



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.



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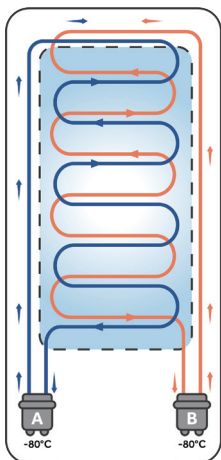


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Product Advantages



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



Faster Re-Entry

The optimized pressure relief port makes re-entry possible within just 60 seconds



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 53dB for a quieter working experience

Product Parts

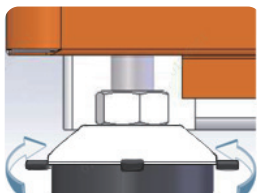
Ergonomic design

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



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

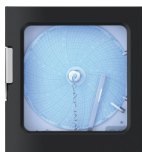
Standard mechanical lock, optional electromagnetic lock
Optional fingerprint lock and NFC for optimal security and access



Networking function

Equipped with RS485 interface to connect multiple freezers

Product Accessories (Optional)



Temperature Recorder (Optional)

- Front-mounted.
- For independent temperature monitoring.

CO₂ Backup System

Advantage

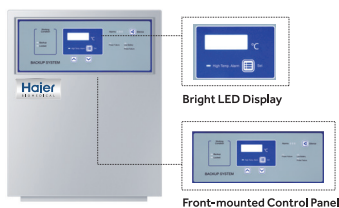
- Small footprint, light and easy for installation
- User adjustable temperature setting
- Simple to program and operate
- Flexible – Can be installed on any ULT freezer, which has a port hole
- The CO₂ injection pipe is designed in combination of filter, to prevent the blockage of CO₂ back-up system

Safety

- Liquid CO₂ test button to ensure the backup system is working
- Low CO₂ alarm system alerts the user when liquid CO₂ bottle is low in liquid level
- Ultra-low sound level compressors

Reliability

- Stainless steel covering, more elegant
- Stainless steel input pipe design, allows for flexibility and ease of cylinder positioning
- Durable battery lasts up to 48 hours



LN₂ Backup System

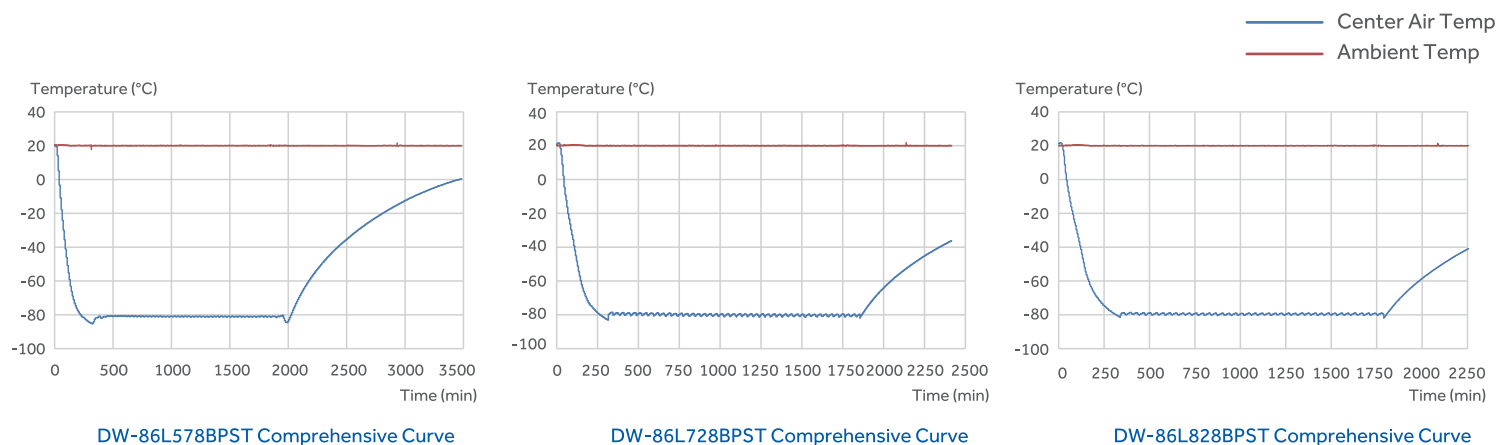
Features

- Interlocked design to turn off the LN₂ injection when the door is opened
- Protection circuit to prevent over-charging battery
- Light weight and portable design, suitable for installation on top of a freezer
- Alarm functions to include low battery and sensor error

