-86°C Ultra-low Temperature Freezer

Targeted Refrigeration • Fast Refrigeration
Energy-saving & Environmentally Friendly
Awarded with the Second Prize under State
Technological Invention Award

DW - HL398S

Targeted Refrigeration
The new generation of ultra-low temperature refrigeration system can ensure fast refrigeration and was awarded with the Second Prize under State Technological Invention Award.

Five Magic Weapons for Energy Saving
Imported high-efficiency compressor + separated evaporator + composite heat exchanger + optimized fractional condensation & separation system + high-efficiency thermal insulation system can save energy and reduce power consumption of the freezer by 40%.

Low Noise Design
Low-noise direct cooling circuit + suspension frame & sound absorbing compartment & low-noise fan can reduce noise generated by the entire freezer to the largest extent.

Three-dimensional Thermal Insulation
The six sides of the cabinet are made from high-efficiency VIP vacuum thermal insulation plate, and the thermal insulation design of the inner door made from foaming material and the outer door system was awarded with multiple patents, which can improve the thermal insulation performance of the freezer.

Energy-saving & Environmentally Friendly
· Awarded with China Certificate for Energy Conservation Preoduct, certificate numbers: CQC18702198378（DW-HL398）；
· Awarded with China Certificate for Ecolabelling Products, certificate numbers: CQC18702198378（DW-HL398）.

7' LED Screen Control System
· The 7' LED touch screen has clear display, user-friendly interface and more accurate temperature control, which can indicate operating status clearly;
· The high-precision microcomputer control system and platinum resistor sensors enable users to set temperature inside the cabinet within a range from -10 to -86°C.

Security System
· The perfect audible & visual alarm system : high and low temperature ,senor error ,power failure ,low battery ,door ajar ,main board communication error high ambient temperature ,samples out of date notification etc;
· The compressor start delay and stopping interval protection can ensure reliable operation;
· Both the touch screen controller and keyboard controller have password protection which can prevent any adjustment of operatiion without permission;

Refrigeration System
· The imported high-efficiency compressor and EBM fan are energy-saving and highly efficient;
· The large finned condenser with a space between fins≤2mm, providing affective heat dissipation.

Supplies for Cryopreservation
Inventory racks/boxes for cryopreservation are optional.

Alarm Upgrading
USB data storage function: can store relevant operating data, which can be downloaded and checked, ensuring improved security and reliability of sample storage.

Human-oriented
· The two-layer heat insulating foamed door with inner and outer door seal and the insulation design of the outer door system with multiple patents can prevent loss of refrigerating capacity in an effective way;
· The six sides of the cabinet are made from high-performance VIP vacuum insulation material, improving thermal insulation performance to a large extent.
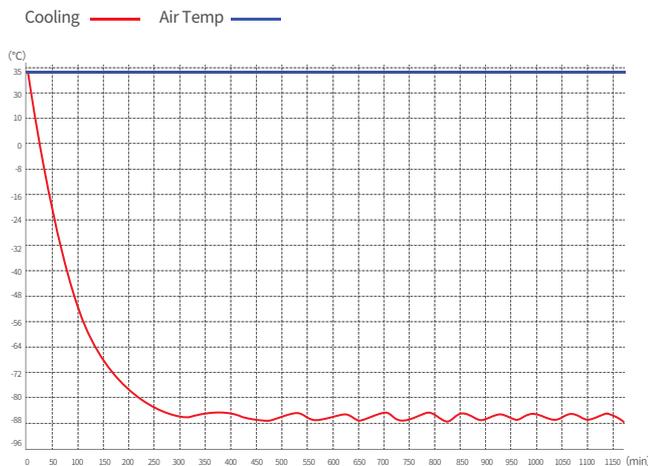
Human-oriented
· The new designed assisting handle and vaccum release port let the freezer be operated single-handed to open and close the outer door.
· The newly added file box makes recording easier and more convenient.
· The liner made from stainless steel 304 for medical use is low- temperature tolerant and corrosion-resistant, which has a long service life and is easy to clean;
· The universal casters and leveling feet design are more convenient for movement and fixation.
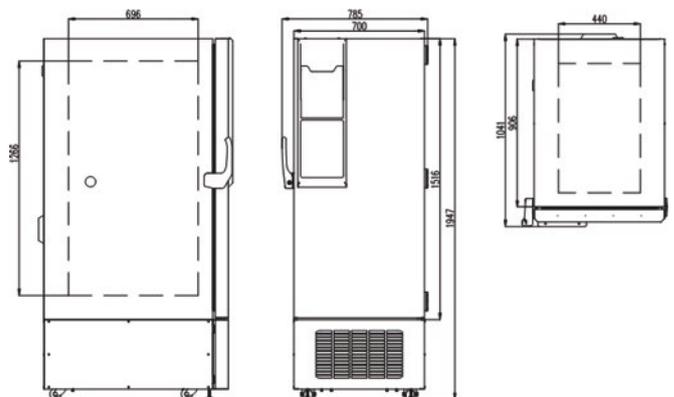
✓ Scope of Application

Suitable for use in blood banks, hospitals, health and disease prevention systems, research institutions, colleges & universities, the electronic industry, biological engineering, laboratories in colleges & universities, military enterprises, deep-sea fishing companies, etc.

🔗 Performance Data / Cooling Curve

Cooling ——   Air Temp ——

📈 Eternal Dimension

Specification Chart

-86℃ Ultra-low Temperature Freezer

Model	DW-HL398S
Cabinet Type	Upright
Capacity(L)	398
Internal Size(W*D*H)mm	440*696*1266
External Size(W*D*H)mm	785*1041*1947
Package Size(W*D*H)mm	880*1150*2085
NW/GW(Kgs)	237/272

Performance	
Temperature Range	-40～-86℃
Ambient Temperature	16-32℃
Cooling Performance	-86℃
Climate Class	N
Controller	Microprocessor
Display	Touch screen

Refrigeration	
Compressor	1pc
Cooling method	Direct Cooling
Defrost Mode	Manual
Refrigerant	Mixture gas
Insulation Thickness(mm)mm	130

Construction	
External Material	High quality steel plates with spraying
Inner Material	Galvanized steel sheet
Shelves	3(stainless steel，Number of shelves optional)
Door Lock with key	Yes
External lock	Yes
Access test port	2pcs. Ø 25 mm
Casters	4+(2 leveling feet)
Data Logging/Time/Quantity	USB/Record every 1 minute / 365 days
Backup Battery	Yes
RS485 Remote Alarm Contact	Yes
WIFI	Yes

Alarm	
Temperature	High/Low temperature,High ambient temperature
Electrical	Power failure,Low battery
System	Sennor error,Main board communication error ,System failure, Condenser cooling failure,Door ajar,Sapmles out of date

Electrical	
Power Supply(V/HZ)	230±10%/50
Rated Power(W)	999
Input Power(W)	980
Current Consumption(KWh/24h)	9.47
Rated Current(A)	5.46

Options	
System	Chart recorder, CO2 backup system, Printer,RS485,RS232,Remote alarm contact

*The model, parameters and performance specified in this brochure may be changed without prior notice because of product upgrading.

*There may be differences between the product images shown in this brochure and the actual products. When you are buying any product, please check the actual product.