



LABORATORY BIOFREEZE

Labtop Microcontroller based Biofreez can provide an ideal freezing environment for advanced medical and industrial applications. Use includes preservation of Plasma, related blood components, vaccine, micro organism and testing of materials and electronic components at -40.0°C

Labtop Biofreezers are exclusively used in Pharmaceutical manufacturing, Biotechnology, Personal product manufacturing, Hospitals and Research centers, Clinical research, Seed Industries, Research and development Laboratories, Universities and extensively used Quality control, Microbiology, Pathology Labs etc.. Labtop chambers conform to International Standards such as ICH, WHO Guideline, and USFDA requirements

CABINET CONSTRUCTION

The cabinet of Labtop Chambers is insulated with high density CFC free Poly Urethane Foam. Interior of the chambers are mirror finish stainless Steel (304 SS, 1.0 mm thick). The exterior is white powder coated (1.0 mm thick) mild steel and the door has magnetic gasket with a keyed door lock. Specially designed solid stainless steel wire mesh trays ensure even temperature distribution and storage inside. GMP models are in total stainless steel (Inside S. S 304 with mirror finish and outside. S.S 304 dull finish and inner S.S316 is also available on request at extra cost)

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 eco friendly refrigeration system
- 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
- Overload protector for safe guard the compressor

SAFTY FEATURES

- Miniature circuit breaker to protect electronic components in case of abnormal power supply
- Audio visual alarm when temperature deviates form set temperature
- Provision for mobile alert via GSM technology
- Overload Protector to safeguard the compressor
- 180 seconds time delay for compressor switch ON

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, Relative Humidity, Standby systems and event management with less maintenance hence no moving parts.



- 4.3" HMI with color Display and touch screen
- Configurable access for 72 users
- Privilege based grouping
- Multi level Password protected **H**uman **M**achine **I**nterface (HMI)
- Data storage to record set values, process values, date & time with variable time intervals
- High speed Ethernet connectivity
- Incorrect password attempt and user lock
- Online data can be printed with date and time stamp
- Non operational screen auto logout
- Configurable maintenance reminder pop up alarm
- Individual Alfa numeric user ID and password
- User operation will be recorded and saved in memory
- Online and offline Log reports on HMI
- Safety cut off for over shoot and under shoot
- Programmable alarms with event management
- Data storage capacity up to 200000 readings
- Self diagnostic system with error messages

ALERT MANAGEMENT

- SMS alert message can be send to 5 users with notifications
- Email alert can be sent to 15 users with notifications
- Call alert can be send to 5 users with voice messages with notifications

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.
- Micro-controller controls the internal temperature within ± 1.0 °C.



SALIENT FEATURES

- Specially designed solid stainless steel wire mesh trays ensure even temperature distribution.
- Foamed in place CFC free PUF insulation ensures temperature stability and reduced power consumption.
- 50 mm Validation port for external validation
- Caster wheels for ease of mobility
- Various accessories available as option
- User friendly height adjustable trays
- High quality PT-100 Sensor for better accuracy

TECHNICAL SPECIFICATIONS						
Cat No.	LBF-90	LBF-170	LBF-290	LBF-350	LBF-450	LBF-600
	LBF-90G	LBF-170G	LBF-290G	LBF-350G	LBF-450G	LBF-600G
	LBF-90P	LBF-170P	LBF-290P	LBF-350P	LBF-450P	LBF-600P
	LBF-90GP	LBF-170GP	LBF-290GP	LBF-350GP	LBF-450GP	LBF-600GP
Volume (Liters)	90	170	290	350	450	600
Temperature range (°C)	-20.0 to -40.0					
Accuracy (°C)	± 1.0					
Uniformity (°C)	± 3.0					
Trays	2	3	3	4	4	5
Control system	Micro control / PLC					
Power (W)	250	300	350	400	500	500
Voltage (VAC)	230 , 50/60 Hz					
DIMENSIONS (W X D X H) IN MM AND WEIGHT (KG)						
Inner Size (mm)	420x380x570	490x420x850	585x500x1000	585x600x1005	685x670x1005	750x790x1040
External Size (mm)	580x625x1285	650x670x1565	740x750x1780	740x850x1780	840x720x1780	910x1040x1850
Packing Size (mm)	710 x760 x1480	780x 800x1760	870x880x1980	870x980x1980	970x1050x1980	1040x1170x2050
Net Weight (kg)	100	125	150	200	250	300
Gross weight (kg)	150	170	200	250	300	350

NB: P- Models are with Programmable logic control (PLC)

G- Models are made out of Stainless steel 304 (GMP)

LABTOP DATALINK SOFTWARE

Title 21 CFR Part 11 is the part of Title 21 of the code of Federal Regulations that establishes the United States Food and Drug Administration (FDA) regulations on electronic records and electronic signatures (ERES). Part 11, as it is commonly called, defines the criteria under which electronic records and electronic signatures are considered trustworthy, reliable, and equivalent to paper records.

- 21CFR-PART 11 compliance.
- Browser based software
- Multiple chamber data acquisition on single software.
- Reports in Tabular and Graphical form
- Mean Kinetic Temperature Report.
- Automatic Back up Provision.
- Privilege based Group creation
- Privilege based user creation
- Trend analysis report
- Equipment audit trial report
- User ID with Alfa numeric password protection
- Multi user environment (LAN)
- Multiple level password with automatic expiry
- Electronic signature
- Separate reports for alarm and events
- Remote integrations with Control systems.
- Software audit trial report
- Email, SMS and call alert in case of system failure
- Online and offline trends



OPTIONAL ACCESSORIES

Temperature Data Scanners

8/16 Channel programmable temperature Data Scanner for record, store and print the data online and off line with variable print time intervals, suitable for 80 col. Dot matrix printer.

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.

PC interface communication

Micro controller based PID controller to record, store and print the set values, process values, Date & time with variable print time intervals with RS-485 communications for PC interface

Software

"LABTOP DATALINX" CFR 21 Part 11 compliance communication software for data management. Complete with RS-485 multi dropping to monitor multiple chambers to one software

Stand by Refrigeration system

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

Temperature Recorder

7 days circular chart recorder for recording temperature

Mobile alert

Mobile alert via GSM Technology in case of system failure

Door access

Biometric magnetic door access for secured door opening with software to maintain log record

Power Backup

Uninterrupted online power supply for PLC in case of power failure

Trays

Additional rack and tray suitable for above equipment as per your requirement

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 traceable reference to National Physical Laboratories (NPL).

DOCUMENTATION

For GMP complaint models LABTOP offers IQ, OQ and PQ validation with documentation, reports, calibration and test certificates.

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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