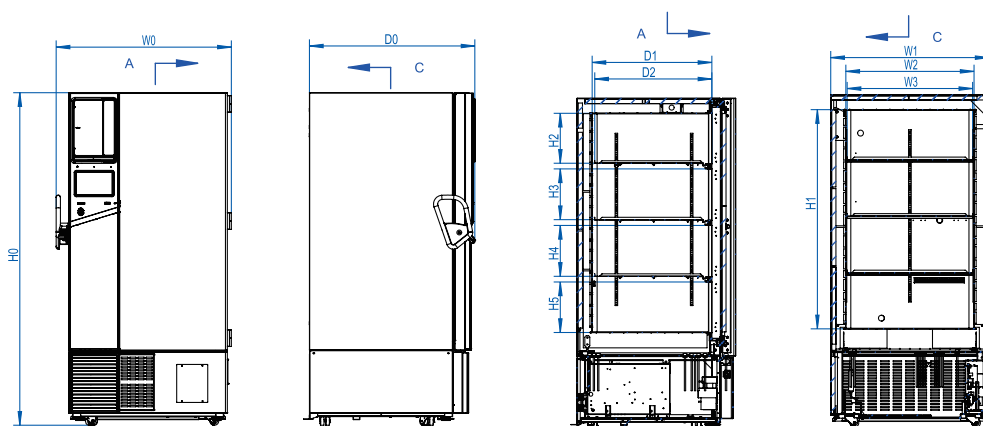
Rack Type	ULT Freezer	Freezer Rack						Freezer Rack Quantity	Box Capacity
		CAT.NO.	Model	Material	Layout (Rows*Columns)	Box Type	Dimensions (D*W*H)(mm)		
 Sliding-drawer freezer rack	DW-86L578BPST	433001	(EXP) DCJ-55-B (SUS201)	SUS201	5*5	2 inch	686*141*291	16	400
	DW-86L728BPST							20	500
	DW-86L828BPST							24	600
	DW-86L578BPST	433002	(EXP) DCJ-55-B (SUS304)	SUS304	5*5	2 inch	686*141*291	16	400
	DW-86L728BPST							20	500
	DW-86L828BPST							24	600

Rack Type	ULT Freezer	Freezer Rack						Freezer Rack Quantity	Box Capacity
		CAT.NO.	Model	Material	Layout (Rows*Columns)	Box Type	Dimensions (D*W*H)(mm)		
 Side-access freezer rack	DW-86L578BPST	4330012	(EXP) DCJ-55-A (SUS304)	SUS304	5*5	2 inch	686*141*291	16	400
	DW-86L728BPST							20	500
	DW-86L828BPST							24	600

Typical Performance Characteristics at 20°C Ambient



Product Size Drawing



Ramark

W0=Total Width

W1=Freezer Width

W2=Inner Cabinet Width

W3=Inner Cabinet Shelf Width

H0=Total Height

H1=Inner Cabinet Height

H2=1st Floor Height

H3=2nd Floor Height

H4=3rd Floor Height

H5=4th Floor Height

D0=Total Depth

D1=Inner Cabinet Width

D2=Inner Cabinet Shelf Width

Parameter	W0	W1	W2	W3	H0	H1	H2	H3	H4	H5	D0	D1	D2
Model													
DW-86L578BPST	895mm	800mm	620mm	602mm	1980mm	1310mm	298mm	303mm	303mm	301mm	998mm	716mm	700mm
DW-86L728BPST	1046mm	946mm	766mm	750mm	1980mm	1310mm	298mm	303mm	303mm	301mm	998mm	716mm	700mm
DW-86L828BPST	1145mm	1050mm	870mm	854mm	1980mm	1310mm	298mm	303mm	303mm	301mm	998mm	716mm	700mm

Specifications



Model		DW-86L578BPST	DW-86L728BPST	DW-86L828BPST
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 Touchscreen	LCD Touchscreen	LCD Touchscreen
Electrical Data	Power Supply (V/Hz)	100-230/50/60	100-230/50/60	100-30/50/60
	Max Power (W)	1100	1100	1400
Dimensions	Capacity (L/Cu.Ft)		578/20.4	728/25.7
	Net/Gross Weight	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	35.2*39.3*78.0	41.2*39.3*78.0
	Packing Dimension (W*D*H)	mm	953*1071*2127	1105*1066*2117
		in	37.5*42.1*83.7	43.5*42*83.3
Functions	Container Load (20'/40'/40'H)		12/24/24	10/20/20
	High/Low Temperature		Y	Y
	Hot Condenser		Y	Y
	Power Failure		Y	Y
	High/Low Voltage		Y	Y
	Sensor Error		Y	Y
	Low Battery		Y	Y
	High Ambient Temperature		Y	Y
	Door Ajar		Y	Y
Accessories	Start-Up Delay		Y	Y
	Caster		Y(4)	Y(4)
	Leveling Feet		Y(2)	Y(2)
	Porthole		2 rears, (25mm)diameter	2 rears, (25mm)diameter
	Inner Doors		4	4
	Shelves		3- stainless steel adjustable shelves	3- stainless steel adjustable shelves
	Shelf Dimensions (W*D) (mm)		606*650	752*650
	Max. Load per Shelf (kg)		72	90
	Freezer Racks Quantity (2" boxes)		16	20
	Capacity (2" boxes)		400	500
	USB Interface		Y	Y
	Remote Alarm		Y	Y
	5V Power Supply Port		Y	Y
	Temperature Chart Recorder		Optional	Optional
	RS232/485 Port		NA/Standard	NA/Standard
	CO ₂ Backup System		Optional	Optional
	LN ₂ Backup System		Optional	Optional
Other	Certification		CE, UL, ENERGY STAR	CE, UL, ENERGY STAR