BIOSPECTRIX PVT LTD

BioSpectrix

BIOMEDICAL REFRIGERATION SOLUTIONS



- Wide Temperature Range
- Advanced Digital Control
- Reliable Performance
- Ample Storage Capacity

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

Password protection
Protected engineer mode, avoids unauthorized change of key parameters

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

Door ajar alarm
Alarm activated if door open up for a certain time.

CFC /HCFC free
Environment friendly refrigerant, harmless to ozonosphere.

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

Force air cooling
for excellent temperature uniformity & fast cool-down after door openings

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

Direct cooling
Optimized direct cooling system with high eciency

Reversible doors
Left or right side open reversible door for flexibable installations

USB port
Temperature data storage & USB port for download

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

Safety door lock
Preventing unauthorized access

CE certification
CE certified model, safety guaranteed

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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
- 3-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.

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~+200°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	●
Romote alarm contact	●
RS485 port	●
Internet connection	Wi-Fi
Cloud service	3-year could service free of charge
Cloud alarm	Email, SMS

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PharmaStore Series

2~8°C Pharmacy Refrigerator

The professional PharmaStore+ 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 Controlle



Microprocessor electronic controller for PharmaStore+ 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

ALARMS

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

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-quite design reduces noise level

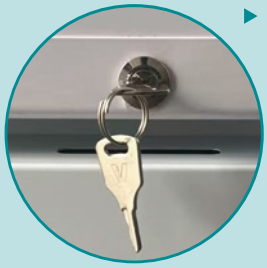
SAFETY

- 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

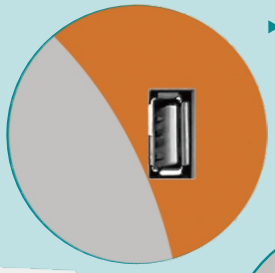
ENVIRONMENT FRIENDLY

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

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- 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 dierent
  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

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2~8°C
PharmaStore Series





Model		MPR-110	MPR-350	MPR-550
Basic	Type	Under-counter, 1-door	Upright, 1-door	Upright, 1-door
	Temperature range (℃)	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 menory			
	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	Φ25mm x 1	Φ25mm x 1	Φ25mm x 1
	Shelves adjustable QTY	2	6	5
	Basket at buttom	1	1	/
	Adjustbale 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
	Intermal W×D×H (mm)	500x510x570	500x510x1550	585x640x1375
	Extermal W×D×H (mm)	606x680x830	606x680x1865	680x770x2020
	Packing W×D×H (mm)	650x730x890	650x730x1950	720x760x2200
	Packing volume (m3)	0.42	0.93	1.20

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2~8°C
PharmaStore 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 (℃)	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 menory				
	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	Φ25mm x 1	Φ25mm x 1	Φ25mm x 1	Φ25mm x 1
	Shelves adjustable QTY	10	10	15	15
	Basket at buttom	/	/	/	/
	Adjustbale foot	/	/	/	/
	Caster				
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
	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
	Intermal W×D×H (mm)	950x580x1350	1115x680x1470	1550x580x1350	1730x580x1350
	Extermal 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

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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

ALARMS

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

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-quite design reduces noise level

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

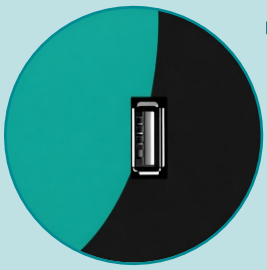
ENVIRONMENT FRIENDLY

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

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- Safety door lock
  Preventing unauthorized access



- USB port
  Temperature data storage and download

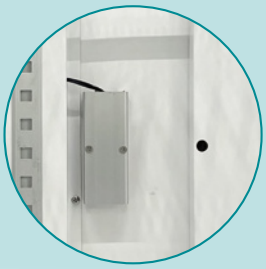




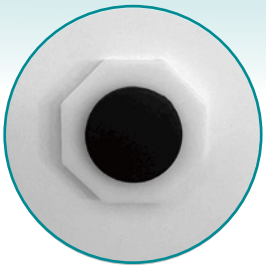
- Forced air cooling
  Excellent temperature uniformity
  and fast recovery after door open



- Adjustable shelves
  Convenient storage of dierent
  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

