

Blood Bank Refrigerated Centrifuge



Cabinet Construction

The centrifuges Chambers are insulated with high density CFC free Poly Urethane Foam. Interior of chamber is stainless Steel (304 SS, 2 mm thick). The exterior is white powder coated (3.0 mm thick) mild steel. An electronic motorised double door lock and facility to open the door in case of power failure.

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 aluminium 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
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SAFETY FEATURES

- Main circuit breaker to protect electronic components in case of abnormal power supply
- Overload cut off relay for compressor
- 180 seconds time delay for compressor switch on
- Audio visual alarm for abnormal conditions
- Imbalance cut off with alarms and error messages
- Lid opening and closing with the help of pneumatic hinges
- Safety door interlock to prevent door opening during centrifugation
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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.

- PLC with 4.3" touch screen and colour Display
- Password protected Human Machine Interface (HMI)
- Data storage to record set values, process values, date & time with variable time intervals
- Display of set value and process value
- High speed Ethernet connectivity

- Precise control of temperature and Speed by using in PID control (auto tuning type)
- Connectivity to LABTOP DATALINX central monitoring software
- Log report of alarms and event management
- Temperature and Speed is controlled by PLC
- 1- 99 Minutes timer
- Self diagnostic system with error display
- Data logging capacity up to 1000 readings
- High quality PT-100 sensor for better accuracy
- Programmable alarms with event management



Salient Features:

- 99 Menu driven programmes
- In built pre cooling programmes
- Facility to Set RPM and RCF
- Maintenance free Brush less induction motor
- Variable frequency drive
- Motorised double door lock for better safety
- Minimum Acceleration time
- Imbalance cut off with error messages
- Self diagnostic system with error messages
- Castor wheel for ease of mobility
- 10 acceleration and deceleration programs
- Adjustable Levelling jack

Technical Specifications			
Maximum Speed (rpm)	4600	4600	4600
Speed accuracy (rpm)	±50		
Maximum RCF (g)	7060	7060	6680
Temperature Range(°C)	-20.0 – 40.0 (depend on)		
Temperature accuracy (°C)	±1.0		
Timer (min)	1-99		
Type of Rotor	Wind shield swing out		
Noise level (dB)	Less than 58		
Number of Blood bag Carrier	12	8	6
Plastic inserts	Two sets		
Number of Blood Bags	12 x 450 ml	8 x 450 ml	6 x 450 ml
Connectivity	Ethernet		
Data Storage Capacity (lines)	1000		
Power (W)	4000	4000	3000
Input voltage (VAC)	230, 50 / 60 Hz		
Dimensions WxDxH (mm)	860x1010x1060	860x1010x1060	790x890x1010
Packing Size WxDxH (mm)	1020x1140x1270	1020x1140x1270	920x1020x1220
Net Weight (kg)	400	350	250
Gross Weight (Kg)	475	475	325

Optional accessories

Software:

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

Documentation:

LABTOP offers IQ, OQ and PQ validation with documentation, reports, calibration and test reports

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).