Haier Biomedical
Intelligent Protection of Life Science

# Biomedical Freezer

# -60°C Biomedical Freezer

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

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

German made energy efficient compressor

Digital temperature control display

Dual-seal design

Efficient and reliable fan

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

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

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

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

Single compressor auto cascade refrigeration system provides high efficient cooling power. Insulation thickness is 100 mm for optimal protection of cold temperature and saving energy.

Creative dual seals design retains cold temperature more effectively, and eliminates condensation on gaskets.

Interior material is certified food grade 304 stainless steel, ensuring safe contact between food and interior liner.

Interior lock design ensures product safety. Lockable casters permit ease of installation and maneuvering.

Water proof digital control delivers precise temperature for storage. Display and control system are easy to use.

## Specifications

| | Model | | DW-60W138 | DW-60W258 | DW-60W388 |
|---|---|---|---|---|---|
| Technical Data | Cabinet Type | | Chest | Chest | Chest |
| | Climate Class | | N | N | N |
| | Cooling Type | | Direct Cooling | Direct Cooling | Direct Cooling |
| | Refrigerant | | HC | HC | HC |
| | Sound Level ((dB(A)) | | 43 | 43 | 43 |
| Performance | Cooling performance (°C) | | -60 | -60 | -60 |
| | Temperature Range (°C) | | -30~-60 | -30~-60 | -30~-60 |
| Control | Controller | | Microprocessor | Microprocessor | Microprocessor |
| | Display | | LED | LED | LED |
| Electrical Data | Power Supply (V/Hz) | | 220~240/50 | 220~240/50 | 220~240/50 |
| | Power (W) | | 370 | 410 | 420 |
| | Electrical Current (A) | | 3 | 3 | 3.5 |
| | Power Consumption (kWh/24h) | | 4.5 | 5.5 | 6.5 |
| Construction | Capacity (L/Cu.Ft) | | 138/4.9 | 258/9.1 | 388/13.7 |
| | Net/Gross Weight (approx) | kg | 62/75 | 88/108 | 105/130 |
| | | lbs | 137/165 | 194/238 | 232/287 |
| | Interior Dimensions (W*D*H) | mm | 580*445*620 | 1000*445*620 | 1450*445*620 |
| | | in | 22.8*17.5*24.4 | 39.4*17.5*24.4 | 57.1*17.5*24.4 |
| | Exterior Dimensions (W*D*H) | mm | 790*770*950 | 1210*770*950 | 1655*770*950 |
| | | in | 31.1*30.3*37.4 | 47.6*30.3*37.4 | 65.2*30.3*37.4 |
| | Packing Dimensions (W*D*H) | mm | 815*800*990 | 1255*800*990 | 1695*800*990 |
| | | in | 32.1*31.5*39 | 49.4*31.5*39 | 66.7*31.5*39 |
| Loading Quantities | Container Load (20'/40'/40'H) | | 28/56/56 | 22/46/46 | 14/28/28 |
| Alarms | High/Low Temp | | Y | Y | Y |
| | Sensor Error | | Y | Y | Y |
| Accessories | Caster | | Y | Y | Y |
| | Porthole | | Y | Y | Y |
| Certification | CE | | Y | Y | Y |

Product appearance and specifications are subject to change without notice

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

The double door -40°C biomedical freezer models offer a large capacity storage space with rapid cooling. Integrated design of cold shelf and evaporator provides additional refrigeration efficiency. Designed to store vaccines, blood plasma and many other biological materials. Installations can be found in research institutions and clinical sites in the life science, pharma, biotech, medical and electronics sectors.

The DW-40L348 is based on the original work horse platform of DW-40L508. The new freezer model operates with two capillary tubes and is equipped with dual gaskets to improve the temperature uniformity through the chamber drastically. It can be installed to satisfy tougher application requirements in universities, research institutions and blood banks.

DW-40L508

DW-40L348

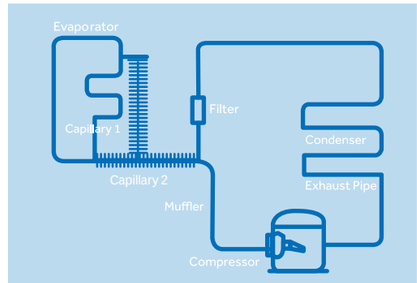

Control panel

Drawer

Shelf

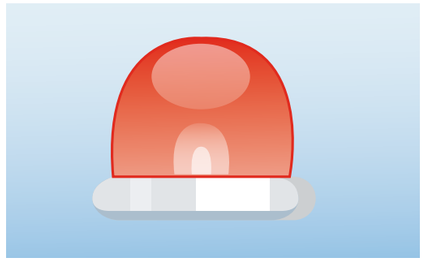
## Reliability and Key Features

- Rated for -40°C at 32°C ambient
- Rapid cooling with shelf evaporator
- Improved temperature uniformity with dual capillary tube design at the range of-20°C to -40°C
- Improved door seal design with two gaskets maintains cabinet temperature more efficiently
- Reduced frost buildup
- 90mm insulation thickness for additional robustness, less power consumption and better temperature retaining ability
- Drawer design maximizes storage space.One unit can hold 360 bags of 230 ml blood bags
- Optional USB interface




