive layout enables easy navigation, real-time tracking, and quick access to features. With enhanced customization and responsive controls, it streamlines compliance and ensures reliable performance in demanding lab environments.



### Future-Proof with Free Software Upgrades

Enjoy free standard software upgrades throughout the life of the biobank, ensuring your LN<sub>2</sub> storage container stays up-to-date with the latest features. Customers can easily upgrade themselves via USB, keeping processes efficient and minimizing downtime.

| Model  | CryoBio 27 | CryoBio 95 |
|--|------------|------------|
| 2ml Vials (Internal Thread)                  | 27000      | 94875      |
| Freezer Rack (100 Wells)                     | 24         | 60         |
| Freezer Rack (25 Wells)                      | 12         | 13         |
| Layers of Each Rack                          | 10         | 15         |
| 5ml Vials (Internal Thread)                  | 11220      | 46665      |
| Freeze Rack (81 Wells)                       | 24         | 60         |
| Freeze Rack (25 Wells)                       | 12         | 13         |
| Layers of Each Rack                          | 5          | 9          |
| Volume of LN <sub>2</sub> (L)                | 587        | 1880       |
| Volume of LN <sub>2</sub> Under the Tray (L) | 80         | 320        |
| Operating Height (mm)                        | 1070       | 1097       |
| Usable Internal Height (mm)                  | 600        | 900        |
| Inside Neck Diameter (mm)                    | 445        | 635        |
| Height (mm)                                  | 1588       | 1950       |
| Outside Diameter (mm)                        | 1140       | 1565       |
| Door Width Requirements (mm)                 | 1160       | 1625       |
| Empty Weight (kg)                            | 420        | 909        |
| Full Weight (kg)                             | 895        | 2428       |
| Certification                                | CE         | CE         |

# Intelligent Liquid Nitrogen Biological Container

497/498

Get total ease of access with Haier Biomedical's wide neck container with integral control and monitoring system, suitable for cryogenic storage of samples, plasma, cell tissue samples and other materials.

### •Easier access

With the full opening hydraulic lid design, users can access and remove their samples with ease.

### •Brand new intelligent monitoring system

It's equipped with the brand-new intelligent monitoring system and matched with our IoT module which can connect with Haier's big data cloud platform. Integrating three screens, it can alert alarm status via the APP, email or our website enabled devices. With USB interface, it supports data export. With larger battery capacity, it can still be used after power failure.

### •Reduce frosting and freezing

The brand-new cover and interlayer exhaust structure can effectively reduce the frosting and freezing at exhaust port.



Follow the QR code and learn more about the Intelligent Liquid Nitrogen Biological Container from Haier Biomedical

## Product Parameters

| Model                                     | CryoBio 11Z   |              | CryoBio 20Z   |              | CryoBio 34Z    |              |
|---|---------------|--------------|---------------|--------------|----------------|--------------|
|   | Vapor Phase   | Liquid Phase | Vapor Phase   | Liquid Phase | Vapor Phase    | Liquid Phase |
| 1.2ml, 1.8ml, 2ml Vials (Internal Thread) | 11000         | 13000        | 20350         | 24050        | 33550          | 42900        |
| 5*5Rack (vertical type)                   | -             | -            | 10            | 10           | 10             | 8            |
| 10*10Rack (vertical type)                 | 10            | 10           | 16            | 16           | 28             | 31           |
| 5*5Freezer Box                            | -             | -            | 110           | 130          | 110            | 104          |
| 10*10Freezer Box                          | 110           | 130          | 176           | 208          | 308            | 403          |
| Layers of Vertical Type Rack              | 11            | 13           | 11            | 13           | 11             | 13           |
| Volume of LN (L)                          | 200           |              | 340           |              | 550            |              |
| Exterior Dimensions (W*D*H)(mm)           | 730*1035*1190 |              | 910*1170*1190 |              | 1100*1410*1190 |              |
| Usable Internal Height (mm)               | 790           |              | 790           |              | 790            |              |
| Static Evaporation (L/Day)                | 7             |              | 10            |              | 12             |              |
| Empty Weight (kg)                         | 209           |              | 301.5         |              | 400            |              |
| Inside Neck Diameter (mm)                 | 610           |              | 790           |              | 1000           |              |
| Full Weight (kg)                          | 357           |              | 543           |              | 821            |              |

## Product List

| Model             | Product  | Product Model | Description and Accessories  |
|-------------------|--|---------------|--|
| CryoBio 11Z (11K) | Zhiling Liquid Nitrogen Container (Smart type) | CryoBio 11Z   | Includes vacuum isolated hose (GRG-DN10/2.0). 1 set of cryosmart (level monitoring system). 10pcs of 11-tier rack (9*9). 110pcs of cryo boxes (9*9) for 2ml vial   |
|                   | Zhiling Liquid Nitrogen Container              | CryoBio 11Z   | Includes vacuum isolated hose (GRG-DN10/2.0) and intelligent monitoring system, rack is optional   |
|                   | Rack (vertical type)                           | FDCJ-81-11    | Used for storing 9*9 cryoboxes (2ml), eleven layers in total, suitable for CryoBio 11Z/CryoBio 20Z/CryoBio 34Z (excluding cryoboxes)   |
|                   | Plastic cryo box                               | FH-81         | Used for storing 1.8ml/2ml vial (81 holes)   |
|                   | Plastic cryo box                               | FH-100        | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)  |
| CryoBio 20Z (20K) | Zhiling Liquid Nitrogen Container (Smart type) | CryoBio 20Z   | Includes vacuum isolated hose (GRG-DN10/2.0). 1 set of cryosmart (level monitoring system). 10 pcs of 11-tier rack (5*5). 16pcs of 11-tier rack (9*9). 110 pcs of cryo boxes (5*5) for 2ml vial. 176pcs of cryo boxes (9*9) for 2ml vial |
|                   | Zhiling Liquid Nitrogen Container              | CryoBio 20Z   | Includes vacuum isolated hose (GRG-DN10/2.0) and intelligent monitoring system, rack is optional   |
|                   | Rack (vertical type)                           | FDCJ-25-11    | Used for storing 5*5 cryoboxes (2ml), eleven layers in total, suitable for CryoBio 11Z/CryoBio 20Z/CryoBio 34Z (excluding cryoboxes)   |
|                   | Rack (vertical type)                           | FDCJ-81-11    | Used for storing 9*9 cryoboxes (2ml), eleven layers in total, suitable for CryoBio 11Z/CryoBio 20Z/CryoBio 34Z (excluding cryoboxes)   |
|                   | Plastic cryo box                               | FH-25         | Used for storing 1.8ml/2ml vial (25 holes)   |
|                   | Plastic cryo box                               | FH-81         | Used for storing 1.8ml/2ml vial (81 holes)   |
|                   | Plastic cryo box                               | FH-100        | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)  |
| CryoBio 34Z (34K) | Zhiling Liquid Nitrogen Container              | CryoBio 34Z   | Includes vacuum isolated hose (GRG-DN10/2.0). 1 set of cryosmart (level monitoring system). 10 pcs of 11-tier rack (5*5). 28pcs of 11-tier rack (9*9). 110pcs of cryo boxes (5*5) for 2ml vial. 308pcs of cryo boxes (9*9) for 2ml vial  |
|                   | Zhiling Liquid Nitrogen Container (Smart type) | CryoBio 34Z   | Includes vacuum isolated hose (GRG-DN10/2.0) and intelligent monitoring system. Rack is optional   |
|                   | Rack (vertical type)                           | FDCJ-25-11    | Used for storing 5*5 cryoboxes (2ml), eleven layers in total, suitable for CryoBio 11Z/CryoBio 20Z/CryoBio 34Z (excluding cryoboxes)   |
|                   | Rack (vertical type)                           | FDCJ-81-11    | Used for storing 9*9 cryoboxes (2ml), Eleven layers in total, suitable for CryoBio 11Z/CryoBio 20Z/CryoBio 34Z (excluding cryoboxes)   |
|                   | Plastic cryo box                               | FH-25         | Used for storing 1.8ml/2ml vial (25 holes)   |
|                   | Plastic cryo box                               | FH-81         | Used for storing 1.8ml/2ml vial (81 holes)   |
|                   | Plastic cryo box                               | FH-100        | Used for storing 1.8ml/2ml vial (interally threaded, 100 holes)  |

## Blood Bag Capacity

| Model        | Cryobio 11Z      |             |             | Cryobio 20Z      |             |             | Cryobio 20Z      |             |             |
|--------------|------------------|-------------|-------------|------------------|-------------|-------------|------------------|-------------|-------------|
|              | Total No.of Bags | Rack Layers | No.of Racks | Total No.of Bags | Rack Layers | No.of Racks | Total No.of Bags | Rack Layers | No.of Racks |
| Vapor Phase  |                  |             |             |                  |             |             |                  |             |             |
| 25ml         | 864              | 6           | 144         | 1500             | 6           | 250         | 2412             | 6           | 402         |
| 50ml         | 528              | 6           | 88          | 942              | 6           | 154         | 1512             | 6           | 252         |
| 250ml        | 272              | 4           | 68          | 480              | 4           | 120         | 808              | 4           | 202         |
| Liquid Phase |                  |             |             |                  |             |             |                  |             |             |
| 25ml         | 1152             | 8           | 144         | 2000             | 8           | 250         | 3216             | 8           | 402         |
| 50ml         | 704              | 8           | 88          | 1232             | 8           | 154         | 2016             | 8           | 252         |
| 250ml        | 340              | 5           | 68          | 600              | 5           | 120         | 1010             | 5           | 202         |

# CryoStation Mobile Vapour Storage Trolley

The unit can be used to preserve plasma and biomaterials during transportation. It is suitable for deep hypothermia operation and transportation of samples in hospitals, various biobanks and laboratories. High quality stainless steel in combination with the thermal insulation layer ensures the effectiveness and durability of the low temperature transport trolley.



## Product Advantages

### Touch Screen

LCD touch operation



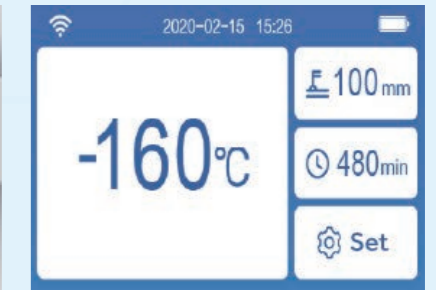
### USB Data Export

It has its own USB interface and supports USB data export.



### Real Time Monitoring

The instrument monitors the temperature and liquid level in real time and displays the expected remaining service time. Continuous working hours up to 24 hours.



## User Friendly Design



**Durable Construction**  
Ideal for the laboratory environment, stain-resistant.



**Caster Design**  
Integrated design, universal caster at the bottom, easy to move.



**Polymer Materials**  
The new type of environmentally-friendly polymer material is used inside the cover plate, which is more appealing, more environment-friendly and more advanced than the commonly used pearl foam and polyurethane materials.



**Magnetic Lid**  
Convenient lid storage solution by the use of magnets. Adhers to side when not in use.

## Technical Parameters

| Product Model | Dimensions (L*W*H)(mm) | Frozen Storage Space (L*W*H)(mm) | Shelf Space (L*W*H)(mm) | Liquid Nitrogen Under Tray (L) | Empty Weight (kg) | Maximum Storage         |                           |                           |                            |                                |
|---------------|------------------------|----------------------------------|-------------------------|--------------------------------|-------------------|-------------------------|---------------------------|---------------------------|----------------------------|--------------------------------|
|               |                        |                                  |                         |                                |                   | 5*5 Freezing Boxes (ea) | 10*10 Freezing Boxes (ea) | 50ml Blood Bag Boxes (ea) | 200ml Blood Bag Boxes (ea) | 2ml Cryopreservation Tube (ea) |
| YDC-3000H     | 1295*523*1095          | 900*335*163                      | 950*440*220             | 33                             | 150               | 65                      | 30                        | 105                       | 50                         | 50                             |

# Bio-2T Cryovial Transfer Flask

Bio-2T is suitable for short-distance sample transportation in small batches in experimental units or hospitals. Lightweight, portable design, easy to take.

**•Lightweight design**

Lightweight design of the product, the total empty weight is only 3kg

**•Temperature visualization**

Visual real-time temperature monitoring, and the instrument part is dustproof and waterproof

**•Multi-specification compatibility**

Compatible with 1.2m, 1.5m, 1.8m, 2.0m and 5.0ml sample storage tubes

**•High thermal insulation performance**

Vacuum structure, thickened thermal insulation material, ensuring the working temperature in the tank -135°C--196°C, and ultra-long low-temperature storage period



## Humanization Design

### Condensate water inflow prevention structure

The specially designed upper cover can prevent condensate from flowing into the container and ensure the container cover to open smoothly.



### Liquid nitrogen splash prevention structure

Ensure that liquid nitrogen is not sprayed during transportation after the container is filled with liquid nitrogen, and it is safe to use.



### Ultra-low temperature adsorption function

With liquid nitrogen adsorption layer at the bottom, even if the container falls down during dry storage, there will be no liquid nitrogen overflow, which ensures the safety of samples and personnel.



## Product Parameters

| O.D. (mm) | I.D. (mm) | Depth (mm) | Height (mm) | Total Empty Weight of Tank (kg) | Liquid Nitrogen Volume (L) | Storage Time of Liquid Phase (h) | Storage Time of Gas Phase (h) | Internal Freezing Tube Capacity (2ml)(pcs) | Working Temperature (°C) | Working Environment (°C) |
|-----------|-----------|------------|-------------|---------------------------------|----------------------------|----------------------------------|-------------------------------|--|--------------------------|--------------------------|
| 156       | 125       | 190        | 262         | 3                               | 2                          | 8                                | 6                             | 54   | -135--196                | 20-40                    |

BioT Air is suitable for small batch and short distance sample transportation in experimental units or hospitals. Lightweight, portable design, easy to carry.

#### •Lightweight design

Lightweight design, the total empty weight is only 2.8KG.

#### •Multi-specification compatibility

Compatible with 1.2ml, 1.5ml, 1.8ml, 2.0ml and 5.0ml sample cryopreservation tubes, and can also hold a 5×5-2ML cryopreservation box.

