

Solar Direct Drive and Battery Backup Corona Virus (COVID-19) Vaccine & Sample Cold Storage

Solar Direct Drive and Battery Backup Freezers for Reliable Storage at 2 to 8°C, -20°C, -40°C & -86°C Temperatures

- Ice Lined Refrigerator 2 to 8 Degree C
- Deep Freezer -20 degree C
- Deep Freezer -40 degree C
- Ultra Deep Freezer -86 degree C

Option1 : Run Your Vaccine Freezer Directly On Solar Panels Without Battery

Option 2: Run Your Vaccine Freezer Directly On Solar Panels With Battery Backup

Option 3 : Run Your Vaccine Freezer Directly On Solar Panels With Battery Backup and Electricity



With multiple corona virus (COVID-19) vaccines currently in Phase 3 clinical trials, forecasts are predicting a spike in demand for solar direct drive vaccine and battery backup sample cold storage units. Two of the top leading corona virus vaccine candidates are mRNA vaccines which require freezing levels of storage. Moderna's mRNA-1273 vaccine at -4F (-20C), but BioNTech & Pfizer's BNT162b2 vaccine require much a colder temperature at -94F (-70C).

Experts are also saying each patient may need to receive 2 vaccines for COVID-19, resulting in an increase in capacity storage needs. This is likely to result in a shortage of low temperature storage freezers as the demand for this product is typically only required in laboratory research facilities whereas now they will be required in public health facilities, pharmacies, small doctor's offices, hospitals and more.

Meditech Technologies India Pvt Ltd stands ready to help. We can provide you & your team with information and resources on vaccine storage. In short, we can help to get your facility prepared for what's coming. With a full catalog of bench top, portable & under counter to upright refrigerators and freezers, you will find exactly what you are looking for with a variety of sizes ranging and capacities.

Stable Temperature Control

Temperature is controlled by two sensors located in the liquid-loaded **monitor bottles**.

Two thermistor sensors constantly monitor the temperature in both the upper and the lower part of chamber.

Microprocessor control ensures the most accurate temperature control available.

Multi air-flow plenum system ensures excellent temperature uniformity in all capacity models.

Temperature-maintained defrost designed with thermal sensors and heaters on the evaporator, all under precise microprocessor control.

Designed to conform to AABB criteria, the series ensures stable and reliable temperature control utilizing Meditech original technology. A special highly efficient compressor designed and used by Meditech provides rapid cooling and quiet performance for each model.

Temperature Variations Prevented

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

Separated transparent inner doors minimize the chamber air leakage during door openings.

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

User Friendly Design

Selectable storage system **LED interior lamp** with ON/OFF switch

Eye Level Digital display is easy to see, and is calibratable through the control panel Filterless construction eliminates bothersome filter cleaning

Alarm and Safety Functions

To ensure the safety of precious blood supply, the Meditech Series provides the following safety functions:

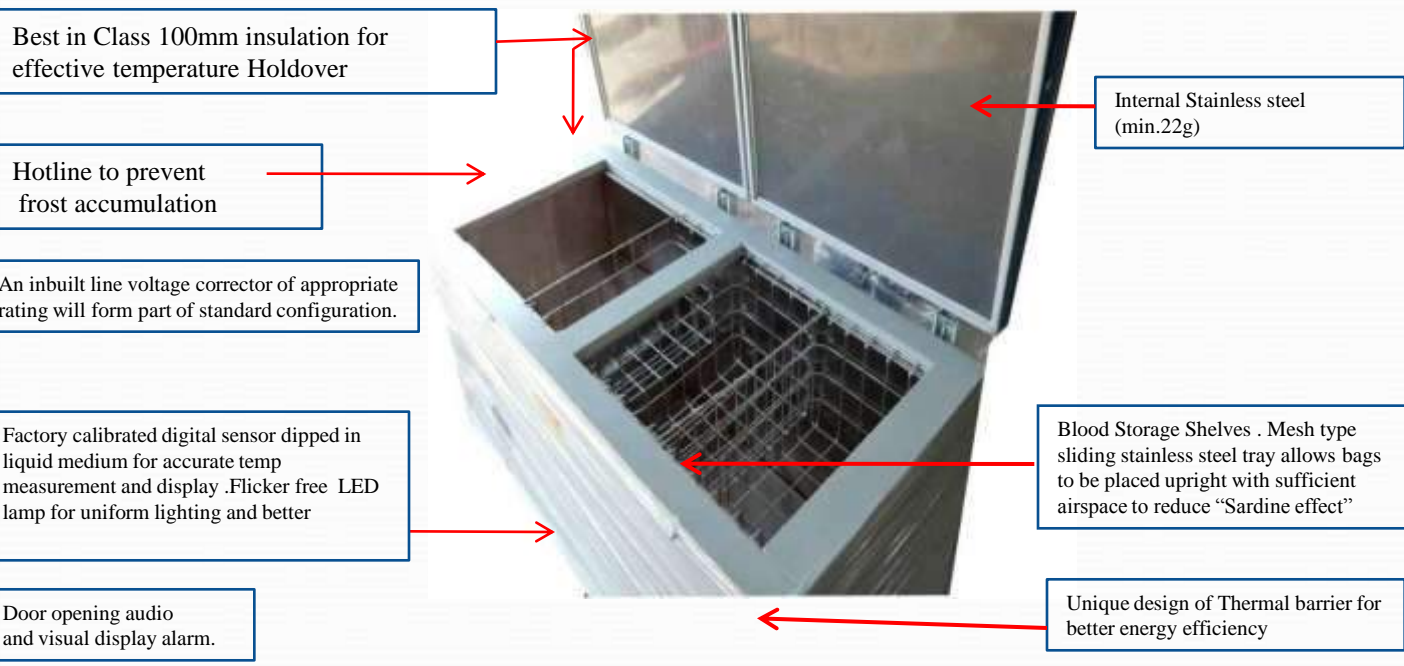
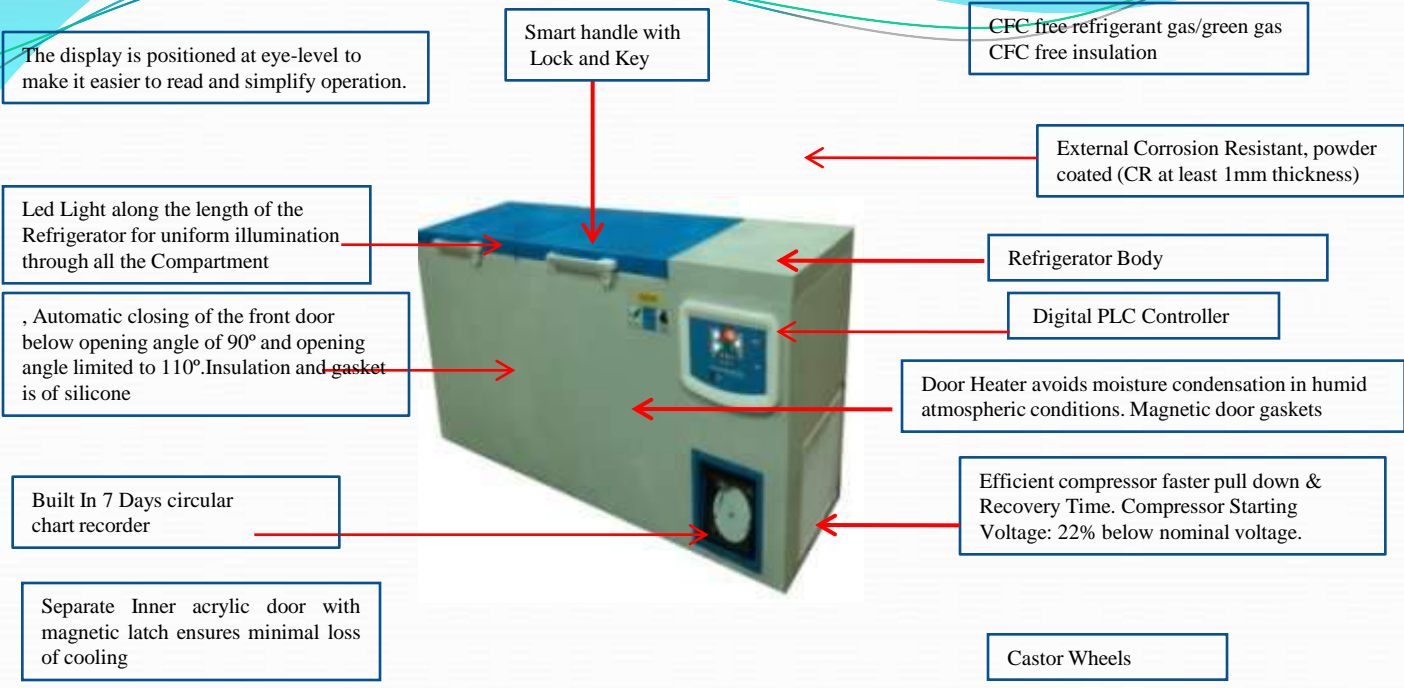
Audible and flashing LED visual alarms with remote alarm contacts, in case of power failure, high or low temperature

Door Alarm and key lock are standard features

Built-in temperature recorder.