BIOSPECTRIX 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	●

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PharmaSafe

2-8°C/ Under-counter/ MPR-136

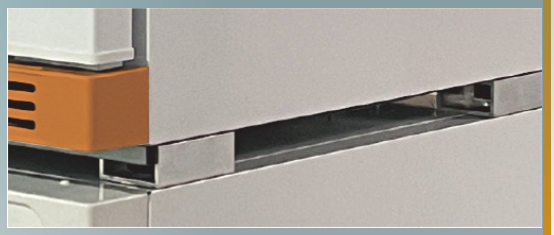
BIOSPECTRIX glass door 136 liter undercounter medical refrigerator MPR-136 is ideal for small medical practices, pharmacies, and labs. Its height is designed to match laboratory table and optimized usage of limited space. Despite a small capacity refrigerator, the functions are complete for medical and 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.



BIOSPECTRIX PharmaSafe series under counter and benchtop units are stackable using BIOSPECTRIX 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
Externmal 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.

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.

natural refrigerants that are fully compliant with new EPA/SNAP/UL regulations.

MPR-260



MPR-360



MPR-525



LOW CO2 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.





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

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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 (℃)	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 menory					
	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 buttom QTY	1	1	1	1	1
	Adjustbale 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, 50mm
Weight & size	Net weight (kg)	34	53	71	83	121
	Gross weight (KGs)	42	60	82	102	138
	Intermal W×D×H (mm)	410×391×420	500×510×570	500×420×1290	500×510×1550	645×510×1640
	Extermal W×D×H (mm)	510×590×660	600×680×812	600×590×1585	600×680×1840	775×700×1945
Solid door optional	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

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2~8°C
PharmaSafe series





Model		MPR-656	MPR-1006	MPR-1410
Basic	Type	Upright	Upright	Upright
	Temperature range (℃)	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 menory			
	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 buttom QTY	/	/	/
	Adjustbale 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
	Intermal W×D×H (mm)	660×650×1400	1299×650×1400	1460×650×1400
	Extermal W×D×H (mm)	780×840×1965	1300×840×1965	1580×840×1965
	Packing W×D×H (mm)	840×870×2150	1340×870×2150	1640×925×2180
	Volume (m3)	1.57	2.51	3.07

Solid door optional

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4°C Blood Bank Refrigerator

BIOSPECTRIX 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

ALARMS

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

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-quite design reduces noise level
- 3-layer glass door preventing frost

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

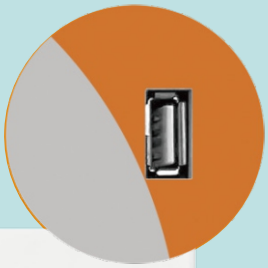
ENVIRONMENT FRIENDLY

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

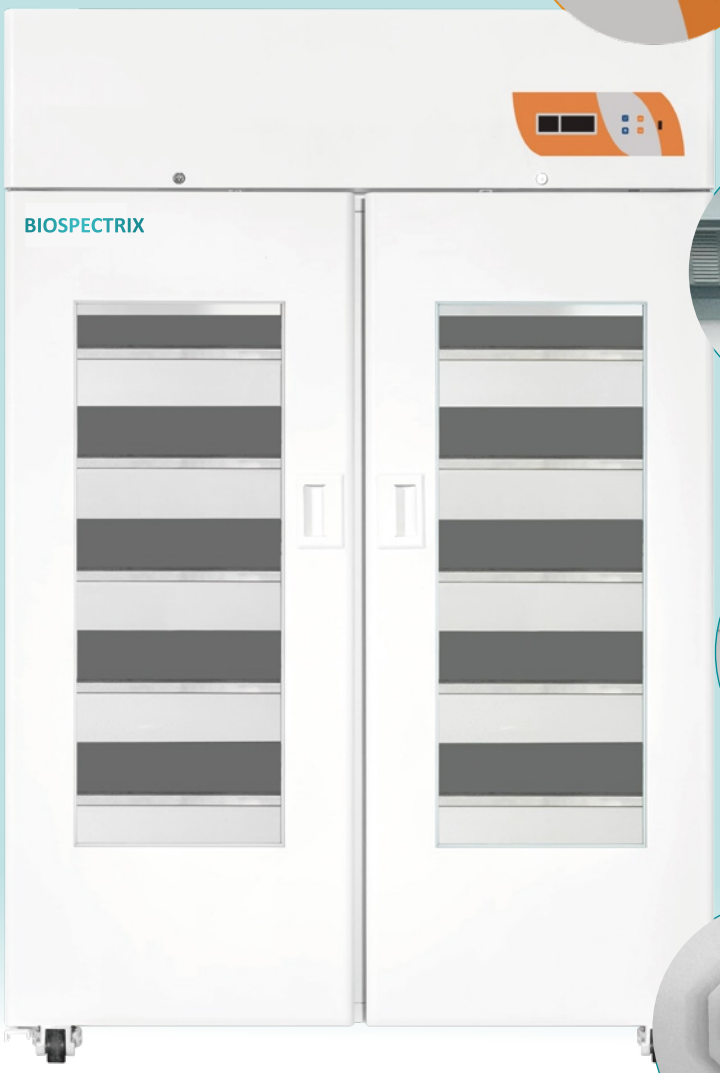
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- Door lock
  Door lock preventing unauthorized access



