Haier

World Leading Energy-efficient
-86°C ULT Freezer

Salvum
Energy Saving

DW-86L728J/578J

Professional Equipment

Do you need your samples store in professional equipment?

Stable Performance

If you need more

Do you think the high quality and stable performance is important?

-86°C ULT Freezer

Do you require -86°C ULT Freezer?

Energy Saving

USB

VIP Plus

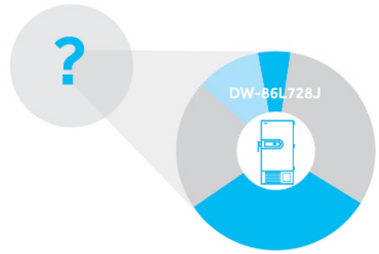
Malfunction Alarms

Reliable Performance

Low Noise

More Loading Capacity

Do you need to store about 50, 000 samples?



Extended Pull-up Time

Do you think the freezer need an extended Pull-up time?

Energy Efficiency

Do you want an energy efficiency freezer and less cost?

Only haier product that
meet **all** your requirements

Salvum
Energy Saving

Ultra-low Temperature Freezer

4 Individual Removable Foam Inner Doors

- 4 individual inner doors can be opened independently to minimize frost buildup inside the chamber.
- Unique door seal design for the minimum loss of cold temperature during a door opening.
- Compatibility with existing racking system from competitors.
- Stainless Steel handle to ensure the door open conveniently even in the case of frost.

Excellent Doors Seals

5 gasket seal, 4 seals for out door, 1 seal for inner door which provides maximum protection against thermal intrusion.

High Efficiency Refrigeration Components

- Industrial grade hermetically sealed compressors, ultra low noise under cascade cooling system.
- High efficiency coalescent oil separator ensures no oil entering.
- Energy efficient fan design ,with 5 years life to ensure the cooling effect.
- Unique CH refrigeration system is optimized to provide maximum efficiency in even the most extreme ambient conditions.

Circular-chart Recorder (Optional)

- Front-mounted.
- For independent temperature monitoring.
- Provides permanent record of thermal performance.

Microprocessor Control Panel and Digital Display

Pressure Equalization Port

- Heated port with spring-assisted mechanism to prevent icing on the vent.
- Allows the freezer door to be opened shortly after adding samples.
- Located on the main door for easy cleaning.

Sample ports

- Two sample ports on back for temperature monitoring conveniently.

DW-86L728J/578J

Salvum Energy Saving ULT Freezer

Haier's next generation ULT freezer DW-86L728J is particularly designed for energy savings. It consumes the least amount of energy for the class of large ULT freezers. This new model uses environmentally safe hydrocarbon refrigerants and high efficiency fan motors to maximize the cooling ability of the system and reduce energy consumption. While providing sample safety, the new freezer design makes energy savings possible for laboratories.

Advantages

- World leading energy-efficient, 10.5*kwh/day
- Hrdrocarbon refrigeration system
- Reliable sample protection
- Excellent insulation performance
- Malfunction alarms

*(Data is validated by National Center Of Safety Quality Supervision And Testing For Electronic & Electrical Products)

	Technical Requirement	Test Result
Power Consumption	≤115%	99.3% Rated Value 10.5kWh/24h Measured value 10.4296 kWh/24h

Safety

- Excellent temperature uniformity for an exacting sample storage requirement
- High efficiency and reliability cooling fans ensure energy savings and long term storage safety

DW-86L728J/578J

Superior

- Special V.I.P (Vacuum Insulation Panel) design with extra insulation factor cuts down heat loss to cabinet by 25%
- High efficiency hrdrocarbon refrigerant based refrigeration system increases the efficiency by 45% than previous model
- Four individual insulated inner door to keep the cold air inside
- Pressure equalization port provides superior air flow making it possible to drastically reduce the stress on the freezer
- Low noise: 50dB(A) (reference data)

Alarms (visual and audible)

- Adjustable High/Low temperature alarm
- Sensor error
- Low battery
- Door ajar
- Power failure
- Probe failure
- Hot condenser
- High ambient
- Remote alarm contact

