

LABTOP[®]
Quality Lab Equipment



**BLOOD BANK
REFRIGERATORS**

Labtop Blood Bank Refrigerators are specially designed for storage of Blood and related products at 4.0°C, available in 9 basic cabinet sizes, designed to fit a variety of space and storage requirements,

GENERAL FEATURES

Applications include refrigerated storage of Vaccines, Reagents, Cultures, Medicines and Blood samples. Preset Temperature of 4.0°C with micro controller based temperature controller includes digital temperature display of set value and process value, Forced air circulation for maximum temperature uniformity.

CABINET CONSTRUCTION

The cabinet of Labtop Blood bank refrigerators is insulated with high density CFC free Poly Urethane Foam. Interior of chamber is stainless steel (304, 0.8 mm thick). The exterior is white powder coated (1.0 mm thick) mild steel and the door has a magnetic gasket with a keyed lock. Stainless steel baskets are provided inside.

REFRIGERATION SYSTEM

The cooling is effected by CFC free refrigeration system with a condensing unit located inside the chamber. Labtop condensing units are characterised by high-efficiency heat transfer and low power consumption.



- CFC free refrigeration with time delay to safe guard the compressor
- Inner grooved copper tubes and slit aluminum fins for superior heat transfer
- Filter drier for moisture and dirt protection
- Safety and control devices for better system protection
- Thermally protected and permanently lubricated fan motors

PROGRAMMABLE LOGIC CONTROLLER (PLC) SYSTEM

A **programmable logic controller (PLC)** is a digital computer used for automation of controlling electromechanical processes, such as control of temperature, speed, door open/close, time and other event management with less maintenance hence no moving parts.



- PLC with 4.3" touch screen and color Display
- Password protected **H**uman **M**achine **I**nterface (HMI)
- Data storage to record set values, process values, date & time with variable time intervals
- Display of set value and process value
- Auto changeover of standby systems and other event managements
- High speed Ethernet connectivity
- Data logging capacity up to 200000 readings
- Programmable alarms with event management
- Log reports of event management
- Self diagnostic system with error display
- High quality PT-100 sensor for better accuracy

TEMPERATURE CONTROL SYSTEM



- Micro-control based Temperature controller
- 4 digit, 7 segment LED display
- Password protected keypad lock
- Visual alarm for faulty sensor
- Display of set temperature and process temperature
- High quality PT-100 sensor for better accuracy
- Temperature alarm system with adjustable high-low alarm limits.

SAFETY FEATURES

- Miniature circuit breaker to protect electronic components in case of abnormal power supply
- Audio visual alarm when temperature deviates from the pre set temperature
- Overload protector for safeguard the compressor
- 180 seconds time delay for compressor switch ON

SALIENT FEATURES

- Unidirectional air flow system ensures even temperature distribution and quick recovery after door openings.
- Foamed in place CFC free PUF insulation ensures temperature stability and reduced power consumption.
- Specially designed roll-out stainless steel Basket ensures even temperature distribution.
- Chamber illumination with LED light
- Caster wheels for ease of mobility
- 7 days circular chart recorder for temperature recording

TECHNICAL SPECIFICATIONS

Cat. No.	LBR-100	LBR-200	LBR-300	LBR-400	LBR-600	LBR-800	LBR-1000	LBR -1500	LBR-2000
Volume	100 Liters	200 Liters	300 Liters	400 Liters	600 Liters	800 Liters	1000 Liters	1500 Liters	2000 Liters
No. of tray	3	5	6	6	6	12	12	12	12
Temperature	4.0°C								
Accuracy	± 0.5°C								
Uniformity	± 1.0								
Power	275 W	275 W	275 W	300 W	350 W	500 W	850 W	850 W	850 W
Voltage	230 VAC , 50/60Hz								
Dimensions (W x D x H) in mm and weight (kg)									
Internal Dim	435x400x600	505x400x1005	565x450x1205	635x530x1205	745x670x1205	1120x600x1205	1150x670x1300	1300x890x1300	1500x1030x1300
External Dia	580x845x1275	650x880x1680	710x935x1885	780x1010x1880	890x1150x1960	1370x1075x1920	1400x1145x1920	1550x1365x1920	1750x1505x1920
Packing size	707x972x1478	777x1007x1883	837x1062x2088	907x1137x2083	1017x1277x2163	1497x1202x2123	1527x1272x2123	1677x1492x2123	1877x1632x2123
Net Weight	120	145	200	255	280	310	335	360	380
Gross Weight	175	225	275	325	350	400	425	450	480

CENTRAL MONITORING SOFTWARE



- Multiple Equipment data monitoring on single software.
- Reports in Tabular and Graphical form
- Mean Kinetic Temperature Report.
- Back up Provision.
- Multi user environment
- Multiple level password with automatic expiry
- Electronic signature
- Audit trail report
- Mobile alert via SMS in case of any deviations
- Online and offline trends

OPTIONAL ACCESSORIES

PC interface communication

Micro control based controller to control, record, and store and print the set values, process values, Date & time with variable print time intervals with RS-485 communication for central monitoring software.

PLC system

Programmable Logic Control with Safety controller, auto changeover of Standby systems & other event managements with 4.3" Color HMI with touch screen, Ethernet connectivity and security lock for prevention of unauthorized tampering.

Central monitoring Software

“LABTOPWARE” CFR 21 Part 11 compliance windows based communication software for data management. Complete with RS-485 multi dropping to monitor chambers to one software.

Power Backup

Uninterrupted online power supply for PLC in case of power failure

Chart paper

One packet (100 Nos.) 7 days circular chart suitable for temperature recorder.

Fiber tip pen

One packet (5 nos.) fiber tip disposable pen suitable for temperature recorder.

Stand by Refrigeration system

Ready to use stand by refrigeration system if the regular system fails. This includes Compressor, Evaporator, condensers and other accessories.

Door Access system

Biometric door access system with magnetic lock for unauthorized door open and close with event log and PC interface communication

CALIBRATION

The equipment is calibrated with the help of master calibrator, which is certified for its accuracy by Electronics Regional Testing Laboratory (ERTL West) Government of India recognized testing laboratory with reference to National Physical Laboratories (NPL).

SERVICE AND SUPPORT

The training undertaken by our Channel partners and engineers is of the highest standard in the industry, ensuring that our customers are supported by the highest level of technical expertise and as such can be assured that their equipment will perform to the standards required at all times.

Our wide network of Engineers/Technicians enables us to respond to any technical query, ensuring that our customers receive the maximum benefit from their equipment.

NB: Specifications are subject to change without prior notice.



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