

ULTRA LOW DEEP FREEZER

-80°C / -86°C

elte Vertical Ultra Low Deep Freezers are used for maintaining and monitoring the temperature at - 80 °C / - 86 °C consistently. Predominantly these freezers are used for storing the pharmaceutical supplies, samples and other temperature sensitive specimens which demand low temperatures for extended period of time. There are three different models based on the volume and user convenience.

Salient Features

The outer body has a robust construction of 1 mm thick mild steel with epoxy powder coating whereas the inner chamber is made of corrosion resistant 1 mm thick Stainless Steel 304 Grade. An ergonomic outer door with lock and key is provided in order to prevent unauthorized access. There is also a provision of an inner door with latches to prevent loss of chillness from the inner chamber. Sturdy castor wheels are fixed at the bottom for mobility of the unit with ease. Stainless Steel shelves are provided. Drain condensate outlet also available in order to drain of condensed water from the bottom of the chamber. Magnetic door gasket ensures complete sealing of the main door.



The freezer runs on standard 230 V AC Single Phase 50 Hz power supply. A MCB is present for better electrical safety. Microcontroller based graphic LCD display is provided for easy visibility of internal temperature from a distance. The control panel is placed at an easily accessible height for operation. The controller has a readability as well as set temperature increments of 0.1 °C. Audio as well as visual alarms are indicated whenever there is large variation in set temperature, sensor failure, etc. The User Interface is password protected in order to prevent parameter tampering.

Eco-friendly refrigeration system comprises of a low noise highly efficient heavy duty hermetically sealed compressor. The powerful refrigeration system consists of high-tech two stage cascade rapid cooling system providing quick pull down of temperature upto - 80 °C / - 86 °C thereby ensuring temperature stability even in high external ambient conditions. It uses an environmentally friendly HFC refrigerant gas R-404 A in the first stage and R-508 B in the second stage which is CFC and HCFC free. The high-density PUF insulation helps to maintain the interior temperature even when there is ambient temperature variation. PT 100 sensor is used for accurate temperature feedback of the inner chamber. Provision of hot line reduces the condensation on the outer door openings.

Technical Specification :

Model No.	EUDF - 100	EUDF - 200	EUDF - 300
Volume	100 Ltrs	200 Ltrs	300 Ltrs
Chamber Dimension (mm) WxDxH	450 x 400 x 600	450 x 500 x 900	550 x 500 x 1100
External Dimension (mm) WxDxH	750 x 800 x 1350	750 x 825 x 1650	850 x 900 x 1800
No. of Shelves	2	3	4

Optional Features:

- Manufacturing as per CE standards.
- GMP Models also available (Outer SS 304 1 mm thick & Inner SS 304 1 mm thick)
- Auto/ Manual Defrost system.
- Door Open Alarm
- Self Closing Doors
- Height adjustable shelves
- Battery Backup for display for 10 Hours along with Power Failure Alarm.
- 8/4 Channel temperature data scanner with sensors, interfacing RS 232 to RS 485 or USB Port & Data Management.
- 21 CFR Part 11 Compliant Software.
- Data Logger with Thermal Printer.
- Mobile alert via GSM incase of system malfunction.
- IQ, OQ, PQ, DQ, calibration, validation and traceability documentation can be provided as per FDA protocols.

Calibration :

All models are calibrated with the help of master calibrator which is certified for its accuracy by Electronic Regional Test Laboratory Mumbai.