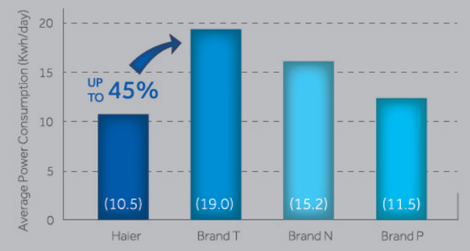
Global Most Energy Efficiency

▼ Electricity charge of a 700-liter ULT Freezer

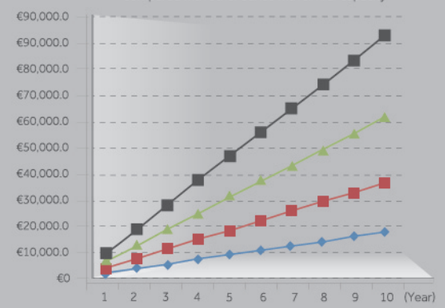
Model	Power Consumption (Kwh/h)	Ambient Temperature	Electricity Charge (1year)	Electricity Charge (5year)	Electricity Charge (10year)
DW-86L728J	10.5*	25°C	€1,724.6	€8,623.1	€17,246.3
Brand P	11.5	22~26°C	€1,888.9	€9,444.4	€18,888.8
Brand N	15.2	23°C	€2,496.6	€12,483.0	€24,966.0
Brand T	19.0	25°C	€3,120.8	€15,603.8	€31,207.5

Notes:*Typical data - individual units may vary and power consumption will depend on loadng and operating conditions. Freezer set-point -80°C, ambient temperature 25°C, unloaded, 220~240V 50Hz power supply

- The new Eco-friendly Haier ULT freezer is the **most energy-efficient** one in the world which is designed to help you save energy.



Haier DW-86L728L Electricity Charge for ten years compared with other bands with similar capacity



*The calculation of electricity reference to the German average industrial electricity

Brand T Brand P Brand N Haier DW-86L728J

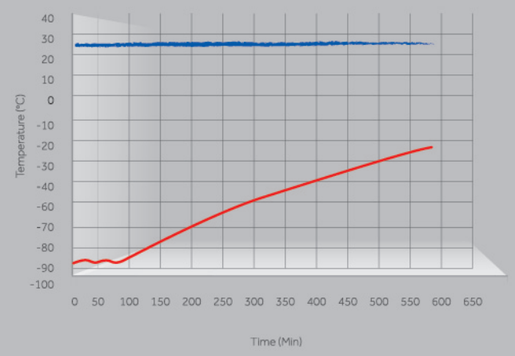
€ Less Cost

- Compared with Brand P, Haier DW-86L728J will help you to save €1,642.5 electricity charge in 10 years
- Compared with Brand N, Haier DW-86L728J will help you to save €7,719.7 electricity charge 10 years
- Compared with Brand T, Haier DW-86L728J will help you to save €13,961.2 electricity charge 10 years

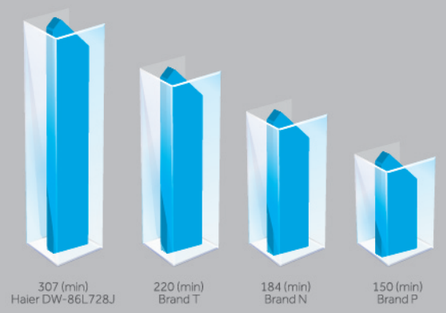
Extended Pull-up Time During A Power Failure

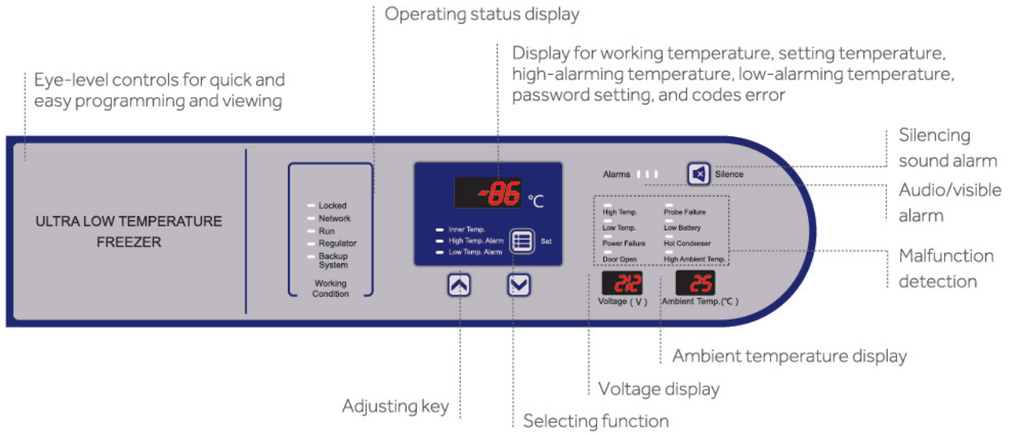
- Pull-up time measures the time taken for temperature to rise up (from -80°C to -50°C) at 25°C ambient when the power is interrupted