## Safety

- Multiple malfunction alarms include high/low temperature,power failure, sensor error,low battery,high ambient temperature
- Two types of alarms: buzzer and flashing light,remote alarm



## Ergonomic Design

- LED digital display for clear observation
- Double door design with independent locks reduces air leakage to ensure temperature stability and lower power consumption
- Tracks to label drawers for product identification

# -40°C Biomedical Freezer (Upright)

DW-40L278

## Key Features

- Microprocessor control, adjustable temperature range :-20°C to -40°C
- LED digital display and increment at 0.1°C
- Permanently lubricated cooling fan for safety and longevity
- Rapid cooling with shelf evaporator
- Removable double outer door seal design, good sealing effect and energy saving

## Ergonomic Design

- USB data logging and temperature recorder (optional)
- Padlock with stainless steel cylinder for safe storage
- Drawers are designed with label holders for item identification

## Safety

- Multiple malfunction alarms include high/low temperature, sensor error, power failure, high ambient temperature, low battery,door ajar
- Alarm Types: buzzer, flashing light, remote alarm

Reliable Performance

USB

Malfunction Alarms

Double Outer Door Seal

Padlock

Caster and feet

Removable double outer door seal

## Reliability and Key Features

- High efficiency low temperature compressor with known field reliability
- Chemically stable, CFC-free, commercially available and environmentally safe refrigerant
- Permanently lubricated cooling fan for safety and longevity , high density insulation foam for stable and long term storage temperature
- Optimized refrigeration system designed to maximize cooling effect and temperature uniformity
- Microprocessor control, digital display, adjustable temperature range: -20°C~-40°C
- LCD digital display for clear observation
- Wide voltage tolerance design with applicable voltage range of 198~252 V/AC



Inner

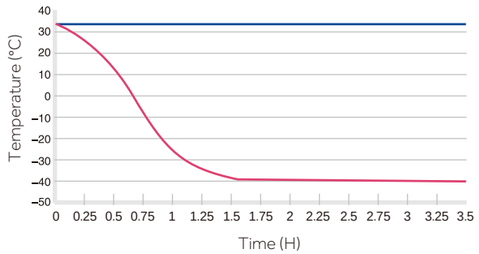
## Safety

- Multiple malfunction alarms to detect high / low temperature, sensor error and power failure
- Two types of alarm indications: audible buzzing and visual flashing light

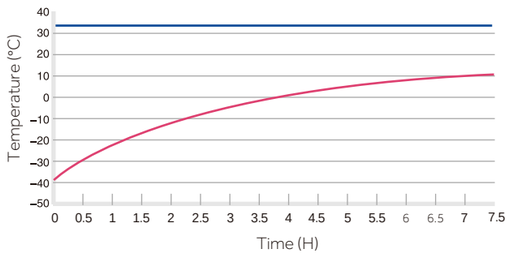
## Ergonomic Design

- Door lock for storage safety
- Standard ø25mm access port for testing
- Corrosion proof cabinet interior design
- Suitable for a variety of storage baskets

