



BLOOD BANK REFRIGERATOR

TEMP CONTROL SPECIALIST **MEDICAL GRADE**

4°C



Safe



Stable



Eco



CFC-free



Alarms



BLOOD BANK REFRIGERATOR



4°C



Whole Blood



Red Cell Concentrates



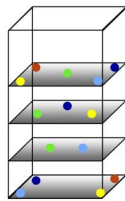
Thawed Plasma



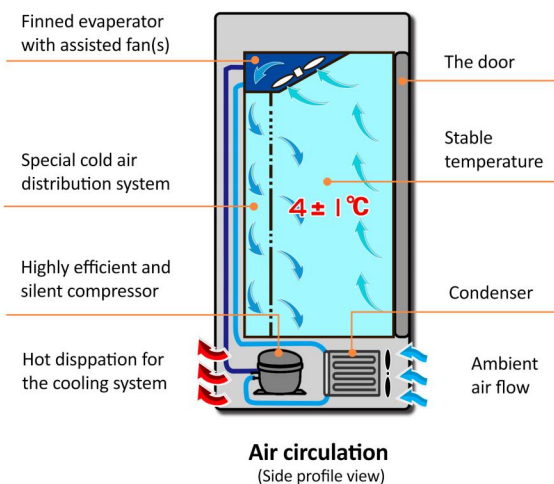
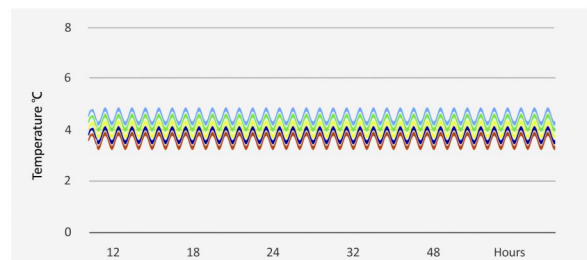
TEMPERATURE CONTROL TECHNOLOGY

» Ultimate uniformity

The chamber maintain temperatures within $\pm 1^\circ\text{C}$ throughout the entire compartment, ensuring confidence that items are stored at the correct temperature regardless of their placement in the chamber.



Uniformity testing probe locations

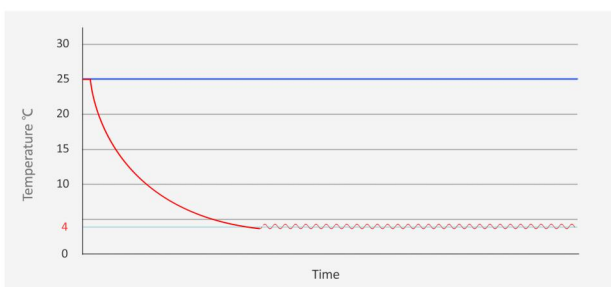


» Optimized fluctuation

Maintain superior temperature stability @ $4 \pm 1^\circ\text{C}$, avoiding rapid and significant changes in temperature. This ensures that samples, medications, vaccines, and blood therapies are consistently stored in their optimal environment, without compromise.

» Fast recovery

Faster temperature recovery even after prolonged door openings. The forced-air circulation system maintains consistent temperatures, ensuring that contents are stored at the right temperature even when the unit is opened multiple times per hour.



» Advanced air circulation

The forced-air circulation system maintains uniform chamber temperatures and provide fast temperature recovery after door openings. The units do not require a defrost cycle to maintain a constant temperature, ensuring that items are always stored at the desired temperature without interruption.

BLOOD BANK REFRIGERATOR



Safe storage

to safeguard patient samples and ensure medications remain efficacious.



Precise temp control

to ensure stable and accurate temperatures in the chamber



User-friendly

to bring convenience and easy maintenance to users



Eco-friendly

to reduce operating costs, provide a quiet working environment and support sustainability initiatives



GUIDE TO MODELS *Find out the model you need quickly*

MBC-4V368

Medical Blood Cabinet

Vertical type

Temperature 4°C

368 Liters



ECO-FRIENDLY & USER-FRIENDLY



Thermal printer

All the units are equipped with built-in thermo printers to record and print real-time temperature data, which facilitates users to monitor the status of the machines and maximize the safety of blood.



