



## BIOMEDICAL REFRIGERATION SOLUTIONS



2~8°C/ 4°C/ -25°C/ -40°C/ -86°C/ -150°C

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# EXPLANATION OF ICONS

## Low CO2 emissions

Optimized refrigeration system for lower power consumption and reduced CO2 emissions

## Natural refrigerant

Natural gas is used to reduce GHG (greenhouse gas) emissions and protect climate.

## CFC /HCFC free

Environment friendly refrigerant, harmless to ozonosphere.

## Force air cooling

for excellent temperature uniformity & fast cool-down after door opennings

## Direct cooling

Optimized direct cooling system with high efficiency

## USB port

Temperature data storage & USB port for download

## Safety door lock

Preventing unauthorized access



## Password protection

Protected engineer mode, avoids unauthorized change of key parameters



## Door ajar alarm

Alarm activated if door open up for a certain time.



## High/low temperature alarm

Sound / flash alarm to remind user when chamber temperature is out of desired range



## Power failure alarm

Sound alarm after power failure, avoid potential loss caused by temperature rise



## Reversible doors

Left or right side open reversible door for flexible installations



## Stackable design

The refrigerator or freezer is stackable (using ANTECH stacking kits) to save space



## CE certification

CE certified model, safety guaranteed

# CryoMonitor 2000TF

## Temperature Monitoring System

The CryoMonitor 2000TF provides both on-site and cloud based remote temperature monitoring for pharmacy refrigerator, bio-medical freezer, ultra-low temperature freezer, incubator, liquid nitrogen container, etc.

CryoMonitor 2000TF records temperature data for traceability. It alarms users with sound & light when temperature is out of normal range, to avoid irreparable loss of precious samples or products.

Furthermore, taking advantages of optional cloud service, data is transferred to and stored on cloud server, which can be visited from a PC, pad or smart phone anywhere & anytime.



## Features

- Both on-site & cloud based remote monitoring
- -200 ~ +200°C wide temperature range
- Quick installation kit for easy installation
- Data storage & USB port for download
- Remote alarm contact
- RS485 port
- Wi-Fi connection & BioExpress cloud platform
- 1-year cloud service free of charge
- Worldwide data access & alarm
- Backup battery for monitoring during power failure or movement

## Connection (Optional)

- Wi-Fi connection to transfer data to cloud server.
- Global access on a PC, tablet or smartphone.



Wi-Fi Enabled



Cloud Server



Various Devices



Global Access



Email Alarm



SMS Alarm

## Interface

1. Wi-Fi connection status
2. USB connection status
3. Date & time
4. Sound alarm
5. Power connection status
6. Unit of temperature
7. Temperature display

## Specification

MODEL	CryoMonitor 2000TF
Temperature monitoring	-200~+70°C
Temperature sensor	PT-100
On-site alarm	Sound & light
Dimension (Width x Height x Thickness)	138 x 91 x 42mm
Net weight	330g
Power supply	100~240V, 50/60Hz, AC
Backup battery	Built-in lithium battery, replaceable
Data storage	•
USB port for data download	•
Remote alarm contact	•
RS485 port	•
Internet connection	Wi-Fi
Cloud service	1-year could service free of charge
Cloud alarm	Email, SMS



# PharmaStore<sup>+</sup> Series

## 2~8°C Pharmacy Refrigerator

The professional PharmaStore<sup>+</sup> series medical refrigerator, specifically developed to be used by laboratories, hospitals, and pharmacies, ensure optimal storage conditions for temperature sensitive medical products and biological material, meeting the highest requirement for accurate controlled cold storage. Available with a wide range of capacities and applications, from 110 liters for minor needs to 1400 liters for pharmaceutical warehouses.

### TC-100A Controller



Microprocessor electronic controller for PharmaStore<sup>+</sup> series medical refrigerators, fitted with dual LED screen to display inner chamber temperature and key working conditions. Advanced dual sensor control system for accurate temperature control.



LOW CO2  
EMISSIONS



FORCE AIR  
COOLING



USB PORT



ELECTRIC HEATING  
GLASS DOOR



POWER FAILURE  
ALARM



DOOR AJAR A  
LARM

#### PERFORMANCE

- Forced air cooling for excellent temperature uniformity
- Variable (cycle) defrost
- Intelligent microprocessor controller with LED digital display resolution 0.1
- Magnetically sealed door with rapid cool-down mode after door opening
- Dual sensor design: Independent control sensor and display sensor

#### ERGONOMIC DESIGN

- Electric heating glass door prevents condensation water
- Independent switch for electric glass door heating
- Door-activated and exterior switch-activated interior LED lighting
- Self-close door for convenient operation
- Ultra-quiet design reduces noise level

#### ENVIRONMENT FRIENDLY

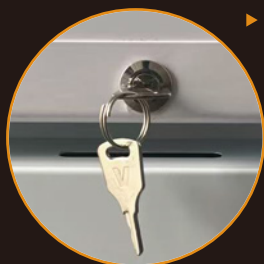
- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates
- CFC-Free polyurethane foaming insulation
- High efficiency cooling system for lower energy consumption and carbon emission

#### ALARMS

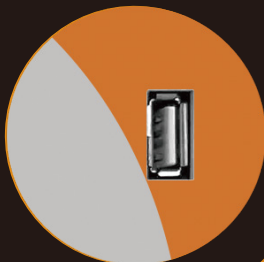
- High temperature
- Low temperature
- Door ajar
- Power failure
- Sensor error
- Low battery

#### SAFETY

- Build-in data storage and USB port for download
- Password protection avoids key parameters unauthorized change
- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- Remote alarm contacts



- ▶ **Safety door lock**  
Preventing unauthorized access



- ▶ **USB port**  
Temperature data storage and download



- ▶ **Forced air cooling**  
Excellent temperature uniformity and fast recovery after door open



- ▶ **Adjustable shelves**  
Convenient storage of different size products



- ▶ **Glass door with heater**  
2-layer to prevent condensation water glass door with electric heating



- ▶ **Access port**  
For easy access of additional temperature probe



- ▶ **Remote alarm contact**  
Sending signal to a remote alarm system

2~8°C

PharmaStore<sup>+</sup> Series

	Model	MPR-110	MPR-350	MPR-550
Basic	Type	Under-counter, 1-door	Upright, 1-door	Upright, 1-door
	Temperature range (°C)	2~8	2~8	2~8
	Climate type	N/ST	N/ST	N/ST
	Capacity (L)	110	350	550
	Cooling type	Forced-air	Forced-air	Forced-air
	Defrost type	Auto	Auto	Auto
	Refrigerant	R600a	R600a	R290
	Noise	≤ 48	≤ 48	≤ 58
Control	Controller	Microprocessor	Microprocessor	Microprocessor
	Display	LED digital	LED digital	LED digital
	Display accuracy	0.1	0.1	0.1
	Light switch	●	●	●
	Battery switch	●	●	●
	Door heating switch	●	●	●
	USB port & data memory	●	●	●
	Cloud Monitoring (Wi-Fi)	○	○	○
Power	Power supply (V/Hz)	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60
	Rated power when door heating on (W)	220	350	420
Alarm	Visible/audible	●	●	●
	High/low temp	●	●	●
	Remote alarm contact	●	●	●
	Sensor failure	●	●	●
	Door open	●	●	●
	Low battery	●	●	●
	Power failure	●	●	●
Accessories	Door lock with key	●	●	●
	LED light	●	●	●
	Door	2-layer glass door x 1	2-layer glass door x 1	2-layer glass door x 1
	Door heating	●	●	●
	Test access port	Φ 25mm x 1	Φ 25mm x 1	Φ 25mm x 1
	Shelves adjustable QTY	2	6	5
	Basket at bottom	1	1	/
	Adjustable foot	●	/	/
	Caster	/	●	●
Material	Exterior	Pre-coated steel	Pre-coated steel	Pre-coated steel
	Interior	PS liner	PS liner	Pre-coated steel
	Insulation	Polyurethane, 50mm	Polyurethane, 50mm	Polyurethane, 50mm
	Forming agent	Cyclopentane	Cyclopentane	Cyclopentane
Weight & size	Net weight (kg)	54	94	103
	Gross weight (kg)	60	107	118
	Internal W×D×H (mm)	500×510×570	500×510×1550	585×640×1375
	External W×D×H (mm)	606×680×830	606×680×1865	680×770×2020
	Packing W×D×H (mm)	650×730×890	650×730×1950	720×760×2200
	Packing volume (m3)	0.42	0.93	1.20

2~8°C

PharmaStore<sup>+</sup> Series

Model		MPR-770	MPR-1040	MPR-1240	MPR-1400
Basic	Type	Upright, 2-door	Upright, 2-door	Upright, 3-door	Upright, 3-door
	Temperature range (°C)	2~8	2~8	2~8	2~8
	Climate type	N/ST	N/ST	N/ST	N/ST
	Capacity (L)	770	1040	1240	1400
	Cooling type	Forced-air	Forced-air	Forced-air	Forced-air
	Defrost type	Auto	Auto	Auto	Auto
	Refrigerant	R290	R290	R290	R290
	Noise	≤ 58	≤ 58	≤ 58	≤ 58
Control	Controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor
	Display	LED digital	LED digital	LED digital	LED digital
	Display accuracy	0.1	0.1	0.1	0.1
	Light switch	●	●	●	●
	Battery switch	●	●	●	●
	Door heating switch	●	●	●	●
	USB port & data memory	●	●	●	●
	Cloud Monitoring (Wi-Fi)	○	○	○	○
Power	Power supply (V/Hz)	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60
	Rated power when door heating on (W)	490	620	660	690
Alarm	Visible/audible	●	●	●	●
	High/low temp	●	●	●	●
	Remote alarm contact	●	●	●	●
	Sensor failure	●	●	●	●
	Door open	●	●	●	●
	Low battery	●	●	●	●
	Power failure	●	●	●	●
Accessories	Door lock with key	●	●	●	●
	LED light	●	●	●	●
	Door	2-layer glass door x 2	2-layer glass door x 2	2-layer glass door x 3	2-layer glass door x 3
	Door heating	●	●	●	●
	Test access port	Φ 25mm x 1	Φ 25mm x 1	Φ 25mm x 1	Φ 25mm x 1
	Shelves adjustable QTY	10	10	15	15
	Basket at bottom	/	/	/	/
	Adjustable foot	/	/	/	/
Material	Caster	●	●	●	●
	Exterior	Pre-coated steel	Pre-coated steel	Pre-coated steel	Pre-coated steel
	Interior	Pre-coated steel	Pre-coated steel	Pre-coated steel	Pre-coated steel
	Insulation	Polyurethane, 50mm	Polyurethane, 50mm	Polyurethane, 50mm	Polyurethane, 50mm
	Forming agent	Cyclopentane	Cyclopentane	Cyclopentane	Cyclopentane
Weight & size	Net weight (kg)	137	161	193	212
	Gross weight (kg)	158	186	230	257
	Internal W×D×H (mm)	950x580x1350	1115x680x1470	1550x580x1350	1730x580x1350
	External W×D×H (mm)	1050x720x2020	1215x820x2020	1650x720x2020	1830x720x2020
	Packing W×D×H (mm)	1090x760x2200	1255x860x2200	1650x760x2200	1870x760x2200
	Packing volume (m3)	1.82	2.37	2.76	3.13

# 2~8°C Pharmacy Refrigerator

The professional PharmaSafe series medical refrigerator, specifically developed to be used by laboratories, hospitals, and pharmacies, ensure optimal storage conditions for temperature sensitive medical products and biological material, meeting the highest requirement for accurate controlled cold storage. Available with a wide range of capacities and applications, from 60 liters for minor needs to 1400 liters for pharmaceutical warehouses. Both glass door and solid door (forming door) are available. Space saving sliding door refrigerators are available for large capacity models. PharmaSafe refrigerators are compliant with main international requirements, including CE, UL, etc.

## TC-100 Controller



Microprocessor electronic controller for PharmaSafe series medical refrigerators, fitted with dual LED screen to display inner chamber temperature and key working conditions. Advanced dual sensor control system for accurate temperature control.

### PERFORMANCE

- Forced air cooling for excellent temperature uniformity
- Variable (cycle) defrost
- Intelligent microprocessor controller with LED digital display resolution 0.1
- Magnetically sealed door with rapid cool-down mode after door opening
- Dual sensor design: Independent control sensor and display sensor

### ERGONOMIC DESIGN

- Door-activated and exterior switch-activated interior LED lighting
- Self-close door for convenient operation
- Left/right side open revisable door (capacity less than 600 liters) to suit various space
- Ultra-quiet design reduces noise level

### ENVIRONMENT FRIENDLY

- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates
- CFC-Free polyurethane foaming insulation
- High efficiency cooling system for lower energy consumption and carbon emission

### ALARMS

- High temperature
- Low temperature
- Door ajar
- Power failure
- Sensor error
- Low battery

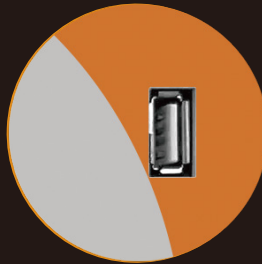
### SAFETY

- Build-in data storage and USB port for download
- Quick check of max/min temperature in 24 hours
- Password protection avoids key parameters unauthorized change
- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- Remote alarm contacts





- **Safety door lock**  
Preventing unauthorized access



- **USB port**  
Temperature data storage and download



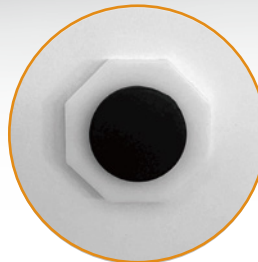
- **Forced air cooling**  
Excellent temperature uniformity and fast recovery after door open



- **Adjustable shelves**  
Convenient storage of different size products



- **Dual sensor system**  
Product sensor in aluminum block to simulate real product temperature;  
Control sensor in air for accurate control.



