

-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-HW50 (Smart Freezer)



Precise Temperature Control and Safe Storage

Microprocessor-based temperature controller, -40°C~-86°C can be set freely with display accuracy at 0.1°C.



Visual & Audio Alarm system

High/low temperature alarm, power failure alarm, low battery alarm, door ajar alarm, high air temperature alarm, communication failure alarm.



Refrigeration System

Applied Secop (Danfoss) compressor, 1 unit to reduce noise and improve the cooling temperature come to -86°C stably.

Fan electromotor with internationally famous of Germany EBM,energy saving, high efficiency, and quiet.



Energy Saving

Equipped with DC/DC power management module,optimized energy saving;
High-precision voltage control, stabilizing the voltage and freezer performance
Reduce the redundancy heat, completely eradicate overheating risk



High-precision Temperature Control

- Digital temperature display, display inner temperature, power and voltage, ambient temperature and more at the same time.
- 2 inches high-brightness digital temperature display, microprocessor-based temperature controller, -40°C~-86°C can be set freely.



Refrigeration System

Applied with Secop (Danfoss) compressor, single compressor system with target mixture refrigerant to reduce noise and improve the cooling temperature come to -86°C stably and effectively.



Insulation System

- The thickness of outer door insulation layer is equal to or greater than 90mm,
- The thickness of insulation layer in refrigerator body is equal to or greater than 110mm.
- Perfectly lock air conditioning, effectively prevent the loss of cooling capacity.



Alarm system

- The perfect audible & visual alarm system: High/low temperature, sensor error, power failure, low battery, door ajar, high ambient temperature, communication failure etc.
- Startup delay and stop interval protection function to ensure reliable operation;
- Keyboard lock and password protection function to prevent arbitrary adjustment of operating parameters;
- Safety door lock design, ensure safety sample storage.



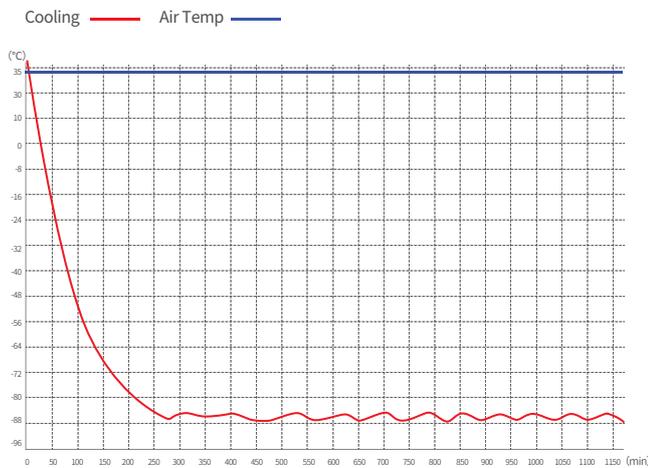
Human-oriented

- The inner liner is made of stainless steel, resistant to corrosion and easy to clean.
- 4units Casters for easy handling.
- Front opening lockable door with full height handle, with vacuum release port for easy open during cooling operation.
- Two-times foaming technology. 130mm foaming insulation with VIP board for better temperature performance.

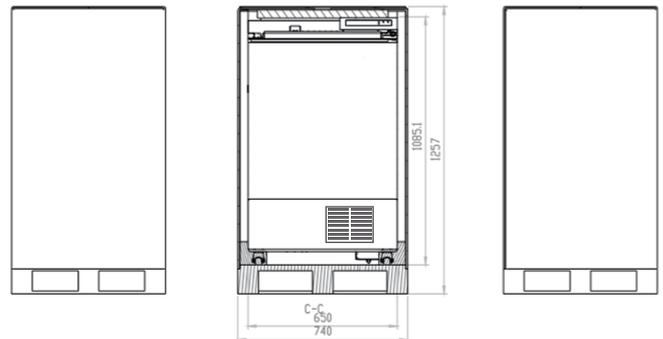
✓ Scope of Application

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



📏 Eternal Dimension



Specification Chart

-86°C Ultra-low Temperature Freezer	
Model	DW-HW50
Cabinet Type	Chest
Capacity(L)	50
Internal Size(W*D*H)mm	430*305*425
External Size(W*D*H)mm	650*606*1080
Package Size(W*D*H)mm	740*670*1257
NW/GW(Kgs)	74/101
Performance	
Temperature Range	-40~-86°C
Ambient Temperature	16-32°C
Cooling Performance	-86°C
Climate Class	N
Controller	Microprocessor
Display	Digital display
Refrigeration	
Compressor	1pc
Cooling Method	Direct cooling
Defrost Mode	Manual
Refrigerant	Mixture gas
Insulation Thickness(mm)	110
Construction	
External Material	Steel plates with spraying
Inner Material	304Stainless steel
Door Lock with Key	Yes
External Lock	Optional
Access Port	1pc. Ø 40 mm
Casters	4
Data Logging/Interval/Recording Time	USB/Record every 10 minute / 2 years
Backup Battery	Yes
Alarm	
Temperature	High/Low temperature,High ambient temperature
Electrical	Power failure,Low battery
System	Sensor error, Condenser cooling failure Recorder error
Electrical	
Power Supply(V/HZ)	230±10%/50
Rated Power(W)	720
Input Power(W)	970
Power Consumption(KWh/24h)	9
Rated Current(A)	4.49
Options Accessory	
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.