Natural Refrigerants

Sustainable U.S. EPA, SNAP, and EU F-Gas compliant natural refrigerants and foaming agents support sustainability initiatives. The cooling system uses **R290** which are environmentally friendly, having no impact on ozone depletion and a very low Global Warming Potential (GWP) grade.



High-efficiency cooling system

Operating at a low noise level while still providing efficient cooling, our advanced cooling technology offers lower energy consumption and better user experiences.

MBC-4V1008



680 bags



MBC-4V1008



FEATURES

» Super air cooling

A powerful air-cooling system equipped with three silent fans and a unique air distribution channel efficiently distributes the cool air to everywhere in the cabinet.



3-fan-assisted evaporator

» Ultimate insulation

The unit is filled with a thick layer of high-density polyurethane foam and acrylic inner doors which effectively locks in the temperature inside, minimizes cold air loss, and ensures safe preservation of blood for an extended period of time even in the event of unexpected power outages.



Acrylic inner door design

» Temperature recording

The unit comes with a thermal printer as standard, which prints real-time temperatures at 5-minute intervals, enabling real-time monitoring of the temperature inside the unit. The chart recorder is an optional accessory that can serve as an additional temperature monitoring device.



Thermal printer

» Electrically heated glass doors

Fog or condensation often occurs when opening and closing the door. However, this can be easily prevented with the electrically heated glass doors, which quickly evaporate any moisture.



CONSTRUCTION

Fan-assisted evaporator

Highly efficient finned evaporator with high airflow fans

Heated glass

Prevent fogging and condensation

LED illumination

Smart lighting on and off for convenient access

Sliding drawers

SUS 304 perforated mesh sliding drawers

Quick release filter

Magnetic cover, easy cleaning and washing filter

Universal casters

Wheels with brake for easy movement and stable fixation

D06 Controller

Printer

Built-in thermo printer to record and print the real-time temperatures.

Inner door design

Providing better insulations

Access ports

Dia.25mm ports for additional monitoring device

Sealing gaskets

Long-lasting magnetic sealing gasket locks in cold air

Built-in locks

Ensures the security of your preservations

Chart recorder

Optional temperature monitoring device



» D06 Controller

- » A digital microprocessor temperature controller with LED display and built-in alarm back up power.
- » The precision of display and control is 0.1°C.
- » Factory pre-set to 4°C for blood bank refrigerators.
- » Alarms : High/low temperature, power failure, sensor error and door ajar.
- » Extensions : Remote alarm interface.



» High quality materials

The units are made of high-quality coated cold-rolled steel exterior and stainless steel interior, which is antibacterial, anti-corrosive, and easy to clean.



Stainless steel perforated sliding drawers

» Quick release filter

The condenser filter screen mask is designed with a magnetic suction, making it more convenient to maintain and clean the filter screen.



Quick release filter

» Lockable cabinets

The unit standard equipped with a built-in lock for each door, provides a secure storage space for your preservations.

MBC-4V368



360 bags



MBC-4V368



FEATURES

» Super air cooling

A powerful air-cooling system equipped with three silent fans and a unique air distribution channel efficiently distributes the cool air to everywhere in the cabinet.



Fan-assisted evaporator and LED lighting

» Ultimate insulation

The unit is filled with a thick layer of high-density polyurethane foam and acrylic inner doors which effectively locks in the temperature inside, minimizes cold air loss, and ensures safe preservation of blood for an extended period of time even in the event of unexpected power outages.



Quick release filter design

» Temperature recording

The unit comes with a thermal printer as standard, which prints real-time temperatures at 5-minute intervals. And An internal USB data logger for recording and exporting temperature & alarm data through a built-in USB interface.



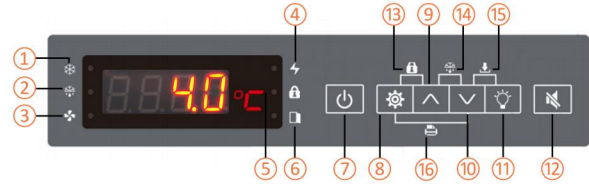
Thermal printer and USB interface

» Electrically heated glass door

Fog or condensation often occurs when opening and closing the door. However, this can be easily prevented with the electrically heated glass door, which quickly evaporate any moisture.

