

Haier
Inspired living

-86°C Ultra Low Temperature Freezer



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ECO LIFE

Leading Solution
to Life Science

SMARTER LIFE

BETTER PLANET

Haier Medical and Laboratory Products Co., Ltd

- Safety
- Reliability
- Energy saving

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

Safety

- Perfect alarming system and remote network monitoring.
- Certified with UL and CE to assure the safety of the user.

Reliability

- For long time storage of various biological products the parts supplied by Top 500 global corporations and highly qualified.
- The control board is qualified highly reliable with the aging test under the environment of high temperature of 85°C and high humidity of 80%.

Energy saving and green product

- Innovative door insulation to minimize the exposure during routine door openings to outer so as to assure the lowest cooling capacity dropping.
- VIP (Vacuum Insulation Panel) material to minimize the heat convection and energy use.
- Patented hermetically-sealed structure and the heat insulation system defrost efficiently.
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- EBM condenser fan, intelligent on and off power saving system.

Applicability

- Broad voltage tolerance(187V~255V) and the automatically voltage adjusting to be applicable for unstable voltage supply.
- LED display shows voltage and the environmental climate temperature provide the early warning for the malfunctions.
- Applicable to be used by the special users in some special countries.

Low Noise

- Optimization of the parts design and German EBM condenser fan and SECOP compressor to reach a high efficient refrigeration effect and ultra low noise and Green.

Temperature Control

- Microprocessor control, digital display with an increment of 1°C, cabinet temperature is adjustable in a range of -40°C ~ -86°C

Safety Control System

- Malfunction alarms to detect: high/low temperature, power failure, sensor error, high/low voltage, overheated condenser, high/low ambient temperature.
- Alarm indications (Audible and visible), buzzer, flashing light.
- Multiple protection function: keypad lock, compressor self-protection program; voltage buck/boost capabilities.
- Remote alarm function to ensure samples under safe monitor.

Refrigeration System

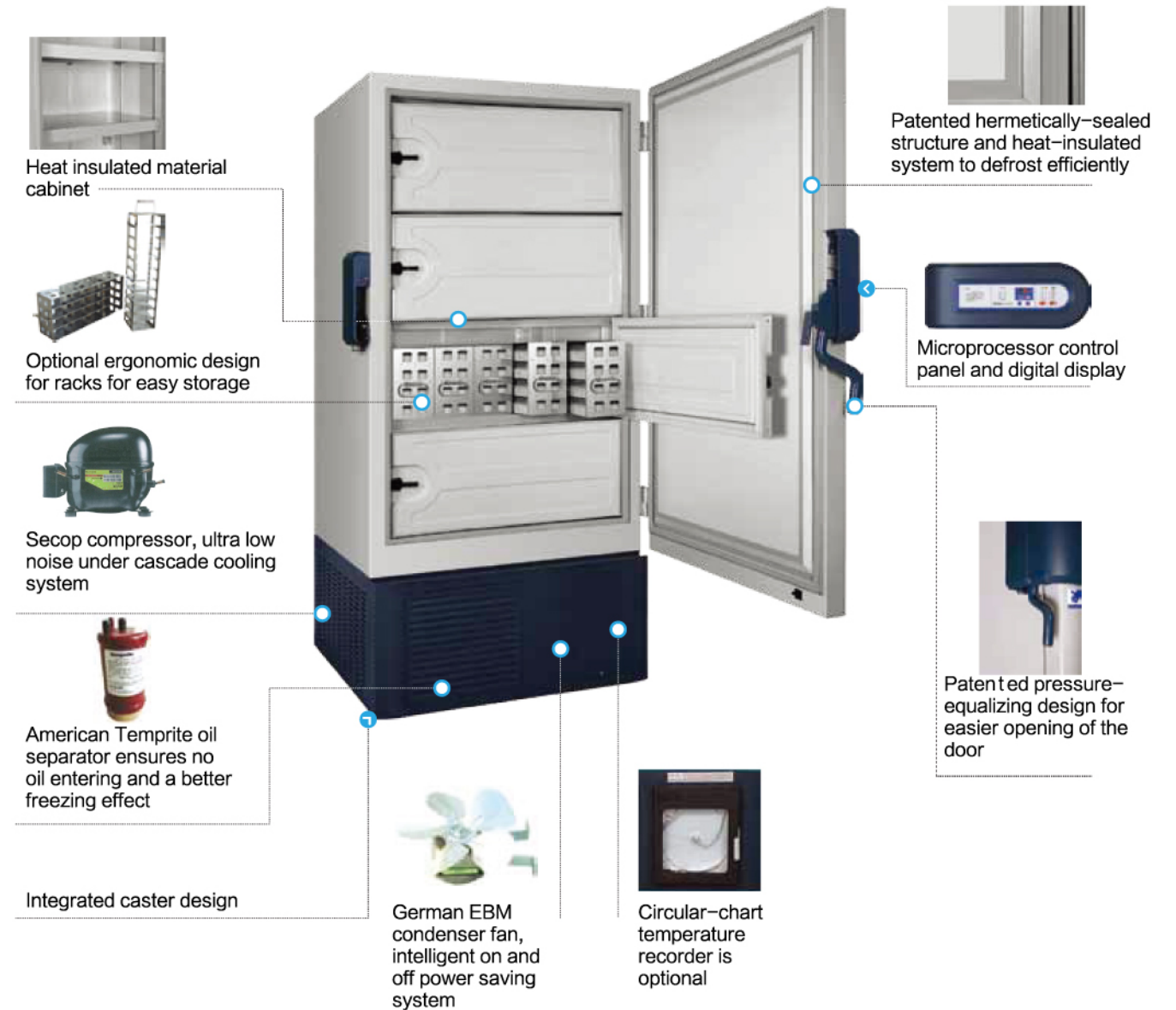
- Optimized cascade refrigeration technology, Secop compressor, high-efficient refrigeration effect
- High density and effective heat insulation
- Unique patented sealing design working together with heat retardant system keeps the cabinet frosting effectively
- Specially designed the second stage controlling system avoids the common errors happened to the second stage compressor
- CFC free

