



-86°C
ULT Freezer

Safety, Consistency And Reliability; Leading In The World And Recommended By China Marrow Donor Program

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.

• 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: temperature exceeding the set range, power failure, sensor error, voltage exceeding the range, condenser under efficiency, ambient temperature exceeding the range
- Alarm Indications (Audible and visible): buzzer, flashing light
- Multiple protection function: password protection, start-up delay protection, voltage protection in case of low or high voltage
- All separate parts are safely connected to ground

• Refrigeration System

- Optimized cascade refrigeration technology, Danfoss compressor, 3/4 HP a high-efficient refrigeration effect
- High density and effective heat insulation
- Unique patented sealing design working together with heat retardant system keeps the cabinet from frosting
- Specially designed low-temperature grade computer controlling system avoids the common errors happened to the low-temperature grade compressor
- Voltage 220V-240V, 50/60Hz
- Warranty 12 months Comprehensive

• 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 multi-level shelf for easy operation

- 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 operation
- Intelligent condenser design to save energy
- Remote alarm through internet, and advanced function of voltage redeem in case of high/low voltage
- Storage boxes are optional
- Pressure equalization design for earlier door opening.
- Quality CE certificate.

• 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 get the better heat insulation effect and results in 30% more interior storage volume but without increasing the dimension the cabinet

• Optional Intelligent Wireless Temperature Recorder

- Send the alarming information to the user by short message
- Check the real time temperature and high and low temperature alarming value by short message
- To set the cabinet temperature and alarming temperature value by the short message
- Remote monitoring of the machine at anytime

• Optional parts

Stainless steel rack

CO₂ and LN₂ back up system

Storage box



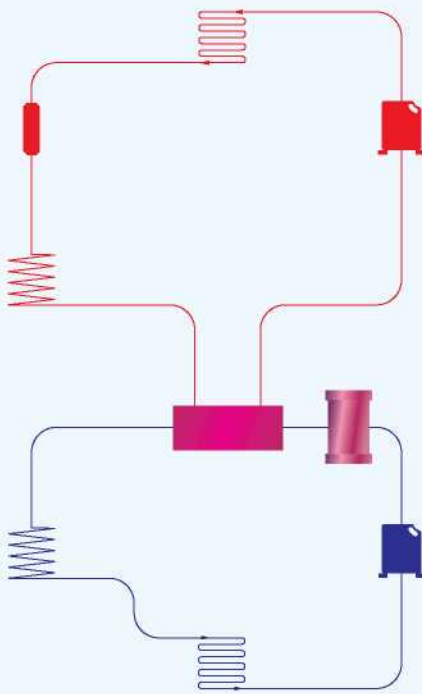
Temperature recorder



Intelligent wireless 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

- Condenser in big square to emit the system heat quickly

Low stage Evaporator

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

Ultra low noise Danfoss compressor

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

Heat exchange system

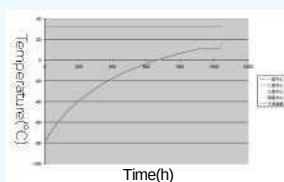
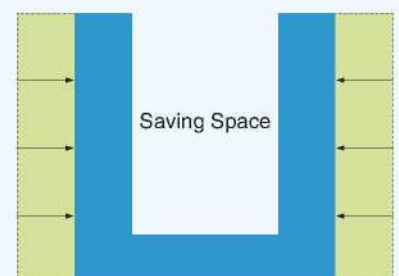
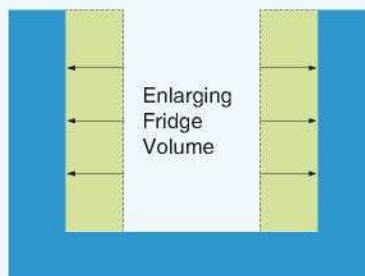
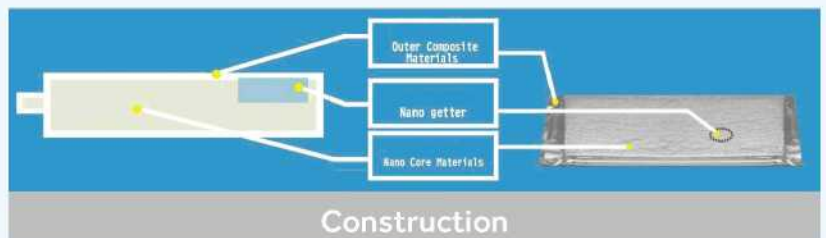
- Heat exchange between the high and low temperature stage in the system