» Z06 Controller

- » A digital microprocessor temperature controller with LED display and built-in alarm back up power.
- » The precision of display and control is 0.1°C.
- » Factory pre-set to 4°C for blood bank refrigerators.
- » Alarms : High/low temperature, power failure, sensor error, door ajar, ambient temperature, backup battery failure, condenser fault and ambient temperature
- » Internal USB data logger : Temperature recording data can be exported to PDF or Excel format via built-in USB interface.
- » Extensions : Remote alarm interface, RS485.



- | | | |
|----------------------------|----------------|-------------------------------|
| ① Cooling status indicator | ⑦ Power switch | ⑬ Keyboard lock (Combination) |
| ② Defrost indicator | ⑧ Setting | ⑭ Defrost (Combination) |
| ③ Fan status indicator | ⑨ Up | ⑮ Download (Combination) |
| ④ Power indicator | ⑩ Down | ⑯ Print (Combination) |
| ⑤ Keyboard lock indicator | ⑪ Lighting | |
| ⑥ Door open indicator | ⑫ Mute | |

» High quality materials

The units are made of high-quality coated cold-rolled steel exterior and stainless steel interior, which is antibacterial, anti-corrosive, and easy to clean.



CONSTRUCTION

Z06 Controller

Fan-assited evaporator

Highly efficient finned evaporator with high airflow fans

Acrylic inner door

Providing better insulations

Glycerine box

Precise temperature control and minimal fluctuations

Wire basket

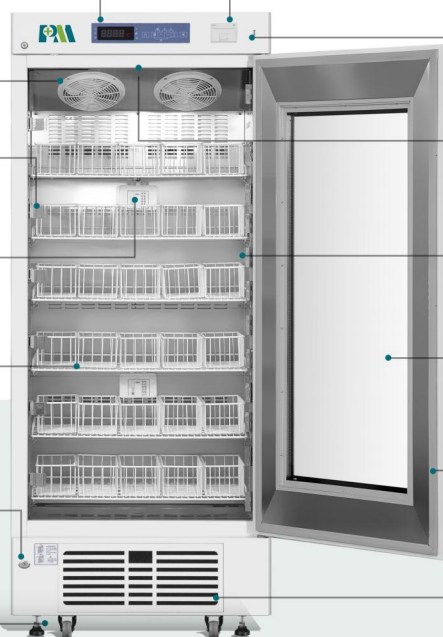
Removable PVC coated wire baskets

Built-in locks

Ensures the security of your preservations

Universal casters

Brake & leveling feet for easy movement and stable fixation



Printer

Built-in thermo printer to record and print the real-time temperatures.

USB interface

For downloading temperature datas

LED illumination

Smart lighting on and off for convenient access

Access port

Dia.25mm ports for additional monitoring device

Heated glass

Prevent fogging and condensation

Sealing gaskets

Long-lasting magnetic sealing gasket locks in cold air

Quick release filter

Magnetic cover, easy cleaning and washing filter

MBC-4V658



430 bags



MBC-4V658



FEATURES

» Super air cooling

A powerful air-cooling system equipped with three silent fans and a unique air distribution channel efficiently distributes the cool air to everywhere in the cabinet.



Fan-assisted evaporator and LED lighting

» Ultimate insulation

The unit is filled with a thick layer of high-density polyurethane foam and acrylic inner doors which effectively locks in the temperature inside, minimizes cold air loss, and ensures safe preservation of blood for an extended period of time even in the event of unexpected power outages.



Acrylic inner door design

» Temperature recording

The unit comes with a thermal printer as standard, which prints real-time temperatures at 5-minute intervals. And An internal USB data logger for recording and exporting temperature & alarm data through a built-in USB interface.



Thermal printer

» Electrically heated glass door

Fog or condensation often occurs when opening and closing the door. However, this can be easily prevented with the electrically heated glass door, which quickly evaporate any moisture.