DW-40W380 Pull down test at 32°C ambient




DW-40W380 Warm up test at 32°C ambient



# -40°C Biomedical Freezer

## Specifications

| | Model | DW-40L92 | DW-40L262 | | DW-40L278 | | DW-40L348 | DW-40L508 | | DW-40L568J | DW-40W100 | DW-40W255 | DW-40W380 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Technical Data | Cabinet Type | Upright | Upright | | Upright | | Upright, Double Door | Upright, Double Door | | Upright | Chest | Chest | Chest |
| | Climate Class | SN N | SN N | | SN N | | SN N | SN N | | SN N | SN N | SN N | SN N |
| | Cooling Type | Direct cooling | Direct cooling | | Direct Cooling | | Direct Cooling | Direct Cooling | | Direct cooling | Direct Cooling | Direct Cooling | Direct Cooling |
| | Defrost Mode | Manual | Manual | | Manual | | Manual | Manual | | Manual | Manual | Manual | Manual |
| | Refrigerant | HC | HC | CFC-Free | HC | CFC-Free | HC | HC | CFC-Free | HC | CFC-Free | CFC-Free | CFC-Free |
| | Sound Level (dB(A)) | 29 | 41 | 44 | 40 | 44 | 41 | 41 | 45 | 44 | 35 | 41 | 45 |
| Performance | Cooling Performance (°C) | -40 | -40 | | -40 | | -40 | -40 | | -40 | -40 | -40 | -40 |
| | Temperature Range (°C) | -20~-40 | -20~-40 | | -20~ -40 | | -20~-40 | -20~-40 | | -20~-40 | -20~-40 | -20~-40 | -20~-40 |
| Control | Controller | Microprocessor | Microprocessor | | Microprocessor | | Microprocessor | Microprocessor | | Microprocessor | Microprocessor | Microprocessor | Microprocessor |
| | Display | LCD | LCD | | LED | | LED | LED | | LCD | LCD | LCD | LCD |
| Electrical Data | Power Supply (V/Hz) | 220~240/50/60 | 220~240/50/60 | 115/60 | 220~240/50 | 220~240/50/60 | 220~240/50 | 220~240/50 | 208~230/60 | 220~240/50 | 220~240/50 | 115/60 | 220~240/50/60 | 220~240/50/60 |
| | Power (W) | 340 | 310 | 600 | 275 | 370 | 280 | 285 | 510 | 340 | 260 | 255 | 410 | 550 |
| | Electrical Current (A) | 2.2 | 2 | 7.5 | 2.9 | 5.1 | 2.9 | 2.9 | 5.6 | 2.8 | 2.5 | 5.0 | 2.5 | 3.4 |
| | Power Consumption (kWh/24h) | 1.4 | 2.6 | 4.3 | 3.1 | 5.3 | 3.3 | 3.8 | 6.6 | 4 | 1.7 | 2.1 | 4.8 | 5.8 |
| Construction | Capacity (L/Cu.Ft) | 92/3.2 | 262/9.3 | | 278/9.8 | | 348/12.3 | 490/17.3 | | 568/20.1 | 100/3.5 | | 255/9.0 | 380/13.4 |
| | Net/Gross Weight (approx) kg | 46/51 | 88/93 | | 115/135 | | 137/145 | 164/200 | | 190/215 | 43/46 | | 70/82 | 82/89 |
| | Net/Gross Weight (approx) lbs | 101.4/112.4 | 194.0/205.0 | | 253.5/297.6 | | 302.0/320.0 | 361.6/440.9 | | 418.9/474 | 94.8/101.4 | | 154.3/180.8 | 180.8/196.2 |
| | Interior Dimensions (W*D*H) mm | 435*410*635 | 480*465*1430 | | 520*435*1230 | | 535*610*1228 | 685*610*1228 | | 610*755*1260 | 500*385*630 | | 1036*426*625 | 1375*453*640 |
| | Interior Dimensions (W*D*H) in | 17.1*16.1*25.0 | 18.9*18.3*56.3 | | 20.5*17.1*48.4 | | 21.1*24.0*48.3 | 27.0*24.0*48.3 | | 24/29.7/49.6 | 19.7*15.2*24.8 | | 40.8*16.8*24.6 | 54.1*17.8*25.2 |
| | Exterior Dimensions (W*D*H) mm | 640*610*810 | 700*705*1665 | | 770*710*1810 | | 790*845*1860 | 940*845*1860 | | 848*951*1780 | 685*650*810 | | 1243*724*838 | 1554*724*838 |
| | Exterior Dimensions (W*D*H) in | 25.2*24.0*31.9 | 27.6*27.8*65.6 | | 30.3*28.0*71.3 | | 31.1*33.3*73.2 | 37.0*33.3*73.2 | | 33.4/37.4/70.1 | 27.0*25.6*31.9 | | 48.9*28.5*33.0 | 61.2*28.5*33.0 |
| | Packing Dimensions (W*D*H) mm | 660*700*900 | 775*760*1880 | | 832*757*1992 | | 852*927*2044 | 997*927*2044 | | 900*1035*1910 | 740*650*880 | | 1320*755*905 | 1635*760*900 |
| | Packing Dimensions (W*D*H) in | 26.0*27.6*35.4 | 30.5*29.9*74.0 | | 32.8*29.8*78.4 | | 33.5*36.5*80.5 | 39.3*36.5*80.5 | | 35.4/40.7/75.2 | 29.1*25.6*34.6 | | 52.0*29.7*35.6 | 64.4*29.9*35.4 |
| Loading Quantities | Container Load (20'/40'/40'H) | 48/102/102 | 21/45/45 | | 21/42/42 | | 12/26/26 | 12/24/24 | | 12/26/26 | 54/108/162 | | 24/50/50 | 20/42/42 |
| Alarms | High/Low Temperature | Y | Y | | Y | | Y | Y | | Y | Y | | Y | Y |
| | Remote Alarm | Y | Y | | Y | | Y | Y | | Y | / | | / | / |
| | Power Failure | Y | Y | | Y | | Y | Y | | Y | Y | | Y | Y |
| | Sensor Error | Y | Y | | Y | | Y | Y | | Y | Y | | Y | Y |
| | Low Battery | / | / | | Y | | Y | Y | | / | / | | / | / |
| | High Ambient Temp | Y | Y | | Y | | Y | Y | | Y | / | | / | / |
| | Door Ajar | Y | Y | | Y | | / | / | | Y | / | | / | / |
| Accessories | Caster | Y | Y | | Y | | Y | Y | | Y | / | | / | / |
| | Foot | Y | Y | | Y | | Y | Y | | Y | / | | / | / |
| | Porthole | Y | Y | | Y | | Y | Y | | Y | Y | | Y | / |
| | Drawers/Inner Doors | 3/- | 7/- | | 6/- | | 12/- | 10/- | | - / 2 | / | | / | / |
| | USB Interface | Optional | Optional | | Optional | | Optional | Optional | | Optional | / | | / | / |
| | RS485 | Optional | Optional | | Optional | | Optional | Optional | | Optional | / | | / | / |
| | Temperature Recorder | / | / | | Optional | | Optional | Optional | | Optional | / | | / | / |
| Certification | CE | Y | Y | / | Y | | Y | Y | | Y | Y | | Y | Y |

