

# UltraEco ULT Freezer

## Redefining Cold Storage Excellence



Super energy-saving technology and precise temperature control. Designed to provide long-term storage for various biological samples and sensitive items to ensure the integrity and stability of precious materials. With its outstanding energy-saving features, it not only reduces electricity consumption but also contributes to a greener environment.

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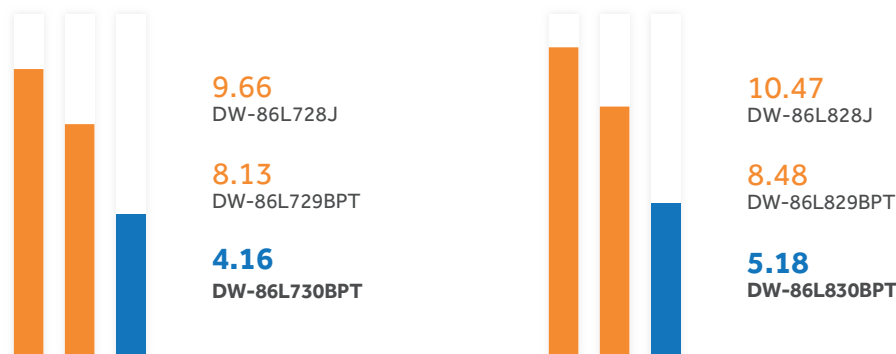
Haier Biomedical  
International

## Optimal Energy Efficient Performance

HC refrigerant, frequency conversion technology and optimized structural design combine to lower operating costs compared to previous generation by up to 50%.

ENERGY STAR certified with world-leading energy efficiency

### Power Consumption Comparison (kWh/day)



\*Above power consumption base on ENERGY STAR report

## Significantly Enhanced Performance

The upgraded compressor, along with the enhanced refrigeration system and improved insulation structure, significantly elevates the performance of UltraEco series. In comparison to the previous generation, UltraEco series features lower energy consumption, a longer holdover time, faster temperature recovery time and re-entry time, as well as reduced noise. All these enhancements will bring customers a completely new experience.

**49%**

⚙️ Decrease in Energy Consumption

**80%**

⌚ Faster Re-Entry Time

**42dB(A)**

🔊 Lower Sound Level

\*Above data based on DW-86L730BPT

**16%**

🕒 Improvement in Warm-Up Time from -80°C to -50°C

**15 min**

🚪 1 Min Door Opening Recovery Time

**±2°C**

🌡️ Outstanding Temperature Uniformity

Model	DW-86L729BPT	DW-86L730BPT	DW-86L829BPT	DW-86L830BPT
Temperature Uniformity (°C)	±3	±2	±3	±3
ENERGY STAR Power Consumption (kWh/day)	8.13	4.16	8.48	5.18
1-Minute Open Door Recovery Time (20° C Ambient Running at -75°C)(mins)	24	15	35	32
Warm-Up Time at 20° C Ambient (from -80°C to -50°C)(mins)	300	348	315	378
Re-entry Time (Seconds)	300	60	300	60

\*Freezer performance will vary based on customer product volume, storage format, operating conditions, test methodology and performing recommended maintenance

## Green and Environmental Friendly



Naturally occurring Hydrocarbon (HC) refrigerants and insulation materials with ultra-low global warming potential (GWP) levels exert an extremely minimal impact on the environment. These are not only eco-friendly but also contribute to a sustainable future by reducing the carbon footprint and safeguarding the delicate balance of our ecosystem.

## Safety and Reliability

- Dual sensors ensure accurate detection of temperature changes, providing double the security for sample storage.
- The self-diagnostic feature of the compressor triggers immediate alarms in case of issues, enabling swift maintenance to prevent sample damage.
- VIP insulation technology provides 6-hour durable thermal retention and safeguards samples during brief power failures.
- Optional built-in independent backup system guarantees sample safety even in the event of a long power outage.

