

# ULT Freezer Solutions



● Headquarter  
 ● Global warehouse  
 ● Training center  
 ● Global subsidiary  
 ● Manufacturing base



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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.



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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 environmental-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 standard ambient temperature ranges from 10°C to 32°C. 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.



## Specifications

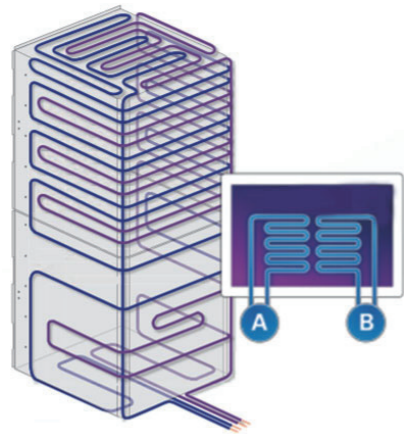
Model		DW-150W209	DW-150W209A	
Technical Data	Cabinet Type	Chest	Chest	
	Climate Class	N	N	
	Cooling Type	Direct cooling	Direct cooling	
	Defrost Mode	Manual	Manual	
	Refrigerant	HC	HC	
	Sound Level (dB(A))	55	55	
Performance	Cooling Performance (°C)	-150	-150	
	Temperature Range (°C)	-140--150	-140--150	
Control	Controller	Microprocessor	Microprocessor	
	Display	LCD	LCD	
Electrical Data	Power Supply (V/Hz)	220-240/50	208-230/60	
	Power (W)	1600	1850	
	Max Power Draw (W)	1750	2000	
	Electrical Current (A)	10	12	
Dimensions	Capacity (L/Cu.Ft)	209/7.4	209/7.4	
	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*940*1190	1810*940*1190
		in	71.3*37.0*46.9	71.3*37.0*46.9
	Container load (20'/40'/40'H)		6/13/13	6/13/13
Functions	High/Low Temperature	Y	Y	
	Hot Condenser	Y	Y	
	Power Failure	Y	Y	
	High/Low Voltage	Y	Y	
	Sensor Error	Y	Y	
	Low Battery	Y	Y	
	High Ambient Temperature	Y	Y	
	Door Ajar	Y	Y	
	Start-up Delay	Y	Y	
	Accessories	Caster	Y	Y
Foot		Y	Y	
Porthole		Y/1	Y/1	
Shelves/Inner Doors		-/2	-/2	
USB Interface		Y	Y	
Remote Alarm		Y	Y	
5V Power Supply Port		Y	Y	
Temperature Chart Recorder		Optional	Optional	
RS232/485 Port		NA/Standard	NA/Standard	
CO <sub>2</sub> Backup System		N/A	N/A	
LN <sub>2</sub> Backup System (Built-in/External)		Optional/Optional	Optional	
Freezing Rack		DCJ-10-A (SUS304), Quantity: 12 DCJ-12-A (SUS304), Quantity: 12	/	
Other		Certification	CE	UL

Product appearance and specifications are subject to change without notice



**TwinCool  
Frequency Conversion  
ULT Freezer**

### 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 43dB 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

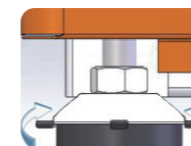
**Large loading capacity**  
Maximum Capacity: 600 boxes (2 inch boxes with 10\*10 configuration) 60,000 samples can be stored

**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



**Adjustable feet**  
For easy positioning and levelling



**Magnetic filter screen**  
Filter screen is easy to clean



DW-86L828BPST

**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



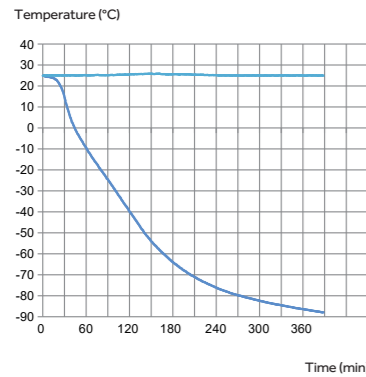
**Multiple safety lock**  
Standard mechanical lock, optional electromagnetic lock. Optional fingerprint lock and NFC for optimal security and access



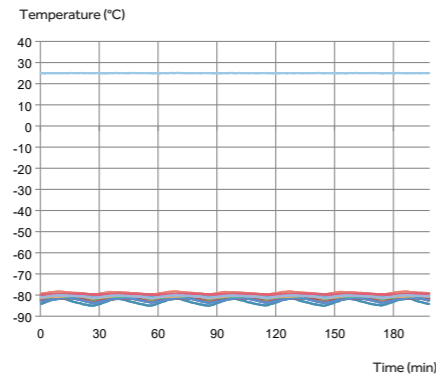
**Networking function**  
Equipped with RS485 interface to connect multiple freezers

### Temperature Curve

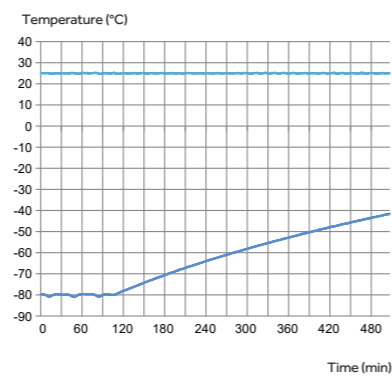
Temperature Cool Down Curve



Stability Curve

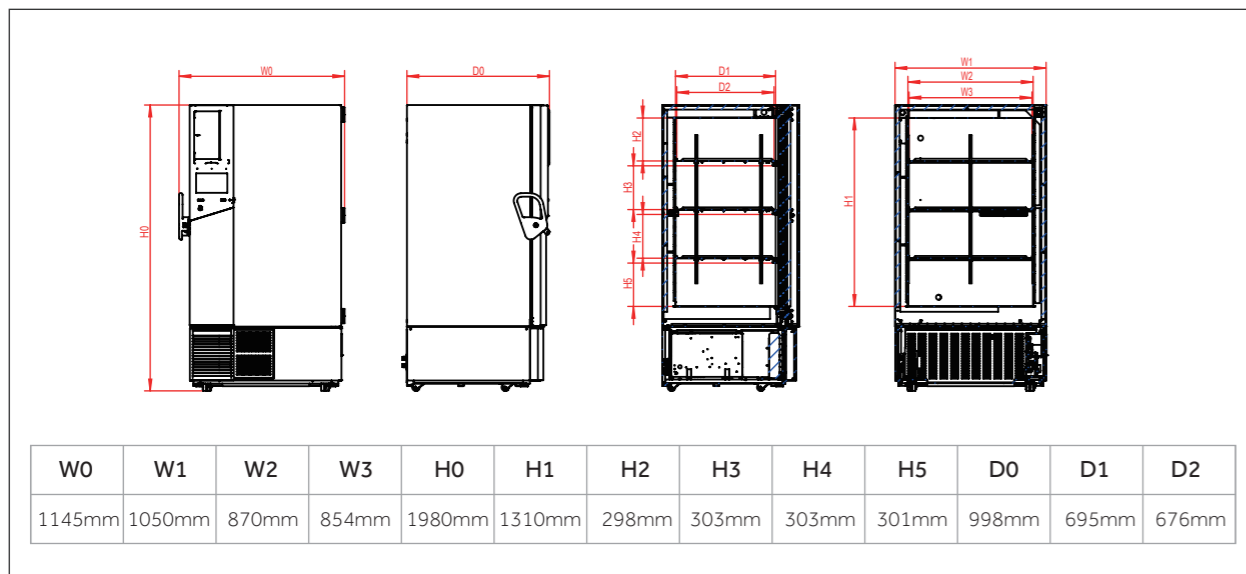


Temperature Recovery Curve



— 3<sup>rd</sup> centre  
 — amb temp  
 — ave temp  
 — 1<sup>st</sup> center temp  
 — 2<sup>nd</sup> left outer temp  
 — 2<sup>nd</sup> right inner temp  
 — 3<sup>rd</sup> center temp  
 — 1<sup>st</sup> left inner temp  
 — 1<sup>st</sup> right outer temp  
 — 2<sup>nd</sup> center temp  
 — 3<sup>rd</sup> left inner temp  
 — 3<sup>rd</sup> right outer temp

### Product Dimensions



### Specifications

Model	DW-86L578BPST	DW-86L728BPST	DW-86L828BPST
<b>Technical Data</b>			
Cabinet Type	Upright	Upright	Upright
Climate Class	N	N	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
<b>Performance</b>			
Cooling Performance (°C)	-86	-86	-86
Temperature Range (°C)	-40~-86	-40~-86	-40~-86
<b>Control</b>			
Controller	Microprocessor	Microprocessor	Microprocessor
Display	LCD	LCD	LCD
<b>Electrical Data</b>			
Power Supply (V/Hz)	100-230/50/60Hz	100-230/50/60Hz	100-230/50/60Hz
Power (W)	710	710	720
Max Power Draw (W)	1100	1100	1400
Electrical Current (A)	10.4	10.4	13
<b>Dimensions</b>			
Capacity (L/Cu.Ft)	578/20.4	728/25.7	828/29.2
Net/Gross Weight (approx)	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	950*1055*2150	1100*1105*2150
	in	37.4*41.5*84.6	43.3*43.5*84.6
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	Y	Y	Y
Hot Condenser	Y	Y	Y
Power Failure	Y	Y	Y
High/Low Voltage	Y	Y	Y
Sensor Error	Y	Y	Y
Low Battery	Y	Y	Y
High Ambient Temperature	Y	Y	Y
Door Ajar	Y	Y	Y
Start-up Delay	Y	Y	Y
<b>Accessories</b>			
Caster	Y	Y	Y
Foot	Y	Y	Y
Porthole	Y/2	Y/2	Y/2
Shelves/ Inner Doors	3/4	3/4	3/4
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	NA/Standard	NA/Standard	NA/Standard
CO <sub>2</sub> Backup System	Optional	Optional	Optional
LN <sub>2</sub> Backup System	Optional	Optional	Optional
<b>Certifications</b>			
CE	Y	Y	Y
UL	Y	Y	Y

# TwinCool ULT Freezer





## Scope of Application

The TwinCool ULT freezer can be used for the storage and protection of valuable samples which require strict and continuous storage conditions, designed to operate even in the event of a compressor failure. Suitable for viruses, pathogens, blood cells and other biological sample cold storage applications found within hospitals, disease control, research institutions and biomedical engineering. Also used to store special materials and other products within electronics and chemicals industries.

## Advanced Hardware System



### Smart Full-size Touch Screen

10-inch touch screen with state-of-art user interface design, coupled with sample management system provides optimal user experience.

## Optional IOT & Sample Management System (Professional Edition)



### Simplified Sample Management Experience

Barcode scanner for simple, effortless and precise identification. Input and retrieve your samples with higher precision and efficiency



### Wireless Monitoring Connectivity

Check the real-time operating status via mobile phones or palmtop, simple and reliable

## Friendly Design



### Safe and secure

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



### Cloud data storage available

Store hundreds of millions of scientific research and sample information in the cloud server

### A Dual independent refrigeration systems for maximum sample safety

The dual refrigeration systems run independently and alternately, both reaching -80°C, such that if one system fails the other will maintain temperature to ensure sample storage safety.

### B High speed refrigeration system for faster pull down and temperature recovery after door opening

Utilizing auto-cascade hydrocarbon (HC) refrigeration technology to deliver fast temperature pull down. From an ambient of 25°C it takes just 180 minutes to reach -80°C. It provides a quick temperature recovery after door opening, with the internal temperatures returning to -75°C within 1 minute, guaranteeing safety of samples.

### C World-leading energy saving refrigeration technology

The HC refrigeration technology coupled with superinsulation, which increases the insulation efficiency by 30%, and a cabinet designed to reduce heat loss ensures an energy efficient freezer. The 578L model has a power consumption of 11 kWh/day and is certified by The National Quality Certification Center for Energy Saving and Environmental Protection.



### Low noise design, reducing the noise down to 53dB

Special noise-reduction design plus super silent compressor technology and energy-saving fan, considerably lowers noise level



### 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 30%

## Specifications

Model	DW-86L578ST		DW-86L578SAT		DW-86L728ST		DW-86L728SAT			
Technical Data	Cabinet Type	Upright		Upright		Upright		Upright		
	Climate Class	N		N		N		N		
	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))	53	52	53	50	53	53			
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)	220-240/50		120/60		208~230/60		208-230/50 120/60 208~230/60		
	Electrical Current (A)	10	18	10	10	18	10			
	Power Consumption (kWh/24h)	12	10	10	12	11	12			
Construction	Capacity (L/Cu.Ft)	578/20.4		578/20.4		728/25.7		728/25.7		
	Net/Gross Weight (approx)	kg	325/355		325/355		350/385		350/385	
		lbs	716.5/782.6		716.5/782.6		771.6/848.8		771.6/848.8	
	Interior Dimension (W*D*H)	mm	620*716*1310		620*716*1310		766*716*1310		766*716*1310	
		in	24.4*28.2*51.6		24.4*28.2*51.6		30.2*28.2*51.6		30.2*28.2*51.6	
	Exterior Dimension (W*D*H)	mm	895*998*1980		895*998*1980		1046*998*1980		1046*998*1980	
		in	35.4*39.3*78.0		35.4*39.3*78.0		41.2*39.3*78.0		41.2*39.3*78.0	
Packing Dimension (W*D*H)	mm	950*1055*2150		950*1055*2150		1100*1105*2150		1100*1105*2150		
	in	37.4*41.5*84.6		37.4*41.5*84.6		43.3*43.5*84.6		43.3*43.5*84.6		
Loading Quantities	Container Load (20'/40'/40'H)	12/24/24		12/24/24		10/20/20		10/20/20		
Alarms	High/Low Temperature	Y		Y		Y		Y		
	Hot Condenser	Y		Y		Y		Y		
	Power Failure	Y		Y		Y		Y		
	High/Low Voltage	Y		Y		Y		Y		
	Sensor Error	Y		Y		Y		Y		
	Low Battery	Y		Y		Y		Y		
	High Ambient Temperature	Y		Y		Y		Y		
	Door Ajar	Y		Y		Y		Y		
	Caster	Y		Y		Y		Y		
	Foot	Y		Y		Y		Y		
Accessories	Porthole	Y/2		Y/2		Y/2		Y/2		
	Shelves/Inner Doors	3/4		3/4		3/4		3/4		
	USB Interface	Y		Y		Y		Y		
	Remote Alarm (Dry contacts)	Y		Y		Y		Y		
	5V Power Supply Port	Y		Y		Y		Y		
	Temperature Recorder	Optional		Optional		Optional		Optional		
	RS485 Port	Y		Y		Y		Y		
	CO <sub>2</sub> Backup System	Optional		Optional		Optional		Optional		
	LN <sub>2</sub> Backup System	Optional		Optional		Optional		Optional		
	Certifications	CE	Y	/	/	Y	/	/		
UL		/	Y	Y	/	Y	Y			
ENERGY STAR		Y	Y	Y	Y	Y	Y			

The TwinCool ultra-low temperature freezer of Haier Biomedical provides the highest level of protection for your valuable samples.



DW-86L578S

### Safer by Design

Haier Biomedical's ultra low temperature freezers with intelligent TwinCool technology are designed to provide optimal cabinet reliability, longevity, efficiency and sample protection. This super efficient technology also improves the energy efficiency of our third generation ULT freezers and leads the way in terms of product innovation.

