



TwinCool ULT Freezer With Touch Screen

Scope of Application

The TwinCool ULT freezer can be used for the storage and protection of valuable samples which require strict and continuous storage conditions, designed to operate even in the event of a compressor failure. Suitable for viruses, pathogens, blood cells and other biological sample cold storage applications found within hospitals, disease control, research institutions and biomedical engineering. Also used to store special materials and other products within electronics and chemicals industries.

Innovative & Ergonomic Design

- Energy Saving Refrigeration
- Low Noise Design
- Pressure Equalization Port
- Cloud Data Storage Available
- Optimized Insulation
- Multiple Alarms

Qingdao Haier Biomedical Co.,Ltd.

No.280 Feng Yuan Road, High-tech Zone,
Qingdao, 266109, P.R. China
Tel: +86-0532-88935593
Website: www.haiermedical.com



Intelligent TwinCool Refrigeration System

Two independent refrigeration systems are designed to ensure optimal reliability, longevity and efficiency. Depending on the load demands and ambient conditions, one or both refrigeration systems will operate on demand, ensuring the samples are fully protected under the worst possible conditions.

Product Advantages



Dual independent refrigeration systems for maximum sample safety

The dual refrigeration systems run independently and alternately, both reaching -80°C , such that if one system fails the other will maintain temperature to ensure sample storage safety.

High speed refrigeration system for faster pull down and temperature recovery after door opening

Utilizing auto-cascade hydrocarbon (HC) refrigeration technology to deliver fast temperature pull down. From an ambient of 25°C it takes just 180 minutes to reach -80°C . It provides a quick temperature recovery to -75°C within 25 minutes after door opening for 1 minute, guaranteeing the safety of samples.

World-leading energy saving refrigeration technology

The HC refrigeration technology coupled with superinsulation, increases the insulation efficiency by 30%, and the cabinet is designed to reduce heat loss ensuring an energy efficient freezer. The 418L model has a power consumption of 8.45 kWh/day and is certified by The National Quality Certification Center for Energy Saving and Environmental Protection.



DW-86L578ST

TwinCool ULT Freezer With Touch Screen

Advanced Hardware System



Smart Full-size Touch Screen

10-inch touch screen with state-of-the-art user interface design, coupled with a sample management system which provides an optimal user experience.

Optional IoT Software System



Simplified Sample Management Experience

Optional barcode scanner for simple, effortless and precise identification. Input and retrieve your samples with higher precision and efficiency.



Wireless Monitoring Connectivity

Check the real-time operating status via mobile phones or portable tablet, simple and reliable.

Innovative & Ergonomic Design



Safe and secure

Equipped with key lock, padlock and optional electromagnetic lock, with optional fingerprint lock, providing multiple safeguards for sample safety.



Cloud data storage available

Store hundreds of millions of scientific research and sample information in the cloud server.



Low noise design, reducing the noise down to 53dB

Special noise-reduction design plus super silent compressor technology and energy-saving fan, considerably lowers noise level.



Optimized insulation

Double foaming for both inner and outer doors and five-layer sealing design and optimized super-thick VIP thermal insulation technology, extends temperature holdover time during power failure and increases insulation efficiency by 30%.