- **Access port**  
For easy access of additional temperature probe



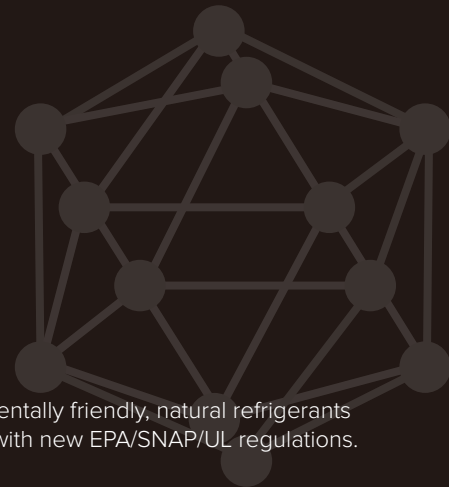
- **Remote alarm contact**  
Sending signal to a remote alarm system

# PharmaSafe

## 2-8°C/ Desktop/ MPR-68

ANTECH's 60 liter desktop medical refrigerator is ideal for small medical practices, pharmacies, and labs. It is a great choice when you need small medical fridge for specialized medicines, vaccines or lab materials. It is perfectly suited for additional storage where space is a consideration. The MPR-68 is designed for the most rigorous life science, research, healthcare, clinical, and commercial applications.

This unit uses environmentally friendly, natural refrigerants that are fully compliant with new EPA/SNAP/UL regulations.



▼ MPR-68 glass door



▼ MPR-68 solid door



NATURAL  
REFRIGERANT



FORCE AIR  
COOLING



USB PORT



REVERSIBLE  
DOORS



STACKABLE  
DESIGN



DOOR AJAR A  
LARM

MODEL	MPR-68
Door type	1 glass door as standard, solid door optional
Temperature range (°C)	2~8
Capacity (L)	65
External dimensions W×D×H (mm)	510×590×660
Shelves (pcs)	2
Power supply	220V/50Hz; 220V/60Hz; 120V/60Hz
Data storage & USB port	●

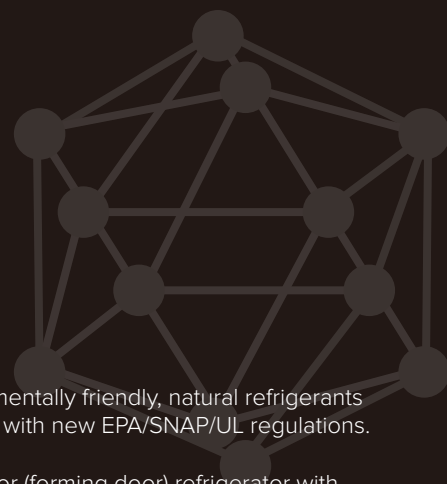
# PharmaSafe

## 2-8°C/ Under-counter/ MPR-136

ANTECH's glass door 136 liter undercounter medical refrigerator MPR-136 is ideal for small medical practices, pharmacies, and labs. Its height is designed to match laboratory table and optimized usage of limited space. Despite a small capacity refrigerator, the functions are complete for medical and laboratory applications, including data storage and USB port for download, high/low temperature alarm, door open alarm, power failure alarm, remote alarm contact, etc. Therefore, MPR-136 meets the most rigorous requirements of healthcare and scientific research.

This unit uses environmentally friendly, natural refrigerants that are fully compliant with new EPA/SNAP/UL regulations.

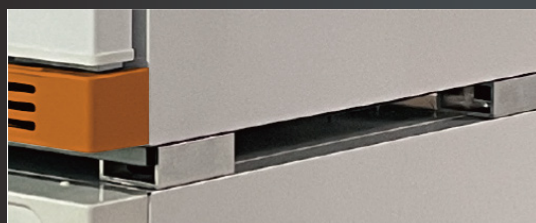
MPR-136S is a solid door (forming door) refrigerator with same functions and features.



▼ With Stacking Kits



ANTECH PharmaSafe series under counter and benchtop units are stackable using ANTECH stacking kit. You can order with various combinations with flexibility for your specific demand



NATURAL  
REFRIGERANT



FORCE AIR  
COOLING



USB PORT



REVERSIBLE  
DOORS



STACKABLE  
DESIGN



DOOR AJAR A  
LARM

MODEL	MPR-136
Door type	1 glass door as standard, solid door optional
Temperature range (°C)	2~8
Capacity (L)	136
External dimensions W×D×H (mm)	600×680×812
Shelves (pcs)	3
Power supply	220V/50Hz; 220V/60Hz; 120V/60Hz
Data storage & USB port	•

# PharmaSafe

## 2-8°C/ MPR-260/360/525

PharmaSafe series upright glass door medical refrigerators are used to store medicines, vaccines or lab materials in pharmacies, hospitals, clinics and labs. Forced air cooling enables excellent temperature uniformity. The dual-pane, insulated LOW-E glass door provides superior thermal performance and lower condensation. Product temperature sensor is put into aluminum block to simulate product temperature. Access port is available for additional temperature probe.

Solid door (forming door) models are available for these medical refrigerators.

These units use environmentally friendly, natural refrigerants that are fully compliant with new EPA/SNAP/UL regulations.

Temperature data storage and USB port are supplied as standard. A pdf format file including temperature curve and temperature data can be downloaded. A quick check of maximum and minimum temperature record in previous 24 hours is also available, making the job much easier for operators.



▼ MPR-260



▼ MPR-360



▼ MPR-525



LOW CO<sub>2</sub>  
EMISSIONS



FORCE AIR  
COOLING



USB PORT



REVERSIBLE  
DOORS



POWER FAILURE  
ALARM



DOOR AJAR A  
LARM

MODEL	MPR-260	MPR-360	MPR-525
Door type	1 glass door as standard, solid door optional		
Temperature range (°C)	2~8	2~8	2~8
Capacity (L)	270	375	520
External dimensions W×D×H (mm)	600×590×1585	600×680×1840	775×700×1945
Shelves (pcs)	5	6	5
Power supply	220V/50Hz 220V/60Hz 120V/60Hz	220V/50Hz 220V/60Hz 120V/60Hz	220V/50Hz 220V/60Hz 120V/60Hz
Data storage & USB port	●	●	●

# PharmaSafe

## 2-8°C/ MPR-656/1006/1410

PharmaSafe series large capacity medical refrigerators are used to store medicines, vaccines or lab materials with large volume. The capacity is up to 1410 liters. Forced air cooling for high-temperature stability and quick temperature recovery after door open. The dual-pane, insulated glass door provides superior thermal performance and lower energy consumption.

Temperature data storage and USB port are supplied as standard. A quick check of maximum and minimum temperature record in previous 24 hours is also available.

Solid door (forming door) models are available for light sensitive materials.

These units use environmentally friendly, natural refrigerants that are fully compliant with new EPA/SNAP/UL regulations.



▼ MPR-656



▼ MPR-1006



LOW CO2 EMISSIONS



FORCE AIR COOLING



USB PORT



POWER FAILURE ALARM



DOOR AJAR A LARM

MODEL	MPR-656	MPR-1006	MPR-1410
Door type	1 glass door as standard, solid door optional	2 glass door as standard, solid door optional	
Temperature range (°C)	2 ~ 8	2 ~ 8	2 ~ 8
Capacity (L)	638	1140	1410
External dimensions W×D×H (mm)	780×840×1965	1300×840×1965	1580×840×1965
Shelves (pcs)	5	5	5
Power supply	220V/50Hz 220V/60Hz 120V/60Hz	220V/50Hz 220V/60Hz 120V/60Hz	220V/50Hz 220V/60Hz 120V/60Hz
Data storage & USB port	Yes	Yes	Yes



2~8°C

## PharmaSafe series



	Model	MPR-68	MPR-136	MPR-260	MPR-360	MPR-525
Basic	Type	Desktop	Under-counter	Upright	Upright	Upright
	Temperature range (°C)	2~8	2~8	2~8	2~8	2~8
	Climate type	N	N	N	N	N
	Capacity (L)	65	136	270	375	520
	Cooling type	Forced air	Forced air	Forced air	Forced air	Forced air
	Defrost type	Auto defrost	Auto defrost	Auto defrost	Auto defrost	Auto defrost
	Refrigerant	R600a	R600a	R600a	R600a	R600a
Control	Controller	TC-100	TC-100	TC-100	TC-100	TC-100
	Display	LED digital	LED digital	LED digital	LED digital	LED digital
	Display accuracy	0.1	0.1	0.1	0.1	0.1
	Light switch	●	●	●	●	●
	High/low temp check	●	●	●	●	●
	USB port & data memory	●	●	●	●	●
	Cloud monitoring (Wi-Fi)	○	○	○	○	○
Power	Power supply(V/Hz)	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60
	Rated power (W)	118; 118; 100	135; 135; 105	175; 210; 180	237; 230; 210	210; 210; 210
	Rated current (A)	1.0; 1.0; 1.2	1.0; 1.0; 1.2	1.3; 1.5; 1.75	1.6; 1.6; 2.2	1.5; 1.5 ; 2.2
Alarm	Visible/audible alarm	●	●	●	●	●
	High/low temp alarm	●	●	●	●	●
	Remote alarm contact	●	●	●	●	●
	Sensor failure	●	●	●	●	●
	Door open	●	●	●	●	●
	Power failure	●	●	●	●	●
Accessories	Door lock with key	●	●	●	●	●
	LED light	●	●	●	●	●
	Door Qty	1	1	1	1	1
	Door	2-layer glass	2-layer glass	2-layer glass	2-layer glass	2-layer glass
	Test access port	Φ19mm x 1	Φ19mm x 1	Φ19mm x 1	Φ19mm x 1	Φ19mm x 1
	Shelves adjustable QTY	2	2	5	5	5
	Basket at bottom QTY	1	1	1	1	1
	Adjustable foot	●	●	●	/	/
Material	Caster	/	/	/	●	●
	Exterior	Pre-coated steel	Pre-coated steel	Pre-coated steel	Pre-coated steel	Pre-coated steel
	Interior	Pre-coated aluminum	Pre-coated aluminum	Pre-coated aluminum	Pre-coated aluminum	Pre-coated aluminum
	Insulation	Polyurethane, 50mm	Polyurethane, 50mm	Polyurethane, 50mm	Polyurethane, 50mm	Polyurethane, 50mm
Weight & size	Net weight (kg)	34	53	71	83	121
	Gross weight (KGs)	42	60	82	102	138
	Internal W×D×H (mm)	410×391×420	500×510×570	500×420×1290	500×510×1550	645×510×1640
	External W×D×H (mm)	510×590×660	600×680×812	600×590×1585	600×680×1840	775×700×1945
	Packing W×D×H (mm)	570×620×720	650×700×860	660×620×1650	660×700×1900	830×750×2000
	Volume (m3)	0.25	0.39	0.68	0.88	1.25

\* Solid door optional

2~8°C

# PharmaSafe series



Model		MPR-656	MPR-1006	MPR-1410
Basic	Type	Upright	Upright	Upright
	Temperature range (°C)	2~8	2~8	2~8
	Climate type	N	N	N
	Capacity (L)	638	1140	1410
	Cooling type	Forced air	Forced air	Forced air
	Defrost type	Auto defrost	Auto defrost	Auto defrost
	Refrigerant	R290	R290	R290
Control	Controller	TC-100	TC-100	TC-100
	Display	LED digital	LED digital	LED digital
	Display accuracy	0.1	0.1	0.1
	Light switch	●	●	●
	High/low temp check	●	●	●
	USB port & data memory	●	●	●
	Cloud monitoring (Wi-Fi)	○	○	○
Power	Power supply(V/Hz)	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60
	Rated power (W)	260; 260; 250	400; 400; 420	400; 400; 420
	Rated current (A)	1.5; 1.5; 2.6	2.4; 2.4; 4.8	2.4; 2.4; 4.8
Alarm	Visible/audible alarm	●	●	●
	High/low temp alarm	●	●	●
	Remote alarm contact	●	●	●
	Sensor failure	●	●	●
	Door open	●	●	●
	Power failure	●	●	●
Accessories	Door lock with key	●	●	●
	LED light	●	●	●
	Door Qty	1	2	2
	Door	3-layer glass	3-layer glass	3-layer glass
	Test access port	Φ19mm x 1	Φ19mm x 1	Φ19mm x 1
	Shelves adjustable QTY	5	5	5
	Basket at bottom QTY	/	/	/
	Adjustable foot	/	/	/
	Caster	●	●	●
Material	Exterior	Coated steel	Coated steel	Coated steel
	Interior	Coated steel	Coated steel	Coated steel
	Insulation	Polyurethane, 50mm	Polyurethane, 50mm	Polyurethane, 50mm
Weight & size	Net weight (kg)	144	223	238
	Gross weight (KGs)	201	258	278
	Internal W×D×H (mm)	660×650×1400	1180×690×1400	1460×650×1400
	External W×D×H (mm)	780×840×1965	1300×830×1965	1580×840×1965
	Packing W×D×H (mm)	840×870×2150	1340×870×2150	1640×925×2180
	Volume (m3)	1.57	2.51	3.07

\* Solid door optional

# 4°C Blood Bank Refrigerator

ANTECH BloodSafe series blood bank refrigerators are designed to meet highest requirements for the secure storage of blood and blood components. It provides excellent temperature performance, low noise and decreased energy consumption. High quality SECOP compressor and natural hydrocarbon refrigerant are used for optimized temperature performance and energy efficiency.

## TC-100 Controller



Microprocessor electronic controller for BloodSafe series blood bank refrigerators, fitted with dual LED screen to display inner chamber temperature and key working conditions. Advanced dual sensor control system for accurate temperature control.