American Tempprite oil separator

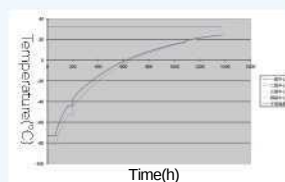
- American Tempprite oil separator can effectively separate oil and water so as to improve the refrigeration performance

•¹ Vacuum Insulation Panel technology

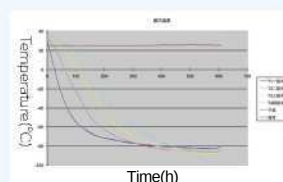
- The vacuum design minimized heat convection and heat conductivity
- The vacuum in the micropore minimize the heat convection
- Superior adiabaticity
- Space saving
- Flame retardant and safe
- Environment-friendly and nanophase materials
- Increase the storage volume and energy saving; the inorganic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



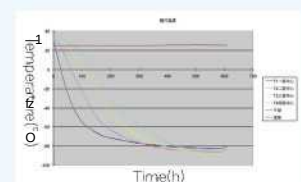
DW-86L388 power off temperature back chart (32°C ambient temperature)



DW-86L628 power off temperature back chart (32°C ambient temperature)



DW-86L388 Temperature dropping chart without load (25°C ambient temperature)



DW-86L628 Temperature dropping chart without load (25°C ambient temperature)

-86°C Ultra Low Temperature Freezer



DW-86L288

Voltage(V/Hz)	Power(W)	Temp. range(°C)	Capacity(L)	Net/Gross Weight(Kg)	Shelves/Inner door
220/50	930	-40~-86	288	217/236	2/3
Exterior Dimension(mm)			Interior Dimension(mm)		Packing Dimension(mm)
W	915		620		952
D	870		550		924
H	1641		971		1801
Model			Dimension(W*D*H)	Rack Quantity	Box Quantity
2 inch stainless steel rack4*3			138*409*234	12	144
					Sample Quantity
					11664
Calculated based on 9*9 box					



DW-86L388

Voltage(V/Hz)	Power(W)	Temp. range(°C)	Capacity(L)	Net/Gross Weight(Kg)	Shelves/Inner door
220/50	1000	-40~-86	388	255/276	3/4
Exterior Dimension(mm)			Interior Dimension(mm)		Packing Dimension(mm)
W	915		620		952
D	870		550		924
H	1970		1300		2130
Model			Dimension(W*D*H)	Rack Quantity	Box Quantity
2 inch stainless steel rack4*3			138*409*234	16	192
					Sample Quantity
					15552
Calculated based on 9*9 box					



DW-86L628

Voltage(V/Hz)	Power(W)	Temp. range(°C)	Capacity(L)	Net/Gross Weight(Kg)	Shelves/Inner door
220/50 220/60 120/60	1200	-40~-86	628	301/323	3/4
Exterior Dimension(mm)			Interior Dimension(mm)		Packing Dimension(mm)
W	1035		760		1072
D	900		630		954
H	1960		1300		2120
Model			Dimension(W*D*H)	Rack Quantity	Box Quantity
2 inch stainless steel rack4*4			138*544*234	20	320
2 inch stainless steel drawer rack4*4			140*554*236	20	320
3 inch stainless steel rack3*4			138*544*260	20	240
3 inch stainless steel drawer rack3*4			140*554*261	20	240
					Sample Quantity
					25920
					25920
					19440
					19440
Calculated based on 9*9 box					

-86°C Ultra Low Temperature Freezer



DW-86L728

Voltage(V/Hz)	Power(W)	Temp. range(°C)	Capacity(L)	Net/Gross Weight(Kg)	Shelves/Inner door
220/50	1200	-40~-86	728	350/370	3/4
220/60					
120/60					

Exterior Dimension(mm)	Interior Dimension(mm)	Packing Dimension(mm)	Container Load (sets)	
W 1145	870	1182	20'/40'/40'H	
D 900	630	954		
H 1970	1310	2130	8/20/20	
Model	Dimension(W*D*H)	Rack Quantity	Box Quantity	Sample Quantity
2 inch stainless steel rack5*4	138*544*287	24	480	38880
2 inch stainless steel drawer rack5*4	140*554*289	24	480	38880
3 inch stainless steel rack3*4	138*544*260	24	288	23328
3 inch stainless steel drawer rack3*4	140*554*261	24	288	23328