TwinCool ULT Freezer With Touch Screen

Specifications



Model		DW-86L578ST	DW-86L578SAT	DW-86L728ST	DW-86L728SAT			
Technical Data	Cabinet Type	Upright		Upright				
	Climate Class	N		N				
	Cooling Type	Direct cooling		Direct cooling				
	Defrost Mode	Manual		Manual				
	Refrigerant	HC		HC				
	Sound Level (dB(A))	53	52	53	50	53		
Performance	Cooling Performance (°C)	-86		-86				
	Temperature Range (°C)	-40--86		-40--86				
Control	Controller	Microprocessor		Microprocessor				
	Display	LCD Touchscreen		LCD Touchscreen				
Electrical Data	Power Supply (V/Hz)	220-240/50	120/60	208-230/60	208-230/50	120/60	208-230/60	
	Electrical Current (A)	10	18	10	10	18	10	
	Power Consumption (kWh/24h)	12	10	10	12	11	12	
Construction	Capacity (L/Cu.Ft)	578/20.4		578/20.4		728/25.7		
	Net/Gross Weight (approx)	kg	325/355		325/355		350/385	
		lbs	716.5/782.6		716.5/782.6		771.6/848.8	
	Interior Dimension (W*D*H)	mm	620*716*1310		620*716*1310		766*716*1310	
		in	24.4*28.2*51.6		24.4*28.2*51.6		30.2*28.2*51.6	
	Exterior Dimension (W*D*H)	mm	895*998*1980		895*998*1980		1046*998*1980	
		in	35.4*39.3*78.0		35.4*39.3*78.0		41.2*39.3*78.0	
Packing Dimension (W*D*H)	mm	950*1055*2150		950*1055*2150		1100*1105*2150		
	in	37.4*41.5*84.6		37.4*41.5*84.6		43.3*43.5*84.6		
Loading Quantities	Container Load (20'/40'/40'H)	12/24/24		12/24/24		10/20/20		
Alarms	High/Low Temperature	Y		Y		Y		
	Hot Condenser	Y		Y		Y		
	Power Failure	Y		Y		Y		
	High/Low Voltage	Y		Y		Y		
	Sensor Error	Y		Y		Y		
	Low Battery	Y		Y		Y		
	High Ambient Temperature	Y		Y		Y		
	Door Ajar	Y		Y		Y		
Accessories	Caster	Y		Y		Y		
	Foot	Y		Y		Y		
	Porthole	Y/2		Y/2		Y/2		
	Shelves/Inner Doors	3/4		3/4		3/4		
	USB Interface	Y		Y		Y		
	Remote Alarm (Dry contacts)	Y		Y		Y		
	5V Power Supply Port	Y		Y		Y		
	Temperature Recorder	Optional		Optional		Optional		
	RS485 Port	Y		Y		Y		
	CO ₂ Backup System	Optional		Optional		Optional		
LN ₂ Backup System	Optional		Optional		Optional			
Certifications	CE	Y	/	/	Y	/	/	
	UL	/	Y	Y	/	Y	Y	
	ENERGY STAR	Y	Y	Y	Y	Y	Y	

Product appearance and specifications are subject to change without notice

TwinCool Frequency Conversion ULT Freezer



DW-86L828ST

Scope of Application:

Suitable for the storage of biological samples such as viruses, blood cells, bacteria and tissue, as well as electronics and other special materials. The freezer combines frequency conversion compressors, hydrocarbon refrigerants (HC) and dual refrigeration system technology to deliver optimal sample security, energy-efficiency, and sustainability. The product is used within hospitals, disease control, life science and medical research, bioengineering, pharma and other enterprise laboratories.

Innovative Design

- ◎ Energy saving and environmentally friendly
- ◎ HC refrigerant
- ◎ Intelligent control
- ◎ Combines frequency conversion technology with dual refrigeration
- ◎ Superior insulation performance

Qingdao Haier Biomedical Co.,Ltd.

No.280 Feng Yuan Road, High-tech Zone,
Qingdao, 266109, P.R. China
Tel: +86-0532-88935593
E-mail: inquiry@haierbiomedical.com
Website: www.haiermedical.com



Haier Biomedical
International



Haier Biomedical
International



@haiermedicalint

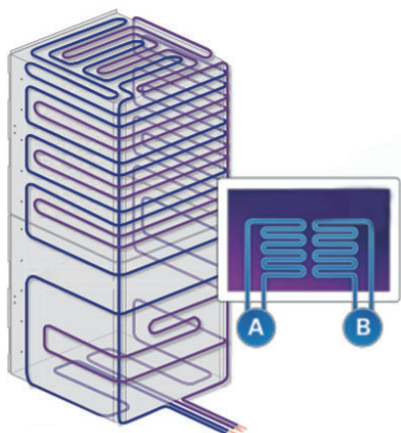


Haier Biomedical
International



Haier Biomedical
International

Product Advantages



Dual refrigeration system, double safety and optimal reliability

Double independent hydrocarbon refrigeration system design, each system can maintain -80°C ensuring the safety of stored samples



