Haier Biomedical
Intelligent Protection of Life Science

ULT Freezer

Making Your Lab More Intelligent and Reliable



DW-86L419/579/729/829

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Product Advantages

• All-New Upgrade

Both the appearance and performance have been upgraded and optimized compared to the previous generation, delivering users an optimal experience

• HC Energy-Saving

The high efficiency hydrocarbon compressor along with the upgraded refrigeration technology leads to a significant reduction in energy consumption



• Superior Uniformity

The temperature uniformity is within ±4°C at -80°C setpoint, which ensures reliable preservation and maintains sample integrity over time

• Environmental Protection

Adopts eco-friendly hydrocarbon refrigerant and green insulation to lower carbon footprint

• Multiple Alarm Functions

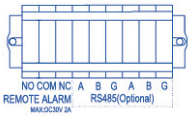
Including high/low temperature alarm, sensor failure alarm, power failure alarm, low battery alarm, door ajar alarm and high ambient temperature alarm. Alarm mode is sound and flash



• Rich Configurations

Standard: RS485 interface, remote alarm, USB interface, 10.1-inch touchscreen, adjustable stainless steel shelves
Optional: temperature recorder, backup system, stainless inner





Optimized Design

Upgraded VIP Insulation Technology

The Vacuum Insulated Panels (VIP) has been upgraded from a spliced form to an integrated one, ensuring unparalleled temperature performance

Improved Pressure Relief Port

The re-entry time has been shortened to just 60 seconds, effectively ensuring continuous access to the freezer

Intelligent Control

The 10 - inch LCD touchscreen integrated with a microprocessor controller system can intuitively display internal temperature, ambient temperature, set point and other data as well as temperature curves. The set temperature is adjustable between -40°C and -86°C, with a temperature display precision of 0.1°C

Safe and Secure

Equipped with keyed door lock, padlock, optional electronic lock, providing multiple safeguards for sample safety

Product Parts



Document holder for easy storage of files and pens



The handle designed with a unique sliding-track makes opening and closing the door easier



The tool-free removable filter makes it easy and quick to clean





The outer door is equipped with four layers of seals and the inner door with one layer, which significantly reduces heat loss

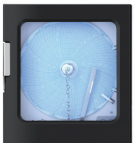


Standard USB interface enables users to download historical temperature data (up to 15 years)



4 swivel casters and 2 adjustable leveling legs for easy maneuvering and precise positioning

Product Accessories (Optional)



Temperature Recorder

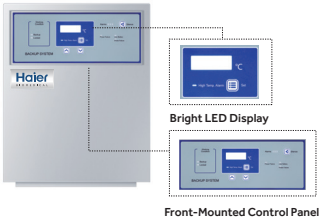
- Front-mounted design
- Enables standalone temperature monitoring





CO_2 Backup System

- Small footprint, lightweight and easy to install
- User-adjustable temperature setpoints
- Flexible design, compatible with all ULT freezers with an access port
- Filter integrated into CO_2 injection pipe to prevent system blockage



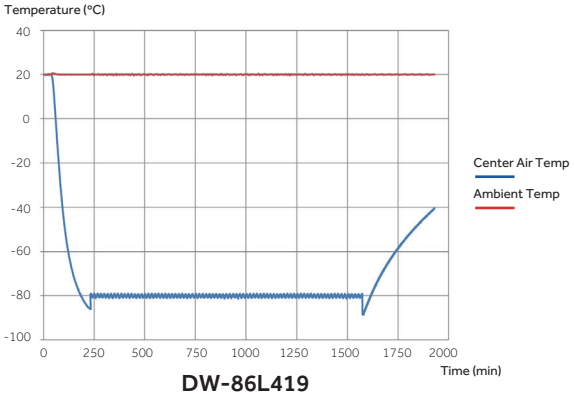
LN_2 Backup System

- Interlocked design to turn off LN_2 injection upon door opening
- Protection circuit to prevent battery overcharging
- Lightweight and portable design, suitable for mounting on top of a freezer
- Alarm functions including low battery and sensor fault

