

# COLD STORAGE SOLUTIONS

By Antech Scientific



**ANTECH**  
s c i e n t i f i c

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s c i e n t i f i c

## Company Profile



**ANTECH Group** is committed to offering high quality laboratory instruments and medical products while matching to the unique needs of customer. Our dedication is to provide quality instruments with lifetime care.

Antech Group sets its production facilities in 5 cities. The product lines include:

Cold storage – Cryogenic freezer, ULT freezer, deep freezer, pharmacy refrigerator, blood bank refrigerator, vaccine refrigerator and cold room

Cryogenic storage – liquid nitrogen freezer, liquid nitrogen container and Dewar vessel

Clean air product – biological safety cabinet, laminar flow cabinet (clean bench), air shower, sample booth, fan filter unit and clean room

Scientific instrument – fermenter, bio-reactor, freeze dryer, glassware washer, centrifuge, incubator and water purification system

Medical equipment & consumable - washer disinfector and plasma sterilizer

In accordance to our unique business philosophy, we always remind ourselves to avoid any short-sighted activities and to focus on long-term success and growth.

We Antech team treat our customers as long-term partners & life-time friends. We are very clear that any of our success comes and will come from satisfaction of our partners and customers. "Quality instruments, lifetime care" is commitment to our partners, as well as to ourselves.

*Quality Instruments, Lifetime Care*

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## Ergonomic Design

- Lining with SUS304 stainless steel, easy to clean, rust-proof;
- Power-on delay protection, shutdown interval protection, over-temperature alarm function;
- Safety door lock design, to prevent unauthorized access;
- Fluorine-free environmental friendly mixed refrigerant;

## Specification

	Model	MDF-150C118
Technical Data	Cabinet Type	Chest
	Ambient temperature (°C)	10~25
	Cooling Type	Direct Cooling
	Cooling System	Single Compressor Auto-cascade System
	Defrost Mode	Manual
	Refrigerant	CFC-Free
	Door	Single Solid Door
Performance	Noise (dB)	55
	Temperature Range (°C)	-126~ -150
Control	Cooling Performance (°C)	-150
	Temperature Control	Microprocessor
Material	Display	LED
	Interior	SUS304
Electrical Data	Exterior	Powder Coated Steel
	Voltage/Frequency	220V~240V, 50Hz/60Hz
	Power (W)	2300
Dimensions	Electrical Current (A)	13.50
	Gross Capacity (L)	118
	Net/Gross Weight (kg)	110/118
	Internal Dimension (W/D/H, mm)	500×400×560
Functions	External Dimension(W/D/H, mm)	1270×780×965
	High/low Temperature Alarm	Y
	Power Failure Alarm	Y
Accessories	Sensor Error Alarm	Y
	Caster	6
	Test Hole	Standard
Others	Printer/ Chart Recorder	Optional
	Certificate	CE, ISO9001

The -150 °C Cryo freezer provides a safe, convenient and economical alternative long term storage solution for a variety of biological specimens.

It applies in institutions including blood banks, hospitals, epidemic prevention services, research institutes and research laboratories.

Antech Cryogenic freezer adopts high-efficiency cooling system, realizing super low power consumption, fast cooling and low noise level.



## Key Features

- Innovative single compressor refrigeration system, more stable, more efficient, lower power consumption & noise level;
- World class SECOP compressor and German EBM fan;
- Italy microcomputer controller, LED digital display.



## EcoTouch Series ULT freezer

**SUS304 Interior**  
durable use and easy clean



**Ergonomic door padlock-compatible, integrated key lock**

**Built-in whiteboard**  
transfer message easily

**Washable filter**  
provides protection against dust on the condenser

**Castor with breaker**  
for easy installation



**7" LCD Eco touch screen**  
Friendly interface freezer information

On-board data storage Store up to 15 years of temperature and event data

**Pressure release port**  
for quick re-entries after door opening

**USB port**  
download freezer temperature and event data



**Remote alarm contact**  
output compatible with external alarm and monitoring systems

**Optional seven day chart recorder**

The -86°C ULT freezer is specially designed for a stable ultra low temperature storage condition, to store germs, erythrocytes, leucocytes, viruses and many other biological materials. Installations can be found in research institutes, pharmacy industry, clinical labs, blood banks and laboratories in electronic & chemical plants.



## A SMART freezer

- 7" touch screen, easy observation & convenient operation
- Checking history temperature curve and alarm record on screen
- Self-diagnostic, automatic check & alarm for key components
- Optional USB port, download data conveniently

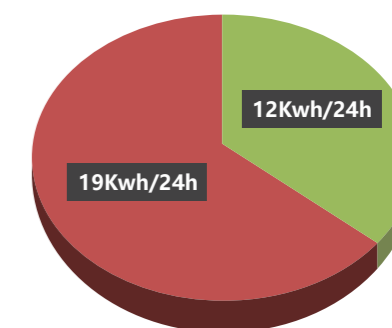


## A GREEN freezer

- Non greenhouse gas is used, an environmental friendly freezer.
- Hydrocarbon two compressor cascade cooling system for super low power consumption.

## Power consumption of traditional freezer & energy-saving freezer

- energy saving freezer
- traditional freezer



## Electricity charge for a 600 liter ULT freezer

Product	Power consumption (Kwh/24h)	Ambient Temperature	1-year charge	5-year charge
Traditional freezer	19.00	25°C	€ 1,733.75	€ 8,668.75
Antech energy-saving freezer	12.00	25°C	€ 1,095.00	€ 5,475.00
<b>Value saved</b>			<b>€ 638.75</b>	<b>€ 3,193.75</b>
				<b>€ 17,337.50</b>
				<b>€ 10,950.00</b>
				<b>€ 6,387.50</b>

## A USER-FRIENDLY freezer

- SUS304 interior for easy cleaning & rust free
- White board to record a message conveniently
- Document groove to put paper, create a stylish lab
- Optional electric lock for safety and convenient administration
- Maximum sample storage capacity with an optimum footprint
- Special noise reduction design, a real quite lab partner



▲ Outer door latch with padlock panel



▲ SS304 inner door latch



▲ SS304 inner cabinet, figure marked strip and sensor



▲ Protection against Wall



▲ Washable filter



▲ Heavy-duty caster with lock



▲ Testing port



▲ 7-day circular chart recorder is Optional



## Specification

Model	MDF-86U458T	MDF-86U588T	MDF-86U728T	MDF-86U838T
<b>Technical Data</b>				
Type	Upright	Upright	Upright	Upright
Capacity (L/cu ft)	408/14.41	588/20.76	728/25.70	838/29.59
Inner doors	2 pcs, forming door, SUS304	2 pcs, forming door, SUS304	2 pcs, forming door, SUS304	2 pcs, forming door, SUS304
Shelves	3 pcs, SUS304	3 pcs, SUS304	3 pcs, SUS304	3, made in SUS304
Inner chamber material	SUS304	SUS304	SUS304	SUS304
Cooling type	Direct cooling	Direct cooling	Direct cooling	Direct cooling
Refrigerant	Hydrocarbon, CFC Free, Non greenhouse	Hydrocarbon, CFC Free, Non greenhouse gas	Hydrocarbon, CFC Free, Non greenhouse gas	Hydrocarbon, CFC Free, Non greenhouse gas
Noise level (dB)	50	51	52	53
<b>Temperature</b>				
Ambient temperature (°C)	10~32°C	10~32°C	10~32°C	10~32°C
Temperature range (°C)	-40~-86°C	-40~-86°C	-40~-86°C	-40~-86°C
<b>Cooling &amp; Controller</b>				
Cooling System	Two compressor cascade system	Two compressor cascade system	Two compressor cascade system	Two compressor cascade system
Compressor Brand	SECOP	SECOP	SECOP	SECOP
Sensor	PT100	PT100	PT100	PT100
Controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor
Display & Control	7" Touch Screen	7" Touch Screen	7" Touch Screen	7" Touch Screen
<b>Electronic parameter</b>				
Voltage/Frequency	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz
Power (W)	845	815	935	890
Power Consumption (kWh/24h)	11.6	12	13.28	13.86
<b>Vials load</b>				
2ml Vials (pcs)	19200	40000	50000	60000
<b>Size &amp; Weight</b>				
Internal (W*D*H) mm	606×575×1180	606×738×1310	963×558×1350	894×718×1310
External (W*D*H) mm	872×940×1945.5	872×1100×1994.5	1248×970×1994.5	1160×1085×1994.5
Packing (W*D*H) mm	950×960×2110	970×1140×2190	1320×1110×2185	1280×1120×2210
Net/Gross weight (kg)	215/245	249/275	320/350	275/305
<b>Alarm System</b>				
High/low temperature	✓	✓	✓	✓
Power off	✓	✓	✓	✓
Abnormal voltage	✓	✓	✓	✓
Sensor malfunction	✓	✓	✓	✓
Filter screen check	✓	✓	✓	✓
Temperature controller malfunction	✓	✓	✓	✓
Backup battery malfunction	✓	✓	✓	✓
Condenser malfunction	✓	✓	✓	✓
Ambient temperature	✓	✓	✓	✓
<b>Accessories</b>				
Door ajar	✓	✓	✓	✓
Caster	4	4	4	4
Test hole/Diameter	1/25mm	1/25mm	1/25mm	1/25mm
Remote alarm contact	✓	✓	✓	✓
RS232/485 port	✓	✓	✓	✓
USB Port	Optional	Optional	Optional	Optional
Temperature recorder	Optional	Optional	Optional	Optional
Freezer racks	Optional	Optional	Optional	Optional
CO2 backup system	Optional	Optional	Optional	Optional
LN2 backup system	Optional	Optional	Optional	Optional

## EcoLogic Series ULT freezer



### Precise Temperature Control

Microprocessor temperature controller, digital temperature display, ensure precise & stable running at -86°C  
LED digital display, easy to read temperature and alarm conditions.



### Advanced Cooling System

- Two-compressor cascade refrigeration system with Hydrocarbon refrigerant
- World-class famous SECOP brand compressor
- High-tech integrated sensors to display and control temperature
- Wide range operating voltage system from 185V to 260 V designed
- Suitable for 10°C to 32°C ambient temperature

### Ultra Low Power Consumption

- World leading energy efficient ULT freezer
- VIP panel for excellent insulations
- Insulated inner door to keep cold air inside of cabinet
- High efficiency cooling system

### Ergonomic Design

- Removable condenser cover, easy maintenance
- Stainless steel 304 interior material, easy cleaning
- Lockable casters for easy movement and fix
- Top quality stainless steel racks and cryogenic boxes are available



## Specification

	Model	MDF-86U340J
Technical Data	Cabinet Type	Upright
	Gross Capacity (L)	340
	2ml Vials (pcs)	19200
	Climate Class	N
	Cooling Type	Direct Cooling
	Cooling System	Two Compressor Cascade System
	Defrost Mode	Manual
	Refrigerant	CFC-Free
	Door	Single Solid Door
Performance	Noise (dB)	50
	Temperature Range (°C)	-60 ~ -86
Control	Cooling Performance (°C)	-86
	Temperature Control	Microprocessor
Material	Display	LED
	Interior	SUS304
	Exterior	Powder Coated Steel
	Shelf	SUS304
Electrical Data	Insulation	PU Forming
	Voltage/Frequency	220V~240V, 50Hz
Dimensions	Power (W)	800
	Net/Gross Weight (kg)	190/240
	Internal Dimension (W/D/H, mm)	488×607×1140
	External Dimension (W/D/H, mm)	854×1072×1907
	Packing Dimension (W/D/H, mm)	935×1070×2128
	Container Load (20'/40'/40'H)	12/24/24
	High/low Temperature Alarm	Y
Functions	High Ambient Temp Alarm	Y
	Remote Alarm Contact	Y
	Hot Condenser Alarm	Y
	Power Failure Alarm	Y
	High/low Voltage Alarm	Y
	Sensor Error Alarm	Y
	Low Battery Alarm	Y
Accessories	Door Lock	Y
	Caster	4
	Shelf/Chamber	3/4
	Inner Door	2
	Remote Alarm Contact	Standard
	Test Hole	Standard
	Chart Recorder	Optional
	USB Interface	Y
	CO2 Backup System	Optional
	LN2 Backup System	Optional
Others	Certificate	CE, ISO9001

## DualGuard Series ULT Freezer



### Dual Cooling System

The Dual Cooling System Ultra-low Freezer avoids conventional cascade refrigeration technology by using two completely independent one-compressor, auto-cascade cooling systems, each capable of maintaining ultra-low temperatures.

