

# Alphavita

BIO SCIENTIFIC

-50~-86°C ULT Freezer

MDF-U581VHE/U781VHE/U881VHE

Inverter Technology and HC Refrigerants



VIP Insulation

Create a safety and stable -50°C~-86°C storage environment



MDF-U881VHE

External dimension: W1180×D875×H1990(mm)  
Effective capacity: 861L

MDF-U781VHE

External dimension: W1030×D875×H1990(mm)  
Effective capacity: 736L

MDF-U581VHE

External dimension: W770×D875×H1990(mm)  
Effective capacity: 521L

MDF-U881VHE





# ULT Freezer MDF-U581VHE /U781VHE/U881VHE

## Product feature



### Inverter technology

- By sensing the set temperature and the real-time change of the temperature in the internal, the compressor running power is adjusted to achieve continuous and stable control of the temperature in the internal.
- In stable movement, reduce the running power of the compressor, the temperature in the internal is more uniform, improve the energy-saving effect.
- When the machine starts or opens the door to put the sample, improve the running power of the compressor, cool down faster, and the sample is more safe.



### Intelligent sample management

- 13.3 inch Android screen: built-in single sample management or networking Alphavita BMP sample management platform, to achieve intelligent sample management;
- Real-time display of equipment operating status (Internal temperature, ambient temperature and other data curves);
- Query operation log, historical temperature, operation record and other information at any time, equipped with data storage and export function (optional printer function);
- Equipped with electronic lock, WiFi and 4G Internet (optional NFC card unlock, fingerprint unlock and face recognition unlock);
- Supports external MODBUS communication protocol.



### Vacuum insulation technology

- VIP Vacuum insulation technology optimized U-Vacua vacuum insulation technology material+polyurethane foam insulation layer design, the overall thermal insulation effect reaches a new height, and the thermal insulation performance is increased by 20%.



### Security configuration

- The use of hydrocarbon refrigerant cascade refrigeration technology, cooling quickly after opening the door, to ensure the safety of samples.
- The unique expansion tank design can effectively stabilize the system pressure, maintain the normal operation of the compressor and extend the service life when the system pressure changes rapidly due to the change of ambient temperature or other reasons.
- With screen password protection mechanism, you can set user management rights allocation;



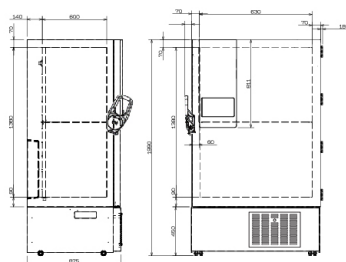
### Energy conservation and environment protection

- The use of pure natural refrigerant, fluorine-free environmental protection, greatly reduced charge, lower than the national 150g standard, safe and reliable.
- The power consumption of the whole machine is reduced by 20%, and the power consumption required for a single cryo tube is reduced to a new level.

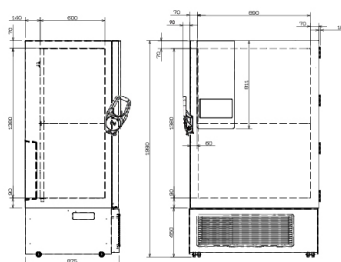
## Technical Parameter

Model	MDF-U580VHE	MDF-U780VHE	MDF-U880VHE
Temperature range	-50~-86℃ (Adjustment accuracy 0.1℃, environment temperature 10~30℃)		
External dimensions	W770×D875×H1990(mm)	W1030×D875×H1990(mm)	W1180×D875×H1990(mm)
Internal dimensions	W630×D600×H1380(mm)	W890×D600×H1380(mm)	W1040×D600×H1380(mm)
Effective capacity	521L	736L	861L
Net weight	280kg	312kg	350kg
External material	Painted steel		
Access port	17mm diameter, 2 positions (1 left, 1 back)		
Thermal insulation material	Polyurethane foam + Vacuum insulation Board (VIP board)		
Compressor	Inverter compressor		
Evaporator	Coiled tube		
Refrigerant	HC refrigerant		
Temperature controller	Microprocessor control system		
Temperature sensor	Pt 1000		
Alarm	High/low temperature alarm, power failure, remote alarm, sensor abnormal, self-diagnosis, condensation sensor high temperature alarm		
Accessory	Keys (1 set), drawer of 3 layers, defrost shovel (1)		
Power supply	100~120V / 220~240V / (50~60Hz)		
Optional parts	Cryo rack, CO <sub>2</sub> backup system		
Storage capacity (2ml)	35200 tube	52800 tube	61600 tube

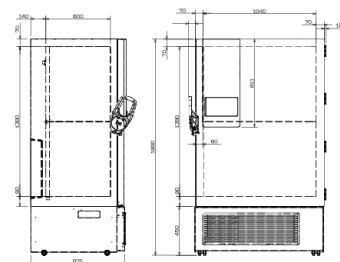
## External dimensions (mm)



MDF-U581VHE



MDF-U781VHE



MDF-U881VHE

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Product technical parameters and styles are for reference only, not as a basis for ordering.

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