Calculated based on 9*9 box



DW-86L828

Voltage(V/Hz)	Power(W)	Temp. range(°C)	Capacity(L)	Net/Gross Weight(Kg)	Shelves/Inner door
220/50	1200	-40~-86	828	380/400	3/4
220/60					

Exterior Dimension(mm)	Interior Dimension(mm)	Packing Dimension(mm)	Container Load (sets)	
W 1145	870	1182	20'/40'/40'H	
D 980	710	1034		
H 1970	1310	2130	8/20/20	
Model	Dimension(W*D*H)	Rack Quantity	Box Quantity	Sample Quantity
2 inch stainless steel rack5*5	138*680*287	24	600	48600
2 inch stainless steel drawer rack5*5	140*688*289	24	600	48600
3 inch stainless steel rack3*5	138*680*260	24	360	29160
3 inch stainless steel drawer rack3*5	140*690*261	24	360	29160

Calculated based on 9*9 box



DW-86L420

Voltage(V/Hz)	Power(W)	Temp. range(°C)	Capacity(L)	Net/Gross Weight(Kg)	Shelves/Inner door
220/50	1000	-40~-86	420	310/357	27/3

Exterior Dimension(mm)	Interior Dimension(mm)	Packing Dimension(mm)	Container Load (sets)	
W 2130	1367	2300	20'/40'/40'H	
D 870	462	970		
H 1020	652	1164	6/12/12	

Model	Dimension(W*D*H)	Rack Quantity	Box Quantity	Sample Quantity
Vertical Rack	142*138*633	27	297	24057

Calculated based on 9*9 box

-86°C Ultra Low Temperature Freezer With Dual Doors

● New Construction

- Advanced dual outer doors design; one machine but dual doors and dual locks to be used by multi-people; less temperature increasing in the other room when one room is opened; Energy saving and green product
- 4 layers sealing strip applicable to the inner and outer doors to minimize the temperature difference inside and outside the cabinet so as to assure the lowest cooling capacity dropping
- Unique VIP (Vacuum Insulation Panel) material technology for excellent heat insulation and space saving of the equipment
- Ergonomic design of the handle to combine product safety, easy operation and easy locking together

● High-Efficient Refrigeration System

- Double compressors cascade refrigeration technology, high efficient and reliable
- Global famous brand Danfoss brand powerful refrigeration capability
- High-efficiency refrigeration return system to reach the

high-efficient heat exchange, quick temperature cooling and energy saving

- High-end EBIM condenser fan
- world-wide leading refrigerants, high-efficient and green

● Precise Temperature Control And Sophisticated Electronics Technology

- Microprocessor control and accurate; adjust the control system automatically by the sense of the ambient temperature and voltage, etc
- LED digital display to clearly show the system status.
- Self-testing and multi-alarm, audible and visible: temperature exceeding the set range, condenser under efficiency, sensor error, power failure, voltage exceeding the range, ambient temperature exceeding the range
- Multi-protection function: password protection; compressor start-up delay protection; voltage protection from too low and too high
- Voltage redeem in case of high and low voltage and broad band voltage, stable and reliable

DW-86L490



Voltage(V/Hz)	Power(W)	Temp. range(°C)	Capacity(L)	Net/Gross Weight(Kg)	Shelves/Inner door
220/50	1100	-40~-86	490	295/335	3/4

Exterior Dimension(mm)	Interior Dimension(mm)	Packing Dimension(mm)	Container Load (sets)
W 860	590	902	20'/40'/40'H
D 900	630	1004	
H 1970	1310	2130	12/24/24

Model	Dimension(W*D*H)	Rack Quantity	Box Quantity	Sample Quantity
Upper chamber				
2 inch stainless steel rack5*4	138*544*287	8	160	12960
2 inch stainless steel drawer rack5*4	140*554*289	8	160	12960
3 inch stainless steel rack3*4	138*544*260	8	96	7776
3 inch stainless steel drawer rack3*4	140*554*261	8	96	7776
Lower chamber				
2 inch stainless steel rack4*4	138*544*234	8	128	10368
2 inch stainless steel drawer rack4*4	140*554*236	8	128	10368
3 inch stainless steel rack3*4	138*544*260	8	96	7776
3 inch stainless steel drawer rack3*4	140*554*261	8	96	7776

Calculated based on 9*9 box