Ergonomic Design

- LED display for easy observation of cabinet temperature, set temperature, ambient temperature, input voltage, alarming temperature setting value and early warning for malfunctions
- Adjustable shelf for easy and convenient storage
- Safe door lock to prevent the unauthorized opening
- Broad climate tolerance, applicable within an ambient temperature range of 10°C~32°C
- Innovative integrated door handle and lock, compacted casters, flexible and easy for operation
- Intelligent condenser design to save energy
- Remote alarm through internet, and advanced function of voltage redeem in case of high/low voltage

Vacuum Insulation Panel Technology

- The advanced heat insulation technology uses the latest vacuum insulated panel material to guarantee the sealing and to pump out the air between the insulation layers so as to minimize the heat conduction rate by optimizing the heat conduction, heat convection and heat radiation. The VIP produce better heat insulation effect and enlarge 30% more interior storage volume without increasing the dimension of the cabinet



● Optional parts

Stainless steel rack



CO₂ and LN₂ back up system



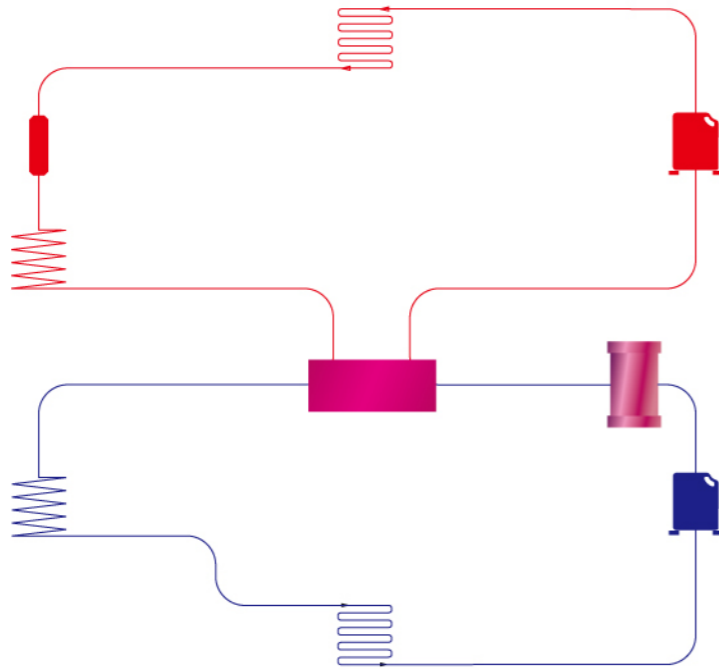
Storage box



Temperature recorder



● Heat exchange circulation system of ultra low temperature freezer



Filter

- Filter for refrigerant to protect system from the water and other entering



Capillary for high stage

- High temperature refrigerants flow into the evaporator from the Capillary



Capillary for low stage

- Low temperature refrigerants flow into the evaporator from the Capillary



High stage condenser

- Large volume condenser emits the heat of system quickly



Low stage Evaporator

- The close contact design between the evaporating tube and the inner cabinet increases the heat conducting efficiency



Ultra low noise SECOP compressor

- SECOP compressor provides reliable performance with ultra low noise
- Special formula lubricant to keep the chemical stable under both high and low temperature so as to make the compressor have a longer life by running parts lubriciously



Heat exchange system

- Heat exchange between the high and low temperature stage in the system

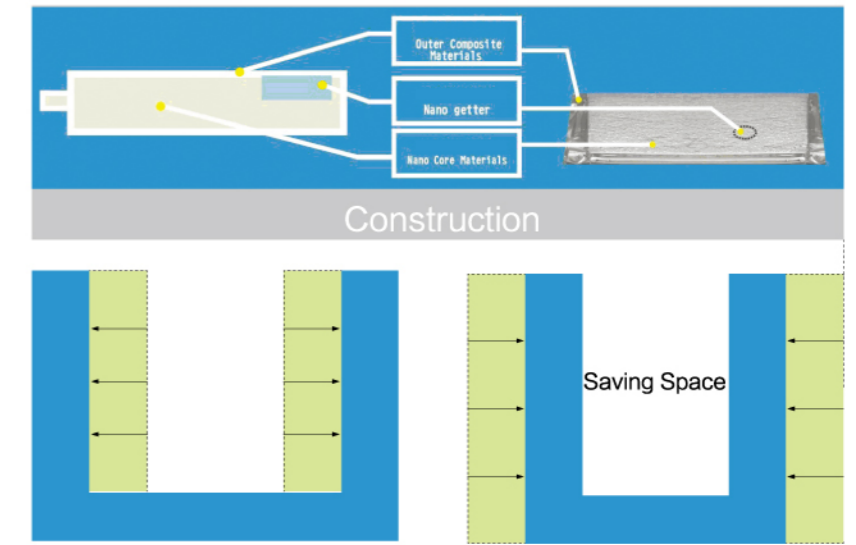


American Temprite oil separator

- American Temprite oil separator can effectively separate oil and water so as to improve the refrigeration performance

● Vacuum Insulation Panel technology

- The vacuum design minimized heat convection and heat conductivity
- The vacuum in the micropore minimize the heat convection
- Superior adiabaticity
- Space saving
- Flame retardant and safe
- Environment-friendly and nanophase materials
- Increase the storage volume and energy saving; the inorganic fiber can be recycled



Haier Brand and Chinese own Brand for China Marrow Donor Program

100 units of -86°C ultra low temperature freezer and the cold chain equipment monitoring and control system solution by Haier Medical are used in China.



-86°C ULT Freezer (Slender Type)

This product is specially designed and manufactured for long time storage of various biological products, including viruses, germs, erythrocytes, leucocytes and cutis.

Applications can be found in blood banks, hospitals, epidemic prevention services, and research institutes, laboratories in electronic and chemical plants, biological engineering institutes and marine fishery companies.