DW-86L728J Pull-up test at 25°C ambient



- Haier has the **best pull-up time** among the ULT freezers compared with competitors' largest volume product





Specification

	Model	DW-86L728J	DW-86L578J
Technical Data	Cabinet Type	Upright	Upright
	Climate Class	N	N
	Cooling Type	Direct cooling	Direct cooling
	Defrost Mode	Manual	Manual
	Refrigerant	HC	HC
	Noise	50dB(A)	50dB(A)
Performance	Cooling performance	-86℃	-86℃
	Temp Range	-40~-86℃	-40~-86℃
Control	Controller	Microprocessor	Microprocessor
	Display	LED	LED
Electrical Data	Power Supply	220~240V/50Hz	220~240V/50Hz
	Power	1000W	950W
	Electrical Current	10A	9A
Dimensions	Capacity	728/25.7(L/Cu.Ft)	578/20.4 (L/Cu.Ft)
	Net/Gross Weight (approx)	311/333(kg) 685.6/734.1(lbs)	300/330 (kg) 661.4/727.5 (lbs)
	Interior Dimension (W*D*H)	766*716*1310(mm) 27.0*28.2*51.6(in)	620*716*1310 (mm) 24.4*28.2*51.6 (in)
	Exterior Dimension (W*D*H)	1041*980*1980(mm) 36.7*38.6*78.0(in)	900*980*1980 (mm) 35.4*38.6*78.0 (in)
	Packing Dimension (W*D*H)	1078*1034*2130(mm) 42.4*40.7*83.9(in)	969*1082*2130 (mm) 38.1*42.6*83.9 (in)
	Container load (20'/40'/40'H)	10/22/22	12/24/24
Functions	High/Low Temp	Y	Y
	Hot Condenser	Y	Y
	Power Failure	Y	Y
	Remote Alarm Contact	Y	Y
	Sensor Error	Y	Y
	Low Battery	Y	Y
	High Ambient Temp	Y	Y
	Door Ajar	Y	Y
Accessories	Caster	Y	Y
	Foot	Y	Y
	Test Hole	Y,2	Y,2
	Shelves/Inner doors	3/4	3/4
	USB Interface	Y	Y
	Temp Recorder	Optional	Optional
	Rs232/485 Interface	Optional	Optional
	CO_2 Backup System	Optional	Optional
	LN_2 Backup System	Optional	Optional
Others	Certificate	CE	CE

Features and Benefits

Features	Advantages	Benefits
Refrigeration system	Balanced, optimized refrigeration system for faster pull-down speed and tighter temperature uniformity. Approximately 15% lower discharge temperature.	Safeguard stored samples. Increased reliability. Reduced heat output to environment, less demand on AC system.
Microprocessor control	Keyboard style data entry. Digital display. Automatic lockout feature on control to prevent unintended operation.	Ease of operation, safer, and more accurate.
Self-diagnostics	Control system can automatically determine areas that might suggest a system malfunction. Provides a quick and convenient method for maintenance.	Speedy resolution of issues related to freezer system for a better protection of samples.
Real-time display of ambient temperature and line voltage	Instant environmental information and power information for users.	Direct information for users to perform and schedule preventive maintenance (PM) activities.
Programmable delay in restart of units after power outage	Avoid power surge or line sagging when units are attempting to restart after a power outage or generator switchover.	System can bypass harmful transient period to decrease the probability of component damage due to unstable power supply.
On-demand operation of cooling fans	Automatic adjust run time of fans based on ambient demand. Extends fan motor life. Stabilize operating pressures.	Consumes less power and emits lower noise.
Extremely low sound system	Specialized design with sound reduction features and system.	Approximately 10 dB quieter than typical competitor units. Better suited for applications in laboratory.
Automatic voltage compensation system	Automatically detects changes in line voltage and adjusts to provide an optimal range of operation for system.	Additional reliability of compressor with intelligent voltage handling system while typical competitor systems only buck or boost voltages.
Protection shield for power switch	Ease of access with proper protection. Improved aesthetics.	Alarm connections easily accessible.
Overcurrent protection	Provide alarm signals when there is a severe voltage condition or electrical malfunctions.	Provide safety to operators and samples.
Enforced shelves	Double re-enforcement channels to support a heavier load.	Stores large mass and oddly shaped products.
Double silicone-sealed inner doors	Individual inner doors with foamed insulation and double-sealed gaskets.	Lessens temperature impact to other compartments. Provides additional safety for samples. Reduces energy consumption by about 30% compared to similar freezers.
Extended display with backup battery	High capacity battery can sustain display and alarm function for about 72 hours when there is a power outage.	Continuously monitor the freezer temperature even when there is a loss of AC power. Provides temperature information of stored samples.
Network	NC/NO contact points for remote alarm system, RS232 and RS485 systems.	Can be connected with PC for remote monitoring.
Can be supported with backup cooling systems	Independent backup cooling system.	Auto activation of backup system when there is a loss of main cooling system. Provides a better and timely protection of samples.
Temperature recorder	Equipped with temperature recorder as a standard feature.	Reliably tracks temperature.
Lock for external door	Padlock compatible.	Product safety.