### PERFORMANCE

- Forced air cooling for excellent temperature uniformity
- Variable (cycle) defrost
- Intelligent microprocessor controller with LED digital display resolution 0.1
- Magnetically sealed door with rapid cool-down mode after door opening
- Dual sensor design: Independent control sensor and display sensor

### ERGONOMIC DESIGN

- Stainless steel interior for easy cleaning
- Stainless steel sliding drawers for convenient use
- Door-activated and exterior switch-activated interior LED lighting
- Self-close door for convenient operation
- Ultra-quiet design reduces noise level
- 3-layer glass door preventing frost

### ENVIRONMENT FRIENDLY

- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates
- No impact on ozone depletion, and very low Global Warming Potential (GWP)
- High efficiency cooling system for lower energy consumption and carbon emission

### ALARMS

- High temperature
- Low temperature
- Door ajar
- Power failure
- Sensor error
- Low battery

### SAFETY

- Build-in data storage and USB port for download
- Quick check of high/low temperature in 24 hours
- Password protection avoids key parameters unauthorized change
- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- Remote alarm contacts



- ▶ **Door lock**  
Door lock preventing unauthorized access



- ▶ **USB port**  
Temperature data storage and download



- ▶ **Forced air cooling**  
Excellent temperature uniformity and fast recovery after door open



- ▶ **Sliding drawer**  
Stainless steel sliding drawers for convenient storage of blood bags



- ▶ **Access port**  
For easy access of additional temperature probe



- ▶ **Remote alarm contact**  
Sending signal to a remote alarm system

# 4°C

## BloodSafe series



Model		MBR-658	MBR-1008	MBR-1408
Basic	Type	Upright	Upright	Upright
	Temperature range (°C)	4	4	4
	Climate type	N	N	N
	Capacity (L)	638	1140	1410
	Blood bag storage qty (450ml)	390	624	780
	Cooling type	Forced air	Forced air	Forced air
	Defrost type	Auto defrost	Auto defrost	Auto defrost
	Refrigerant	R290	R290	R290
Control	Controller	TC-100	TC-100	TC-100
	Display	LED digital	LED digital	LED digital
	Display accuracy	0.1	0.1	0.1
	High/low temp check	●	●	●
	Battery switch	●	●	●
	Backup for alarm (Hrs)	24	48	48
	USB port	●	●	●
	Cloud monitoring (Wi-Fi)	○	○	○
Power	Chart recorder	○	○	○
	Power supply(V/Hz)	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60
	Rated power (W)	260; 260; 250	400; 400; 420	400; 400; 420
Alarm	Rated current (A)	1.5; 1.5; 2.6	2.4; 2.4; 4.8	2.4; 2.4; 4.8
	Visible/audible alarm	●	●	●
	High/low temp alarm	●	●	●
	Remote alarm contact	●	●	●
	Sensor failure	●	●	●
	Door open	●	●	●
	Low battery	●	●	●
Accessories	Power failure	●	●	●
	Door lock with key	●	●	●
	Door	3-layer glass door x 1	3-layer glass door x 2	3-layer glass door x 2
	LED light	●	●	●
	Adjustable foot	●	●	●
	Caster	●	●	●
Material	Sliding drawers Qty	6	12	12
	Test access port	Φ19mm x 1	Φ19mm x 1	Φ19mm x 1
	Exterior	Coated steel	Coated steel	Coated steel
	Interior	Stainless steel	Stainless steel	Stainless steel
	Sliding drawer	Stainless steel	Stainless steel	Stainless steel
Weight & size	Insulation	Polyurethane, 60mm	Polyurethane, 60mm	Polyurethane, 60mm
	Net weight (kg)	174	277	298
	Gross weight (kg)	203	312	338
	Internal W×D×H (mm)	660×650×1400	1299×650×1400	1460×650×1400
	External W×D×H (mm)	780×840×1965	1300×840×1965	1580×840×1965
	Packing W×D×H (mm)	840×870×2150	1340×870×2150	1640×870×2150
	Volume (m3)	1.57	2.51	3.07



# 2~8°C & -25°C Combined Refrigerator and Freezer

Antech medical-class combined refrigerator & freezer provides a compact storage solution for temperature sensitive medical products and biological material at refrigerator temperature (2~8°C) or freezing temperature (-10~-25°C).



LOW CO<sub>2</sub>  
EMISSIONS



NATURAL  
REFRIGERANT



CFC /HCFC  
FREE



HIGH/LOW  
TEMPERATURE ALARM



SAFETY DOOR  
LOCK

## PERFORMANCE

- Independent cooling system for refrigerator and freezer. If one part fails, the other part still works normally
- High-precision microprocessor temperature control system with 0.1°C display accuracy

## ERGONOMIC DESIGN

- Glass window for refrigerator part for convenient observation
- Adjustable shelves for refrigerator part, freezer part
- Self-close door for convenient operation
- Ultra-quiet design reduces noise level

## ENVIRONMENT FRIENDLY

- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates
- High efficiency cooling system for lower energy consumption and carbon emission
- CFC-Free polyurethane foaming insulation

## ALARMS

- High temperature
- Low temperature
- Open door
- Power failure
- Sensor error
- Low battery

## SAFETY

- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- Remote alarm contacts

# 2~8°C & -25°C

## Combined Refrigerator and Freezer

Model		MRF-300
Basic	Type	Upright
	Temperature setting range (°C)	Ref: 2~8; freezer: -25~-10
	Climate type	N
	Capacity (L)	Ref: 200; freezer: 100
	Cooling type	Ref: forced-air; freezer: direct
	Defrost type	Ref: manual; freezer: auto
	Refrigerant	R600a
	Number of Compressor	2
Control	Controller	Microprocessor x 2
	Display	LED Digital
	Display accuracy	0.1
	Cloud monitoring (Wi-Fi)	○
Power	Power supply (V/Hz)	220/50; 220/60; 120/60
	Rated power (W)	230; 270; 280
	Rated current (A)	1.8; 2.1; 3.5
Alarm	Visible/audible alarm	●
	High/low temp	●
	Remote alarm contact	●
	Power failure	●
	Sensor failure	●
	Door open	●
	Low battery	●
Accessories	Door type	Ref: glass door; freezer: forming door
	Safety door lock	●
	Shelves	Ref: 3 adjustable shelves ; freezer: 2 adjustable shelves
	Test access port	Φ19mm x 2
	Casters	4 (2 with brake)
Material	Exterior	Coated steel
	Interior	Coated steel
	Insulation	Polyurethane
Weight & size	Net weight (kg)	90
	Gross weight (KGs)	100
	Internal W×D×H (mm)	Ref: 500×460×730; freezer: 500×460×445
	External W×D×H (mm)	600×606×1776
	Packing W×D×H (mm)	660x660x1840
	Volume (m³)	0.8

# 2~8°C & -40°C Combined Refrigerator and Freezer

Antech medical-class combined refrigerator & freezer provides a compact storage solution for temperature sensitive medical products and biological material at refrigerator temperature (2~8°C) or freezing temperature (-20~-40°C).



LOW CO2  
EMISSIONS



NATURAL  
REFRIGERANT



CFC /HCFC  
FREE



HIGH/LOW  
TEMPERATURE ALARM



USB PORT



SAFETY DOOR  
LOCK

## PERFORMANCE

- Independent cooling system for refrigerator and freezer. If one part fails, the other part still works normally
- High-precision microprocessor temperature control system with 0.1°C display accuracy
- Digital display show freezer working condition and alarm code
- 3-Channel sensor for control, display and ambient temperature

## ERGONOMIC DESIGN

- Glass window for refrigerator part for convenient observation
- Adjustable shelves for refrigerator part, drawers for freezer part
- Self-close door for convenient operation
- Ultra-quiet design reduces noise level

## ENVIRONMENT FRIENDLY

- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates
- High efficiency cooling system for lower energy consumption and carbon emission
- CFC-Free polyurethane foaming insulation

## ALARMS

- High temperature
- Low temperature
- Hot condenser
- Open door
- Power failure
- Sensor error
- Low battery

## SAFETY

- Build-in data storage and USB port for download
- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- Remote alarm contacts

# 2~8°C & -40°C

## Combined Refrigerator and Freezer



Model		MRF-288A	MRF-450A
Basic	Type	Upright	Upright
	Temperature setting range (°C)	Ref: 2~8; freezer: -40~-10	Ref: 2~8; freezer: -40~-10
	Climate type	N	N
	Capacity (L)	Ref: 188; freezer: 100	Ref: 315; freezer: 204
	Cooling type	Ref: forced-air; freezer: direct	Ref: forced-air; freezer: direct
	Defrost	Ref: auto ; freezer:manual	Ref: auto ; freezer:manual
	Refrigerant	Hydrocarbon gas	Hydrocarbon gas
	Number of Compressor	2	2
Control	Controller	Microprocessor	Microprocessor
	Display	LED Digital	LED Digital
	Display accuracy	0.1	0.1
	High/Low temperature	●	●
	USB port	●	●
	RS485 port	●	●
	Cloud monitoring (Wi-Fi)	○	○
Power	Power supply (V/Hz)	220V/50Hz; 220V/60Hz; 120V/60Hz	220V/50Hz; 220V/60Hz; 120V/60Hz
	Rated power (W)	330; 320; 375	398; 425; 365
	Rated current (A)	2.5; 3.0; 5.5	3.6; 3.6; 6.5
Alarm	Visible/audible alarm	●	●
	Remote alarm contact	●	●
	Hot condensor	●	●
	Power failure	●	●
	Sensor failure	●	●
	High ambient temperature	●	●
	Door open	●	●
	Low battery	●	●
Accessories	Door type	Ref: forming door with glass window; freezer: solid forming door	Ref: forming door with glass window; freezer: solid forming door
	Shelves & drawers	Ref: 3 shelves + 1 drawer; freezer: 3 drawers	Ref: 3 shelves + 1 drawer; freezer: 6 drawers
	Safety door lock	●	●
	Test access port	Φ 25mm x 2	Φ 25mm x 2
	Casters	4 (2 with brake)	4 (2 with brake)
Material	Exterior	Coated steel	Coated steel
	Interior	Stainless steel	Stainless steel
	Insulation	Polyurethane	Polyurethane
Weight & size	Net weight (kg)	143	186
	Internal W×D×H (mm)	Ref: 600×510×710; freezer: 500×460×505	Ref: 750×610×740; freezer: 650×560×565
	External W×D×H (mm)	700×640×1845	910×740×1972
	Gross weight (KGs)	165	215
	Packing W×D×H (mm)	830×756×2004	990×855×2140
	Volume (m³)	1.25	1.81

# -25°C Laboratory Freezer

The professional LabSafe series lab freezer, specifically developed to be used by laboratories, hospitals, and pharmacies, ensure optimal storage conditions for temperature sensitive medical products and biological material, meeting the highest requirement for accurate controlled cold storage. High density solid door (forming door) is used for excellent insulation. LabSafe freezers are compliant with main international requirements, including CE, UL, etc.

## TC-200 Controller



Microprocessor electronic controller for LabSafe series laboratory freezers, fitted with dual LED screen to display inner chamber temperature and key working conditions. Advanced dual sensor control system for accurate temperature control.

### PERFORMANCE

- Intelligent microprocessor controller TC-200
- Dual sensor system: display sensor in aluminum block to simulate real product temperature. Control sensor in air for accurate control.
- Optimized direct cooling system & manual defrost
- Rapid temperature recovery after door opening

### ERGONOMIC DESIGN

- Self-close door for convenient operation
- Left/right side open revisable door to suit various space
- Ultra-quiet design reduces noise level
- LED light for convenient operation

### ENVIRONMENT FRIENDLY

- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates
- CFC-Free polyurethane foaming insulation
- High efficiency cooling system for lower energy consumption and carbon emission

### ALARMS

- High temperature
- Low temperature
- Door ajar
- Power failure
- Sensor error
- Low battery

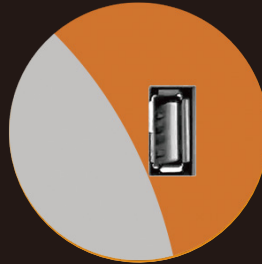
### SAFETY

- Build-in data storage and USB port for download
- Quick check of max/min temperature in 24 hours
- Password protection avoids key parameters unauthorized change
- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- Remote alarm contacts

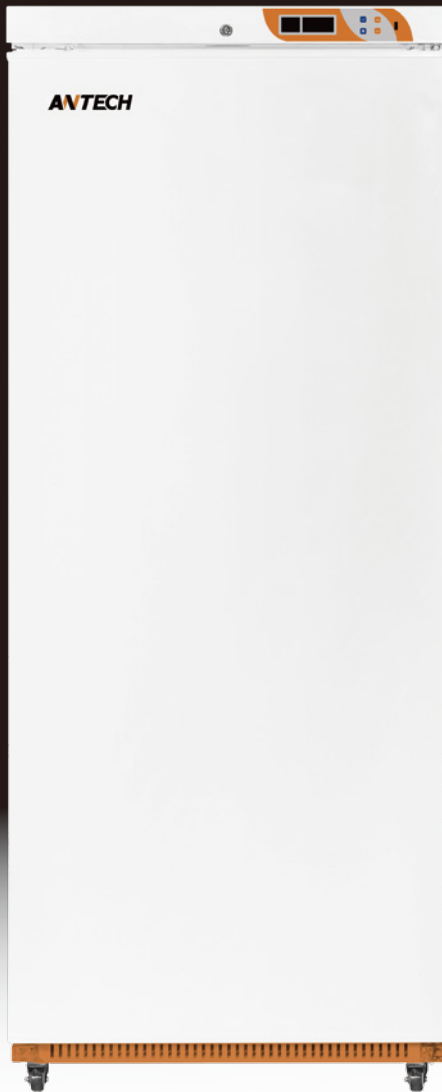




- ▶ **Safety door lock**  
Preventing unauthorized access



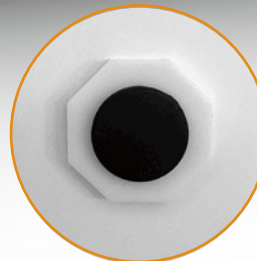
- ▶ **USB port**  
Temperature data storage and download



- ▶ **Adjustable shelves**  
Convenient storage of different size products



- ▶ **Dual sensor system**  
Product sensor in aluminum block to simulate real product temperature;  
Control sensor in air for accurate control.



- ▶ **Access port**  
For easy access of additional temperature probe



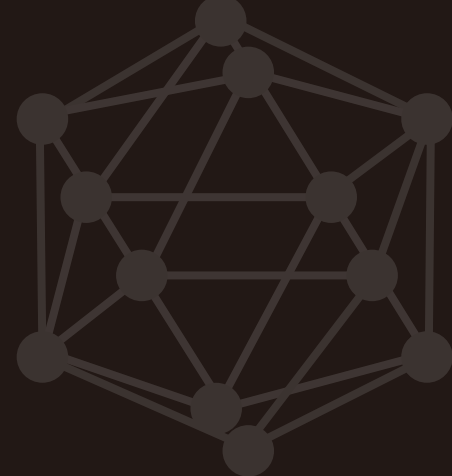
- ▶ **Remote alarm contact**  
Sending signal to a remote alarm system

# LabSafe Series

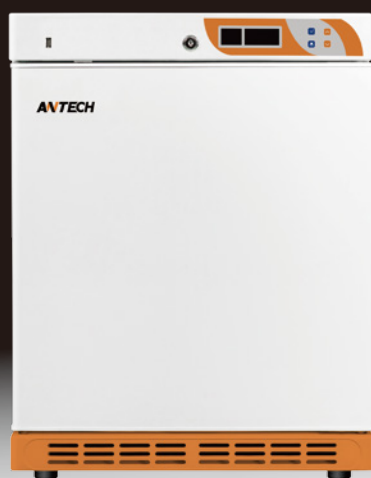
## -25°C/ Desktop/ MDF-25U60

ANTECH desktop lab freezer MDF-25U60 is ideal for small medical practices, pharmacies, and labs. It is a great choice when you need a small lab freezer for specialized medicines, vaccines or lab materials. It is perfectly suited for additional storage where space is a consideration. The MDF-25U60 is designed for the most rigorous life science, research, healthcare and clinical applications.