#### •High thermal insulation performance

Vacuum structure ensures the working temperature in the tank-135 C ~-196 C, and the ultra-long low-temperature storage period.

#### •No liquid nitrogen overflow

There is a liquid nitrogen adsorption layer at the bottom, and even if the container is dumped during dry storage, there will be no liquid nitrogen overflow, thus ensuring the safety of samples and personnel.



### Humanization Design

#### Condensate water inflow prevention structure

The specially designed upper cover can prevent condensate from flowing into the container and ensure the container cover to open smoothly.



#### Liquid nitrogen splash prevention structure

Ensures the liquid nitrogen will be contained during transportation.



#### Ultra-low temperature adsorption function

With liquid nitrogen adsorption layer at the bottom, even if the container falls down during dry storage, there will be no liquid nitrogen overflow, which ensures the safety of samples and personnel.



### Product Parameters

| O.D. (mm) | I.D. (mm) | Depth (mm) | Height (mm) | Total Empty Weight of Tank (kg) | Liquid Nitrogen Volume (L) | Storage Time of Liquid Phase (h) | Storage Time of Gas Phase (h) | Internal Freezing Tube Capacity (2ml)(pcs) | Working Temperature (°C) | Working Environment (°C) |
|-----------|-----------|------------|-------------|---------------------------------|----------------------------|----------------------------------|-------------------------------|--|--------------------------|--------------------------|
| 156       | 125       | 190        | 235         | 2.8                             | 2                          | 8                                | 6                             | 55   | -135~-196                | -20-40                   |

## CryoBio 6S Liquid Nitrogen Container with Autorefill

This storage vessel minimises the need for and risks associated with manual filling. Applications include the storage of cord blood, stem cells, car-T cells, tissues and other biomaterials within academia, pharma and clinical labs. Stores up to 6,000 2ml cryovials (internally-threaded).

### •Auto fill design

The auto-fill function can eliminate the need for manual filling and associated health safety risks.

### •Accurate real-time monitoring

Equipped with a brand-new intelligent monitor, it detects and records in real-time both temperature and liquid level, and automatically saves data, including re-fill and alarm notifications for up to 5 years.

### •Low liquid nitrogen consumption 1.5L/day

Advanced vacuum and heat preservation technologies ensure an industry-leading low consumption of liquid nitrogen in the container and the stability of temperature in the sample freezing space, to maximize efficiency and reduce operating costs. The temperature at the top of the freezing rack can reach -190°C, and the average consumption of liquid nitrogen is only 1.5L.



## Ergonomic Design

Designed for both liquid and vapor phase storage

The one-button defogging function makes it easier to find samples

Automatic data saving and USB data (temperature, liquid level, alarm records and other data) export are supported

Sealed centralized exhaust system minimizes frost build up

A battery-back up as standard, the controller can function for up to 8 hours without mains power

1 year parts warranty; 5 years vacuum warranty

The multi-lock structure makes the sample storage safer

With hot gas bypass function, reduces the temperature fluctuation in the tank when liquid nitrogen is filled, enhancing sample security

A complete data recording system allows users to check the temperature, liquid level, and alarm records at any time

With multiple alarm functions such as high and low temperature, high and low liquid level, and real-time audio/visual alarms

## Product Parameters

| Model      | Volume of LN <sub>2</sub> (L) | Inside Neck Diameter (mm) | Height (mm) | Outside Diameter (mm) | Empty Weight (kg) |
|------------|-------------------------------|---------------------------|-------------|-----------------------|-------------------|
| CryoBio 6S | 175                           | 216                       | 1490        | 681                   | 78                |

| Working Evaporation (L/Day) | Static Evaporation (L/Day) | 2ml Vials (Internal Thraed) | Square Rack | Layer of Square Rack |
|-----------------------------|----------------------------|-----------------------------|-------------|----------------------|
| 1.5                         | 0.95                       | 6000                        | 6           | 10                   |

## Product List

| Model      | Product         | Product Model   | Description and Accessories  |
|------------|-----------------|-----------------|--|
| CryoBio 6S | Biobank Freezer | CryoBio 6S      | CryoBio 6S tank, includes 6 racks with 10 layers, 9*9 cryoboxes, lockable cap and controller. No Pu bag. 5 wheels roller base, transfer hose GRG-DN10/2.0 and one tier step are also included. |
|            | Biobank Freezer | CryoBio 6S      | CryoBio 6S tank, with lockable cap and controller. no pu bag. no racks or cryoboxes. 5 wheels roller base, transfer hose GRG-DN10/2.0 and one tier step are included.                          |
|            | Rack            | FTT-81-10H      | Used for storing 9*9 cryo boxes (2ml). 10 layers in total. with 9*9 cryo boxes included, suitable for YDS-175-216, CryoBio 6S  |
|            | Rack            | FTT-81-5/5.0H   | Used for storing 9*9 cryo boxes (5ml), 5 layers in total, with 9*9 cryo boxes included, suitable for YDS-175-216. CryoBio 6S   |
|            | 175             | One step ladder | One tier step, suitable for CryoBio 6S   |
|            | Roller Base     | YSC-685-5W      | Suitable for all 65L-175L aluminium tank, equipped with 5 universal wheels   |



Follow the QR code and learn more about the CryoBio 6S from Haier Biomedical

The smart, IoT and cloud management system monitors temperature and liquid levels simultaneously to provide accurate and real-time information on the critical parameters to ensure ultimate sample safety.

- IoT and Cloud Management
- Multiple Level of Protections
- Low Energy Consumption
- Temperature and Level Display
- Updated Design
- High Performance Stability
- New Lock Design



## Key Features

- 5 models from 2,400 to 6,000 cryovial capacity
- 5 years vacuum warranty
- Durable aluminium construction
- Real time monitor of temperature and level
- Cloud data storage for traceability
- Low consumption rate and high performance stability
- New lock design

## Product Advantages

### Colour identification for Rack handles

Rack handles are colour-coded for ease of separating storage zones and managing samples.



### Double lock and double control design

The new double lock and double control design requires two people to open at the same time to ensure sample safety.



### Dual monitoring respectively for temperature and liquid level

Storage temperature and liquid level are automatically monitored by a high precision controller. Accurate and real-time information ensures samples safety.



### Multilayer protection for ultimate safety

Temperature and level are monitored in real time to safeguard the storage environment. Alarms can be transmitted through email, IM and wechat.

### Low consumption rate and high performance stability

Automated manufacture ensures build quality and reliable vacuum which delivers stable and uniform temperature performance as well as low LN<sub>2</sub> consumption rates.



## Accessories

Rack








Roller Base



## Smart Series (Square Racks)

### Technical Parameters

| Model                       | YDS-65-216  | YDS-95-216  | YDS-115-216   | YDS-145-216   | YDS-175-216   |
|-----------------------------|---|---|---|---|---|
| Picture                     |  |  |  |  |  |
| Authentication              | CE  | CE  | CE  | CE  | CE  |
| Maximum Storage Volume      |   |   |   |   |   |
| No. of canister             | 6   | 6   | 6   | 6   | 6   |
| 2ml Storage Vials (100/box) | 2400  | 3000  | 3600  | 4800  | 6000  |
| Layers in Rack              | 4   | 5   | 6   | 8   | 10  |
| 5ml Storage Vials (81/box)  | 972   | 972   | 1458  | 1944  | 2430  |
| Layers in Rack              | 2   | 2   | 3   | 4   | 5   |
| Function                    |   |   |   |   |   |
| Liquid Nitrogen Volume (L)  | 65  | 95  | 115   | 145   | 175   |
| Static Evaporation* (L/Day) | 0.78  | 0.94  | 0.94  | 0.94  | 0.95  |
| Static Holding Time** (Day) | 83  | 101   | 122   | 154   | 184   |
| Dimensions                  |   |   |   |   |   |
| Neck Opening (mm)           | 216   | 216   | 216   | 216   | 216   |
| Overall Height (mm)         | 760   | 825   | 895   | 995   | 1110  |
| Overall Diameter (mm)       | 681   | 681   | 681   | 681   | 681   |
| Empty Weight (kg)           | 41  | 44  | 48  | 53  | 58  |
| Full Weight (kg)            | 108   | 121   | 141   | 171   | 199.5   |
| Shipping Weight (kg)        | 65.5  | 69.2  | 75.9  | 85.2  | 94.5  |

\*Static Evaporation: The amount of liquid nitrogen lost by natural evaporation within 24 hours after the container is allowed to reach thermal equilibrium under the specified filling rate, which is converted into the evaporation value under the standard state (atmospheric pressure 101.325kPa, ambient temperature 20°C).

\*\*Static Holding Time: under the standard state (atmospheric pressure 101.325kPa, ambient temperature 20°C), the container is filled with liquid nitrogen pre-cooled and reaches thermal equilibrium, and the liquid nitrogen filling rate reaches 100%, the number of days when the liquid nitrogen is completely evaporated on standing.

### Product List

| Model       | Product  | Product Model | Description and Accessories  |
|-------------|--|---------------|--|
| YDS-65-216  | Smart Liquid Nitrogen Container (Smart Series) | YDS-65-216    | Includes 6 racks(4-tier), cryoboxes(9*9), lockable cap, roller base is optional  |
| YDS-95-216  | Smart Liquid Nitrogen Container (Smart Series) | YDS-95-216    | Includes 6 racks(5-tier), cryoboxes(9*9), lockable cap, roller base is optional  |
| YDS-115-216 | Smart Liquid Nitrogen Container (Smart Series) | YDS-115-216   | Includes 6 racks(6-tier), cryoboxes(9*9), lockable cap, roller base is optional  |
| YDS-145-216 | Smart Liquid Nitrogen Container (Smart Series) | YDS-145-216   | Includes 6 racks(8-tier), cryoboxes(9*9), lockable cap, roller base is optional  |
| YDS-175-216 | Smart Liquid Nitrogen Container (Smart Series) | YDS-175-216   | Includes 6 racks(10-tier), cryoboxes(9*9), lockable cap, roller base is optional |
|             | Roller Base                                    | YSC-685-5W    | Suitable for all 65L-175L aluminium tank, equipped with 5 universal wheels       |

## Medium Sized Storage Series (Square Racks)

Medium Sized Storage Series (Square Racks) features low LN<sub>2</sub> consumption and relatively small footprint for medium capacity sample storage.

- 5 Year Vacuum Warranty
- Cryobox Storage
- High Thermal Efficiency
- Durable
- Secure
- Liquid and Vapour Storage





# Medium Sized Storage Series (Square Racks)

511/512

## Key Features

- Heavy duty lockable enclosure offers excellent security
- Compatible with all major cryobox brands
- Durable aluminium construction
- Temperature monitoring available
- Liquid or vapour phase option available
- High thermal efficiency
- 5 year vacuum warranty
- Ultra-low evaporation loss

## Product Advantages

### ULT Storage with Extremely Low LN<sub>2</sub> Evaporation Loss

Freezer racks are in the ultra-low temperature environment with extremely low LN<sub>2</sub> evaporation. Even stored in vapour phase, the temperature will be below -190°C for a long time.

### Advanced Vacuum Technology and Superinsulation Technology

Advanced vacuum and insulation technologies ensure cryopreservation for up to four months.

### Compatible for Blood Bag Storage

Suitable for blood bag applications, the racks can be adapted to provide temporary blood bag storage before transferring bags to larger LN<sub>2</sub> storage tanks.



## Liquid Nitrogen Temperature Detector

The temperature monitor provides continuous and reliable monitoring of the temperature in the container. It is the ideal choice for long-term monitoring of sample storage temperature and reminding users to add liquid nitrogen.

The temperature monitor ZTC-100A has real-time temperature display function, and can also provide the following alarms:

- \* Over temperature alarm
- \* Sensor error acousto-optic alarm



ZTC-100A

## Technical Parameters

| Model                            | YDS-65-216 | YDS-95-216 | YDS-115-216 | YDS-145-216 | YDS-175-216 |
|----------------------------------|------------|------------|-------------|-------------|-------------|
| Picture                          |            |            |             |             |             |
| Authentication                   | CE         | CE         | CE          | CE          | CE          |
| Maximum Storage Capacity         |            |            |             |             |             |
| No. of Rack                      | 6          | 6          | 6           | 6           | 6           |
| No. 2.0 ml Cryovials (100 / Box) | 2400       | 3000       | 3600        | 4800        | 6000        |
| No. of Boxes in (2ml each Rack)  | 4          | 5          | 6           | 8           | 10          |
| No. 5.0 ml Cryovials (81/Box)    | 972        | 972        | 1458        | 1944        | 2430        |
| No. of Boxes in (5ml each Rack)  | 2          | 2          | 3           | 4           | 5           |
| Performance                      |            |            |             |             |             |
| Volume of LN <sub>2</sub> (L)    | 65         | 95         | 115         | 145         | 175         |
| Static Evaporation* (L/Day)      | 0.78       | 0.94       | 0.94        | 0.94        | 0.95        |
| Static Holding Time** (Day)      | 83         | 101        | 122         | 154         | 184         |
| Dimensions                       |            |            |             |             |             |
| Neck Opening Diameter (mm)       | 216        | 216        | 216         | 216         | 216         |
| Height (mm)                      | 735        | 800        | 870         | 970         | 1085        |
| Outer Diameter (mm)              | 681        | 681        | 681         | 681         | 681         |
| Empty Weight (kg)                | 40         | 43         | 47          | 52          | 57          |
| Full Weight (kg)                 | 107        | 120        | 140         | 170         | 198.5       |
| Shipping Weight (kg)             | 63.5       | 67.6       | 77.6        | 83.2        | 92.4        |

\*Static Evaporation: The amount of liquid nitrogen lost by natural evaporation within 24 hours after the container is allowed to reach thermal equilibrium under the specified filling rate, which is converted into the evaporation value under the standard state (atmospheric pressure 101.325kPa, ambient temperature 20°C).