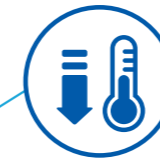
### Intelligent TwinCool Refrigeration System

Two independent refrigeration systems are designed to ensure optimal reliability, longevity and efficiency. Depending on the load demands and ambient conditions, one or both refrigeration systems will operate on demand, ensuring the samples are fully protected under the worst possible condition.



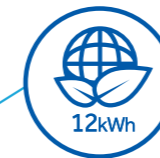
#### Maximum Sample Security

TwinCool system means extra insurance for temperature. Each independent refrigeration system can maintain  $-80^{\circ}\text{C}$  separately.



#### Fast Cabinet Pull Down

Fast and efficient cabinet pulldown, it usually takes an average of three hours to reach  $-80^{\circ}\text{C}$  at  $25^{\circ}\text{C}$  ambient. This means the temperature recovery after door opening is excellent ensuring the stored samples are not exposed to undesirable temperatures.



#### Maximum Energy Efficiency

The TwinCool ultra-low temperature system operates with 12 kWh/day.



#### World-leading Energy Saving Refrigeration Technology

The Haier hydrocarbon refrigeration technology uses less than 50% energy compared to traditional CFC refrigerants to reduce the operating cost. The refrigerants do not contain fluorine or chlorine giving it a GWP value of just three, which is better for the environment.



#### Reduced Running Costs

VIP thermal insulation system is designed to significantly reduce heat gain and operating cost.



**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



**Pressure Equalisation Port**  
Heated Pressure Equalization Port allows users to re-open the main door quickly when entering. Adopts chromium plating, rust-proof



**Improved Handle Design**  
Lockable handle safeguards your precious samples. A padlock can also be added for extra sample safety



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

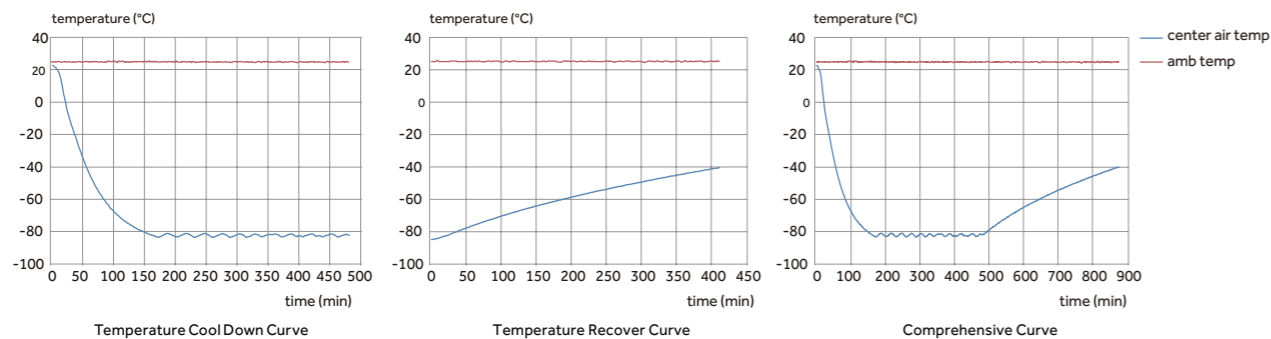


**Multi-level Alarms**  
Alarm functions include high, low temperature, sensor error, power failure, high ambient, clean filter and door ajar



DW-86L578S

**DW-86L578S | TYPICAL PERFORMANCE CHARACTERISTICS AT 25°C AMBIENT**



**Specifications**

Model		DW-86L578S	DW-86L728S	
Technical Data	Cabinet Type	Upright	Upright	
	Climate Class	N	N	
	Cooling Type	Direct Cooling	Direct Cooling	
	Defrost Mode	Manual	Manual	
	Refrigerant	HC	HC	
	Sound Level (dB(A))	53	50	
Performance	Cooling Performance (°C)	-86	-86	
	Temperature Range (°C)	-40~-86	-40~-86	
Control	Controller	Microprocessor	Microprocessor	
	Display	LED	LED	
Electrical Data	Power Supply (V/Hz)	220~240/50	220~240/50	
	Electrical Current (A)	10	10	
	Power Consumption (kWh/24h)	12	12	
Construction	Capacity (L/Cu.Ft)	578/20.4	728/25.7	
	Net/Gross Weight (approx)	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	35.4*39.3*78.0	41.2*39.3*78.0
Packing Dimension (W*D*H)	mm	950*1055*2150	1100*1105*2150	
	in	37.4*41.5*84.6	43.3*43.5*84.6	
Loading Quantities	Container load (20'/40'/40'H)	12/24/24	10/20/20	
	High/Low Temperature	Y	Y	
Alarms	Hot Condenser	Y	Y	
	Power Failure	Y	Y	
	Sensor Error	Y	Y	
	Low Battery	Y	Y	
	High Ambient Temperature	Y	Y	
	Door Ajar	Y	Y	
	Caster	Y	Y	
	Foot	Y	Y	
Accessories	Porthole	Y/2	Y/2	
	Shelves/Inner doors	3/4	3/4	
	USB Interface	Y	Y	
	Remote Alarm ( Dry contacts)	Y	Y	
	5V Power Supply Port	Y	Y	
	Temperature Recorder	Optional	Optional	
	RS485	Y	Y	
	CO <sub>2</sub> Backup System	Optional	Optional	
	LN <sub>2</sub> Backup System	Optional	Optional	
	Certifications	CE	Y	Y
ENERGY STAR		Y	Y	

S suffix - Dual independent refrigeration systems  
Product appearance and specifications are subject to change without notice



Frequency  
Conversion ULT  
Freezer

### Scope of Application

Applicable for products and samples which require strict storage conditions such as viruses, pathogens, red blood cells, white blood cells, skin, bones, bacteria, semen, biological products, electronics and special materials. Suitable for long term storage applications and compliant with typical storage requirements found in hospitals, disease control and prevention centers, scientific research institutions, biomedical engineering institutes, agriculture/ fishery companies as well as the electronics and chemical industry.

### 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.

### Optional IoT Software System



#### Simplified Sample Management Experience

Optional barcode scanner for simple, effortless and precise identification. Input and retrieve your samples with higher precision and efficiency



#### Wireless Monitoring Connectivity

Check the real-time operating status via mobile phones or palmtop, simple and reliable

#### A Quicker product access, identification and retrieval

Instead of a manual system, the one-gun, one-code and one-key operation plus touch screen synchronization means you can access and retrieve your samples within seconds

#### B 24-hour sample protection

Using Haier's app and IoT technology the unit can be monitored and can self-diagnose faults, ensuring you are always aware of your unit's status and able to make real-time and informed choices to protect your samples

#### C Cloud data storage available

Store hundreds of millions of scientific research and sample information in the cloud server

### Friendly Design



#### Safe and secure

Standard equipped with key lock, padlock and 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	
	Climate Class	N	N	N	N	
	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	Touch Screen LCD	Touch Screen LCD	Touch Screen LCD	Touch Screen LCD	
Electrical Data	Power Supply (V/Hz)	100-230/50/60	100-230/50/60	110-120/60 208-230/50/60	110-120/60 208-230/50/60	
	Electrical Current (A)	14	14	15 6	20 9	
Dimensions	Capacity (L/Cu.Ft)	579/20.4	729/25.7	829/29.2	959/33.9	
	Net/Gross Weight (approx)	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	950*1055*2150	1100*1105*2150	1193*1048*2127	1358*1098*2127
		in	37.4*41.5*84.6	43.3*43.5*84.6	47.0*41.3*83.7	53.5*43.2*83.7
	Container load (20'/40'/40'H)	12/24/24	10/20/20	8/20/20	8/16/16	
Functions	High/Low Temperature	Y	Y	Y	Y	
	Hot Condenser	Y	Y	Y	Y	
	Power Failure	Y	Y	Y	Y	
	High/Low Voltage	Y	Y	Y	Y	
	Sensor Error	Y	Y	Y	Y	
	Low Battery	Y	Y	Y	Y	
	High Ambient Temperature	Y	Y	Y	Y	
	Door Ajar	Y	Y	Y	Y	
	Start-up Delay	Y	Y	Y	Y	
	Accessories	Caster	Y	Y	Y	Y
Foot		Y	Y	Y	Y	
Porthole		Y/2	Y/2	Y/2	Y/2	
Shelves/Inner Doors		3/4	3/4	3/4	3/4	
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	
RS485 Port		Y	Y	Y	Y	
CO <sub>2</sub> Backup System		Optional	Optional	Optional	Optional	
LN <sub>2</sub> Backup System		Optional	Optional	Optional	Optional	
Certifications		CE	Y	Y	/ Y	/ Y
	UL	Y	Y	/ Y	/ Y	
	ENERGY STAR	Y	Y	Y Y	Y Y	

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

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



DW-86L829BP

## Smarter by Design

The SmartFrequency 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.



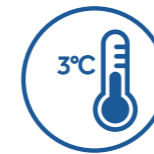
### Intelligent frequency Conversion technology

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).



### Energy Saving Refrigeration

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



### 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



### USB Interface

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



### Multilayered Sealing Structure

Triple layer of gaskets split between main and inner doors decreases heat loss and guarantee excellent warm up times in the event of a power failure



### 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



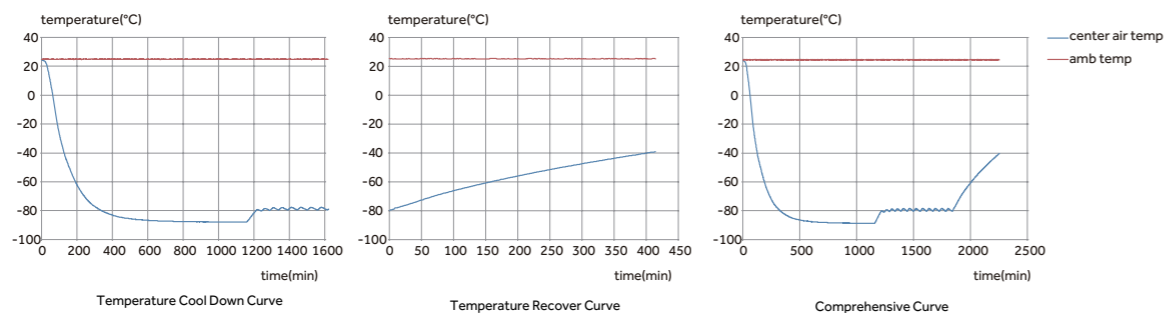
### Multilevel Alarms

Alarming functions that include high and low temperature, sensor error, power failure, high ambient, clean filter and door ajar



DW-86L829BP

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



## Specifications

Model	DW-86L579BP	DW-86L729BP	DW-86L829BP	DW-86L959BP		
Technical Data	Cabinet Type	Upright	Upright	Upright	Upright	
	Climate Class	N	N	N	N	
	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	
	Temp Range (°C)	-40~-86	-40~-86	-40~-86	-40~-86	
Control	Controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor	
	Display	LED	LED	LED	LED	
Electrical Data	Power Supply (V/Hz)	100~230/50/60	100~230/50/60	208~230/50/60	208~230/50/60	
	Electrical Current (A)	14	14	6	7	
	Power Consumption (kWh/24h)	7.5	8	8.2	9.8	
Construction	Capacity (L/Cu.Ft)	579/20.4	729/25.7	829/29.2	959/33.9	
	Net/Gross Weight (approx)	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 Dimensions (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 Dimensions (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	950*1055*2150	1100*1105*2150	1193*1048*2127	1365*1105*2150	
	in	37.4*41.5*84.6	43.3*43.5*84.6	47.0*41.3*83.7	53.7*43.5*84.6	
Loading Quantities	Container Load (20'/40'/40'H)	12/24/24	10/20/20	9/20/20	8/16/16	
	Remote Alarm (Dry contacts)	Y	Y	Y	Y	
Alarms	High/Low Temp	Y	Y	Y	Y	
	Hot Condenser	Y	Y	Y	Y	
	Power Failure	Y	Y	Y	Y	
	Sensor Error	Y	Y	Y	Y	
	Low Battery	Y	Y	Y	Y	
	High Ambient Temp	Y	Y	Y	Y	
	Door Ajar	Y	Y	Y	Y	
	Caster	Y	Y	Y	Y	
Accessories	Foot	Y	Y	Y	Y	
	Porthole	Y/2	Y/2	Y/2	Y/2	
	Shelves/ Inner Doors	3/4	3/4	3/4	3/4	
	USB Interface	Y	Y	Y	Y	
	5V Power Supply Port	Y	Y	Y	Y	
	Temp Recorder	Optional	Optional	Optional	Optional	
	RS485 Port	Y	Y	Y	Y	
	CO <sub>2</sub> Backup System	Optional	Optional	Optional	Optional	
	LN <sub>2</sub> Backup System	Optional	Optional	Optional	Optional	
	Certifications	CE	Y	Y	Y	Y
UL		Y	Y	Y	Y	
ENERGYSTAR		Y	Y	Y	Y	

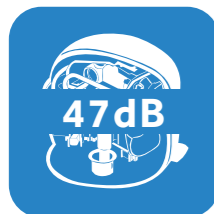
BP suffix - Variable frequency inverter compressor  
Product appearance and specifications are subject to change without notice

Haier 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 posing little impact to a laboratory's ambient
- 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



### Specifications

Model		DW-86L828W	DW-86L959W	
Technical Data	Cabinet Type	Upright	Upright	
	Climate Class	N	N	
	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 Touch Screen	LCD Touch Screen	
Electrical Data	Power Supply (V/Hz)	208-230/50/60	208-230/50/60	
	Electrical Current (A)	6	7	
	Capacity (L/Cu.Ft)	828/29.2	959/33.9	
Dimensions	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	1190*1045*2150	1358*1098*2127
		in	46.9*41.1*84.6	53.5*43.2*83.7
Container Load (20'/40'/40'H)		8/20/20	8/16/16	
Alarms	High/Low Temperature	Y	Y	
	Hot Condenser	Y	Y	
	Power Failure	Y	Y	
	High/Low Voltage	Y	Y	
	Sensor Error	Y	Y	
	Low Battery	Y	Y	
	High Ambient Temperature	Y	Y	
	Door Ajar	Y	Y	
	Caster	Y	Y	
	Foot	Y	Y	
Accessories	Porthole	Y/2	Y/2	
	Shelves/Inner doors	3/4	3/4	
	USB Interface	Y	Y	
	Remote Alarm (Dry contacts)	Y	Y	
	5V Power Supply Port	Y	Y	
	Temperature Recorder	Optional	Optional	
	Rs485 Port	Y	Y	
	CO <sub>2</sub> Backup System	Optional	Optional	
	LN <sub>2</sub> Backup System	Optional	Optional	
	Others	Certification	CE	CE

Product appearance and specifications are subject to change without notice



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

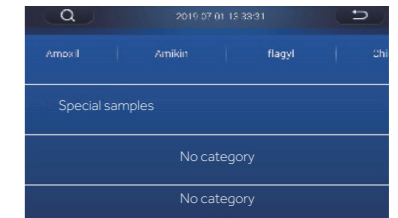


### Large Intelligent LCD Screen Visual Management

10-inch high-performance LCD capacitive screen, sensitive touch operation; intuitive display of inside temperature, ambient temperature, input voltage and other data and temperature curves.

