



-86°C Ultralow Temperature Freezer (INV-778F)



Targeted Refrigeration

The new generation of ultralow 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 highefficiency compressor + separated evaporator + composite heat exchanger + optimized fractional condensation & separation system + highefficiency thermal insulation system can save energy and reduce power consumption of the freezer by 40%.

Low Noise Design

Lownoise direct cooling circuit + suspension frame & sound absorbing compartment & lownoise fan can reduce noise generated by the entire freezer to the largest extent (Noise level less than ≤53 db)

Threedimensional Thermal Insulation

The six sides of the cabinet are made from highefficiency 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. Two stainless steel 304 inner doors and one main lockable outer door.

Optional Accessory(WiFi/Bluetooth printer/Mechanical lock/Swipe card/Fingerprint)

Connect WiFi to upload data to the cloud space, monitor the device, check the status of the refrigerator faster, and ensure the safety of the samples; Optional Bluetooth printer, realtime export temperature data, temperature graph, setting operation and other data, to understand the freezer operating status; Optional functions such as card unlocking, fingerprint unlocking, and facial recognition unlocking are available to facilitate quick access to samples.





7" HD Intelligent Screen Control System

- 7" HD intelligent display touch screen, user-friendly interface and more accurate
- temperature control, with Bluetooth, WiFi and
- other functions, more convenient operation and more comprehensive functions;
- Can add multiple user accounts to log in and record usage/operation records;
- The high precision microcomputer control system and platinum resistor sensors enable users to set temperature inside the cabinet within a range from 40 to 86°C;
- Optional functions such as card unlocking, fingerprint unlocking, and facial recognition
- unlocking is available to facilitate quick access to samples.

Data Storage

The temperature data recorded by the system can be exported, the operating data of the system settings, the alarm data, and the temperature data can be recorded in 2 minutes, and the data can be recorded for up to 10 years, which can effectively record the running status of the product for you for a long time.

Human oriented

- The new designed assisting handle and vacuum release port let the freezer be operated singlehanded
- to open and close the outer door;
- The newly added file box makes recording easier and more convenient;
- The liner made from Stainless steel 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.
- Function of hand-written art-board,

Security System

The perfect audible & visual alarm system: high and low temperature, sensor failure, power failure, low battery, door ajar, main board communication error, high ambient temperature etc;

- Equipped with alarm self-recovery function, it reminds users of unhandled alarm problems in freezer many times;
- The compressor starts delay and stopping interval protection can ensure reliable operation;
- The touch screen controller has password protection which can prevent any adjustment of operation without permission.

Refrigeration System

- The imported high efficiency compressor and EBM fan are energy saving and highly efficient; (eco mode)
- The large finned condenser with a space between fins ≤ 2mm, providing effective heat dissipation;
- BP-858UF with twin compressor, if one is damaged, the other one could keep the temperature at 70°C stably;
- Standard with VIP board for high efficiency cooling performance. Door with hot gas pipe surrounding for defrost.
- System can achieve optimum temp. (-70°C) in less than 60 min during storage of the samples at full capacity

Thermal Insulation System

2layer 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 6 sides of the cabinet are made from high-performance VIP (vacuum insulation material), improving thermal insulation performance to a large extent.

Supplies for Cryopreservation

Freezer racks/boxes for cryopreservation are optional.

Remote alarm contact, RS485

Equipped with RS485 and remote alarm interface to realize remote observation of freezer operation status, realtime reception of product operation information, and ensure the storage safety of samples.



**INNOVA BIO****LIFE TECHNOLOGY** An ISO 9001:2015 Certified Company

Specifications

Model	INV-778F
Cabinet Type	Upright
Capacity(L)	778 (up to 55000 samples)
Internal Size(W*D*H)mm	1350 x 840 x 1680 mm
External Size(W*D*H)mm	1500 x 1200 x 2260 mm
Package Size(W*D*H)mm	1700*1350*2380 mm
NW(Kgs)	365
Performance	
Temperature Range	-40~ -86°C with 0.1°C accuracy
Ambient Temperature	16-32°C
Cooling Performance	-86°C
Climate class	N
Controller	Microprocessor
Display	HD Intelligent Touch Screen
Refrigeration	
Compressor	2pcs
Cooling Method	Direct Cooling
Defrost Mode	Manual
Refrigerant	Mixture gas
Insulation Thickness(mm)	130
Construction	
External Material	Cold rolled steel sheet
Inner Material	Stainless steel
Shelves/Inner doors	3 (stainless steel)
Door Lock with Key	Yes
Padlock	Yes
Access Port	3pcs. ϕ 25 mm
Casters	4+(2 leveling feet)
Data	USB/Record every 5 minutes / 10 years
Logging/Interval/Quantity	
Backup Battery	Yes, Integrated fitted back-up battery system for 72 hours
Alarm	
Temperature	High/Low temperature, High ambient temperature
Electrical	Power failure, Low battery
System	Sensor failure, Main board communication error, Condenser overheating alarm, Door ajar
Electrical	
Power Supply(V/HZ)	220240~/50
Rated Current(A)	11.46
Accessories	
Standard	RS485, Remote alarm contact
Options	Chart recorder, CO2 backup system