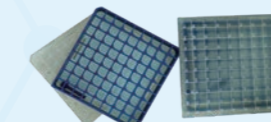
\*\*Static Holding Time: under the standard state (atmospheric pressure 101.325kPa, ambient temperature 20°C), the container is filled with liquid nitrogen pre-cooled and reaches thermal equilibrium, and the liquid nitrogen filling rate reaches 100%, the number of days when the liquid nitrogen is completely evaporated on standing.

## Accessories

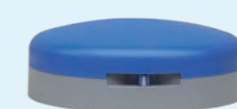
Roller Base



Plastic Cryo Box



(SG-216)



Rack (5ml)



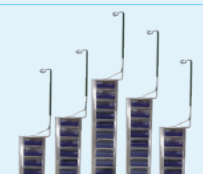
5 ml Customized Cryogenic Box



Smart Cap



Rack

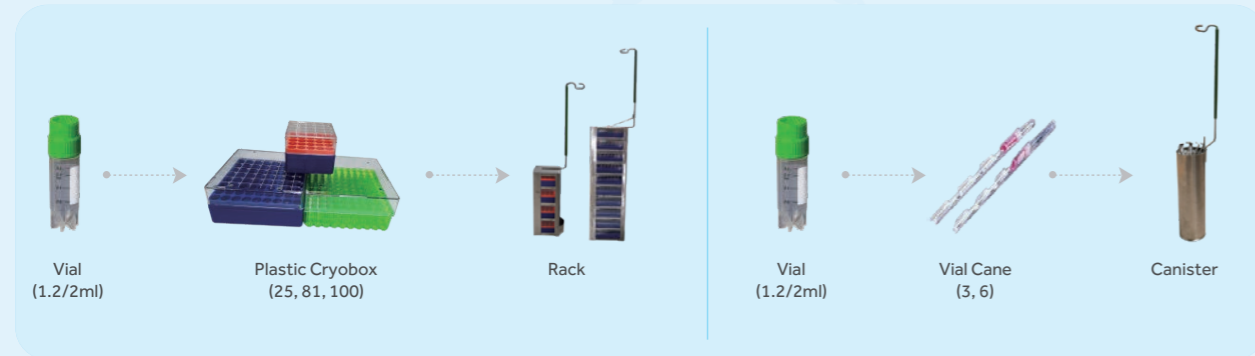




## Medium Sized Storage Series (Square Racks)

### Biological Sample Library-YDS Series

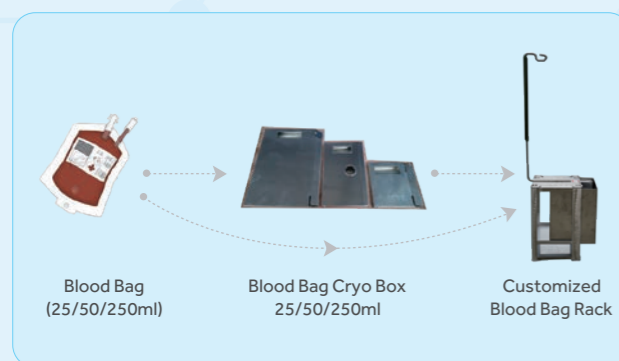
#### Storage Example of 2ml Internally Threaded Vial



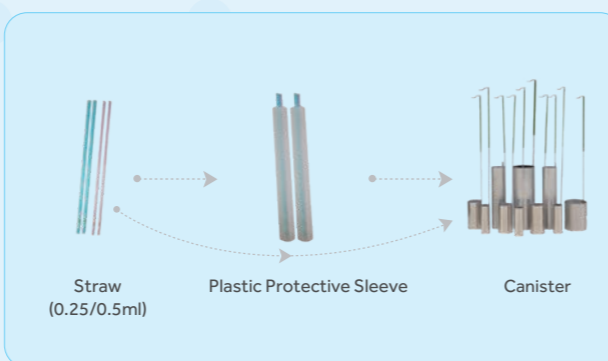
#### Storage Example of Tall 5ml Cryovials



#### Blood Bag Storage Example



#### Straw Storage Example



## Small Sized Storage Series (Square Racks)

Widely used within many laboratories, this small-sized storage series features low LN<sub>2</sub> consumption and dual handle design. Stores between 100 and 1100 vials in square racks and cryo boxes.

- 5 Year Vacuum Warranty
- High Thermal Efficiency
- Lightweight
- 10 Litre to 50 Litre Capacity
- Durable
- Secure
- Super-Insulation
- Ideal for Lab Applications



# Small Sized Storage Series (Square Racks)

517/518

## Key Features

- Heavy duty lockable enclosure offers excellent security
- Strong, lightweight aluminium construction
- Dual handles
- Temperature monitoring available
- Roller bases available
- High thermal efficiency
- 5 year vacuum warranty
- Ultra-low LN<sub>2</sub> evaporation loss

## Product Advantages

### Low LN<sub>2</sub> Consumption and Maximum Storage Efficiency

Haier Biomedical's Small Sized Storage Series (Square Racks) Liquid Nitrogen Storage System features low LN<sub>2</sub> consumption and small storage capacity for laboratory applications. The lightweight containers have a smaller footprint whilst providing maximum efficiency of cryogenic storage capacity.

### Advanced Vacuum Technology and Super-insulation Technology

Advanced vacuum and insulation technologies provide ultra-low liquid nitrogen evaporation loss and ensure up to three months cryogenic storage.

### Five Models Available

Small Sized Storage Series (Square Racks) offers Five models with different capacity from 100, 600, 750, 900 to 1100 standard 2 ml cryovials. All models are supplied with stainless steel racks and cryogenic boxes.



## Accessories



## Technical Parameters

| Model                           | YDS-10-125 | YDS-30-125 | YDS-35-125 | YDS-47-127     | YDS-50B-125 |
|---------------------------------|------------|------------|------------|----------------|-------------|
| Picture                         |            |            |            |                |             |
| Authentication                  | CE         | CE         | CE         | CE             | CE          |
| Maximum Storage Capacity        |            |            |            |                |             |
| No. of Rack                     | 1          | 6          | 6          | 6 (37 per box) | 6           |
| 1.2&2 ml Cryovials (25 per box) | 100        | 600        | 750        | 1110           | 900         |
| No. of Boxes in (Rack)          | 4          | 4          | 5          | 5              | 6           |
| Performance                     |            |            |            |                |             |
| Volume of LN <sub>2</sub> (L)   | 10         | 30         | 35         | 47             | 50          |
| Static Evaporation* (L/Day)     | 0.42       | 0.35       | 0.36       | 0.36           | 0.45        |
| Static Holding Time** (Day)     | 24         | 90         | 97         | 130            | 110         |
| Dimensions                      | 125        | 125        | 125        | 127            | 125         |
| Opening Diameter (mm)           | 625        | 725        | 765        | 740            | 830         |
| Height (mm)                     |            |            |            |                |             |
| Overall Diameter (mm)           | 300        | 462        | 462        | 508            | 462         |
| Empty Weight (kg)               | 6.3        | 13         | 14.5       | 18.2           | 17.3        |
| Full Weight (kg)                | 15.1       | 38.9       | 43.2       | 60.9           | 62.4        |
| Shipping Weight (kg)            | 9.6        | 19.3       | 21.9       | 30.7           | 30.3        |

\*Static Evaporation: The amount of liquid nitrogen lost by natural evaporation within 24 hours after the container is allowed to reach thermal equilibrium under the specified filling rate, which is converted into the evaporation value under the standard state (atmospheric pressure 101.325kPa, ambient temperature 20°C).  
 \*\*Static Holding Time: under the standard state (atmospheric pressure 101.325kPa, ambient temperature 20°C), the container is filled with liquid nitrogen pre-cooled and reaches thermal equilibrium, and the liquid nitrogen filling rate reaches 100%, the number of days when the liquid nitrogen is completely evaporated on standing.

## Product List

| Model        | Product                   | Product Model  | Description and Accessories  |
|--------------|---------------------------|--|--|
| YDS-10-125   | Liquid Nitrogen container | YDS-10-125   | Include 1 square rack with 4 layers. 5*5 cryobox, lockable cap and PU bag.   |
|              | Liquid Nitrogen container | YDS-10-125   | Includes PU bag only; No canister; no lockable cap   |
|              | Rack                      | FTT-25-4H  | Used for storing 5*5 cryo boxes(2ml), 4 layers in total. with 5*5 cryo boxes included, suitable for YDS-30-125/YDS-10-125  |
|              | Canister                  | TTH10-125  | φ97, 120mm single tier canister, No goblet. suitable for YDH-10-125  |
|              | SmartCap                  | T-125  | Used for monitoring real time temperature for containers with 125mm neck opening, 6 grooves and 180mm high cork, data can be transmitted to Haier's IoT platform. suitable for YDH-10-125/YDS-10-125 |
|              | Cork (125)                | GS-125-180   | Suitable for YDS-10-125/YDH-10-125/YDS-50B-125   |
|              | Lockable cap              | SG-125   | Suitable for container with 125mm and 127mm neck opening   |
| YDS-30-125   | Liquid Nitrogen container | YDS-30-125   | Includes 6 racks with 4 layers, 5*5 cryoboxes, lockable cap and PU bag, roller base is optional.   |
|              | Liquid Nitrogen container | YDS-30-125   | Includes PU bag only, roller base is optional  |
|              | Rack                      | FTT-25-4H  | Used for storing 5*5 cryo boxes(2ml), 4 layers in total. with 5*5 cryo boxes included, suitable for YDS-30-125/YDS-10-125  |
|              | Canister                  | TT30-125   | φ97, 120mm single tier canister, No goblet. suitable for YDS-30-125  |
|              | Roller Base               | YSC-465-5W   | Suitable for tanks with diameter less than φ465. Can be used for 30L, 35L and 50L tank, equipped with 5 universal wheels.  |
|              | SmartCap                  | LT-125   | Used for monitoring real time level and temperature for containers with 80mm neck opening, 6 grooves and 540mm height suitable for YDS-20-125/YDS-30-125   |
|              | Cork (125)                | GS-125-210   | Suitable for YDS-30-125/YDS-35-125/YDS-47-127 /YDS-35B-125   |
| Lockable cap | SG-125                    | Suitable for container with 125mm and 127mm neck opening |  |

# Small Sized Storage Series (Square Racks)

## Smart Level & Temp Monitoring

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| Model       | Product                   | Product Model     | Description and Accessories  |
|-------------|---------------------------|-------------------|--|
| YDS-35-125  | Liquid Nitrogen container | YDS-35-125        | Includes 6 canisters (Height 276mm), lockable cap and PU bag. roller base is optional  |
|             | Liquid Nitrogen container | YDS-35-125        | Includes 6 racks with 5 layers, 5*5 cryoboxes, lockable cap and PU bag, roller base is optional.   |
|             | Liquid Nitrogen container | YDS-35-125        | Includes PU bag only, roller base is optional  |
|             | Rack                      | FTT-25-5          | Used for storing 5*5 cryo boxes (2ml), 5 layers in total. with 5*5 cryo boxes included, suitable for YDS-35-125  |
|             | Canister                  | TT35-125          | φ 97, 120mm single tier canister, No goblet, suitable for YDS-35-125   |
|             | Canister                  | TTS35-125         | φ 97, 276mm double-tier canister, 2 goblets included. Suitable for YDS-35-125  |
|             | Roller Base               | YSC-465-5W        | Suitable for tanks with diameter less than φ 465. Can be used for 30L, 35L and 50L tank, equipped with 5 universal wheels.   |
|             | Smart Cap                 | LT-125            | Used for monitoring real time level and temperature for containers with 125mm neck opening, 6 grooves and 575mm height. suitable for YDS-25-125/YDS-35-125/YDS-35-125        |
|             | Cork (125)                | GS-125-210        | Suitable for YDS-30-125/YDS-35-125/YDS-47-127 /YDS-35B-125   |
| YDS-47-127  | Lockable cap              | SG-125            | Suitable for container with 125mm and 127mm neck opening   |
|             | Liquid Nitrogen container | YDS-47-127        | Includes 6 round rack with 5 layers (37 holes), lockable cap and PU bag; Roller base is optional   |
|             | Liquid Nitrogen container | YDS-47-127-10     | Includes 10 canisters( φ 72/276mm), lockable cap and PU bag. roller base is optional   |
|             | Round Rack (Y98-37)       | YTT-37-5          | φ 98 round rack used for storing 37 holes cryobox (2ml). 5 tiers in total, suitable for YDS-47-127-T37   |
|             | Canister                  | TTS47-127-10      | φ 72, 276mm double-tier canister, 2 goblets included. Suitable for YDS-47-127-10T  |
|             | Roller Base               | YSC-525-5W        | Suitable for tanks with diameter less than φ 525. Can be used for 47L aluminium tank, equipped with 5 universal wheels   |
|             | Smart Cap                 | LT-127            | Used for monitoring real time level and temperature for containers with 127mm neck opening, 10 grooves and 570mm height. Suitable for YDS-47-127-10T/MVE-XC47/11-10          |
|             | Smart Cap                 | LT-127            | Used for monitoring real time level and temperature for containers with 127mm neck opening, 6 grooves and 570mm height. suitable for YDS-47-127-6Y/YDS-47-127/MVE XC-47/11-6 |
|             | Cork (125)                | GS-125-210        | Suitable for YDS-30-125/YDS-35-125/YDS-47-127 /YDS-35B-125   |
| YDS-50B-125 | Cork (125)                | GS-127-210-10 (L) | Suitable for YDS-47-127-10T  |
|             | Lockable cap              | SG-125            | Suitable for container with 125mm and 127mm neck opening   |
|             | Liquid Nitrogen container | YDS-50B-125       | Includes 6 racks with 6 layers, 5*5 cryoboxes, lockable cap and PU bag, roller base is optional.   |
|             | Liquid Nitrogen container | YDS-50B-125       | Includes 6 canisters ( φ 97/276mm), lockable cap and PU bag. roller base is optional   |
|             | Liquid Nitrogen container | YDS-50B-125       | Includes PU bag only, roller base is optional  |
|             | Rack                      | FTT-25-6H         | Used for storing 5*5 cryo boxes (2ml), 6 layers in total. with 5*5 cryo boxes included, suitable for YDS-50B-125   |
|             | Canister                  | TT50-125          | φ 97, 120mm single tier canister, No goblet. suitable for YDS-50B-125  |
|             | Canister                  | TTS50-125         | φ 97,276mm double-tier canister, 2 goblets included. Suitable for YDS-50B-125  |
|             | Roller Base               | YSC-465-5W        | Suitable for tanks with diameter less than φ 465. Can be used for 30L, 35L and 50L tank, equipped with 5 universal wheels.   |
| YDS-50B-125 | Smart Cap                 | LT-125            | Used for monitoring real time level and temperature for containers with 125mm neck opening, 6 grooves and 670mm height. suitable for YDS-50B-125                             |
|             | Cork (125)                | GS-125-180        | Suitable for YDS-10-125/YDH-10-125/YDS-50B-125   |
|             | Lockable cap              | SG-125            | Suitable for container with 125mm and 127mm neck opening   |

### Product Description

Smart Cap is a low energy consumption IoT-based module that can monitor liquid nitrogen level and temperature in a liquid nitrogen tank. It is suitable for aluminium alloy liquid nitrogen tanks with opening port size of 50 mm, 80 mm, 125 mm, 216 mm. The built-in high efficiency lithium battery can operate the device for more than two years.