World-leading Energy Saving Refrigeration Technology

Intelligent frequency conversion technology and HC refrigeration system delivers a 50% reduction in energy usage when compared to traditional HFC refrigeration systems



Environmental Protection

Environmentally friendly hydrocarbon refrigerant and foam material LBA



Optional IoT System

The optional IoT monitors the operating status of the equipment in real time. Equipped with multiple alarm functions and a self-diagnostics system to identify and warns users to ensure sample safety

Ergonomic Design



Low Noise Design

Optimised systems and noise-reducing cabinet design lower noise out to 53dB for a quieter working experience



Adjustable Sample Loading Tray (Optional)

The adjustable height sample load tray provides users with a convenient place to hold samples while opening and accessing storage compartments



Large loading capacity

Maximum Capacity: 600 boxes (2 inch boxes with 10*10 configuration)
60,000 samples can be stored



Intelligent Control

10.1-inch high-performance touch screen, sensitive touch operation. Users can check the real-time operating status via IoT

TwinCool Frequency Conversion ULT Freezer

Product Parts



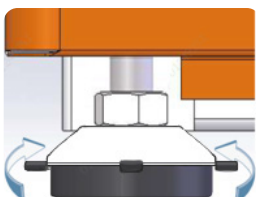
Ergonomic design

Document holder for easy storage of documents



High quality door opening experience

The ergonomic chamfer design of the handle ensures smooth operation and maximum durability



Adjustable feet

For easy positioning and levelling

Magnetic filter screen

Filter screen is easy to clean



DW-86L828ST

Microcomputer control

Microcontroller with 10.1 inch LCD touch screen displays temperature and other important data. Temperature display precision is 0.1°C

Multiple alarms

Including high/ low temperature alarm, sensor error alarm, hot condensor alarm, power failure alarm, low battery alarm, door ajar alarm, high ambient temperature alarm, etc



Multiple safety lock

Standard mechanical lock, optional electromagnetic lock
Optional fingerprint lock and NFC for optimal security and access



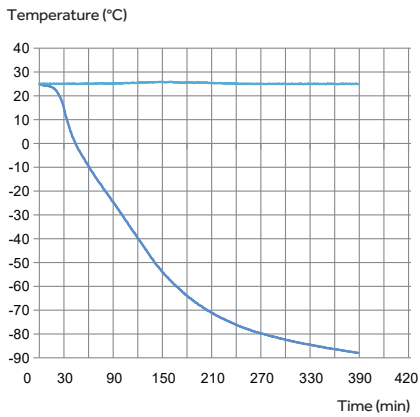
Networking function

Equipped with RS485 interface to connect multiple freezers

Temperature Curve

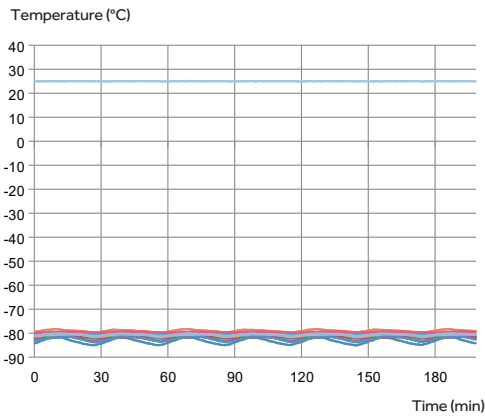


Temperature Cool Down Curve



— 3rd centre
— amb temp

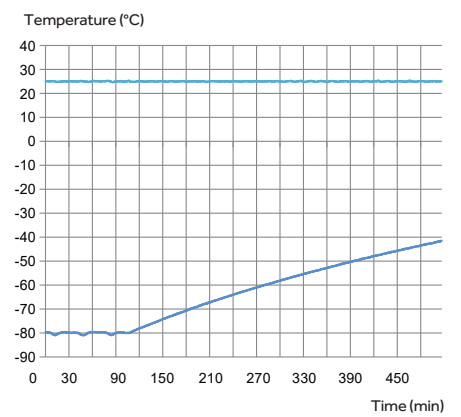
Stability Curve



— ave temp
— 1st center temp
— 2nd left outer temp
— 2nd right inner temp
— 3rd center temp