- 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

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4°C
BloodSafe series





Model		MBR-658	MBR-1008	MBR-1408
Basic	Type	Upright	Upright	Upright
	Temperature range (℃)	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)	○	○	○
	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)	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			
	Low battery			
	Power failure			
Accessories	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			
	Adjustbale foot			
	Caster			
	Sliding drawers Qty	6	12	12
	Test access port	Φ19mm x 1	Φ19mm x 1	Φ19mm x 1
Material	Exterior	Coated steel	Coated steel	Coated steel
	Interior	Stainless steel	Stainless steel	Stainless steel
	Sliding drawer	Stainless steel	Stainless steel	Stainless steel
	Insulation	Polyurethane, 60mm	Polyurethane, 60mm	Polyurethane, 60mm
Weight & size	Net weight (kg)	174	277	298
	Gross weight (kg)	203	312	338
	Intermal W×D×H (mm)	660×650×1400	1299×650×1400	1460×650×1400
	Extermal 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

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

BIOSPECTRIX 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 CO2 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℃ display accuracy

ALARMS

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

ERGONOMIC DESIGN

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

SAFETY

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

ENVIRONMENT FRIENDLY

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

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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)	O
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 (m^3)	0.8

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

BIOSPECTRIX 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℃ display accuracy
- Digital display show freezer working condition and alarm code
- 3-Channel sensor for control, display and ambient temperature

ALARMS

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

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-quite design reduces noise level

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

ENVIRONMENT FRIENDLY

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

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	Φ25mm x 2	Φ25mm 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
	Intermal 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 (m^3)	1.25	1.81

-25°C Laboratory Freezer

The professional LabSafe series lab freezer, specifically developed to be used by laboratories, hospitals, and pharmacies, ensures 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

ALARMS

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

ERGONOMIC DESIGN

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

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

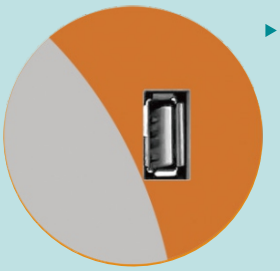
ENVIRONMENT FRIENDLY

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

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- Safety door lock
  Preventing unauthorized access



- USB port
  Temperature data storage and download

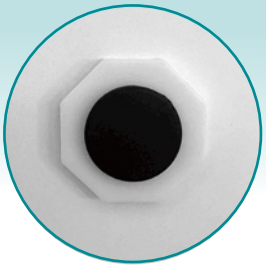




- Adjustable shelves
  Convenient storage of dierent size products



- 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

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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.







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

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LabSafe Series

-25°C/Under-counter/ MDF-25U150

BIOSPECTRIX 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.

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.





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

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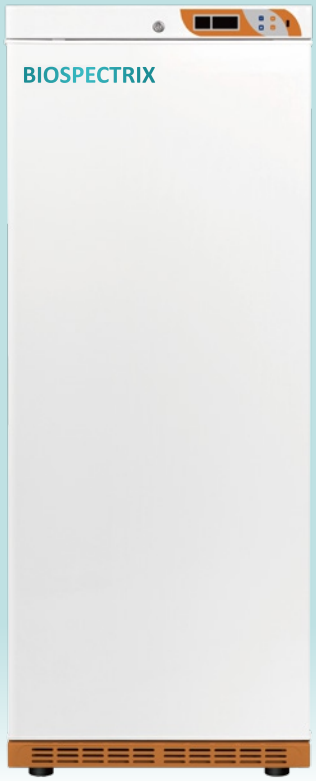
LabSafe Series

-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.