Smart Cap

### Product Characteristics



Independent, high accuracy measuring system for liquid level and temperature



Real time display of level and temperature



Built-in high efficiency lithium battery for longevity

## Small Sized Storage Series (Square Racks)

### Product List

| Model     | Product       | Product Model | Description and Accessories  |   |
|-----------|---------------|---------------|--|---|
| Smart Cap | Smart Cap     | LT-50         | Used for monitoring real time level and temperature for containers with 50mm neck opening, 6 grooves and 360mm height. data can be transmitted to cloud platform, suitable for YDS-3/YDS-6   |   |
|           | Smart Cap     | LT-50         | Used for monitoring real time level and temperature for containers with 50mm neck opening, 6 grooves and 420mm height. suitable for YDS-10/YDS-15  |   |
|           | Smart Cap     | LT-50         | Used for monitoring real time level and temperature for containers with 50mm neck opening, 6 grooves and 540mm height suitable for YDS-20/YDS-30   |   |
|           | Smart Cap     | LT-50         | Used for monitoring real time level and temperature for containers with 50mm neck opening, 6 grooves and 570mm height. suitable for YDS-25/YDS-35/YDS-35   |   |
|           | Smart Cap     | LT-50         | Used for monitoring real time level and temperature for containers with 50mm neck opening, 6 grooves and 640mm height. suitable for YDS-50   |   |
|           | Smart Cap     | LT-80         | Used for monitoring real time level and temperature for containers with 80mm neck opening, 6 grooves and 370mm height. suitable for YDS-6-80   |   |
|           | Smart Cap     | LT-80         | Used for monitoring real time level and temperature for containers with 80mm neck opening, 6 grooves and 430mm height. suitable for YDS-10-80/YDS-15-80  |   |
|           | SmartCap      | LT-80         | Used for monitoring real time level and temperature for containers with 80mm neck opening, 6 grooves and 530mm height. suitable for YDS-20-80/YDS-30-80  |   |
|           | Smart Cap     | LT-80         | Used for monitoring real time level and temperature for containers with 80mm neck opening, 6 grooves and 580mm height. suitable for YDS-25-80/YDS-35-80  |   |
|           | Smart Cap     | LT-80         | Used for monitoring real time level and temperature for containers with 80mm neck opening, 6 grooves and 640mm height. suitable for YDS-50-80  |   |
|           | SmartCap      | LT-125        | Used for monitoring real time level and temperature for containers with 125mm neck opening, 6 grooves and 445mm height. suitable for YDS-10-125/YDS-15-125   |   |
|           | Smart Cap     | LT-125        | Used for monitoring real time level and temperature for containers with 80mm neck opening, 6 grooves and 540mm height. suitable for YDS-20-125/YDS-30-125  |   |
|           | Smart Cap     | LT-125        | Used for monitoring real time level and temperature for containers with 125mm neck opening, 6 grooves and 575mm height suitable for YDS-25-125/YDS-35-125/YDS-35-125   |   |
|           | Smart Cap     | LT-125        | Used for monitoring real time level and temperature for containers with 125mm neck opening, 6 grooves and 670mm height. suitable for YDS-50B-125   |   |
|           | Smart Cap     | LT-127        | Used for monitoring real time level and temperature for containers with 127mm neck opening, 10 grooves and 570mm height. Suitable for YDS-47-127-10T/MVE-XC47/11-10  |   |
|           | Smart Cap     | LT-127        | Used for monitoring real time level and temperature for containers with 127mm neck opening, 6 grooves and 570mm height. suitable for YDS-47-127-6Y/YDS-47-127 /MVE XC-47/11-6  |   |
|           | Smart Cap     | LT-216        | Used for monitoring real time level and temperature for containers with 216mm neck opening, 6 grooves and 530mm height. suitable for YDS-65-216  |   |
|           | Smart Cap     | LT-216        | Used for monitoring real time level and temperature for containers with 216mm neck opening, 4 grooves and 540mm height. suitable for Thermo-Locator Jr.plus (CY50925-70THERMO)/MVE Crosystem 2000  |   |
|           | Smart Cap     | LT-216        | Used for monitoring real time level and temperature for containers with 216mm neck opening, 6 grooves and 580mm height.suitable for YDS-95-216   |   |
|           | Smart Cap     | LT-216        | Used for monitoring real time level and temperature for containers with 216mm neck opening, 6 grooves and 660mm height. suitable for YDS-115-216   |   |
|           | Smart Cap     | LT-216        | Used for monitoring real time level and temperature for containers with 216mm neck opening, 6 grooves and 770mm height.suitable for YDS-145-216  |   |
|           | Smart Cap     | LT-216        | Used for monitoring real time level and temperature for containers with 216mm neck opening, 6 grooves and 870mm height.suitable for YDS-175-216  |   |
|           | Smart Cap     | T-50          | Used for monitoring real time temperature for containers with 50mm neck opening, 6 grooves and 180mm heigh cork, data can be transmitted to Haier's IoT platform. suitable for YDH-3   |   |
|           | Smart Cap     | T-80          | Used for monitoring real time temperature for containers with 80mm neck opening, 6 grooves and 180mm heigh cork, data can be transmitted to Haier's IoT platform. suitable for YDH-6-80  |   |
|           | Smart Cap     | T-125         | Used for monitoring real time temperature for containers with 125mm neck opening, 6 grooves and 180mm heigh cork, data can be transmitted to Haier's IoT platform. suitable for YDH-10-125/YDS-10-125  |   |
|           | Smart Cap     | T-216         | Used for monitoring real time temperature for containers with 216mm neck opening, 6 grooves and 150mm heigh cork, data can be transmitted to Haier's IoT platform. suitable for YDH-15-216   |   |
|           | Smart Cap     | T-216         | Used for monitoring real time temperature for containers with 216mm neck opening, 6 grooves and 210mm heigh cork, data can be transmitted to Haier's IoT platform. suitable for YDH-25-216/YDS-65-216/YDS-95-216/YDS-115-216/YDS-145-216/YDS-175-216 |   |
|           | Data repeater |               | SG-3002G   | SIM card to tranferdata through GPRS and WIFI: include the SIM card |

## High Capacity Series for Storage or Transport (Round Canisters)

High Capacity Series for Storage or Transport (Round Canisters) provides two cryopreservation solutions for long-term static storage and transportation of biological samples.

- Numbered Index Canister Locations
- High Capacity
- High Thermal Efficiency
- 5 Year Vacuum Warranty
- Extended Hold Time
- LN<sub>2</sub> Dispenser
- Round Canisters for Straw Storage
- Lockable
- Roller Bases Available



# High Capacity Series for Storage or Transport (Round Canisters)

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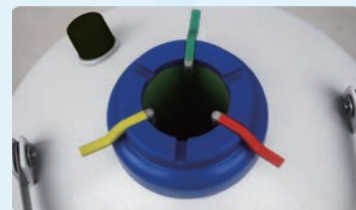
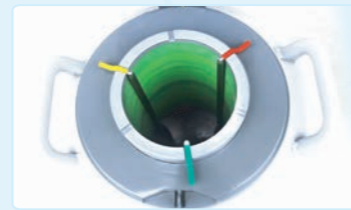
## Key Features

- Strong and lightweight aluminium construction
- Heavy duty lockable enclosure offers excellent security
- Numbered index location points for canisters
- Straw storage
- LN<sub>2</sub> dispense pump available
- Roller bases available
- High thermal efficiency
- 5 year vacuum warranty
- Ultra-low evaporation loss

## Product Advantages

Narrow neck design and excellent thermal conductivity reduces evaporation loss of liquid nitrogen to extend storage times.

Large-capacity models have wider necks for easy access to biological samples.



Long-term cryopreservation models have narrower necks with less heat intrusion.

## Technical Parameters

| Model            |   | YDS-2-30 | YDS-2-35 | YDS-3 | YDS-6 | YDS-10 | YDS-10-80 |
|------------------|---|----------|----------|-------|-------|--------|-----------|
| Maximum Capacity | No. of Canister                                     | 3(3)     | 3(3)     | 6(0)  | 6(0)  | 6(0)   | 6(0)      |
|                  | No. of Straws (Single Layer) (0.5ml each canister)  | 90       | 165      | 792   | 792   | 792    | 2244      |
|                  | No. of Straws (Single Layer) (0.25ml each canister) | 204      | 330      | 1788  | 1788  | 1788   | 5022      |
|                  | No. of Straws (Double Layer) (0.5ml each canister)  | -        | -        | -     | -     | -      | -         |
|                  | No. of Straws (Double Layer) (0.25ml each canister) | -        | -        | -     | -     | -      | -         |
| Performance      | Volume of LN <sub>2</sub> (L)                       | 2        | 2        | 3     | 6     | 10     | 10        |
|                  | Static Evaporation* (L/Day)                         | 0.07     | 0.08     | 0.12  | 0.12  | 0.12   | 0.21      |
|                  | Static Holding Time** (Day)                         | 28       | 24       | 26    | 52    | 86     | 48        |
| Dimensions       | Opening Diameter (mm)                               | 30       | 35       | 50    | 50    | 50     | 80        |
|                  | Height(mm)  | 415      | 435      | 445   | 495   | 565    | 567       |
|                  | Outside Diameter (mm)                               | 223      | 204      | 223   | 300   | 300    | 300       |
|                  | Canister Outside Diameter (mm)                      | 19       | 25       | 38    | 38    | 38     | 63        |
|                  | Outside Height (mm)                                 | 120      | 120      | 120   | 120   | 120    | 120       |
|                  | Empty Weight (kg)                                   | 2.8      | 2.6      | 3.1   | 4.8   | 6.1    | 6.2       |
|                  | Full Weight (kg)                                    | 4.5      | 4.4      | 6     | 9.9   | 14.5   | 14.7      |
|                  | Shipping Weight (kg)                                | 5.1      | 4.9      | 5.8   | 8     | 9      | 9.3       |

| Model            |   | YDS-10-125 | YDS-13 | YDS-15 | YDS-15  | YDS-30  |
|------------------|---|------------|--------|--------|---------|---------|
| Maximum Capacity | No. of Canister                                     | 1(0)       | 6(0)   | 6(0)   | 6(0)    | 6(0)    |
|                  | No. of Straws (Single Layer) (0.5ml each canister)  | 854        | -      | 792    | 792     | 792     |
|                  | No. of Straws (Single Layer) (0.25ml each canister) | 1940       | -      | 1788   | 1788    | 1788    |
|                  | No. of Straws (Double Layer) (0.5ml each canister)  | -          | 1284   | -      | 1284    | 1284    |
|                  | No. of Straws (Double Layer) (0.25ml each canister) | -          | 2832   | -      | 2832    | 2832    |
| Performance      | Volume of LN <sub>2</sub> (L)                       | 10         | 13     | 15     | 20      | 30      |
|                  | Static Evaporation* (L/Day)                         | 0.42       | 0.12   | 0.11   | 0.12    | 0.12    |
|                  | Static Holding Time** (Day)                         | 24         | 109    | 134    | 168     | 254     |
| Dimensions       | Opening Diameter (mm)                               | 125        | 50     | 50     | 50      | 50      |
|                  | Height(mm)  | 625        | 635    | 610    | 700     | 725     |
|                  | Outside Diameter (mm)                               | 300        | 310    | 394    | 394     | 462     |
|                  | Canister Outside Diameter (mm)                      | 97         | 38     | 38     | 38      | 38      |
|                  | Outside Height (mm)                                 | 120        | 276    | 120    | 120/276 | 120/276 |
|                  | Empty Weight (kg)                                   | 6.3        | 6.3    | 8.5    | 9.5     | 12.9    |
|                  | Full Weight (kg)                                    | 15.1       | 17.3   | 20.5   | 28.1    | 36.6    |
|                  | Shipping Weight (kg)                                | 8.6        | 11     | 13     | 15      | 18      |

| Model            |   | YDS-30-80 | YDS-30-125 | YDS-35  | YDS-35-80 | YDS-35-125 | YDS-47-127 |
|------------------|---|-----------|------------|---------|-----------|------------|------------|
| Maximum Capacity | No. of Canister                                     | 6(0)      | 6(0)       | 6(0)    | 6(0)      | 6(0)       | 10(0)      |
|                  | No. of Straws (Single Layer) (0.5ml each canister)  | 2244      | 5124       | 792     | 2244      | 5124       | -          |
|                  | No. of Straws (Single Layer) (0.25ml each canister) | 5022      | 11640      | 1788    | 5022      | 11640      | -          |
|                  | No. of Straws (Double Layer) (0.5ml each canister)  | 3624      | -          | 1284    | 3624      | 9048       | 8200       |
|                  | No. of Straws (Double Layer) (0.25ml each canister) | 8460      | -          | 2832    | 8460      | 20760      | 16400      |
| Performance      | Volume of LN <sub>2</sub> (L)                       | 30        | 30         | 35      | 35        | 35         | 47         |
|                  | Static Evaporation* (L/Day)                         | 0.21      | 0.35       | 0.12    | 0.22      | 0.37       | 0.36       |
|                  | Static Holding Time** (Day)                         | 147       | 90         | 286     | 159       | 97         | 130        |
| Dimensions       | Opening Diameter (mm)                               | 80        | 125        | 50      | 80        | 125        | 127        |
|                  | Height(mm)  | 729       | 725        | 765     | 768       | 765        | 740        |
|                  | Outside Diameter (mm)                               | 462       | 462        | 462     | 462       | 462        | 508        |
|                  | Canister Outside Diameter (mm)                      | 63        | 97         | 38      | 63        | 97         | 72         |
|                  | Outside Height (mm)                                 | 120/276   | 120        | 120/276 | 120/276   | 120/276    | 276        |
|                  | Empty Weight (kg)                                   | 13        | 13         | 14.2    | 14.5      | 14.6       | 18.2       |
|                  | Full Weight (kg)                                    | 37        | 38.9       | 42.7    | 42.9      | 43.2       | 56.2       |
|                  | Shipping Weight (kg)                                | 18.3      | 19.3       | 20      | 20.7      | 22         | 28         |