» D06 Controller

- » A digital microprocessor temperature controller with LED display and built-in alarm back up power.
- » The precision of display and control is 0.1°C.
- » Factory pre-set to 4°C for blood bank refrigerators
Temperature range adjustable between 2-14 degrees.
- » Alarms : High/low temperature, power failure, sensor error and door ajar.
- » Extensions : Remote alarm interface.



» High quality materials

The units are made of high-quality coated cold-rolled steel exterior and stainless steel interior, which is antibacterial, anti-corrosive, and easy to clean.



PVC coated wire baskets

» Lockable cabinets

The unit standard equipped with a built-in lock for each door, provides a secure storage space for your preservations.



Chart recorder

» Temperature chart recorder

The optional chart recorder provides an easy-to-read graph of data vs time. It is a reliable, accurate, and stable instrument, for on-the-spot written documentation of inner temperature.



MBC-4V208



156 bags



MBC-4V208



FEATURES

» Super air cooling

A powerful air-cooling system equipped with three silent fans and a unique air distribution channel efficiently distributes the cool air to everywhere in the cabinet.



Fan-assisted evaporator and LED lighting

» Ultimate insulation

The unit is filled with a thick layer of high-density polyurethane foam and acrylic inner doors which effectively locks in the temperature inside, minimizes cold air loss, and ensures safe preservation of blood for an extended period of time even in the event of unexpected power outages.



Acrylic inner door design

» Temperature recording

The unit comes with a thermal printer as standard, which prints real-time temperatures at 5-minute intervals. And An internal USB data logger for recording and exporting temperature & alarm data through a built-in USB interface.



Thermal printer

» Electrically heated glass door

Fog or condensation often occurs when opening and closing the door. However, this can be easily prevented with the electrically heated glass door, which quickly evaporate any moisture.



Coated wire baskets



78 bags



MBC-4V108

» D06 Controller

- » A digital microprocessor temperature controller with LED display and built-in alarm back up power.
- » The precision of display and control is 0.1°C.
- » Factory pre-set to 4°C for blood bank refrigerators.
- » Alarms : High/low temperature, power failure, sensor error and door ajar.
- » Extensions : Remote alarm interface.



» High quality materials

The units are made of high-quality coated cold-rolled steel exterior and stainless steel interior, which is antibacterial, anti-corrosive, and easy to clean.



Thermal printer

» Glycerine box inside

Glycerine boxes are used to simulate the actual temperature of the blood. The temperature sensor detects the temperature of the glycerin, so that the controller drives the cooling system to ensure optimal temperature stability of the chamber.



Access port

» Lockable cabinets

The unit standard equipped with a built-in lock for each door, provides a secure storage space for your preservations.