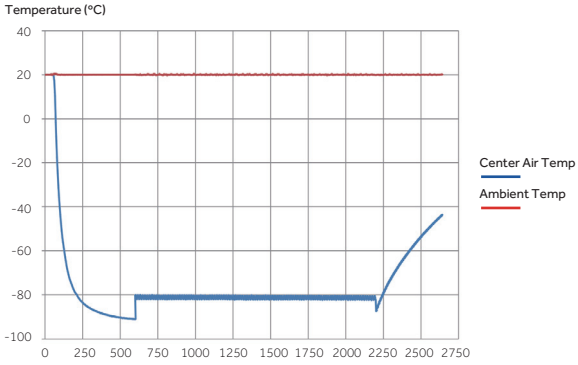
Rack Type	ULT Freezer	Freezer Rack						Freezer Rack Quantity	Total Boxes
		CAT.No.	Model	Material	Layout (Rows*Columns)	Box Type	Dimensions (D*W*H)(mm)		
 Sliding-drawer freezer rack	DW-86L419	433001	(EXP)DCJ-55-B(SUS201)	SUS201	5*5	2 inch	686*141*291	12	300
	DW-86L579							16	400
	DW-86L729							20	500
	DW-86L829							24	600
	DW-86L419	433002	(EXP)DCJ-55-B(SUS304)	SUS304	5*5	2 inch	686*141*291	12	300
	DW-86L579							16	400
	DW-86L729							20	500
	DW-86L829							24	600

Rack Type	ULT Freezer	Freezer Rack						Freezer Rack Quantity	Total Boxes
		CAT.No.	Model	Material	Layout (Rows*Columns)	Box Type	Dimensions (D*W*H)(mm)		
 Side-access freezer rack	DW-86L419	4330012	(EXP)DCJ-55-A(SUS304)	SUS304	5*5	2 inch	686*141*291	12	300
	DW-86L579							16	400
	DW-86L729							20	500
	DW-86L829							24	600

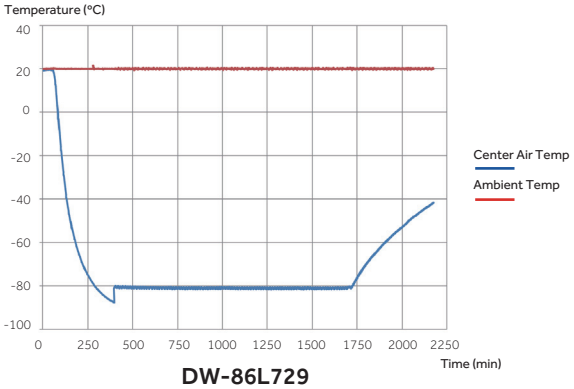
Typical Performance Characteristics at 20°C Ambient



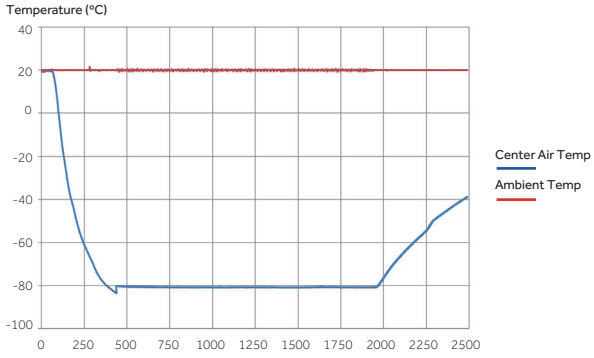
DW-86L419



DW-86L579

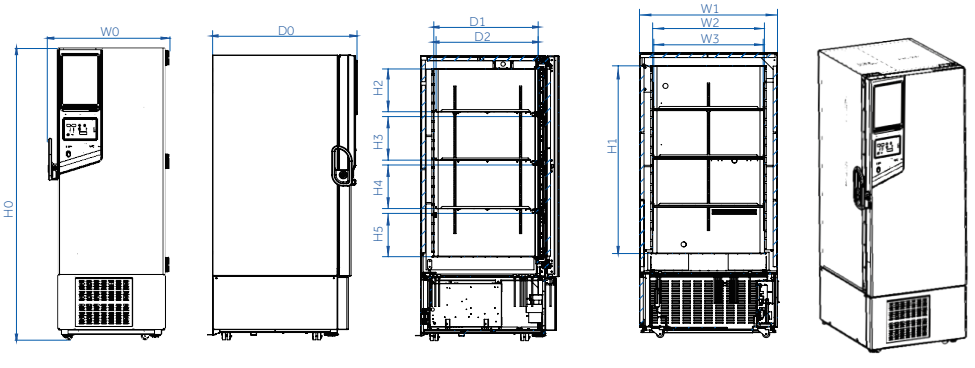


DW-86L729



DW-86L829

Product Dimension Drawings



Remark
W0=Total Width
W1=Freezer Width
W2=Inner Cabinet Width
W3=Inner Cabinet Shelf Width
D0=Total Depth
D1=Inner Cabinet Depth
D2=Inner Cabinet Shelf Depth
H0=Total Height
H1=Inner Cabinet Height
H2=1st Floor Height
H3=2nd Floor Height
H4=3rd Floor Height
H5=4th Floor Height