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 (℃)	-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
	Adjustbale 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
	Intermal W×D×H (mm)	410×450×420	500×540×570	500×450×1290	500×520×1550	645×530×1645
	Extermal 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 (m^3)	0.27	0.37	0.67	0.88	1.25

-40°C Deep Freezer

TC-200



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 POR T | 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.
- Forming inner doors with door seal for better insulation and less frost.

ALARMS

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

ERGONOMIC DESIGN

- Adjustable stainless steel shelves to load dierent size products
- Ultra-quite design reduces noise level

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

ENVIRONMENTFRIENDLY

- 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

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- USB port
  Temperature data storage and download



- Lockable door handle
  For easy operation and prevent unauthorized access

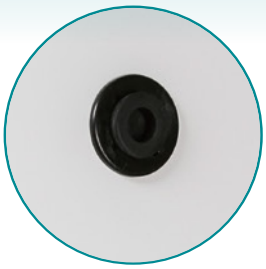




- Adjustable shelves
  Convenient storage of dierent size products made in stainless steel



- 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

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-40°C
LabSafe series






Model		MDF-40U280	MDF-40U360	MDF-40U620	MDF-40U700
Basic	Type	Upright	Upright	Upright	Upright
	Temperature range (℃)	-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
	Adjustbale 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
	Intermal 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 (m^3)	1.18	1.39	2.27	2.49

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-40°C Deep Freezer

BIOSPECTRIX -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℃ display accuracy
- Digital display show freezer working condition and alarm code
- 3-Channel sensor for control, display and ambient temperature

ALARMS

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

ERGONOMIC DESIGN

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

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

ENVIRONMENT FRIENDLY

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

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-40°C
Deep Freezer





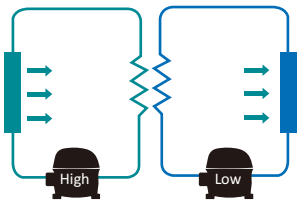
Model		MDF-40U90	MDF-40U270	MDF-40U450
Basic	Type	Under-counter	Upright	Upright
	Temperature range (℃)	-20 ~ -40	-20 ~ -40	-20 ~ -40
	Cooling type	Direct cooling	Direct cooling	Direct cooling
	Capacity (L)	90	270	450
	Defrost type	Manual	Manual	Manual
	Climate type	N	N	N
	Refrigerant	R290	R290	R290
	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			
Accessories	Door lock with key			
	Door	Solid door x 1	Solid door x 1	Solid door x 2
	Test access port	Φ25mm x 1	Φ25mm x 1	Φ25mm x 2
	Drawers	3	7	12
	Adjustbale 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
	Intermal 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 (m^3)	0.45	1.24	1.82

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-86°C Ultra-low Temperature Freezer

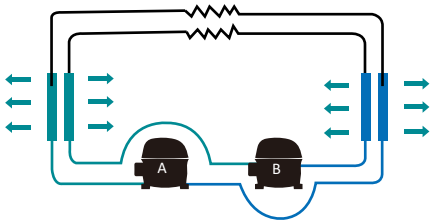
BIOSPECTRIX offers advanced BioSafe ULT freezers with optimized cooling system and ergonomic design. Both upright freezers and chest freezers are available, from 88 liter compact freezer to 838 liter large volume biobanking freezer. Various high efficiency cooling systems meet different user requirements.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

BioSafe-ECO series



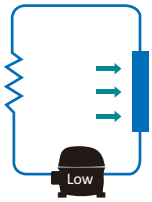
2-compressor cascade system, SECOP brand;
Hydrocarbon refrigerant for lower power consumption;
Capacity: 338L, 408L, 588L, 728L, 838L.