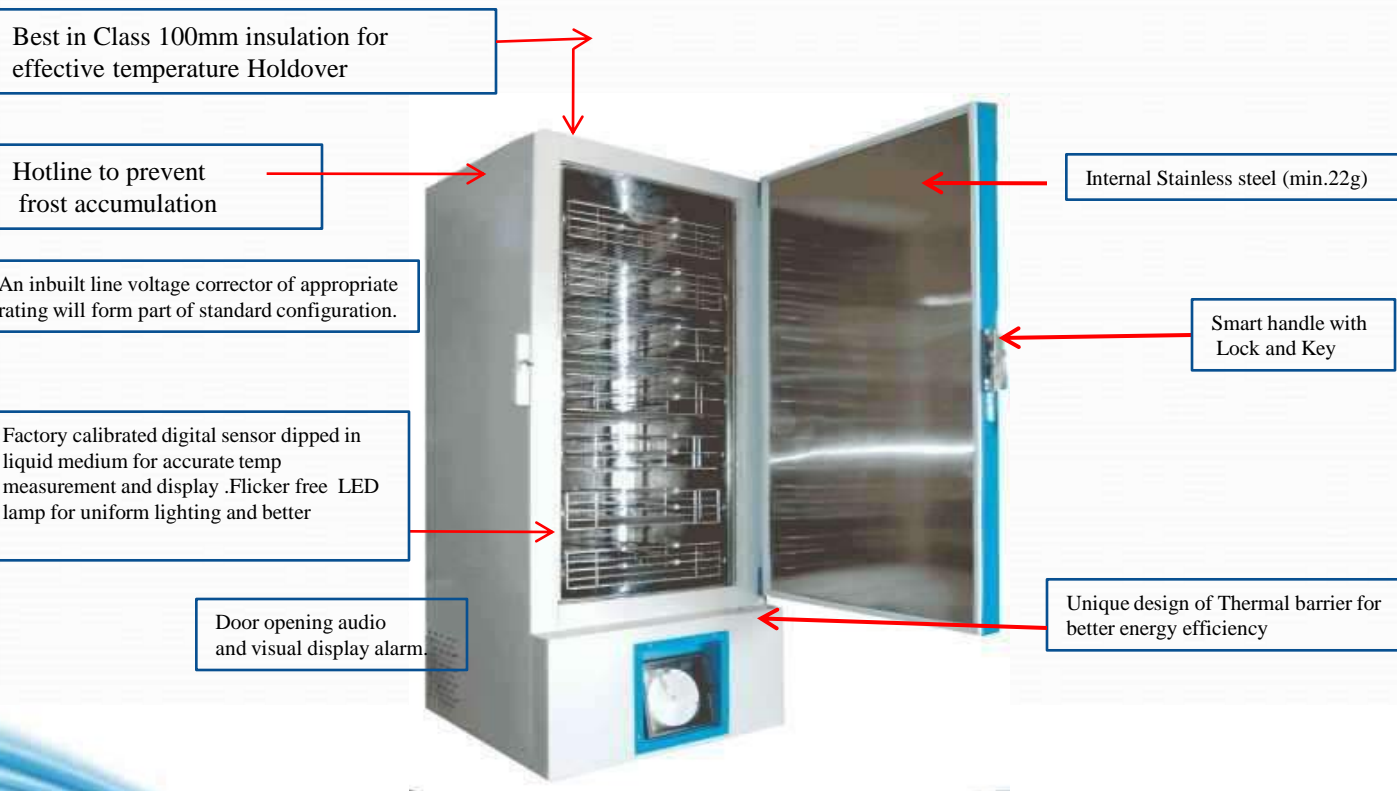
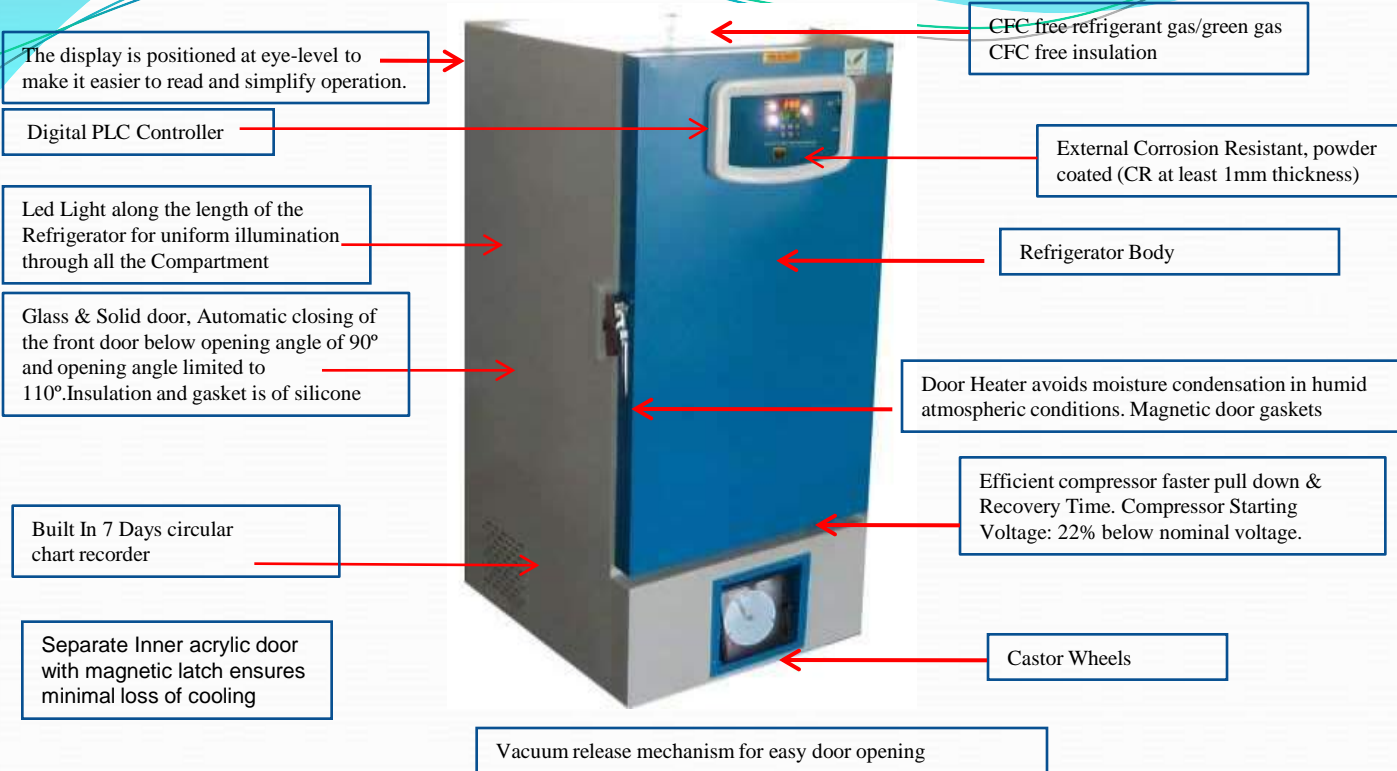
2 Know your Machine