### Inventory Management System

The single version of the inventory management allows users who do not have a racking system within the freezer to easily record item locations, entry and exit records.



Single version (standard)



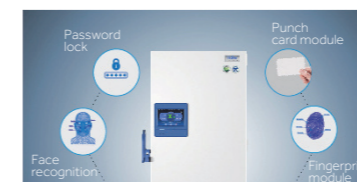
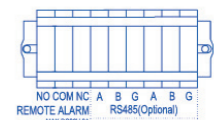
Professional version (optional)

In instances where customers use racking systems, the optional professional version of the inventory management is available. Freezer racks, boxes, and vials can easily record item locations and entry and exit records, facilitate item inventory and statistics, realize multi-screen interaction and reduce errors through secondary verification.

The freezer comes with the single version as standard.

### Equipped with Multiple Interfaces

- Standard USB interface, capable of storing data for 10 years
- Standard remote alarm terminal RS485 port



### Multiple Options for Safe Management and Control Systems

Standard password lock, optional fingerprint module, punch card module, face recognition, realizing safe and secure multi-user management.

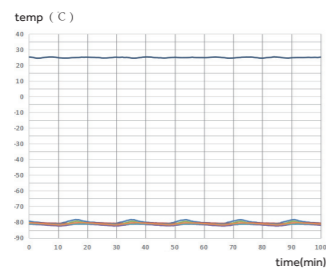
### Optional IoT System Realizes Real-time Monitoring

The IoT APP can monitor the operating status of the equipment anytime and anywhere. Equipped with multiple alarm functions and able to self-diagnose system faults to ensure sample safety. (Contact your local area representative to check local availability.)



### Safe and Secure with Multiple Alarms

Multiple alarm functions include high temperature alarm, low temperature alarm, sensor failure alarm, power failure alarm, low battery alarm, door ajar alarm and high ambient temperature alarm.



### Precise Temperature Control Ensures Safe Storage

Adjustable temperature set-point between -40°C ~ -86°C and the ability to monitor temperature curves in real time, equipped with sophisticated temperature safety alarm system to ensure product safety.

### Ergonomic Design



#### Narrow Door Design

The freezer can pass through an 750mm wide door when the door is open



#### New Handle Design

Adopting exclusive slide design, easy to open and close the door



#### Pressure Equalization Port

Equipped with pressure equalization port, realize easy opening  
Adopts chromium plating, rust-proof



#### Porthole

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



#### Filter Design

Tool-free removable filter design, easy and quick to clean the filter



#### Detachable Inner Door Design

Tool-free detachable inner door, realizing easy and quick defrost

### Specifications

Model	DW-86L419	DW-86L579	DW-86L729	DW-86L829		
Technical Data	Cabinet Type	Upright	Upright	Upright	Upright	
	Climate Class	N	N	N	N	
	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))	47	47	52	52	
	Cooling Performance (°C)	-86	-86	-86	-86	
Control	Temp Range (°C)	-40~-86	-40~-86	-40~-86	-40~-86	
	Controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor	
Electrical Data	Display	LCD Touchscreen	LCD Touchscreen	LCD Touchscreen	LCD Touchscreen	
	Power Supply (V/Hz)	220-240/50	220-240/50	220-240/50	220-240/50	
	Electrical Current (A)	5	5.5	9	10	
Construction	Power Consumption (kWh/24h)	8	9	10	11	
	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*980*1980	903*980*1960	1049*980*1980	1153*980*1980	
	in	32.7*38.6*78.0	35.6*38.6*77.2	41.3*38.6*78.0	45.4*38.6*78.0	
Packing Dimension (W*D*H)	mm	874*1073*2127	948*1078*2127	1100*1105*2150	1190*1045*2150	
	in	34.4*42.2*83.7	37.3*42.4*83.7	43.3*43.5*84.6	46.9*41.1*84.6	
Loading Quantities	Container Load (20'/40'/40'H)	12/26/26	12/24/24	10/20/20	10/20/20	
	High/Low Temp	Y	Y	Y	Y	
	Hot Condenser	Y	Y	Y	Y	
	Power Failure	Y	Y	Y	Y	
	High/Low Voltage	Y	Y	Y	Y	
	Sensor Error	Y	Y	Y	Y	
	Low Battery	Y	Y	Y	Y	
	High Ambient Temp	Y	Y	Y	Y	
	Door Ajar	Y	Y	Y	Y	
Accessories	Caster	Y	Y	Y	Y	
	Foot	Y	Y	Y	Y	
	Porthole	Y/2	Y/2	Y/2	Y/2	
	Shelves/ Inner Doors	3/2	3/4	3/4	3/4	
	USB Interface	Y	Y	Y	Y	
	Remote Alarm (Dry contacts)	Y	Y	Y	Y	
	5V Power Supply Port	Y	Y	Y	Y	
	Temp Recorder	Optional	Optional	Optional	Optional	
	RS485 Port	Y	Y	Y	Y	
	CO <sub>2</sub> Backup System	Optional	Optional	Optional	Optional	
LN <sub>2</sub> Backup System	Optional	Optional	Optional	Optional		
Certification	CE	Y	Y	Y	Y	
	Energy star	/	Y	Y	Y	

Product appearance and specifications are subject to change without notice

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

- 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

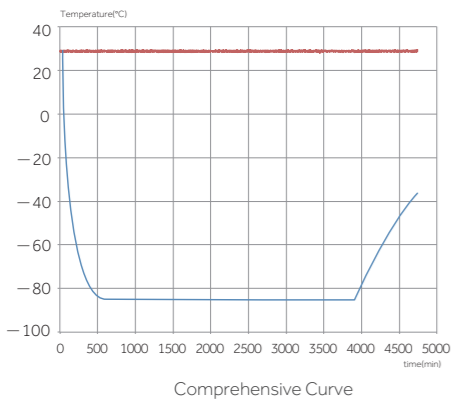
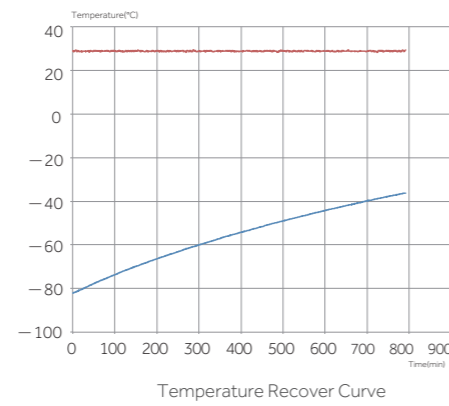
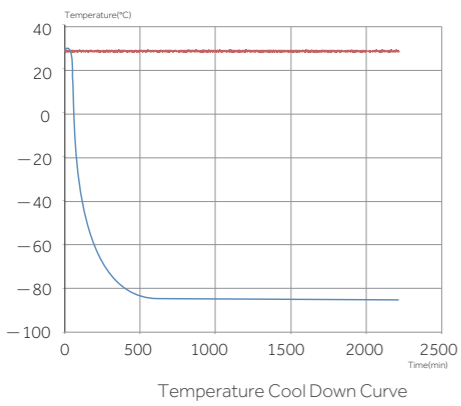
### Alarms (Visual and Audible)

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



#### 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



- Optimized slideway design, easier to open and close the door



#### 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



#### Circular- chart Recorder (Optional)

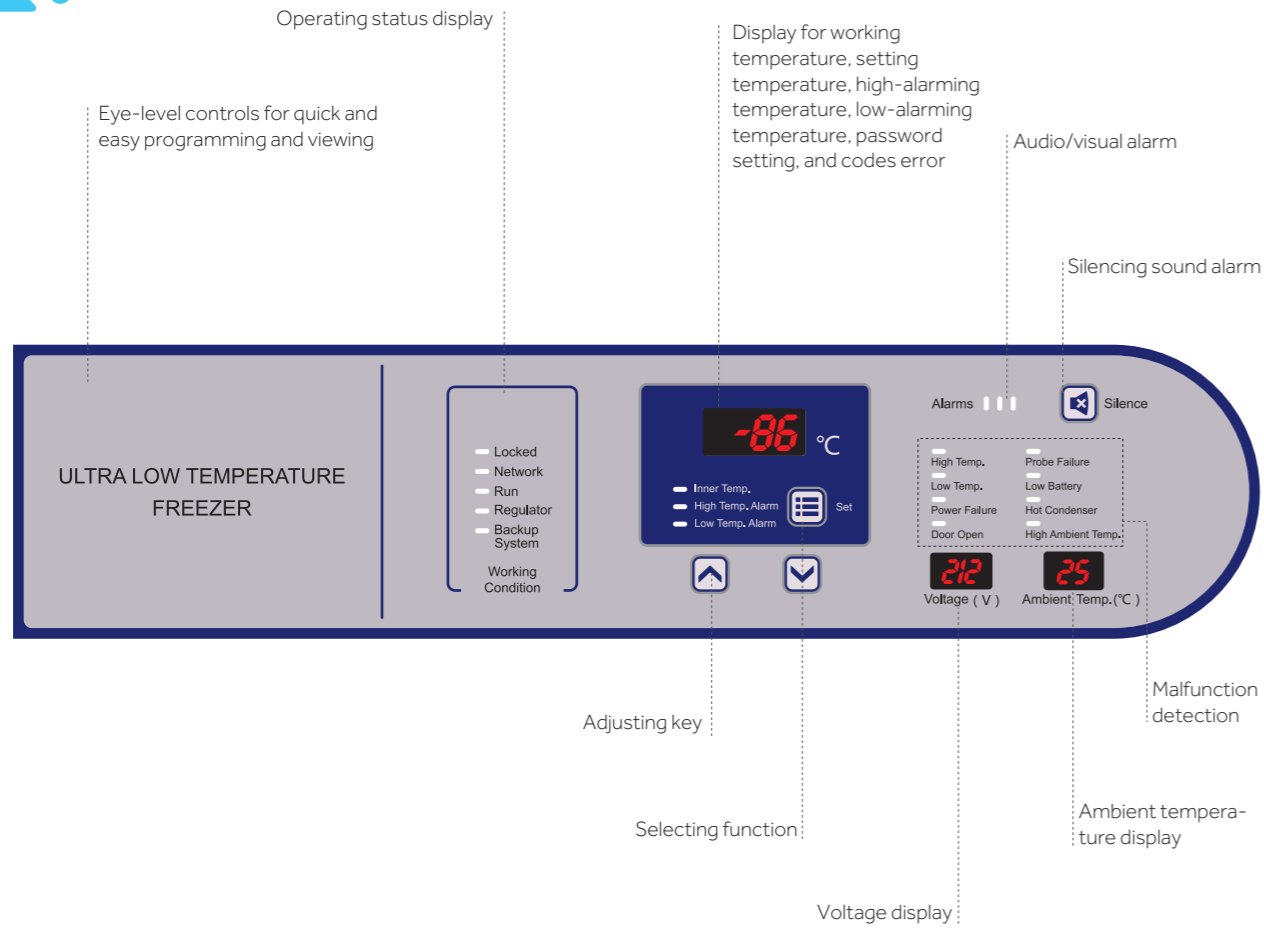
- Front-mounted.
- For independent temperature monitoring.



#### High Efficiency Refrigeration Components

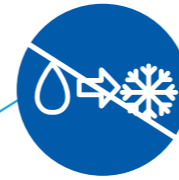


Two port holes for ease of temperature monitoring



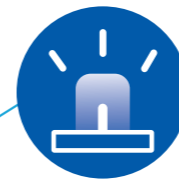
### Specifications

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 E4.Heat exchanger temperature fails
Low Battery	Battery capacity runs low or battery switch is not turned on
Hot Condenser	1. Condensers filter element is clogged 2. Ambient temperature is too high
High Ambient Temperature	Ambient temperature exceeds 32°C



**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



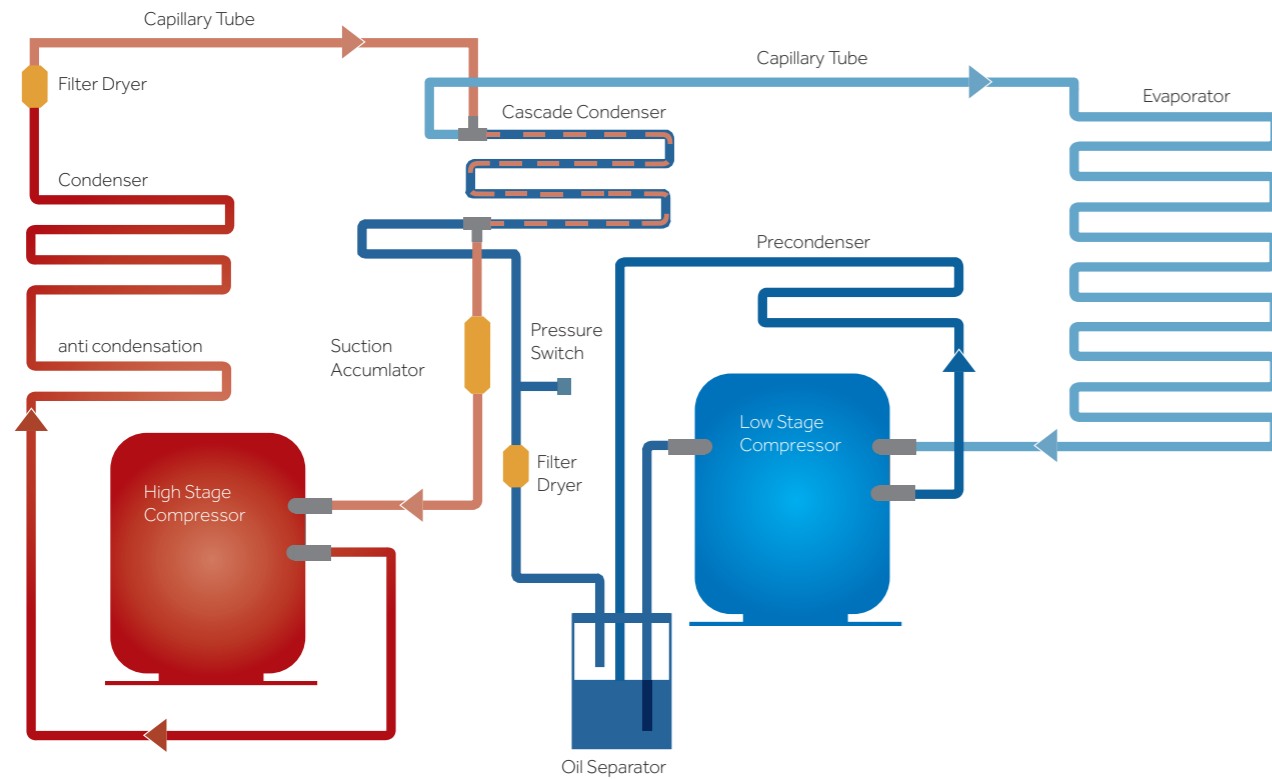
**Energy saving**









- 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



	<b>Filter dryer</b> • Filtration and drying device for water and debris
	<b>Capillary tube for high stage</b> • Expansion device for high stage liquid refrigerant
	<b>Capillary tube for low stage</b> • Expansion device for low stage refrigerant
	<b>High stage condenser</b> • Extra-large air cooled condenser dissipates product heat content efficiently.
	<b>Low stage evaporator</b> • Heat exchanger for expanded low stage refrigerant
	<b>Ultra low noise compressor</b> • Compressor provides reliable performance with ultra low noise • Specially designed low stage evaporator yields excellent temperature uniformity and recovery after loading and door opening. • Both high and low stage compressors are industrial grade hermetically sealed compressor designed for low temperature application. Sound level is extremely low.
	<b>Cascade condenser</b> • Heat exchanger between the high and low temperature stage in the system
	<b>Temprite oil separator</b> • Temprite oil separator can effectively separate oil and water to improve the refrigeration performance

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 delivering a power consumption figure of just 5.5kW/24hrs.