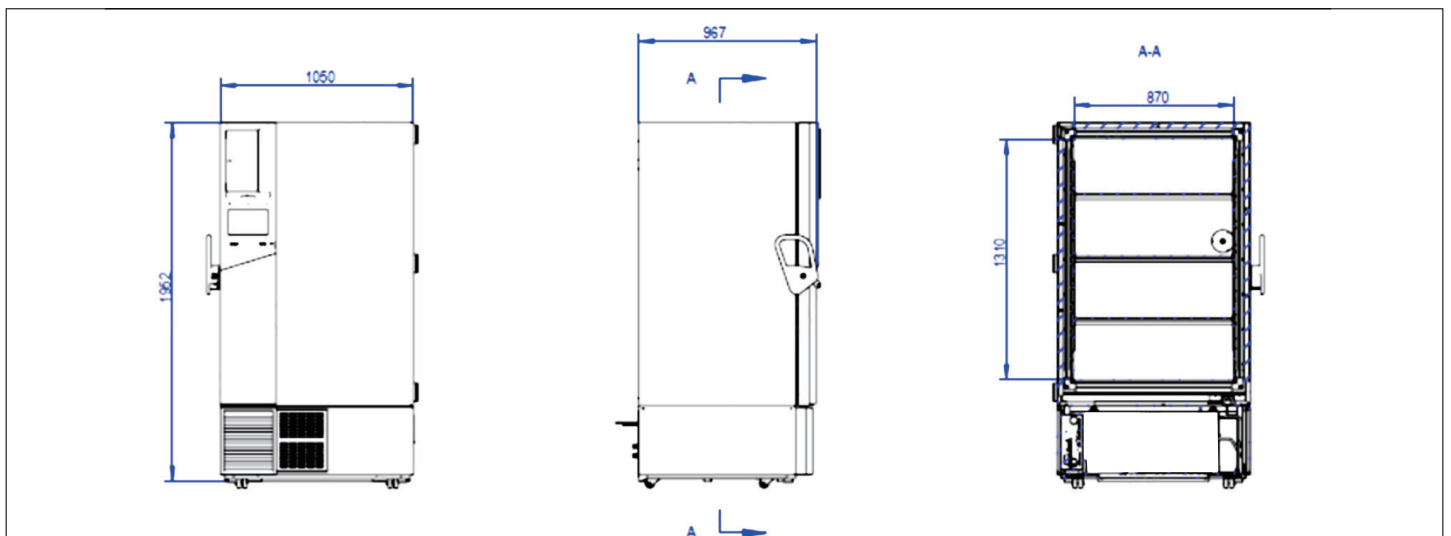
— 1st left inner temp
— 1st right outer temp
— 2nd center temp
— 3rd left inner temp
— 3rd right outer temp