Haier Biomedical
Intelligent Protection of Life Science

PRODUCT BULLETIN #2

Date: 26 June 2018

Haier Biomedical Awarded Energy Star Rating for Energy Efficient ULT Freezers

ENERGY STAR® is the US government-backed symbol for energy efficiency, providing simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions[1], save money and protect the environment.

Three models within Haier Biomedical's energy efficient ULT portfolio, DW-86L578J, DW-86L728J and DW-86828J, have been independently tested and certified and the data is now available through the programme's online tool, ENERGY STAR Portfolio Manager®. The portal can be used to view all the different models of Energy Star rated freezers and website users can compare models.

Haier Biomedical
Intelligent Protection of Life Science

Certificate of Conformance

Three models within the J series range of ULT freezers were supplied to UL, a global leader in energy efficiency product testing and certification (https://www.ul.com/), to undergo independent testing against the US ENERGY STAR®: programme requirements for Laboratory Grade Refrigerators and Freezers, Version 1.1.

Certificate of
Conformance

Energy Efficiency Certification

UL conducted an independent evaluation on behalf of:

HAIER MEDICAL & LABORATORY PRODUCTS CO LTD

HAIER INDUSTRIAL PARK, ECONOMIC TECHNOLOGY DEVELOPMENT ZONE

QINGDAO, SHANDONG, 266510 CHINA

for the following products:

Ultra-Low Temperature Freezer

Brand: Haier

Model: DW-86L578J(220V)
DW-86L578J
DW-86L728J(220V)
DW-86L828J(220V)

This product meets all of the necessary qualifications pursuant to:

ENERGY STAR®: Program Requirements For Laboratory Grade Refrigerators and Freezers, Version 1.1

Energy Verified

2018-06-15

Certification Date

N/A

Certification Revision Date

Issued by

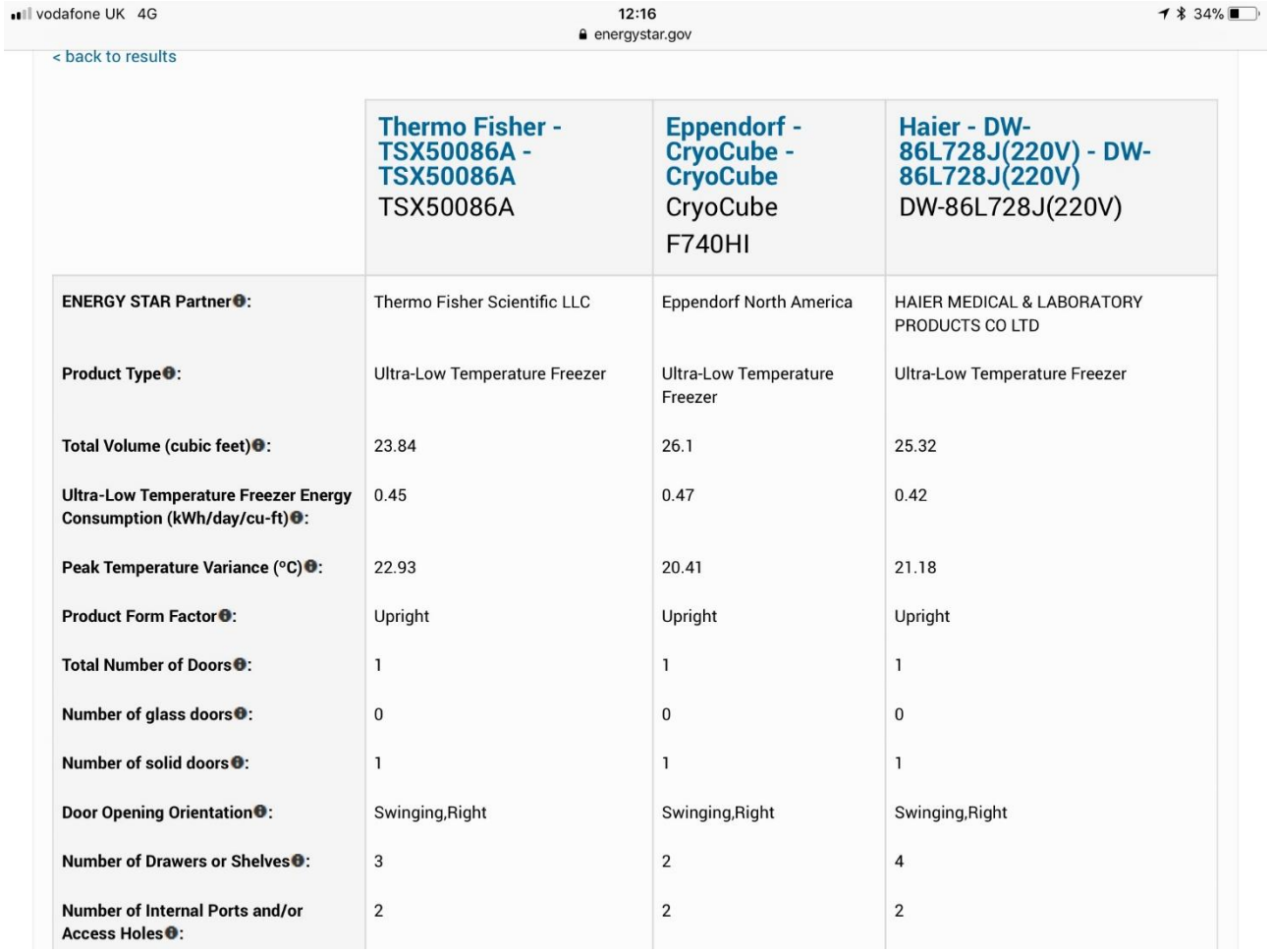
4788340143 (PN6782)