# High Capacity Series for Storage or Transport (Round Canisters)

| Model            |   | YDS-20B | YDS-30B | YDS-35B |
|------------------|---|---------|---------|---------|
| Maximum Capacity | No. of Canister                                     | 6(0)    | 6(0)    | 6(0)    |
|                  | No. of Straws (Single Layer) (0.5ml each canister)  | 792     | 792     | 792     |
|                  | No. of Straws (Single Layer) (0.25ml each canister) | 1788    | 1788    | 1788    |
|                  | No. of Straws (Double Layer) (0.5ml each canister)  | 1284    | 1284    | 1284    |
|                  | No. of Straws (Double Layer) (0.25ml each canister) | 2832    | 2832    | 2832    |
| Performance      | Volume of LN <sub>2</sub> (L)                       | 20      | 30      | 35      |
|                  | Static Evaporation* (L/Day)                         | 0.2     | 0.2     | 0.2     |
|                  | Static Holding Time** (Day)                         | 101     | 159     | 179     |
| Dimensions       | Opening Diameter (mm)                               | 50      | 50      | 50      |
|                  | Height(mm)  | 700     | 725     | 765     |
|                  | Outside Diameter (mm)                               | 394     | 462     | 462     |
|                  | Canister Outside Diameter (mm)                      | 38      | 38      | 38      |
|                  | Outside Height (mm)                                 | 120/276 | 120/276 | 120/276 |
|                  | Empty Weight (kg)                                   | 9.5     | 12.9    | 14.2    |
|                  | Full Weight (kg)                                    | 27.9    | 37.1    | 42.8    |
|                  | Shipping Weight (kg)                                | 15.1    | 18.3    | 20.1    |

| Model            |   | YDS-35B-80 | YDS-35B-125 | YDS-50B | YDS-50B-125 |
|------------------|---|------------|-------------|---------|-------------|
| Maximum Capacity | No. of Canister                                     | 6(0)       | 6(0)        | 6(0)    | 6(0)        |
|                  | No. of Straws (Single Layer) (0.5ml each canister)  | 2244       | 5124        | 792     | 5124        |
|                  | No. of Straws (Single Layer) (0.25ml each canister) | 5022       | 11640       | 1788    | 11640       |
|                  | No. of Straws (Double Layer) (0.5ml each canister)  | 3624       | 9048        | 1284    | 9048        |
|                  | No. of Straws (Double Layer) (0.25ml each canister) | 8460       | 20760       | 2832    | 20760       |
| Performance      | Volume of LN <sub>2</sub> (L)                       | 35         | 35          | 50      | 50          |
|                  | Static Evaporation* (L/Day)                         | 0.3        | 0.41        | 0.24    | 0.45        |
|                  | Duration of Normal Operation** (Day)                | 119        | 86          | 213     | 110         |
| Dimensions       | Opening Diameter (mm)                               | 80         | 125         | 50      | 125         |
|                  | Height(mm)  | 768        | 765         | 825     | 830         |
|                  | Outside Diameter (mm)                               | 462        | 462         | 462     | 462         |
|                  | Canister Outside Diameter (mm)                      | 63         | 97          | 38      | 97          |
|                  | Outside Height (mm)                                 | 120/276    | 120/276     | 120/276 | 120/276     |
|                  | Empty Weight (kg)                                   | 14.5       | 14.6        | 17.2    | 17.3        |
|                  | Full Weight (kg)                                    | 43         | 43.5        | 60.3    | 62          |
|                  | Shipping Weight (kg)                                | 20.7       | 22          | 24      | 25.4        |

A(B): A for maximum number of canisters, B for number of canisters in standard configuration

\*Static Evaporation: The amount of liquid nitrogen lost by natural evaporation within 24 hours after the container is allowed to reach thermal equilibrium under the specified filling rate, which is converted into the evaporation value under the standard state (atmospheric pressure 101.325kPa, ambient temperature 20°C).

\*\*Static Holding Time: under the standard state (atmospheric pressure 101.325kPa, ambient temperature 20°C), the container is filled with liquid nitrogen pre-cooled and reaches thermal equilibrium, and the liquid nitrogen filling rate reaches 100%, the number of days when the liquid nitrogen is completely evaporated on standing.

## Vials Cane Specification

| Canister | Height 120mm, Diameter 38mm (50mm neck) |            |                |
|----------|---|------------|----------------|
| Vials    | Canes/Canister                          | Vials/Cane | Vials/Canister |
| 0.5ml    | 4                                       | 3          | 12             |
| 1.5ml    | 4                                       | 3          | 12             |
| 2ml      | 4                                       | 3          | 12             |
| 3ml      | 4                                       | 3          | 12             |
| 5ml      | 4                                       | 1          | 4              |

| Canister | Height 276mm, Diameter 38mm (50mm neck) |            |                |
|----------|---|------------|----------------|
| Vials    | Canes/Canister                          | Vials/Cane | Vials/Canister |
| 0.5ml    | 4                                       | 6          | 24             |
| 1.5ml    | 4                                       | 6          | 24             |
| 2ml      | 4                                       | 6          | 24             |
| 3ml      | 4                                       | 6          | 24             |
| 5ml      | 4                                       | 3          | 12             |

| Canister | Height 120mm, Diameter 63mm (80mm neck) |            |                |
|----------|---|------------|----------------|
| Vials    | Canes/Canister                          | Vials/Cane | Vials/Canister |
| 0.5ml    | 16                                      | 3          | 48             |
| 1.5ml    | 16                                      | 3          | 48             |
| 2ml      | 16                                      | 3          | 48             |
| 3ml      | 16                                      | 3          | 48             |
| 5ml      | 16                                      | 1          | 16             |

| Canister | Height 276mm, Diameter 63mm (80mm neck) |            |                |
|----------|---|------------|----------------|
| Vials    | Canes/Canister                          | Vials/Cane | Vials/Canister |
| 0.5ml    | 16                                      | 6          | 96             |
| 1.5ml    | 16                                      | 6          | 96             |
| 2ml      | 16                                      | 6          | 96             |
| 3ml      | 16                                      | 6          | 96             |
| 5ml      | 16                                      | 3          | 48             |

| Canister | Height 120mm, Diameter 72mm (127mm neck) |            |                |
|----------|--|------------|----------------|
| Vials    | Canes/Canister                           | Vials/Cane | Vials/Canister |
| 0.5ml    | 21                                       | 3          | 63             |
| 1.5ml    | 21                                       | 3          | 63             |
| 2ml      | 21                                       | 3          | 63             |
| 3ml      | 21                                       | 3          | 63             |
| 5ml      | 21                                       | 1          | 21             |

| Canister | Height 276mm, Diameter 72mm (127mm neck) |            |                |
|----------|--|------------|----------------|
| Vials    | Canes/Canister                           | Vials/Cane | Vials/Canister |
| 0.5ml    | 21                                       | 6          | 126            |
| 1.5ml    | 21                                       | 6          | 126            |
| 2ml      | 21                                       | 6          | 126            |
| 3ml      | 21                                       | 6          | 126            |
| 5ml      | 21                                       | 3          | 63             |

| Canister | Height 120mm, Diameter 97mm (125mm neck) |            |                |
|----------|--|------------|----------------|
| Vials    | Canes/Canister                           | Vials/Cane | Vials/Canister |
| 0.5ml    | -  | -          | -              |
| 1.5ml    | 40                                       | 3          | 120            |
| 2ml      | 40                                       | 3          | 120            |
| 3ml      | 40                                       | 3          | 120            |
| 5ml      | 40                                       | 1          | 40             |

| Canister | Height 276mm, Diameter 97mm (125mm neck) |            |                |
|----------|--|------------|----------------|
| Vials    | Canes/Canister                           | Vials/Cane | Vials/Canister |
| 0.5ml    | -  | -          | -              |
| 1.5ml    | 40                                       | 6          | 240            |
| 2ml      | 40                                       | 6          | 240            |
| 3ml      | 40                                       | 6          | 240            |
| 5ml      | 40                                       | 3          | 120            |

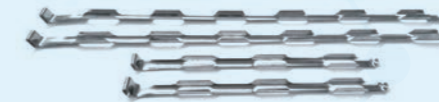
| Canister | Height 120mm, Diameter 104mm (127mm neck) |            |                |
|----------|---|------------|----------------|
| Vials    | Canes/Canister                            | Vials/Cane | Vials/Canister |
| 0.5ml    | -   | -          | -              |
| 1.5ml    | 46  | 3          | 138            |
| 2ml      | 46  | 3          | 138            |
| 3ml      | 46  | 3          | 138            |
| 5ml      | 46  | 1          | 46             |

| Canister | Height 276mm, Diameter 104mm (127mm neck) |            |                |
|----------|---|------------|----------------|
| Vials    | Canes/Canister                            | Vials/Cane | Vials/Canister |
| 0.5ml    | -   | -          | -              |
| 1.5ml    | 46  | 6          | 276            |
| 2ml      | 46  | 6          | 276            |
| 3ml      | 46  | 6          | 276            |
| 5ml      | 46  | 3          | 138            |

## Accessories



Vial



Vial cane



Canister



# High Capacity Series for Storage or Transport (Round Canisters)

527/528

## Product List

| Model     | Product                   | Product Model | Description and Accessories   |
|-----------|---------------------------|---------------|---|
| YDS-2-30  | Liquid Nitrogen container | YDS-2-30      | Includes 3 canisters, lockable cap and PU bag                             |
|           | Canister                  | TT2-30        | φ 19, 120mm single tier canister, No goblet, suitable for YDS-2-30        |
|           | Cork (30)                 | GS-30-125     | Suitable for YDS-2-30   |
|           | Lockable cap              | SG-30         | Suitable for container with 30mm neck opening, suitable for YDS-2-30      |
| YDS-2-35  | Liquid Nitrogen container | YDS-2-35      | Includes 3 canisters, lockable cap and Braces for carrying, no PU bag     |
|           | Canister                  | TT2-35        | φ 25, 120mm single tier canister, No goblet, suitable for YDS-2-35        |
|           | Cork (30)                 | GS-35-125 (L) | Suitable for YDS-2-35   |
|           | Lockable cap              | SG-35         | Suitable for container with 35mm neck opening, suitable for YDS-2-35      |
| YDS-3     | Liquid Nitrogen container | YDS-3         | Includes 6 canisters (Height 120mm), lockable cap and PU bag              |
|           | Liquid Nitrogen container | YDS-3         | Includes PU bag only  |
|           | Canister                  | TT3-50        | φ 38, 120mm single tier canister, No goblet. suitable for YDS-3           |
|           | Cork (50)                 | GS-50-180     | Suitable for YDS-3/YDH-3/YDS-6/YDS-10/YDS-13/YDS-25/YDS-50B               |
|           | Lockable cap              | SG-50         | Suitable for container with 50mm neck opening                             |
| YDS-6     | Liquid Nitrogen container | YDS-6         | Includes 6 canisters (Height 120mm), lockable cap and PU bag              |
|           | Liquid Nitrogen container | YDS-6         | Includes PU bag only  |
|           | Canister                  | TT6-50        | φ 38, 120mm single tier canister, No goblet. suitable for YDS-6           |
|           | Cork (50)                 | GS-50-180     | Suitable for YDS-3/YDH-3/YDS-6/YDS-10/YDS-13/YDS-25/YDS-50B               |
|           | Lockable cap              | SG-50         | Suitable for container with 50mm neck opening                             |
| YDS-10    | Liquid Nitrogen container | YDS-10        | Includes 6 canisters (Height 120mm), lockable cap and PU bag              |
|           | Liquid Nitrogen container | YDS-10        | Includes PU bag only  |
|           | Canister                  | TT10-50       | φ 38, 120mm single tier canister, No goblet, suitable for YDS-10          |
|           | Cork (50)                 | GS-50-180     | Suitable for YDS-3/YDH-3/YDS-6/YDS-10/YDS-13/YDS-25/YDS-50B               |
|           | Lockable cap              | SG-50         | Suitable for container with 50mm neck opening                             |
| YDS-10-80 | Liquid Nitrogen container | YDS-10-80     | Includes 6 canisters (Height 120mm), lockable cap and PU bag              |
|           | Liquid Nitrogen container | YDS-10-80     | Includes PU bag only  |
|           | Canister                  | TT10-80       | φ 63, 120mm single tier canister, No goblet, suitable for YDS-10-80       |
|           | Cork (80)                 | GS-80-180     | Suitable for YDH-6-80/YDS-10-80   |
|           | Lockable cap              | SG-80         | Suitable for container with 80mm neck opening                             |
| YDS-13    | Liquid Nitrogen container | YDS-13        | Includes 6 canisters (Height 276mm), lockable cap and PU bag              |
|           | Liquid Nitrogen container | YDS-13        | Includes PU bag only  |
|           | Canister                  | TTS13-50      | φ 38, 276mm double-tier canister, 2 goblets included. Suitable for YDS-13 |
|           | Cork (50)                 | GS-50-180     | Suitable for YDS-3/YDH-3/YDS-6/YDS-10/YDS-13/YDS-25/YDS-50B               |
|           | Lockable cap              | SG-50         | Suitable for container with 50mm neck opening                             |