This unit uses environmentally friendly, natural refrigerants that are fully compliant with new EPA/SNAP/UL regulations.



▼ MDF-25U60



▼ With Stacking Kits



CFC /HCFC  
FREE



USB PORT



POWER FAILURE  
ALARM



DOOR AJAR A  
LARM



REVERSIBLE  
DOORS



STACKABLE  
DESIGN

MODEL	MDF-25U60
Temperature range (°C)	-10 ~ -25
Capacity (L)	65
External dimensions W×D×H (mm)	510×590×660
Shelves (pcs)	2
Data storage & USB port	•
Power supply	220V/50Hz; 220V/60Hz; 120V/60Hz

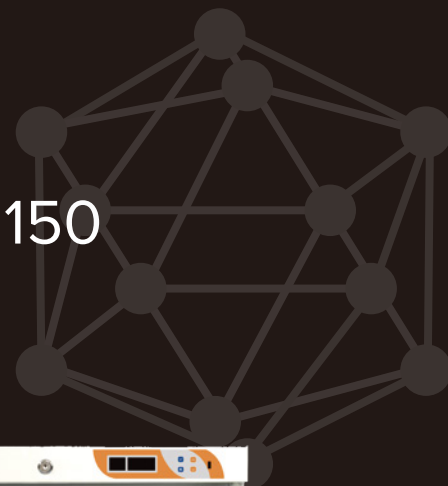
# LabSafe Series

## -25°C/Under-counter/ MDF-25U150

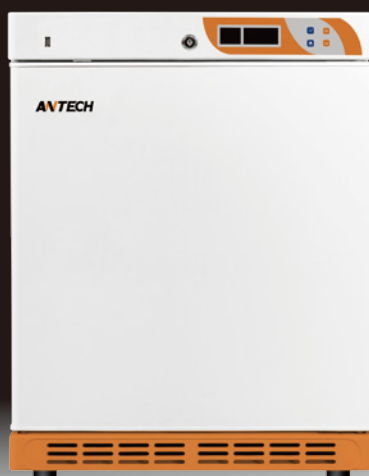
ANTECH undercounter lab freezer MDF-25U150 is ideal for small medical practices, pharmacies, and labs. Its height is designed to match laboratory table and optimized usage of limited space. Despite a compact freezer, the functions are complete for medical and laboratory applications, including data storage and USB port for download, high/low temperature alarm, door open alarm, power failure alarm, remote alarm contact, LED light etc. Therefore, MDF-25U150 meets the most rigorous requirements of healthcare and scientific research.

This unit uses environmentally friendly, natural refrigerants that are fully compliant with new EPA/SNAP/UL regulations.

MDF-25U150 is a stackable freezer (using Antech stacking kits) to install in a limited space. You can order with various combinations with flexibility for your specific demand.



▼ MDF-25U150



▼ With Stacking Kits



NATURAL  
REFRIGERANT



USB PORT



HIGH/LOW  
TEMPERATURE ALARM



DOOR AJAR A  
LARM



REVERSIBLE  
DOORS



STACKABLE  
DESIGN

MODEL	MDF-25U150
Temperature range (°C)	-10~-25
Capacity (L)	120
External dimensions W×D×H (mm)	600×680×812
Shelves (pcs)	3
Data storage & USB port	•
Power supply	220V/50Hz; 220V/60Hz; 120V/60Hz

# LabSafe Series

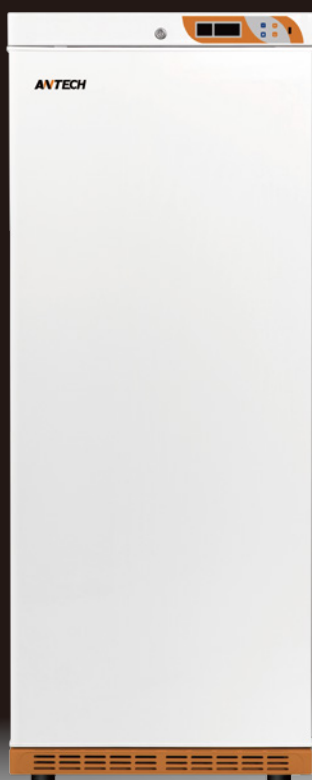
## -25°/MDF-25U270/400/600

LabSafe series upright lab freezers are used to store medicines, vaccines or lab materials in pharmacies, hospitals, clinics and labs. Product temperature sensor is put into aluminum block to simulate real product temperature. Access port is available for additional temperature probe.

These units use environmentally friendly, natural refrigerants that are fully compliant with new EPA/SNAP/UL regulations.

Temperature data storage and USB port are supplied as standard. A pdf format file including temperature curve and temperature data can be downloaded. A quick check of maximum and minimum temperature record in previous 24 hours is available, making the job much easier for operators. LED light for convenient operation.

▼ MDF-25U270



▼ MDF-25U600



NATURAL  
REFRIGERANT



USB PORT



HIGH/LOW  
TEMPERATURE ALARM



POWER FAILURE  
ALARM



DOOR AJAR A  
LARM



REVERSIBLE  
DOORS

MODEL	MDF-25U270	MDF-25U400	MDF-25U600
Temperature range (°C)	-10~-25	-10~-25	-10~-25
Capacity (L)	280	380	550
External dimensions W×D×H (mm)	600×560×1585	600×680×1840	775×700×1945
Shelves (pcs)	5	6	6
Data storage & USB port	●	●	●
Power supply	220V/50Hz 220V/60Hz 120V/60Hz	220V/50Hz 220V/60Hz 120V/60Hz	220V/50Hz 220V/60Hz 120V/60Hz

-25°C

# LabSafe series



Model		MDF-25U60	MDF-25U150	MDF-25U270	MDF-25U400	MDF-25U600
Basic	Type	Desktop	Under-counter	Upright	Upright	Upright
	Temperature range (°C)	-10~-25	-10~-25	-10~-25	-10~-25	-10~-25
	Climate type	N	N	N	N	N
	Capacity (L)	65	120	280	380	550
	Cooling type	Direct cooling	Direct cooling	Direct cooling	Direct cooling	Direct cooling
	Defrost type	Manual	Manual	Manual	Manual	Manual
	Refrigerant	R600a	R600a	R600a	R290	R290
Control	Controller	TC-200	TC-200	TC-200	TC-200	TC-200
	Display	LED digital	LED digital	LED digital	LED digital	LED digital
	Display accuracy	0.1	0.1	0.1	0.1	0.1
	Backup for alarm (Hrs)	48	48	48	48	48
	High/low temp check	●	●	●	●	●
	USB port	●	●	●	●	●
	Cloud monitoring (Wi-Fi)	○	○	○	○	○
Power	Power supply (V/Hz)	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60
	Rated power (W)	95; 95; 115	120; 140; 170	220; 220; 200	220; 220; 230	250; 250; 230
	Rated current (A)	0.65; 0.65; 0.85	1.1; 1.3; 1.7	1.7; 1.7; 1.8	1.7; 1.7; 2.0	1.7; 1.7; 2.0
Alarm	Visible/audible alarm	●	●	●	●	●
	High/low temp	●	●	●	●	●
	Sensor failure	●	●	●	●	●
	Door open	●	●	●	●	●
	Low battery	●	●	●	●	●
	Power failure	●	●	●	●	●
	Remote alarm contact	●	●	●	●	●
Accessories	Door lock with key	●	●	●	●	●
	Door type	Solid door	Solid door	Solid door	Solid door	Solid door
	LED light	●	●	●	●	●
	Test access port	Φ19mm x 1	Φ19mm x 1	Φ19mm x 1	Φ19mm x 1	Φ19mm x 1
	Adjustable shelves Qty	1	2	5	5	5
	Shelf at bottom Qty	1	1	1	1	1
	Adjustable foot	●	●	●	/	/
	Caster	/	/	/	●	●
Material	Exterior	Pre-coated steel	Pre-coated steel	Pre-coated Steel	Pre-coated steel	Pre-coated steel
	Interior	Pre-coated aluminum	Pre-coated aluminum	Pre-coated aluminum	Pre-coated aluminum	Pre-coated aluminum
	Insulation	Polyurethane, 50mm	Polyurethane, 50mm	Polyurethane, 50mm	Polyurethane, 50mm	Polyurethane, 60mm
Weight & size	Net weight (kg)	33	43	61	74	95
	Gross weight (kg)	40	51	74	92	113
	Internal W×D×H (mm)	410×450×420	500×540×570	500×450×1290	500×520×1550	645×530×1645
	External W×D×H (mm)	510×590×660	600×680×812	600×560×1585	600×680×1840	775×700×1945
	Packing W×D×H (mm)	570×620×760	660×620×910	660×620×1630	660×700×1900	830×750×2000
	Volume (m³)	0.27	0.37	0.67	0.88	1.25

# -40°C Deep Freezer

## TC-200 Controller



Microprocessor electronic controller TC-200, fitted with dual LED screen to display inner chamber real time temperature and key working status including controller lock status, cooling status, power supply indicator, etc.. It is installed at the eye level, convenient for reading all data and operating on controller.



LOW CO2  
EMISSIONS



NATURAL  
REFRIGERANT



CFC /HCFC  
FREE



USB PORT



POWER FAILURE  
ALARM



DIRECT  
COOLING



SAFETY DOOR  
LOCK

### PERFORMANCE

- Optimized cooling system & high efficiency hydrocarbon refrigerant.
- SECOP brand compressor & EBM brand blower.
- High density polyurethane forming for insulation.
- Inner doors to reduce cooling loss when open door.

### ERGONOMIC DESIGN

- Adjustable stainless steel shelves to load different size products
- Ultra-quiet design reduces noise level

### ENVIRONMENT FRIENDLY

- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates
- CFC-Free polyurethane foaming insulation
- High efficiency cooling system for lower energy consumption and less carbon emission

### ALARMS

- High temperature
- Low temperature
- Door open
- Power failure
- Sensor error

### SAFETY

- Build-in data storage and USB port for download
- Password protection avoids key parameters unauthorized change
- Safety lockable door, preventing unauthorized access
- Access port for additional temperature probe
- Remote alarm contacts
- Optional online monitoring system



- ▶ **USB port**  
Temperature data storage and download



- ▶ **Lockable door handle**  
For easy operation and prevent unauthorized access



- ▶ **Adjustable shelves**  
Convenient storage of different size products made in stainless steel



- ▶ **Pressure release port**  
Manual pressure release port for easy re-opening of outer door in a shorter time



- ▶ **Access port**  
One access ports at side and back of freezer, for easy access of additional temperature probe



- ▶ **Remote alarm contact**  
Sending signal to a remote alarm system





# -40°C

## LabSafe series



	Model	MDF-40U280	MDF-40U360	MDF-40U620	MDF-40U700
Basic	Type	Upright	Upright	Upright	Upright
	Temperature range (°C)	-20~-40	-20~-40	-20~-40	-20~-40
	Cooling type	Direct cooling	Direct cooling	Direct cooling	Direct cooling
	Defrost	Manual	Manual	Manual	Manual
	Climate type	/	/	/	/
	Capacity (L)	283	361	620	707
	Refrigerant	R290	R290	R290	R290
	Number of compressor	1	1	1	1
	Compressor brand	SECOP	SECOP	SECOP	SECOP
	Blower brand	EBM	EBM	EBM	EBM
Control	Controller	TC-200	TC-200	TC-200	TC-200
	Display	LED digital	LED digital	LED digital	LED digital
	Display accuracy	0.1	0.1	0.1	0.1
	High/low temp check	●	●	●	●
	USB port	●	●	●	●
	Cloud monitoring (Wi-Fi)	○	○	○	○
Power	Power supply (V/Hz)	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60
	Rated power (W)	350	400	550	550
Alarm	Visible/audible alarm	●	●	●	●
	High/low temp	●	●	●	●
	Remote alarm contact	●	●	●	●
	Sensor failure	●	●	●	●
	Door open	●	●	●	●
	Low battery	●	●	●	●
	Power failure	●	●	●	●
Accessories	External door	1	1	1	1
	Inner door	4	4	4	4
	Safety door lock	●	●	●	●
	Test access port	Φ19mm x 2	Φ19mm x 2	Φ19mm x 2	Φ19mm x 2
	Adjustable shelf	3	3	3	3
	Caster	4	4	4	4
Material	Exterior	Pre-coated steel	Pre-coated Steel	Pre-coated steel	Pre-coated steel
	Interior	Pre-coated steel	Pre-coated steel	Pre-coated steel	Pre-coated steel
	Outer door	Forming door	Forming door	Forming door	Forming door
	Inner door	Forming door	Forming door	Forming door	Forming door
	Cabinet insulation thickness (mm)	90	90	90	90
	Insulation	Polyurethane, 80mm	Polyurethane, 80mm	Polyurethane, 80mm	Polyurethane, 80mm
Weight & size	Net weight (kg)	115	140	181	205
	Gross weight (kg)	138	172	220	265
	Internal W×D×H (mm)	460×470×1310	460×600×1310	740×640×1310	740×730×1310
	External W×D×H (mm)	715×725×1910	715×855×1910	995×895×1910	995×985×1910
	Packing W×D×H (mm)	735×760×2120	735×890×2120	1015×930×2120	1015×1020×2120
	Volume (m³)	1.18	1.39	2.27	2.49

# -40°C Deep Freezer

Antech -40°C deep freezer is designed to store temperature sensitive medical products and biological materials at accurate controlled temperature. Available with 3 capacities: 90 liter under-counter freezer, 270 liter single-door freezer and 450 liter two-door freezer. It is an ideal product to store plasma, reagent and other biomedical products which require to be stored at -20~-40°C temperature.