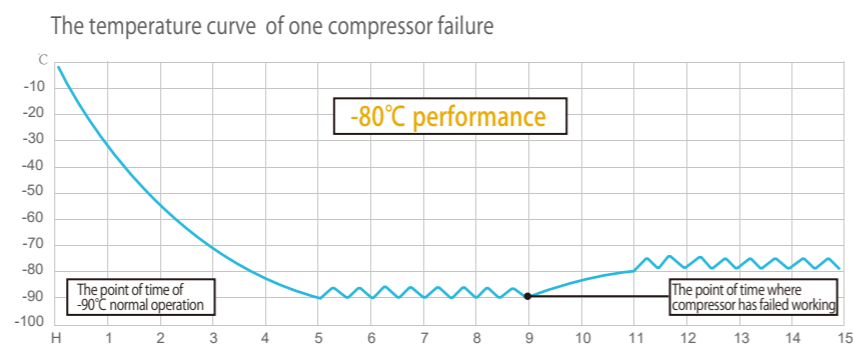
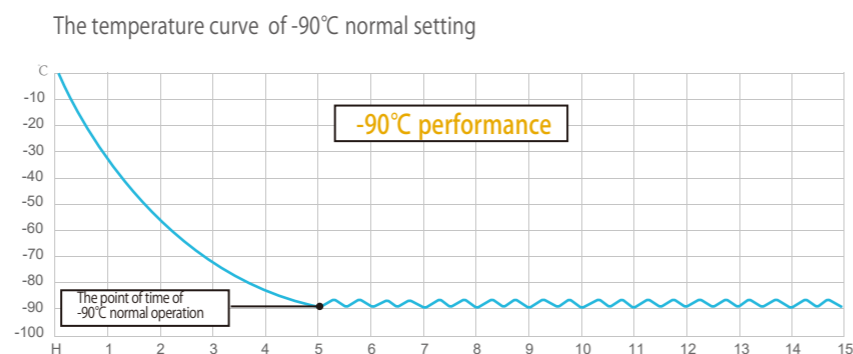
Each refrigeration circuit includes a closed-loop cold-wall evaporator configured in parallel to the other. Conventional ULT freezers with single or cascade refrigeration circuits cannot work when one compressor fails.

**NEW DUAL COMPRESSOR FREEZING SYSTEM**

Independent refrigeration system sustain freezing temperature at least -70 °C in the event of a compressor failure.

**Dual Compressor System**

- Simplified structure provides high efficiency, lowered noise and no failures.
- A freezer is enough for ultra cold storage at -90°C



### Features

- Two independent refrigeration systems in one ULT freezer
- Exceptionally uniform and reliable temperature
- User-friendly design and low running costs.
- A remote alarm terminal mounted to connect to an external alarm system.
- Chart recorder is optional
- LN2 backup system or CO2 backup system is optional

### Specification

	Model	MDF-86U360D	MDF-86U480D	MDF-86U590D	MDF-86U840D
<b>Basic</b>	Type	Upright	Upright	Upright	Upright
	Capacity (L/cu ft)	390/13.77	490/17.30	590/20.84	840/29.66
	Temperature range (°C)	-40~-86°C	-40~-86°C	-40~-86°C	-40~-86°C
	Ambient temperature (°C)	10~32°C	10~32°C	10~32°C	10~32°C
	Inner doors	2 pcs, forming door	2 pcs, forming door	2 pcs, forming door	2 pcs, forming door
	Shelves	3 pcs, SUS304	3 pcs, SUS304	3 pcs, SUS304	3, made in SUS304
	Cooling type	Direct cooling	Direct cooling	Direct cooling	Direct cooling
	Refrigerant	CFC Free	CFC Free	CFC Free	CFC Free
<b>Cooling &amp; Controller</b>	Noise level (dB)	50	51	52	53
	Cooling System	Two independent cooling system	Two independent cooling system	Two independent cooling system	Two independent cooling system
	Compressor Qty	2	2	2	2
	Compressor Brand	SECOP	SECOP	SECOP	SECOP
	Sensor	PT100	PT100	PT100	PT100
	Controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor
	Display	7" Touch Screen/LED	7" Touch Screen/LED	7" Touch Screen/LED	7" Touch Screen/LED
	<b>Electronic parameter</b>	Voltage/Frequency	220V~240V, 50Hz/60Hz	220V~240V, 50Hz/60Hz	220V~240V, 50Hz/60Hz
Power (W)		800	1100	1100	1100
Vials load		2ml Vails (pcs)	24000	32000	40000
<b>Size &amp; Weight</b>	Internal (W*D*H) mm	460×600×1310	600×600×1310	740×600×1310	880×730×1310
	External (W*D*H) mm	730×845×1970	870×845×1970	1010×845×1970	1150×970×1970
	Net/Gross weight (kg)	215	250	280	305
<b>Alarm System</b>	High/low temperature	✓	✓	✓	✓
	Power failure alarm	✓	✓	✓	✓
	Sensor malfunction	✓	✓	✓	✓
	Backup battery malfunction	✓	✓	✓	✓
	Condenser dirty alarm	✓	✓	✓	✓
	High ambient temperature	✓	✓	✓	✓
	Door open	✓	✓	✓	✓
<b>Accessories</b>	Caster	4	4	4	4
	Test hole/Diameter	1/25mm	1/25mm	1/25mm	1/25mm
	Remote alarm contact	✓	✓	✓	✓
	USB Port	Optional	Optional	Optional	Optional
	Temperature recorder	Optional	Optional	Optional	Optional
	Freezer racks	Optional	Optional	Optional	Optional
	CO2 backup system	Optional	Optional	Optional	Optional
LN2 backup system	Optional	Optional	Optional	Optional	

## Classic Series ULT freezer

### Performance

- Temperature reaches -86 °C, adjustable -40 °C ~ -86 °C ,
- Microprocessor controller with LED display increment 0.1
- Wide range operating voltage system from 185V to 260 V

### Reliability

- Single compressor and auto-cascade refrigerant system
- World famous compressor (SECOP) and FAN (EBM)
- Lower the noise and low power consumption

### Safety

- Audible and visual alarm:
- High/Low temperature alarm
- Sensor error alarm
- Power failure alarm
- Remote alarm contact

### Ergonomic Design

- Safety lock to prevent unauthorized
- Universal lockable caster design for ease of maneuvering
- Adjustable storage shelf height
- Unique CFC-free mixed refrigerant

### Upright type



MDF-86U58

MDF-86U158

### Chest type



MDF-86C258

## Specification

Model	MDF-86U58	MDF-86U158	MDF-86C118	MDF-86C258	MDF-86C458
<b>Technical Data</b>					
Cabinet Type	Upright	Upright	Chest	Chest	Chest
Gross Capacity (L)	58	158	118	258	458
Climate Class	N	N	N	N	N
Cooling Type	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling
Cooling System	Single Compressor Auto-cascade System	Single Compressor Auto-cascade System	Single Compressor Auto-cascade System	Single Compressor Auto-cascade System	Single Compressor Auto-cascade System
Defrost Mode	Manual	Manual	Manual	Manual	Manual
Refrigerant	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free
Door	Single Solid Door	Single Solid Door	Single Solid Door	Single Solid Door	Single Solid Door
Noise (dB)	50	50	50	50	50
<b>Performance</b>					
Temperature Range (°C)	-60 ~ -86	-60 ~ -86	-60 ~ -86	-60 ~ -86	-60 ~ -86
Cooling Performance (°C)	-86	-86	-86	-86	-86
<b>Control</b>					
Temperature Control	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor
Display	LED	LED	LED	LED	LED
<b>Material</b>					
Interior	SUS304	SUS304	SUS304	SUS304	SUS304
Exterior	Powder Coated Steel	Powder Coated Steel	Powder Coated Steel	Powder Coated Steel	Powder Coated Steel
Shelf	SUS304	SUS304	N/A	N/A	N/A
Insulation	PU Forming	PU Forming	PU Forming	PU Forming	PU Forming
<b>Electrical Data</b>					
Voltage/Frequency	220V~240V, 50Hz/60Hz 115V/60Hz	220V~240V, 50Hz/60Hz 115V/60Hz	220V~240V, 50Hz/60Hz 115V/60Hz	220V~240V, 50Hz/60Hz 115V/60Hz	220V~240V, 50Hz/60Hz 115V/60Hz
Power (W)	400	450	450	500	550
<b>Dimensions</b>					
Net/Gross Weight (kg)	75/95	130/160	90/135	220/240	240/270
Internal Dimension (W/D/H, mm)	364x405x409	460x455x800	700x470x360	780x500x660	1330x500x600
External Dimension (W/D/H, mm)	540x620x1115	700x700x1580	900x750x920	1510x885x1095	2110x885x1095
Packing Dimension (W/D/H, mm)	610x700x1240	780x800x1710	1330x850x1140	1570x945x1230	2170x945x1230
Container Load (20'/40'/40'H)	27/57/104	21/45/45	16/36/36	7/15/30	5/11/22
<b>Functions</b>					
High/Low Temperature Alarm	Y	Y	Y	Y	Y
Remote Alarm Contact	Y	Y	Y	Y	Y
Power Failure Alarm	Y	Y	Y	Y	Y
Sensor Error Alarm	Y	Y	Y	Y	Y
<b>Accessories</b>					
Door Lock	Y	Y	Y	Y	Y
Caster	4	4	6	6	8
Shelf/Chamber	1/2	2/3	N/A	N/A	N/A
Inner Door	1	3	1	1	1
Remote Alarm Contact	Standard	Standard	Standard	Standard	Standard
Test Hole	Standard	Standard	Standard	Standard	Standard
Chart Recorder	Optional	Optional	Optional	Optional	Optional
CO2 Backup System	Optional	Optional	Optional	Optional	Optional
LN2 Backup System	Optional	Optional	Optional	Optional	Optional
<b>Others</b>					
Certificate	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001



# -40°C Biomedical Freezer

-40 C Biomedical Freezer



The -40°C deep freezer offers a large capacity storage space with high temperature performance. It integrates design of cold shelf and evaporator provides additional refrigeration efficiency. This products is designed to store vaccines, blood plasma, reagent and many other biological materials which is widely use in research institution, clinics, electronic and medical fields.

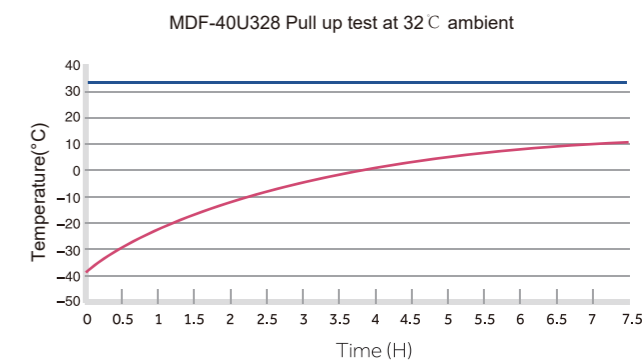
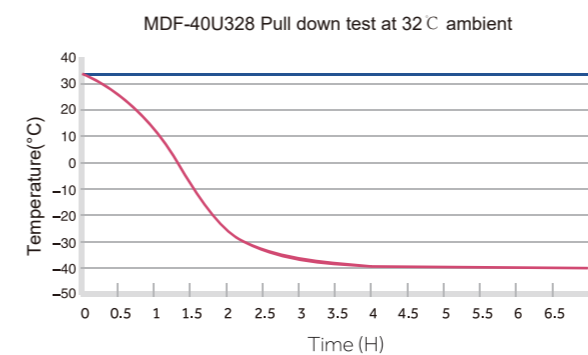


MDF-40U610

## Intelligent Interface, LCD+Dual LED display



- 1 Digital LCD display with alphanumeric information  
Voltage/ambient temperature Inner temperature/Running situation
- 2 Ambient Temperature
- 3 Inner Temperature
- 4 Visual alarm indicator
- 5 Positive feedback tactile major function buttons
- 6 Buzzer silence temporarily mutes audible alarm



### Key features

- Accurate temperature control to make inner temperature increment at 1 °C
- High-tech integrated sensors to display and control temperature
- LCD+ Dual LED digital display for ease of observation
- Dirt-pickup resistant plastic coated shelf, adjustable height

### Reliability

- Microprocessor controlled, adjustable temperature range: -20 °C to -40 °C
- Digital temperature display with 1 °C resolution
- Removable outdoor double seals design for better temperature maintaining and energy saving
- Environment friendly refrigerant: CFC-Free and HCFC-Free.

