

# -86°C Ultra-low Temperature Freezer

*Targeted Refrigeration • Fast Refrigeration*

*Energy-saving & Environmentally Friendly*

*Awarded with the Second Prize under State  
Technological Invention Award*



## UL86-218U



### 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

Multiple alarm functions, such as high temperature/low temperature alarm, door opening alarm, power outage alarm, abnormal voltage alarm, sensor failure alarm, low battery alarm, alarm of poor heat dissipation of condenser and system failure alarm, can improve safety of storage.



### Human-oriented

The rotating handle facilitates door opening;  
The two-door design including the inner door and the outer door can lock cool air inside the cabinet and ensure thermal insulation for along period.





### High-precision Temperature Control

- Digital temperature display, simultaneously display the chamber temperature, power supply voltage, ambient temperature and other parameters etc. The running status is clearly displayed;
- The high-precision microcomputer temperature control system and platinum resistor temperature sensors enable users to set temperature inside the cabinet within a range from -40°C to -86°C.



### 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  $\leq 2\text{mm}$ , providing a effective heat dissipation.



### Supplies for Cryopreservation

Inventory racks/boxes for cryopreservation are optional.



### Thermal Insulation System

- The two-layer insulated foamed door with double seal and the outdoor insulation design with multiple patents can prevent loss of cooling capacity effectively;
- The six sides of the cabinet are made from high-performance vacuum insulation material, greatly improving thermal insulation performance.



### Security System

- The perfect audible & visual alarm system: high/low temperature, sensor failure, door open, power failure etc.;
- The turn-on delay and stopping interval protection can ensure reliable operation;
- The keyboard lock and password protection can prevent any adjustment of operation without permission;



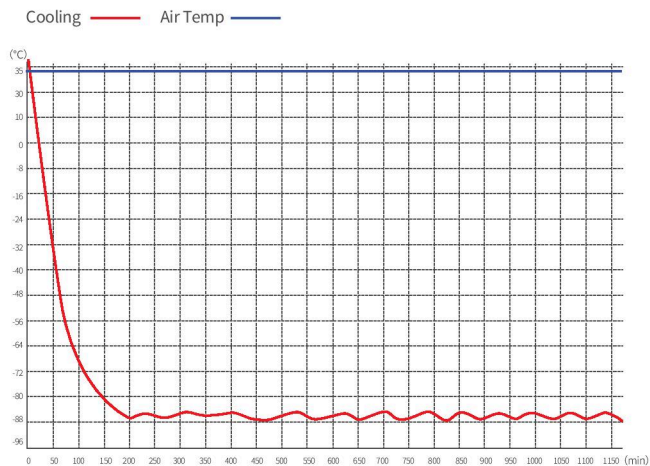
### Human-oriented

- The door with new-type assisting door handle to be opened easily;
- Door handle with lock for safety operation..
- SUS304 interior, low temperature resistance anti-corrosion for long service life and easy cleaning;
- Universal wheels easy for movement and fixation.

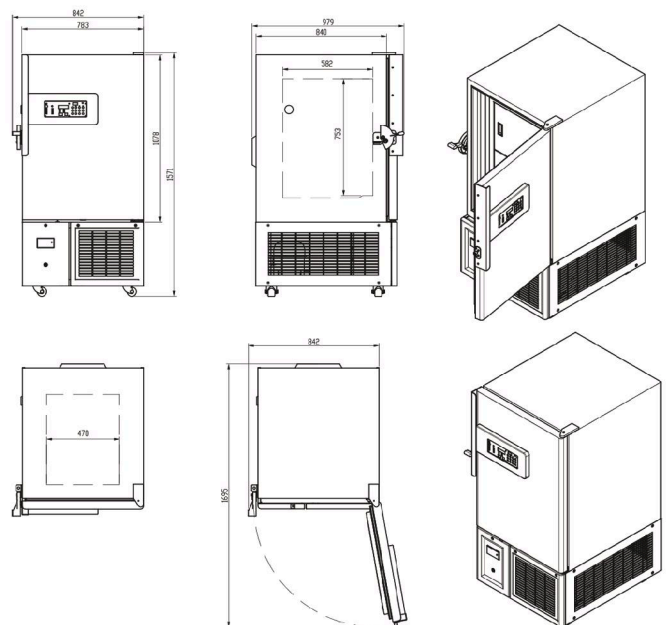
## Scope of Application

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



## Eternal Dimension



## Specification Chart

-86°C Ultra-low Temperature Freezer	
Model	UL86-218U
Cabinet Type	Upright
Capacity(L)	218
Internal Size(W*D*H)mm	470*580*767
External Size(W*D*H)mm	840*985*1568
Package Size(W*D*H)mm	1098*988*1761
NW/GW(Kgs)	218/235
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)	155
Construction	
External Material	Steel plates with spraying
Inner Material	Galvanized steel sheet
Shelves	1 (Stainless steel)
Door Lock with Key	Yes
External Lock	Yes
Access Port	1
Casters	4
Data Logging/Interval/Recording Time	Printer/Record every 20 minute / 7 days
Backup Battery	Yes
Alarm	
Temperature	High/Low temperature,High ambient temperature
Electrical	Power failure , Low battery
System	Sensor error,System failure,Condenser cooling failure,Door ajar
Electrical	
Power Supply(V/HZ)	230±10%/50
Rated Power(W)	1200
Input Power(W)	1300
Power Consumption(KWh/24h)	8.63
Rated Current(A)	5.96
Options Accessory	
System	Chart recorder, CO2 backup system

\*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.