## Ergonomic Design



### 10 Inch Capacitive Touch Screen

State-of-art UI design coupled with sample management system to provide the optimal user experience



### Innovative Light Bar Design

Clearly indicate the operating status of the freezer and offer strengthened visual alarm indications for effortless at-a-glance monitoring



### Improved Pressure Relief Port

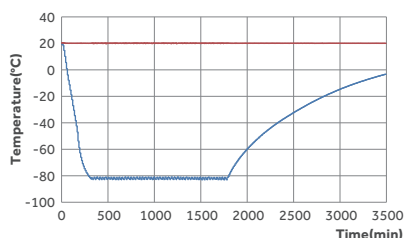
Re-entry time shortened to just 60 seconds



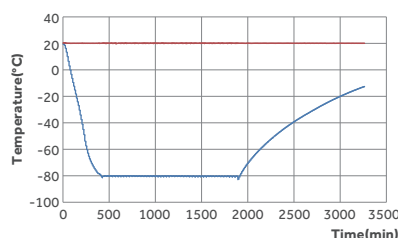
### USB Interface

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

## Typical Performance Characteristics at 20°C Ambient

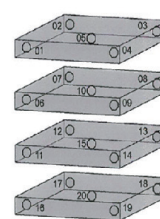


DW-86L730BPT Comprehensive Curve



DW-86L830BPT Comprehensive Curve

— Ambient Temp  
— Center Air Temp



Temperature characteristics  
(20-point measurement)

## Specifications



Model			DW-86L730BPT	DW-86L830BPT
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))		≤42	≤46
Performance	Cooling Performance (°C)		-86	-86
	Temperature Range (°C)		-40~-86	-40~-86
Control	Controller		Microprocessor	Microprocessor
	Display		Touch Screen LCD	Touch Screen LCD
Electrical Data	Power Supply (V/Hz)		100~230/50/60	100~230/50/60
	Max Power (W)		900	1050
Dimensions	Capacity (L/Cu.Ft)		730/25.8	830/29.3
	Net/Gross Weight (approx)	kg	315/368	336/390
		lbs	694.5/811.3	740.8/859.8
	Interior Dimensions (W*D*H)	mm	766*716*1310	870*716*1310
		in	30.2*28.2*51.6	34.3*28.2*51.6
	Exterior Dimensions (W*D*H)	mm	1046*998*1970	1145*998*1970
		in	41.2*39.3*77.6	45.1*39.3*77.6
	Packing Dimensions (W*D*H)	mm	1110*1150*2160	1220*1150*2160
		in	43.3*45.3*85	48*45.3*85
Alarms	Container Load (20'/40'/40'H)		10/20/20	8/20/20
	High/Low Temperature Alarm		Y	Y
	Hot Condenser Alarm		Y	Y
	Power Failure Alarm		Y	Y
	High/Low Voltage Alarm		Y	Y
	Sensor Error Alarm		Y	Y
	Low Battery		Y	Y
	High Ambient Temperature Alarm		Y	Y
	Door Ajar Alarm		Y	Y
Accessories	Start-Up Delay		Y	Y
	Caster		Y(4)	Y(4)
	Leveling Feet		Y(2)	Y(2)
	Porthole		2 Rear, (15mm)Diameter	2 Rear, (15mm)Diameter
	Inner Doors		4	4
	Shelves		3- Stainless Steel Adjustable Shelves	3- Stainless Steel Adjustable Shelves
	Shelf Dimensions (W*D)(mm)		752*650	856*650
	Max. Load per Shelf (kg)		90	108
	Freezer Racks Qty (2" boxes)		20	24
	Capacity (2" boxes)		500	600
	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 <sub>2</sub> Backup System		Optional	Optional
	LN <sub>2</sub> Backup System		Optional	Optional
Others	Certifications		CE, UL, ENERGY STAR	CE, UL, ENERGY STAR

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