

# -150°C Cryo Freezer



**DW-150W209A**

## Scope of Application :

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 procedure samples, 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.

## Innovative Design

- ◉ 100% Hydrocarbon refrigeration technology
- ◉ Quiet, low noise operation
- ◉ Energy-efficient and Environmentally-friendly
- ◉ Safe and reliable
- ◉ Intelligent control

**Haier Biomedical USA**

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## Product Advantages

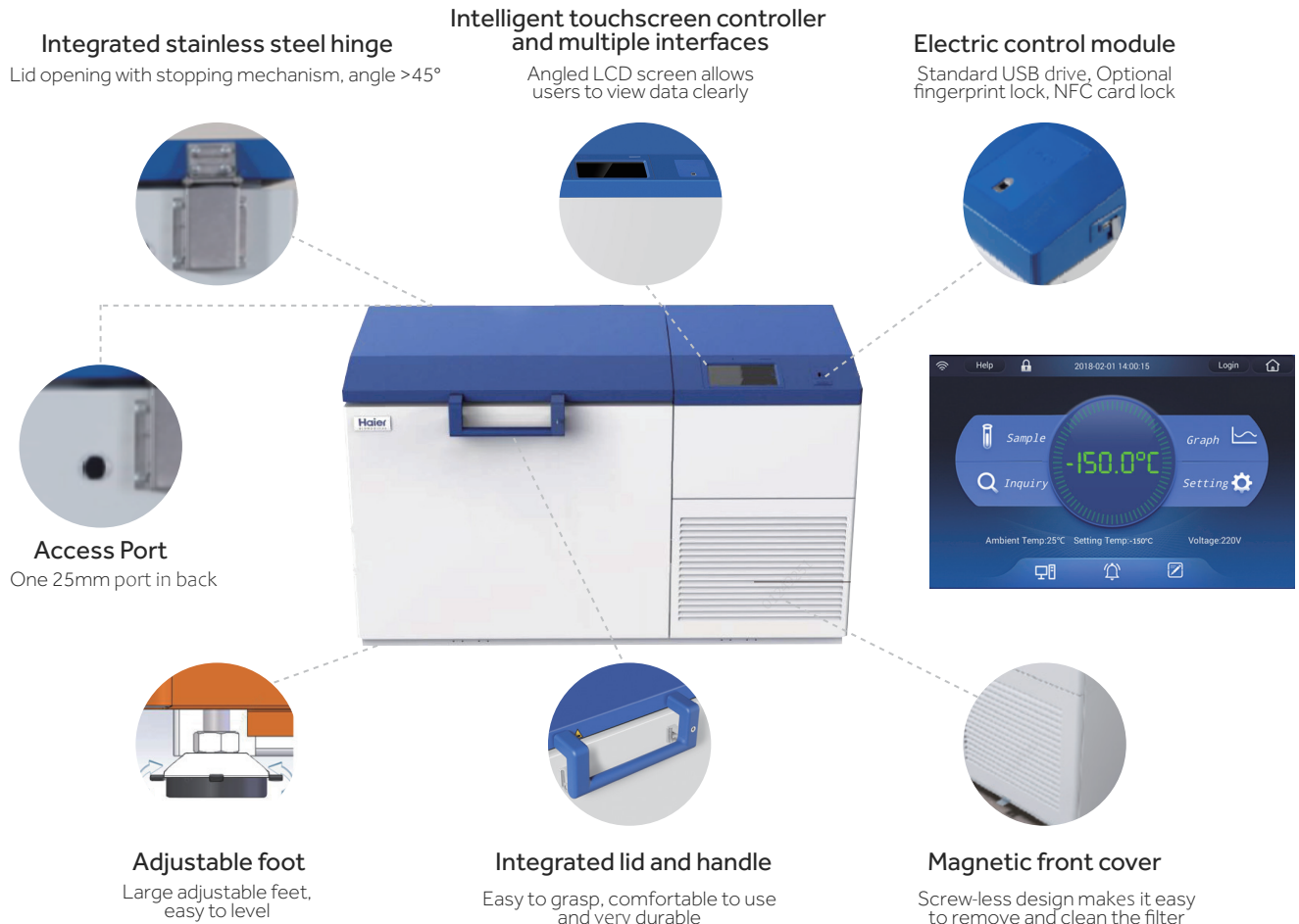
-  **Hydrocarbon energy-saving refrigeration technology**
  - Includes special industrial compressor, hydrocarbon refrigerant, dual-compressors, and a 4-stage cascade refrigeration system, which delivers excellent energy-efficiencies
  - Energy-efficient fan design with intelligent start/stop
-  **Environmentally friendly**
  - HC refrigerant, truly environmentally-friendly refrigeration system with zero global warming potential (GWP)
  - LBA polyurethane foam has low GWP and is significantly lower than most HFCs commonly used, offering better environmental protection
-  **Superior Uniformity**

