Haier Biomedical
Intelligent Protection of Life Science

Smart Frequency Conversion ULT Freezer

DW-86L579BP DW-86L729BP
DW-86L829BP DW-86L959BP



The Smart Frequency Conversion range of ultra low temperature freezers have been designed and developed at the Haier Biomedical R&D Institute. They are certified by one of the world's leading energy conservation and environmental protection organisations.

Ergonomic Design

- Energy Saving Refrigeration
- Multilayered Sealing Structure
- Pressure Equalisation Port
- Improved Handle Design
- USB Interface
- Multilevel Alarms

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Oct, 2026

Haier Biomedical
Haier Biomedical International
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Scope of Application

Haier Biomedical's Smart Frequency technology manages the compressor speeds on demand. The ultra-low temperature freezers can thus achieve the world-leading energy efficiency in ultra-low temperature.

Intelligent Frequency Conversion Technology

Two variable speed compressors are controlled for optimal freezer performance. Low energy consumption is achieved.

Maximum Energy Efficiency



Our Smart Frequency Technology, coupled with our environmentally safe and friendly hydrocarbon refrigeration system, allows the Haier freezers to operate at a low level of energy of 8.2 kWh/day,

PreciseTemperature Control



The innovative control algorithm balances the effects of temperature loss with the unique frequency conversion refrigeration system, ensuring the cabinet temperature stability of ±3°C.

Frequency Conversion Adaptive Technology



Variable speed compressors in Haier Biomedical freezers are operated to produce the capacity that matches the demand of the load. The control system automatically tunes the speed of the compressors to optimize the operation.

World-leading Energy Saving Refrigeration Technology



Our hydrocarbon refrigeration technology can save energy by 50%, significantly reducing operator's cost. The refrigerants do not contain fluoride and chloride. The global warming potential is extremely low at 3. Thus they are very friendly to the environment

Minimal Sound Level Output



Adaptive control technology controls the fans and compressors to reduce the sound level to 43.5 dB(A).

Salvum Ultimate Smart Frequency Conversion ULT Freezer



Energy Saving Refrigeration

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



Multilayered Sealing Structure

Triple layer of gaskets split between main and inner doors decreases heat loss and guarantee excellent warm up times in the event of a power failure



Pressure Equalisation Port

Heated port with spring assisted mechanism to prevent icing on the vent allows users to reopen the main door soon after entering Adopts chromium plating, rust-proof



DW-86L829BP



Improved Handle Design

Lockable handle with unique key prevents other Haier freezer owner's access to your precious samples, also comes with space for a padlock for that extra security



USB Interface

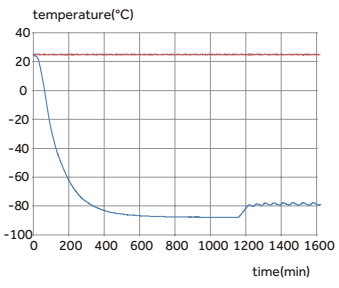
Enables users to download historical temperature data for compliance/auditing purposes



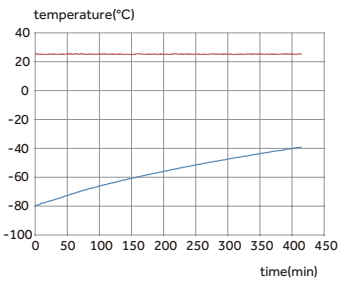
Multilevel Alarms

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

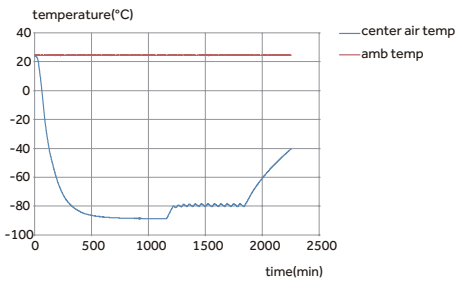
DW-86L829BP | TYPICAL PERFORMANCE CHARACTERISTICS AT 25°C AMBIENT



Temperature Cool Down Curve



Temperature Recover Curve



Comprehensive Curve

Specifications

	Model		DW-86L579BP	DW-86L729BP	DW-86L829BP		DW-86L959BP	
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))		43.5	43.5	43.5		47	
Performance	Cooling Performance (°C)		-86	-86	-86		-86	
	Temperature Range (°C)		-40~-86	-40~-86	-40~-86		-40~-86	
Control	Controller		Microprocessor	Microprocessor	Microprocessor		Microprocessor	
	Display		LED	LED	LED		LED	
Electrical Data	Power Supply (V/Hz)		100~230/50/60	100~230/50/60	208~230/50/60	100~230/50/60	208~230/50/60	100~230/50/60
	Max Power (W)		1100	1100	1400		1750	
Dimensions	Capacity (L/Cu.Ft)		579/20.4	729/25.7	829/29.2		959/33.9	
	Net/Gross Weight	kg	320/350	350/385	380/415		450/485	
		lbs	705.5/771.6	771.6/848.8	837.7/914.9		992.1/1069.2	
	Interior Dimension (W*D*H)	mm	620*716*1310	766*716*1310	870*716*1310		1016*716*1310	
		in	24.4*28.2*51.6	30.2*28.2*51.6	34.3*28.2*51.6		40.0*28.2*51.6	
	Exterior Dimension (W*D*H)	mm	895*998*1980	1046*998*1980	1145*998*1980		1296*998*1980	
		in	35.2*39.3*78.0	41.2*39.3*78.0	45.1*39.3*78.0		51.0*39.3*78.0	
	Packing Dimension (W*D*H)	mm	953*1071*2127	1105*1066*2117	1204*1072*2125		1365*1102*2164	
		in	37.6*42.2*83.8	43.6*42*83.4	47.5*42.3*83.7		53.8*43.4*85.2	
	Cabinet Width (without handle and hinge)	mm	800	946	1050		1196	
	Container Load (20'/40'/40'H)		12/24/24	10/20/20	8/20/20		8/16/16	
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		N/A	N/A	N/A		N/A	
	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		4	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)		606*650	752*650	856*650		1002*650	
	Max. Load per Shelf (kg)		72	90	108		126	
	Freezer Racks Quantity (2" boxes)		16	20	24		28	
	Capacity (2" boxes)		400	500	600		700	
	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, UL, MDR ENERGY STAR	CE, UL, ENERGY STAR, MDR	CE, ENERGY STAR, MDR	UL, ENERGY STAR	CE, ENERGY STAR, MDR	UL, ENERGY STAR

BP suffix - Variable frequency invertor compressor
Product appearance and specifications are subject to change without notice