LOW CO2  
EMISSIONS



NATURAL  
REFRIGERANT



CFC /HCFC  
FREE



HIGH/LOW  
TEMPERATURE ALARM



USB PORT



SAFETY DOOR  
LOCK

## PERFORMANCE

- High-precision microprocessor temperature control system with 0.1°C display accuracy
- Digital display show freezer working condition and alarm code
- 3-Channel sensor for control, display and ambient temperature

## ERGONOMIC DESIGN

- ABS drawers for convenient storage
- Self-close door for easy operation
- Ultra-quiet design reduces noise level

## ENVIRONMENT FRIENDLY

- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates
- High efficiency cooling system for lower energy consumption and carbon emission
- CFC-Free polyurethane foaming insulation

## ALARMS

- High temperature
- Low temperature
- Open door
- Power failure
- Sensor error
- Low battery

## SAFETY

- Build-in data storage and USB port for download
- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- RS485 port and remote alarm contacts

# -40°C

## Deep Freezer

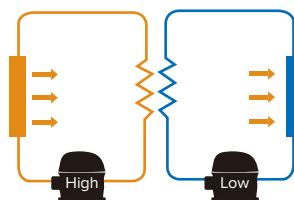


	Model	MDF-40U90	MDF-40U270	MDF-40U450
Basic	Type	Under-counter	Upright	Upright
	Temperature range (°C)	-20~-40	-20~-40	-20~-40
	Cooling type	Direct cooling	Direct cooling	Direct cooling
	Capacity (L)	90	270	450
	Defrost type	Manual	Manual	Manual
	Climate type	N	N	N
	Refrigerant	R290	R290	R290
	Number of compressor	1	1	2
Control	Controller	Microprocessor	Microprocessor	Microprocessor
	Display	LED digital	LED digital	LED digital
	Display accuracy	1	1	0.1
	USB port	●	●	●
	RS485 port	●	●	●
	Cloud monitoring (Wi-Fi)	O	O	O
Power	Power supply (V/Hz)	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60
	Rated power (W)	131; 170; 170	255; 210; 179	346; 375; 305
	Rated current (A)	1.3; 1.8; 4.2	2.8; 2.2; 4.2	4.5; 3.7; 5.3
Alarm	Visible/audible alarm	●	●	●
	High/low temp	●	●	●
	Sensor failure	●	●	●
	Door open	●	●	●
	Low battery	●	●	●
	Power failure	●	●	●
	Remote alarm contact	●	●	●
	Door lock with key	●	●	●
Accessories	Door	Solid door x 1	Solid door x 1	Solid door x 2
	Test access port	Φ 25mm x 1	Φ 25mm x 1	Φ 25mm x 2
	Drawers	3	7	12
	Adjustable foot	2	2	/
	Caster	2	/	4
Material	Exterior	Pre-coated steel	Pre-coated Steel	Pre-coated steel
	Interior	Pre-coated aluminum	Pre-coated aluminum	Pre-coated aluminum
	Insulation	Polyurethane	Polyurethane	Polyurethane
Weight & size	Net weight (kg)	54	98	144
	Gross weight (kg)	67	115	172
	Internal W×D×H (mm)	500×485×532	500×460×1235	650×570×627×2
	External W×D×H (mm)	660×645×815	746×700×1792	856×789×1960
	Packing W×D×H (mm)	722×697×890	835×775×1910	960×870×2175
	Volume (m³)	0.45	1.24	1.82

# -86°C Ultra-low Temperature Freezer

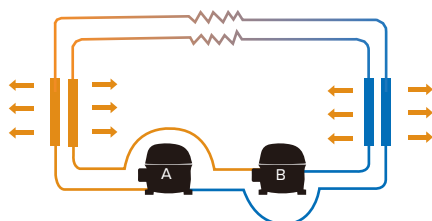
ANTECH offers advanced BioSafe ULT freezers with optimized cooling system and ergonomic design. Both upright freezers and chest freezers are available, from 88 liter compact freezer to 838 liter large volume biobanking freezer. Various of high efficiency cooling systems to meet different requirements of users. Dual compressor cooling technology (BioSafe-DUAL) are adopted on ANTECH ULT freezers, providing lowest energy consumption & highest level protection.

## BioSafe-ECO series



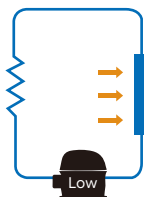
2-compressor cascade system, SECOP brand;  
Hydrocarbon refrigerant for lower power consumption;  
Capacity: 338L, 408L, 588L, 728L, 838L.

## BioSafe-DUAL series



Independent dual compressor system:  
inner temperature maintain -75°C when one  
compressor fails;  
Capacity: 408L, 588L, 728L, 838L.

## BioSafe-MINI series BioSafe-AIR series



Single compressor cooling system:  
compact construction with high efficiency,  
reach -86°C with 1 compressor;  
Capacity: 58L, 88L, 100L

## Upright freezers

Capacity	58L	88L	100L	338L	408L	588L	728L	838L
BioSafe-MINI	-	MDF-86U108	-	-	-	-	-	-
BioSafe-ECO	-	-	-	MDF-86U340T	MDF-86U458T	MDF-86U588T	MDF-86U728T	MDF-86U838T
BioSafe-DUAL	-	-	-	-	MDF-86U458D	MDF-86U588D	MDF-86U728D	MDF-86U838D
BioSafe-AIR	MDF-86U50	-	MDF-86U100	-	-	-	-	-

## Chest freezers

Capacity	130L	495L	746L
BioSafe-MINI	MDF-86C118	-	-
BioSafe-ECO	-	MDF-86C458	MDF-86C728

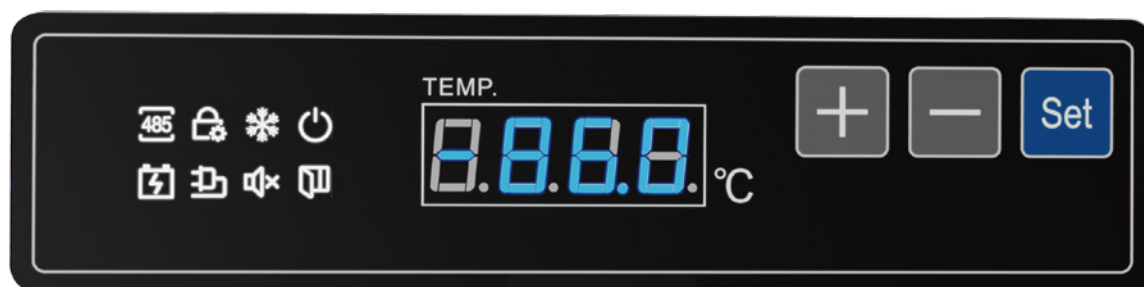
# BioSafe-AIR ULT Freezer

## Single compressor

BioSafe-AIR series compact ULT freezers allow users to store biological products with more flexibility. MDF-86U50 is a desk-top model, while MDF-86U100 is an under-counter freezer. Both 2 models are stackable.

## TC-300A Controller

Microprocessor electronic controller TC-300A, fitted with dual LED screen to display inner chamber temperature and key working conditions. Advanced dual sensor control system for accurate temperature control.



LOW CO2  
EMISSIONS



DOOR  
AJAR ALARM



STACKABLE  
DESIGN



USB PORT



POWER FAILURE  
ALARM



SAFETY DOOR  
LOCK

### PERFORMANCE

- High efficiency single compressor refrigeration system
- V.I.P. (vacuum insulation panel) for excellent insulation
- Honeywell Solstice® liquid blowing agent (LBA) for better insulation
- Forming inner door(s) with door seal for better insulation

### ERGONOMIC DESIGN

- Compact design for desk-top or under-counter usage
- Silent running creating a user-friendly environment
- Stackable design to save space
- Stainless steel interior for easy cleaning
- Pressure release port to allow door open with shorter interval

### ENVIRONMENT FRIENDLY

- CFC-Free polyurethane foaming insulation
- Honeywell Solstice® liquid blowing agent (LBA) makes environment green
- High efficiency cooling system for lower energy consumption and less carbon emission

### ALARMS

- High temperature
- Low temperature
- High ambient temperature
- Door open
- Power failure
- Sensor error
- High condenser alarm
- Low battery

### SAFETY

- Password protection avoids key parameters unauthorized change
- Safety door lock, preventing unauthorized access
- Test access port for additional temperature probe
- Remote alarm contacts
- Optional build-in data storage and USB port for download
- Optional online monitoring system(CryoMonitor 2000TF)
- Optional CO2/LN2 backup system



- ▶ **High class interior**  
Stainless steel interior  
Forming inner door  
Rust-free & easy cleaning



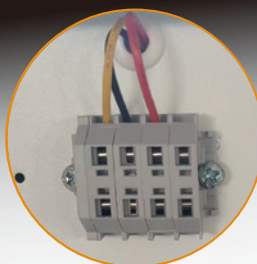
- ▶ **Ergonomic door handle**  
Light operation, friendly to ladies  
Safety lock to prevent unauthorized access  
Mid-positioned design, handle operation not influenced by wall or table side



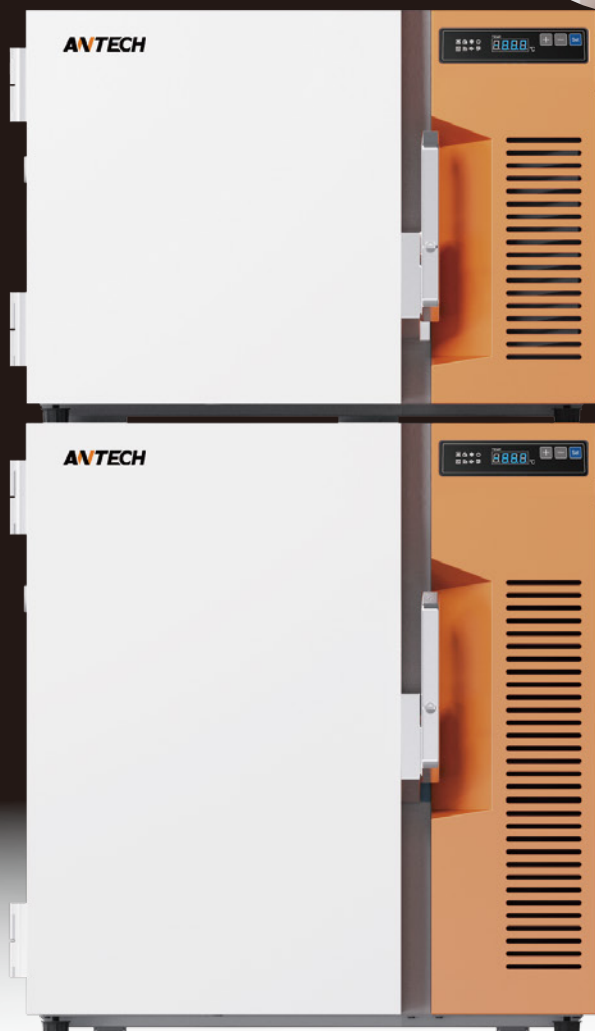
- ▶ **Stainless steel shelf**  
Adjustable position in the chamber  
Removeable to store large size product  
Stainless steel for easy cleaning



- ▶ **Test access port**  
For easy access of additional temperature probe



- ▶ **Remote alarm contact**  
NO (normally open)  
NC (normally close)



**Stackable design:**  
Upper: MDF-86U50  
Lower: MDF-86U100



- ▶ **CryoMonitor 2000TF (optional)**  
Cloud based temperature monitoring system  
Email & SMS alarms  
USB port for data storage and download



# -86°C

## BioSafe-AIR



Model		MDF-86U50	MDF-86U100
Basic	Type	Upright, desk-top	Upright, under-counter
	Stackable	●	●
	Temperature setting range (°C)	-40~-86	-40~-86
	Climate type	N	N
	Capacity (L)	58L	100L
	2" box storage Qty (Pcs)	30	60
	Cooling type	Direct	Direct
	Defrost type	Manual	Manual
	Refrigerant	Mixed gas	Mixed gas
	Number of compressor	1	1
Control	Door entrance limit (≥mm)	680	680
	Controller	TC-300A	TC-300A
	Display	LED	LED
	Display accuracy	0.1	0.1
	Password protection	●	●
	USB port	○	○
Power	Cloud monitoring (Wi-Fi)	○	○
	Power supply (V/Hz)	110V,50/60; 220V,50/60	110V,50/60; 220V,50/60
	Rated power (W)	260	450
Alarm	Rated current (A)	2.9	2.9
	Visible/audible alarm	●	●
	High/Low temperature	●	●
	Remote alarm contact	●	●
	Hot condenser	●	●
	Power failure	●	●
	Sensor failure	●	●
	High ambient temperature	●	●
Accessories	Door open	●	●
	Door lock with key	●	●
	Inner forming door	1	2
	Test access port	1	1
	Adjustable foot	4	4
	Scroll wheel	/	2
	Stackable kit	○	○
	Pressure equalization port	●	●
	Adjustable shelves	/	1
	Freezer rack	○	○
	Rack type (DxH)	5x3	5x3
	Rack Qty	2	4
Material	CO2/LN2 backup system	○	○
	Exterior	Powder coated galvanized steel sheet	Powder coated galvanized steel sheet
	Interior	Stainless steel	Stainless steel
	Insulation	Polyurethane+LBA	Polyurethane+LBA
Weight & size	Vacuum insulation panel (VIP)	●	●
	Cabinet insulation thickness (mm)	80	80
	Outer door thickness (mm)	80	80
	Net weight (KGs)	84	108
	Internal W×D×H (mm)	340x460x364	340x460x630
	External W×D×H (mm)	760x680x550	760x680x818

● Basic equipment ○ Optional

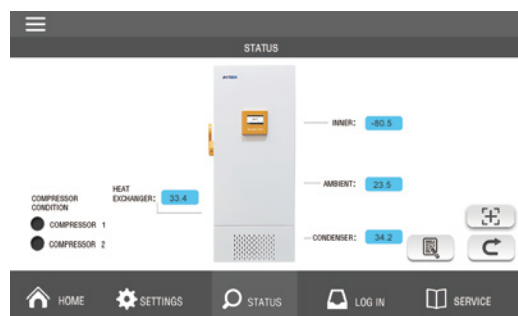
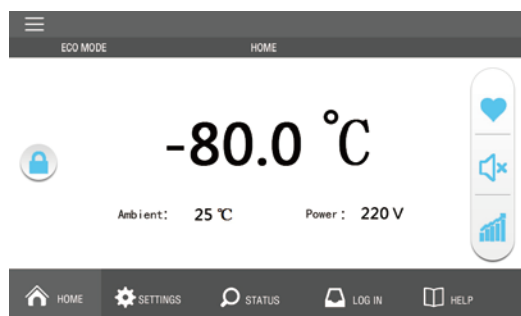


# BioSafe ECO/DUAL/MINI ULT Freezer

## TC-310 touch screen controller

TC-310 smart control system is adopted for easy observation and convenient operation.