Advantages

- Narrow width design for convenient use: Narrow width of 725mm for easy installation and small floor space occupied
- Low noise level for comfortable use
- Innovative sealing structure, green technology for energy saving

Ergonomic design

- Flexible moving: Caster design for easy movement
- Safety: Malfunctions alarms, multiple protection function, broad voltage design for safely use
- Good Performance in pull down time, uniformity, reliability

Specification

Item Code	DW-86L338	DW-86L388A
Capacity(L)	338	388
Voltage/Frequency	220/50	220/50
Power(W)	900	1000
Temp.range(°C)	-40~-86	-40~-86
Ambient Temp.	10°C-32°C	10°C-32°C
Cabinet	Upright	Upright
Shelves/Inner door	3/2	3/2
Interior Dimensions(mm)(W*D*H)	465*630*1165	465*630*1310
Exterior Dimensions(mm)(W*D*H)	812*893*1866	812*893*1980
Packing Dimensions(mm)(W*D*H)	877*922*1990	877*922*2130
Net/Gross Weight(kg)	238/276	255/286
Container Load(sets) 20'/40'/40'H	12/24/24	12/24/24
Certificate	CE	CE

Unique Personal-sized Chest Freezer

Application

- This product is designed for small medical institutions、 research institutions and biological companies to store reagent, restriction enzyme, DNA modification enzyme, gene, organs and others.
- Small floor space occupied、 flexible moving、 reliable performance、 low power consumption and noise level. Ideal choice for laboratory.

Advantages

- Low noise level: less than 49dB leading in the industry
- Large capacity: 72 freezing boxes can be stored
- Reliability: Modular design
- Energy saving:
- Green technology: CFC-Free
- Flexible moving : caster design for easy movement
- Broad voltage design
- Malfunctions alarms: high/low ambient temperature、 high/low temperature、 power failure、 voltage error、 hot condenser.

Features

Temperature Control

- Microprocessor control, digital display with an increment of 1 °C, cabinet temperature is adjustable in a range of -40 °C ~ -86 °C

Safety System:

- Malfunction alarms : high/low temperature, sensor failure , high/low voltage, hot condenser, high/low ambient temperature, power failure.
- Two alarm indications: Audible and Visible
- Multiple protection function: keyboard lock and start-up delay protection.

Refrigeration System

- Cascade refrigeration technology, Secop(original Danfoss) compressor.
- High density thermal insulation layers to get better heat insulation
- Unique sealing structure together with heat retardant system design keeps the cabinet frosting effectively.

Ergonomic Design

- LED display for cabinet temperature, set temperature, ambient temperature, input voltage and allow for multiple alarm setting
- Safe door lock to prevent the unauthorized opening
- Broad climate tolerance , applicable to an ambient temperature range of 10-32 °C .
- Intelligent condenser fan is designed for energy saving
- Applicable remote alarm function
- Optional racks and freezing boxes