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 eciency, 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

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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 eciency 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

ALARMS

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

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

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

ENVIRONMENT FRIENDLY

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

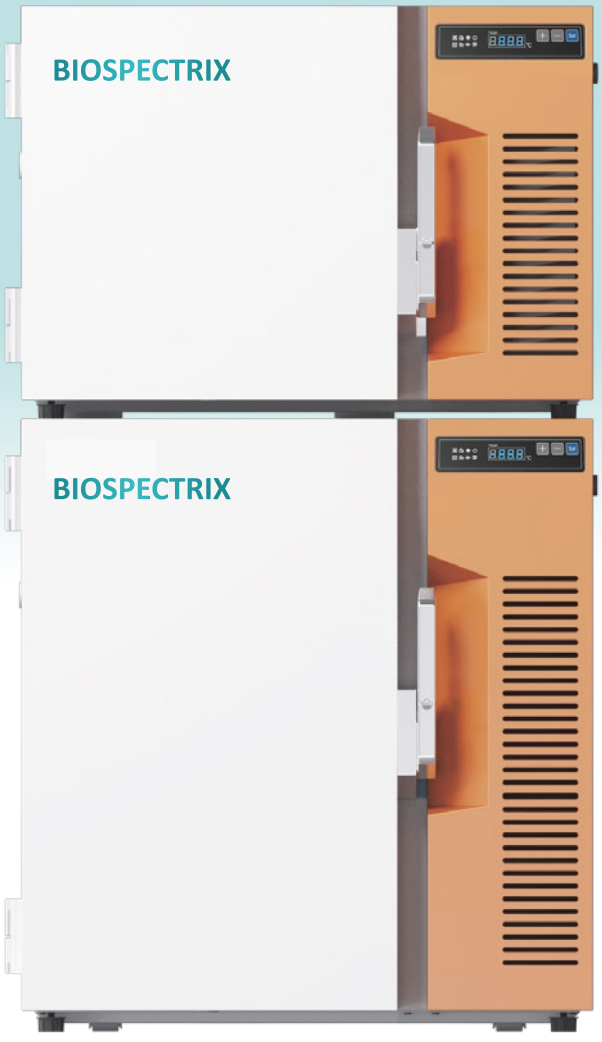
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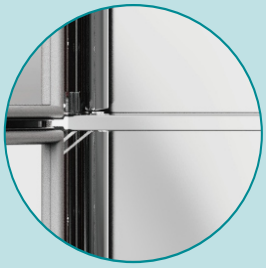


- High class interior
  Stainless steel interior
  Forming inner door
  Rust-free & easy cleaning



- 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

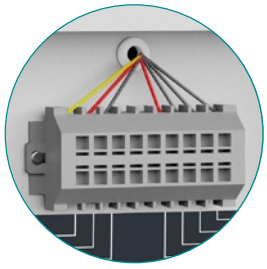




- Stainless steel shelf
  Adjustable position in the chamber
  Removeable to store large size product
  Stainless steel for easy cleaning



- 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

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-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
	Door entrance limit (≥mm)	680	680
Control	Controller	TC-300A	TC-300A
	Display	LED	LED
	Display accuracy	0.1	0.1
	Password protection		
	USB port	○	○
	Cloud monitoring (Wi-Fi)	○	○
Power	Power supply (V/Hz)	110V,50/60 ; 220V,50/60	110V,50/60 ; 220V,50/60
	Rated power (W)	260	450
	Rated current (A)	2.9	2.9
Alarm	Visible/audible alarm		
	High/Low temperature		
	Remote alarm contact		
	Hot condenser		
	Power failure		
	Sensor failure		
	High ambient temperature		
	Door open		
Accessories	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	1
	Freezer rack	○	○
	Rack type (DxH)	5x3	5x3
	Rack Qty	2	4
	CO2/LN2 backup system	○	○
Material	Exterior	Powder coated galvanized steel sheet	Powder coated galvanized steel sheet
	Interior	Stainless steel	Stainless steel
	Insulation	Polyurethane+LBA	Polyurethane+LBA
	Vacuum insulation panel (VIP)		
Weight & size	Cabinet insulation thickness (mm)	80	80
	Outer door thinkness (mm)	80	80
	Net weight (KGs)	84	108
	Intermal W×D×H (mm)	340x460x364	340x460x630
	Extermal W×D×H (mm)	760x680x550	760x680x818