## Product List

| Model     | Product                   | Product Model | Description and Accessories   |
|-----------|---------------------------|---------------|---|
| YDS-15    | Liquid Nitrogen container | YDS-15        | Includes 6 canisters (Height 120mm), lockable cap and PU bag  |
|           | Liquid Nitrogen container | YDS-15        | Includes PU bag only  |
|           | Canister                  | TT15-50       | φ 38, 120mm single tier canister, No goblet. suitable for YDS-15  |
|           | Cork (50)                 | GS-50-210     | Suitable for YDS-15/YDS-20/YDS-30/YDS-35/YDS-20B/YDS-30B/YDS-35B  |
|           | Lockable cap              | SG-50         | Suitable for container with 50mm neck opening   |
| YDS-20    | Liquid Nitrogen container | YDS-20        | Includes 6 canisters (Height 276mm), lockable cap and PU bag  |
|           | Liquid Nitrogen container | YDS-20        | Includes 6 canisters (Height 120mm), lockable cap and PU bag  |
|           | Liquid Nitrogen container | YDS-20        | Includes PU bag only  |
|           | Canister                  | TT30-50       | φ 38, 120mm single tier canister, No goblet. suitable for YDS-20/YDS-30   |
|           | Canister                  | TTS30-50      | φ 38, 276mm double-tier canister, 2 goblets included. Suitable for YDS-20/YDS-30  |
|           | Cork (50)                 | GS-50-210     | Suitable for YDS-15/YDS-20/YDS-30/YDS-35/YDS-20B/YDS-30B/YDS-35B  |
|           | Lockable cap              | SG-50         | Suitable for container with 50mm neck opening   |
| YDS-30    | Liquid Nitrogen container | YDS-30        | Includes 6 canisters (Height 276mm), lockable cap and PU bag, roller base is optional   |
|           | Liquid Nitrogen container | YDS-30        | Includes 6 canisters (Height 120mm), lockable cap and PU bag, roller base is optional   |
|           | Liquid Nitrogen container | YDS-30        | Includes PU bag only, roller base is optional   |
|           | Canister                  | TT30-50       | φ 38, 120mm single tier canister, No goblet. suitable for YDS-20/YDS-30   |
|           | Canister                  | TTS30-50      | φ 38, 276mm double-tier canister, 2 goblets included. Suitable for YDS-20/YDS-30  |
|           | Roller Base               | YSC-465-5W    | Suitable for tanks with diameter less than φ 465. Can be used for 30L, 35L and 50L tank. equipped with 5 universal wheels.                              |
|           | Smart Cap                 | LT-50         | Used for monitoring real time level and temperature for containers with 50mm neck opening, 6 grooves and 540mm height. suitable for YDS-20/YDS-30       |
|           | Cork (50)                 | GS-50-210     | Suitable for YDS-15/YDS-20/YDS-30/YDS-35/YDS-20B/YDS-30B/YDS-35B  |
|           | Lockable cap              | SG-50         | Suitable for container with 50mm neck opening   |
| YDS-30-80 | Liquid Nitrogen container | YDS-30-80     | Includes 6 canisters (Height 276mm), lockable cap and PU bag, roller base is optional   |
|           | Liquid Nitrogen container | YDS-30-80     | Includes 6 canisters (Height 120mm), lockable cap and PU bag, roller base is optional   |
|           | Liquid Nitrogen container | YDS-30-80     | Includes PU bag only, roller base is optional   |
|           | Canister                  | TT30-80       | φ 63, 120mm single tier canister, No goblet. suitable for YDS-30-80   |
|           | Canister                  | TTS30-80      | φ 63, 276mm double-tier canister, 2 goblets included. Suitable for YDS-30-80  |
|           | Roller Base               | YSC-465-5W    | Suitable for tanks with diameter less than φ 465. Can be used for 30L, 35L and 50L tank. equipped with 5 universal wheels.                              |
|           | Smart Cap                 | LT-80         | Used for monitoring real time level and temperature for containers with 80mm neck opening, 6 grooves and 530mm height. suitable for YDS-20-80/YDS-30-80 |
|           | Cork (80)                 | GS-80-210     | Suitable for YDS-30-80/YDS-35-80/YDS-35B-80   |
|           | Lockable cap              | SG-80         | Suitable for container with 80mm neck opening   |
| YDS-35    | Liquid Nitrogen container | YDS-35        | Includes 6 canisters (Height 276mm), lockable cap and PU bag, roller base is optional   |
|           | Liquid Nitrogen container | YDS-35        | Includes 6 canisters (Height 120mm), lockable cap and PU bag, roller base is optional   |
|           | Liquid Nitrogen container | YDS-35        | Includes PU bag only, roller base is optional   |
|           | Canister                  | TT35-50       | φ 38, 120mm single tier canister, No goblet. suitable for YDS-25/YDS-35   |
|           | Canister                  | TTS35-50      | φ 38, 276mm double-tier canister, 2 goblets included. Suitable for YDS-35   |
|           | Roller Base               | YSC-465-5W    | Suitable for tanks with diameter less than φ 465. Can be used for 30L, 35L and 50L tank. equipped with 5 universal wheels.                              |
|           | Roller Base               | LT-50         | Used for monitoring real time level and temperature for containers with 50mm neck opening, 6 grooves and 570mm height. suitable for YDS-25/YDS-35       |
|           | Cork (50)                 | GS-50-210     | Suitable for YDS-15/YDS-20/YDS-30/YDS-35/YDS-20B/YDS-30B/YDS-35B  |
|           | Lockable cap              | SG-50         | Suitable for container with 50mm neck opening   |
| YDS-35-80 | Liquid Nitrogen container | YDS-35-80     | Includes 6 canisters (Height 276mm), lockable cap and PU bag, roller base is optional   |
|           | Liquid Nitrogen container | YDS-35-80     | Includes PU bag only, roller base is optional   |
|           | Canister                  | TT35-80       | φ 63, 120mm single tier canister, No goblet. suitable for YDS-35-80   |
|           | Canister                  | TTS35-80      | φ 63, 276mm double-tier canister, 2 goblets included. Suitable for YDS-35-80  |
|           | Roller Base               | YSC-465-5W    | Suitable for tanks with diameter less than φ 465. Can be used for 30L, 35L and 50L tank. equipped with 5 universal wheels.                              |
|           | Roller Base               | LT-80         | Used for monitoring real time level and temperature for containers with 80mm neck opening, 6 grooves and 580mm height. suitable for YDS-25-80/YDS-35-80 |
|           |                           | Cork (80)     | GS-80-210   |
|           | Lockable cap              | SG-80         | Suitable for container with 80mm neck opening   |

# High Capacity Series for Storage or Transport (Round Canisters)

## Product List

| Model       | Product                   | Product Model   | Description and Accessories  |
|-------------|---------------------------|-----------------|--|
| YDS-20B     | Liquid nitrogen container | YDS-20B         | Includes PU bag only.  |
|             | Canister                  | TT30-50         | φ 38, 120mm single tier canister, No goblet. suitable for YDS-20/YDS-30  |
|             | Canister                  | TTS30-50        | φ 38, 276mm double-tier canister, 2 goblets included. Suitable for YDS-20/YDS-30   |
|             | Cork (50)                 | GS-50-210       | Suitable for YDS-15/YDS-20/YDS-30/YDS-35/YDS-20B/YDS-30B/YDS-35B   |
|             | Lockable cap              | SG-50           | Suitable for container with 50mm neck opening  |
| YDS-30B     | Liquid nitrogen container | YDS-30B         | Includes PU bag only, roller base is optional  |
|             | Canister                  | TT30-50         | φ 38, 120mm single tier canister, No goblet. suitable for YDS-20/YDS-30  |
|             | Canister                  | TTS30-50        | φ 38, 276mm double-tier canister, 2 goblets included. Suitable for YDS-20/YDS-30   |
|             | Roller base               | YSC-465-5W      | Suitable for tanks with diameter less than φ 465. Can be used for 30L, 35L and 50L tank, equipped with 5 universal wheels.                 |
|             | Cork (50)                 | GS-50-210       | Suitable for YDS-15/YDS-20/YDS-30/YDS-35/YDS-20B/YDS-30B/YDS-35B   |
| YDS-35B     | Liquid nitrogen container | YDS-35B         | Includes PU bag only, roller base is optional  |
|             | Canister                  | TT35-50         | φ 38, 120mm single tier canister, No goblet. suitable for YDS-25/YDS-35  |
|             | Canister                  | TTS35-50        | φ 38, 276mm double-tier canister, 2 goblets included. Suitable for YDS-35  |
|             | Roller base               | YSC-465-5W      | Suitable for tanks with diameter less than φ 465. Can be used for 30L, 35L and 50L tank, equipped with 5 universal wheels.                 |
|             | Cork (50)                 | GS-50-210       | Suitable for YDS-15/YDS-20/YDS-30/YDS-35/YDS-20B/YDS-30B/YDS-35B   |
| YDS-35B-80  | Liquid Nitrogen container | YDS-35B-80      | Includes PU bag only, roller base is optional  |
|             | Canister                  | TT35-80         | φ 63, 120mm single tier canister. No goblet, suitable for YDS-35-80  |
|             | Canister                  | TTS35-80        | φ 63, 276mm double-tier canister, 2 goblets included. Suitable for YDS-35-80   |
|             | Roller Base               | YSC-465-5W      | Suitable for tanks with diameter less than φ 465. Can be used for 30L, 35L and 50L tank, equipped with 5 universal wheels.                 |
|             | Cork (80)                 | GS-80-210       | Suitable for YDS-30-80/YDS-35-80/YDS-35B-80  |
| YDS-35B-125 | Liquid Nitrogen container | YDS-35B-125     | Includes PU bag only   |
|             | Canister                  | TT35-125        | φ 97, 120mm single tier canister, No goblet, suitable for YDS-35-125   |
|             | Canister                  | TTS35-125       | φ 97, 276mm double-tier canister, 2 goblets included. Suitable for YDS-35-125  |
|             | Rack                      | FTT-25-5H       | Used for storing 5*5 cryo boxes(2ml), 5 layers in total, with 5*5 cryo boxes included, suitable for YDS-35-125                             |
|             | Roller Base               | YSC-465-5W      | Suitable for tanks with diameter less than φ 465. Can be used for 30L, 35L and 50L tank, equipped with 5 universal wheels.                 |
|             | Cork (125)                | GS-125-210      | Suitable for YDS-30-125/YDS-35-125/YDS-47-127 /YDS-35B-125   |
| YDS-50B     | Liquid Nitrogen container | YDS-50B         | Includes PU bag only, roller base is optional  |
|             | Canister                  | TT50-50         | φ 38, 120mm single tier canister, No goblet. suitable for YDS-50   |
|             | Canister                  | TTS50-50        | φ 38, 276mm double-tier canister, 2 goblets included. Suitable for YDS-50  |
|             | Roller Base               | YSC-465-5W      | Suitable for tanks with diameter less than φ 465. Can be used for 30L, 35L and 50L tank, equipped with 5 universal wheels.                 |
|             | Smart cap                 | LT-50-500-6H640 | Used for monitoring real time level and temperature for containers with 50mm neck opening, 6 grooves and 640mm height. suitable for YDS-50 |
|             | Cork (50)                 | GS-50-180       | Suitable for YDS-3/YDH-3/YDS-6/YDS-10/YDS-13/YDS-25/YDS-50B  |
|             | Lockable cap              | SG-50           | Suitable for container with 50mm neck opening  |

# Dryshipper Series for Transportation (Round Canisters)

Dryshipper Series for Transportation (Round Canisters) is designed for safe sample transportation under cryogenic conditions (vapour phase storage, temperature under -190°C). Since the risk of LN<sub>2</sub> release is avoided, it is suitable for air transportation of samples.

- Rugged and Durable
- 3 Years Vacuum Warranty
- Cryo Absorbant
- Vapour Phase Storage
- Secure
- No LN<sub>2</sub> Spillage



# Dryshipper Series for Transportation (Round Canisters)

531/532

## Key Features

- Straw and cryovial storage options
- Rugged and durable aluminium construction
- Designed to ensure no LN<sub>2</sub> spillage
- Vapour phase cryogenic storage
- Faster LN<sub>2</sub> fill times
- Lockable lids
- 3 years vacuum warranty

## Product Advantages

### Liquid Nitrogen Adsorption

Adsorbent materials are used to absorb and retain LN<sub>2</sub> for safe transport. No spillover of LN<sub>2</sub> can occur even when the tank is capsized.

### Stainless Steel Mesh

Special stainless steel mesh divides storage space and LN<sub>2</sub> absorbents to prevent absorbent materials from contaminating the samples.

### Complete Accessories Set

All models are offered a variety of stainless steel canisters and polycarbonate cryogenic boxes. Locking cover is optional.



## Accessories



## Technical Parameters

| Model                                     | YDH-3 | YDH-6-80 | YDH-10-125 | YDH-10-125 | YDH-15-216 | YDH-25-216 |
|---|-------|----------|------------|------------|------------|------------|
| Picture                                   |       |          |            |            |            |            |
| Authentication                            | CE    | CE       | CE         | CE         | CE         | CE         |
| Maximum Storage Capacity                  |       |          |            |            |            |            |
| No. of Canister / Rack                    | 1     | 1        | 1          | 1 Rack     | 1 Rack     | 1 Rack     |
| No. of Straws (0.5ml / EA)                | 132   | 374      | 854        | -          | -          | -          |
| No. of Straws (0.25ml / EA)               | 298   | 837      | 1940       | -          | -          | -          |
| No. of 2.0 ml Cryovials                   | -     | -        | -          | 100        | 300        | 500        |
| No. of Boxes in ( 2ml per holder)         | -     | -        | -          | 4          | 3          | 5          |
| Performance                               |       |          |            |            |            |            |
| Absorbable Volume of LN <sub>2</sub> (L)  | 1.3   | 2.9      | 3.4        | 3.4        | 6          | 9          |
| Static Evaporation* (L/Day)               | 0.16  | 0.2      | 0.43       | 0.43       | 1.5        | 0.89       |
| Static Holding Time in Vapor Phase**(Day) | 8     | 14       | 8          | 8          | 4          | 10         |
| Dimensions                                |       |          |            |            |            |            |
| Opening Diameter (mm)                     | 50    | 80       | 125        | 125        | 216        | 216        |
| Height (mm)                               | 445   | 500      | 625        | 625        | 555        | 730        |
| Outside Diameter (mm)                     | 223   | 300      | 300        | 300        | 394        | 394        |
| Canister Outside Diameter (mm)            | 38    | 63       | 97         | -          | -          | -          |
| Outside Height (mm)                       | 120   | 120      | 120        | -          | -          | -          |
| Empty Weight (kg)                         | 3.2   | 6.5      | 8.9        | 8.9        | 13         | 15         |
| Full Weight (kg)                          | 4.7   | 8.9      | 12.5       | 12.5       | 17.8       | 23         |
| Shipping Weight (kg)                      | 5.5   | 7.7      | 9.7        | 9.7        | 15.2       | 20.5       |

\*Static Evaporation: The amount of liquid nitrogen lost by natural evaporation within 24 hours after the container is allowed to reach thermal equilibrium under the specified filling rate, which is converted into the evaporation value under the standard state (atmospheric pressure 101.325kPa, ambient temperature 20°C).