**Personal ULT Storage**

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.



**Low noise**

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

**VIP insulation and multilayered sealing design**

70mm insulating layer with 25mm VIP and 4 layers of gasket improves energy efficiency and reduces heat loss to deliver excellent warm up times in event of power failure.

**Optional IoT Module**

Real time monitoring of cabinet temperature, temperature setting, high and low temperature alarm value, temperature curve, alarm log and event log.

- User-settable parameters such as set point and alarms.
- Real-time cabinet temperature display, alarm information, power supply and compressor start/stop state.
- Standard USB port capable of storing >15 years of operating data for compliance.



Filter is easy to remove and clean without the need for tools.

4 casters + 2-foot locks, easy to move, lock and level.



Ergonomic design for easy door opening and closing. Lockable and equipped with 4 keys as standard with the ability to add a padlock for extra security when required.



Double stainless-steel inner doors to prevent cooling loss when opening the outer door, easy to clean.

**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.

**Specifications**

	Model	DW-86L338J			DW-86L338JA			DW-86L388J			DW-86L486E			DW-86L490J		DW-86L490JA		DW-86L578J			DW-86L578JA			DW-86L628E			
Technical Data	Cabinet Type	Upright						Upright						Upright						Upright							
	Climate Class	N						N						N						N							
	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))	50						50						49						50							
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	LED						LED						LED						LED							
Electrical Data	Power Supply (V/Hz)	220~240/50		115/60		208~230/60		220~240/50		220~240/50		220~240/50		220~240/50		208~230/60		220~240/50		120/60		208~230/60		220~240/50			
	Electrical Current (A)	7.5		12		7.5		7.5		10		10		8		8		7.5		12		9		11			
	Power Consumption(kWh/24h) (set -80°C at 25°C ambient)	10		7.5		8.2		11		13		13		11.5		11.5		12		8.5		8.5		14			
Construction	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 (approx)	kg	238/278		255/286		290/310		290/310		290/310		295/335		295/335		300/330		300/330			301/323					
		lbs	524.7/612.9		562.2/630.5		639.3/683.4		639.3/683.4		639.3/683.4		650.4/738.5		650.4/738.5		661.4/727.5		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		590*630*1310		590*630*1310		590*630*1310		620*716*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		23.3*24.8*51.6		23.3*24.8*51.6		23.2*24.8*51.6		23.2*24.8*51.6		24.4*28.2*51.6		24.4*28.2*51.6			29.9*24.8*51.6					
	Exterior Dimension (W*D*H)	mm	823*900*1871		830*980*1980		953*900*1980		953*900*1980		953*900*1980		953*900*1980		953*900*1980		903*980*1960		903*980*1960			1035*900*1980					
in		32.4*35.4*73.6		32.7*38.6*78.0		37.5*35.4*78.0		37.5*35.4*78.0		37.5*35.4*78.0		37.5*35.4*78.0		37.5*35.4*78.0		35.6*38.6*77.2		35.6*38.6*77.2			40.7*35.4*78.0						
Packing Dimension (W*D*H)	mm	878*973*2027		893*1078*2135		998*998*2127		998*998*2127		998*998*2127		998*998*2127		998*998*2127		990*1110*2070		990*1110*2070			1080*965*2150						
	in	34.6*38.3*79.8		35.2*42.4*84.1		39.3*39.3*83.7		39.3*39.3*83.7		39.3*39.3*83.7		39.3*39.3*83.7		39.3*39.3*83.7		39.0*43.7*81.5		39.0*43.7*81.5			42.5*38.0*84.6						
Loading Quantities	Container load (20'/40'/40'H)	12/24/24						12/24/24						12/24/24						12/24/24		12/24/24			12/24/24		
Alarms	High/Low Temperature	Y						Y						Y						Y		Y			Y		
	Hot Condenser	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		
	High Ambient Temperature	Y						Y						Y						Y		Y			Y		
	Door Ajar	Y						Y						Y						Y		Y			Y		
	Caster	Y						Y						Y						Y		Y			Y		
Accessories	Foot	Y						Y						Y						Y		Y			Y		
	Porthole	Y/2						Y/2						Y/2						Y/2		Y/2			Y/2		
	Shelves/Inner doors	3/2						3/2						3/4						3/4		3/4			3/4		
	USB Interface	Y						Y						Y						Y		Y			Y		
	Remote Alarm (Dry contacts)	Y						Y						Y						Y		Y			Y		
	5V Power Supply Port	Y						Y						Y						Y		Y			Y		
	Temperature 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			
Certifications	CE	Y		/		Y		Y		Y		Y		/		Y		/		/		/		Y			
	UL	/		Y		/		/		/		/		Y		/		Y		Y		Y		/			
	ENERGYSTAR	/		/		/		/		/		/		/		/		Y		Y		/		/			



**Specifications**

	Model	DW-86L728J			DW-86L828J		DW-86L828JA		DW-86L100J		DW-86W100J		DW-86W420J		DW-86W420JA	
Technical Data	Cabinet Type	Upright			Upright		Upright		Upright		Chest		Chest		Chest	
	Climate Class	N			N		N		N		N		N		N	
	Cooling Type	Direct cooling			Direct cooling		Direct cooling		Direct cooling		Direct cooling		Direct cooling		Direct cooling	
	Defrost Mode	Manual			Manual		Manual		Manual		Manual		Manual		Manual	
	Refrigerant	HC			HC		HC		HC		HC		HC		HC	
	Sound level (dB(A))	50			50	51.5	46.8		49		50		50		50	
Performance	Cooling Performance (°C)	-86			-86		-86		-86		-86		-86		-86	
	Temperature Range (°C)	-40~-86			-40~-86		-40~-86		-40~-86		-40~-86		-40~-86		-40~-86	
Control	Controller	Microprocessor			Microprocessor		Microprocessor		Microprocessor		Microprocessor		Microprocessor		Microprocessor	
	Display	LED			LED		LED		LED		LED		LED		LED	
Electrical Data	Power Supply (V/Hz)	220~240/50		120/60	208~230/60		220~240/50		120/60	220~240/50		220~240/50		208~230/60	220~240/50	
	Electrical Current (A)	10		18	10		10		3	6.5		4		7.5		
	Power Consumption(kWh/24h)	10.5		10.5	10.5		12		12		5.5		5.5		5	
Construction	Capacity (L/Cu.Ft)	728/25.7			828/29.2		100/3.5		100/3.5		100/3.5		420/14.8		420/14.8	
	Net/Gross Weight (approx)	kg	345/385		380/410		108/132		108/132		138/160		310/357		310/357	
		lbs	760.6/848.8		837.7/903.9		238/291		238/291		304.2/352.7		683.4/787.0		683.4/787.0	
	Interior Dimension (W*D*H)	mm	766*716*1310		870*716*1310		330*481*630		330*481*630		470*450*480		1367*462*652		1367*462*652	
		in	30.2*28.2*51.6		34.3*28.2*51.6		13*19*25		13*19*25		18.5*17.7*18.9		53.8*18.2*25.7		53.8*18.2*25.7	
	Exterior Dimension (W*D*H)	mm	1049*980*1980		1145*980*1980		770*660*810		770*660*810		769*825*1120		2130*870*1020		2130*870*1020	
in		41.3*38.6*78.0		45.1*38.6*78.0		30*26*32		30*26*32		30.3*32.5*44.1		83.9*34.3*40.2		83.9*34.3*40.2		
Packing Dimension (W*D*H)	mm	1093*1048*2127		1240*1117*2110		844*724*860		844*724*860		845*855*1250		2200*890*1160		2200*890*1160		
	in	43*41.3*83.7		48.8*44.0*83.1		33.2*28.5*33.9		33.2*28.5*33.9		33.3*33.7*49.2		86.6*35.0*45.7		86.6*35.0*45.7		
Loading Quantities	Container load (20'/40'/40'H)	12/20/20			8/20/20		44/88/88		44/88/88		12/24/48		6/12/24		6/12/24	
Alarms	High/Low Temperature	Y			Y		Y		Y		Y		Y		Y	
	Hot Condenser	Y			Y		Y		Y		Y		Y		Y	
	Power Failure	Y			Y		Y		Y		Y		Y		Y	
	High/Low Voltage	/			/		/		/		/		/		/	
	Sensor Error	Y			Y		Y		Y		Y		Y		Y	
	Low Battery	Y			Y		Y		Y		Y		Y		Y	
	High Ambient Temperature	Y			Y		Y		Y		Y		Y		Y	
	Door Ajar	Y			Y		Y		Y		Y		Y		Y	
Accessories	Caster	Y			Y		Y		Y		Y		Y		Y	
	Foot	Y			Y		Y		Y		Y		Y		Y	
	Porthole	Y/2			Y/2		Y/1		Y/1		Y/1		Y/1		Y/1	
	Shelves/Inner doors	3/4			3/4		1/2		1/2		-/1		-/3		-/3	
	USB Interface	Y			Y		Y		Y		Y		Y		Y	
	Remote Alarm	Y			Y		Y		Y		Y		Y		Y	
	5V Power Supply Port	Y			Y		Y		Y		N/A		N/A		N/A	
	Temperature Recorder	Optional			Optional		/		/		Optional		Optional		Optional	
	Rs232/485 Interface	Optional			Optional		-/Y		-/Y		Optional		Optional		Optional	
	CO <sub>2</sub> Backup System	Optional			Optional		Optional		Optional		Optional		Optional		Optional	
LN <sub>2</sub> Backup System	Optional			Optional		Optional		Optional		Optional		Optional		Optional		
Certifications	CE	Y	/	/	Y	/	Y	/	Y	/	Y	/	Y	/	Y	/
	UL	/	Y	Y	/	Y	/	Y	/	Y	/	Y	/	Y	/	Y
	ENERGY STAR	/	Y	/	/	Y	/	Y	/	Y	/	Y	/	Y	/	Y

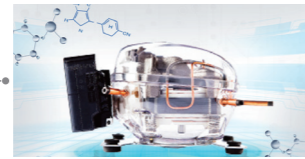
Suitable for pharmaceutical, clinical and medical research use, for the long-term storage of samples and products under ultra-low temperature conditions.

**Advantage**



**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



**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



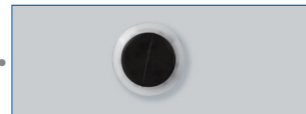
**Stainless Steel Inner Door**

Prevents loss of internal air to keep samples safe



**Ergonomic Design**

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

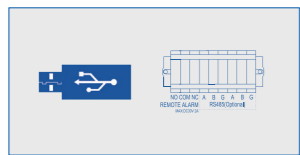


**Internal Lock**

Standard internal lock with 4 keys for multiple users

**Porthole**

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



**Multiple Ports**

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



**Quick Access Filter Design**

Tool-free removable filter design, easy and quick to clean the filter



**DW86L51J**

**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.

**Flexible, Portable Mini-ULT Freezer**

**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.

**Specifications**

Model	DW-80WZ15			DW-86L51J	
Cabinet Type	Chest			Upright	
Climate Class	N			N	
Cooling Type	Direct Cooling			Direct Cooling	
Defrost Mode	Manual			Manual	
Refrigerant	HC			HC	
Sound Level (dB(A))	60			46.8	
Cooling Performance (°C)	-80			-86	
Temperature Range (°C)	-60~-80			-40~-86	
Controller	Temperature Controller			Microprocessor	
Display	LED			LED	
Power Supply (V/Hz)	220/50	110/60	DC 24	120/60	220~240/50
Max Power (W)	320	320	320	420	320
Electrical Current (A)	2.5	4.5	12	7.5	3
Capacity (L/Cu.Ft)	15/0.53			51/1.8	
Net/Gross Weight (approx)	(kg)	27/33		77/90	73/86
	(lbs)	59.52		160.9/189.6	
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	
Interior Dimension (W*D*H)	(mm)	260*180*330		330*481*316	
	(in)	10.2*7.1*13.0		13*16.5*12.4	
Packing Dimension (W*D*H)	(mm)	805*430*725		550*703*847	
	(in)	31.7*17.0*28.5		28.3*21.9*38.3	
Cabinet Width (Without Handle and Hinge)	/			470	
Container Load (20'/40'/40'H)	105/210/210			64/120/120	
High/Low Temperature	Y			Y	
Hot Condenser	N			Y	
Power Failure	Y			Y	
High/Low Voltage	N			Y	
Sensor Error	Y			Y	
Low Battery	N			Y	
High Ambient Temperature	N			Y	
Door Ajar	N			Y	
Start-up Delay	/			Y	
Caster	N			Y	
Foot	Y			Y	
Porthole	N			Y/1	
Shelves/Basket	N/N			1/1	
USB Interface	N			Y	
Remote Alarm	N			Y	
RS232/485 Port	N			NA/Standard	
Certification	/			CE	

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

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

## 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**

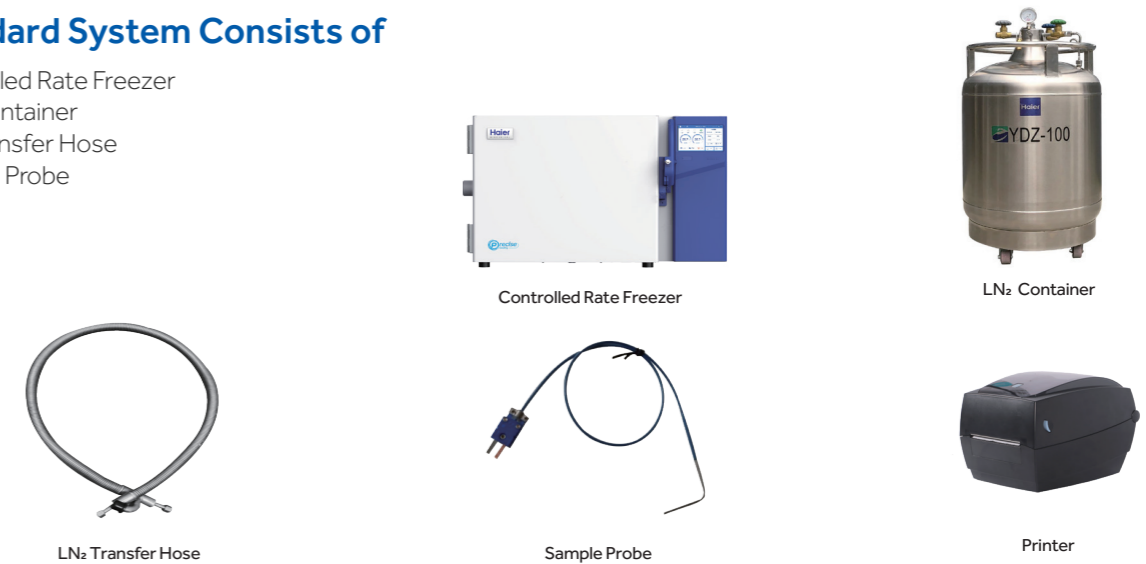
# Controlled Rate Freezer

## 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, ADCR control algorithm, temperature fluctuation range is  $\pm 0.5^{\circ}\text{C}$
- 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