● Basic equipment ○ Optional

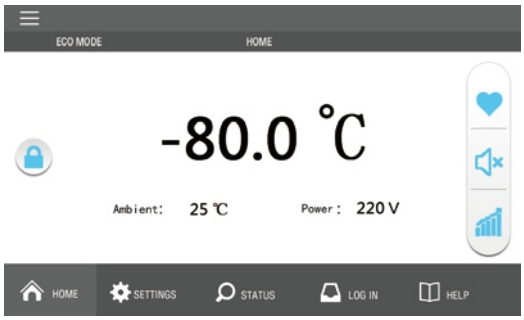
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BioSafe ECO/DUAL/MINI ULT Freezer

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 eciency 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

ALARMS

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

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 dierent size products
- Pressure release port for easy opening of outer door
- Ultra-quite design reduces noise level
- Optional sliding drawer rack & side access rack for 2ml vials, 5ml vials or SBS boxes

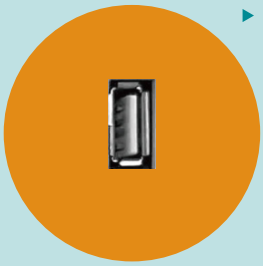
SAFETY

- 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

ENVIRONMENT FRIENDLY

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

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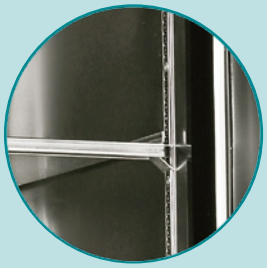


- USB port
  Temperature data storage and download



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

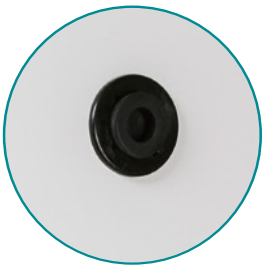




- Stainless steel inner cabinet
  Adjustable shelves



- 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

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

ALARMS

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

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 dierent size products
- Auto heating & manual pressure release port for easy opening of outer door
- Ultra-quite design reduces noise level
- Optional sliding drawer rack & side access rack for 2ml vials, 5ml vials or SBS boxes

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

ENVIRONMENT FRIENDLY

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

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BioSafe-MINI

Under-counter ULT Freezer

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 eciency single compressor cooling system, with reduced energy consumption and lower noise.

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 CO2 EMISSIONS

DOOR AJAR ALARM

CFC /HCFC FREE

USB PORT

POWER FAILURE ALARM

DIRECT COOLING

SAFETY DOOR LOCK

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-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)	O	O	O	O	O
	Chart recorder	O	O	O	O	O
Power	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	Φ25mm	Φ25mm	Φ25mm	Φ25mm	Φ25mm
	Adjustable shelves	3	3	3	3	3
	Safety door lock					
	Pressure equalization port					
	Freezer rack	O	O	O	O	O
	Rack type (LxH)	4x4	4x5&4x4	5x5	4x5& 4x6	5x5
	Rack Qty	12	8+8	16	18+6	24
	Casters					
	CO2/LN2 backup system	O	O	O	O	O
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 thinkness (mm)	105	105	105	105	105
Weight & size	Net weight (kg)	296	292	335	380	397
	Gross weight (kg)	306	317	364	400	430
	Intermal W×D×H (mm)	488×607×1140	606×575×1180	606×738×1310	963×571×1350	894×718×1310
	Extermal 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 (m^3)	2.14	2.75	2.55	2.97	3.03

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-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
	Compressor brand	SECOP	SECOP	SECOP	SECOP
Control	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	Φ25mm	Φ25mm	Φ25mm	Φ25mm
	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
	CO2/LN2 backup system	○	○	○	○
Material	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 thinkness (mm)	105	105	105	105
Weight & size	Net weight (kg)	236	283	316	310
	Gross weight (kg)	278	346	392	384
	Intermal W×D×H (mm)	606×575×1180	606×738×1310	963×571×1350	894×718×1310
	Extermal 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

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-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)	O	O	O
	Chart recorder	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)	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	O	/	/
	Rack type (DxH)	3x5	/	/
	Rack Qty	4	/	/
	Pressure equalization port	Manual	/	/
	Casters			
	CO2/LN2 backup system	O	O	O
Material	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 thinkness (mm)	90	90	120
Weight & size	Net weight (kg)	85	75	130
	Gross weight (kg)	105	95	160
	Intermal W×D×H (mm)	320×450×610	364×405×409	460×455×800
	Extermal 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