Temperature Recovery Curve



— 3rd centre
— amb temp

Product Dimensions



TwinCool Frequency Conversion ULT Freezer

Specifications



Model		DW-86L828ST	
Technical Data	Cabinet Type	Upright	
	Climate Class	N	
	Cooling Type	Direct cooling	
	Defrost Mode	Manual	
	Refrigerant	HC	
	Sound Level (dB(A))	53	
Performance	Cooling Performance (°C)	-86	
	Temperature Range (°C)	-40~-86	
Control	Controller	Microprocessor	
	Display	LCD	
Electrical Data	Power Supply (V/Hz)	220~240/50/60	
	Power (W)	1400	
	Electrical Current (A)	6.5	
Dimensions	Capacity (L/Cu.Ft)	828/29.2	
	Net/Gross Weight	kg	380/410
		lbs	837.7/914.9
	Interior Dimensions (W*D*H)	mm	870*716*1310
		in	34.3*28.2*51.6
	Exterior Dimensions (W*D*H)	mm	1145*998*1980
		in	45.1*39.3*78.0
	Packing Dimensions (W*D*H)	mm	1190*1045*2150
		in	46.9*41.1*84.6
Cabinet Width (without handle and hinge)	mm	1050	
Container Load (20'/40'/40'H)		8/20/20	
Functions	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	
Accessories	Caster	Y	
	Foot	Y	
	Porthole	Y/2	
	Shelves/ Inner Doors	3/4	
	USB Interface	Y	
	Remote Alarm	Y	
	5V Power Supply Port	Y	
	Temperature Chart Recorder	Optional	
	RS232/485 Port	NA/Standard	
	NFC	Optional	
	Fingerprint	Optional	
	IoT module	Optional	
	CO ₂ Backup System	Optional	
	LN ₂ Backup System	Optional	
	Freezing Rack; DCJ-55-A or DCJ-55-B; (Quantity)	24	
Others	Certification	CE	

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

TwinCool ULT Freezer With LED Display



Scope of Application

The TwinCool ULT freezer can be used for the storage and protection of valuable samples which require strict and continuous storage conditions, designed to operate even in the event of a compressor failure. Suitable for viruses, pathogens, blood cells and other biological sample cold storage applications found within hospitals, disease control, research institutions and biomedical engineering. Also used to store special materials and other products within electronics and chemicals industries.

Innovative & Ergonomic Design

- Energy Saving Refrigeration
- Multilayered Sealing Gasket
- Pressure Equalisation Port
- Improved Handle Design
- USB Interface
- Multiple Alarms

Qingdao Haier Biomedical Co.,Ltd.

No.280 Feng Yuan Road, High-tech Zone,
Qingdao, 266109, P.R. China
Tel: +86-0532-88935593
Website: www.haiermedical.com



Haier Biomedical
International



Haier Biomedical
International



@haiermedicalint



Haier Biomedical
International



Haier Biomedical
International

Intelligent TwinCool Refrigeration System

Two independent refrigeration systems are designed to ensure optimal reliability, longevity and efficiency. Depending on the load demands and ambient conditions, one or both refrigeration systems will operate on demand, ensuring the samples are fully protected under the worst possible conditions.

Product Advantages



Maximum Sample Security

The TwinCool system means extra insurance for temperature. Each independent refrigeration system can maintain -80°C separately.

Fast Cabinet Pull Down

Fast and efficient cabinet pulldown, it usually takes an average of three hours to reach -80°C at 25°C ambient. This means the temperature recovery after door opening is excellent ensuring the stored samples are not exposed to undesirable temperatures.

Maximum Energy Efficiency

The TwinCool ultra-low temperature system operates with 8.45 kWh/day.

World-leading Energy Saving Refrigeration Technology

The hydrocarbon refrigeration technology uses less than 50% energy compared to traditional CFC refrigerants to reduce the operating cost. The refrigerants do not contain fluorine or chlorine giving it a GWP value of just three, which is better for the environment.

Reduced Running Costs

VIP thermal insulation system is designed to significantly reduce heat gain and operating cost.