### Ergonomic Design

- Safety lock to prevent unauthorized access
- Caster design
- Remote alarm is standard configuration
- Chart recorder is optional
- Test port is optional

### Safety

- Dual display to read multiple parameters: ambient temperature, power voltage, inner temperature etc.
- Built-in backup battery to display temperature and to operate audible and visual alarm system for up to 48 hours without AC power
- Three types of alarms: Buzzer, flashing light and remote alarm
- Multiple alarms: High/low temperature, power failure, sensor error, door ajar, low voltage in backup battery, hot condenser, high/low voltage alarm, high ambient temperature alarm



## -40°C Biomedical Freezer(Double Doors Type)

### Safety

- Alarm type: buzzer and flashing
- Alarms: High/low temperature, Sensor malfunction, Power failure, Low Battery, High ambient temperature
- Remote alarm available

### Ergonomic Design

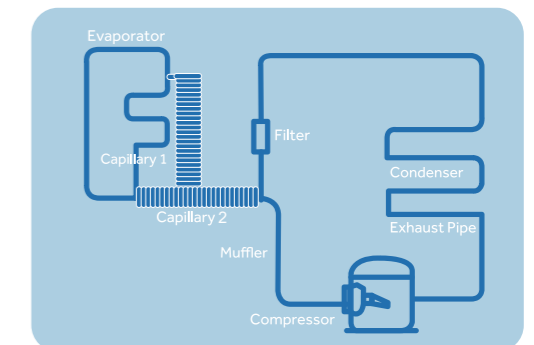
- Double door design with independent locks reduces air leakage
- Door frame heating design prevents sealed strip from frosting
- Testing hole at back of freezer for convenient testing
- Independent drawers for convenient use and maximizes storage space
- Casters and feet is easy to move and fix
- Wide voltage design, normally work at 187-242V
- Environment friendly refrigerant: CFC-Free and HCFC-Free.



MDF-40U525

### Key Features

- Microprocessor controller, digital display of inner temperature and ambient temperature
- Temperature adjustable range -20 °C to -40 °C with increment at 0.1 °C
- Lockable control panel to prevent unauthorized access to settings
- Memories function after power failure
- 100mm thick insulation layer for both cabinet and doors saves energy
- Multi-layer shelves evaporator, fast cooling



# Specification



Model		MDF-40U110	MDF-40U268	MDF-40U278	MDF-40U328	MDF-40U410	MDF-40U525	MDF-40U610	MDF-40C100	MDF-40C200	MDF-40C300	MDF-40C400
Technical Data	Cabinet Type	Upright	Upright	Upright	Upright	Upright	Upright	Upright	Chest	Chest	Chest	Chest
	Gross Capacity (L)	110	268	278	328	410	525	610	100	190	285	370
	Climate Class	N	N	N	N	N	ST	N	ST	ST	ST	ST
	Cooling Type	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling
	Defrost Mode	Manual	Manual	Manual	Manual	Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Refrigerant	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free
	Door	Single	Single	Single	Single	Single	Double	Single	Single	Single	Single	Single
	Inner Door	N/A	4	N/A	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Noise (dB)	40	40	40	40	42	42	42	40	40	40	40
Performance	Temperature Range (°C)	-20~-40	-20~-40	-20~-40	-20~-40	-20~-40	-20~-40	-20~-40	-20~-40	-20~-40	-20~-40	-20~-40
	Cooling Performance(°C)	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40
Control	Temperature Control	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Electronic controller	Electronic controller	Electronic controller	Electronic controller
	Display	LCD + Dual LED	LED	LED	LED	LCD + Dual LED	LED	LCD + Dual LED	LED	LED	LED	LED
Electrical Data	Voltage/Frequency(V/Hz)	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60
	Power (W)	180	300	170	300	360	310	430	120	150	160	200
Dimensions	Net/Gross Weight (kg)	60/72	113/125	110/120	128/140	135/150	175/200	163/178	32/40	65/78	75/88	85/98
	Internal Dimension (W/D/H, mm)	490×460×546	508×455×1137	480×415×1460	508×455×1393	580×460×1626	684×612×1184	670×600×1626	520×345×615	760×485×600	1080×485×600	1340×485×600
	External Dimension(W/D/H, mm)	650×640×870	673×676×1630	651×574×1656	673×676×1886	780×640×1990	880×855×1912	870×780×1990	700×600×850	940×765×850	1270×765×850	1530×765×850
	Packing Dimension(W/D/H, mm)	767X782X980	735×755×1635	710×650×1810	735×755×1900	897X782X2120	976×923×2057	987X992X2120	745×580×890	990×775×890	1320×775×890	1580×775×890
	Container Load (20'/40'/40'H)	42/90/90	24/48/48	27/54/54	24/48/48	18/39/39	12/24/24	10/24/24	62/128/192	34/72/108	24/54/81	20/44/66
Functions	High/low Temperature Alarm	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Remote Alarm Contact	Y	N/A	N/A	N/A	Y	Y	Y	N/A	N/A	N/A	N/A
	Power Failure Alarm	Y	Y	N/A	Y	Y	Y	Y	N/A	N/A	N/A	N/A
	Sensor Error Alarm	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Low Battery Alarm	Y	Y	N/A	Y	Y	Y	Y	N/A	N/A	N/A	N/A
	Door Ajar Alarm	Y	Y	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A
Accessories	Door Lock	Y	Y	Y	Y	Y	Y	Y	N/A	Y	Y	Y
	Caster	4	4	2	4	4	4	4	N/A	N/A	N/A	N/A
	Foot	2	2	2	2	2	2	2	4	4	4	4
	Shelf/Drawer	1/-	4/-	6/7	4/-	4/-	4/10	4/-	N/A	N/A	N/A	N/A
	Basket	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	2	2
	Test Hole	Standard	Optional	Optional	Optional	Standard	Standard	Standard	Optional	Optional	Optional	Optional
	Data Logger	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Others	Certificate	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001



The -25°C deep freezer offers a stable low temperature storage condition. Integrated design of cold shelf and evaporator provides additional refrigeration efficiency. This product is designed to store vaccine, reagent and many other biological materials, widely applied in research institutions and clinical sites in life science, electronic testing and medical fields.



## Reliability & Key Features

- Main power switch: convenient operation
- Italian imported controller: digital display
- Low power consumption
- Environment friendly refrigerant: CFC-Free and HCFC-Free.
- World-class brand compressor
- Power coated galvanized steel liner

## Safety

- Multiple malfunction alarm including high/low temperature alarm, sensor error alarm, door ajar alarm
- Safety lock prevents unauthorized access
- Two types of alarm indications: audible buzzing and visible flashing light



# Specification



Model		MDF-25U150	MDF-25U278	MDF-25U400	MDF-25U600	MDF-25C100	MDF-25C200	MDF-25C300	MDF-25C400
Technical Data	Cabinet Type	Upright	Upright	Upright	Upright	Chest	Chest	Chest	Chest
	Gross Capacity (L)	135	278	350	550	100	190	285	370
	Climate Class	N	N	N	N	ST	ST	ST	ST
	Cooling Type	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling
	Defrost Mode	Manual	Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Refrigerant	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free
	Door	Single	Single	Single	Single	Single	Single	Single	Single
	Noise (dB)	40	40	42	42	40	40	40	40
Performance	Temperature Range (°C)	-10~-25	-10~-25	-10~-25	-10~-25	-15~-25	-15~-25	-15~-25	-15~-25
	Cooling Performance(°C)	-25	-25	-25	-25	-25	-25	-25	-25
Control	Temperature Control	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor
	Display	LED	LED	LED	LED	LED	LED	LED	LED
Electrical Data	Voltage/Frequency(V/Hz)	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60
	Power (W)	160	170	200	280	120	150	160	200
Dimensions	Net/Gross Weight (kg)	46/55	105/115	85/98	101/112	32/40	65/78	75/88	85/98
	Internal Dimension (W/D/H, mm)	490×480×630	480×415×1460	480×450×1625	645×530×1645	520×345×615	760*485*600	1080×485×600	1340×485×600
	External Dimension(W/D/H, mm)	598×623×838	651×574×1656	600×645×1875	775×750×1900	700×600×850	940*765*850	1270×765×850	1530×765×850
	Packing Dimension(W/D/H, mm)	650×690×870	710×650×1810	665×715×1970	780×840×2008	745×580×890	990*775*890	1320×775×890	1580×775×890
	Container Load (20'/40'/40'H)	54/108/162	27/54/54	24/51/51	21/42/42	62/128/192	34/72/108	24/54/81	20/44/66
Functions	High/low Temperature Alarm	Y	Y	Y	Y	Y	Y	Y	Y
	Sensor Error Alarm	Y	Y	Y	Y	Y	Y	Y	Y
	Door Ajar Alarm	Y	Y	Y	Y	N/A	N/A	N/A	N/A
	Remote Alarm Contact	Optional	N/A	Optional	Optional	N/A	N/A	N/A	N/A
	Power Failure Alarm	Optional	N/A	Optional	Optional	N/A	N/A	N/A	N/A
Accessories	Door Lock	Y	Y	Y	Y	N/A	Y	Y	Y
	Caster	N/A	Y	Y	Y	N/A	N/A	N/A	N/A
	Foot	Y	Y	Y	Y	Y	Y	Y	Y
	Shelf/Drawer	2/-	6/7	5/-	5/-	N/A	N/A	N/A	N/A
	Basket	Optional	N/A	Optional	Optional	1	2	2	2
	Test Hole	Optional	Optional	Optional	Optional	Standard	Standard	Standard	Standard
	Data Logger	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Others	Certificate	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001

# -25°C Biomedical Freezer CLASSIC



The -25°C deep freezer offers a stable low temperature storage condition. Integrated design of cold shelf and evaporator provides additional refrigeration efficiency. This product is designed to store vaccine, reagent and many other biological materials, widely applied in research institutions and clinical sites in life science, electronic testing and medical fields.



## Reliability & Key Features

- Temperature is -15°C to -25°C
- Microprocessor controller: LED digital display
- Power coated galvanized steel liner
- Safety lock prevents unauthorized access
- Main power switch: convenient operation
- Shelf: adjustable height for easy storage
- World-class brand compressor Embraco
- Environment friendly refrigerant: CFC-Free and HCFC-Free.



