



# REFRIGERATOR





Quality, Management, Environment, Health & Safety Standards



**CDSCO Certified** 











European CE

ISO 13485:

ISO 9001: IAF

7 Electric Safety Certifications



### **INTRODUCTION**

MarkEn Laboratory Refrigerators provide reliable, uniform temperature control for safe storage of pharmaceuticals, vaccines, medicines, and other sensitive products — trusted by research labs, hospitals, and pharmaceutical industries.

### **PERFORMANCE & EFFICIENCY**

	<b>Temperature Control:</b> Maintains +2°C to +8°C in tropical conditions (-10°C to +45°C, 15%–95% RH)
***	<b>Rapid Cooling:</b> Forced-air cooling system with air-cooled chiller and frost-free circulation
**************************************	<b>Defrosting Options:</b> Automatic and manual defrosting for convenience and efficiency
	<b>Consistent Performance:</b> Magnetic rubber gasket-sealed door prevents temperature loss and contamination

#### **SAFETY & SECURITY**

$\odot$	Advanced Safety: Audible and visual alarms for temperature fluctuations
	Secure Access: Key-locked glass door and password-protected control panel
•	<b>Power Protection:</b> Delay start function ensures stable operation after power restoration
7	<b>Power Backup:</b> Additional battery ensures continuous alarm operation during power failures

### **ADVANCED CONTROL SYSTEM**

Intuitive Interface: Microprocessor/PLC-based controller with eye-level panel and membrane keypad
<b>Precision Display:</b> High-resolution LED screen with 0.5°C graduation for accurate monitoring
<b>Enhanced Security:</b> User login, ID tracking, RFID, and password protection prevent unauthorized access
Comprehensive Data Management: Real-time logging, 21 CFR-compliant internal memory, and RS 485/USB/RS230 connectivity
Real-Time Monitoring: Simultaneous display of set and actual conditions



### **BUILD QUALITY & DESIGN**

Ø	Superior Build: 99.97% pure copper tubing for durable and efficient cooling
	Ergonomic Design: Large glass door ensures clear visibility of stored items
	<b>Enhanced Visibility:</b> Built-in fluorescent lighting for easy access in low-light environments
	Long Lifespan: Designed for a 10-year life with guaranteed spare parts availability





LABORATORY REFRIGERATOR							
Volume	125 liters	250 liters	370 liters	425 liters	610 liters	1200 liters	
Exterior Dimensions (WxDxH) mm	560 x 590 x 840	720 x 750 x 1030	820 x 830 x 1140	920 x 920 x 1240	1410 x 1010 x 1830	1860 x 980 x 2040	
Interior Dimensions (WxDxH) mm	440 x 460 x 620	570 x 590 x 830	660 x 680 x 940	750 x 750 x 1050	1210 x 840 x 1630	1620 x 840 x 1840	
Power Consumption	1.8 kWh/24Hrs	2.4 kWh/24Hrs	2.9 kWh/24Hrs	3 kWh/24Hrs	3.3 kWh/24Hrs	3.8 kWh/24Hrs	
Weight (Net)	110 kg	135 kg	155 kg	180 kg	260 kg	375 kg	

	TECHNICAL SPECIFICATION			
Make	MarkEn			
Cabinet Type	Vertical / Upright			
Outer Body	Mild steel /GI powder coated steel (18swg)			
Inner Chamber	Stainless Steel 304 for Durable unbreakable construct			
Insulation	PUFF Insulation-CFC free			
Insulation Thickness	Cabinet: 75 mm Door: 50 mm			
Castors Wheels	4 castor wheels (2 Lockable and 2 un-lockable) for free mobility			
Ground Clearance	100mm			
Door	Glass Door with Handel and Key Lock			
Inner Door	Separate acrylic sheet inner door which prevents cold air loss during door opening			
Compressor	Hermetically sealed compressor			
Refrigerants	CFC-HCFC-Free non flammable R134a refrigerants			
Condensing	Force Air Circulation			
Temperature Range	+2°C to +8°C adjustable			
Temperature Accuracy	+0.1°C			
Temperature Sensor	PT100			
<b>Environmental Conditions</b>	Maximum -10°C to +45°C with Humidity 5% to 95%			
Pull Down Time	8 hrs. when refrigerator is fully loaded.			
Holdover Time	1.5 hrs.			
Control System	Fully programmable microprocessor controlled with membrane keypad and Password Protected			
Display	TFT Touch Screen Digital Temperature Display			
Alarms	Audible and visual alarm system for adjustable over-under temperature, sudden power failure, and battery low, Door open			
Battery Backup	12 hrs. Battery Backup for Digital Display, Total Alarm system, Temp. recording system with auto recharging facility			
Temperature Monitoring System (Optional)	Data logger with printing system and Inkless temperature chart recorder			
Noise Level	<55 dBA			
Power Protection	MCB fitted in input Power Line			
Power supply	220-240V AC, 50Hz single phase AC power supply			
Accessories	Servo Voltage Stabilizer, SS Shelves, Stem Alcohol Thermometer			

## **CERTIFICATIONS**

Quality, Management, Environment, Health & Safety Standards





**USFDA Listed** 



8 products tested by a WHO-accredited laboratory



**European CE** 



**NABCB: ISO 13485** 



ISO 9001: IAF



ISO 14001: IAF



ISO 45001: IAF



7 Electric Safety Certifications



WHO GMP



BIFMA Certified, BIFMA Level 3



ASTM- Corrosion Free Products



**ISO 2409** 



& many other...



## **ALL-IN-ONE SOLUTION FOR**

Cold Chain Solution Medical Equipment **Blood Bank Equipment**  Hospital & Scientific Equipment Hospital Furniture & Infrastructure Commercial Refrigeration



Years of Excellence



Product Range



500+ Service center



**Committed Engineers** 



1,00,000+

Satisfied Users

#### **OUR ESTEEMED CUSTOMERS**

























































& MANY MORE..



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