

Deep Freezer





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Deep Freezer

Lab Iconics make Deep Freezer is the most versatile and reliable Freezer which is designed to maintain a constant temperature. Our Deep Freezers employ Microprocessor based temperature control along with Dual Digital display with Set and Actual Internal Temperature. Adjustable temperature range from -10°C to -25°C with an increment of 1°C. High efficiency insulation plus cabinet and door-mounted gaskets contribute to energy-efficient performance.

Two types of Variants are available in the Deep Freezer - Upright Freezer (Vertical Type) and Chest Freezer (Horizontal Type).

Lab Iconics make freezers are designed for storage of biological materials, blood banks, hospitals, epidemic prevention services, research institutes, and biotech storage applications etc where long-term sample preservation at precise temperatures is essential. We provide Customizable extended warranties and preventive maintenance plans.









Features:

- Microprocessor based, PID Digital Temperature Indicator and Controller.
- Easy-to-operate controller panel.
- Large and bright LED display of temperature.
- Equipped with Imported Compressor.
- CFC free refrigerant.
- Temperature Range: -10 °C to -25°
- Resolution: ±0.1°C
- Accuracy: ±3.0°C
- Capacity from 100 to 500 Litres
- Outer surface made of Mild Steel with 7 Cycle powder process coats: SS Optional.

- Inner chamber made of Stainless Steel
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- Safety lock to prevent unauthorized access.
- High grade Polyurethane foam Insulation (PUF) insulation.
- Inner sub doors made of Acrylic.
- Adjustable Stainless-Steel Shelf/ Trays.
- Heavy duty castor wheels for easy movement.
- Micro PLC controller and 21 CFR Part 11
 Compliance software optional.





Technical Specification

DEEP FREEZER	MODEL				
Vertical Type	LIT-DF-20L100	LIT-DF-20L150	LIT-DF-20L250	LIT-DF-20L350	LIT-DF-20L400
Horizontal Type	LIT-DF-20H100	LIT-DF-20H150	LIT-DF-20H250	LIT-DF-20H350	LIT-DF-20H400
Capacity in Litres	100	150	250	350	400
Temperature Range	Adjustable temperature ranges from -10°C to -25°C with an increment of 1°C.				
Accuracy	±3.0°C				
Resolution	±0.1°C				
Controller	Microprocessor Controller				
Construction	 Double Walled; Exterior: Powder Coated Mild Steel / SS (Optional); Interior: Stainless Steel 				
Door	Main Door with durable magnetic rubber gasket and sealed with PPCP material				
Insulation	PUF insulation				
Trays	Perforated trays made of stainless steel				
Air Circulation	Forced air circulation				
Alarm	 Audio-visual alarm for high/low temperature. Power Failure Alarm Door Ajar Alarm 				
Power	Single Phase 230 V AC, 50 Hz				

Optional Accessories

- Racks & Freezer Boxes
- Inbuilt Thermal Printer
- Chart Recorder
- Voltage stabilizer

- Digital Timer
- Datalogger with inbuilt storage.
- Touch Screen Micro PLC Controller and 21 CFR PART 11 Compliance Software



Micro PLC Controller and 21 CFR Part 11 Software















Features

- 7" TFT, 65536 Color Touch Screen Display
- 5 Temperature Channels for Control & Mapping
- Universal Input: Thermocouples, RTD Pt100, mA, V
- On-Off & Self Tune PID Temperature Control
- Settable 'Heat Only', 'Cool Only' & 'Heat + Cool' Control
- SSR or DC LINEAR (V / mA) Control Outputs
- Programmable Timer Delay for Compressor
 Switching
- In-built Programmable Timer
- Comprehensive Alarm System (Process Deviations, Door Open, Mains Fail)

- Standby Control Gadgets Interface (Optional Digital Outputs)
- Date / Time Stamped Process & Event Data Recording
- Password Protected Door Opening & Status
 Monitoring
- (Digital Input for Door Switch & Digital Output for Door Lock Solenoid)
- Mains-Fail Detection & Automatic Change Over to Battery / Inverter
- Serial Port for PC Interface with 21 CFR
 Compliant Software
- Optional GSM Interface Module for SMS Alert



PC Interface with 21 CFR Compliant Software

	21 CFR Compliant Software			
Supported Operating	 Windows Vista, Windows 7, Windows 10 			
Systems (OS)	 32 bit / 64 bit Windows 8 32 bit / 64 bit Pentium Dual Core 			
Minimum PC Configuration	2.8 GHz Clock Speed 2 GB RAM			
Requirements	40 GB Hard Disk			
PC Software Features	Supports Multiple Equipment on Single Installation			
(21 CFR Part 11 Compliant)	Auto Start-up on PC Power-up			
	Online Display of Process Values & Stored Records in Graphical &			
10 4 5 4 2 2 3 9 3 2 3	Tabular Forms with Alarm Indications			
Directory Control of the Control of	 SMS and/or Email Alerts on Alarm Conditions 			
Section from the Section of Section 1997 (1997) and the Se	 Mean Kinetic Temperature (MKT) Computation 			
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 Automatic Periodic Downloading of Records Stored in controller 			
	 Access Control According to Authority Level 			
	 User Actions with Signing & Authorization 			
	Automatic Password Expiry			
	 Manual & Auto Back-up Facility with Archiving 			
	 Data Log Reports with User Configurable Title, Footer & Header 			
	 Data Log Report, Alarm Log Report, History Graph & Audit Trail 			
	 Report in PDF & EXCEL formats 			
	 Audit Trail History of Critical Events & User Actions 			
Data Recording				
Storage Device	In-built Flash Memory			
Record Capacity	• 5,000 Records			
Recording Interval	User Programmable (1 to 250 Minutes)			
Recording Data	Process Values			
(Date/Time Stamped)	 Measured Control & Mapping Temperatures 			
	• Events			
	Power-up			
	Process Value Alarm Toggle			
	Change in Control SP			
	Change in Date/Time Settings			
	Change in Recording Interval			

Equipment Door Open/Close

Mains Power Fail/Resumption

Note: The product design and specification are subject to change.

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