

Solar Powered Blood Bank Refrigerator

Environmentally friendly Solar Ice Lined Blood Bank refrigerator powered by Meditech Technology for safe storage of Blood between 2°C to 6°C . Meditech Refrigerators with Anti-Freeze technology ensure perfect temperature control with no risk of freezing.

Features

- Reliable temperature between +2°C to +6°C
- The Temperature of the refrigerator is maintained between +2 and +6 centigrade.
- Self-regulating cooling system
- Air flow system in vaccine compartment
- Cooling coil of copper
- CFC-free refrigerant and insulation
- Compressor made for use in the tropics
- Solid lid with handle and lock
- 2 baskets for organized storage
- Available in 220V-240V 50HZ



- Alarms –12 Types
- 7 days Chart recorder
- Battery Backup-48 Hours in case of power and technical failure
- Inbuilt USB and Data Logger
- Real Time Clock and Calendar Setting

Hold over time of the equipment is 72 hours. The equipment shall maintain temperature between 2 to 6 when the power is cut off

solar panels, stands to mount solar panel on rooftop/outdoor, electrical cables and other accessories required to operate the ILR using solar panel will be provided

Temperature Variations Prevented

The Meditech Series is designed to minimize cold air loss even with frequent door openings.

Foamed-in-place insulation in the walls and magnetic sealed outer doors prevent chamber air leakage and promote complete door closings

Calibration shall be conducted once in every six months during warranty and CMC period

Temperature recorder: Battery backup of 24 hours, 7 days circular chart recorder

Internal chamber is made up of stainless steel material

Outer chamber is made up of galvanized bacteria resistant powder coated CRCA sheet

CFC Free Puff Insulation

Ice Pack compartment: Built in Ice compartment to maintain temperature

Compressor: Branded hermetically sealed DC compressors.

Air circulation: Fan air cooling to ensure uniform temperature throughout the refrigerator chamber

Combi Condenser: Skin condenser on inner lining of external body + Air cooled type condenser with grooved aluminium fin for effective heat transfer.

The ILR function on Solar Direct Drive using photovoltaic system of solar array to freeze the water. Cooling power this ice bank is used to run refrigeration equipment complying with specification E03/RF05.2

The Solar Blood Bank Refrigerator shall be of vertical Type

solar should have temperature monitoring system

ambient Temperature +10 to 45

Temperature sensor PT100

Microprocessor based temperature controller

Safety fuse for equipment

Power supply: DC

The solar Ice Lined Blood Bank Refrigerator is CE certified.

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Meditech Solar Blood Bank Refrigerators with Anti-Freeze technology

- Never freeze: The Temperature inside the refrigerator cabinet always remains between 2 to 8 Degree C. The cabinet Temperature within the chamber is always maintained in the range less than 1°C using Our Anti Freeze Technology. Problems related to Blood Freezing and stratification is eliminated unlike other refrigerators. Hence the Blood is constantly maintained at safe temperature.
- No Thermal Shock: Using the above mentioned technology, there is no thermal shock associated with this refrigerator due to Power failure or High Ambient Temperature. With Electricity of 2½ hours per day, Our Refrigerator provides excellent performance. The Blood is maintained at same temperature even there is a power failure. Meditech Solar Refrigerator can maintain the temperature and keep Blood safe for 3 or more days in the event of power failure based on different models.
- Anti-Freeze technology: The water is surrounded around the Meditech Blood Storage Compartment. As the refrigerator is supplied with the desired power, there is ice formation above the compartment which in turn melts during warm water rising phenomenon. The compartment is always left with at 4°C inside. This Anti-freeze technology converts the solar power and stores energy inside this ice compartment for many days.
- Successful Funding : It is always advisable to make sound investment is purchasing a refrigerator which helps in safe storage of Blood Components. Since Blood worth million dollars and for emergency purpose will be stored inside for many years.

