

# LAB REFRIGERATOR & DEEP FREEZER















# Introducing Mehrotra Biotech's

### **LABREFRIGERATOR**

### Optimal Temperature Control For Preserving Life's Vital Fluids

Our Lab Refrigerators are purposefully crafted to store reagents, samples. whole blood, blood derivatives, and other essential biological materials. We understand the critical importance of preserving these valuable components, and our refrigeration system ensures consistent and precise temperature management.

When it comes to preserving the integrity and viability of samples and other biological materials, trust in Mehrotra Biotech's Lab Refrigerator for unparalleled reliability and performance.

### STATE OF THE ART CONTROLLER FEATURES

Our advanced microprocessor controller offers a host of features designed to provide precise temperature control and comprehensive monitoring capabilities. It features

- -a large **5-inch touchscreen** color display for easy navigation.
- -The controller ensures precise temperature control, with **out-of-range parameter** warnings and alerts for **door open, power failure, and low battery conditions**.
- -Access control with password protection allows multiple users to have secure access.
- -The **in-built data logger** records temperature and system performance data, with the ability to download it to a USB device.
- -Remote monitoring is enabled through LAN connection, with data recorded in tabular and graphical formats.
- -The controller also supports direct printing and complies with **21CFR Part 11** requirements. Additionally, it includes in-built senso and battery calibration for accurate readings.



troller with USB &
LAN Connectivity
with password protected access control. Get Access
from anywhere using the same Network Connection.



### KEY HIGHLIGHTS OF OUR ADVANCED LAB REFRIGERATOR

### Advanced Microprocessor-Based Controller: Our refrigerator is equipped withan advanced microprocessor-based controller. It intelligently detects usage patterns such as door openings, pow-

er cut-offs, and data storage, resulting in energy savings without compromising the protection of stored blood.

**Energy-Efficient**: With up to 40% less energy consumption compared to conventional refrigerant models, our refrigerator is not only reliable but also environmentally conscious, reducing your energy costs.

Optimal Storage Designed specifically for whole blood storage, our refrigerator ensures stable temperature control for various inventory loads, maintaining the integrity of blood products.

Consistent Cooling: Our forced air circulation system ensures consistent cooling throughout the refrigerator, preventing maintaining stored blood.

### **User-Friendly Features**:

The refrigerator'smicroprocessor controller offers a user-friendly interface with set-point security, alarms, and USB data out- put, providing convenience and peace of mind.



## Whisper-Quiet Operation Experi-

ence a peaceful work environment with our retrigerator's whisper-quiet operation, allowing end users to work alongside it without distractions.

### **Persise**rature

Chentrent perature inside the refrigerator is accurately а controlled bu sensor located in the liquid -loaded bottles at the monitor center of the cabin, ensuring optimal storage conditions.

### **Environmentally**

### Friendly Refrigerant:

Our refrigeratorsuse environmentally friendly R134a refrigerants, making them the preferred choice for seientists and drug search laboratories committed to sustainable practices.

### Easy Maintenance:

Cleaning is hassle-free with the refrigerator's easy -to-clean SS304 interior walls and removable spill-proof trays featuring convenient partition slots.

### **Enhanced Reliability**:

Built-in battery backup for the controller display and alarm function provides up to 8 hours of uninterrupted operation, safeguarding blood storage during power outages

**Optional Features**: Additional features like Remote Monitoring, chart recorders and 21CFR compliant software are available as optional add-ons, offering enhanced functionality and regulatory compliance.



Mehrotra Biotech Lab Refrigerators are manufactured using only high-quality, stringently tested materials that are particularly suitable for low temperatures. The units are extremely quiet, have been approved with the CE mark and are maintenance-free.

All designs are subject to change. Special makes available on request.

