



MO 398S

MO 528S

## 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.



### 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 ,sensor error ,power failure ,low battery ,door ajar ,main board communication error high ambient temperature ,samples out of date notification etc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 key board controller have 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;
- 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



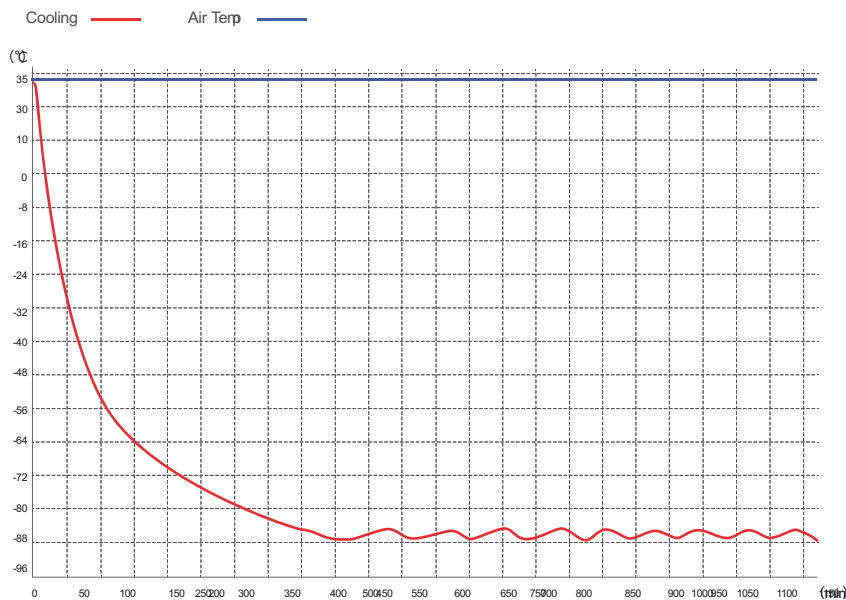
### Human-oriented

- The new designed assisting handle and vacuum 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



## Specification Chart

-86℃ Ultra-low Temperature Freezer		
Model	MO 398S	MO 528S
Cabinet Type	Upright	Upright
Capacity(L)	398	528
Internal Size(W*D*H)mm	440*696*1266	585*696*1266
External Size(W*D*H)mm	785*1041*1947	930*1041*1947
Package Size(W*D*H)mm	880*1150*2085	1025*1150*2085
NW/GW(Kgs)	237/272	286/319
Performance		
Temperature Range	-10~-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 (Optional Stainless steel)	
Shelves	3	
Door Lock with key	Yes	
External lock	Yes	
Access test port	2pcs. Ø 24.5 mm	
Casters	4+(2 leveling feet)	
Data Logging/Time/Quantity	USB/Record every 1 minute / 365 days	
Door with heater	Hot gas heating	
Alarm		
Temperature	High/Low temperature,High ambient temperature	
Electrical	Power failure Sensor error,Main board communication error ,System failure,	
System	Condenser cooling failure,Door ajar,Sapmles out of date	
Electrical		
Power Supply(V/Hz)	220/50, 220/60, 110/60	
Rated Power(W)	950	1265
Input Power(W)	980	1445
Current Consumption(KWh/24h)	8.2	12.82
Rated Current(A)	5	6.57
Options		
System	Chart recorder, CO2 backup system, Printer	