Control panel



Embraco compressor



Remote alarm contact

## Under-counter type



MDF-25U110





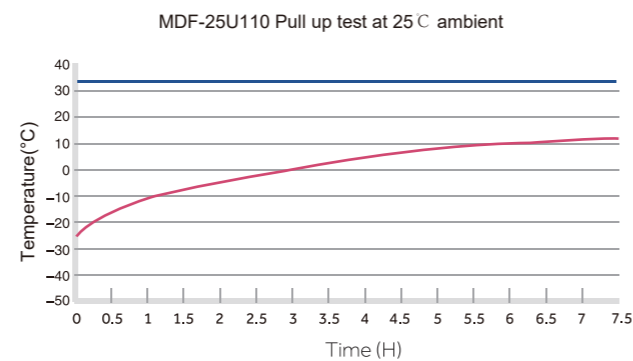
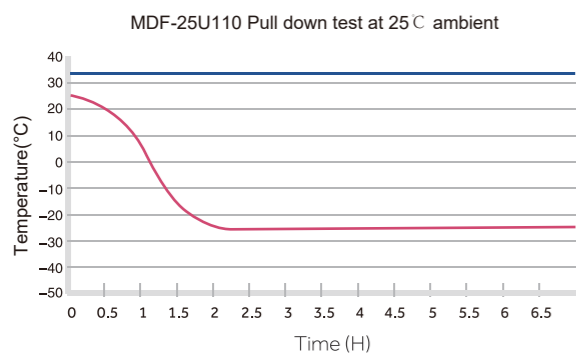
### Safety

- Alarm: high/low temperature alarm, sensor error alarm, door open alarm, power failure alarm,
- Two alarm indications: audible buzzing and visible flashing light
- Remote alarm contact enables users to remote monitor

### Features

- The freezer is adjustable -15~-25 degrees.
- Direct Freeze technology
- The Interior and exterior galvanized sheet with paint resistant to rust
- Wide power voltage. 185-260 V/50 Hz
- Insulation with high density polyurethane
- Lower noise level provide quite work environment

### Temperature performance



### Specification



	Model	MDF-25U110	MDF-25U290	MDF-25U410	MDF-25U610
<b>Technical Data</b>	Cabinet Type	Upright	Upright	Upright	Upright
	Gross Capacity (L)	110	290	410	610
	Climate Class	N	N	N	N
	Cooling Type	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling
	Defrost Mode	Manual	Manual	Manual	Manual
	Refrigerant	CFC-Free	CFC-Free	CFC-Free	CFC-Free
	Door	Single	Single	Single	Single
<b>Performance</b>	Temperature Range (°C)	-10~-25	-10~-25	-10~-25	-10~-25
<b>Control</b>	Temperature Control	Microprocessor	Microprocessor	Microprocessor	Microprocessor
	Display	LED	LED	LED	LED
<b>Electrical Data</b>	Power (W)	180	280	360	430
	Voltage/Frequency	220V~240V, 50Hz/60Hz 115V/60Hz	220V~240V, 50Hz/60Hz 115V/60Hz	220V~240V, 50Hz/60Hz 115V/60Hz	220V~240V, 50Hz/60Hz 115V/60Hz
<b>Dimensions</b>	Net/Gross Weight (kg)	49/55	113/125	157/182	302/327
	Internal Dimension (W/D/H, mm)	490×460×546	490×460×1366	580×460×1626	670×600×1626
	External Dimension (W/D/H, mm)	650×640×825	690×640×1730	780×640×1990	870×780×1990
	Packing Dimension (W/D/H, mm)	730×720×990	770×720×1850	760×720×2020	950×860×2020
<b>Functions</b>	High/low Temperature Alarm	Y	Y	Y	Y
	Sensor Error Alarm	Y	Y	Y	Y
	Door Ajar Alarm	Y	Y	Y	Y
	Remote Alarm Contact	Y	Y	Y	Y
	Power Failure Alarm	Y	Y	Y	Y
	Low Battery Alar	Y	Y	Y	Y
<b>Accessories</b>	Door Lock	Y	Y	Y	Y
	Caster	4	4	4	4
	Foot	2	2	2	2
	Shelf/Drawer	1/-	4/-	4/-	4/-
	Test Hole	Standard	Standard	Standard	Standard
<b>Others</b>	Certificate	CE, UL, ISO9001	CE, UL, ISO9001	CE, UL, ISO9001	CE, UL, ISO9001



## Excellent Performance

- Refrigerator & Freezer Combination, Separate Control
- Capable of recording temperature data for up to one month automatically
- Independent display for refrigerator chamber and freezer chamber.
- Microprocessor control, separately digital display for refrigerator chamber and freezer chamber

## Key Function

- USB port for temperature data download
- Double door design with independent locks
- Adjustable shelves and drawer available
- Pressure equalization port for freezer door
- Multiple alarms to detect malfunctions
- Multi-malfunction alarms, precautionary alarm
- Environment friendly refrigerant: CFC-Free and HCFC-Free.

## Specification

Model		MRF-288A	
Technical Data	Chamber	Refrigerator	Freezer
	Capacity (L)	188	100
	Cabinet Type	Total: 288	
	Climate	Upright	
	Door Type	Double-layer Glass Door	Solid door
	Cooling Type	Forced Air Cooling	Direct Cooling
	Defrost Mode	Manual	
	Refrigerant	CFC-free	
	Noise(dB)	42	
	Performance	Temperature Range (°C)	2~8
Cooling Performance(°C)		Freezer:-40	
Control	Controller	Microprocessor	
	Display	LED Digital	
Electrical Data	Power Supply(V/Hz)	220~240/50~60	
	Power(W)	400	
	Electric(A)	2.8	
Dimensions	Internal Dimensions(W×D×H,mm)	588×552×630	511×491×415
	External Dimensions(W×D×H,mm)	735×780×1860	
	Packing Dimensions(W×D×H,mm)	815×850×2070	
	Net/Gross Weight (kg)	146/175	
	Container Load (20'/40'/40'H)	14/28/28	
	Functions	High/Low Temperature	Y
Remote Alarm		Y	
Power Failure Alarm		Y	
Sensor Error Alarm		Y	
Low Battery Alarm		Y	
High Ambient Temperature Alarm		Y	
Accessories	Door Lock	1	1
	Caster	4	
	Test Hole	Y	
	Shelf	3	/
	Drawer	1 SUS304	2
	USB Interface	1	
Others	Certificate	CE, ISO9001	



Cool specimens in two separate compartments with these combined refrigerator and freezer, offering a high-performance and space-saving alternative for cold lab storage.



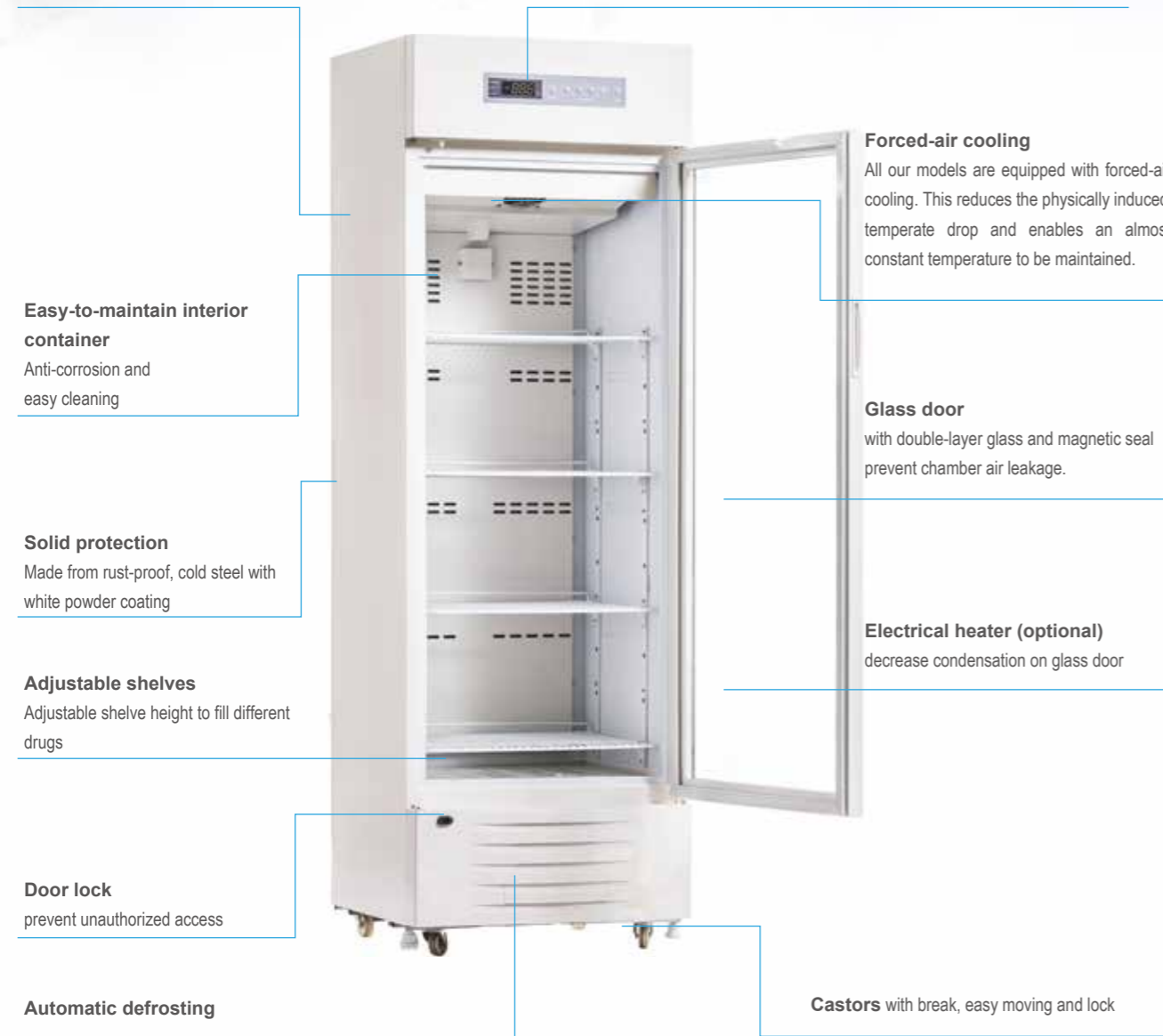


# Pharmacy Refrigerator SPIRIT



**Thick insulation**  
Made from environmentally friendly material.  
Ensures low energy consumption.

**Microprocessor control and digital display**  
ensures inside temperature at 2-8°C and makes temperature resolution 0.1°C



**Forced-air cooling**  
All our models are equipped with forced-air cooling. This reduces the physically induced temperate drop and enables an almost constant temperature to be maintained.

**Glass door**  
with double-layer glass and magnetic seal prevent chamber air leakage.

**Electrical heater (optional)**  
decrease condensation on glass door

**Castors with break, easy moving and lock**

**Easy-to-maintain interior container**  
Anti-corrosion and easy cleaning

**Solid protection**  
Made from rust-proof, cold steel with white powder coating

**Adjustable shelves**  
Adjustable shelf height to fill different drugs

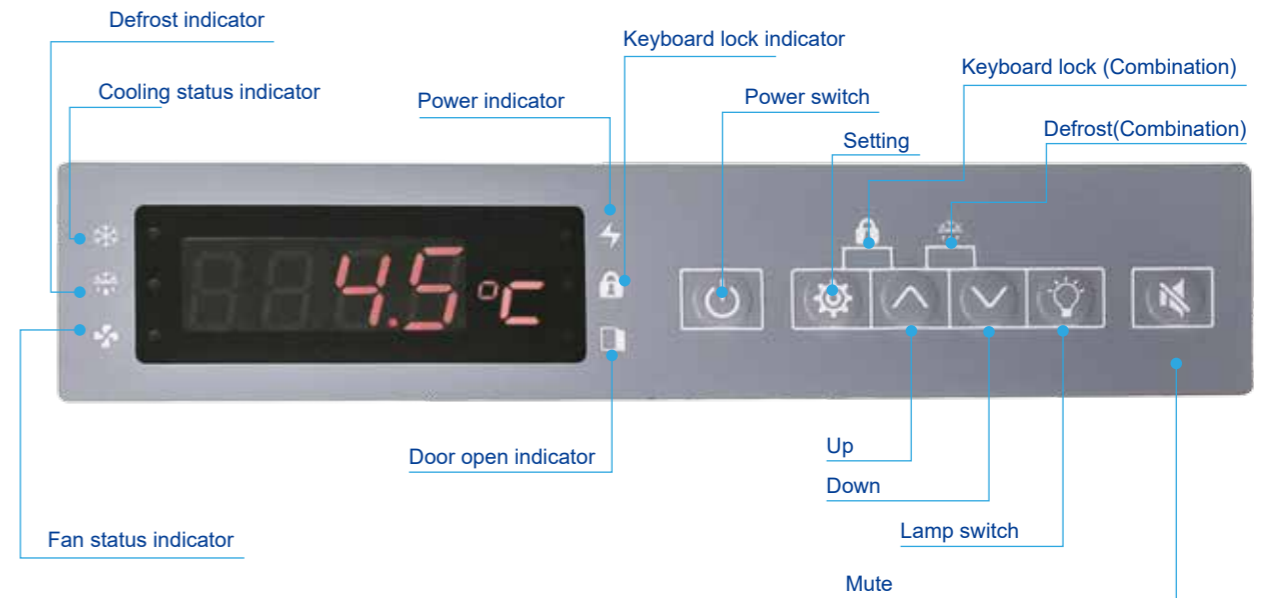
**Door lock**  
prevent unauthorized access

**Automatic defrosting**

The SPIRIT pharmacy refrigerator is suitable for installation in drug stores, pharmacy companies, hospitals, epidemic prevention centers to store medicines, testing kits, reagents, vaccines etc.