# TECHNICAL SPECIFICATIONS

| MODELFEA-<br>TURES           | PR 360  | PR 450  | PR 600  | PR 1000                                  |
|------------------------------|---|---|---|--|
| MoC Standard(I/<br>O)        | Galvanized metal sheets                                       | Galvanized metal sheets                           | Galvanized metal sheets                                       | Galvanized metal sheets.                 |
| MoC Optional(I/O)            | SS304/ Galvanized   | SS304/ Galvanized                                 | SS304/ Galvanized   | SS304/ Galvanized                        |
| Dimensions                   | metalsheets11 mm  | metal sheets<br>492 x 540 x 1664                  | metal sheets<br>655 x 540 x 1664                              | metal sheets.<br>941 x 644 x 1581 mm     |
| (Internal)(WxDxH) Dimensions |   | mm x 730 x 1986mm                                 | mm<br>750 x 686 x   | 1029 x 724 x                             |
| (External)(WxDxH) Set point  | 572 x 686 x 1854mm  | +40 C<br>448                                      | 2070mm  | 2032mm<br>+40 C                          |
| Capacity (L)                 | +40 C<br>360  | Glass door  | +40 C<br>597  | 941                                      |
| Door Type  Door Closing      | Glass door  | Automatic<br>101                                  | Glass door  | Glass door Automatic                     |
| Weight (kg)                  | Automatic<br>83   | Fan Forced  | Automatic<br>115  | 187                                      |
| Circulation                  | Fan Forced  | 5 (Adjustable) 5" TFT Touch                       | Fan Forced  | Fan Forced 10 (Adjustable)               |
|                              | 4 (Adjustable)  | Screen  | 5 (Adjustable)  | 5" TFT Touch                             |
| Shelves                      | 5" TFT Touch  | R134a   | 5" TFT Touch  | Screen                                   |
| Display                      | Screen<br>R134a   | Power failure, Low                                | Screen<br>R134a   | R134a                                    |
| Refrigerant                  | Power failure, Low  | Battery, Tempera-<br>ture variation, Open<br>door | Power failure, Low  | Power failure, Low<br>Battery, Tempera-  |
| Alarm                        | Battery, Tempera-<br>ture variation, Open<br>door<br>12 hours | 12 hours<br>230V, 50Hz.                           | Battery, Tempera-<br>ture variation, Open<br>door<br>12 hours | ture variation, Open<br>door<br>12 hours |
| Battery backup               | 230V, 50Hz.   |   | 230V, 50Hz.   | 230V, 50Hz.                              |
| Voltage supply               |   |   |   |  |
| Power Consump-<br>tion       | 330 W   | 450 W   | 550 W   | 660 W                                    |
| Chart Recorder               | Optional  | Optional  | Optional  | Optional                                 |
| USB Port                     | Yes   | Yes   | Yes   | Yes                                      |
| Door Lock                    | Yes   | Yes   | Yes   | Yes                                      |
| Castors                      | Optional  | Optional  | Optional  | Optional                                 |

# **Alternative Options**



The previously cited models of laboratory refrigerators are also obtainable with digital controllers featuring restricted capabilities, such as solely providing door open alerts and high/low temperature alarms.



**Mehrotra Biotech** brings to you DFS Series laboratory deep freezers -20°C for pharmaceutical, hospital, medical and laboratory uses, where these units are used for long-term storage and quality assurance. Our high-performance deep freezers combined with advanced temperature control with high-quality cabinet construction and alarm systems. Uniform temperature distribution inside the cabin is designed to maintain temperature uniformity to protect important medical and pharmaceutical-products as well as laboratory media, reagents and more. Our Laboratory Deep Freezers comply with valid ISO, CE, IQ, OQ & PQ certifications.

# **KEY FEATURES**

1. Precise temperature control: The deep freezer is equipped with a reliable and temperature control system, ensuring con-sistent and stable temperature stored contents.

2. **High storage capacity:** Designed with ample space, the deep freezer provides generous storage capacity to accommodate a significant quantity of samples, specimens, vaccines, or other materials that require deep freezing.

- 3. **Efficient insulation**: The deep freezer is constructed with high-quality insulation materials that minimize temperature fluctuations and heat transfer, enhancing energy efficiency and reducing operational costs.
- 4. Advanced cooling system: The deep freezer incorporates a robust cooling system capable of rapidly achieving and maintaining the desired -20 degrees Celsius temperature, ensur-

ing efficient freezing and preservation of contents. 5. **Alarm and monitoring features:** The deep freezer includes built-in alarms and monitoring

systems that alert users in case of temperature deviations or power failures, helping to protect valuable samples and maintain their integrity. 6. **User-friendly interface:** The deep freezer

is designed with an intuitive and user-friendly

interface, allowing easy programming, temperature adjustment, and monitoring of the freezer's status. 7. **Safety features:** The deep freezer is equipped with safety features such as door locks or

access control systems to prevent unauthorized access and ensure the security of stored items. 8. **Easy maintenance**: The deep freezer is designed for ease of maintenance, with features

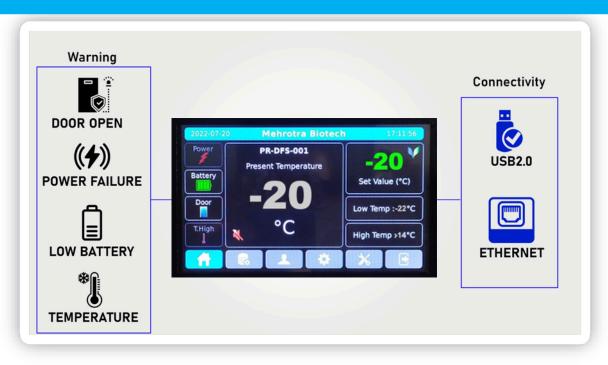
such as removable shelves, easy-to-clean interiors, and accessible components for periodic maintenance and cleaning. 9. **Long-term storage capabilities:** The deep freezer is specifically designed for long-term

storage requirements, allowing items to be preserved at -20 degrees Celsius for extended periods without compromising their quality or integrity. 10. **PC monitoring compatibility:** The deep freezer can be connected to a computer for con-

venient monitoring and control. Users can access real-time temperature data, adjust settings, and receive alerts directly on their computer, enabling efficient management and maintenance.