Equipment meets electrical safety specification such as that of IEC (Class I)



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PLC Based Controller



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

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. Chart Change
12. System On

User Friendly Settings

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

Ice Lined Refrigerator 2 to 8 Degree C Horizontal Model

Model	MTBBR1	MTBBR2	MTBBR3	MTBBR4	MTBBR5
Type	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Net volume, litres (cu. ft.)	100	200	300	400	500
Temperature range at 5°C to 43°C AMB	+2°C to +8°C				
Hold-over time during power cut at 43°C AMB, hrs.	24 to 72 Hours				
Baskets	3 Nos	3 Numbers	5 Nos	7 Nos	7 nos
LOADING QUANTITIES Qty. per 20' / 40' container	44 / 92	36 / 72	24 / 50	18 / 42	12/20
Door	Solid door fitted in door-frame made of 1 8swg CR Sheet, powder coated with structure finish and filled with formed in position PUF				
Cabinet material	CR Sheet - powder coated				
Inner chamber	CR Sheet - powder coated				
Input voltage of BBR	Available in 220V-240V 50/60Hz + 115V 60Hz				
Chamber temperature range	2°C to 8°C				
Compressor	Hermetically sealed compressor				
Refrigerant	R134a				
Wheels	Caster wheels				
Accuracy of temperature sensor	(+/- 0.1°C)				
Display	4x7 segment LED (red) and 4x7 segment LED (green)				
Display resolution	0.1°C				