UL Product Number

Haier Biomedical
Intelligent Protection of Life Science

Energy Data Comparisons:

The Energy Manager Portfolio shows a comparison of the data between Haier, Panasonic, Eppendorf and others. The example below is a screenshot (taken on 26/06/18) comparing Thermo, Eppendorf and Haier models.



	Thermo Fisher - TSX50086A - TSX50086A TSX50086A	Eppendorf - CryoCube - CryoCube CryoCube F740HI	Haier - DW-86L728J(220V) - DW-86L728J(220V) DW-86L728J(220V)
ENERGY STAR Partner:	Thermo Fisher Scientific LLC	Eppendorf North America	HAIER MEDICAL & LABORATORY PRODUCTS CO LTD
Product Type:	Ultra-Low Temperature Freezer	Ultra-Low Temperature Freezer	Ultra-Low Temperature Freezer
Total Volume (cubic feet):	23.84	26.1	25.32
Ultra-Low Temperature Freezer Energy Consumption (kWh/day/cu-ft):	0.45	0.47	0.42
Peak Temperature Variance (°C):	22.93	20.41	21.18
Product Form Factor:	Upright	Upright	Upright
Total Number of Doors:	1	1	1
Number of glass doors:	0	0	0
Number of solid doors:	1	1	1
Door Opening Orientation:	Swinging,Right	Swinging,Right	Swinging,Right
Number of Drawers or Shelves:	3	2	4
Number of Internal Ports and/or Access Holes:	2	2	2

To view all ULT freezers rated within the Energy Star Programme paste the following link into your browser.
https://www.energystar.gov/productfinder/product/certified-lab-grade-refrigeration/results?scrollTo=432&search_text=&lab_grade_refrigerators_and_freezers_product_type_filter=Ultra-Low+Temperature+Freezer&brand_name_isopen=&markets_filter=United+States&zip_code_filter=&product_types=Select+a+Product+Category&sort_by=calculated_daily_energy_consumption_kwh_day_cu_ft&sort_direction=asc&currentZipCode=&page_number=0&lastpage=0

Haier Biomedical
Intelligent Protection of Life Science

Energy Data

Independently Tested and ENERGY STAR®Certified

Model Number		
DW-86L578J	**DW-86L728J**	**DW-86L828J**
Total Volume (cubic feet/litres)		
20.55/578	25.32/728	28.75/828
Energy consumption(kwh/day/cu-ft)		
0.37	0.42	0.38

ENERGY STAR® is the US government-backed symbol for energy efficiency, providing simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions*, save money and protect the environment.

*https://www.energystar.gov/

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Use the above details to contact us if this literature doesn't answer all your questions.

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.