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-86°C
Chest type





	Model	MDF-86C118	MDF-86C458	MDF-86
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)	O	O	O
	Chart recorder	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)	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	Φ19mm x 2	Φ19mm x 2	Φ19mm x 2
	Adjustable shelves	N/A	N/A	N/A
	Freezer rack	O	O	O
	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	O	O	O
Material	Exterior	Pre-coated steel	Pre-coated steel	Pre-coated steel
	Interior	Stainless stell	Stainless steel	Stainless steel
	Insulation	Polyurethane	Polyurethane	Polyurethane
	Vacuum insulation panel (VIP)			
	Cabinet insulation thickness (mm)	90	90	90
	Outer door thinkness (mm)	90	90	90
Weight & size	Net weight (kg)	98	242	275
	Gross weight (kg)	116	278	318
	Intermal W×D×H (mm)	630×440×470	1310×600×630	1310×740×770
	Extermal 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_2 Back-up System

BS-1 is to ensure optimal security for critical samples stored in Ultra-Low Temperature Freezers. It controls injection of CO_2 into freezer when freezer temperature rises above the preset temperature value. It also reminds users to fill or replace their CO_2 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_2 alarm, reminding user to change CO_2 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 48 hours working time

SAFETY

- Valve test button to check whether electromagnetic valve works normally
- High/Low temperature alarm, low battery alarm, low CO_2 alarm
- Stop injection of CO_2 when door opens, protecting user from being injured by liquid CO_2 (need to be connected with ULT freezer door switch).

CO_2 Back-up System

Model		BS-I
Basic		-70
	Temperature Range (°C)	-40~-70
	Climate type	N
	Cooling Type	Direct Cooling
	Refrigerant	Liquid CO2
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 CO2 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 & CO2 cylinder)	3 meter
	Injection Tube (connecting backup system & freezer)	2 meter
	Net/Gross Weight	11.2/13.6kg
	Extermal W×D×H (mm)	200×400×160
	Packing W×D×H (mm)	370×530×330



The specification of the joint connected to the C O_2 cylinder is G 5/8〃

LN 2 Back-up System

BS-II is to ensure optimal security for critical samples stored in ultra low temperature freezers. It controls injection of LN_2 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 48 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 2 when door opens, protecting user from being injured by liquid LN 2 (need to be connected with ULT freezer door switch).

LN 2 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
	Extermal W×D×H (mm)	200×400×160
	Packing W×D×H (mm)	370×530×330

The specification of the joint connected to the LN cylinder is CGA-295



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-150°C Cryogenic Freezer

The -150 ℃ 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.

BIOSPECTRIX 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 eciency 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-quite 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 eciency cooling system for lower energy consumption and less carbon emission

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-150°C
Cryo Freezer





Model		MDF-150C118	MDF-150C208
Basic	Type	Chest	Chest
	Cooling technology	2-compressor casade system	2-compressor casade 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)	O	O
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	Φ19mm x 1	Φ19mm x 1
	Freezer rack	O	O
	Rack model	CFH-4-2, 1×4	CFH-4-2, 1×4
	Rack Qty	20	43
	Casters	6	6
	LN2 backup system	O	O
Material	Exterior	Pre-coated steel	Pre-coated steel
	Interior	Stainless steel	Stainless steel
	Insulation	Polyurethane	Polyurethane
	Cabinet insulation thickness (mm)	150mm	150mm
	Outer door thinkness (mm)	105mm	105mm
Weight & size	Net weight (kg)	165	232
	Gross weight (kg)	208	292
	Intermal W×D×H (mm)	540×400×560	780x500x660
	Extermal W×D×H (mm)	1275×795×990	1510x885x1095
	Packing W×D×H (mm)	1340×860×1140	1570×960×1230
	Volume (m^3)	1.31	1.85

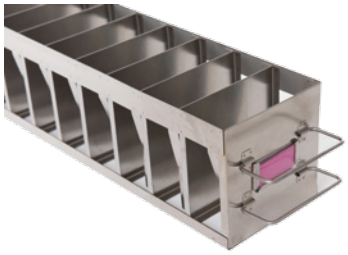
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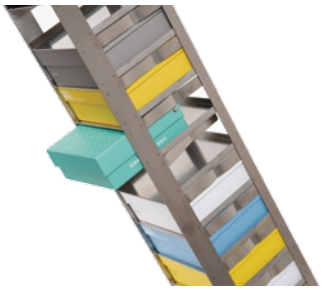
Racks for Antech Freezers

Model	Rack type (boxes each layer x layers)	Rack model		Racks per freezer	2" box storage capacity	Maximum 2ml vail 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.