\*\*Static Holding Time in Vapor Phase: under the standard state (atmospheric pressure 101.325kPa, ambient temperature 20°C), after the container is filled with liquid nitrogen pre-cooled and reaches thermal equilibrium, the adsorption layer is filled with liquid nitrogen and there is no free liquid nitrogen, the number of days when the liquid nitrogen is completely evaporated on standing.

## Product List

| Model      | Product                  | Product Model | Description and Accessories  |
|------------|--------------------------|---------------|--|
| YDH-3      | Dry Shipper              | YDH-3         | Includes 1 canister (Height 120mm), lockable cap and PU bag  |
|            | Canister                 | TTH3-50       | Φ38, 120mm single tier canister, No goblet, suitable for YDH-3   |
|            | Smart Cap                | T-50          | Used for monitoring real time temperature for containers with 50mm neck opening, 6 grooves and 180mm high cork, data can be transmitted to Haier's IoT platform. suitable for YDH-3  |
|            | Cork (50)                | GS-50-180     | Suitable for YDS-3/YDH-3/YDS-6/YDS-10/YDS-13/YDS-25/YDS-50B  |
|            | Lockable Cap             | SG-50         | Suitable for container with 50mm neck opening  |
| YDH-6-80   | Dry Shipper              | YDH-6-80      | Includes 1 canister (Height 120mm), lockable cap and PU bag  |
|            | Canister                 | TTH6-80       | Φ63, 120mm single tier canister, No goblet, suitable for YDH-6-80  |
|            | Smart Cap                | T-80          | Used for monitoring real time temperature for containers with 80mm neck opening, 6 grooves and 180mm high cork, data can be transmitted to Haier's IoT platform. suitable for YDH-6-80   |
|            | Cork (80)                | GS-80-180     | Suitable for YDH-6-80/YDS-10-80  |
|            | Lockable Cap             | SG-80         | Suitable for container with 80mm neck opening  |
| YDH-10-125 | Dry Shipper              | YDH-10-125    | Includes 1 rack(4 layers), 5*5 cryoboxes, lockable cap and PU bag  |
|            | Dry Shipper              | YDH-10-125    | Includes lockable cap and PU bag; No Rack  |
|            | Rack                     | FTT-25-4H     | Used for storing 5*5 cryo boxes(2ml), 4 layers in total, with 5*5 cryo boxes included, suitable for YDS-30-125/YDS-10-125  |
|            | Canister                 | TTH10-125     | Φ97, 120mm single tier canister, No goblet, suitable for YDH-10-125  |
|            | Smart Cap                | T-125         | Used for monitoring real time temperature for containers with 125mm neck opening, 6 grooves and 180mm high cork, data can be transmitted to Haier's IoT platform. suitable for YDH-10-125/YDS-10-125   |
|            | Cork (125)               | GS-125-180    | Suitable for YDS-10-125/YDH-10-125/YDS-50B-125   |
|            | Lockable Cap             | SG-125        | Suitable for container with 125mm and 127mm neck opening   |
| YDH-15-216 | Protective Case X        | HKX-300/660   | Suitable for YDH-10-125  |
|            | Dry Shipper              | YDH-15-216    | Includes 1 rack(3 layers), 9*9 cryoboxes, lockable cap and PU bag  |
|            | Rack (Vertical Type)     | FDCJ-81-3H    | Used for storing 9*9 cryo boxes(2ml), 3 layers in total. With 9*9 cryoboxes included. Suitable for YDH-15-216  |
|            | Smart Cap                | T-216         | Used for monitoring real time temperature for containers with 216mm neck opening, 6 grooves and 150mm high cork, data can be transmitted to Haier's IoT platform. suitable for YDH-15-216  |
|            | Cork (216-2)             | GS-216-150(L) | Suitable for YDH-15-216  |
| YDH-25-216 | Lockable Cap             | SG-216        | Suitable for container with 216mm neck opening   |
|            | Dry Shipper              | YDH-25-216    | Includes 1 rack(5 layers), 9*9 cryoboxes, lockable cap and PU bag  |
|            | Rack (Vertical Type)     | FDCJ-81-5H    | Used for storing 9*9 cryo boxes(2ml), 5 layers in total, with 9*9 cryoboxes included. suitable for YDH-25-216/YDS-95-216   |
|            | Smart Cap                | T-216         | Used for monitoring real time temperature for containers with 216mm neck opening, 6 grooves and 210mm high cork, data can be transmitted to Haier's IoT platform. suitable for YDH-25-216/YDS-65-216 /YDS-95-216/YDS-115-216/YDS-145-216/YDS-175-216 |
|            | Cork (216)               | GS-216-220-7  | Suitable for YDS-65-216/YDS-95-216/YDS-115-216/YDS-145-216/YDS-175-216/YDH-15-216/YDH-25-216   |
| YDH-25-216 | Lockable Cap             | SG-216        | Suitable for container with 216mm neck opening   |
|            | Protective Shipping Case | HKX-694       | Mushroom Type, Suitable for YDH-25-216   |
|            | Protective Case          | HKX-394/800   | Suitable for YDH-25-216  |

Liquid Nitrogen Supplement Series for LN<sub>2</sub> Storage and Supply incorporates the latest innovation, its unique design utilises the pressure generated from the vapourisation of a small amount liquid nitrogen to discharge LN<sub>2</sub> into other containers. Storage capacities range from 5 to 500 litres.

- 5 Year Vacuum Warranty
- Decant Valves
- Liquid Storage
- Stainless Steel Construction
- Pressure Raising
- Integral Safety Mechanisms



# Self-Pressurized Series for LN<sub>2</sub> Storage and Supply

535/536

## Key Features

- All models are equipped with safety valves
- All welded stainless steel construction
- Rotary ring construction
- Labelled valves for easy identification
- 5 year vacuum warranty

## Product Advantages

### Stainless Steel Structure

Stainless steel structure can withstand the most demanding environment and ensure long-lasting security. It also provides reduced evaporation loss rate, compared with conventional welding insulation tanks.

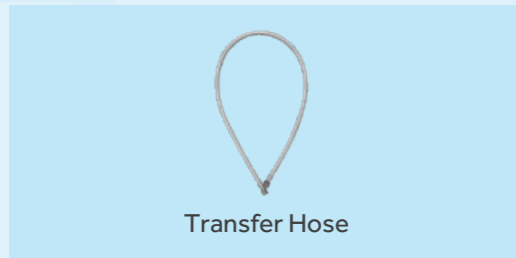
### Casters

All models have four casters for better mobility and convenient use in different occasions.

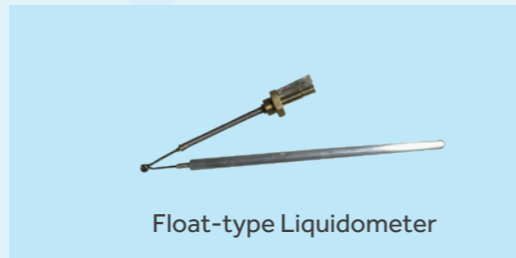
### Variety of Accessories

Each Self-pressurized Series for LN<sub>2</sub> Storage and Supply model is equipped with a pressure valve, a drain valve, a relief valve, and a pressure gauge.

## Accessories



Transfer Hose



Float-type Liquidometer

## Additional Series for Liquid Nitrogen Tank

(Comparison between Standard Series and K Series)



Standard series



K series

## New Functions of K Series

### Digital Display Level Gauge

DLZ-300  
Digital display of fluid level  
Remote data transmission  
function



### Large diameter vent valve

Rapid relief of  
over pressure  
Protection of  
safety valve



### Pressure stabilizing valve

Stabilize fluid pressure  
during auto filling



## Technical Parameters

| Model                          | YDZ-5  | YDZ-15 | YDZ-30 | YDZ-50 | YDZ-100 | YDZ-100K | YDZ-150 |
|--------------------------------|--|--------|--------|--------|---------|----------|---------|
| Picture                        |  |        |        |        |         |          |         |
| Authentication                 | CE   | CE     | CE     | CE     | CE      | CE       | CE      |
| Performance                    |  |        |        |        |         |          |         |
| Volume of LN <sub>2</sub> (L)  | 5  | 15     | 30     | 50     | 100     |          | 150     |
| Static Evaporation* (L/Day)    | 0.15   | 0.38   | 0.75   | 1      | 1.3     |          | 1.95    |
| LN <sub>2</sub> Output (L/Min) | ≥2   | ≥2     | ≥3     | ≥3     | ≥4      |          | ≥6      |
| Dimensions                     |  |        |        |        |         |          |         |
| Height (mm)                    | 652  | 771    | 900    | 1009   | 1179    |          | 1208    |
| Outside Diameter (mm)          | 354  | 404    | 454    | 506    | 606     |          | 706     |
| Empty Weight (kg)              | 19   | 26     | 38     | 54     | 86      |          | 107     |
| Full Weight (kg)               | 23.0   | 38.1   | 62.2   | 94.4   | 166.8   |          | 228     |
| Shipping Weight (kg)           | 32   | 37     | 53     | 63     | 107     |          | 137     |
| Pressure Parameters (MPa)      | 1. Standard working pressure 0.05,<br>2. Maximum working pressure 0.09,<br>3. First stage safety valve relief pressure 0.099,<br>4. Second stage safety valve release pressure 0.15,<br>5. Pressure gauge range 0-0.25 |        |        |        |         |          |         |

| Model                          | YDZ-200  | YDZ-200K | YDZ-240K | YDZ-300 | YDZ-300K | YDZ-500 | YDZ-500K |
|--------------------------------|--|----------|----------|---------|----------|---------|----------|
| Picture                        |  |          |          |         |          |         |          |
| Authentication                 | CE   | CE       | CE       | CE      | CE       | CE      | CE       |
| Performance                    |  |          |          |         |          |         |          |
| Volume of LN <sub>2</sub> (L)  | 200  |          | 240      | 300     |          | 500     |          |
| Static Evaporation* (L/Day)    | 2.4  |          | 2.9      | 3.3     |          | 5.5     |          |
| LN <sub>2</sub> Output (L/Min) | ≥8   |          | ≥8       | ≥8      |          | ≥10     |          |
| Dimensions                     |  |          |          |         |          |         |          |
| Height (mm)                    | 1288   |          | 1405     | 1484    |          | 1607    |          |
| Outside Diameter (mm)          | 758  |          | 758      | 858     |          | 1008    |          |
| Empty Weight (kg)              | 145  |          | 159      | 193     |          | 273     |          |
| Full Weight (kg)               | 307  |          | 353      | 435     |          | 677     |          |
| Shipping Weight (kg)           | 179  |          | 188      | 223     |          | 342     |          |
| Pressure Parameters (MPa)      | 1. Standard working pressure 0.05,<br>2. Maximum working pressure 0.09,<br>3. First stage safety valve relief pressure 0.099,<br>4. Second stage safety valve release pressure 0.15,<br>5. Pressure gauge range 0-0.25 |          |          |         |          |         |          |

| Model  | YDZ-100/1.5 | YDZ-240/1.5 |
|--|-------------|-------------|
| Picture  |             |             |
| Authentication                                       | PED         | PED         |
| Performance  |             |             |
| Volume of LN <sub>2</sub> (L)                        | 100         | 240         |
| Static Evaporation* (L/Day)                          | 1.3         | 2.88        |
| Dimensions   |             |             |
| Height (mm)  | 1270        | 1500        |
| Outside Diameter (mm)                                | 606         | 756         |
| Empty Weight(kg)                                     | 80          | 163         |
| Full Weight (kg)                                     | 161         | 360         |
| Shipping Weight (kg)                                 | 102         | 204         |
| Pressure Parameters                                  |             |             |
| First stage safety valve relief pressure (Mpa/PSI)   | 0.15/22     |             |
| Second stage safety valve release pressure (Mpa/PSI) | 0.24/35     |             |
| Pressure gauge range (Mpa/PSI)                       | 0-1/145     |             |
| Rupture disc burst pressure (Mpa/PSI)                | 0.66/96     |             |

\*Static Evaporation: The amount of liquid nitrogen lost by natural evaporation within 24 hours after the container is allowed to reach thermal equilibrium under the specified filling rate, which is converted into the evaporation value under the standard state (atmospheric pressure 101.325kPa, ambient temperature 20°C).