Product appearance and specifications are subject to change without notice

# -30℃ Biomedical Freezer

## Typical Installation and Application

Applicable for blood stations, hospitals, CDC's, scientific research institutes, chemical industry and other related industries. The -30℃ Biomedical Freezer can cryopreserve plasma, biological products, components, materials, and other items that need to be kept at low temperature.

**DW-30L1280F**

## Key Features

**Hydrocarbon energy saving: green and environmentally friendly**
Using green and eco-friendly hydrocarbon refrigeration system, based on the principle of zero damage to the ozone layer with zero greenhouse effect, while reducing energy consumption to 8kW/24H.

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

**Dual independent refrigeration systems: Superior safety**
Auto defrosting system+constant refrigeration system, has successfully solved the industries problem that inside temperatures rise sharply when fan cooling refrigerators defrost; If one system fails, the other one would reach -25 °c quickly, which doubles the safety of the sample; With air cooling technology, the inside uniformity can reach ±3 ℃ (±5 ℃ during the defrosting period).

**Advanced defrosting technology eradicates the hidden danger of electric leakage**
Haier Biomedical applies full-automatic hot gas defrosting technology throughout the whole unit. Compared with heater wire defrosting technology, Haier Biomedical's technology eliminates the risk of electric leakage occurring due to wire aging, providing extra security and safety.

## Product Advantages

**Microcomputer control**
LED digital temperature display with inside temperature accuracy of 0.1 ℃, while at the same time displaying the voltage and ambient temperature, alarm, AB operating system and defrost level settings.

**Supersized double outer doors**
70mm insulation layer.

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

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

**Casters and foots**
4 omnidirectional casters and 2 level legs, easy to move, lock and level.

**Insulation design of refrigeration unit**
Subtle temperature rise during defrosting.

**Intelligent hot gas defrosting**
Prolongs the defrosting cycle, eradicates the hidden danger of electric leakage.

**Shelves**
Equipped with 12 stainless steel shelves of 6 layers, which are adjustable to meet different requirements of users.

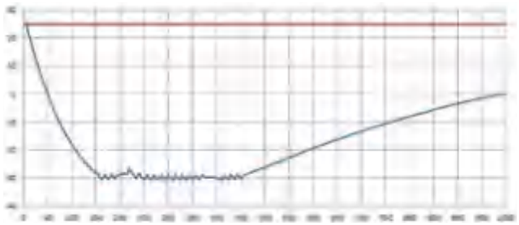
**Foam beam design**
Better insulation effect.

Optional: Blood baskets (48 units), and the capacity is 900 x 200ml blood bags.

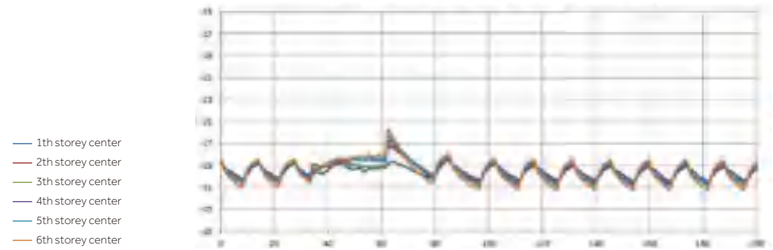
**Low noise**
Optimal system and engine noise reduction design, the temperature can cool down to -30 ℃ within 3 hours.