Deep Freezer -20 to -86 Degree C Horizontal Model

Models	MTDF01 = -20 Degree C MTPF01 = - 40 Degree C MTUD01 = - 86 Degree C	MTDF02 = -20 Degree C MTPF02 = - 40 Degree C MTUD02 = - 86 Degree C	MTDF03 = -20 Degree C MTPF03 = - 40 Degree C MTUD03 = - 86 Degree C
Type	Vertical		
Effective storage volume	165 Litres	300 Litres	600 Litres
Storage capacity	165 Litres	300 Litres	600 Litres
Trays (removable type)	3 Baskets	6 Baskets	8 Baskets
Steel door hinge	SS 304		
Steel door ring	SS 304		
Door	made of 1 8swg CR Sheet, powder coated with structure finish and filled with formed in position PUF		
Miniature Circuit Breaker (MCB)	240V / 10 A		
Cabinet material	18 swg CR Sheet - powder coated		
Inner chamber	22 SWG Stainless Steel Sheet		
Input voltage	160 - 270 V, 50Hz, single phase AC		
Stabilizer	4KVA stabilizer		
Chamber temperature range	(-) 20°C for MTDF (-) 40°C for MTPF (-) 86°C for MTUD		
Slide out rail	Heavy duty telescopic rail		
Lamp	LED Lamp 14W / LED Lamp		
Compressor	Hermetically sealed compressor for -20 and -40 . Cascade Hermetically sealed compressor – 2 nos for -86 .		
Refrigerant	R404a		
Wheels	Caster wheels		
Temperature sensing method	Encapsulated digital sensor dipped in 0.25% glycerine solution kept in a plastic bottle		
Temperature controller	Temperature Recorder and Control Unit (TRCU)		
Accuracy of temperature sensor	(+/- 0.5°C)		
Display	4x7 segment LED (red)		
Display resolution	0.5°C		
Alarms & Indications	Line in	Visual	
	Power	Visual	
	Compressor ON	Visual	
	Heater ON	Visual	
	Temperature High	Audio - Visual	
	Temperature Low	Audio - Visual	
	Door open	Audio - Visual	
	Battery Low	Visual	
	Battery ON	Visual	
	Power failure	Audio - Visual	
	Sensor failure	Audio - Visual	
	Chart change	Visual	

1. Meditech can manufacture freezers according to customer Specifications and size
2. Full SS Body with life time warranty available on customer demand

Deep Freezer -20 to -86 Degree C Vertical Model

Model	MTBCM01 = -20 Degree C MTBTS01 = -40 Degree C MTPT01 = -86 Degree C	MTBCM02 = -20 Degree C MTBTS02 = -40 Degree C MTPT02 = -86 Degree C	MTBCM03 = -20 Degree C MTBTS03 = -40 Degree C MTPT03 = -86 Degree C	MTBCM04 = -20 Degree C MTBTS04 = -40 Degree C MTPT04 = -86 Degree C
Type	Vertical			
Effective storage volume	165 Litre	300 Litre	400 Litre	700 Litre
Trays (removable type)	3 stainless steel slide out trays	4 stainless steel slide out trays	5 stainless steel slide out trays	6 stainless steel slide out trays
Steel door hinge	SS 304			
Steel door ring	SS 304			
Dimensions (external with caster wheel (W x D x H) in mm	600 x 630 x 1340	600 x 630 x 1785	710 x 805 x 1750	880 x 960 x 1750
Dimensions (internal) (WxDxH) in mm	510 x 480 x 900	510 x 500 x 1360	605 x 670 x 1100	770 x 800 x 1250
Door	made of 1 8swg CR Sheet, powder coated with structure finish and filled with formed in position PUF			
Miniature Circuit Breaker (MCB)	240V / 10 A			
Cabinet material	1.5 mm thick swg CR Sheet - powder coated			
Inner chamber	1.2 mm Stainless Steel Sheet			
Input voltage	160 - 270 V, 50Hz, single phase AC			
Stabilizer	4 KVA stabilizer			
Slide out rail	Heavy duty telescopic rail			
Lamp	LED Lamp 14W / LED Lamp			
Compressor	Hermetically sealed compressor for -20 and -40 .			
Refrigerant	Cascade Hermetically sealed compressor – 2 nos for -86 .			
Wheels	R404a			
Temperature sensing method	Caster wheels			
Temperature controller	Encapsulated digital sensor dipped in 0.25% glycerine solution kept in a plastic bottle			
Accuracy of temperature sensor	Temperature Recorder and Control Unit (TRCU)			
Display	(+/- 0.5°C)			
Display resolution	4x7 segment LED (red)			
Alarms & Indications	Line in	Visual		
	Power	Visual		
	Compressor ON	Visual		
	Heater ON	Visual		
	Temperature High	Audio - Visual		
	Temperature Low	Audio - Visual		
	Door open	Audio - Visual		
	Battery Low	Visual		
	Battery ON	Visual		
	Power failure	Audio - Visual		
	Sensor failure	Audio - Visual		
	Chart change	Visual		

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