# Self-Pressurized Series for LN<sub>2</sub> Storage and Supply

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## Product List

| Product                       | Product Model               | Description and Accessories   |
|-------------------------------|-----------------------------|---|
| Self-Pressurized Filling Tank | YDZ-5                       | Includes single-layer transfusion hoses (ZG-DN10/1.5)   |
|                               | YDZ-15                      | Includes single-layer transfusion hoses (ZG-DN10/1.5)   |
|                               | YDZ-30                      | Includes single-layer transfusion hoses (ZG-DN10/1.5);  |
|                               | YDZ-50                      | Includes single-layer transfusion hoses (ZG-DN10/1.5);  |
|                               | YDZ-100                     | Includes single-layer transfusion hoses (ZG-DN10/1.5) and float-type liquidometer   |
|                               | YDZ-150                     | Includes single-layer transfusion hoses (ZG-DN10/1.5) and float-type liquidometer   |
|                               | YDZ-200                     | Includes single-layer transfusion hoses (ZG-DN10/1.5) and float-type liquidometer   |
|                               | YDZ-300                     | Includes single-layer transfusion hoses (ZG-DN10/1.5) and float-type liquidometer   |
|                               | YDZ-500                     | Includes single-layer transfusion hoses (ZG-DN10/1.5) and float-type liquidometer   |
|                               | Digital Display Level Gauge | YDZ-100   |
| YDZ-200                       |                             | Includes single-layer transfusion hoses (ZG-DN10/1.5), Digital display level gauge(DLZ-300) and pressure stabilizer. can be used for auto filling   |
| YDZ-240                       |                             | Includes single-layer transfusion hoses (ZG-DN10/1.5), Digital display level gauge(DLZ-300) and pressure stabilizer. can be used for auto filling   |
| Float-Type Liquidometer       | YDZ-300                     | Includes single-layer transfusion hoses (ZG-DN10/1.5), Digital display level gauge(DLZ-300) and pressure stabilizer. can be used for auto filling   |
|                               | YDZ-320                     | Includes single-layer transfusion hoses (ZG-DN10/1.5), Digital display level gauge(DLZ-300) and pressure stabilizer. can be used for auto filling   |
|                               | YDZ-500                     | Includes single-layer transfusion hoses (ZG-DN10/1.5), Digital display level gauge(DLZ-300) and pressure stabilizer. can be used for auto filling   |
| Self-Pressurized Filling Tank | DLZ-300                     | Digital display real time liquid nitrogen level of self pressurized tank, low power consumption battery, wireless transmission (YDZ-240K)   |
|                               | DLZ-300(YDZ-320K)           | Digital display real time liquid nitrogen level of self pressurized tank, low power consumption battery, wireless transmission (YDZ-320K)   |
|                               | DLZ-300                     | Digital display real time liquid nitrogen level of self pressurized tank, low power consumption battery, wireless transmission (YDZ-500K)   |
|                               | FZ-100                      | Suitable for YDZ-100  |
|                               | FZ-150                      | Suitable for YDZ-150  |
| Self-Pressurized Filling Tank | FZ-200                      | Suitable for YDZ-200  |
|                               | FZ-300                      | Suitable for YDZ-300  |
|                               | FZ-500                      | Suitable for YDZ-500  |
|                               | YDZ-100/1.5                 | Include single-layer transfusion hoses (ZG-DN10/1.5), Digital display level gauge(DLZ-300) and pressure stabilizer. The working pressure is 1.5 bar (22psi). PED certified and can be used for auto filling |
|                               | YDZ-240/1.5                 | Include single-layer transfusion hoses (ZG-DN10/1.5), Digital display level gauge(DLZ-300) and pressure stabilizer. The working pressure is 1.5 bar (22psi). PED certified and can be used for auto filling |

## -196°C Intelligent Liquid Nitrogen Biological Sample Storage System

Based on the design concept of "personnel safety, sample safety, and equipment safety", Haier Biomedical has developed the -196°C intelligent liquid nitrogen biological sample storage system through independent innovation to ensure low temperature storage throughout the entire process.

- Personnel safety
- Device safety
- Exclusive customized services
- Sample safety

### Product Advantages

#### Personnel safety

Fully-automatic access to single and boxed samples saves time and effort. High-precision servo in combination with flexible robot applications to. Full-scenario intelligent unmanned running, one-key operation, and "0" contact with low temperatures ensure safety. Conduct batch operations to streamline work processes and enhance efficiency.

#### Device safety

The key moving parts are stable and reliable at room temperature Professional thermal-insulation drive structure and pyrogen-free storage area The collaborative robot of the tube pick-up area is designed to operate stably with a low failure rate.

#### Exclusive customized services

Customized design for the user site Catering to the different needs of various scenarios Supporting interconnection with third-party systems



Follow the QR code and learn more about the -196°C Intelligent Liquid Nitrogen Biological Sample Storage System from Haier Biomedical



## -196°C Intelligent Liquid Nitrogen Biological Sample Storage System

### Sample safety

#### Storage safety

Professional sample storage with low temperature throughout the whole process

Pyrogen-free main container with uniform temperature

IoT technology for intelligent positioning to avoid sample loss

#### Sample access safety

Mechanical grippers are used for tube picking, which is accurate and efficient and can avoid fall-off

IoT technology for intelligent positioning to avoid sample loss

Each mechanical gripper has a torque feedback function to avoid tube bursts.

The independent layout of the tube pick-up area can prevent permanent sample loss

The main container area is designed with a swivel structure to avoid collision throughout the access process and improve efficiency

#### Information safety

An independently developed software is available to ensure sample safety

Real-time traceability of the sample information can ensure the whole-process safety of the samples.

## Product Parameters

| Model   | HSN96-46K2                                | HSN96-24K2                                |
|---|---|---|
| Automatic access level  | Single or boxed                           | Single or boxed                           |
| Storage temperature (°C)  | <-180                                     | <-180                                     |
| Storage capacity (for standard SBS 2ml tubes) (Pcs)                 | 46,000                                    | 24,000                                    |
| Exterior dimensions (W*D*H) (mm)                                    | 1750*2120*2760                            | 1540*1920*2600                            |
| Time required for the storage temperature to recover to -130 °C (H) | ≥480                                      | ≥480                                      |
| Maximum liquid nitrogen capacity under the platform (L)             | ≥320                                      | ≥180                                      |
| Daily static liquid nitrogen consumption (L)                        | ≤25                                       | ≤15                                       |
| Compatibility (ml)  | SBS, etc.<br>0.5/1.5/2<br>cryogenic tubes | SBS, etc.<br>0.5/1.5/2<br>cryogenic tubes |

## Liquid Nitrogen Transfer Container

539/540

### Product Introduction

The intelligent liquid nitrogen sample transfer container plays a vital role in ensuring the safe transfer of samples, providing an effective low-temperature environment. Leveraging IoT technology, it enables comprehensive data monitoring throughout the entire transfer process. This high-vacuum container offers long-lasting protection at ultra-low temperatures. Continuing with Haier Biomedical's design concept of prioritizing sample safety, personnel safety, and equipment safety, this container is dedicated to facilitating each sample transfer with utmost care and reliability.



### Product Parameters

| Model                          | HSN96-01H1  |
|--------------------------------|---|
| Size (mm)                      | 256*244*245   |
| Capacity                       | A single SBS sample box   |
| Empty weight (kg)              | 4.1±0.05  |
| Thermal insulation performance | A storage environment below -150°C for at least 6 hours (25°C, humidity ≤50%) |
| Liquid nitrogen capacity (L)   | 2   |
| IoT function                   | Temperature collection and upload and GPS positioning                         |
| Status alarm                   | Overtemperature, and inclination;   |
| External interface             | USB   |

# Controlled Rate Freezer

541/542

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

## 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 ±0.5°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

**Power Switch**  
Easy to operate, safe and reliable

**RS 232 Interface**

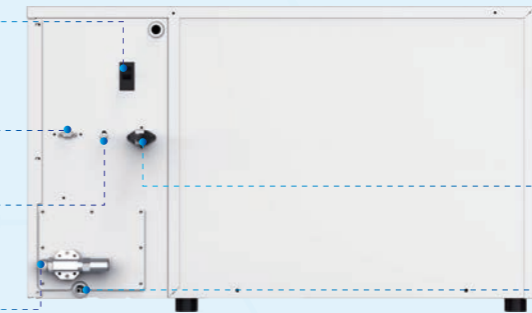
**Liquid nitrogen level monitoring port**

**Gas inlet**  
Pipe thread connection, safe and stable

**Pressure Relief Hole**  
When the inner pressure is too large, the pressure relief hole releases the pressure by itself to achieve the equilibrium state of internal and external pressure

**Power Connector**  
Plug and play

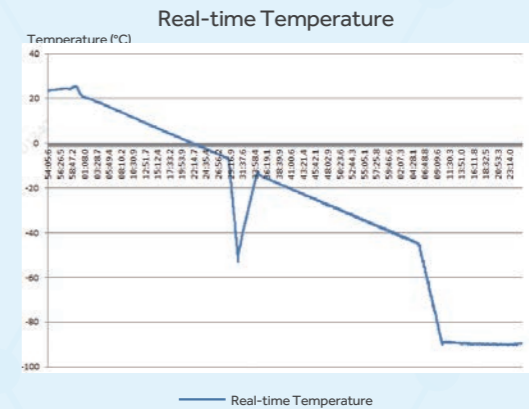
**Drain**



## Product Performance



ADRC control algorithm, more accurate temperature control, temperature fluctuation range is ±0.5°C



Double solenoid valve design and special jet ring design to realize the cooling rate of 0.1~99°C/min  
The heating rate is 0.1~12°C/min by heater design

## One-Click Freezing



Various program timer settings, one-click freezing of samples



Specifications

| Model                          | CJ-L19   | CJ-L37       | CJ-L54       |
|--------------------------------|--|--------------|--------------|
| Effective Volume(L)            | 19   | 37           | 54           |
| Temperature Range(°C)          | -180-50  |              |              |
| Cooling Rate(°C/min)           | 0.1-99.9   |              |              |
| Heating Rate(°C/min)           | 0.1-12   |              |              |
| Temperature Uniformity(°C)     | < 2  |              |              |
| Power Supply (V/Hz)            | 220-50/60  |              |              |
| Display Screen                 | 7 "colorful LCD touch screen                     |              |              |
| Refrigerant                    | Liquid nitrogen                                  |              |              |
| Liquid Nitrogen Monitoring     | Alarm reminder for liquid nitrogen less than 20% |              |              |
| Exterior Dimensions (W*D*H mm) | 775*571*527                                      | 941*571*527  | 1093*571*527 |
| Interior Dimensions (W*D*H mm) | 170*340*330                                      | 330*340*330  | 485*340*330  |
| Packing Dimensions (W*D*H mm)  | 890*710*705                                      | 1050*700*705 | 1200*710*705 |
| Net/Gross Weight (Kg)          | 66/106   | 73/114.5     | 84.5/118     |
| Serial Port Form               | USB Interface/RS232 serial port                  |              |              |
| Accessories                    | 1 Printer, 2 Sample probe                        |              |              |
| Certification                  | CE   |              |              |

Optional Freezing Rack

| BE No.    | Description                     | Dimensions (W*D*H mm) | Vials/Bags Per Rack              | Number of Racks |        |        |
|-----------|---------------------------------|-----------------------|----------------------------------|-----------------|--------|--------|
|           |                                 |                       |                                  | CJ-L19          | CJ-L37 | CJ-L54 |
| BE0ZM6000 | 2/5ml freezing rack (set of 1)  | 308*327*300           | 810 (2ml vial)<br>486 (5ml vial) |                 | 1      | 1+1    |
| TBD       | 2/5ml freezing rack (set of 1)  | 143*326*300           | 550 (2ml vial)<br>330 (5ml vial) | 1               |        |        |
| BE0ZM5000 | 50ml freezing rack (sets of 3)  | 100*153*259           | 13 (25/50ml bag)                 | 3               | 6      | 9      |
| BE0ZMA000 | 250ml freezing rack (set of 1)  | 160*240*256           | 8 (250/500ml bag)                | 1               | 2      | 3      |
| BE0ZMC000 | 100ml freezing rack (sets of 2) | 112*164*301           | 10 (100ml bag)                   | 2               | 4      | 6      |



Vials Freezing Rack

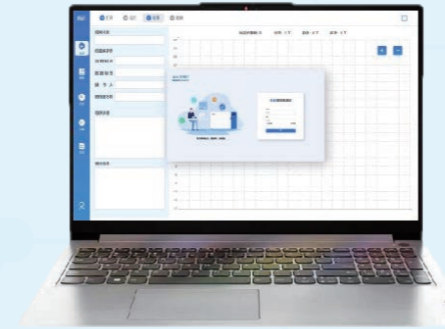


Bag Freezing Rack



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.

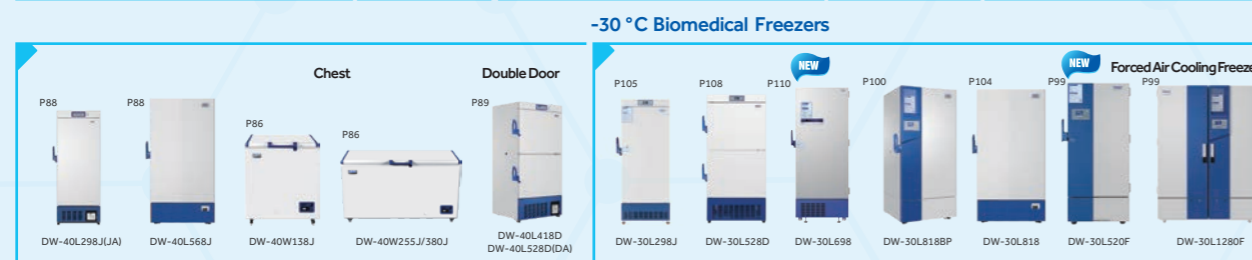
Self-pressurized LN<sub>2</sub> Storage



| Model                          | YDZ-100/1.5   |
|--------------------------------|---|
| Volume of LN <sub>2</sub> (L)  | 100   |
| Static Evaporation (L/Day)     | 1.3   |
| LN <sub>2</sub> 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<br>2. Maximum working pressure 0.15<br>3. First stage safety valve relief pressure 0.15<br>4. Second stage safety valve release pressure 0.24<br>5. Pressure gauge range 0-0.25 |

# Haier Biomedical Product Portfolio

## Cryo Freezer -86 °C ULT Freezers



# Haier Biomedical Product Portfolio

## Solar Direct Drive Freezer, Solar Direct Drive Combined Refrigerators/Freezers, Solar Direct Drive Blood Refrigerator, RTMD, Blood Bank Refrigerators