## Standard System Consists of

- Controlled Rate Freezer
- LN<sub>2</sub> Container
- LN<sub>2</sub> Transfer Hose
- Sample Probe
- Printer



## Specifications

Model	Power Supply (V/Hz)	Rated Power (W)	Effective Volume (L)	Temperature Range (°C)
CJ-L37	230-50/60	1300	37	-180-50
Display Screen	Serial Port Form	Exterior Dimensions (W*D*H mm)	Interior Dimensions (W*D*H mm)	Net Weight (Kg)
7" colorful LCD touch screen	USB Interface/RS232 serial port	941/571/572	330/340/330	73

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

### 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



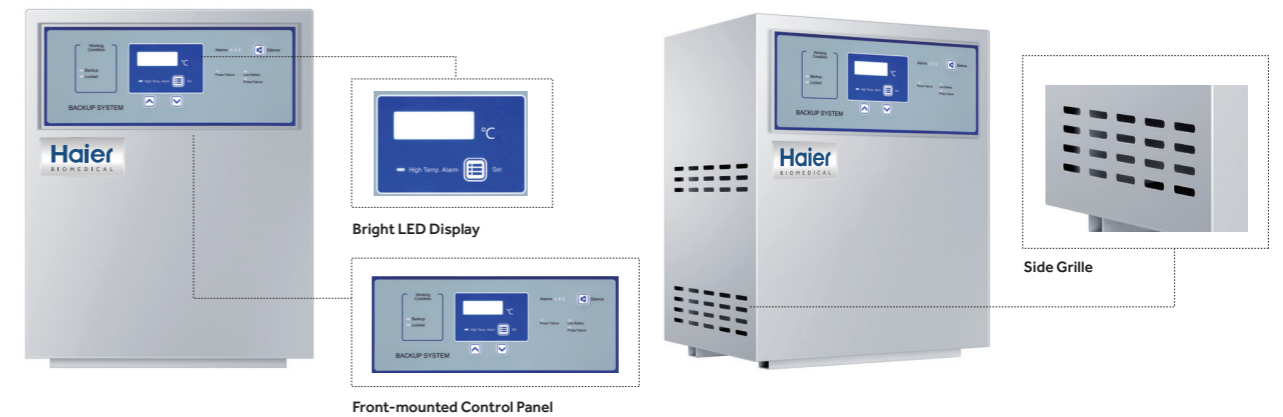
### Specifications

	Model	HBX-IC
Technical Data	Climate Class	N
	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
		208-230/60
	Power (W)	115/60
	Electrical Current (A)	20
Dimensions	Net/Gross Weight (approx)	11.2/14
		24.7/30.86
	Exterior Dimensions (W*D*H)	200*400*160
		7.8*15.7*6.3
	Packing Dimensions (W*D*H)	370*530*330
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
	CO <sub>2</sub> Injection Test Button	Y
Accessories	Foot	4
Others	Certification	CE/UL

Product appearance and specifications are subject to change without notice

# 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
Dimensions	Net/Gross Weight (approx)	15/17
		33.1/37.5
	Exterior Dimensions (W*D*H)	360*305*445
		14.2*12.0*17.5
	Packing Dimensions (W*D*H)	417*357*698
Alarms	Low Battery Alarm	Y
	Sensor Error Alarm	Y
	Main Power Off Alarm	Y
	Charge Indicator	Y
Others	Certification	CE/UL

Product appearance and specifications are subject to change without notice



## Lab Consumables Storage Solutions

The Hoierh coded cryogenic tube solution includes prefabricated QR-coded cryogenic tubes and a coded cryogenic box. When combined with the Hoierh high-speed batch scanner, users can efficiently manage a large volume of samples and their corresponding information.



The fusion technology integrates the label and the tube, the durable and corrosion-resistant label adheres securely

Standard interface, suitable for multichannel cap spinners and automation equipment



Sealing rubber gasket design, aviation grade sealing, ensuring no leakage of samples

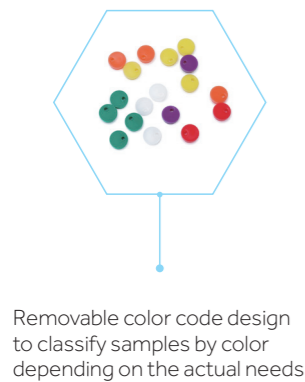
The batch scanner can quickly scan the prefabricated codes of the whole box and synchronously consolidate the box information



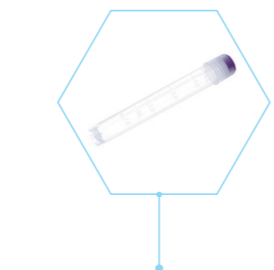
Classification	96-well cryogenic tube		48-well cryogenic tube	24-well cryogenic tube			6-well cryogenic tube
<b>Model</b>	BB-CVO9605-PS2D4(B)	BB-CVO9610-PS2D4(B)	BB-CVO4820-PS2D4(B)	BB-CVO2425-SS2D(B)	BB-CVO2450-SS2D(B)	BB-CVO24100-SS2D(B)	BB-CVO0620-PS2D(B)
<b>Parameter</b>	0.5mL, four codes in one prefabricated QR code cryogenic tube, slender, equipped with SBS standard 96 (8*12) cryogenic box	1.0mL, four codes in one prefabricated QR code cryogenic tube, slender, equipped with SBS standard 96 (8*12) cryogenic box	2.0mL, four codes in one prefabricated QR code cryogenic tube, standard, equipped with SBS standard 48 (8*6) cryogenic box	3.0mL, prefabricated QR code cryogenic tube, wide and thick, equipped with SBS standard 24 (4*6) cryogenic box	5.0mL, prefabricated QR code cryogenic tube, wide and thick, equipped with SBS standard 24 (4*6) cryogenic box	10.0mL, prefabricated QR code cryogenic tube, wide and thick, equipped with SBS standard 24 (4*6) cryogenic box	20.0mL, prefabricated QR code cryogenic tube, wide and thick, equipped with SBS standard 6 (2*3) cryogenic box
<b>Tube dimension (mm)</b>	34.5*8.4	47.7*8.4	47*11.8	30.4*16.8	47.4*16.8	86.5*16.8	35.7*35.6
<b>Box dimension (mm)</b>	86*128*38.5	86*128*50.8	86*128*50.8	86*128*38.5	86*128*50.8	127.76*85.48*89.7	86*128*38.5
<b>Max capacity/ Operating capacity</b>	0.7ml/0.63ml	1.10ml/0.98ml	2.43ml/2.16ml	3.45ml/3.07ml	5.94ml/5.29ml	11.9ml/10.7ml	22.8ml/20.29ml
<b>Minimum operating temperature °C</b>	-196	-196	-196	-196	-196	-196	-196
<b>Sets/Case</b>	4800	4800	2400	1200	1200	1200	300
<b>Package</b>	10box/medium case 5medium box/case	10box/medium case 5medium box/case	10box/medium case 5medium box/case	10box/medium case 5medium box/case	10box/medium case 5medium box/case	10box/medium case 5medium box/case	10box/medium case 5medium box/case

Note: Please operate in strict accordance with the preservation method of laboratory samples. Do not store the cryogenic tube directly in the liquid nitrogen in the liquid nitrogen tank. It is recommended to store it in the gas-phase liquid nitrogen above the liquid nitrogen.

Hoierh cryogenic vials are made of medical-grade polypropylene and pass strict tests to ensure the quality and biosafety of samples stored within biobanks.

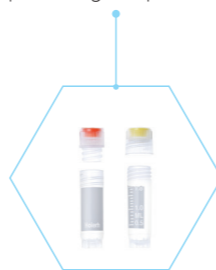








Vial caps available in multiple colors for easy classification



Clear scale and large writing area to facilitate the accurate marking of samples

Both internal thread design and external thread design are available to meet the different sample storage requirements



Classification	External Thread Cryogenic Vial				Internal Thread Cryogenic Vial	
						
<b>Model</b>	H-OS05	H-OS15	H-OS2	H-OS5	H-IS1	H-IS2
<b>Parameter</b>	0.5ml cryogenic vial; external-threaded and self-standing; with scale and white writing area; temperature range -196°C to 121°C	1.5ml cryogenic vial; external-threaded and self-standing; with scale and white writing area; temperature range -196°C to 121°C	2ml cryogenic vial; external-threaded and self-standing; with O-type washer, scale and white writing area; temperature range -196°C to 121°C	5ml cryogenic vial; external-threaded and self-standing; with O-type washer, scale and white writing area; temperature range -196°C to 121°C	1ml cryogenic vial; internal-threaded and self-standing; with O-type washer, scale and white writing area; temperature range -196°C to 121°C	2ml cryogenic vial; internal-threaded and self-standing; with O-type washer, scale and white writing area; temperature range -196°C to 121°C
<b>Sets/Case</b>	1000	1000	1000	1000	1000	1000
<b>Package</b>	100 pcs/bag, 10 bags/case	100 pcs/bag, 10 bags/case	100 pcs/bag, 10 bags/case	100 pcs/bag, 10 bags/case	100 pcs/bag, 10 bags/case	100 pcs/bag, 10 bags/case

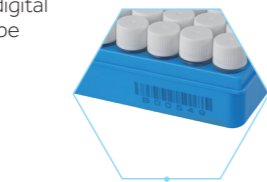
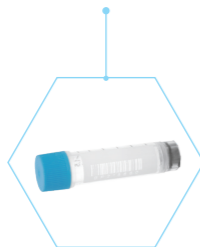
Note: Please operate in strict accordance with the preservation method of laboratory samples. Do not store the cryogenic tube directly in the liquid nitrogen in the liquid nitrogen tank. It is recommended to store it in the gas-phase liquid nitrogen above the liquid nitrogen.

Hoierh 2D cryogenic tube solution is composed of prefabricated QR coded cryogenic tubes and coded cryogenic box. Users can achieve high throughput sample information management when combined with the Hoierh high-speed batch scanner



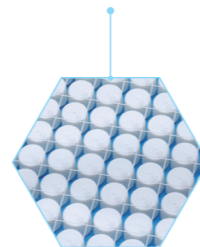
Prefabricated 2D code at the bottom of the tube, laser etching technology, wear resistant and corrosion resistant



Manufactured with both bar and digital codes in one, the same tube can be used for different requirements



Associate tubes and box data by scanning the cryogenic box bar code with Hoierh batch scanner

The transparent grid design of the lid enables quick positioning and picking of samples

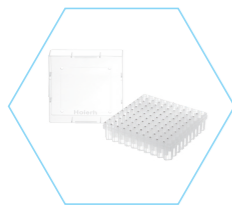
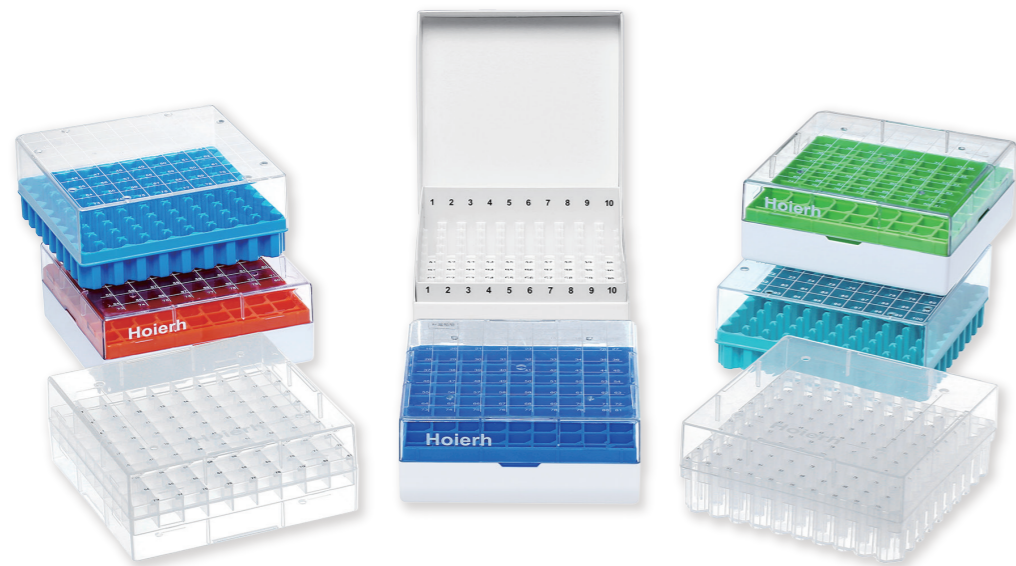


Classification	2D Cryogenic tube	
		
<b>Model</b>	H-OS05D-1	H-OS15D-1
<b>Parameters</b>	0.5ml 2D cryogenic tube (boxed), external-threaded, self-standing, with scale, bottom QR code, side bar code+digital code, -196°C--121°C	1.5ml 2D cryogenic tube (boxed), external-threaded, self-standing, with scale, bottom QR code, side bar code+digital code, -196°C--121°C
<b>Sets/Case</b>	1200	1200
<b>Package</b>	100 pcs/box, 12 box/case	100 pcs/box, 12 box/case

Note: Please operate in strict accordance with the preservation method of laboratory samples. Do not store the cryogenic tube directly in the liquid nitrogen in the liquid nitrogen tank. It is recommended to store it in the gas-phase liquid nitrogen above the liquid nitrogen.

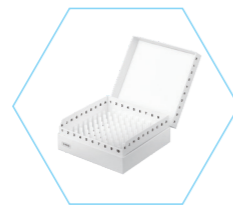


Hoierh freezer boxes are suitable for different tube sizes (0.5ml, 1ml, 2ml) providing users with flexibility whilst ensuring safe sample storage



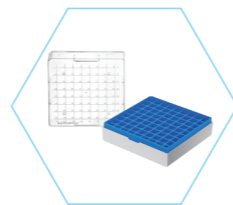
**PP Freezer Box**

This box is made of polypropylene, which makes it highly resistant to corrosion and capable of enduring repeated cycles of freezing and thawing. It is designed to hold 0.5-2ml cryogenic vials and can be safely stored in low-temperature or ultra-low-temperature environments. The box features a corner design that allows for quick and secure fixing of the lid cover.



**Coated Cardboard Freezer Box**

This study cardboard storage box is covered with a waterproof and corrosion-resistant film. The included plastic partitions allow for precise sample positioning. Additionally, the flip cover design enables easy and fast storage of samples.

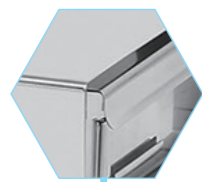


**PC Freezer Box**

The high-strength polycarbonate box is highly corrosion-resistant and suitable for cryogenic storage for liquid and vapor phase. Used for 0.5-2ml cryogenic vials and available in a variety of colours for easy classification.

