# 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.

## Qingdao Haier Biomedical Co., Ltd.

Haier Biomedical International

Haier Biomedical International

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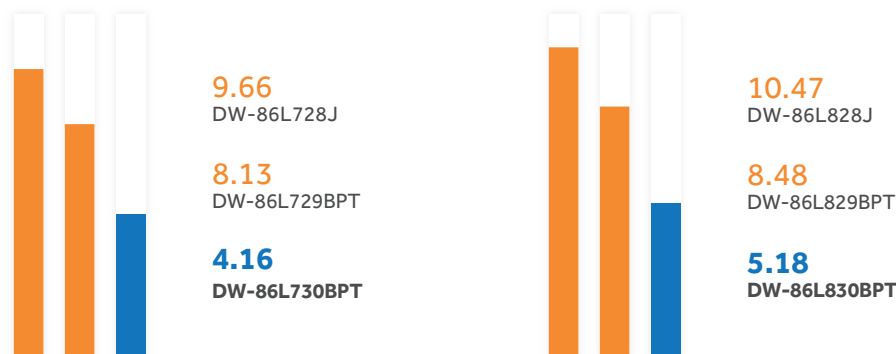
Haier Biomedical International

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## 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)

9.66
DW-86L728J

8.13
DW-86L729BPT

4.16
**DW-86L730BPT**

10.47
DW-86L828J

8.48
DW-86L829BPT

5.18
**DW-86L830BPT**

*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

**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

*Above data based on DW-86L730BPT

| 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
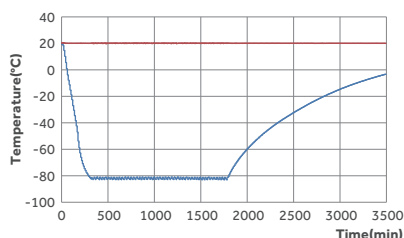
### Improved Pressure Relief Port
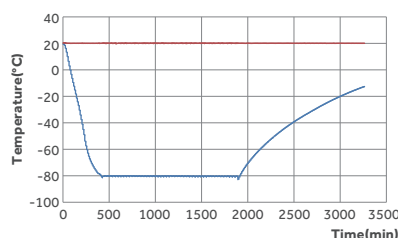Re-entry time shortened to just 60 seconds

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

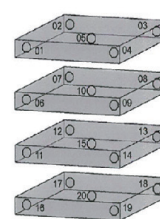## Typical Performance Characteristics at 20°C Ambient

Legend: Ambient Temp, Center Air Temp

**DW-86L730BPT Comprehensive Curve**

**DW-86L830BPT Comprehensive Curve**

**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 |
| Net/Gross Weight (approx) — lbs | 694.5/811.3 | 740.8/859.8 |
| Interior Dimensions (W*D*H) — mm | 766*716*1310 | 870*716*1310 |
| Interior Dimensions (W*D*H) — 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 |
| Exterior Dimensions (W*D*H) — 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 |
| Packing Dimensions (W*D*H) — in | 43.3*45.3*85 | 48*45.3*85 |
| Container Load (20'/40'/40'H) | 10/20/20 | 8/20/20 |
| **Alarms** — 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 |
| Start-Up Delay | Y | Y |
| **Accessories** — 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 |
| $CO_2$ Backup System | Optional | Optional |
| $LN_2$ 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.