- 7" LCD touch screen: sensitive touch, user-friendly HIM;
- Large display of chamber temperature, easy observation at distance;
- Status icon to show freezer situation at first sight: normal or abnormal;
- Password administration to prevent unauthorized change of settings;
- Show temperature curve on touch screen;
- Temperature and event data storage and USB port for download.



LOW CO2  
EMISSIONS



CFC /HCFC  
FREE



USB PORT



POWER FAILURE  
ALARM



DIRECT  
COOLING



SAFETY DOOR  
LOCK

### PERFORMANCE

- Optimized cooling system & high efficiency hydrocarbon refrigerant. (Biosafe-ECO system)
- SECOP brand compressor & EBM brand blower.
- VIP (vacuum insulation panel) + high density polyurethane forming for insulation.
- Forming inner doors for better insulation

### ERGONOMIC DESIGN

- 7-inch touch screen for easy operation
- Forming inner doors with door seal for better insulation and less frost
- Adjustable stainless steel shelves to load different size products
- Pressure release port for easy opening of outer door
- Ultra-quiet design reduces noise level
- Optional sliding drawer rack & side access rack for 2ml vials, 5ml vials or SBS boxes

### ENVIRONMENT FRIENDLY

- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates (only for Biosafe-ECO series)
- CFC-Free polyurethane foaming insulation
- High efficiency cooling system for lower energy consumption and less carbon emission

### ALARMS

- High/low temperature
- High ambient temperature
- Door ajar
- Power failure
- Sensor error
- Abnormal voltage
- Controller failure
- Low battery
- Condenser malfunction

### SAFETY

- Build-in data storage and USB port for download
- Temperature quick check via temperature curve
- Password protection avoids key parameters unauthorized change
- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- Remote alarm contacts
- Optional online monitoring system
- Optional CO2/LN2 backup system



- **USB port**  
Temperature data storage and download



- **Door handle with safety lock**  
For easy operation and prevent unauthorized access



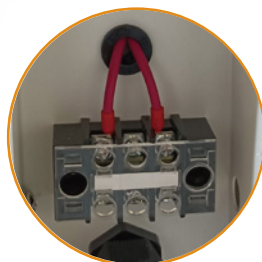
- **Stainless steel inner cabinet**  
Adjustable shelves



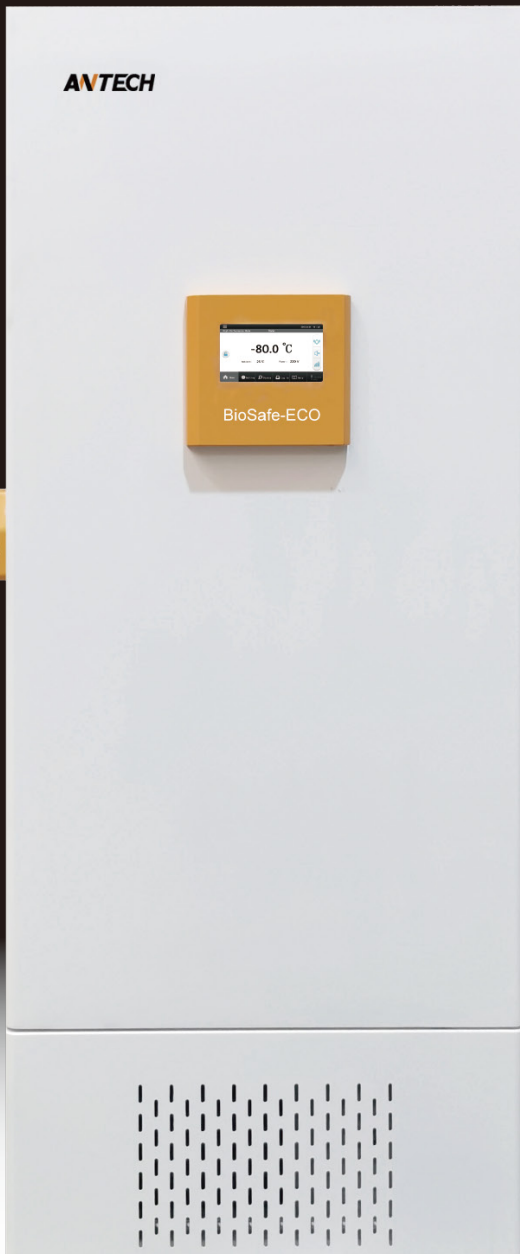
- **RS485 interface**  
Enables freezer to communicate with the computer



- **Access port**  
One access ports at side and back of freezer, for easy access of additional temperature probe



- **Remote alarm contact**  
Sending signal to a remote alarm system



# TC-300 touch screen controller

TC-300 smart control system is adopted for easy observation and convenient operation.

- 7" LCD touch screen: sensitive touch, user-friendly HIM;
- Large display of chamber temperature, easy observation at distance;
- Status icon to show freezer situation at first sight: normal or abnormal;
- Password administration to prevent unauthorized change of settings;
- Show temperature curve on touch screen;
- Temperature and event data storage and USB port for download.



LOW CO2  
EMISSIONS



CFC /HCFC  
FREE



USB PORT



POWER FAILURE  
ALARM



DIRECT  
COOLING



SAFETY DOOR  
LOCK

## PERFORMANCE

- Optimized cooling system & high efficiency hydrocarbon refrigerant.
- SECOP brand compressor & EBM brand blower.
- VIP (vacuum insulation panel) + high density polyurethane forming for insulation.
- Forming inner doors for better insulation

## ERGONOMIC DESIGN

- 7-inch touch screen for easy operation
- Forming inner doors with door seal for better insulation and less frost
- Adjustable stainless steel shelves to load different size products
- Auto heating & manual pressure release port for easy opening of outer door
- Ultra-quiet design reduces noise level
- Optional sliding drawer rack & side access rack for 2ml vials, 5ml vials or SBS boxes

## ENVIRONMENT FRIENDLY

- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates
- CFC-Free polyurethane foaming insulation
- High efficiency cooling system for lower energy consumption and less carbon emission

## ALARMS

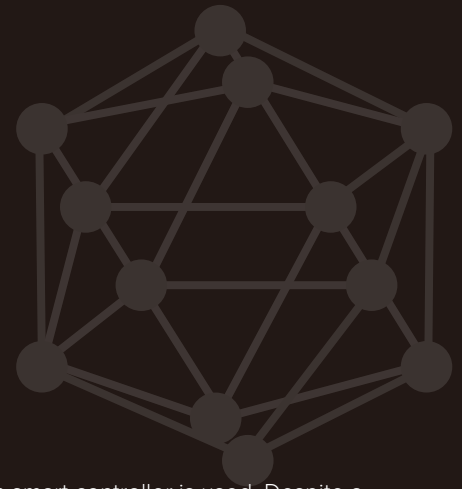
- High temperature
- Low temperature
- High ambient temperature
- Door ajar
- Power failure
- Sensor error

## SAFETY

- Build-in data storage and USB port for download
- Temperature quick check via temperature curve
- Password protection avoids key parameters unauthorized change
- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- Remote alarm contacts
- Optional online monitoring system
- Optional CO2/LN2 backup system

# BioSafe-MINI

## Under-counter ULT Freezer



ANTECH's compact under-counter ULT freezer MDF-86U108 is an ideal solution to store biological materials in a limited space. The freezer size is designed to match laboratory table height, so that it can be put under counter.

BioSafe-MINI adopts high efficiency single compressor cooling system, with reduced energy consumption and lower noise.

TC-300 touch screen smart controller is used. Despite a compact freezer, the functions are complete for medical and laboratory applications, including data storage and USB port for download, high/low temperature alarm, door open alarm, power failure alarm, remote alarm contact, etc. Therefore, MDF-86U108 meets the most rigorous requirements of healthcare and scientific research.



LOW CO<sub>2</sub>  
EMISSIONS



DOOR  
AJAR ALARM



CFC /HCFC  
FREE



USB PORT



POWER FAILURE  
ALARM



DIRECT  
COOLING



SAFETY DOOR  
LOCK

# -86°C

## BioSafe-ECO series



	Model	MDF-86U340T	MDF-86U458T	MDF-86U588T	MDF-86U728T	MDF-86U838T
Basic	Type	Upright	Upright	Upright	Upright	Upright
	Cooling technology	Cascade cooling	Cascade cooling	Cascade cooling	Cascade cooling	Cascade cooling
	Temperature setting range (°C)	-40~-86	-40~-86	-40~-86	-40~-86	-40~-86
	Climate type	N	N	N	N	N
	Capacity (L)	338	408	588	728	838
	2" box storage Qty (Pcs)	192	288	400	504	600
	Cooling type	Direct	Direct	Direct	Direct	Direct
	Defrost type	Manual	Manual	Manual	Manual	Manual
	Refrigerant	Hydrocarbon gas	Hydrocarbon gas	Hydrocarbon gas	Hydrocarbon gas	Hydrocarbon gas
	Number of compressor	2	2	2	2	2
	Compressor brand	SECOP	SECOP	SECOP	SECOP	SECOP
Control	Controller	TC-310	TC-310	TC-310	TC-310	TC-310
	Display	7" LCD touch screen	7" LCD touch screen	7" LCD touch screen	7" LCD touch screen	7" LCD touch screen
	Display accuracy	0.1	0.1	0.1	0.1	0.1
	Password protection	●	●	●	●	●
	Temperature graph	●	●	●	●	●
	USB port	●	●	●	●	●
	RS 485 port	●	●	●	●	●
	Cloud monitoring (Wi-Fi)	○	○	○	○	○
Power	Chart recorder	○	○	○	○	○
	Power supply (V/Hz)	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz
	Rated power (W)	620	650	690	710	720
Alarm	Visible/audible alarm	●	●	●	●	●
	High/Low temp	●	●	●	●	●
	Hot condenser	●	●	●	●	●
	Power failure	●	●	●	●	●
	Sensor failure	●	●	●	●	●
	High ambient temp	●	●	●	●	●
	Door open	●	●	●	●	●
	Power failure backup system(alarm)	72h	72h	72h	72h	72h
	Remote alarm contact	●	●	●	●	●
Accessories	Inner door	2	2	2	2	2
	Test access port	Φ 25mm	Φ 25mm	Φ 25mm	Φ 25mm	Φ 25mm
	Adjustable shelves	3	3	3	3	3
	Safety door lock	●	●	●	●	●
	Pressure equalization port	●	●	●	●	●
	Freezer rack	○	○	○	○	○
	Rack type (LxH)	4x4	4x5&4x4	5x5	4x5& 4x6	5x5
	Rack Qty	12	8+8	16	18+6	24
	Casters	●	●	●	●	●
	CO2/LN2 backup system	○	○	○	○	○
Material	Exterior	Powder coated steel	Powder coated steel	Powder coated steel	Powder coated steel	Powder coated steel
	Interior	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Insulation	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
	Vacuum insulation panel (VIP)	●	●	●	●	●
	Cabinet insulation thickness (mm)	150	100	100	100	100
	Outer door thickness (mm)	105	105	105	105	105
Weight & size	Net weight (kg)	296	292	335	380	397
	Gross weight (kg)	306	317	364	400	430
	Internal W×D×H (mm)	488×607×1140	606×575×1180	606×738×1310	963×571×1350	894×718×1310
	External W×D×H (mm)	854×1072×1907	891×992×1946	891×1155×1995	1248×975×1995	1179×1135×1995
	Packing W×D×H (mm)	950×1090×2070	960×1035×2120	970×1190×2210	1333×1010×2210	1275×1165×2210
	Volume (m³)	2.14	2.75	2.55	2.97	3.03

# -86°C

## BioSafe-DUAL series



	Model	MDF-86U458D	MDF-86U588D	MDF-86U728D	MDF-86U838D
Basic	Type	Upright	Upright	Upright	Upright
	Cooling technology	Independent dual cooling	Independent dual cooling	Independent dual cooling	Independent dual cooling
	Temperature setting range (°C)	-40~-86	-40~-86	-40~-86	-40~-86
	Climate type	N	N	N	N
	Capacity (L)	408	588	728	838
	2" box storage Qty (Pcs)	288	400	504	600
	Cooling type	Direct	Direct	Direct	Direct
	Defrost	Manual	Manual	Manual	Manual
	Refrigerant	R4001	R4001	R4001	R4001
	Number of compressor	2	2	2	2
Control	Compressor brand	SECOP	SECOP	SECOP	SECOP
	Controller	TC-310	TC-310	TC-310	TC-310
	Display	7" LCD touch screen	7" LCD touch screen	7" LCD touch screen	7" LCD touch screen
	Temperature display accuracy	0.1	0.1	0.1	0.1
	Password protection	●	●	●	●
	Temperature graph	●	●	●	●
	USB port	●	●	●	●
	RS 485 port	●	●	●	●
	Cloud monitoring (Wi-Fi)	○	○	○	○
	Chart recorder	/	/	/	/
Power	Power supply (V/Hz)	220/50	220/50	220/50	220/50
	Rated power (W)	1350	1500	1400	1700
Alarm	Visible/audible alarm	●	●	●	●
	High/Low temp	●	●	●	●
	Remote alarm contact	●	●	●	●
	Hot condenser	●	●	●	●
	Power failure	●	●	●	●
	Sensor failure	●	●	●	●
	High ambient temp	●	●	●	●
	Door open	●	●	●	●
	Power failure backup system(alarm)	72h	72h	72h	72h
Accessories	Inner door	2	2	2	2
	Casters	●	●	●	●
	Test access port	Φ 25mm	Φ 25mm	Φ 25mm	Φ 25mm
	Adjustable shelves	3	3	3	3
	Safety door lock	●	●	●	●
	Pressure equalization port	●	●	●	●
	Freezer rack	○	○	○	○
	Rack type (LxH)	4x5&4x4	5x5	4x5& 4x6	5x5
	Rack Qty	8+8	16	18+6	24
Material	CO2/LN2 backup system	○	○	○	○
	Exterior	Powder coated steel	Powder coated steel	Powder coated steel	Powder coated steel
	Interior	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Insulation	Polyurethane	Polyurethane	Polyurethane	Polyurethane
	Vacuum insulation panel (VIP)	●	●	●	●
	Cabinet insulation thickness (mm)	100	100	100	100
	Outer door thickness (mm)	105	105	105	105
Weight & size	Net weight (kg)	236	283	316	310
	Gross weight (kg)	278	346	392	384
	Internal W×D×H (mm)	606×575×1180	606×738×1310	963×571×1350	894×718×1310
	External W×D×H (mm)	891×992×1946	891×1155×1995	1248×975×1995	1179×1135×1995
	Packing W×D×H (mm)	963×1035×2120	970×1190×2190	1333×1010×2210	1271×1165×2190
	Packing volume (m3)	2.11	2.53	2.97	3.24