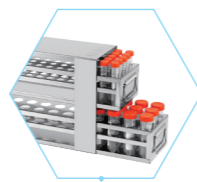
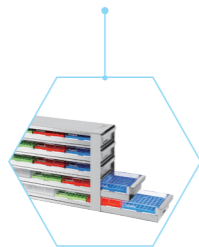
Classification	Papery Freezer Box		PP Freezer Box		PC Freezer Box			
<b>Model</b>	H-B81-2P	H-B100-2P	H-B81-2PP	H-B100-2PP	T130	T142	H-B81-2PC	H-B100-2PC
<b>Parameter</b>	Coated cardboard freezer box; 2-inch and 81-cell; white; flip cover	Coated cardboard freezer box; 2-inch and 100-cell; white; flip cover	81-well PP freezer box; temperature range -121°C to 90°C; all vials in each carton must be of the same color (white, red, blue, and green are optional); flat cover	100-well PP freezer box; temperature range -121°C to 90°C; all vials in each carton must be of the same color (white, red, blue, and green are optional); flat cover	2-inch 81-well freezer box with the base made of PP, the cover made of PC, and a numeric grid on the cover; suitable for use in a liquid nitrogen environment	2-inch 100-well freezer box with the base made of PP, the cover made of PC, and a numeric grid on the cover; suitable for use in a liquid nitrogen environment	81-well PC freezer box; temperature range -196°C to 121°C; all vials in each carton must be of the same color (white, red, blue, and green are optional); flat cover	100-well PC freezer box; temperature range -196°C to 121°C; all vials in each carton must be of the same color (white, red, blue, and green are optional); flat cover
<b>Sets/Case</b>	50	50	50	50	50	50	50	50
<b>Package</b>	50 pcs/case	50 pcs/case	50 pcs/case	50 pcs/case	50 pcs/case	50 pcs/case	50 pcs/case	50 pcs/case

The Haierh freezer rack is made of quality, high strength, corrosion-resistant 304 stainless steel. It's rigid structure and rapid conductivity ensure safe and efficient inventory storage for freezer samples.



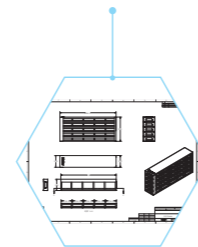
Manufactured and specially welded to ensure a durable rack with smooth surface

Easy grip handle design



Different configurations are available dependent on requirements

Customized racking is available for different storage requirements



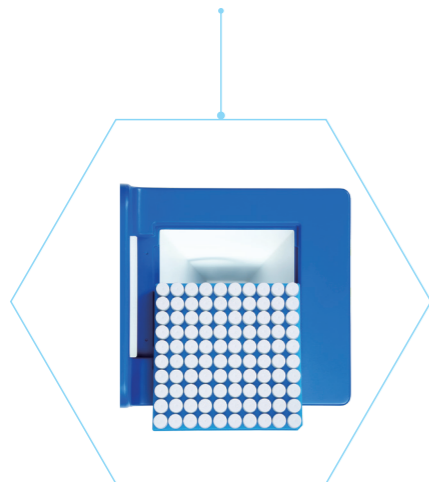
Classification	Model	Parameter	Sets/Case
Sliding-drawer freezer rack	DCJ-55-B(SUS201)	5*5 freezer rack; SUS201; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-55-B(SUS304)	5*5 freezer rack; SUS304; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-54-B(SUS201)	5*4 freezer rack; SUS201; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-54-B(SUS304)	5*4 freezer rack; SUS304; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-53-B(SUS201)	5*3 freezer rack; SUS201; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-53-B(SUS304)	5*3 freezer rack; SUS304; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-44-B(SUS201)	4*4 freezer rack; SUS201; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-44-B(SUS304)	4*4 freezer rack; SUS304; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-35-B(SUS304)	(3 inch)3*5 freezer rack; SUS304; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-34-B(SUS304)	(3 inch)3*4 freezer rack; SUS304; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
Side-access freezer rack	DCJ-55-A(SUS304)	5*5 freezer rack; SUS304; top and bottom of rack thickness 0.6 mm; rack column thickness 1.0; handgrip;	1
	DCJ-54-A(SUS304)	5*4 freezer rack; SUS304; top and bottom of rack thickness 0.6 mm; rack column thickness 1.0; handgrip;	1
	DCJ-35-A(SUS304)	(3 inch)3*5 freezer rack; SUS304; top and bottom of rack thickness 0.6 mm; rack column thickness 1.0; handgrip;	1
	DCJ-34-A(SUS304)	(3 inch)3*4 freezer rack; SUS304; top and bottom of rack thickness 0.6 mm; rack column thickness 1.0; handgrip;	1
	DCJ-44-A(SUS304)	4*4 freezer rack; SUS304; top and bottom of rack thickness 0.6 mm; rack column thickness 1.0; handgrip;	1
SBS freezer rack	DCJ-57-B(SUS304)	5*7 freezer rack; SUS304; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-77-B(SUS304)	7*7 freezer rack; SUS304; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-56-B(SUS304)	5*6 freezer rack; SUS304; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-57-B(SUS201)	5*7 freezer rack; SUS201; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-77-B(SUS201)	7*7 freezer rack; SUS201; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-56-B(SUS201)	5*6 freezer rack; SUS201; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
Chest-type freezer rack	DCJ-6-A(SUS304)	6-layer vertical, freezer rack, SUS304; top and bottom of rack thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-8-A(SUS304)	8-layer vertical, freezer rack, SUS304; top and bottom of rack thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-10-A(SUS304)	10-layer vertical, freezer rack, SUS304; top and bottom of rack thickness 0.6 mm; rack column thickness 1.0;	1
	DCJ-12-A(SUS304)	12-layer vertical, freezer rack, SUS304; top and bottom of rack thickness 0.6 mm; rack column thickness 1.0;	1
Centrifugal tube freezer rack	SDCJ-15ml	5*22, SUS304; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1
	SDCJ-50ml	3*16, SUS304; drawer/top and bottom of rack/guide rail thickness 0.6 mm; rack column thickness 1.0;	1

Product	ULT Freezer Model	Rack Model	Rack and Box Discription	Freezer Rack Quantity	Freezer Box Quantity	Cryo Tube Quantity (2ml)
Racks for ULT Freezers	DW-86L338J/DW-86L338JA	DCJ-54-A (SUS304)	2 inch stainless steel side-access freezer rack 5*4 (2 inch freezer box*20 units)	6	120	12000
		DCJ-54-B (SUS201/304) (Middle, 2 layers)	2 inch stainless steel sliding-drawer freezer rack 5*4 (2 inch freezer box*20 units)	6	120	12000
		DCJ-44-A (SUS304) (Top and bottom layers)	2 inch stainless steel side-access freezer rack 4*4 (2 inch freezer box*16 units)	6	96	9600
		DCJ-44-B (SUS201/304) (Top and bottom layers)	2 inch stainless steel sliding-drawer freezer rack 4*4 (2 inch freezer box*16 units)	6	96	9600
	DW-86L388J/418S/418ST/419	DCJ-55-A (SUS304)	2 inch stainless steel side-access freezer rack 5*5 (2 inch freezer box*25 units)	12	300	30000
		DCJ-55-B (SUS201/304)	2 inch stainless steel sliding-drawer freezer rack 5*5 (2 inch freezer box*25 units)	12	300	30000
	DW-86L486E	DCJ-54-A (SUS304)	2 inch stainless steel side-access freezer rack 5*4 (2 inch freezer box*20 units)	16	320	32000
		DCJ-54-B (SUS201/304)	2 inch stainless steel sliding-drawer freezer rack 5*4 (2 inch freezer box*20 units)	16	320	32000
	DW-86L490J/490JA	DCJ-54-A (SUS304) (Top 2 layers)	2 inch stainless steel side-access freezer rack 5*4 (2 inch freezer box*20 units)	8	160	16000
		DCJ-54-B (SUS201/304) (Top 2 layers)	2 inch stainless steel sliding-drawer freezer rack 5*4 (2 inch freezer box*20 units)	8	160	16000
		DCJ-44-A (SUS304) (Bottom 2 layers)	2 inch stainless steel side-access freezer rack 4*4 (2 inch freezer box*16 units)	8	128	12800
		DCJ-44-B (SUS201/304) (Bottom 2 layers)	2 inch stainless steel sliding-drawer freezer rack 4*4 (2 inch freezer box*16 units)	8	128	12800
	DW-86L628E	DCJ-54-A (SUS304)	2 inch stainless steel side-access freezer rack 5*4 (2 inch freezer box*20 units)	20	400	40000
		DCJ-54-B (SUS201/304)	2 inch stainless steel sliding-drawer freezer rack 5*4 (2 inch freezer box*20 units)	20	400	40000
	DW-86L578J/578JA/578S /578ST/579/579BP/579BPT	DCJ-55-A (SUS304)	2 inch stainless steel side-access freezer rack 5*5 (2 inch freezer box*25 units)	16	400	40000
		DCJ-55-B (SUS201/304)	2 inch stainless steel sliding-drawer freezer rack 5*5 (2 inch freezer box*25 units)	16	400	40000
	DW-86L728J/728JA/728S/728ST /728SAT/729/729BP/729BPT	DCJ-55-A (SUS304)	2 inch stainless steel side-access freezer rack 5*5 (2 inch freezer box*25 units)	20	500	50000
		DCJ-55-B (SUS201/304)	2 inch stainless steel sliding-drawer freezer rack 5*5 (2 inch freezer box*25 units)	20	500	50000
	DW-86L828J/828JA/828S/828ST /829/829BP/829BPT/828W	DCJ-55-A (SUS304)	2 inch stainless steel side-access freezer rack 5*5 (2 inch freezer box*25 units)	24	600	60000
		DCJ-55-B (SUS201/304)	2 inch stainless steel sliding-drawer freezer rack 5*5 (2 inch freezer box*25 units)	24	600	60000
	DW-86L959BP/959BPT/959W	DCJ-55-A (SUS304)	2 inch stainless steel side-access freezer rack 5*5 (2 inch freezer box*25 units)	28	700	70000
		DCJ-55-B (SUS201/304)	2 inch stainless steel sliding-drawer freezer rack 5*5 (2 inch freezer box*25 units)	28	700	70000
	DW-86L100J	DCJ-53-A (SUS304)	2 inch stainless steel side-access freezer rack 5*3 (2 inch freezer box*15 units)	4	60	6000
		DCJ-53-B (SUS201/304)	2 inch stainless steel sliding-drawer freezer rack 5*3 (2 inch freezer box*15 units)	4	60	6000
	DW-86W420J/420JA	DCJ-10-A (SUS304)	2 inch chest-type freezer rack (2 inch freezer box*10 units)	27	270	27000
	DW-86W100J	DCJ-08-A (SUS304)	2 inch chest-type freezer rack (2 inch freezer box*8 units)	9	72	7200
	DW-150W200	DCJ-10-A (SUS304)	2 inch chest-type freezer rack (2 inch freezer box*10 units)	12	120	12000
	DW-150W209	DCJ-10-A (SUS304)	2 inch chest-type freezer rack (2 inch freezer box*10 units)	12	120	12000
DCJ-12-A (SUS304)		2 inch chest-type freezer rack (2 inch freezer box*12 units)	12	144	14400	
DW-86L51J	DCJ-53-B (SUS201/304)	2 inch stainless steel sliding-drawer freezer rack 5*3 (2 inch freezer box*15 units)	2	30	3000	

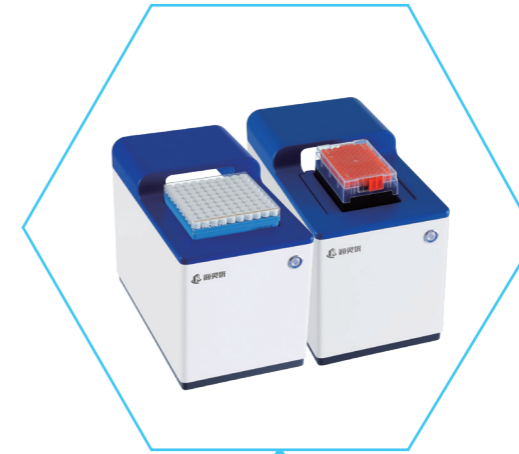
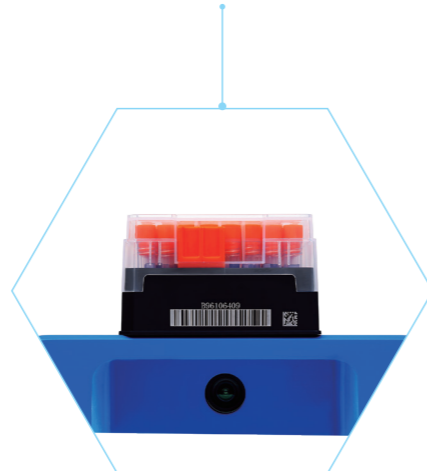
The Haier high speed batch scanner can be used to scan various coded, boxed prefabricated code cryogenic tubes to achieve high-speed identification and efficient management of samples.



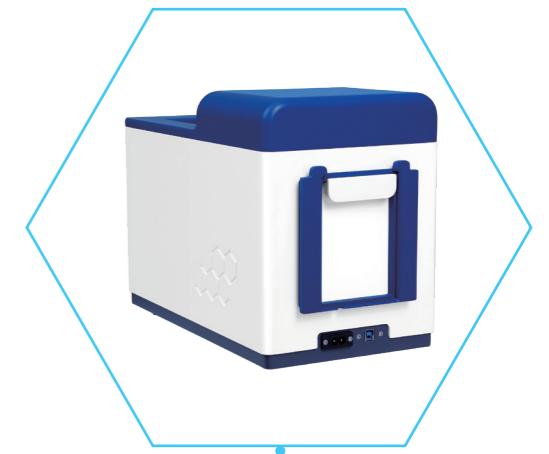
Intelligent induction of tube boxes and automatic light filling function, adaptable to multiple applications



Reading synchronously the bottom code of freezing tubes and of boxes



Detachable module design, compatible with SBS, square and other cryogenic boxes



Ergonomic design: The scanner can be wall-mounted and stored safely using the attachment included

Classification	Model	Parameter	Sets/Case	Package
High speed batch scanner	HS-SBS-001	Batch scanning, high-speed scanning, side code scanning, suitable for 10*10/SBS and other specifications of prefabricated coded standard cryogenic tube/box of various brands	1	1 set/case
	HS-SBS-002	Batch scanning, high-speed scanning, side code scanning, suitable for 10*10/SBS and other specifications of prefabricated coded standard cryogenic tube/box of various brands	1	1 set/case
Top batch scanner	HS-100-002	Batch scanning, high-speed scanning, top scanning, suitable for scanning of 10*10/9*9 cryogenic tube, centrifuge tube, etc. (two-dimensional code label is pasted on the top)	1	1 set/case

# Single Tube Scanner

The Hoierh single tube scanner is flexible and quick to scan information



Wireless communication distance up to 30 meters



Support battery charging and replacement, can work for 20 hours or standby for 50 hours when fully charged



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

Classification	Model	Parameter	Sets/ case	package
Single tube scanner	HS-H-001	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
	HS-W-001	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
	HS-T-001	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

The Hoierh batch cover opener opens or closes the multi-channel cap which provides increased efficiency compared to manual operation and reduces the risk of contact with biochemical reagents and other safety risks



Simultaneously open up to 8 channels at one time



Convenient and fast removal of cover



Support design, convenient storage opened batch tube cover

Classification	Model	Parameter	Sets/ case	package
Batch cover opener	BQ-OP8	The 8-channel hand-held electric cover opener can open the prefabricated QR code cryogenic tube (8x12) with 8 cryogenic tube covers in a row, or (diamond layout 8x6) with 4 cryogenic tube covers in a row	1	1 set/case
	BQ-OP4	The 4-channel hand-held electric cover opener can open the prefabricated QR code cryogenic tube (4x12) with 4 cryogenic tube covers in a row, or (4x6) with 4 cryogenic tube covers in a row	1	1 set/case

The low-temperature printer allows users to print different labels that are durable, stable, and resistant to wear, ensuring the long-term safety of sample information.