**Bottom strainer drawable design**
Easy to clean.




Center Temperature Curve Graph




Defrosting Curve Graph

## Specifications

| | Model | | DW-30L1280F |
|---|---|---|---|
| Technical Data | Cabinet Type | | Upright |
| | Climate Class | | N |
| | Cooling Type | | Air cooling |
| | Defrost Mode | | Automatic (Evaporator), Manual (Inner cabinet & Door frame) |
| | Refrigerant | | HC |
| | Noise (dB(A)) | | 45.4(220V/50Hz) |
| Performance | Cooling Performance (ºC) | | -30 |
| | Temp Range (ºC) | | -10~-30 |
| Control | Controller | | Microprocessor |
| | Display | | LED |
| Electrical Data | Power Supply (V/Hz) | | 220～240/50 |
| | Power (W) | | 900W (220V/50Hz) |
| | Electrical Current (A) | | 4.5 |
| | Power Consumption (kWh/24h) | | 8 |
| Construction | Capacity (L/Cu.Ft) | | 1280/45.2 |
| | Net/Gross Weight(approx) | kg | 420/480 |
| | | lbs | 924/1056 |
| | Interior Dimension(W*D*H) | mm | 1320*752*1260 |
| | | in | 52/29.6/49.6 |
| | Exterior Dimension(W*D*H) | mm | 1520*1065*1980 |
| | | in | 60/42/78 |
| | Packing Dimension(W*D*H) | mm | 1570*1080*2130 |
| | | in | 61.8/42.5/83.8 |
| Loading Quantities | Container Load (20'/40'/40'H) | | 7/14/14 |
| Alarms | High/Low Temperature | | Y |
| | Remote Alarm | | Y |
| | Power Failure | | Y |
| | Sensor Error | | Y |
| | Low Battery | | Y |
| | High Ambient Temperature | | Y |
| | Door Ajar | | Y |
| Accessories | Castor | | Y |
| | Foot | | Y |
| | Porthole | | Y |
| | Drawers | | 12 |
| | USB Interface | | Y |
| | RS485 | | Y |
| Certification | CE | | Y |

F suffix - Forced air cooling
Product appearance and specifications are subject to change without notice

## Typical Installation and Application

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


DW-30L818BP

## Key Features

**Energy saving with variable frequency inverter technology**
Optimized refrigeration system with a high efficiency inverter compressor to reduce energy consumption.

**Excellent temperature uniformity in a large storage space**
Features built-in evaporator, large storage space and adjustable shelf, providing faster temperature pulldown and a better temperature uniformity of set point ±3ºC.

**Low noise**
Sound reduction design lowers the sound level to 37dB(A) at 220V/50Hz.

**Environment Friendly**
1)HC refrigeration system contains zero chlorine and fluorine,which is better for the environment.
2)Urethane foam insulation complies with European ROHS regulation.

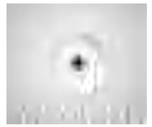
# -30°C Biomedical Freezer

## Product Advantages

Ergonomic Design: document holding compartment for storing size A4 paper and pens.

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

Double door seals for better insulation performance.



Pressure equalization port for easy door opening.

Microprocessor temperature control: LED displays cabinet temperature with 0.1℃ resolution, ambient temperature, and input voltage.

DW-30L818BP

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

Casters and leveling legs for ease of maneuvering and positioning.

Powder coating galvanized interior with large round corner design, corrosion resistance and easy to clean.

Inner door design reduces loss of cold air to improve energy efficiency and stable temperature.

Adjustable shelves made with stainless steel or coated steel.

## Microprocessor Control System

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

## Insulation

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

## Porthole

·Two standard portholes allow ease of temperature testing.

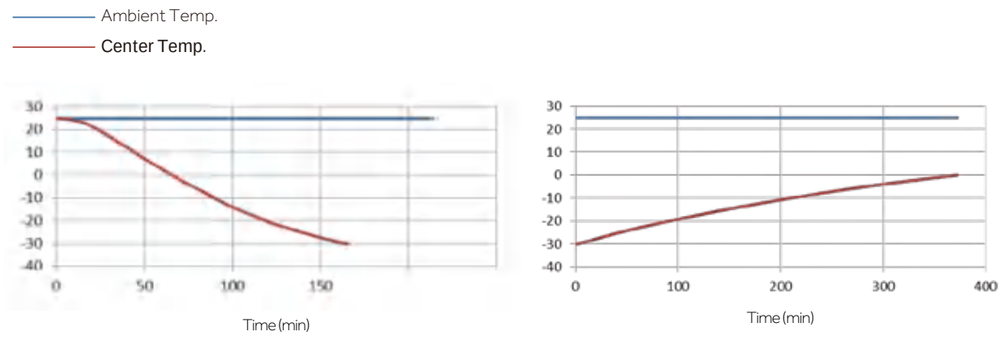
## Security Lock

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

## Temperature Recorder

·Optional temperature recorder for temperature recording and compliance.

## Typical Performance Characteristics at 25°C ambient



# -30°C Biomedical Freezer

## Product Advantages

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

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

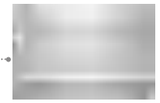
Double seal design provides better **insulation and saves** energy.