DW-86W100

-86°C ULT Freezer



-86°C ULT Freezer



Item Code	DW-86L288	DW-86L338	DW-86L388	DW-86L388A	DW-86L486	DW-86L490	DW-86L628	DW-86L728	DW-86L828	DW-86W100	DW-86W420
Capacity(L)	288	338	388	388	486	490	628	728	828	100	420
Voltage/Frequency	220/50	220/50	220/50	220/50	220/50 220/60 120/60	220/50 220/60	220/50 220/60 120/60	220/50 220/60 120/60	220/50 220/60	220/50 120/60	220/50
Power(W)	930	900	1000	1000	1000 1000 1200	1100	1200	1200	1200	650	1000
Temp.range(°C)	-40~-86	-40~-86	-40~-86	-40~-86	-40~-86	-40~-86	-40~-86	-40~-86	-40~-86	-40~-86	-40~-86
Ambient Temp.	10°C-32°C	10°C-32°C	10°C-32°C	10°C-32°C	10°C-32°C	10°C-32°C	10°C-32°C	10°C-32°C	10°C-32°C	10°C-32°C	10°C-32°C
Cabinet	Upright	Upright	Upright	Upright	Upright	Upright, double door	Upright	Upright	Upright	Chest	Chest
Shelves/Inner door	2/3	3/2	3/4	3/2	3/4	3/4	3/4	3/4	3/4	-/1	-/3
Interior Dimensions(mm) (W*D*H)	620*550*971	465*630*1165	620*550*1310	465*630*1310	590*630*1310	590*630*1310	760*630*1310	870*630*1310	870*710*1310	470*450*480	1367*462*652
Exterior Dimensions(mm) (W*D*H)	915*870*1641	812*893*1866	915*870*1980	812*893*1980	945*900*1980	860*900*1980	1035*900*1980	1145*900*1980	1145*980*1980	769*825*1120	2130*870*1020
Packing Dimensions(mm) (W*D*H)	952*924*1801	877*922*1990	952*924*2130	877*922*2130	982*954*2130	910*970*2130	1072*954*2130	1182*954*2130	1182*1034*2130	834*854*1235	2300*970*1164
Net/Gross Weight(kg)	217/236	238/276	255/276	255/286	290/310	295/335	301/323	350/380	380/410	138/160	310/357
Container Load(sets) 20'/40'/40'H	12/24/24	12/24/24	12/24/24	12/24/24	12/24/24	12/24/24	12/24/24	8/20/20	8/20/20	12/24/24	6/12/12
Certificate	CE	CE	CE	CE	CE,UL	CE	CE,UL	CE,UL	CE,UL	CE,UL	CE

Racks Specification

ULT Model	Rack Model	Rack Description	Dimension(W*D*H)	Q'ty of Racks	Q'ty of Boxes	Q'ty of Samples
DW-86L288	DCJ-53-A	2 inch stainless steel rack 5*3	139*409*287	12	180	14580
DW-86L338	DCJ-54-A	the second and third layer: 2 inch stainless steel rack 5*4	138*544*287	6	120	9720
	DCJ-54-B	the second and third layer: 2 inch stainless steel drawer rack5*4	140*554*289	6	120	9720
	DCJ-44-A	the first and fourth layer: 2 inch stainless steel rack 4*4	138*544*234	6	96	7776
	DCJ-44-B	the first and fourth layer: 2 inch stainless steel drawer rack4*4	140*554*236	6	96	7776
DW-86L388	DCJ-53-A	2 inch stainless steel rack5*3	139*409*287	16	240	19440
DW-86L388A	DCJ-54-A	2 inch stainless steel rack5*4	138*544*287	12	240	19440
	DCJ-54-B	2 inch stainless steel drawer rack5*4	140*554*289	12	240	19440
DW-86L486	DCJ-54-A	2 inch stainless steel rack5*4	139*544*287	16	320	25920
	DCJ-54-B	2 inch stainless steel drawer rack5*4	140*554*289	16	320	25920
DW-86L490	DCJ-54-A	Upper chamber:2 inch stainless steel rack 5*4	139*544*287	8	160	12960
	DCJ-54-B	Upper chamber:2 inch stainless steel drawer rack 5*4	140*554*289	8	160	12960
	DCJ-44-A	Lower chamber:2 inch stainless steel rack 4*4	139*544*234	8	128	10368
	DCJ-44-B	Lower chamber:2 inch stainless steel drawer rack 4*4	140*554*236	8	128	10368
DW-86L628	DCJ-54-A	2 inch stainless steel rack 5*4	139*544*287	20	400	32400
	DCJ-54-B	2 inch stainless steel drawer rack5*4	140*554*289	20	400	32400
DW-86L728	DCJ-54-A	2 inch stainless steel rack 5*4	139*544*287	24	480	38880
	DCJ-54-B	2 inch stainless steel drawer rack5*4	140*554*289	24	480	38880
DW-86L828	DCJ-55-A	2 inch stainless steel rack 5*5	139*680*287	24	600	48600
	DCJ-55-B	2 inch stainless steel drawer rack5*5	140*688*289	24	600	48600
DW-86W100	DCJ-08-A	2 inch stainless steel rack8*1	138*142*46	9	72	5832
DW-86W420	DCJ-11-A	2 inch stainless steel rack11*1	142*138*633	27	297	24057

Remark: Calculated based on 9*9 box