Excellent temperature uniformity of  $\pm 5^{\circ}\text{C}$  with a temperature setpoint of  $-150^{\circ}\text{C}$
-  **Safe, Secure and Reliable**

The standard ambient temperature ranges from  $10^{\circ}\text{C}$  to  $32^{\circ}\text{C}$ . 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. Multiple alarms, including high and low temperature, power failure, door ajar, hot condenser, low battery, sensor error, and high ambient temperature.
-  **Quiet operation**

Noise-reduction system ensures quiet operation with a decibel level of 55dB

## Functional Details



## Product Details

### • Microprocessor controller

Equipped with a microprocessor controller that has a 10.1 inch LCD screen with display accuracy of 0.1°C, the controller provides readings of the interior cabinet and exterior ambient temperatures, voltage, and other data clearly. The temperature range is adjustable from -130°C to -150°C.

### • Safe and secure

Integrated handle, equipped with both a key lock and padlock hasp standard, and optional electromagnetic lock and finger-print lock, provides multiple safeguards for sample safety.

### • Large capacity USB

Enables users to download historical temperature and alarm data (up to 10+ years) for compliance and auditing purposes.

### • Backup power, extended standby

Equipped as standard with two lithium batteries, allowing extended information/data availability, even after power outages.

### • Multiple alarms

These include high and low temperature alarms, sensor error, hot condenser, power failure, low battery, door ajar, high ambient temperature and other alarm functions.

### • Superior insulation performance

The VIP and polyurethane foam (140mm) cabinet design, multiple door seals, two inner lids to prevent cold loss, all aid in delivering excellent thermal efficiency.

### • Design compatible with freezer racks

The internal height of the compartment means that various racks can be used for storage for flexibility.

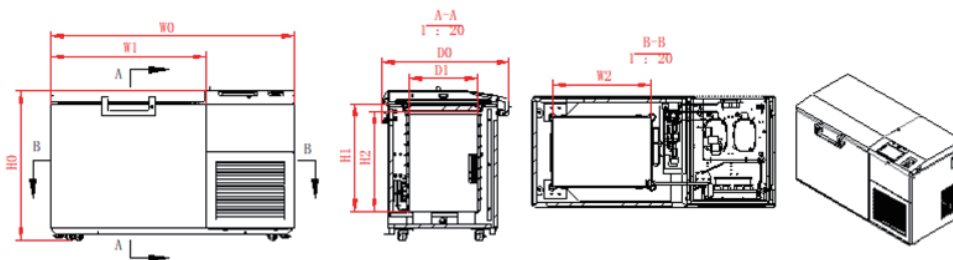
### • Networking functions

A standard RS485 port is configured to be connected for external monitoring software.

### • Anti-defrost design

Built-in halo heater reduces frost build-up.

## Product Dimension Drawings



#### Remark:

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

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

## Specifications



Model	DW-150W209A		
Technical Data	Cabinet Type		Chest
	Climate Class		N
	Cooling Type		Direct cooling
	Defrost Mode		Manual
	Refrigerant		HC
	Sound Level (dB(A))		55
Performance	Cooling Performance (°C)		-150
	Temperature Range (°C)		-130~-150
Control	Controller		Microprocessor
	Display		LCD
Electrical Data	Power Supply (V/Hz)		208~230/60
	Power (W)		1,850
	Max Power Draw (W)		2,000
	Electrical Current (A)		12
Dimensions	Capacity (L/Cu.Ft)		209/7.4
	Net/Gross Weight	kg	260/295
		lbs	673.2/737
	Interior Dimension (W*D*H)	mm	667*462*677
		in	26.3*18.2*26.7
	Exterior Dimension (W*D*H)	mm	1650*860*1010
		in	65.0*33.9*39.8
	Packing Dimension (W*D*H)	mm	1810*940*1190
		in	71.3*37.0*46.9
Functions	Container Load (20'/40'/40'H)		6/13/13
	High/Low Temperature		Y
	Hot Condenser		Y
	Power Failure		Y
	High/Low Voltage		Y
	Sensor Error		Y
	Low Battery		Y
	High Ambient Temperature		Y
	Door Ajar		Y
	Start-up Delay		Y
Accessories	Caster		Y
	Foot		Y
	Porthole		Y/1
	Shelves/Inner Doors		-/2
	USB Interface		Y
	Remote Alarm		Y
	5V Power Supply Port		Y
	Temperature Chart Recorder		Optional
	RS232/485 Port		NA/Standard
	CO <sub>2</sub> Backup System		N/A
	LN <sub>2</sub> Backup System (Built-in/External)		Standard (Built-in)
	Freezing Rack		DCJ-10-A (SUS304), Quantity: 12 DCJ-12-A (SUS304), Quantity: 12
Other	Certification		UL/CE

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