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

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

DW-30L818

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



**Flexible internal storage**

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

## Specifications

| | Model | | DW-30L818 | DW-30L818BP |
|---|---|---|---|---|
| Technical Data | Cabinet Type | | Upright | Upright |
| | Climate Class | | SN N | SN N |
| | Cooling Type | | Direct Cooling | Direct Cooling |
| | Defrost Mode | | Manual | Manual |
| | Refrigerant | | HC | HC |
| | Sound Level (dB(A)) | | 44 | 37（220V/50Hz） |
| Performance | Cooling Performance (°C) | | -30 | -30 |
| | Temp Range (°C) | | -10~-30 | -10~-30 |
| Control | Controller | | Microprocessor | Microprocessor |
| | Display | | LCD | LED |
| Electrical Data | Power Supply (V/Hz) | | 220~240/50 | 100~230/50/60 |
| | Power (W) | | 380 | 680 |
| | Electrical Current (A) | | 2.8 | 7.7 |
| | Power Consumption (kWh/24h) | | 3.5 | 3.3 |
| Construction | Capacity (L/Cu.Ft) | | 818/28.8 | 818/28.8 |
| | Net/Gross Weight (approx) | kg | 205/235 | 210/240 |
| | | lbs | 451.9/518.1 | 463.0/529.1 |
| | Interior Dimension (W*D*H) | mm | 750*755*1460 | 750*755*1460 |
| | | in | 29.5*29.7*57.5 | 29.5/29.7/57.5 |
| | Exterior Dimension (W*D*H) | mm | 988*951*1980 | 988*951*1980 |
| | | in | 38.9/37.4/78.0 | 38.9/37.4/78.0 |
| | Packing Dimension (W*D*H) | mm | 1040*1060*2150 | 1040*1060*2150 |
| | | in | 40.9/41.7/84.6 | 40.9/41.7/84.6 |
| Loading Quantities | Container Load (20'/40'/40'H) | | 10/22/22 | 10/22/22 |
| Alarms | High/Low Temperature | | Y | Y |
| | Remote Alarm | | Y | Y |
| | Power Failure | | Y | Y |
| | Sensor Error | | Y | Y |
| | Low Battery | | / | Y |
| | High Ambient Temperature | | Y | Y |
| | Door Ajar | | Y | Y |
| Accessories | Castor | | Y | Y |
| | Foot | | Y | Y |
| | Porthole | | Y | Y |
| | Inner Doors | | 3 | 3 |
| | Temperature Recorder | | Optional | Optional |
| | USB Interface | | Optional | Optional |
| | RS485 Port | | Optional | Y |
| Certification | CE | | Y | Y |

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

# -30°C Biomedical Freezer (Upright)

This freezer is designed for storage of critical and temperature sensitive biological samples, laboratory products and medical products in institutions such as blood banks, hospitals and research laboratories.

**DW-30L420F**

## Key Features

- Forced air and auto defrost design: -30°C storage temperature with automatic defrost cycles guided by time and temperature, ensure maximum temperature stability and minimize energy use
- High-performance refrigeration system: achieves excellent temperature uniformity with intelligent operation control at -30°C
- Microprocessor control with digital display: 0.1°C control increments, adjustable range of -10°C to -30°C

Door lock and padlock | Backup battery protection | USB | Malfunction Alarms

Drawer (Optional)

Microprocessor control panel

Air distribution

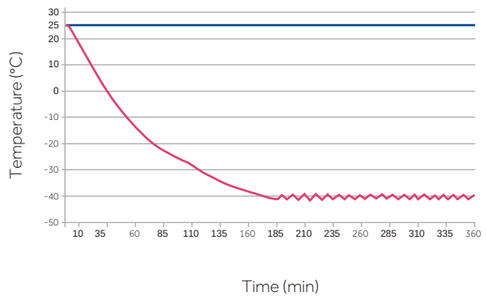
## Safety

- Alarm system includes audible and visual alerts. Alarms include high and low temperature, sensor error, power failure, door ajar, low battery and high ambient temperature. Remote contacts are standard
- Backup battery provides continuous monitoring and displays the interior temperature for up to 48hrs in the event of a mains power failure
- Standard USB port on DW-30L420F allows users to download temperature data
- Lockable door with padlock for added sample security

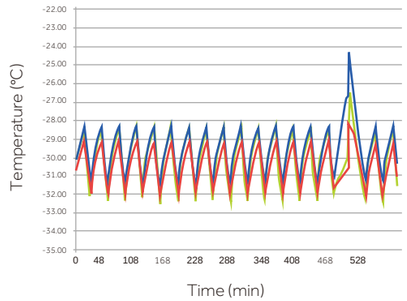
## Ergonomic Design

- Self-closing door with 90° stay-open feature conserves energy and helps maintain temperature uniformity to protect your valuable samples
- Corrosion-free interior brushed stainless steel liner and exterior coated steel plate
- 5 adjustable stainless steel shelves and optional drawer
- Casters and levelling legs, easy to move and lock

Pull down test at 25°C ambient




Temperature Uniformity




*Freezer set-point -30 °C， ambient temperature 25 °C

# -30°C Biomedical Freezer

Haier Biomedical -30°C biomedical freezer with smart control and energy-saving hydrocarbon refrigeration system for safe and reliable product storage.

DW-30L278

DW-30L508

## Application

Biomedical and life science laboratories within blood banks, hospitals, disease control centres and research institutes as well as electronics and chemical industries.  Used for cryopreservation of plasma, biological samples and other products and cold tests for components and materials.