DW-86L578S

TwinCool ULT Freezer With LED Display

Key Features



Energy Saving Refrigeration

High efficiency cooling fans and compressors, combined with hydrocarbon refrigerants, ensure energy savings and long-term sample security



Multilayered Sealing Structure

Multilayered gaskets decrease heat loss and guarantee excellent warm up times in the event of a power failure



Pressure Equalisation Port

Heated Pressure Equalization Port allows users to re-open the main door quickly when entering. Adopts chromium plating, rust-proof



Improved Handle Design

Lockable handle safeguards your precious samples. A padlock can also be added for extra sample safety



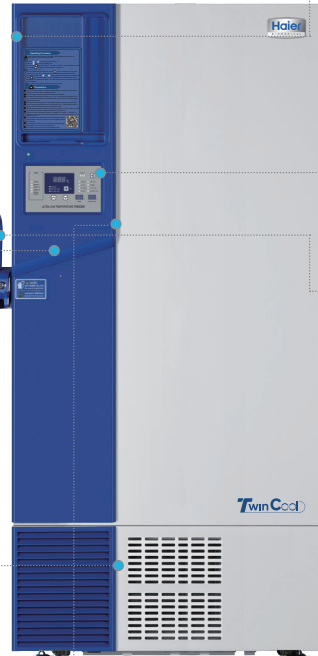
USB Interface

Enables users to download historical temperature data for compliance/auditing purposes



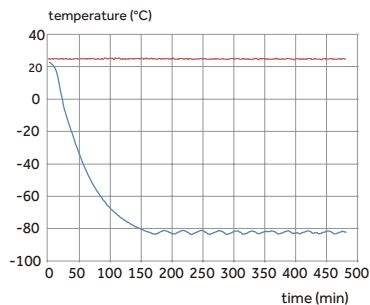
Multi-level Alarms

Alarm functions include high, low temperature, sensor error, power failure, high ambient, clean filter and door ajar

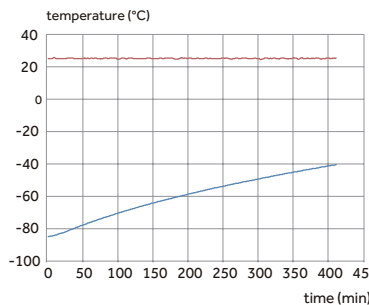


DW-86L578S

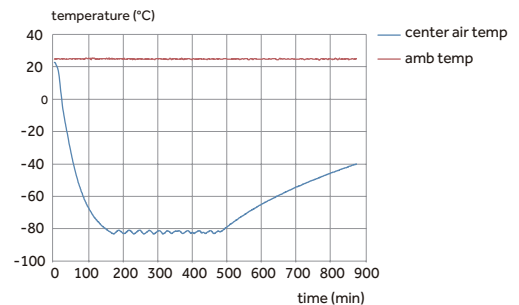
DW-86L578S | TYPICAL PERFORMANCE CHARACTERISTICS AT 25°C AMBIENT



Temperature Cool Down Curve



Temperature Recover Curve



Comprehensive Curve

TwinCool ULT Freezer With LED Display

Specifications



Model		DW-86L578S	DW-86L728S	
Technical Data	Cabinet Type	Upright	Upright	
	Climate Class	N	N	
	Cooling Type	Direct Cooling	Direct Cooling	
	Defrost Mode	Manual	Manual	
	Refrigerant	HC	HC	
	Sound Level (dB(A))	53	50	
Performance	Cooling Performance (°C)	-86	-86	
	Temperature Range (°C)	-40~-86	-40~-86	
Control	Controller	Microprocessor	Microprocessor	
	Display	LED	LED	
Electrical Data	Power Supply (V/Hz)	220~240/50	220~240/50	
	Electrical Current (A)	10	10	
	Power Consumption (kWh/24h)	12	12	
Construction	Capacity (L/Cu.Ft)	578/20.4	728/25.7	
	Net/Gross Weight (approx)	kg	325/355	350/385
		lbs	716.5/782.6	771.6/848.8
	Interior Dimension (W*D*H)	mm	620*716*1310	766*716*1310
		in	24.4*28.2*51.6	30.2*28.2*51.6
	Exterior Dimension (W*D*H)	mm	895*998*1980	1046*998*1980
		in	35.4*39.3*78.0	41.2*39.3*78.0
	Packing Dimension (W*D*H)	mm	950*1055*2150	1100*1105*2150
in		37.4*41.5*84.6	43.3*43.5*84.6	
Loading Quantities	Container load (20'/40'/40'H)	12/24/24	10/20/20	
Alarms	High/Low Temperature	Y	Y	
	Hot Condenser	Y	Y	
	Power Failure	Y	Y	
	Sensor Error	Y	Y	
	Low Battery	Y	Y	
	High Ambient Temperature	Y	Y	
	Door Ajar	Y	Y	
Accessories	Caster	Y	Y	
	Foot	Y	Y	
	Porthole	Y/2	Y/2	
	Shelves/Inner doors	3/4	3/4	
	USB Interface	Y	Y	
	Remote Alarm (Dry contacts)	Y	Y	
	5V Power Supply Port	Y	Y	
	Temperature Recorder	Optional	Optional	
	RS485	Y	Y	
	CO ₂ Backup System	Optional	Optional	
	LN ₂ Backup System	Optional	Optional	
Certifications	CE	Y	Y	
	ENERGY STAR	Y	Y	

