

PRODUCT SPECIFICATIONS

| Product | DW-86L829BP | DW-86L959BP |
|---|--|--|
| Cabinet Type | Upright | Upright |
| Climate Class | N | N |
| Storage Capacity(L/Cu.Ft) | 829/29.2 | 959/33.9 |
| Temperature Range(°C) | -40--86 | -40--86 |
| Noise Level (dB(A)) | 43.5 | 47 |
| Net/Gross Weight(kg/lbs) | 380/410 | 450/485 |
| Exterior Dimensions(W*D*H) | 1145*998*1980(mm) 45.1*39.3*78.0(in) | 1296*998*1980(mm) 51.0*39.3*78.0(in) |
| Interior Dimensions(W*D*H) | 870*716*1310(mm) 34.3*28.2*51.6(in) | 1016*716*1310(mm) 40.0*28.2*51.6 |
| Refrigerant | HC | HC |
| Cooling Performance(°C) | -86 | -86 |
| Display | LED | LED |
| Power Supply(V/Hz) | 208-230/50/60 | 208-230/50/60 |
| Power(W) | 1100 | 1300 |
| Power Consumption(kWh/day) | 8.2 | 12 |
| Electrical Current(A) | 6 | 6 |
| Building Supply Rating (A) | 16 | 16 |
| Power Lead Length(m) | 2.5 | 2.5 |
| Heat Rejection (BTU/day) | 27980 | 40947 |
| Ambient Temperature(°C) | 10-32 | 10-32 |
| Cooling Type | Direct cooling | Direct cooling |
| Compressor Type/Brand/Number | Hermetic Reciprocating Type / Nidec/ 2 | Hermetic Reciprocating Type / embraco / 2 |
| Compressor Capacity(W) | 950+950 | 950+950 |
| Evaporator Type | Copper Tube Evaporator | Copper Tube Evaporator |
| Defrost Mode | Manual | Manual |
| Controller Level | Top | Top |
| Power Switch | 16A | 16A |
| Controller | Microprocessor | Microprocessor |
| Setpoint Security | Yes | Yes |
| Controller Sensor | PT100 | PT100 |
| Remote Alarm Terminals | Remote Alarm Port, RS485 (Optional) | Remote Alarm Port, RS485 (Optional) |
| Adjustable High/Low Temp Alarms | Y | Y |
| Insulation | VIP+CFC Free Foaming Agent | VIP+CFC Free Foaming Agent |
| Exterior Door Seal | Four Seal On The Outside Door Seal Strip | Four Seal On The Outside Door Seal Strip |
| Interior Door Seal | One Seal On The Interior Door Seal Strip | One Seal On The Interior Door Seal Strip |
| Shelves/Capacity/Dims/Material | 3 stainless steel adjustable shelves with dimension 854*706 mm(W*D), max capacity per shelf:60kg/132.4 lbs | 3 stainless steel adjustable shelves with dimension 1000*706 mm(W*D), max capacity per shelf:70kg/154.5 lbs |
| Caster | Y/4 | Y/4 |
| Exterior Material | Colour Coating Steel Plate | Colour Coating Steel Plate |
| Interior Material | Colour Coating Steel Plate | Colour Coating Steel Plate |
| Door Thickness (mm) | 90 | 90 |
| Cabinet Thickness(mm) | 90 | 90 |
| Inner Door | Four Solid Door | Four Solid Door |
| Condenser Type | Fin Condenser | Fin Condenser |
| Fan Brand | EBM | EBM |
| Back Up Battery for Alarm Functions | Support high/low temperature, power failure, door open, sensor failure, high ambient temperature, hot condenser and low battery alarms | Support high/low temperature, power failure, door open, sensor failure, high ambient temperature, hot condenser and low battery alarms |
| Temperature Uniformity(°C) | ±3 | ±3 |
| Temperature Accuracy(°C) | 1 | 1 |
| Cool Down Time (25°C ambient to -80°C) mins | 350 | 340 |
| Warm Up Time (25°C ambient -80°C to -50°C) mins | 290 | 290 |
| 1 Min Door Open Recovery Time (ambient 25°C running temp -80°C)mins | 40 | 45 |
| Certificate | CE | CE |

Haier Biomedical

Intelligent Protection of Life Science

SmartFrequency Conversion



DW-86L829BP



Intelligent Frequency Conversion Technology

Two frequency conversion compressors, designed with adaptive control, follow user patterns and adjust the refrigeration system, substantially reducing energy without compromising performance.