## Digital Display & Control Panel



## Key Feature

- Accurate temperature control to make inner temperature maintain 2~8 °C and increment at 0.1 °C
- High-tech integrated sensors to display and control temperature
- Auto-defrost to remove moisture on cooling surface
- Removable outdoor double seal design for better temperature maintain and energy saving

## SPIRIT Plus Series

The SPIRIT Plus Series pharmacy refrigerator, new generation, safer, robust and understand you better.



## Reliability

- Microprocessor controlled forced-air cooling system
- Digital temperature display with 0.1 °C resolution
- Double-layer glass door equipped with electrical heater(optional) to decrease condensation
- CFC-Free and HCFC-Free refrigerant

## Ergonomic design

- Epoxy coated exterior: anti-bacteria and easy cleaning
- Shelves adjustable design
- Caster with break design for easy moving and lock
- Interior LED light for easy observation
- Environment friendly refrigerants: CFC-freezer and HCFC-free
- Electrical heater(optional) to decrease condensation on door in high humidity environment

## Safety

- Password protection prevent unauthorized temperature setting
- Safety lock to prevent unauthorized access
- Two alarm styles: buzzer and flash
- Start delay protection



## Key Feature

- Microprocessor controller, temperature fluctuation within  $\pm 1.5^{\circ}\text{C}$ .
- Forced-air cooling system with cross-flow fan ensures frost-free cabinet and excellent temperature uniformity.
- Three layer toughened glass door with electrical heater to prevent condensation.
- USB download data: records temperature, alarm & door ajar information.
- Intelligent energy saving mode.

## Safety



- Soft-shutdown technology protects refrigerator from suddenly shutdown damage.
- Build-in back-up battery for up to 72 hours power failure alarm.
- Visual and audible alarms: high/low temperature, power failure, condenser cleaning, sensor error, door ajar, high ambient temperature.
- Safety door lock and password setting controller prevent unauthorized access.
- Auto on/off cooling fan to prevent cold air escape when door open.
- Power failure protection: compressor start delay.
- The SPIRIT Plus refrigerator works as normal working cycle even if controller or two sensors fail.

## Ergonomic design

- Smart lighting system: automatic turn on lamp when door open.
- Self-closing door.
- 4 casters and 2 feet with break for easy move and lock
- Internal LED light.



## Specification

Model	MPR-68	MPR-130	MPR-260	MPR-360	MPR-306 	MPR-406 	MPR-426	MPR-626	MPR-656	MPR-1006
<b>Technical Data</b>	Cabinet Type	Upright	Upright	Upright	Upright	Upright	Upright	Upright	Upright	Upright
	Gross Capacity (L)	68	130	260	360	306	406	426	626	1006
	Climate Class(°C)	10-32	10-32	10-32	10-32	10-32	10-32	10-32	10-32	10-32
	Cooling Type	Forced Air Cooling	Forced Air Cooling	Forced Air Cooling	Forced Air Cooling	Forced Air Cooling	Forced Air Cooling	Forced Air Cooling	Forced Air Cooling	Forced Air Cooling
	Defrost Mode	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic
	Refrigerant	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free
	Door	Single Glass Door	Single Glass Door	Single Glass Door	Single Glass Door	Single Glass Door	Single Glass Door	Single Glass Door	Single Glass Door	Double Glass Door
	Electrical Heater	Low-E	N/A	Optional	Low-E	Standard	Standard	Optional	Standard	Standard
	Noise (dB)	40	42	42	43	40	40	43	42	42
<b>Performance</b>	Temperature Range (°C)	2~8	2~8	2~8	2~8	2~8	2~8	2~8	2~8	2~8
	Uniformity(°C)	±3°C	±3°C	±3°C	±3°C	±1.5°C	±1.5°C	±3°C	±3°C	±3°C
<b>Control</b>	Temperature Control	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor
	Display	LED	LED	LED	LED	LED	LED	LCD + Dual LED	LED	LED
<b>Electrical Data</b>	Voltage/Frequency(V/Hz)	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60	187~242/50~60, 115V/60Hz	187~242/50~60, 115V/60Hz	220~240/50~60	220~240/50~60	220~240/50~60
	Power (W)	87	150	254	136	185	240	175	490	472
<b>Dimensions</b>	Net/Gross Weight (kg)	22/24	53/57	63/65	92/100	95/110	115/128	120/132	123/146	158/188
	Internal Dimension (W/D/H, mm)	400×415×447	418×390×761	500×420×1090	550×435×1420	540×425×1380	685×425×1380	685×429×1380	670×600×1626	1100×454×1325
	External Dimension(W/D/H, mm)	480×450×535	500×503×1292	580×560×1785	640×552×1880	640×552×1880	785×552×1880	780×580×1920	780×740×1900	1220×642×1885
	Packing Dimension(W/D/H, mm)	555×505×610	600×610×1400	710×665×1900	704×617×2000	735×651×2100	880×651×2100	880×680×2020	897×882×2050	1290×695×1940
	Container Load (20'/40'/40'H)	132/264/352	27/57/57	24/51/51	27/57/57	27/54/54	21/44/44	21/44/44	12/26/26	13/27/27
<b>Functions</b>	High/low Temperature Alarm	/	Y	Y	Y	Y	Y	Y	Y	Y
	Remote Alarm	Optional	Optional	Optional	Optional	Y	Y	Optional	Y	Optional
	Power Failure Alarm	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Sensor Error Alarm	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Low Battery Alarm	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Door Ajar Alarm	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Accessories</b>	Door Lock	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Caster	N/A	N/A	4	4	4	4	4	4	4
	Foot	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Shelf/Basket	2/-	3/-	4/-	5/-	4/1	4/1	5/-	4/-	10/-
	Test Hole	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
	Printer/ Chart recorder	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
	USB Interface	Optional	Optional	Optional	Optional	Y	Y	Optional	N/A	Optional
Data Logger	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	
<b>Others</b>	Certificate	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001

# Pharmacy Refrigerator CLASSIC



Microprocessor controller,  
LED digital display temperature

Door lock prevent  
unauthorized entrance

Galvanized steel i  
nterior and exterior

Air cooling make inner temperature  
more uniformity

Light switch and LED light enable  
to observe the storages clearly

Adjustable shelf height

World famous compressor  
EMBRACO

Double-layer glass door



The SPIRIT pharmacy refrigerator is suitable for installation in drug stores, pharmacy companies, hospitals, epidemic prevention centers to store medicines, testing kits, reagents, vaccines etc.



## Digital Display & Control Panel



Desktop  
height:640mm

Under-counter  
height:790mm



MPR-60

MPR-140



### Reliability

- Temperature range: 2°C to 8°C, resolution 0.1
- Microprocessor controller, LED digital Display
- Air cooling, inner fan forced air circulation
- Double-layer glass door, auto-close

### Ergonomic Design

- Safety lock to prevent unauthorized access
- Interior LED light, automatic activated by opening door
- Environment friendly refrigerant: CFC-Free and HCFC-Free.

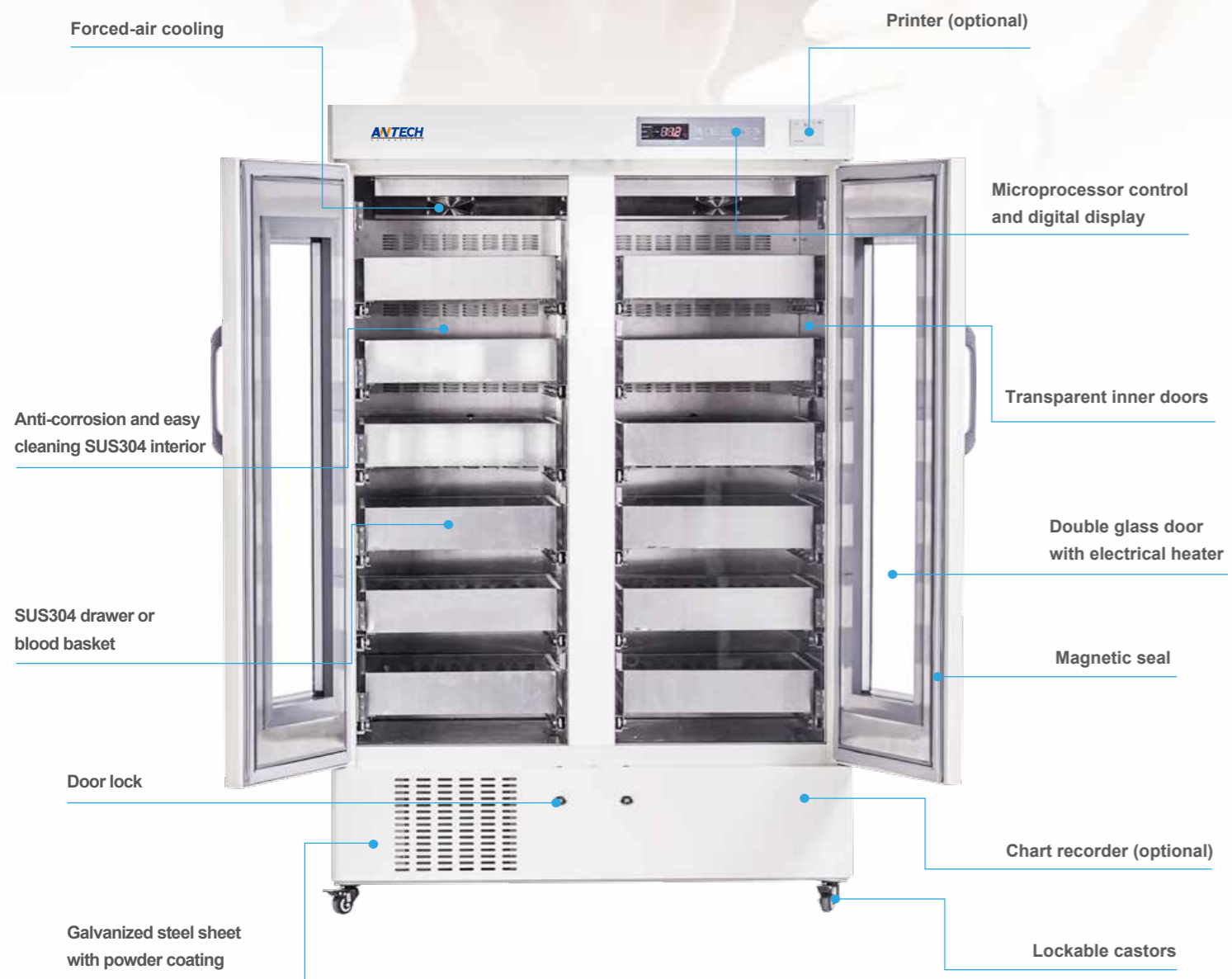
### Safety

- visible and audible alarm :buzzer, flashing,
- Alarm: high/low temperature, power failure, sensor error, door ajar, low battery
- Built-in backup battery for alarm and temperature when power failure
- Remote alarm contact enables users to remote monitor