S suffix - Dual independent refrigeration systems

Product appearance and specifications are subject to change without notice



Multiple alarms



Hydrocarbon refrigerant
and foam material LBA



High performance in
temperature uniformity



Intelligent frequency
conversion technology

TwinCool Frequency Conversion ULT

The Twincool Frequency conversion range of freezers utilize two key innovations to delivery outstanding sample security and energy efficiency – dual cooling and adaptive refrigeration technologies.



Qingdao Haier Biomedical Co.,Ltd.

No.280 Feng Yuan Road, High-tech Zone,
Qingdao, 266109, P.R. China
Tel: +86-0532-88935593
E-mail: inquiry@haierbiomedical.com
Website: www.haiermedical.com



Haier Biomedical
International



Haier Biomedical
International



@haiermedicalint

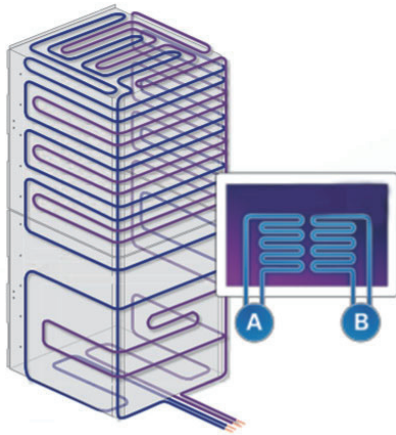


Haier Biomedical
International



Haier Biomedical
International

Product Advantages



Dual refrigeration system, double safety and optimal reliability

Double independent hydrocarbon refrigeration system design, each system can maintain -80°C ensuring the safety of stored samples



World-leading Energy Saving Refrigeration Technology

Intelligent frequency conversion technology and HC refrigeration system delivers a 50% reduction in energy usage when compared to traditional HFC refrigeration systems



Environmental Protection

Environmentally friendly hydrocarbon refrigerant and foam material LBA



Optional IoT System

The optional IoT monitors the operating status of the equipment in real time. Equipped with multiple alarm functions and a self-diagnostics system to identify and warns users to ensure sample safety

Ergonomic Design



Adjustable Sample Loading Tray (Optional)

The adjustable height sample load tray provides users with a convenient place to hold samples while opening and accessing storage compartments



Intelligent Control

10.1-inch high-performance touch screen, sensitive touch operation. Users can check the real-time operating status via IoT



Large Loading Capacity

Maximum Capacity: 600 boxes (2 inch boxes with 10*10 configuration) 60,000 samples can be stored



Low Noise Design

Optimised systems and noise-reducing cabinet design lower noise out to 42dB for a quieter working experience

Product Parts



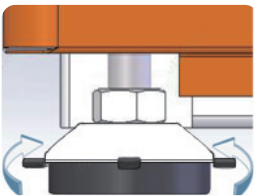
Ergonomic design

Document holder for easy storage of documents



High quality door opening experience

The ergonomic chamfer design of the handle ensures smooth operation and maximum durability