Suitable for all kinds of experimental instruments, resistant to solvent and chemical corrosion, repeated freezing and thawing without falling off

Touch operation for quick adjustment of printer Settings



High performance printing, meet the high requirements of biobank processing

Classification	Product Number	Model	Supporting Printer	Parameter	Loading Capacity
Printer	i5100 300dpi	Printer i5100 300dpi	\	Thermal transfer printer, printing accuracy 300dpi, maximum printing speed 300mm/s	1 set/case
	BBP12	BradyBBP12 printer	\	Printing accuracy 300dpi, low-end printing	1 set/case
	i5100 600dpi	Printer i5100 600dpi	\	Thermal transfer printer, printing accuracy 600dpi, maximum printing speed 150mm/s	1 set/case
Ribbon	IP-R4302	Ribbon IP R4302	i5100 300dpi	60mm*300m/roll, used together with IP 300; Print about 4-5 rolls of labels (B490A or B490B)	1 roll/bag
	IP-R4902	Ribbon IP-R4902	i5100 300dpi	60mm*300m/roll, used together with IP 300; Print about 4-5 rolls of labels (B6422)	1 roll/bag
	R4313	Ribbon R4313	BBP11/BBP12	110mm*74m/roll, used with BBP11/BBP12 printer	1 roll/bag
Lable	THT-152-053-3-2A	B053 material (25.4*9.53mm)*2 two rows of labels	i5100 300dpi	Label for room temperature use. The label material is synthetic paper, and the use temperature range is -20°C+80°C; Two labels in a row, 3000 pcs/roll, and the matching ribbon is IP-R4302	3000 pcs/roll
	THT-152-053-3-RP	B053 material 25.4*9.53mm one in a row	i5100 300dpi	Label for normal temperature use. The label material is synthetic paper, and the use temperature range is -20°C+80°C; Two labels in a row, 4000pcs/roll, and the matching ribbon is IP-R4302; Customized, pre printed coding	4000 pcs/roll
	THT-163-6422-3	B6422 lable 25.4mm*9.53mm + D=9.53mm	i5100 300dpi	Apply to cryogenic tube below 2ml; Environment temperature above 40 °C	3000 pcs/roll
	THT-163-490-3	B490 material 25.4mm*9.53mm + D=9.53mm	i5100 300dpi	Apply to cryogenic tube below 2ml and pasted on the wall and round cover of the cryogenic tube; Can withstand can be directly pasted after taking out the cryogenic tube in liquid nitrogen at room temperature	3000 pcs/roll
	THT-152-490-3	B490 material 25.4mm*9.53mm	i5100 300dpi	Apply to cryogenic tube below 2ml, only pasted on the wall of cryogenic tube; Can withstand can be directly pasted after taking out the cryogenic tube in liquid nitrogen at room temperature	3000 pcs/roll
	THT-151-490-3	B490 material 15.24mm*10.16mm+D=8.26mm	i5100 300dpi	Apply to cryogenic tube below 2ml and pasted on the wall and round cover of the cryogenic tube; Can withstand can be directly pasted after taking out the cryogenic tube in liquid nitrogen at room temperature	3000 pcs/roll

Classification	Product Number	Model	Supporting Printer	Parameter	Loading Capacity
Lable	iTHT-351-490-3	B490 material 35mm*10mm+D=9.53mm	i5100 300dpi	Apply to 2ml cryogenic tube and pasted on the wall and round cover of the cryogenic tube; Can withstand can be directly pasted after taking out the cryogenic tube in liquid nitrogen at room temperature	3000 pcs/roll
	THT-163-499-3	B499 material 25.4*9.53+D=9.53mm	i5100 300dpi	Apply to cryogenic tube below 2ml and pasted on the wall and round cover of the cryogenic tube; Pasted at room temperature and used in the environment above -150°C	3000 pcs/roll
	THT-152-499-3	B499 material 25.4*9.53mm	i5100 300dpi	Apply to cryogenic tube below 2ml, only pasted on the wall of cryogenic tube; Pasted at room temperature and used in the environment above -150°C	3000 pcs/roll
	THT-163-461-3	B461material 65*9.53mm,3000 pcs / roll, liquid nitrogen direct paste	i5100 300dpi	Apply to cryogenic tube below 2ml, 1.8ml/1.6ml/1.5ml cryogenic tubes are recommended, and pasted on the wall and round cover of the cryogenic tube; Winding type, can be directly pasted after taking out the cryogenic tube in liquid nitrogen	3000 pcs/roll
	THT-152-461-3	B461material 65*9.53mm	i5100 300dpi	Apply to cryogenic tube below 2ml, 1.8ml/1.6ml/1.5ml cryogenic tubes are recommended, only pasted on the wall of cryogenic tube; Winding type, can be directly pasted after taking out the cryogenic tube in liquid nitrogen	3000 pcs/roll
	THT-163-492-3	B492 material 25.4*9.53mm+D=9.53mm	i5100 300dpi	Apply to cryogenic tube below 2ml, 1.8ml/1.6ml/1.5ml cryogenic tubes are recommended, and pasted on the wall and round cover of the cryogenic tube; Winding type, can be directly pasted after taking out the cryogenic tube in liquid nitrogen	3000 pcs/roll
	THT-163-492-3	B492 material 25.4*9.53+D=9.53mm (Discounts for more than 10 volumes)	i5100 300dpi	Apply to cryogenic tube below 2ml, 1.8ml/1.6ml/1.5ml cryogenic tubes are recommended, and pasted on the wall and round cover of the cryogenic tube; Winding type, liquid nitrogen direct pasting	3000 pcs/roll
	THT-136-499-3	B499 material 38.1*19.08mm,3000 pcs/roll	i5100 300dpi	Apply to 1.8ml-5ml cryogenic tube, only pasted on the wall of cryogenic tube; Can withstand liquid nitrogen after pasting at room temperature	3000 pcs/roll
	THT-215-490-3	B490 material 25*15mm,3000 pcs/roll	i5100 300dpi	Apply to 1.8ml-5ml cryogenic tube, only pasted on the wall of cryogenic tube; Can withstand can be directly pasted after taking out the cryogenic tube in liquid nitrogen at room temperature	3000 pcs/roll
	THT-163-490-2-SC	B490 material 25.4*9.53mm+D=9.53mm, 2000pcs/roll	BBP12	Apply to cryogenic tube below 2ml and pasted on the wall and round cover of the cryogenic tube; Can withstand can be directly pasted after taking out the cryogenic tube in liquid nitrogen at room temperature	2000 pcs/roll
	THT-152-490-2-SC	B490 material 25.4*9.53mm,2000 pcs/roll	BBP12	Apply to cryogenic tube below 2ml, only pasted on the wall of cryogenic tube; Can withstand can be directly pasted after taking out the cryogenic tube in liquid nitrogen at room temperature	2000 pcs/roll



## Product Features



Internal thread design ensures secure sealing and reproducibility



Filtered tips. Uniform filter for improved accuracy



Fine scale makes the suction volume clearly discernible

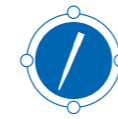


## Standard Tips



- Made of medical-grade polypropylene (PP), the tips are high-temperature-resistant, high-pressure-resistant, and non-deformation.
- Optimized pore size ensures smooth sample suction.
- Three capacity options, respectively 10 $\mu$ l, 200 $\mu$ l and 1000 $\mu$ l, are available for both standard manual and electronic pipettors.
- Various packaging methods, including bulk packing and EO sterile racked packing
- High clarity and perpendicularity ensure pipetting accuracy
- RNase, DNase, human DNA and Pyrogen Free

Model	Description	Unit Quantity	Packing Specification
<b>B10T</b>	10 $\mu$ l tip, bag-packed, basic type	20000	1000 pcs/bag, 20 bags/case
<b>X10T0</b>	10 $\mu$ l tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
<b>B200Y</b>	200 $\mu$ l tip, bag-packed, basic type	20000	1000 pcs/bag, 20 bags/case
<b>X200Y0</b>	200 $\mu$ l tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
<b>B200YS</b>	200 $\mu$ l tip with scale, bag-packed, basic type	20000	1000 pcs/bag, 20 bags/case
<b>B200YL (59)</b>	200 $\mu$ l extended tip, bag-packed, basic type	20000	1000 pcs/bag, 20 bags/case
<b>B200YL (78)</b>	200 $\mu$ l extended tip, bag-packed, basic type	20000	1000 pcs/bag, 20 bags/case
<b>B200YL (89)</b>	200 $\mu$ l extended tip, bag-packed, basic type	20000	1000 pcs/bag, 20 bags/case
<b>B01TL</b>	10 $\mu$ l extended tip, bag-packed, basic type	20000	1000 pcs/bag, 20 bags/case
<b>X01TL0</b>	10 $\mu$ l extended tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
<b>B1000B</b>	1000 $\mu$ l tip, bag-packed, basic type	5000	1000 pcs/bag, 5 bags/case
<b>X1000B0-100</b>	1000 $\mu$ l tip, box-packed, sterile	5000	100 pcs/box, 50 boxes/case
<b>B1250B</b>	1250 $\mu$ l tip, bag-packed, basic type	5000	1000 pcs/bag, 5 bags/case
<b>X1250B0</b>	1250 $\mu$ l tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case



## Filter Pipette Tips



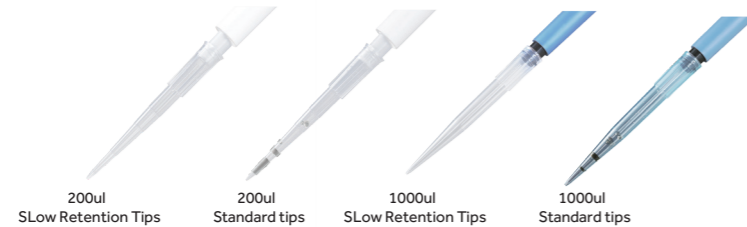
- Made of medical-grade polypropylene (PP)
- Super hydrophobicity, the hydrophobic filter element forms a strong barrier to the aerosol, eliminating the risk of cross contamination between the sample and the pipette
- Ultra-fine grinding moulding technology, demoulding without agent guarantees better product quality
- Ultra-fine point ensures smooth sample absorption Innovative design to ensure good flexibility, sealing and compatibility

Model	Description	Unit Quantity	Packing Specification
<b>FB10T</b>	10 $\mu$ l filter tip, bag-packed, basic type	10000	1000 pcs/bag, 10 bags/case
<b>FX10T0</b>	10 $\mu$ l filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
<b>FB200T</b>	200 $\mu$ l filter tip, bag-packed, basic type	10000	1000 pcs/bag, 10 bags/case
<b>FX200T0</b>	200 $\mu$ l filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
<b>FX200T0S</b>	200 $\mu$ l filter tip with scale, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
<b>FX200TL0 (59)</b>	200 $\mu$ l extended filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
<b>FX200TL0 (78)</b>	200 $\mu$ l extended filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
<b>FX200TL0 (89)</b>	200 $\mu$ l extended filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
<b>FB01TL</b>	10 $\mu$ l extended tip, bag-packed, basic type	10000	1000 pcs/bag, 10 bags/case
<b>FX01TL0</b>	10 $\mu$ l extended filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
<b>FB1000B</b>	1000 $\mu$ l filter tip, bag-packed, basic type	5000	1000 pcs/bag, 5 bags/case
<b>FX1000B0-100</b>	1000 $\mu$ l filter tip, box-packed, sterile	5000	100 pcs/box, 50 boxes/case
<b>FB1250B</b>	1250 $\mu$ l filter tip, bag-packed, basic type	5000	1000 pcs/bag, 5 bags/case
<b>FX1250B0</b>	1250 $\mu$ l filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case





## Low Retention Tips

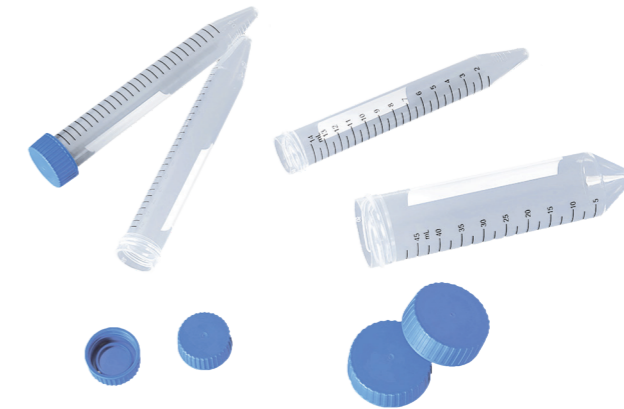


- The coated inner wall delivers super hydrophobicity to effectively reduce the risk of the sample of binding to the surface
- Low retention tips help to reduce the loss of precious samples and improve their recovery rate
- Pipette tips reduce the adhesion of DNA, enzymes, proteins, cells, as well as other viscous materials to the tip surface.
- Low retention tips can be used for pipetting detergent-containing solutions (e.g. PRC master mixes, buffers, or enzyme solutions)
- Suitable for applications that require high micro-pipetting accuracy
- RNase, DNase, human DNA and Pyrogen Free

Model	Description	Unit Quantity	Packing Specification
AB10T	10µl low retention tip, bag-packed	20000	1000 pcs/bag, 20 bags/case
AX10T0	10µl low retention tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
AFX10T0	10µl low retention filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
AB200T	200µl low retention tip, bag-packed	20000	1000 pcs/bag, 20 bags/case
AX200T0	200µl low retention tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
AFX200T0	200µl low retention filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
AB200TS	200µl low retention tip with scale, bag-packed	20000	1000 pcs/bag, 20 bags/case
AFX200T0S	200µl low retention filter tip with scale, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
AB200TL (59)	200µl extended low retention tip, bag-packed	20000	1000 pcs/bag, 20 bags/case
AB200TL0 (59)	200µl extended low retention filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
AB200TL (78)	200µl extended low retention tip, bag-packed	20000	1000 pcs/bag, 20 bags/case
AB200TL0 (78)	200µl extended low retention filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
AB200TL (89)	200µl extended low retention tip, bag-packed	20000	1000 pcs/bag, 20 bags/case
AB200TL0 (89)	200µl extended low retention filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
AB01TL	10µL extended low retention tip, bag-packed	20000	1000 pcs/bag, 20 bags/case
AX01TL0	10µl extended low retention tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
AFX01TL0	10µl extended low retention filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
AB1000T	1000µL low retention tip, bag-packed	5000	1000 pcs/bag, 5 bags/case
AX1000T	1000µl low retention tip, box-packed	5000	100 pcs/box, 50 boxes/case
AX1000T0	1000µl low retention tip, box-packed, sterile	5000	100 pcs/box, 50 boxes/case
AFX1000T0-100	1000µl low retention filter tip, box-packed, sterile	5000	100 pcs/box, 50 boxes/case
AB1250T	1250µl low retention tip, bag-packed	5000	1000 pcs/bag, 5 bags/case
AX1250T	1250µl low retention tip, box-packed	4800	96 pcs/box, 50 boxes/case
AX1250T0	1250µl low retention tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case
AFX1250T0	1250µl low retention filter tip, box-packed, sterile	4800	96 pcs/box, 50 boxes/case



## Centrifuge tubes



## Product Features

- Tube and lid made of medical-grade polypropylene (PP) USP Class VI standards
- 15ml /50ml conical bottom design, high clarity, black clear scale line on the tube body, and a preset white writing area
- Double threaded tube cover, easy to grip for single-handed operation and reliable sealing
- Flat cover design; the cover top can be used as a sample information marking area
- RNase and DNase Free
- Sterilized by gamma rays; sterile and pyrogen-free
- Various packaging methods, including sterile racked packing, sterile bag-packed bulk packing, and non-sterile packing, are available.