11. **Data logging and retrieval:** The deep freezer includes data logging, enabling users to record and retrieve temperature data over time for analysis and quality control purposes.

# **ADVANCE MICROPROCESSOR CONTROLLER**



# **TECHNICAL SPECIFICATIONS**

| FEATURES                  | DFS 450<br>SOLID DOOR                  | DFS 450 GLASS<br>DOOR | DFS 600 GLASS<br>DOOR | DFS 700 Solid<br>DOOR    |  |
|---------------------------|--|-----------------------|-----------------------|--------------------------|--|
| Temperature range(°C)     | -25                                    | -25                   | -25                   | -35                      |  |
| External Dimensions (mm)  | 595x595x2050                           | 595x595x2050          | 672 x 690 x 2046      | 780x762x2150             |  |
| Net/ Gross volume (L)     | 344/365                                | 344/365               | 441/500               | 640L/700L                |  |
| Net/ Gross Weight (kg)    | 96/106                                 | 96/106                | 124/150               | 96/106                   |  |
| MoC (Exterior)            | PPGI                                   |                       |                       |                          |  |
| MoC(Interior)  Controller | Food Grade ABS                         |                       | PPGI                  | PPGI<br>Optional : SS304 |  |
| Data Connectivity         | Microprocessor with 5" TFT TouchScreen |                       |                       |                          |  |
| Door Type                 | USB2.0 & Ethernet (Optional)           |                       |                       |                          |  |
| Shelves/ baskets          | Solid door                             | Glass door            | Curved Glass Door     | Solid Door               |  |
| Insulation                | 6 Shelves                              | 6 Shelves             | 5 Shelves             | 5 Shelves                |  |
| Type of cooling           | 85 mm                                  | 85 mm                 | 60mm                  | 85mm                     |  |
| Power Supply (V/Hz)       | Static                                 | Static/Forced         | Static                | Forced                   |  |
| Energy consumption        | 230/50 Hz                              | 220-230/50 Hz         | 220-230/50Hz          | 220-230/50Hz             |  |
|                           | 13.40 kWh /24<br>h                     | 13.40 kWh/24 h        | 14.98kWh/24h          | 5.11kWh/24h              |  |
| Refrigerant               | R600a                                  | R404A/R290            | R290                  | R290                     |  |

# **Alternative Options**



The previously cited models of Deep Freezers are also obtainable with digital controllers featuring restricted capabilities, such as solely providing door open alerts and high/low temperature alarms.

## **OUR CLIENTS**

### **Government Institutions**

- Central Drug Research Institute, Lucknow.
- Central Institute of Medicinal and Aromatic Plants. Lucknow.
- Indian Vetnary Research Institute, Bareilly.
- Indian Institute of Toxicology Research, Lucknow.
- Institute of Nuclear Medicine and Allied Sciences, Delhi.
- HPCL, Bangalore.
- King George Medical University, Lucknow.
- Sanjay Gandhi Post Graduate Institute of Medical Sciences, Bareilly.
- Post Graduate Institute of Medical and Research, Chandigarh.
- All India Institute of Medical Sciences
   New Delhi
- AIIMS RISHIKESH
- NBRI Lucknow

#### **Private Institutions**

- Dr, Reddy's Laboratories Hyderabad.
- NATCO Pharma, Hyderabad.
- Syngene International Bangalore
- FDC India Mumbai
- Bharat Serum
- CADILA
- CIPLA
- Sysmax Laboratories Mumbai
- Reliance Life Science Mumbai
- LVPEI Hyderabad
- MSN Laborotories Hyderabad
- Larsen and Toubro Limited
- Siemens Healthcare

- National Institute of Virology, Pune
- FIND Delhi
- Karnataka Medical Supplies Corporation
- Regional Forensic Science Lab New Delhi
- Institute Of Food Security, Food Corporation Of India, Haryana
- AIIMS Raipur
- CSIR- Bharteeya Petroleum Sansthan, Dehradun
- AIIMS Bhubneshwar
- AIIMS Raebareli
- Gujrat Forensic Science University
- IIT Ropar
- IIT BHU
- IIT Kanpur
- Banaras Hindu University
- HPCL-Mittal Energy Limited
- Maharashtra Pollution Control Board
- Darbanga Medical College
- Many More.....
- Avaca Pharma
- Glochem Industries
- Pinnacle Lifescience
- Raghav Lifecsiences Hyderabad
- Abro Pharma
- Sun Pharma
- Gland Pharma Hyderabad
- Macleods Pharma
- Pannacea
- Lupin Limited
- Meyer Organics
- Sucantis
- Many More.....































IPL INDIA PESTICIDES LIMITED









# Cipla (FD









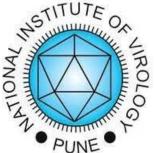
Pharmaceuticals Inc.

INDIAN IMMUNOLOGICALS LIMITED











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### **OUR BRANCH OFFICES**

LUCKNOW

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