# -86°C

## BioSafe-MINI



Model		MDF-86U108	MDF-86U58	MDF-86U158
Basic	Type	Under-counter, upright	Upright	Upright
	Cooling technology	Single compressor	Single compressor	Single compressor
	Temperature setting range (°C)	-40 ~ -86	-40 ~ -86	-40 ~ -86
	Climate type	N	N	N
	Capacity (L)	88	58	158
	2" box storage Qty (Pcs)	60	36	108
	Door entrance limit (≥mm)	676	620	700
	Cooling type	Direct	Direct	Direct
	Defrost type	Manual	Manual	Manual
	Refrigerant	Mixed gas	Mixed gas	Mixed gas
	Number of compressor	1	1	1
Control	Controller	TC-300	TC-300E	TC-300E
	Display	7" LCD touch screen	LED	Electronic
	Temperature display accuracy	0.1	0.1	0.1
	Password protection	●	●	●
	USB port	●	/	/
	Cloud monitoring (Wi-Fi)	○	○	○
	Chart recorder	○	○	○
Power	Power supply (V/Hz)	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60
	Rated power (W)	410; 460; 520	500; 500; 500	500; 500; 500
	Rated current (A)	2.3; 2.6; 6.6	3.2; 3.2; 6.0	3.2; 3.2; 6.0
Alarm	Visible/audible alarm	●	●	●
	High/Low temperature	●	●	●
	Hot condenser	●	/	/
	Power failure	●	●	●
	Sensor failure	●	●	●
	High ambient temperature	●	/	/
	Door open	●	●	●
	Remote alarm contact	●	●	●
Accessories	Safety door lock	●	●	/
	Inner door	2	2	3
	Test access port	Φ19mm x 2	Φ20mm x 1	Φ20mm x 1
	Adjustable shelves	1	1	2
	Freezer rack	○	/	/
	Rack type (DxH)	3x5	/	/
	Rack Qty	4	/	/
	Pressure equalization port	Manual	/	/
	Casters	●	●	●
Material	CO2/LN2 backup system	○	○	○
	Exterior	Pre-coated steel	Pre-coated steel	Pre-coated steel
	Interior	Pre-coated steel	Stainless steel	Stainless steel
	Insulation	Polyurethane	Polyurethane	Polyurethane
	Vacuum insulation panel (VIP)	●	/	/
	Cabinet insulation thickness (mm)	90	90	120
	Outer door thickness (mm)	90	90	120
Weight & size	Net weight (kg)	85	75	130
	Gross weight (kg)	105	95	160
	Internal W×D×H (mm)	320×450×610	364×405×409	460×455×800
	External W×D×H (mm)	800×700×870	540×620×1115	700×700×1580
	Packing W×D×H (mm)	850×730×953	610×700×1240	780×800×1710
	Packing volume (m3)	0.59	0.53	1.07



# -86°C

## Chest type



Model		MDF-86C118	MDF-86C458	MDF-86C728
Basic	Type	Chest	Chest	Chest
	Cooling technology	Single compressor	Cascade cooling	Cascade cooling
	Temperature setting range (°C)	-40~-86	-40~-86	-40~-86
	Climate type	N	N	N
	Capacity (L)	130	495	746
	2" box storage Qty (Pcs)	96	360	585
	Door entrance limit (≥mm)	740	780	997
	Cooling type	Direct	Direct	Direct
	Defrost type	Manual	Manual	Manual
	Refrigerant	Mixed gas	Hydrocarbon gas	Hydrocarbon gas
	Number of compressor	1	2	2
Control	Controller	TC-300	TC-300	TC-300
	Display	7" LCD touch screen	7" LCD touch screen	7" LCD touch screen
	Temperature display accuracy	0.1	0.1	0.1
	Password protection	●	●	●
	USB port	●	●	●
	Cloud monitoring (Wi-Fi)	○	○	○
	Chart recorder	○	○	○
Power	Power supply (V/Hz)	220/50; 220/60; 120/60	220/50; 220/60; 120/60	220/50; 220/60; 120/60
	Rated power (W)	480; 480; 540	900; 850; 780	980; 900; 820
	Rated current (A)	2.8; 2.8; 6.7	7.0; 5.0; 8.8	7.2; 5.8; 9.0
Alarm	Visible/audible alarm	●	●	●
	High/Low temperature	●	●	●
	Hot condenser	●	●	●
	Power failure	●	●	●
	Sensor failure	●	●	●
	High ambient temperature	●	●	●
	Door open	●	●	●
	Remote alarm contact	●	●	●
Accessories	Safety door lock	●	●	●
	Inner door	/	2	2
	Test access port	Φ20mm x 2	Φ20mm x 2	Φ20mm x 2
	Adjustable shelves	N/A	N/A	N/A
	Freezer rack	○	○	○
	Rack type (DxH)	1×8	1×10	1×13
	Rack Qty	12	36	45
	Pressure equalization port	Manual	Auto x 1 & manual x 1	Auto x 1 & manual x 1
	Casters	●	●	●
	CO2/LN2 backup system	○	○	○
Material	Exterior	Pre-coated steel	Pre-coated steel	Pre-coated steel
	Interior	Stainless steel	Stainless steel	Stainless steel
	Insulation	Polyurethane	Polyurethane	Polyurethane
	Vacuum insulation panel (VIP)	●	●	●
	Cabinet insulation thickness (mm)	90	90	90
	Outer door thickness (mm)	90	90	90
Weight & size	Net weight (kg)	98	242	275
	Gross weight (kg)	116	278	318
	Internal W×D×H (mm)	630×440×470	1310×600×630	1310×740×770
	External W×D×H (mm)	850×740×1023	1965×860×910	1965×1000×1040
	Packing W×D×H (mm)	930×780×1160	2010×880×1030	2010×1095×1165
	Packing volume (m3)	0.84	1.82	2.56

# CO<sub>2</sub> Back-up System

BS-1 is to ensure optimal security for critical samples stored in Ultra-Low Temperature Freezers. It controls injection of CO<sub>2</sub> into freezer when freezer temperature rises above the preset temperature value. It also reminds users to fill or replace their CO<sub>2</sub> cylinders when pressure is low.



## ADVANTAGE

- Compact design, small footprint, can be placed on freezer top
- Temperature display, setting temperature adjustable by user
- Unique low CO<sub>2</sub> alarm, reminding user to change CO<sub>2</sub> cylinder in time
- USA-made ASCO brand ultra-low temperature electromagnetic valve

## RELIABILITY

- Stainless steel construction, rust-free, easy cleaning
- Hose & injection tube with sponge cover for insulation
- Rechargeable battery for 36 hours working time

## SAFETY

- Valve test button to check whether electromagnetic valve works normally
- High/Low temperature alarm, low battery alarm, low CO<sub>2</sub> alarm
- Stop injection of CO<sub>2</sub> when door opens, protecting user from being injured by liquid CO<sub>2</sub> (need to be connected with ULT freezer door switch).

# CO<sub>2</sub> Back-up System

Model		BS-1
Basic	Cooling Performance (°C)	-70
	Temperature Range (°C)	-40~-70
	Climate type	N
	Cooling Type	Direct Cooling
	Refrigerant	Liquid CO <sub>2</sub>
Control	Controller	Thermostat
	Display	LED
	Temperature Increment (°C)	1
Power	Power Supply	AC 100~240V, 50/60Hz
	Power (W)	20
	Electrical Current (A)	0.25
Alarm	High/Low Temperature Alarm	●
	Low Liquid CO <sub>2</sub> Alarm	●
	Low Battery Alarm	●
	Sensor Failure Alarm	●
	Main Power Failure Alarm	●
Accessories	Valve Test Button	●
	Valve Open Indicator Light	●
	Main Power On Indicator Light	●
	*Hose (connecting backup system & CO <sub>2</sub> cylinder)	3 meter
	Injection Tube (connecting backup system & freezer)	2 meter
Weight & size	Net/Gross Weight	11.2/13.6kg
	External W×D×H (mm)	200×400×160
	Packing W×D×H (mm)	370×530×330



\*The specification of the joint connected to the CO<sub>2</sub> cylinder is G 5/8 "

# LN<sub>2</sub> Back-up System

BS-II is to ensure optimal security for critical samples stored in ultra low temperature freezers. It controls injection of LN<sub>2</sub> into freezer when freezer temperature rises above the preset temperature value.



## ADVANTAGE

- Compact design, small footprint, can be placed on freezer top
- Temperature display, setting temperature adjustable by user
- USA-made ASCO brand ultra-low temperature electromagnetic valve

## RELIABILITY

- Stainless steel construction, rust-free, easy cleaning
- Hose & injection tube with sponge cover for insulation
- Rechargeable battery for 36 hours working time

## SAFETY

- Valve test button to check whether electromagnetic valve works normally
- High/Low temperature alarm, low battery alarm
- Stop injection of LN<sub>2</sub> when door opens, protecting user from being injured by liquid LN<sub>2</sub> (need to be connected with ULT freezer door switch).

# LN<sub>2</sub> Back-up System

Model		BS-II
Basic	Cooling Performance (°C)	-150
	Temperature Range (°C)	- 60~ - 150
	Climate type	N
	Cooling Type	Direct Cooling
	Refrigerant	LN2
Control	Controller	Thermostat
	Display	LED
	Temperature Increment (°C)	1
Power	Power Supply	AC 100~240V, 50/60Hz
	Power (W)	20
	Electrical Current (A)	0.25
Alarm	High/Low Temperature Alarm	●
	Low Liquid LN2 Alarm	/
	Low Battery Alarm	●
	Sensor Failure Alarm	●
	Main Power Failure Alarm	●
Accessories	Valve Test Button	●
	Valve Open Indicator Light	●
	Main Power On Indicator Light	●
	*Hose (connecting backup system & LN2 cylinder)	3 meter
	Injection Tube (connecting backup system & freezer)	2 meter
Weight & size	Net/Gross Weight	11.2/13.6kg
	External W×D×H (mm)	200×400×160
	Packing W×D×H (mm)	370×530×330

\*The specification of the joint connected to the LN<sub>2</sub> cylinder is CGA-295



# -150°C Cryogenic Freezer

The -150 °C cryo freezer provides a safe, convenient and economical alternative for long term storage for a variety of biological specimens at cryogenic temperature (below -135°C).

Compared with liquid nitrogen containers, there is no need to supply liquid nitrogen for mechanical freezers. It is easier to use and contamination risk caused by liquid nitrogen is avoided.

ANTECH adopted innovative 2-compressor cascade cooling system for its cryogenic freezers, realizing lower power consumption, faster cooling rate and lower noise level.



LOW CO2  
EMISSIONS



NATURAL  
REFRIGERANT



CFC /HCFC  
FREE



HIGH/LOW  
TEMPERATURE ALARM



POWER FAILURE  
ALARM



DIRECT  
COOLING



SAFETY DOOR  
LOCK

## PERFORMANCE

- Optimized cooling system & high efficiency hydrocarbon refrigerant.
- SECOP brand compressor & EBM brand blower.
- High density polyurethane forming for insulation.

## ALARMS

- High temperature
- Low temperature
- Power failure
- Sensor error

## ERGONOMIC DESIGN

- Forming inner doors for better insulation and less frost
- Stainless steel interior for easy cleaning
- Ultra-quiet design reduces noise level
- Optional slim rack for convenient operation

## SAFETY

- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- Optional online monitoring system
- Optional CO2/LN2 backup system

## ENVIRONMENT FRIENDLY

- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates
- CFC-Free polyurethane foaming insulation
- High efficiency cooling system for lower energy consumption and less carbon emission

# -150°C

## Cryo Freezer

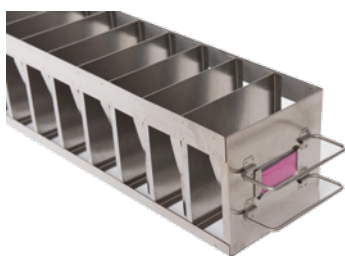


Model		MDF-150C118	MDF-150C208
Basic	Type	Chest	Chest
	Cooling technology	2-compressor cascade system	2-compressor cascade system
	Temperature setting range (°C)	-125 ~ -150	-125 ~ -150
	Climate type	N	N
	Capacity (L)	118	258
	2" box storage Qty (Pcs)	54	165
	Cooling type	Direct	Direct
	Defrost type	Manual	Manual
	Door entrance limit (≥mm)	780	885
	Number of compressor	2	2
	Compressor brand	SECOP	SECOP
Control	Controller	Microprocessor	Microprocessor
	Display	LED	LED
	Temperature display accuracy	0.1	0.1
	Cloud monitoring (Wi-Fi)	○	○
Power	Power supply (V/Hz)	220/50; 220/60; 120/60	220V/50Hz
	Rated power (W)	1800; 1800; 1800	2450
	Rated current (A)	10.0; 10.0; 19.8	15.0
Alarm	Visible/audible alarm	●	●
	High/Low temperature	●	●
	Power failure	●	●
	Sensor failure	●	●
Accessories	Safety door lock	●	●
	Inner door	1	2
	Test access port	Φ 20mm x 1	Φ 20mm x 1
	Freezer rack	○	○
	Rack model	CFH-9-2, 1×9	CFH-11-2, 1×11
	Rack Qty	6	15
	Casters	6	6
	LN2 backup system	○	○
Material	Exterior	Pre-coated steel	Pre-coated steel
	Interior	Stainless steel	Stainless steel
	Insulation	Polyurethane	Polyurethane
	Cabinet insulation thickness (mm)	150mm	150mm
	Outer door thickness (mm)	105mm	105mm
Weight & size	Net weight (kg)	165	232
	Gross weight (kg)	208	292
	Internal W×D×H (mm)	540×400×560	780×500×660
	External W×D×H (mm)	1275×795×990	1510×885×1095
	Packing W×D×H (mm)	1340×860×1140	1570×960×1230
	Volume (m³)	1.31	1.85

# Racks for Antech Freezers

Model	Rack type (boxes each layer x layers)	Rack model		Racks per freezer	2" box storage capacity	Maximum 2ml vial capacity
		Sliding drawer	Side access			
MDF-86U108	3x5	VFD-352	VFF-352	4	60	6,000
MDF-86U158	3x4	VFD-342	VFF-342	9	108	10,800
MDF-86U340T	4x4	VFD-442	VFF-442	12	192	19,200
MDF-86U458T/458D	4x5 & 4x4	VFD-452&VFD-442	VFF-452&VFF-442	8+8	288	28,800
MDF-86U588T/588D	5x5	VFD-552	VFF-552	16	400	40,000
MDF-86U728T/728D	4x5 & 4x6	VFD-452&VFD-462	VFF-452&VFF-462	18+6	504	50,400
MDF-86U838T/838D	5x5	VFD-552	VFF-552	24	600	60,000
MDF-86C118	1x8	N/A	CFC-8-2	12	96	9,600
MDF-86C458	1x10	N/A	CFC-10-2	36	360	36,000
MDF-86C728	1x13	N/A	CFC-13-2	45	585	58,500
MDF-150C118	1x9	N/A	CFC-9-2	6	54	5,400
MDF-150C208	1x11	N/A	CFC-11-2	15	165	16,500

## Vertical Racks with Spring Clip for 2" Boxes



- ▶ Spring clips for easy operation and prevent box drop.
- ▶ Dual large handles at top for easy handling.
- ▶ Label holders for easy identification.
- ▶ Constructed of high-grade corrosion resistant stainless steel.
- ▶ Precision craftsmanship & no sharp edges.