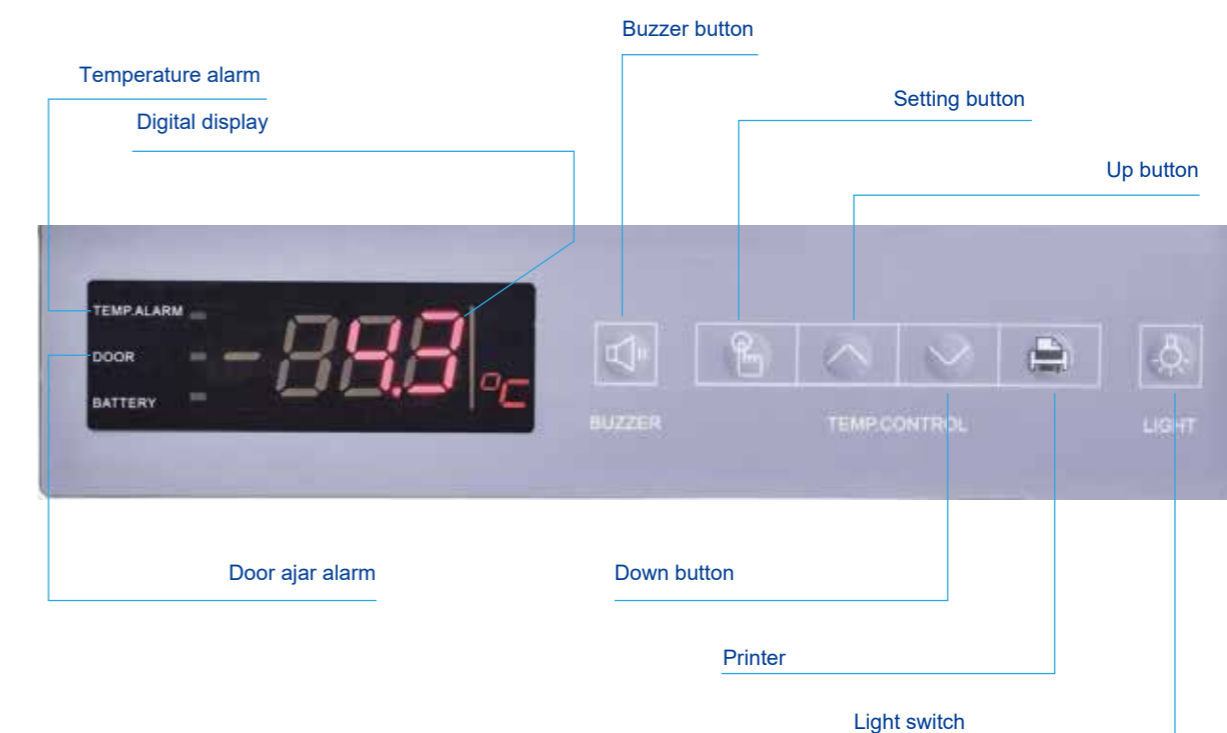
## Specification

Model		MPR-60	MPR-110	MPR-140	MPR-296	MPR-368	MPR-640
Technical Data	Gross Capacity (L)	60	110	140	260	370	640
	Cabinet Type	Upright					
	Climate Class	SN					
	Cooling Type	Forced Air Cooling					
	Defrost Mode	Automatic					
	Refrigerant	CFC-Free					
	Door	Single	Single	Single	Single	Single	Double
Performance	Noise (dB)	32	32	35	42	42	45
	Temperature Control	Microprocessor					
Control	Display	LED					
	Temperature Range (°C)	2~8	2~8	2~8	2~8	2~8	2~8
Electrical Data	Uniformity(°C)	±3°C	±3°C	±3°C	±3°C	±3°C	±3°C
	Voltage/Frequency	220V~240V, 50Hz/60Hz, 115V/60Hz					
	Power (W)	65	80	140	160	180	220
Dimensions	Electrical Current (A)	0.65	0.80	0.80	1.10	1.20	1.60
	Net/Gross Weight (kg)	40/45	50/58	51/64	70/78	96/115	127/180
	Internal Dimension (W/D/H, mm)	430×364×457	520×390×607	520×490×607	520×420×1310	520×420×1693	952×420×1693
	External Dimension(W/D/H, mm)	510×510×640	600×510×790	600×610×790	600×542×1490	600×542×1880	1032×542×1880
	Packing Dimension(W/D/H, mm)	565x595x710	664x604x964	664x704x964	654x625x1620	654x625x2032	1114x625x2032
Functions	Container Load (20'/40'/40'H)	115/240/240	54/120/120	54/114/114	27/57/57	27/57/57	18/38/38
	High/low Temperature Alarm	Y	Y	Y	Y	Y	Y
	Remote Alarm Contact	Y	Y	Y	Y	Y	Y
	Power Failure Alarm	Y	Y	Y	Y	Y	Y
	Sensor Error Alarm	Y	Y	Y	Y	Y	Y
	Low Battery Alarm	Y	Y	Y	Y	Y	Y
Accessories	Door Ajar Alarm	Y	Y	Y	Y	Y	Y
	Inner light	LED	LED	LED	LED	LED	LED
	Door Lock	Y	Y	Y	Y	Y	Y
	Caster	N/A	2	2	4	4	4
	Foot	Y	Y	Y	Y	Y	Y
	Shelf	2	3	3	5	5	10
	Test Hole	Optional	Optional	Optional	Optional	Optional	Optional
Data Logger	Optional	Optional	Optional	Optional	Optional	Optional	
Others	Certificate	CE, UL, ISO9001	CE, UL, ISO9001	CE, UL, ISO9001	CE, UL, ISO9001	CE, UL, ISO9001	CE, UL, ISO9001

The blood bank refrigerator is specially designed to store whole blood and blood derivatives. It could be used to store pharmaceuticals and biological material in hospitals and laboratories too.



## Digital Display & Control Panel



▲ Blood basket      ▲ High efficiency fan      ▲ Double seals      ▲ Adjustable strip

### Key Features

- Microprocessor control and digital display ensures the inside temperature at  $4\pm 1\text{ }^{\circ}\text{C}$  with  $0.1\text{ }^{\circ}\text{C}$  resolution
- Multiple sensors placing inside the liquid-loaded monitor bottles, simulating blood bag, constantly monitor the temperature inside.
- Multi air-flow plenum system ensures excellent temperature uniformity
- Auto-defrost

### Ergonomic design

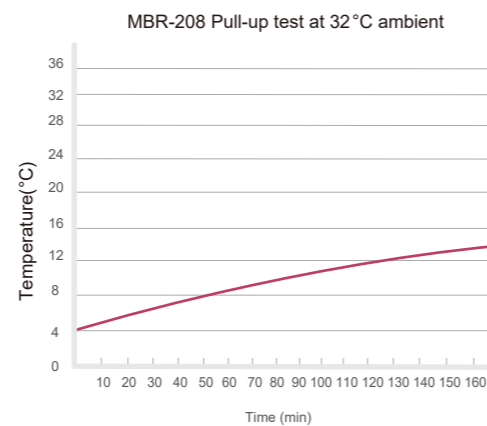
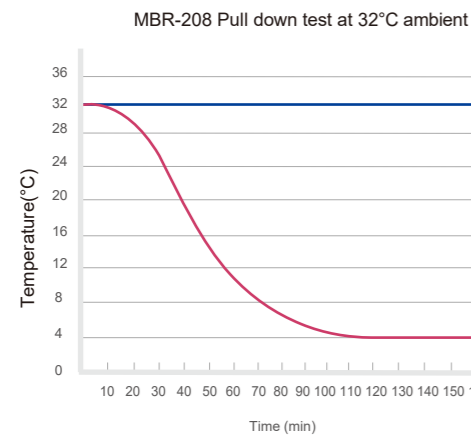
- Stainless steel interior anti-rust, anti-corrosion
- Epoxy coated exterior anti-bacteria, easy cleaning
- Shelf adjustable
- Lockable caster for easy moving and stop
- Interior LED light
- Self-close door
- Stop structure design prevents door close if opened over  $90^{\circ}\text{C}$
- Environment friendly refrigerant: CFC-Free and HCFC-Free.

### Reliability

- Transparent Inner doors minimize the air leakage during door open
- Foaming insulation door with double-layer glass and magnetic seals decrease air leakage
- Large air circulation fan enables rapid temperature recovery after door open
- Electrical heater prevents condensation on glass door

### Safety

- Password protection prevents unauthorized setting
- Safety lock prevents unauthorized access
- Alarm styles: buzzing and light flashing
- Power failure protection
- Start delay function protects the equipment from overload when power resume



### Specification

Model	MBR-108	MBR-208	MBR-658	MBR-1008	
<b>Technical Data</b>	Cabinet Type	Upright	Upright	Upright	Upright
	Gross Capacity (L)	108	208	658	1008
	Ambinet temperature (°C)	10~32	10~32	10~32	10~32
	Cooling Type	Forced Air Cooling	Forced Air Cooling	Forced Air Cooling	Forced Air Cooling
	Defrost Mode	Auto	Auto	Auto	Auto
	Refrigerant	CFC-Free	CFC-Free	CFC-Free	CFC-Free
	Door	Single Glass Door	Single Glass Door	Double Glass Door	Double Glass Door
	Electrical Heater	Y	Y	Y	Y
	Noise (dB)	40	42	42	42
<b>Performance</b>	Temperature Range (°C)	$4\pm 1$	$4\pm 1$	$4\pm 1$	$4\pm 1$
<b>Control</b>	Temperature Control	Microprocessor	Microprocessor	Microprocessor	Microprocessor
	Display	LED	LED	LED	LED
<b>Material</b>	Interior	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
	Exterior	Power Coated Steel	Power Coated Steel	Power Coated Steel	Power Coated Steel
<b>Electrical Data</b>	Power Supply(V/Hz)	220~240/50~60	220~240/50~60	220~240/50~60	220~240/50~60
	Power (W)	160	200	433	513
<b>Dimensions</b>	Blood Storage Capacity (450ml Blood Bags)	60	130	360	576
	Net/Gross Weight (kg)	50/55	67/75	165/195	256/286
	Internal Dimension (W/D/H, mm)	432×462×478	432×462×978	1100×455×1325	1100×710×1325
	External Dimension (W/D/H, mm)	522×600×1050	522×600×1550	1220×648×1885	1220×878×1885
	Packing Dimension (W/D/H, mm)	572×685×1070	572×685×1570	1300×730×2080	1300×960×2080
	Container Load (20'/40'/40'H)	66/136/136	33/68/68	12/27/27	10/21/21
<b>Functions</b>	High/Low Temperature Alarm	Y	Y	Y	Y
	Power Failure Alarm	Y	Y	Y	Y
	High/Low Voltage Alarm	Y	Y	Y	Y
	Sensor Error Alarm	Y	Y	Y	Y
	Low Battery Alarm	Y	Y	Y	Y
	Door Ajar Alarm	Y	Y	Y	Y
	Door Lock	Y	Y	Y	Y
<b>Accessories</b>	Caster	4	4	4	4
	Test Hole	Y	Y	Y	Y
	Shelf/Basket	2/6	4/12	12/36	12 SS Drawers
	Chart Recorder	N/A	N/A	Optional	Optional
	Data Logger	Optional	Optional	Optional	Optional
	Others	Certificate	CE, ISO9001	CE, ISO9001	CE, ISO9001



The blood platelet incubator is widely used to store blood platelet( 20-24 °C), biological reagent(2-40 °C) and chemical products (2-40 °C). The applications could be found in Hospital, blood bank, research institute, laboratory and universities.



## Intelligent Performance

- Microprocessor control with increment at 1 °C
- Intelligent control refrigerating and heating according to ambient and inner temperature

## Refrigeration System

- High efficient refrigeration system, fast cooling speed and uniformity temperature inside
- Finned evaporator for more effective cooling and speedy temperature recovery
- Double transparent insulation glass door

## Safety

- High/low temperature alarm, sensor error alarm, door ajar alarm and power failure alarm
- World famous oscillation slide rail, durable and quite

## Ergonomic Design

- Disinfection with UV, freely disinfection time set. UV light off while door open
- Large digital display
- Temperature printer optional
- Power on/off switch equipped

## Specification

	Model	MBA-5	MBA-10
<b>Technical Data</b>	Cabinet type	Upright	Upright
	Climate Class	ST	ST
	Cooling Type	Forced Air Cooling	Forced Air Cooling
	Refrigerant	CFC-Free	CFC-Free
	Door	Single	Single
	Noise (dB)	49	49
<b>Performance</b>	Temperature Range (°C)	20~24	20~24
<b>Control</b>	Temperature Control	Microprocessor	Microprocessor
	Display	LED	LED
<b>Material</b>	Interior	Stainless Steel	Stainless Steel
	Exterior	Powder Coated Steel	Powder Coated Steel
	Door	Glass	Glass
<b>Electrical Data</b>	Power Supply(V/Hz)	187V~242V, 50~60Hz	187V~242V, 50~60Hz
	Power (W)	197	280
<b>Dimensions</b>	Chamber	5	10
	Blood Storage Capacity (450ml blood bags)	10	20
	Net/Gross Weight (kg)	60/65	80/86
	Internal Dimension (W/D/H, mm)	427×360×467	432×462×728
	External Dimension (W/D/H, mm)	522×600×1050	522×600×1300
	Packing Dimension (W/D/H, mm)	572×685×1070	572×685×1320
	Container Load (20'/40'40'H)	66/136/136	33/68/136
<b>Functions</b>	High/Low Temperature Alarm	Y	Y
	Power Failure Alarm	Y	Y
	High/Low Voltage Alarm	Y	Y
	Sensor Error Alarm	Y	Y
	Low Battery Alarm	Y	Y
	Door Ajar Alarm	Y	Y
	Door Lock	Y	Y
<b>Accessories</b>	Caster	4	4
	Test Hole	Optional	Optional
	Light	UV Light	UV Light
	Data Logger	Optional	Optional
<b>Others</b>	Certificate	CE, ISO9001	CE, ISO9001





## Application

- The mobile blood refrigerator is mainly used for cold storage and transport of blood, serum, plasma, vaccines, biological reagent, special medicine.
- It also applies for the transportation of epidemic prevention station, the health care center, disease control center, animal husbandry bureau and the forces.