A large white frosted writing area

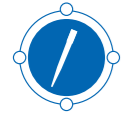


Flat and frosted tube cover facilitates marking



Clear printed scale facilitates reading of the liquid volume

Model	Description	Unit Quantity	Packing Specification
CEN-15CB0	15ml centrifuge tube	500	25 pcs/bag, 20 bags/case
CEN-50CB0	50ml centrifuge tube	500	25 pcs/bag, 20 bags/case



### Microcentrifuge Tubes



### Product Features

- Made of USP Class VI, medical-grade polypropylene (PP), free from release agent, plasticizer, bacteriostatic agent, and heavy metals
- High-clarity tube body for convenient sample observation
- The unique cap design with flat surface for writing, delivers enhanced sealing and enables single-handed operation
- Can withstand a temperature range: -80°C-120°C



Ultra-high clarity makes samples clearly visible

Universal design suitable for all major brands



Frosted writing area



Snap-on safety cap to ensure safe centrifugation to maximize operational safety during centrifugation to maximize operational safety

Model	Description	Unit Quantity	Packing Specification
CEN-06T	0.6ml microcentrifuge tube	10000	1000 pcs/box, 10 boxes/case
CEN-15T	1.5ml microcentrifuge tube	5000	500 pcs/box, 10 boxes/case
CEN-20T	2.0ml microcentrifuge tube	5000	500 pcs/box, 10 boxes/case



### Centrifuge Bottle

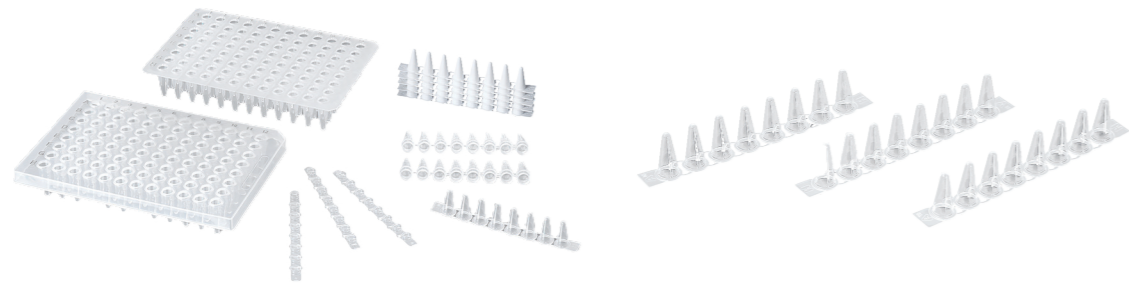


### Product Features

- Unique sealing structure design proves a two-way guarantee for highly effective sealing
- Design increases max centrifugal limits
- Max. centrifugal force: 7000 xg
- Temperature range: -80°C-120°C
- Clear scale for accurate and convenient data reading
- Sterile and RNase, DNase, human DNA and Pyrogen Free

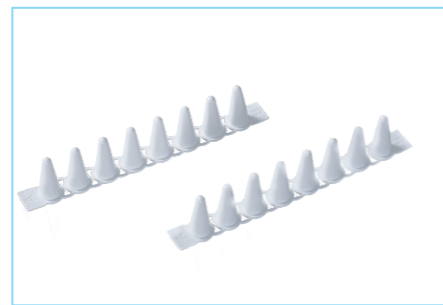
Model	Description	Unit Quantity	Packing Specification
CEN-225B	225ml centrifuge bottle	36	6 pcs/bag, 6 bags/case
CEN-250B	250ml centrifuge bottle	102	6 pcs/bag, 17 bags/case
CEN-500B	500ml centrifuge bottle	36	6 pcs/bag, 6 bags/case

**PCR Tubes**



**Product Features**

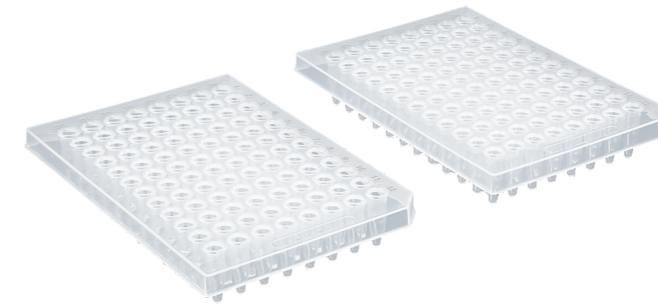
- Made from pure polypropylene, it has thin and uniform wall for optimal heat transfer
- The easy-to-open tube and tube lid fasten securely to prevent evaporation and leakage
- RNase, DNase, human DNA and Pyrogen Free, PCR Inhibitors
- Suitable for the mainstream PCR and real-time PCR instruments



Model	Description	Unit Quantity	Packing Specification
PCR-021T	0.2ml PCR single tube, thin-wall, flat cover	10000	500 pcs/bag, 2 bags/box, 10 boxes/case
PCR-B-018T	0.1ml PCR 8-strip tube	1250	125 pcs/bag, 10 bags/case
PCR-B-018TC	0.1ml PCR 8-strip tube, flat cover	1250	
PCR-B-018W	0.1ml PCR 8-strip tube, white	1250	125 pcs/bag, 10 bags/case
PCR-B-018WC	0.1ml PCR 8-strip tube, flat cover, white	1250	
PCR-B-028T	0.2ml PCR 8-strip tube	1250	125 pcs/bag, 10 bags/case
PCR-B-028TC	0.2ml PCR 8-strip tube, flat cover	1250	

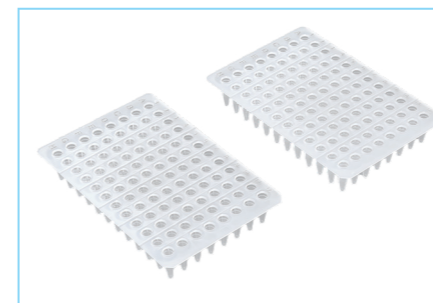
PCR Series

**PCR 96-Well Plates**



**Product Features**

- High-quality polypropylene, manufactured in accordance with high quality standards to produce a reliable plate, delivering excellent uniformity across experiments.
- With a maximum volume of 0.3ml, it is suitable for 0.2ml PCR instruments
- The thin wall of the tube ensures uniform heat transfer and superior light transmittance
- The whole surface of the plate is smooth, firm, and non-deformation.
- RNase, DNase, human DNA and Pyrogen Free



Clear and easy to read and easy to operate and identify



Prominent open profile reduces the risk of cross contamination

Model	Description	Unit Quantity	Packing Specification
PCR-96B-02NT	0.2ml 96-well PCR plate, no skirt edge	50	10 pcs/box, 5 boxes/case
PCR-96B-02HT	0.2ml 96-well PCR plate, half skirt edge	50	10 pcs/box, 5 boxes/case
PCR-96B-02HT (U)	0.2ml 96-well PCR plate, half skirt edge, high-temperature-resistant and anti-static.	50	10 pcs/box, 5 boxes/case
PCR-96B-02CT	0.2ml 96-well PCR plate, full skirt edge	50	10 pcs/box, 5 boxes/case
PCR-96B-02CT (U)	0.2ml 96-well PCR plate, full skirt edge, high-temperature-resistant and anti-static.	50	10 pcs/box, 5 boxes/case
PCR96B-01NT	0.1ml 96-well PCR plate, no skirt edge	50	10 pcs/box, 5 boxes/case
PCR-96B-01HT	0.1ml 96-well PCR plate, half skirt edge	50	10 pcs/box, 5 boxes/case
PCR-96B-01HT (U)	0.1ml 96-well PCR plate, half skirt edge, high-temperature-resistant and anti-static.	50	10 pcs/box, 5 boxes/case
PCR-96B-01CT	0.1ml 96-well PCR plate, full skirt edge	50	10 pcs/box, 5 boxes/case
PCR-96B-01CT (U)	0.1ml 96-well PCR plate, full skirt edge, high-temperature-resistant and anti-static.	50	10 pcs/box, 5 boxes/case

Cryo Freezer



DW-150W209

-86°C ULT Freezer



DW-86L578S  
DW-86L728S  
DW-86L578S(AJT)  
DW-86L728S(AJT)  
DW-86L579BP/729BP  
DW-86L829BP/959BP  
DW-86L578BPST  
DW-86L728BPST  
DW-86L828BPST

Water Cooling Freezer

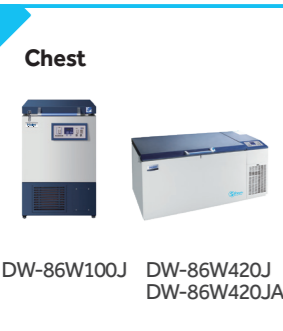


DW-86L579BPT/729BPT  
DW-86L829BPT/959BPT  
DW-86L828W  
DW-86L959W  
DW-86L419/579  
DW-86L729/829  
DW-86L338J  
DW-86L338JA  
DW-86L388J  
DW-86L490J  
DW-86L490JA  
DW-86L578J  
DW-86L578JA



DW-86L728J  
DW-86L728JA  
DW-86L828J  
DW-86L828JA  
DW-86L486E  
DW-86L628E  
DW-86L51J  
DW-86L100J

Mini ULT Freezer



**Chest**  
DW-86W100J  
DW-86W420J  
DW-86W420JA



DW-80WZ15

Controlled Rate Freezer



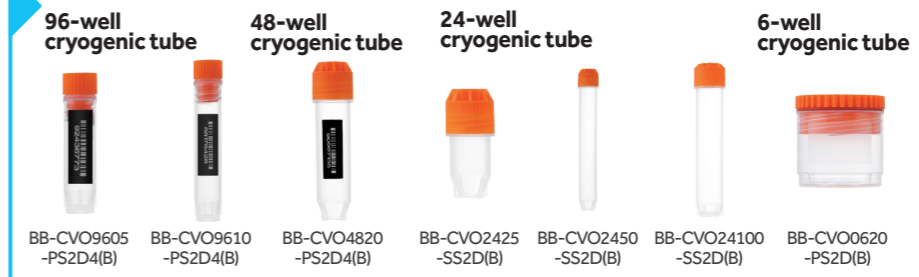
CJ-L37

CO<sub>2</sub> Backup System



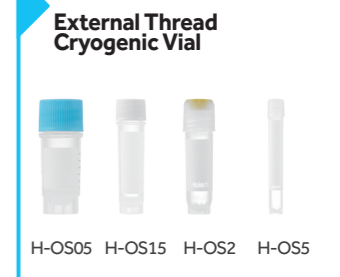
HBX-IC  
HBX-IIA

Prefabricated Coded Cryogenic Tubes



96-well cryogenic tube: BB-CVO9605-PS2D4(B), BB-CVO9610-PS2D4(B)  
48-well cryogenic tube: BB-CVO4820-PS2D4(B)  
24-well cryogenic tube: BB-CVO2425-SS2D(B), BB-CVO2450-SS2D(B)  
6-well cryogenic tube: BB-CVO24100-SS2D(B), BB-CVO0620-PS2D(B)

Cryogenic Tubes



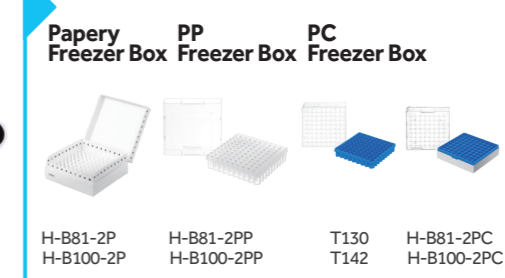
H-OS05 H-OS15 H-OS2 H-OS5

2D Cryogenic Tubes



Internal Thread Cryogenic Vial: H-IS1, H-IS2  
External Thread Cryogenic Vial: H-OS05D-1, H-OS15D-1

Cryogenic Boxes



Papery Freezer Box: H-B81-2P, H-B100-2P  
PP Freezer Box: H-B81-2PP, H-B100-2PP  
PC Freezer Box: T130, T142, H-B81-2PC, H-B100-2PC

Freezer Racks



High Speed Batch Scanner



Single Tube Scanner



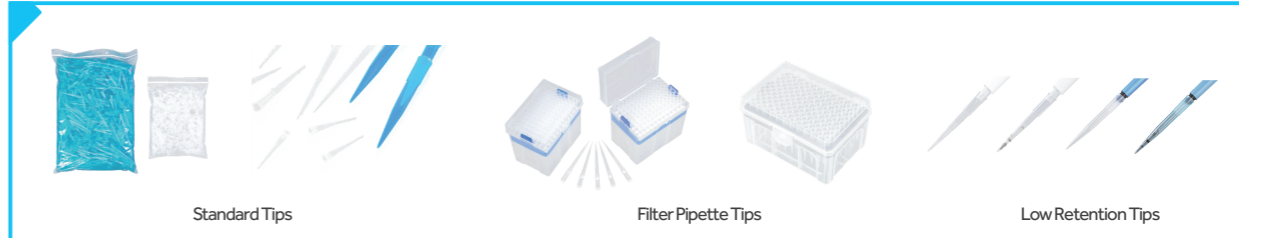
Batch Cover Opener



Low Temperature Label Printer



Pipette Tip Series

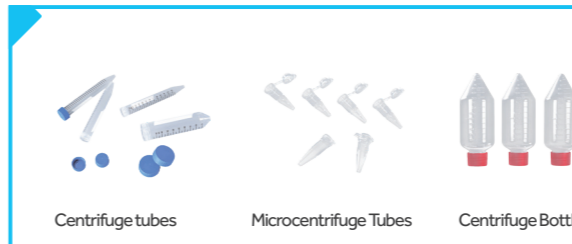


Standard Tips

Filter Pipette Tips

Low Retention Tips

Centrifuge Tube Series

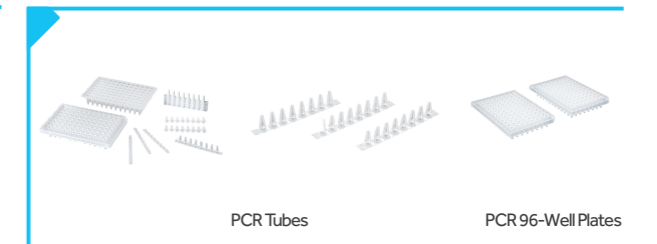


Centrifuge tubes

Microcentrifuge Tubes

Centrifuge Bottle

PCR Series



PCR Tubes

PCR 96-Well Plates