### Vertical Racks for 2" Boxes

Item#	Description / Capacity	H x W x D, mm
CFC-7-2	7 Boxes	432 x 140 x 140
CFC-8-2	8 Boxes	488 x 140 x 140
CFC-9-2	9 Boxes	544 x 140 x 140
CFC-10-2	10 Boxes	600 x 140 x 140
CFC-11-2	11 Boxes	656 x 140 x 140
CFC-12-2	12 Boxes	712 x 140 x 140
CFC-13-2	13 Boxes	768 x 140 x 140
CFC-14-2	14 Boxes	824 x 140 x 140
CFC-15-2	15 Boxes	880 x 140 x 140
CFC-16-2	16 Boxes	936 x 140 x 140

Note: including handle height 40mm.

# Sliding Drawer Freezer Racks for 2" & 3" Boxes



- ▶ Handle at each drawer for easy handling.
- ▶ Label holder at each drawer for easy identification.
- ▶ Constructed of high-grade corrosion resistant stainless steel.
- ▶ Precision craftsmanship & no sharp edges.

## For 2" Freezer Boxes

Item#	Boxes per layer x Layers	L x H x W, mm
VFD-332	3 x 3 Rack/ for 9 boxes	424 x 177 x 140
VFD-342	3 x 4 Rack/ for 12 boxes	424 x 236 x 140
VFD-352	3 x 5 Rack/ for 15 boxes	424 x 295 x 140
VFD-432	4 x 3 Rack/ for 12 boxes	557 x 177 x 140
VFD-442	4 x 4 Rack/ for 16 boxes	557 x 236 x 140
VFD-452	4 x 5 Rack/ for 20 boxes	557 x 295 x 140
VFD-462	4 x 6 Rack/ for 24 boxes	557 x 354 x 140
VFD-542	5 x 4 Rack/ for 20 boxes	690 x 236 x 140
VFD-552	5 x 5 Rack/ for 25 boxes	690 x 295 x 140
VFD-652	6 x 5 Rack/ for 30 boxes	823 x 295 x 140

## For 3.75" Freezer Boxes

Item#	Boxes per layer x Layers	L x H x W, mm
VFD-323	3 x 2 Rack/ for 6 boxes	424 x 202 x 140
VFD-333	3 x 3 Rack/ for 9 boxes	424 x 303 x 140
VFD-423	4 x 2 Rack/ for 8 boxes	557 x 202 x 140
VFD-433	4 x 3 Rack/ for 12 boxes	557 x 303 x 140
VFD-443	4 x 4 Rack/ for 16 boxes	557 x 404 x 140
VFD-453	4 x 5 Rack/ for 20 boxes	557 x 505 x 140
VFD-523	5 x 2 Rack/ for 10 boxes	690 x 202 x 140
VFD-533	5 x 3 Rack/ for 15 boxes	690 x 303 x 140



## Side Access Freezer (Frame Type) Racks for 2" & 3" Boxes



- ▶ Large handles for easy handling.
- ▶ Label holders for easy identification.
- ▶ Constructed of high-grade corrosion resistant stainless steel.
- ▶ Precision craftsmanship & no sharp edges.

### For 2" Freezer Boxes

Item#	Boxes per layer x Layers	L x H x W, mm
VFF-332	3 x 3 Rack/ for 9 boxes	425 x 171 x 137
VFF-342	3 x 4 Rack/ for 12 boxes	422 x 229 x 137
VFF-352	3 x 5 Rack/ for 15 boxes	422 x 284 x 137
VFF-432	4 x 3 Rack/ for 12 boxes	560 x 171 x 137
VFF-442	4 x 4 Rack/ for 16 boxes	560 x 229 x 137
VFF-452	4 x 5 Rack/ for 20 boxes	560 x 284 x 137
VFF-462	4 x 6 Rack/ for 24 boxes	560 x 339 x 137
VFF-542	5 x 4 Rack/ for 20 boxes	696 x 229 x 137
VFF-552	5 x 5 Rack/ for 25 boxes	696 x 284 x 137
VFF-652	5 x 6 Rack/ for 30 boxes	696 x 339 x 137

### For 3.75" Freezer Boxes

Item#	Boxes per layer x Layers	L x H x W, mm
VFF-323	3 x 2 Rack/ for 6 boxes	424 x 202 x 140
VFF-333	3 x 3 Rack/ for 9 boxes	424 x 303 x 140
VFF-423	4 x 2 Rack/ for 8 boxes	557 x 202 x 140
VFF-433	4 x 3 Rack/ for 12 boxes	557 x 303 x 140
VFF-443	4 x 4 Rack/ for 16 boxes	557 x 404 x 140
VFF-453	4 x 5 Rack/ for 20 boxes	557 x 505 x 140
VFF-523	5 x 2 Rack/ for 10 boxes	690 x 202 x 140
VFF-533	5 x 3 Rack/ for 15 boxes	690 x 303 x 140

# -86°C Portable ULT Freezer 1 liter

## CryoExpress ONE

Antech CryoExpress series ultra low temperature portable freezer is compact in size, light in weight, and powerful in cooling.

Taking advantages of advanced Stirling cooling technology, CryoExpress series offer wide range accurate temperature control, from ambient temperature to -86°C ultra low temperature, which can be used for transportation of biological sample, vaccine, pharmacy, etc.

The portable freezer can be powered with 12~24V DC on a moving vehicle or vessel. Since a built-in lithium battery is supplied, it even works for certain time without any external power supply, so that the positive cooling continues from vehicle to freezer at destination.

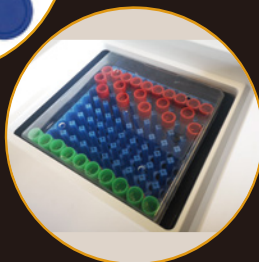
By using adapter, CryoExpress series freezer can be powered and charged with 100~240V AC power supply.



► Electric door lock (NFC card)



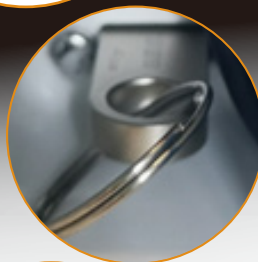
► Space for 100-place cryogenic box



► Advanced Stirling cooling technology



► USB port for data download



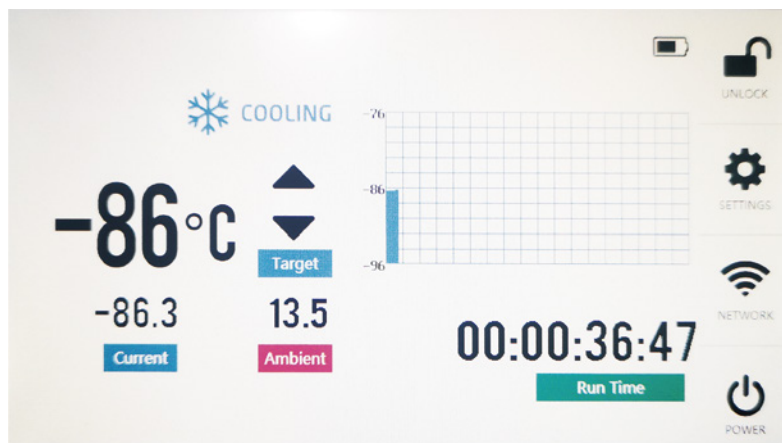
► Built-in lithium battery



► Large handle for convenient movement



## Touch screen controller



- Set temperature
- Inner cabin temperature
- Ambient temperature
- Temperature graph
- Running time
- Battery status
- Door lock status
- Settings
- Network status
- Power button

## Specification

Model		CryoExpress ONE
Basic	Temperature range	-86°C to 8°C @ 25°C ambient
	Climate type	SN/N
	Capacity	1 Liter
	2ml vials capacity	100 pcs (81/100-place cryogenic box)
	Cooling system	Free-piston Stirling engine cooler
	Insulation	Vacuum insulation panel & polyurethane foam
	Door lock	NFC electric lock & manual lock
Control	Controller	Touch screen
	USB port & data memory	●
Power	Power supply	DC 12~30V; AC 100~240V, 50/60Hz
	Rated power	80W
	Power cord	AC adapter & power cord, DC power cord
	Backup battery (standard)	Built-in lithium battery, 1-hour working time
	Backup battery (optional)	External lithium battery, 4-hour working time
Weight & size	Net weight	13.5kg
	Internal W×D×H (mm)	147 x 130 x 58
	External W×D×H (mm)	290 x 311 x 450

# -86°C Portable ULT Freezer 25 liter

Antech CryoExpress series ultra low temperature portable freezer is compact in size, light in weight, and powerful in cooling. Taking advantages of advanced Stirling cooling technology, CryoExpress series offer wide range accurate temperature control from ambient temperature to -86 °C ultra low temperature, which can be used for transportation of biological sample, cells, vaccine, pharmacy, etc.

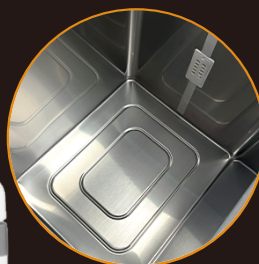
The portable freezer can be powered with 12~24v DC on a moving vehicle or vessel, or by a power bank. By using adapter, CryoExpress series freezer can be powered and charged with 100~240V AC power supply.



► **Ergonomic designed handle**  
Easy to hold and remove



► **AC power connection**  
With small lid can protect from liquid, dust and others pollutant



► **Liner**  
Food grade 304 stainless steel liner



► **DC power connection**  
Male-female cord adapter design, make the line link more tightly



► **Microprocessor controller**  
Easy to use and set



► **Hinge**  
Secure and reliable quality insures the lid open and close freely

# Features

- **Precise temperature control**

Fast cooling speed and uniform internal temperature

- **High energy efficiency**

Designed for space and energy efficiency, the ultra-low temperature freezer uses less than 2.8 kWh/day at -80°C

- **Compatible with multiple power sources**

The portable ULT freezer plugs into any 110V–240V outlet, worldwide, and can even run on 12V DC power with an automotive adapter

- **Compact and lightweight design**

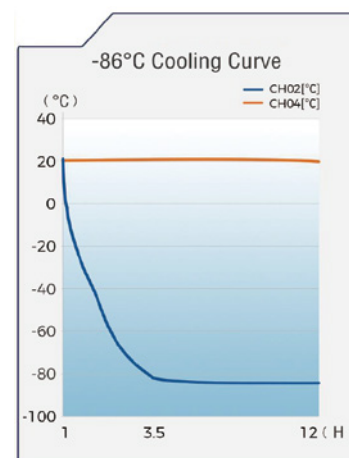
Weighing only 17.5kg, the portable ULT freezer can easily and inexpensively be shipped anywhere in the world

- **User-friendly operation and maintenance**

The operation touch panel is easy to operate and set up

- **Utilizes 100% natural refrigerant, supporting -sustainable and eco-friendly operation**

Use natural refrigerants, which are more environmentally sustainable and eliminate the need for special export shipping classifications



## WHY CHOOSE STIRLING COOLING TECHNOLOGY?

The revolutionary ultra-low temperature freezer was equipped with Stirling compressor. The Stirling refrigeration compressor is a mechanical chiller driven by electricity.

With its compact and field-proven, free-piston Stirling engine technology, it brings portable, precisely controlled ULT freezer storage anywhere there is a need for patient care, testing or specimen collection.

Advantages:

- Simplified structure
- Operates without tilt angle restrictions
- Rapid freezing capability
- High efficiency with low energy consumption
- Long lifespan and maintenance-free

## -86°C Portable ULT Freezer

Model		MMF-2
Basic	Temperature range	-86 °C to 18 °C
	Climate type	SN/N
	Capacity	25L
	Number of 81/100-place 2" boxes	18
	Cooling type	Free-piston Stirling Engine
	Defrost type	Manual
	Controller	Microprocessor Controller
	Door lock	Yes
	Over temperature alarm	Yes
	Liner material	SUS304
Power	Power supply	100V~240V AC, 50/60 Hz; 12~24V DC
	Rated power	100W
	Power cord	AC adapter & power cord, DC power cord
Weight & size	Net weight	17.5kg
	Gross weight	21kg
	Internal W×D×H (mm)	250×300×300
	External W×D×H (mm)	392×455×616
	Packing W×D×H (mm)	480×530×710



Qingdao Antech Scientific Co., Ltd.

Tel: +86 532 87890321

Email: [info@antechscientific.com](mailto:info@antechscientific.com)

Web: [www.antechscientific.com](http://www.antechscientific.com)