Maximum Energy Efficiency

Due to our SmartFrequency refrigeration technology, innovative cabinet design and the use of hydrocarbon refrigerants, this range of freezers have the lowest energy consumption figures to date at just 8.2kWh/day.



Precise Temperature 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.

Haier Biomedical's ultra low temperature freezers with SmartFrequency conversion technology

that provides users with a world-leading energy efficient freezer.



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Smarter by Design

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



Frequency Conversion Adaptive Technology

Unlike standard, single speed compressors that cycle on and off, our frequency conversion compressor runs at variable speeds to adjust cooling performance to the conditions inside and outside of the freezer. It allows the freezer to adjust to factors such as start-up and door openings when a higher compressor speed is needed. When conditions are normal or stable, the drive runs at a lower speed while still protecting the samples.



World-leading Energy Saving Refrigeration Technology

The hydrocarbon refrigeration technology saves energy by 50%, significantly reducing the running costs of the freezer. Hydrocarbon refrigerant contains no fluorine or chlorine and has a global warming potential (GWP) value of just 3, meaning this refrigerant is a more environmentally friendly option compared to HFC refrigerants.



Minimal Noise Output

Adaptive control technology controls fans and compressors to reduce noise levels to an exceptional 43.5dB.

PRODUCT ADVANTAGES



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



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



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



DW-86L829BP



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

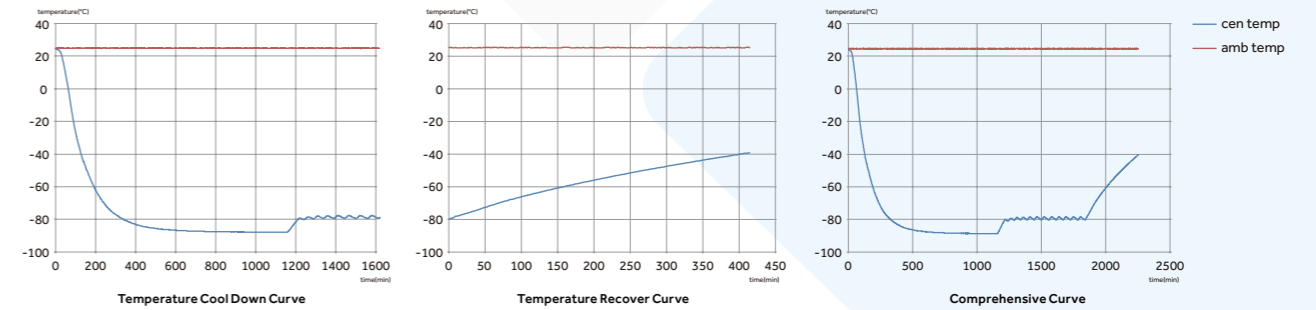


Improved Handle Design
Lockable handle with unique key prevents other Haier freezer owners access to your precious samples, also comes with space for a padlock for that extra security

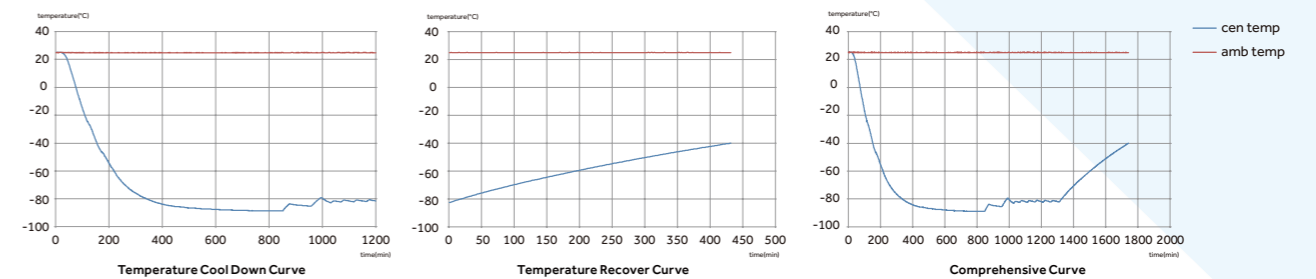


Multilevel Alarms
Alarming functions that include hi and low temperature, sensor error, power failure, high ambient, clean filter and door ajar