Model	Outer Size (W×D×H)mm	Inner Size (W×D×H)mm	Voltage (V/Hz)	Power (W)	Temperatur (°C)	Climate type	Capacity (L)	N.W (kg)
MBR-30M	615×360×461.5	360×250×350	AC 220/50, DC12V/24V	80	22±1/4±1/-25±1	ST/SN/N	30	22
MBR-80M	937×577×570.5	550×380×380	AC 220/50, DC12V/24V	100	22±1/4±1/-25±1	ST/SN/N	80	47

## Unique Cabinet

- The outer box uses advanced ABS craft and special handling for the surface.
- The appearance is imitation marble with high bright, no burrs and flash.
- The box wall is with high strength hardness, light weight, resistance to impact, and the material is prevent flammable, safe and reliable, easy to clean, corrosion resistance, etc.

## Temperature Control

- Adopt intelligent fan control forces the air cycle refrigeration and ensures the temperature recover rapidly and stability. Air blowing evaporator ensures the small uniformity and fluctuation of the inner box temperature, with special design of the circulation air cooling system.
- Adopt microcomputer control system and LCD ensures the accurate and stable running.
- Great electronic temperature control and display, with the precision of 0.1°C.
- High quality of cooling and heating ensures the temperature of inner box can be adjusted between 22±1°C/4±1°C/-25±1°C
- Customers can adjust the heating, cold storage, frozen model by setting the temperature controller according to the requirements.
- Temperature monitoring module, remote alarm module (Optional).
- High quality temperature control system without affected by the environment to meet the function, structure, performance design of blood, reagent, medicine and samples.

## Safety System

- High/low temperature alarm, controller error alarm, power failure alarm.
- Alarm types: audible buzzer and visible flashing.
- Safe operating mode when the temperature control is failure of point test.
- Optional monitoring module and dedicated software for remote monitoring and SMS alarm.
- Keyboard lockable, password protection to prevent unauthorized setting.
- The internal fuse prevents the impact and damage to the product in large current.

## Key Features

- Inner plastic basket can segregate the storage goods and the evaporator in order to prevent frostbite storage goods.
- Plastic lock design locks cooling air effectively with artistic design.
- Large screen digital display for easy observation.
- Applies in vehicle, indoor and outdoor etc.
- Overall rotational molding embedded clasp hands, easy to carry and lift.

## Universal Design

- Wide voltage available: suitable for AC 187V~242V normally, DC 12V/24V optionally.



## Key Features

- Accurate temperature control table temperature is 2°C to 8°C and increment at 0.1°C
- Microprocessor controller, digital LED display
- Forced Air-cooling circulation system enables the temperature distribution extremely uniform
- Dual refrigerant system guarantees perfect temperature performance. If one compressor is failure, the other one still ensures the temperature stable.
- Auto-defrost to remove moisture on cooling surface

## Reliability

- World-famous SECOP compressor, reliable performance and low noise
- Operating table is SUS304 stainless steel, easy for cold conduction and ensures uniform temperature and easy to clean.
- Castors design with break is easy to move and stop
- Environment friendly refrigerant, CFC free and HCFC-Free

## Safety

- Visible and audible alarm for high/low temperature, sensor error
- Protection on 2°C, when temperature below 2°C, compressors stop working
- Electrical protection for over current.

## Specification

	Model	ATCB-70	ATCB-130
Technical Data	Climate Class	N	N
	Cooling Type	Forced Air Cooling	Forced Air Cooling
	Cooling Area (m <sup>2</sup> )	0.7	1.3
	Defrost Mode	Auto	Auto
	Refrigerant	CFC-Free	CFC-Free
	Noise (dB)	55	55
Performance	Temperature Range (°C)	2~8	2~8
	Pull Down Time (AT: 25°C)	30 min	30min
Control	Temperature Control	Microprocessor	Microprocessor
	Display	LED	LED
Electrical Data	Voltage/Frequency	220~240/50~60	220~240/50~60
	Power (W)	1200	1500
	Electrical Current (A)	6.40	6.80
Dimensions	Gross Capacity (L)	106	290
	Net/Gross Weight (kg)	142/184	194/254
	External Dimension(W/D/H, mm)	1200×750×860	1900×850×860
	Packing Dimension(W/D/H, mm)	1290×842×1014	1990x942x1040
Function	High/low Temperature Alarm	Y	Y
	Sensor Error Alarm	Y	Y
Accessories	Caster	4	6
Others	Certificate	CE, ISO9001	CE, ISO9001

Cold bench is used to processing medicines, vaccines and blood products in a low temperature environment.



▲ Controller



▲ Casters



▲ Stainless panel



The vaccine & Ice pack Freezer, Ice lined refrigerator are designed to store vaccine, pharmaceuticals and so on. The applications could be found in epidemic prevention, clinics, hospitals and research institutes etc.



## Vaccine & Icepack Freezer

### Key Features

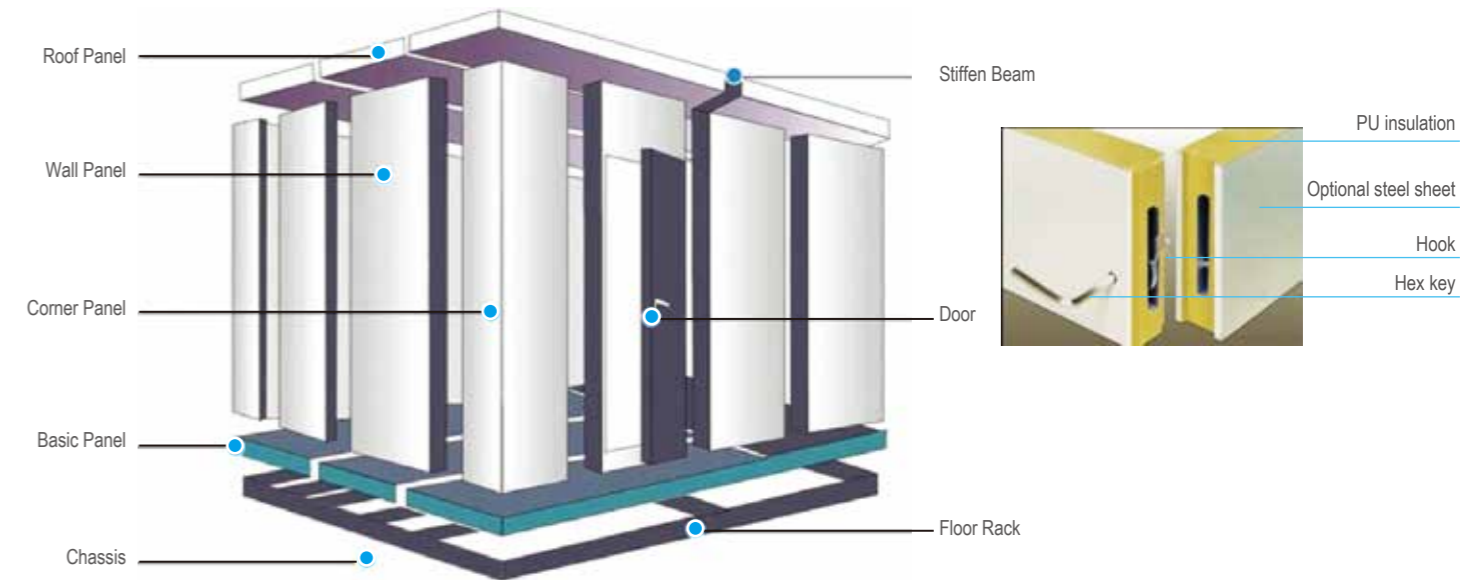
- High efficient hermetically sealed compressor
- Environment friendly refrigerant: CFC-Free and HCFC-Free.
- High density foam insulation
- Optimized refrigeration system design
- Comply with the latest WHO/PQS standard

### Ergonomic Design

- Safety lock for unauthorized access.
- Corrosion-proof interior and ease of cleaning
- LCD temperature display
- Drainage system for ease of cabinet cleaning
- Microprocessor control
- Adjustable temperature range of -15 °C to -25 °C

## Specification

	Model	MVF-147	MVF-300
Technical Data	Cabinet Type	Chest	Chest
	Vaccine Storage Capacity(L)	96	240
	Gross Capacity (L)	147	300
	Waterpack Freezing Capacity(kg/24h)	14.5	38.3
	Waterpack Storage Capacity(kg)	19.4	44.3
	Ambient Temperature (°C)	5~43°C	5~43°C
	Cooling Type	Direct Cooling	Direct Cooling
	Defrost Mode	Manual	Manual
	Refrigerant	CFC-Free	CFC-Free
	Door	Single	Single
Noise (dB)	42	43	
Performance	Temperature Range (°C)	-15~-25	-15~-25
Control	Controller	Microprocessor	Microprocessor
	Display	LCD	LCD
Electrical Data	Voltage/Frequency(V/Hz)	220~240/50~60	220~240/50~60
	Power (W)	135	150
	Power Consumption: Stable running(KWh/24h)	2.81	3.37
	Power Consumption: Cool down test(KWh/24h)	3.31	3.54
	Holdover Time at 43°C	6hr 44mins	58hr 36mins
Dimensions	Net/Gross Weight (kg)	39/42	64/70
	Internal Dimension (W×D×H,mm)	599×389×677	985×504×661
	External Dimension(W×D×H,mm)	739×564×837	1150×720×845
	Packing Dimension(W×D×H,mm)	820×695×880	1226×890×945
	Container Load (20'/40'/40'H)	46/96/144	20/44/44
Functions	High/low Temperature Alarm	Y	Y
	Power Failure Alarm	Y	Y
	Sensor Error Alarm	Y	Y
Accessories	Foot	Y	Y
	Door Lock	Y	Y
	Baskets	3	3
	Data Logger	Optional	Optional
Others	Certificate	CE, ISO9001	CE, ISO9001
		Comply with latest WHO/PQS standard	Comply with latest WHO/PQS standard



## Key Feature

- Microprocessor controller with high precision temperature sensors automatic constant temperature at 2°C~8°C or -15°C~-25°C, with resolution at 0.1°C.
- Digital LED display ensures storage in high ambient temperature (Optional LCD touch screen)
- Forced air cooling refrigerant system enables uniform temperature
- Dual system design: two refrigerant units automatically work in turns, one refrigerant units is failure, the other refrigerant still guarantees the inner temperature.
- Monoblock refrigerant unit is for easy installation (below 40m<sup>3</sup>)
- Auto-defrost is for easy maintenance
- Alarm system such as high/low temperature ensures safety storage.

The walk-in cold/freezer room is a customized product meeting the demands in the medical service, scientific research, agriculture, biological and chemical industries etc. It is for storage of vaccines, pharmaceuticals, blood plasma and chemical reagents etc.

Antech Walk-In Cold/Freezer Room is designed as per the WHO/PQS standard, ensures the high performance and reliable storage of specimens.



