

## DEEP FREEZER VERTICAL -80°C ULTRA LOW FREEZER



### KEY FEATURES

#### Temperature Range:

- Operates typically between  $-40^{\circ}\text{C}$  to  $-86^{\circ}\text{C}$  for long-term preservation of biological samples, vaccines, enzymes, and pharmaceuticals.

#### High-Performance Cooling System:

- Cascade refrigeration system with two-stage compressors for ultra-low cooling.
- CFC-free refrigerants ensuring eco-friendly operation.

#### Construction:

- Robust, powder-coated exterior and stainless steel inner chamber for durability and hygiene.
- High-density polyurethane (PUF) insulation minimizes temperature loss of approx. 120 mm

#### Temperature Control:

- Microprocessor-based digital temperature controller with LED/LCD display.
- Maintains stable internal temperature even with ambient fluctuations.

#### Safety Features:

- Audible and visual alarms for high/low temperature, door open, power failure, and sensor malfunction.
- Password-protected control system to prevent unauthorized access.
- Lockable doors for sample security.

#### Uniform Temperature Distribution:

- Forced air circulation for even cooling throughout the chamber.

#### Data Logging and Monitoring:

- Built-in USB port or data logger for temperature recording.
- Optional remote monitoring via Wi-Fi or LAN.

#### Energy Efficiency:

- Low power consumption design with optimized compressor cycling.

#### Ergonomic Design:

- Easy-to-open door with vacuum release port.
- Adjustable inner shelves for flexible storage.
- Heavy-duty castor wheels for mobility (in large models).

## TECHNICAL MATRIX

Model No	PTE-DF-550 A	PTE-DF-550 B	PTE-DF-550 C	PTE-DF-550 D	PTE-DF-550 E
Inner Size In mm (WxDxH)	450X450X450	600X600X550	600X600X850	600X600X1100	600X600X1400
Capacity	100 Litre	200 Litre	300 Litre	400 Litre	500 Litre
Shelves	2	2	3	3	4
Temperature Ranges	-40°C to -86°C				
Temp Controller	By Microprocessor Based PID Control				
Accuracy	±0.5°C				
Display	LED/ LCD Display				
Condensor	Efficient condenser with automatic evaporating system				
Cascade	Double Compressor				
Relay	Solid State electronic Relay with heat sink				
Insulation	High Density PUF insulation				
Operations	Silent operation				
High Voltage	Automatic Voltage Stabilizer ( Optional)				
Supply	220/230 volts AC supply				

## OPTIONAL ADD ONS

- High & Low Deviation Alarm
- Built In Thermal Printer To Record Temperature
- PLC HMI Touch Screen Display
- Battery Backup System Through UPS System
- Communication Port For Taking Data Through PC Desktop
- Customized Model Are Also Available In Large Capacities
- Available In Horizontal Model Also