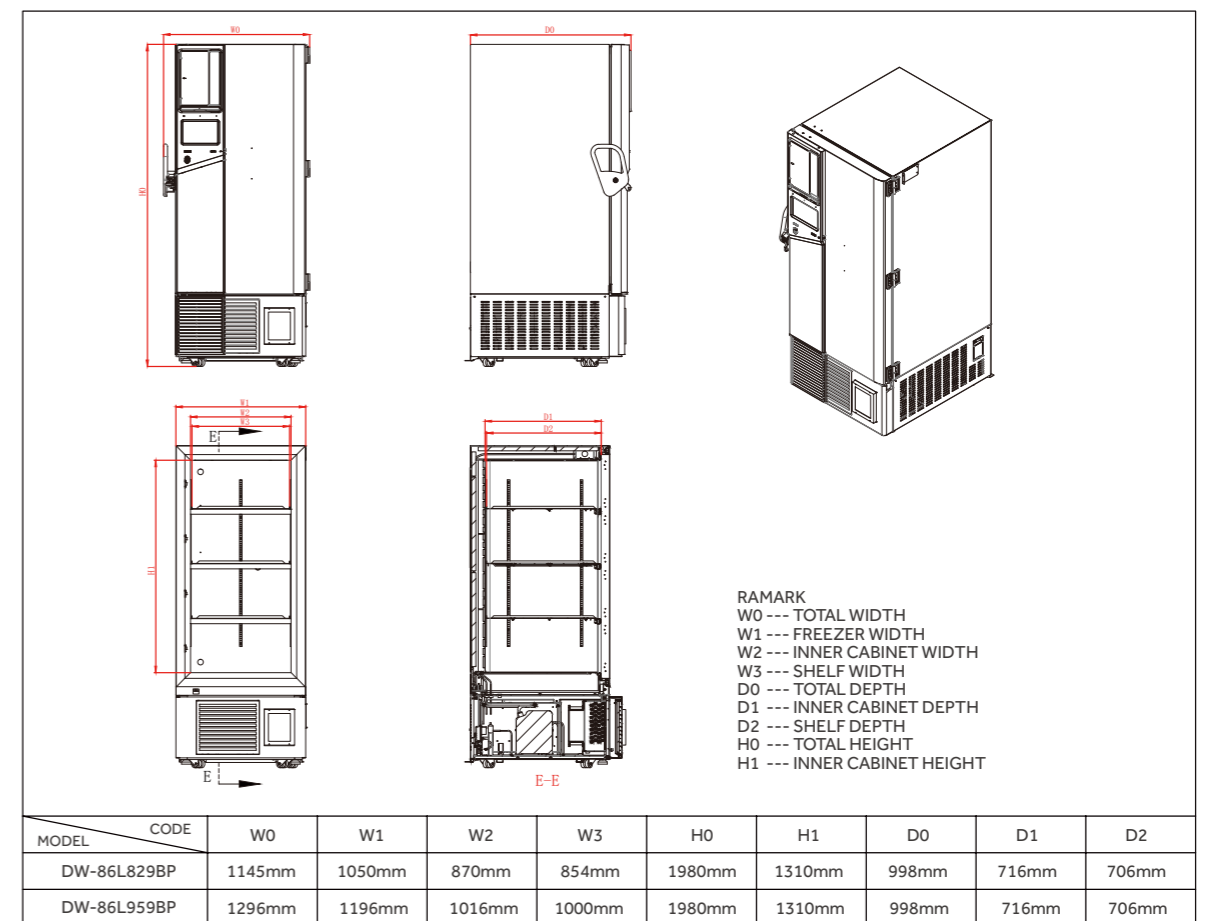
DW-86L829BP | TYPICAL PERFORMANCE CHARACTERISTICS IN 25°C AMBIENT



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PRODUCT DIMENSION DRAWING



REMARK
 W0 --- TOTAL WIDTH
 W1 --- FREEZER WIDTH
 W2 --- INNER CABINET WIDTH
 W3 --- SHELF WIDTH
 D0 --- TOTAL DEPTH
 D1 --- INNER CABINET DEPTH
 D2 --- SHELF DEPTH
 H0 --- TOTAL HEIGHT
 H1 --- INNER CABINET HEIGHT

| Model | Voltage (V/Hz) | Rated Power (W) | Inner Cabinet Temperature(°C) | External Dimension (W * D * H mm) | Internal Dimension (W * D * H mm) | Effective Volume (L) | Net Weight / Gross Weight (Kg) | Shelf |
|-------------|----------------|-----------------|-------------------------------|-----------------------------------|-----------------------------------|----------------------|--------------------------------|-------|
| DW-86L829BP | 208~230/50/60 | 1100 | -86 | 1145*998*1980 | 870*716*1310 | 829 | 380/415 | 3 |
| DW-86L959BP | 208~230/50/60 | 1300 | -86 | 1296*998*1980 | 1016*716*1310 | 959 | 450/485 | 3 |