## Advantages

- **High-efficiency and energy-saving compressor and refrigeration system**
  Industrial grade energy-saving compressor and optimized cooling system reduces power consumption by more than 55% compared with older models.
- **Green and environmentally friendly**
  Hydrocarbon refrigerant compressor system and use of hydrocarbon refrigerants makes the refrigeration system completely green and environmental friendly. Built with isopentane foam polyurethane insulation, which complies with European RoHS Directive.
- **Superior temperature uniformity**
  Evaporator-shelf design speeds up the cooling process and provides a more uniform temperature distribution. The temperature uniformity at specific points throughout the unit is ±4°C.
- **Low sound level**
  Sound-reducing design with optimized system reduces the sound level, smoother operation eliminates high-pitched noise.

## Key Features

**Microprocessor control system:**
- Microprocessor temperature controller, LCD temperature display, display accuracy at 0.1°C.
- Adjustable temperature setting from -10°C to -30°C
- Multiple alarm functions including high temperature alarm, low temperature alarm, sensor error alarm and power failure alarm
- Sound and flash alarm
- Alarm lasts for more than 24 hours after power failure

**Excellent temperature-retaining ability**
High efficient insulation and double-sealing design improves temperature performance, energy efficiency and system reliability

**Lock**
Lock latch and key lock double-lock design provides an extra level of security

**Porthole**
Porthole design  is standard

**Recorder**
Optional chart temperature recorder available

# -30°C Biomedical Freezer

PS(Polystyrene) interior, painted steel plate exterior, rust-proof, and easy to clean

Padlock design, multi-user, independent management, latch-lock high security

10 interior plastic drawers with facility for labelling for efficient sample organisation and identification

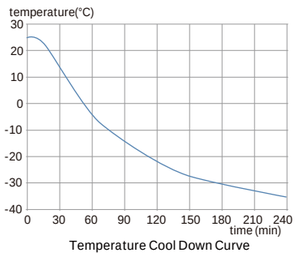
Microprocessor temperature control, LCD temperature display with display accuracy of 0.1°C

Aluminum alloy handle, stable and durable

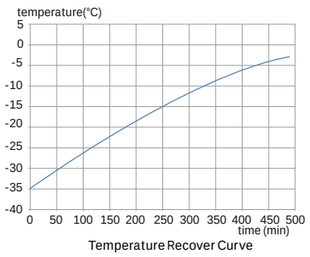
Standard casters and levelling feet for ease of manoeuvring and positioning

DW-30L508

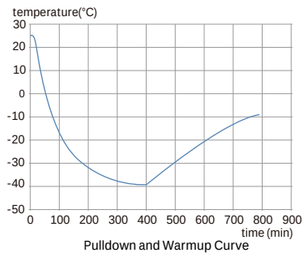
## DW-30L508 | TYPICAL PERFORMANCE CHARACTERISTICS AT 25°C AMBIENT




Temperature Cool Down Curve




Temperature Recover Curve




Pulldown and Warmup Curve

center air temp

## Specifications

| | Model | | DW-30L420F | | DW-30L278 | DW-30L508 | |
|---|---|---|---|---|---|---|---|
| Technical Data | Cabinet Type | | Upright | | Upright | Upright, Double Door | |
| | Climate Class | | SN N | | SN N | SN N | |
| | Cooling Type | | Forced air Cooling | | Direct Cooling | Direct Cooling | |
| | Defrost Mode | | Automatic (Evaporator), Manual (Inner cabinet & Door frame) | | Manual | Manual | |
| | Refrigerant | | HC | | HC | HC | |
| | Sound Level (dB(A)) | | 46 | | 40 | 41 | 43 |
| Performance | Cooling Performance (°C) | | -30 | | -30 | -30 | |
| | Temperature Range (°C) | | -10~-30 | | -10~-30 | -10~-30 | |
| Control | Controller | | Microprocessor | | Microprocessor | Microprocessor | |
| | Display | | LED | | LCD | LCD | LED |
| Electrical Data | Power Supply (V/Hz) | | 220~240/50 | 208~230/60 | 220~240/50 | 220~240/50 | 115/60 |
| | Power (W) | | 460/1000(Defrost) | | 330 | 530 | 600 |
| | Electrical Current (A) | | 4.0/5.8(Defrost) | | 2 | 3 | 5.4 |
| | Power Consumption (kWh/24h) | | 4.6 | 5.3 | 2.3 | 2.8 | 2.8 |
| Construction | Capacity (L/Cu.Ft) | | 420/14.8 | | 278/9.8 | 490/17.3 | |
| | Net/Gross Weight (approx) | kg | 195/225 | | 115/135 | 164/200 | |
| | | lbs | 429.9/496.0 | | 253.7/297.7 | 361.6/440.9 | |
| | Interior Dimension (W*D*H) | mm | 685*610*1028 | | 520*435*1230 | 685*610*1228 | |
| | | in | 27.0*24.0*40.5 | | 20.5*17.1*48.4 | 27.0*24.0*48.3 | |
| | Exterior Dimension (W*D*H) | mm | 950*920*1900 | | 745*675*1810 | 915*810*1860 | |
| | | in | 37.4*36.2*74.8 | | 29.3*26.6*71.3 | 36.0*31.9*73.2 | |
| | Packing Dimension (W*D*H) | mm | 980*935*2040 | | 805*725*1970 | 980*905*2040 | |
| | | in | 38.6*36.8*80.3 | | 31.7*28.5*77.6 | 38.6*35.6*80.3 | |
| Loading Quantities | Container Load (20'/40'/40'H) | | 12/24/24 | | 23/46/46 | 12/26/26 | |
| Alarms | High/Low Temperature | | Y | | Y | Y | |
| | Remote Alarm | | Y | | / | / | Y |
| | Power Failure | | Y | | Y | Y | / |
| | Sensor Error | | Y | | Y | Y | |
| | Low Battery | | Y | | / | / | |
| | High Ambient Temperature | | Y | | / | / | |
| | Door Ajar | | Y | | / | / | |
| Accessories | Caster | | Y | | Y | Y | |
| | Foot | | Y | | Y | Y | |
| | Porthole | | Y | | Y | Y | |
| | Drawers/Inner Doors | | -/3 | 6/- | 6/- | 10/- | |
| | Temperature Recorder | | Optional | | Optional | Optional | |
| | USB Interface | | Y | Optional | / | / | |
| | RS485 | | Optional | | / | / | |
| Certifications | CE | | Y | / | Y | Y | / |
| | UL | | / | / | / | / | Y |

