Haier Biomedical
Intelligent Protection of Life Science

# -150°C Cryo Freezer




DW-150W209

## Innovative Design

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

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## Product Advantages

### Hydrocarbon energy-saving refrigeration technologies

- 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

- HC refrigerant, truly environmentally-friendly refrigeration system with zero global warming potential (GWP)
- Eco-friendly insulation 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

### Safe, Secure and Reliable

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.

### Low noise

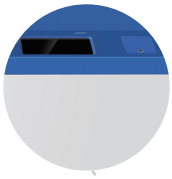
Noise-reduction features and system ensure a low noise output of just 55dB

## Functional Details

**Integrated stainless steel hinge**
Lid opening with stopping mechanism, angle >45°



**Intelligent touchscreen controller and multiple interfaces**
Angled LCD screen allows users to view data clearly



**Electric control module**
Standard USB. Optional fingerprint lock, NFC card lock



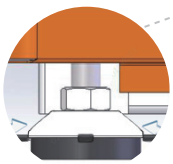


**Access Port**
One 25mm test hole

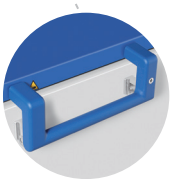








**Adjustable foot**
Large adjustable feet, easy to level



**Integrated lid and handle**
Easy to grasp, comfortable to use and durable



**Magnetic front cover**
Screwless design making it easy to remove and clean the filter

## Product Details

- **Microprocessor controller**

  Equipped with a microprocessor controller and a 10.1 inch LCD screen with display accuracy at 0.1°C to show the cabinet and ambient temperature, voltage and other data clearly. The temperature inside the cabinet is adjustable from -140°C to -150°C.

- **Safe and secure**

  Integrated handle, equipped with key lock and padlock as standard with optional electromagnetic lock and finger-print lock, providing multiple safeguards for sample safety.

- **Large capacity USB**

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

- **Backup power, extended standby**

  Equipped as standard with two lithium batteries which allows extended information/data availability, even after power cutoff.

- **Multiple alarms**

  Including high and low temperature alarm, 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, delivers excellent thermal efficiencies.

- **Compatible with freezer racks design**

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

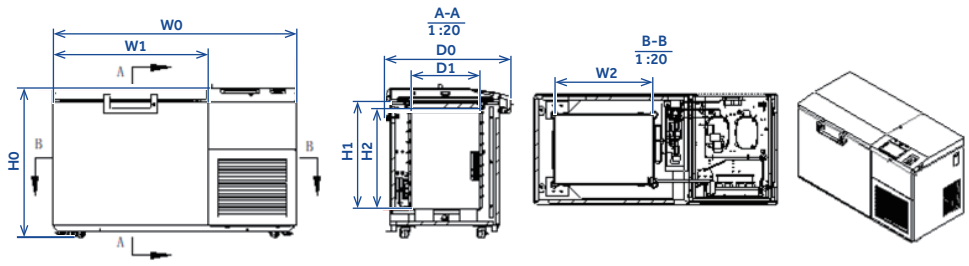
- **Networking functions**

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

- **Anti-defrost design**

  Built-in halo heater reduces frost build-up.

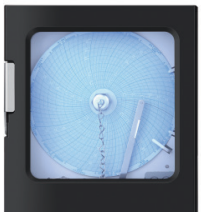
## Product Dimension Drawings




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

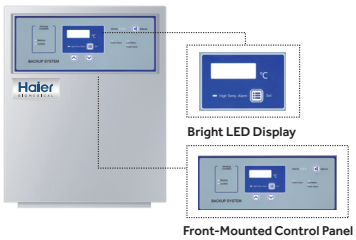
| Model \ Code | W0 | W1 | W2 | H0 | H1 | H2 | D0 | D1 |
|---|---|---|---|---|---|---|---|---|
| DW-150W209 | 1650mm | 1050mm | 667mm | 1010mm | 727mm | 677mm | 860mm | 462mm |

## Product Accessories (Optional)



### Temperature Recorder

- Front-mounted design
- Enables standalone temperature monitoring




### $LN_2$ Backup System

- Interlocked design to turn off $LN_2$ injection upon door opening
- Protection circuit to prevent battery overcharging
- Lightweight and portable design, suitable for mounting on top of a freezer
- Alarm functions including low battery and sensor fault

| Rack Type | ULT Freezer | Freezer Rack | | | | | | Freezer Rack Quantity | Total Boxes |
|---|---|---|---|---|---|---|---|---|---|
| | | CAT.No. | Model | Material | Layout (Rows* Columns) | Box Type | Dimensions (D*W*H) (mm) | | |
|  Chest-type freezer rack | DW-150W209 | 433028 | DCJ-12-A (SUS304) | SUS304 | 12*1 | 2 inch | 141*141*662 | 12 | 144 |

## Specifications

| Model | | | DW-150W209 |
|---|---|---|---|
| Technical Data | Cabinet Type | | Chest |
| | Climate Class (°C) | | 10~28 |
| | Cooling Type | | Direct Cooling |
| | Defrost Mode | | Manual |
| | Refrigerant | | HC |
| | Sound Level (dB(A)) | | 55 |
| Performance | Cooling Performance (°C) | | -150 |
| | Temperature Range (°C) | | -140 ~-150 |
| Control | Controller | | Microprocessor |
| | Display | | LCD Touchscreen |
| Electrical Data | Power Supply (V/Hz) | | 220~240/50 |
| | Max Power (W) | | 1750 |
| Dimensions | Capacity (L/Cu.Ft) | | 209/7.4 |
| | Net/Gross Weight | kg | 260/295 |
| | | lbs | 573.2/650.4 |
| | 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*960*1170 |
| | | in | 71.3*37.8*46.1 |
| | Cabinet Width (without handle and hinge) | mm | 667 |
| | Container Load (20'/40'/40'H) | | 12/24/24 |
| Functions | High/Low Temperature Alarm | | Y |
| | Hot Condenser Alarm | | Y |
| | Power Failure Alarm | | Y |
| | High/Low Voltage Alarm | | Y |
| | Sensor Error Alarm | | Y |
| | Low Battery Alarm | | Y |
| | High Ambient Temperature Alarm | | Y |
| | Door Ajar Alarm | | Y |
| | Start-Up Delay | | Y |
| Accessories | Caster | | Y(4) |
| | Leveling Feet | | Y(2) |
| | Porthole | | 1*Rear, (25mm)Diameter |
| | Inner Doors | | 2 |
| | Freezer Racks Qty (2" boxes) | | 12 |
| | Capacity (2" boxes) | | 144 |
| | USB Interface | | Y |
| | Remote Alarm | | Y |
| | 5V Power Supply Port | | Y |
| | Temperature Chart Recorder | | Optional |
| | RS232/485 Port | | NA/Standard |
| | $CO_2$ Backup System | | N/A |
| | $LN_2$ Backup System | | Optional |
| Other | Certification | | CE, MDR |

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