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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

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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

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-86°C Portable ULT Freezer 1 liter

CryoExpress ONE

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

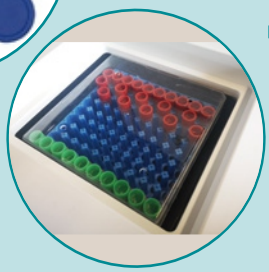
Taking advantages of advanced Stirling cooling technology, CryoExpress series oer wide range accurate temperature control, from ambient temperature to -86°C ultra low temperature, which can be used for transportation of biological sample, vaccine, pharmacy, etc.

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)

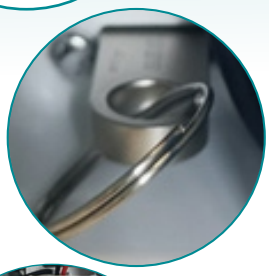


- Space for 100-place cryogenic box





- Advanced Stirling cooling technology



- USB port for data download



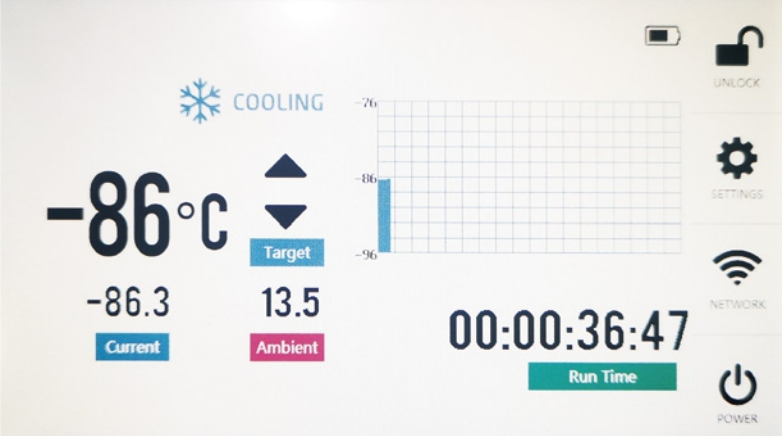
- Built-in lithium battery



- Large handle for convenient movement

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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 menory	
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
	Interma W×D×H (mm)	147 x 130 x 58
	Extermal W×D×H (mm)	290 x 311 x 450

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-86°C Portable ULT Freezer 25 liter

BIOSPECTRIX 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 oer wide range accurate temperature control from ambient temperature to -86℃ ultra low temperature, which can be used for transportation of biological sample, cells, vaccine, pharmacy, etc.

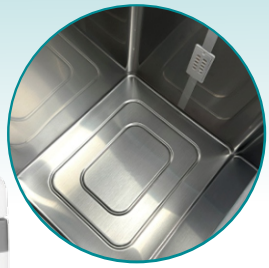
The portable freezer can be powered with 12~24v DC on a moving vehicle or vessel, or by a power bank. By using adapter, CryoExpress series freezer can be powered and charged with 100~240V AC power supply.



- 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



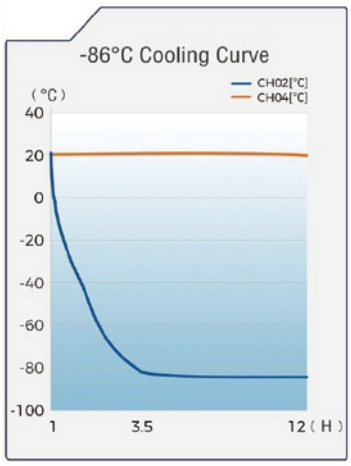
- Microprocessor controller
  Easy to use and set



- 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 eciency**
  Designed for space and energy eciency, 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
- Rapid freezing capability
- Operates without tilt angle restrictions
- High eciency with low energy consumption
- Long lifespan and maintenance-free

-86°C Portable ULT Freezer

	Model	MMF-2
Basic	Temperature range	-86℃ to 18℃
	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
	Intermal W×D×H (mm)	250×300×300
	Extermal W×D×H (mm)	392×455×616
	Packing W×D×H (mm)	480×530×710

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