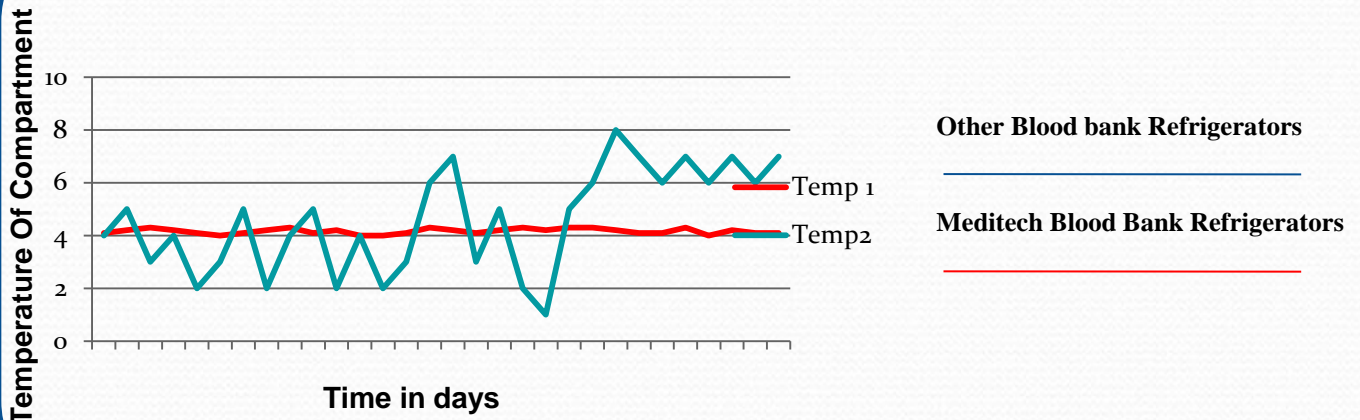
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Compliant with International Standards

1. The Refrigerators are tested for WHO prequalification
2. The Refrigerators are simulated for Tropical Environment
3. All the study confirms the sturdiness of dependability of Our products

31 Days Study of Inside Compartment Temperature



Life Saving Technology for the world

- Anti-Freeze technology is in use in over 100 countries across the world. Meditech gives Free license to any manufacturer looking to market same product across the globe.

Solar Powered Blood Bank Refrigerator PLC Based Controller



LED INDICATION

1. Line In
2. Power
3. Comp On
4. Heater On
5. Battery On
6. Battery Low
7. Temp High
8. Temp Low
9. Power Fail
10. Sensor Fail
11. System On

Scrolling LIVE Data logger on LED screen

1. Temperature
2. Incoming Voltage
3. Ambient Temperature
4. Time in hours of revolution chart
5. Current Date
6. Current Time
7. Battery Voltage


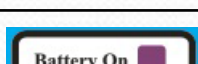


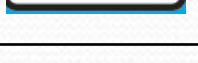



User Friendly Settings

1. Date
2. Time
3. High Temp Alarm
4. Low Temp Alarm
5. Hysteresis
6. Compressor Delay

Model	MTBTS01	MTBTS02	MTBTS03
Gross Storage Capacity (L)	165	300	600
Blood Storage Capacity (L) 450 ml	90	180	360
No Of sliding Trays	2	4	6
Energy Consumption Stable Running	0.55 kWh/ 24 hours	0.70 kWh/ 24 hours	1.05 kWh/ 24 hours
Energy Consumption Cool Down Test,	0.60 kWh/ 24 hours	1.80 kWh/ 24 hours	2.55 kWh/ 24 hours
Refrigerant	R134a		
PQS Code	E003		
Weight (Kg)	124	158	179
Quality Standard	ISO 9001:2008		
Controller	Advance LED Controller		

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6.0 LED Indicators

Sl.No	Photos	Function Indication
1.		This LED is on when there is a power supply to the machine from the main source
2		This LED is on when the Controller is in working condition.
3		This LED is on when the compressor is in working condition
4		This LED is on when the heater is in working condition
5		This LED is on when the battery is in working condition
6		This LED is on when the battery is discharged
7		This LED is on when the inside compartment temperature of the refrigerator is high above the set temp
8		This LED is on when the inside compartment temperature of the refrigerator is Low below the set temp
9		This LED is on when there is power failure.
10		This LED is on when there is sensor fail
11		This LED is on when after 162 hours of charge change (6 hours before the completion of 7 days)
12		This LED is on when all functions of the System is in working condition

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Keypad Functions

Sl.No	Photos	Function Indication
1		The Menu button is pressed to enter into MENU option.
2		The Enter button is pressed to enter into “ENTER” option.
3		The Up Arrow button is pressed to go Upwards in the menu option.
4		The Down Arrow button is pressed to go Downwards in the menu option.
5		The data logger is pressed to get the data from the PLC to the computer
6		The MUTE button is pressed to MUTE any Alarms and sounds
7		The Door Open LED is activated along with the buzzer sound indicating the Door Open function
8		The ON button is pressed to switch on the refrigerator
9		The USB is provided to connect the Refrigerator to the computer system.