SPECIFICATION SHEET



	Model	MBC-4V108	MBC-4V208	MBC-4V368	MBC-4V658	MBC-4V1008	
Specifications	Shelf/drawer QTY	Shelves/ 2 Baskets/6	Shelves/4 Baskets/12	Shelves/6 Baskets/30	Shelves/12 Baskets/36	Sliding Drawers/12	
	Cooling system	Forced air	Forced air	Forced air	Forced air	Forced air	
	Defrost	Auto	Auto	Auto	Auto	Auto	
	Refrigerant	R134a	R134a	R134a	R134a	R134a	
	Noise(db)	48	48	49	50	50	
	Ambient temperature (°C)	10~32°C	10~32°C	10~32°C	10~32°C	10~32°C	
Cooling system	Temperature range (°C)	4°C	4°C	4°C	4°C	4°C	
	Compressor QTY	1	1	1	1	1	
	Sensor	NTC	NTC	NTC	NTC	NTC	
	Temperature controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	
	Display	LED digital display	LED digital display	LED digital display	LED digital display	LED digital display	
	Power	Voltage(V)	187~242	187~242	187~242	187~242	187~242
Frequency(Hz)		50Hz	50Hz	50Hz	50Hz	50Hz	
Power Consumption(kWh/24h)		1.9	2.2	4.2	6.3	8.5	
Power (W)		175W	183W	325W	364W	513W	
Materials		Internal material	Coated steel	Coated steel	Coated steel	Coated steel	Coated steel
		External material	SUS 304	SUS 304	SUS 304	SUS 304	SUS 304
	Shelf/basket material	PVC coated wire	PVC coated wire	PVC coated wire	PVC coated wire	SUS 304 perforated mesh	
	Insulation	CFC-free PURF	CFC-free PURF	CFC-free PURF	CFC-free PURF	CFC-free PURF	
	Measurement	Capacity (L/cu.ft)	108/3.81	208/7.34	368/12.98	658/23.23	1008/35.59
		Blood bag(450ml) Qty	78	156	360	430	680
Blood bag(300ml) Qty		96	192	420	540	860	
Blood bag(200ml) Qty		120	240	540	680	1080	
NT./GT.(kg)		74/95	96/120	128/135	202/257	265/335	
Exterior size(W*D*H)(mm)		540*630*1030	540*640*1530	785*565*1920	1220*648*1885	1240*860*1895	
Alarms	Interior size(W*D*H)(mm)	432*462*478	432*462*978	685*429*1380	1100*454*1325	1100*684*1325	
	Package size(W*D*H)(mm)	700*585*1200	590*700*1700	890*650*2100	1300*735*2110	1325*970*2130	
	Shipping CBM	0.5	0.7	1.2	2.1	2.7	
	20GP/40GP/40HQ	32/68/68	27/60/60	21/44/44	12/27/27	8/18/18	
	High/low temperature	Y	Y	Y	Y	Y	
	Power failure	Y	Y	Y	Y	Y	
Accessories	Controller failure	Y	Y	Y	Y	Y	
	Sensor error	Y	Y	Y	Y	Y	
	Condenser fault	N/A	N/A	Y	N/A	N/A	
	Ambient temperature	N/A	N/A	Y	N/A	N/A	
	Door ajar	Y	Y	Y	Y	Y	
	Power failure backup	72 hours	72 hours	72 hours	72 hours	72 hours	
Accessories	Castor	Y	Y	Y	Y	Y	
	leveling feet	N/A	N/A	Y	N/A	N/A	
	Access port Qty/diameter	1/25mm	2/25mm	2/25mm	2/25mm	1/25mm	
	USB Interface	Optional	Optional	Y	Optional	Optional	
	Illumination	LED lamp	LED lamp	LED lamp	LED tube	LED tube	
	Thermol printer	Y	Y	Y	Y	Y	
	Remote alarm port	Optional	Optional	Optional	Optional	Optional	
	Door type/Qty	Foamed glass/1	Foamed glass/1	Foamed glass/1	Foamed glass/2	Foamed glass/2	
	Heated glass	Y	Y	Y	Y	Y	
	Inner door/Qty	Acrylic/2	Acrylic/4	Acrylic/6	Acrylic/6	Acrylic/6	
	Chart recorder	N/A	N/A	N/A	Optional	Optional	
	Data logger	Optional	Optional	Optional	Optional	Optional	

OPTIONAL ACCESSORIES



110V power system

Compatibility with 110V power is achieved for the refrigerator by either modifying the compressor or utilizing an additional transformer.



Voltage stabilizer

Stabilize the input voltage of a power source to protect refrigerators from the effects of voltage fluctuations.



Data Logger (TLOG-100EC)

DLW-100EC is an independent monitoring device that records the realtime temperature and provides the necessary alarmsto protect your preservations.



4G/Wifi Data Logger (RCW-360P)

A networked device that can upload real-time temperature data to the cloud. Users can monitor and manage the data through the mobile app or web-based cloud platform.



6" Temperature Chart Recorder

The chart recorder provides an easy-to-read graph of data vs time. It is a reliable, accurate, and stable instrument, for on-the-spot written documentation of freezer chamber temperature.



3Q qualification

Provides documentation for Installation and Operational Qualifications (IQ/OQ), as well as an outline of suggested topics for performance qualification (PQ).



Printer

Built-in Dot matrix printer could be provided to record and print the real-time temperatures.



SS exterior

For customers who need stainless steel materials, there is a special cabinet customization





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