Adjustable feet

For easy positioning and levelling



Magnetic filter screen

Filter screen is easy to clean



DW-86L828BPST

Microcomputer control

Microcontroller with 10.1 inch LCD touch screen displays temperature and other important data. Temperature display precision is 0.1°C

Multiple alarms

Including high/ low temperature alarm, sensor error alarm, hot condensor alarm, power failure alarm, low battery alarm, door ajar alarm, high ambient temperature alarm, etc



Multiple safety lock

Standard mechanical lock, optional electromagnetic lock
Optional fingerprint lock and NFC for optimal security and access



Networking function

Equipped with RS485 interface to connect multiple freezers

Specifications

	Model	DW-86L828BPST	DW-86L728BPST	DW-86L578BPST	
Technical Data	Cabinet Type	Upright	Upright	Upright	
	Climate Class	N	N	N	
	Cooling Type	Direct cooling	Direct cooling	Direct cooling	
	Defrost Mode	Manual	Manual	Manual	
	Refrigerant	HC	HC	HC	
	Sound Level (dB(A))	42	42	42	
Performance	Cooling Performance (°C)	-86	-86	-86	
	Temperature Range (°C)	-40~-86	-40~-86	-40~-86	
Control	Controller	Microprocessor	Microprocessor	Microprocessor	
	Display	LCD	LCD	LCD	
Electrical Data	Power Supply (V/Hz)	100-230/50/60Hz	100-230/50/60Hz	100-230/50/60Hz	
	Power (W)	720	710	710	
	Max Power Draw (W)	1400	1100	1100	
	Electrical Current (A)	13	10.4	10.4	
	Power Consumption (kWh/24h) (set -80°C at 25°C ambient)	10.4	8.4	7.0	
Dimensions	Capacity (L/Cu.Ft)	828/29.2	728/25.7	578/20.4	
	Net/Gross Weight	kg	380/410	350/385	325/355
		lbs	837.7/914.9	771.6/848.8	716.5/782.6
	Interior Dimension (W*D*H)	mm	870*716*1310	766*716*1310	620*716*1310
		in	34.3*28.2*51.6	30.2*28.2*51.6	24.4*28.2*51.6
	Exterior Dimension (W*D*H)	mm	1145*998*1980	1046*998*1980	895*998*1980
		in	45.1*39.3*78.0	41.2*39.3*78.0	35.2*39.3*78.0
	Packing Dimension (W*D*H)	mm	1190*1045*2150	1100*1105*2150	950*1055*2150
		in	46.9*41.1*84.6	43.3*43.5*84.6	37.4*41.5*84.6
	Cabinet Width (without handle and hinge)	mm	1050	946	800
Container Load (20'/40'/40'H)		8/20/20	10/20/20	12/24/24	
Functions	High/Low Temperature	Y	Y	Y	
	Hot Condenser	Y	Y	Y	
	Power Failure	Y	Y	Y	
	High/Low Voltage	Y	Y	Y	
	Sensor Error	Y	Y	Y	
	Low Battery	Y	Y	Y	
	High Ambient Temperature	Y	Y	Y	
	Door Ajar	Y	Y	Y	
	Start-up Delay	Y	Y	Y	
Accessories	Caster	Y	Y	Y	
	Foot	Y	Y	Y	
	Porthole	Y/2	Y/2	Y/2	
	Shelves/ Inner Doors	3/4	3/4	3/4	
	USB Interface	Y	Y	Y	
	Remote Alarm	Y	Y	Y	
	5V Power Supply Port	Y	Y	Y	
	Temperature Chart Recorder	Optional	Optional	Optional	
	RS232/485 Port	NA/Standard	NA/Standard	NA/Standard	
	CO ₂ Backup System	Optional	Optional	Optional	
	LN ₂ Backup System	Optional	Optional	Optional	
Other	Certification	CE/UL/Energy Star	CE/UL/Energy Star	CE/UL/Energy Star	