## Ergonomic Design

- World-famous hermetic compressor and refrigerant parts with excellence compatibility ensure a high freeze performance and durable lifetime.
- High quality insulation panel is composed of powder coated galvanized steel 100mm thickness PU insulation (density is 42Kg/m<sup>3</sup>), the insulation foaming layer constructor reduces the cooling bridge, low heat conduction which is better than 17W/m<sup>2</sup>K. The came-lock design is easy for installation.
- Foaming door with excellent seals prevent cooling air leakage. Door frame heater avoids frost, easy to open the door.
- Custains design reduces hot air entering cold/freezer room when door open
- Pressure balance window balances internal and external pressure
- Shelf design optimizes the storage space and maximum storage volume (optional)
- Water-pack design enables the holdover time when power failure
- Safe-protection on power delay, over heat, high/low voltage ensures cold room in good condition
- Low noise level create a comfortable workshop
- Environment friendly, CFC-free and HCFC-free refrigerant and insulation.
- LED light is to be controlled outside the room, waterproof, low heat dissipation and low energy consumption
- Anti-skid floor ensures safety walk in cold/freezer room

## Safety

- Safety door lock enables open the door inside in occasion of door locked outside.
- High/low temperature alarm, optional power failure alarm and remote alarm enable users handle the abnormal condition in time
- Historic temperature data down-load through USB interface and temperature curves displayed from LCD screen
- Temperature recorder or data logger records the temperature data.

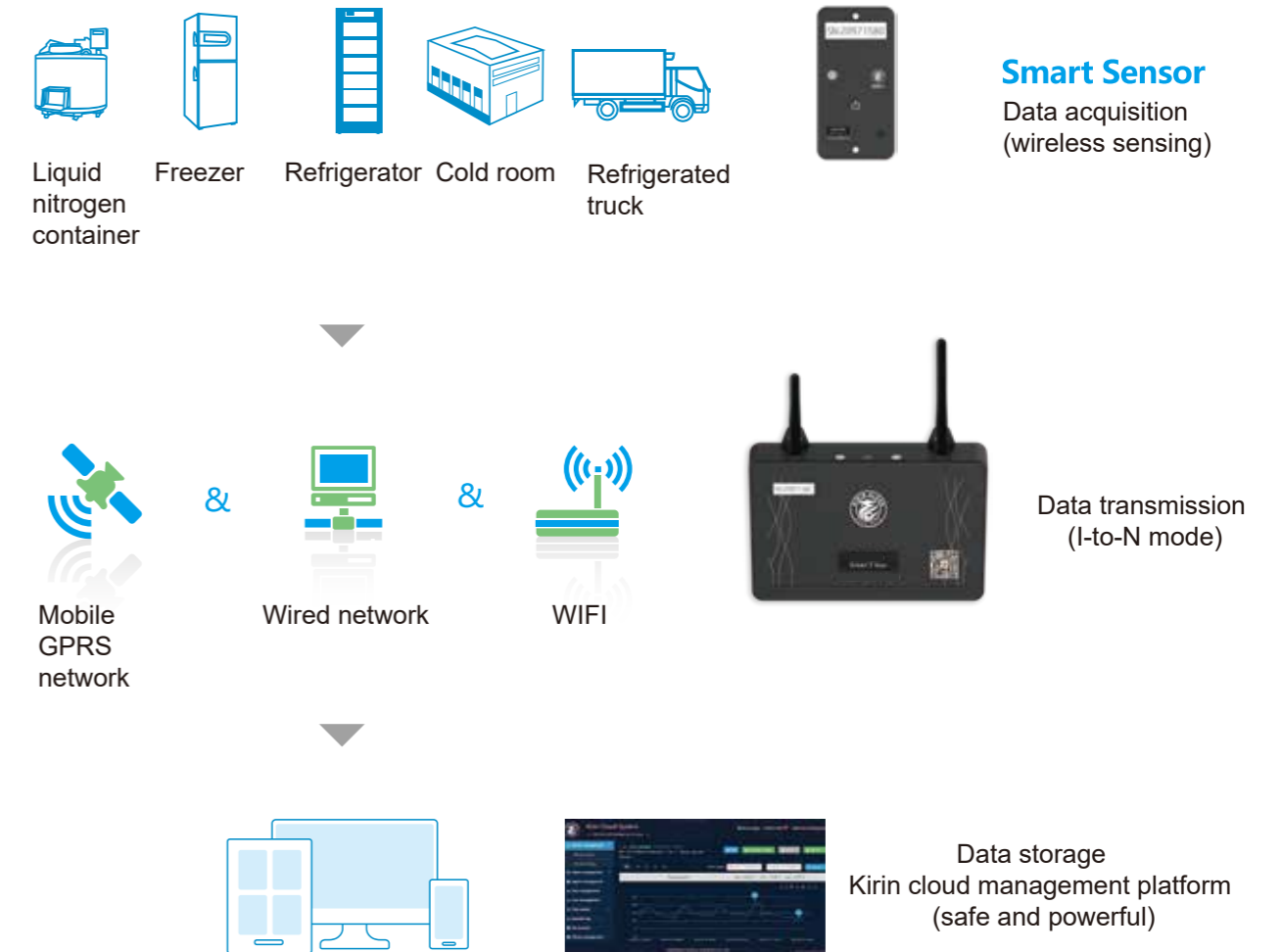
Antech temperature and humidity monitoring system are based on Kirin Cloud System. It enables user to real-time monitoring the temperature and humidity of storage samples in refrigerator, freezer, liquid nitrogen container, incubator etc. from internet to mobile phone. Users can receive the real-time alarms and check historical alarm events and temperature, humidity records in Kirin Cloud System.

Kirin Cloud System is a comprehensive monitoring and management platform based on three cutting-edge technologies of Internet of things (IOT), cloud technology and low power consumption. The platform is mainly used for biological sample storage, research, development and application.

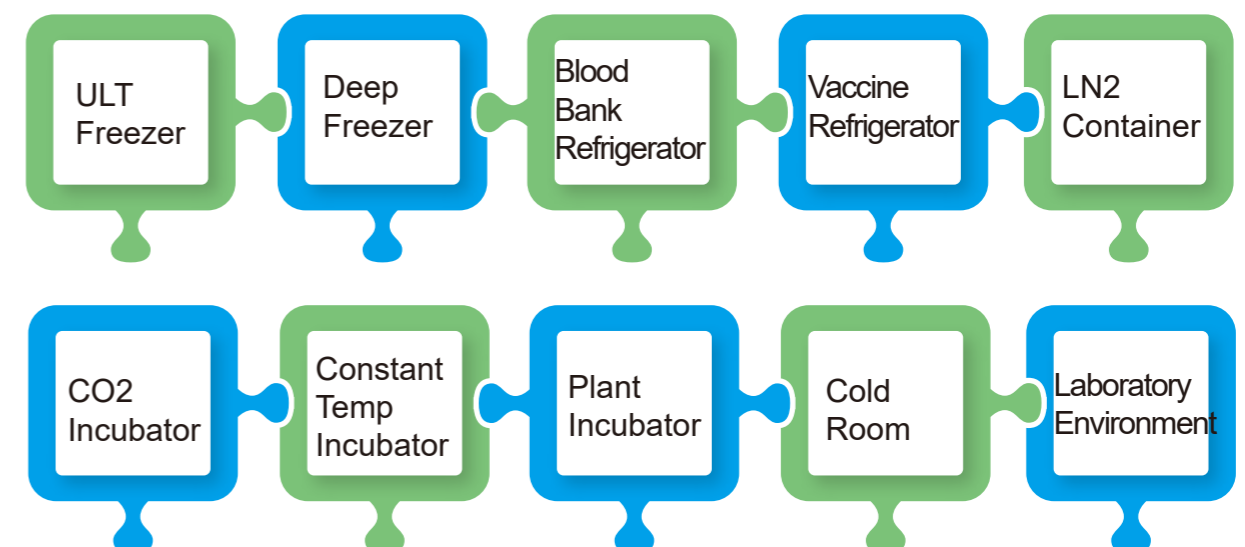
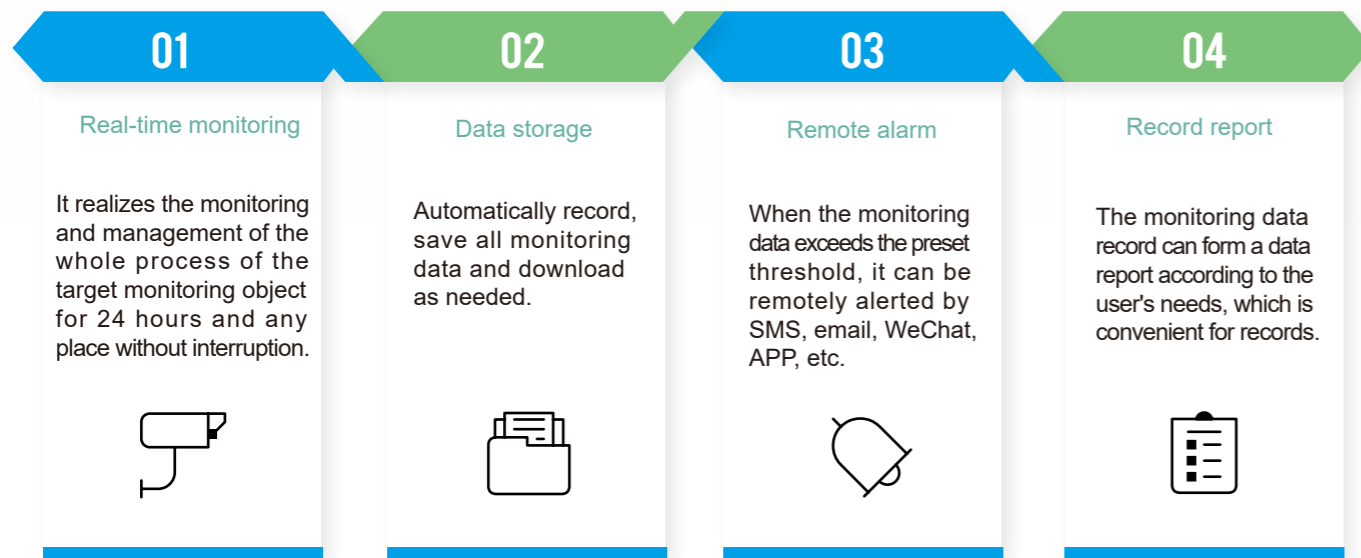
The main devices are smart Sensor and Smart Box. Smart sensor is collecting the temperature and humidity data and transferring the data to Smart box through wireless communication, the Smart box transferring the data to Kirin Cloud System through WIFI/GPRS network. The storage samples condition could be checked at anytime and anywhere. Data is accurate, reliable and stable.



## Product topology



### Basic function





( Smart sensor T1 )



( Smart sensor T2 )







( Smart T-BOX )

## Specification

Model	Temperature range	Humidity range	Temperature deviation	Humidity deviation	Temperature resolution	Power supply mode	Operating frequency	Installation mode
Smart sensor T1	-20°C—60°C	0—100%RH	±0.2°C	±2%RH	0.01	Built-in power supply (replaceable)	425—441Mhz	module placed inside device
Smart sensor T2	-200°C—150°C	—	±0.5°C	—	0.01	Built-in power supply (replaceable)	425—441Mhz	module placed inside device





## Product features

- 
**Intelligent transportation** Internet of Things LORA technology, intelligent matching data optimal transmission path.
- 
**Ultra-low power consumption** Built-in power supply can work independently for more than two years, and can be easily replaced or charged using USB
- 
**Remote transmission** Effective transmission distance is more than 200 meters, effectively ensuring signal penetration and data stability
- 
**Ultra-thin body** Small size, convenient and flexible, waterproof, dustproof and moisture proof, etc.

## Specification

Model	Operating temperature	Storage capacity	Network standard	External wiring	Power supply mode	Operating frequency	Installation method
Smart T-Box	Normal temperature environment	Built-in data storage TF card	Type I Select antenna or gain antenna according to actual needs	Built-in power supply	USB charging module can be placed in normal	425—441Mhz	temperature environment and have power supply

## Product features

- 
**Ultra-low power consumption** Built-in power supply can work independently for more than 7 days.
- 
**Wide-area networking** Up to 255 acquisitions module data can be uploaded.
- 
**Automatic frequency conversion** When subjected to external interference frequency, it can automatically transfer to the uninterrupted frequency for data transmission, ensuring data stability and reliability.
- 
**Freedom of networking** Data transmission can be carried out by means of GPRS/WIFI to meet the needs of global users.