Product appearance and specifications are subject to change without notice

# -25°C Biomedical Freezer

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

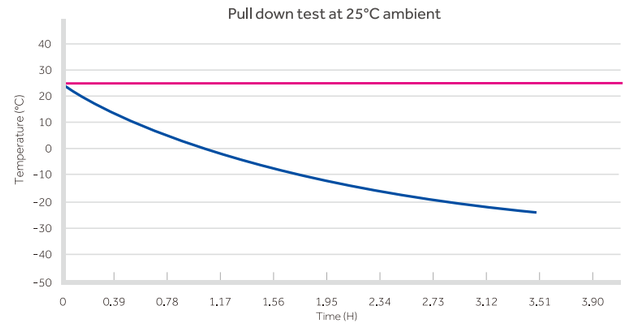
DW-25L262

## Reliability and Key Features

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

## Safety

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




## Specifications

| | Model | DW-25L92 | | DW-25L262 | |
|---|---|---|---|---|---|
| Technical Data | Cabinet Type | Upright | | Upright | |
| | Climate Class | SN N | | SN N | |
| | Cooling Type | Direct Cooling | | Direct Cooling | |
| | Defrost Mode | Manual | | Manual | |
| | Refrigerant | HC | | HC | |
| | Sound level ((dB(A)) | 27 | 28 | 34 | 34 |
| Performance | Cooling Performance (°C) | -25 | | -25 | |
| | Temperature Range (°C) | -10~-25 | | -10~-25 | |
| Control | Controller | Microprocessor | | Microprocessor | |
| | Display | LCD | | LCD | |
| Electrical Data | Power Supply (V/Hz) | 220~240/50 | 115/60 | 220~240/50 | 115/60 |
| | Power (W) | 255 | 125 | 270 | 135 |
| | Electrical Current (A) | 1.2 | 1.8 | 1.4 | 2.6 |
| | Power Consumption (kWh/24h) | 0.65 | 0.49 | 0.95 | 0.73 |
| Construction | Capacity (L/Cu.Ft) | 92/3.2 | | 262/9.3 | |
| | Net/Gross Weight (appox) kg | 46/51 | | 88/93 | |
| | Net/Gross Weight (appox) lbs | 101.4/112.4 | | 194.0/205.0 | |
| | Interior Dimensions (W*D*H) mm | 435*410*635 | | 480*465*1430 | |
| | Interior Dimensions (W*D*H) in | 17.1*16.1*25.0 | | 18.9*18.3*56.3 | |
| | Exterior Dimensions (W*D*H) mm | 640*610*810 | | 700*705*1665 | 700*705*1730 |
| | Exterior Dimensions (W*D*H) in | 25.2*24.0*31.9 | | 27.6*27.8*65.6 | 27.6*27.8*68.1 |
| | Packing Dimensions (W*D*H) mm | 660*700*900 | | 775*760*1880 | 775*760*1890 |
| | Packing Dimensions (W*D*H) in | 26.0*27.6*35.4 | | 30.5*29.9*74.0 | 30.5*29.9*74.4 |
| Loading Quantities | Container Load (20'/40'/40'H) | 48/108/108 | | 21/45/45 | |
| Alarms | High/Low Temp | Y | | Y | |
| | Sensor Error | Y | | Y | |
| | Door Ajar | Y | | Y | |
| | Remote Alarm | Y | | Y | |
| Accessories | Caster | Y | | Y | |
| | Foot | Y | | Y | |
| | Porthole | Y | | Y | |
| | Drawers | 3 | | 7 | |
| | USB Interface | Optional | / | Optional | / |
| | RS485 | Optional | | Optional | |
| Certifications | CE | Y | / | Y | / |
| | UL | / | Y | / | Y |

Product appearance and specifications are subject to change with out notice