Parameter / Model	W0	W1	W2	W3	H0	H1	H2	H3	H4	H5	D0	D1	D2
DW-86L419	830	725	465	450	1980	1310	311	308	305	318	990	716	710
DW-86L579	903	800	620	604	1980	1310	298	303	303	301	990	716	710
DW-86L729	1049	946	766	750	1980	1310	298	303	303	301	990	716	710
DW-86L829	1153	1050	870	854	1980	1310	298	303	303	301	990	716	710

Specifications

	Model		DW-86L419	DW-86L579	DW-86L729	DW-86L829
Technical Data	Cabinet Type		Upright	Upright	Upright	Upright
	Ambient Temperature (°C)		10~32	10~32	10~32	10~32
	Cooling Type		Direct cooling	Direct cooling	Direct cooling	Direct cooling
	Defrost Mode		Manual	Manual	Manual	Manual
	Refrigerant		HC	HC	HC	HC
	Sound Level (dB (A))		47	47	52	52
Performance	Cooling Performance (°C)		-86	-86	-86	-86
	Temp Range (°C)		-40~-86	-40~-86	-40~-86	-40~-86
Control	Controller		Microprocessor	Microprocessor	Microprocessor	Microprocessor
	Display		Touch Screen LCD	Touch Screen LCD	Touch Screen LCD	Touch Screen LCD
Electrical Data	Power Supply (V/Hz)		220~240/50	220~240/50	220~240/50	220~240/50
	Power (W)		800	1000	1700	1900
Dimensions	Capacity (L/Cu.Ft)		419/14.8	579/20.5	729/25.7	829/29.3
	Net/Gross Weight (approx)	kg	255/286	300/330	350/385	380/410
		lbs	562.2/630.5	661.4/727.5	771.6/848.8	837.7/903.9
	Interior Dimensions (W*D*H)	mm	465*716*1310	620*716*1310	766*716*1310	870*716*1310
		in	18.3*28.2*51.6	24.4*28.2*51.6	30.2*28.2*51.6	34.3*28.2*51.6
	Exterior Dimensions (W*D*H)	mm	830*990*1980	903*990*1980	1049*990*1980	1153*990*1980
		in	32.7*39.0*78.0	35.6*39.0*77.2	41.3*39.0*78.0	45.4*39.0*78.0
	Packing Dimension (W*D*H)	mm	870*1070*2110	950*1075*2110	1120*1090*2130	1200*1080*2130
		in	34.3*42.1*83.1	37.4*42.3*83.1	44.1*42.9*83.9	47.2*42.5*83.9
	Cabinet Width (without handle and hinge)	mm	725	800	946	1050
	Container Load (20'/40'/40'H)		12/26/26	12/24/24	10/20/20	10/20/20
Functions	High/Low Temperature Alarm		Y	Y	Y	Y
	Hot Condenser Alarm		Y	Y	Y	Y
	Power Failure Alarm		Y	Y	Y	Y
	High/Low Voltage Alarm		Y	Y	Y	Y
	Sensor Error Alarm		Y	Y	Y	Y
	Low Battery Alarm		Y	Y	Y	Y
	High Ambient Temperature Alarm		Y	Y	Y	Y
	Door Ajar Alarm		Y	Y	Y	Y
	Start-up delay		Y	Y	Y	Y
Accessories	Caster		Y(4)	Y(4)	Y(4)	Y(4)
	Leveling feet		Y(2)	Y(2)	Y(2)	Y(2)
	Porthole		2*rear, (25mm) diameter	2*rear, (25mm) diameter	2*rear, (25mm) diameter	2*rear, (25mm) diameter
	Inner Doors		2	4	4	4
	Shelves		3- stainless steel adjustable shelves	3- stainless steel adjustable shelves	3- stainless steel adjustable shelves	3- stainless steel adjustable shelves
	Shelf Dimensions (W*D) (mm)		441*657	606*649	752*650	856*650
	Max. Load per Shelf (kg)		54	72	90	108
	Freezer Racks Quantity(2" boxes)		12	16	20	24
	Capacity (2" boxes)		300	400	500	600
	USB Interface		Y	Y	Y	Y
	Remote Alarm		Y	Y	Y	Y
	5V Power Supply Port		Y	Y	Y	Y
	Temperature Chart Recorder		Optional	Optional	Optional	Optional
	RS232/485 Port		N/A / Standard	N/A / Standard	N/A / Standard	N/A / Standard
	CO_2 Backup System		Optional	Optional	Optional	Optional
	LN_2 Backup System		Optional	Optional	Optional	Optional
Others	Certifications		CE, MDR	CE, MDR	CE, MDR	CE, MDR