

# -40°C Laboratory Freezer

Antech -40°C deep freezer is designed to store temperature sensitive medical products and biological materials at accurate controlled temperature. Available with 3 capacities: 90 liter under-counter freezer, 270 liter single-door freezer and 450 liter two-door freezer. It is an ideal product to store plasma, reagent and other biomedical products which require to be stored at -20~-40°C temperature.



LOW CO2  
EMISSIONS



NATURAL  
REFRIGERANT



CFC /HCFC  
FREE



HIGH/LOW  
TEMPERATURE ALARM



USB PORT



SAFETY DOOR  
LOCK

## PERFORMANCE

- High-precision microprocessor temperature control system with 0.1°C display accuracy
- Digital display show freezer working condition and alarm code
- 3-Channel sensor for control, display and ambient temperature

## ERGONOMIC DESIGN

- ABS drawers for convenient storage
- Self-close door for easy operation
- Ultra-quiet design reduces noise level

## ENVIRONMENT FRIENDLY

- Natural refrigerant compliant with EPA and SNAP non-ozone depleting mandates
- High efficiency cooling system for lower energy consumption and carbon emission
- CFC-Free polyurethane foaming insulation

## ALARMS

- High temperature
- Low temperature
- Hot condenser
- Open door
- Power failure
- Sensor error
- Low battery

## SAFETY

- Build-in data storage and USB port for download
- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- RS485 port and remote alarm contacts

# -40°C

## Laboratory Freezer



|                      | Model                     | MDF-40U90                    |        |        | MDF-40U270                   |        |        | MDF-40U450                   |        |        |
|----------------------|---------------------------|------------------------------|--------|--------|------------------------------|--------|--------|------------------------------|--------|--------|
| Main specifications  | Type                      | Under-counter                |        |        | Upright                      |        |        | Upright                      |        |        |
|                      | Temperature range (C)     | -20~-40                      |        |        | -20~-40                      |        |        | -20~-40                      |        |        |
|                      | Cooling type              | Direct cooling               |        |        | Direct cooling               |        |        | Direct cooling               |        |        |
|                      | Defrost                   | Manual                       |        |        | Manual                       |        |        | Manual                       |        |        |
|                      | Climate type              | N                            |        |        | N                            |        |        | N                            |        |        |
|                      | Capacity (L)              | 90                           |        |        | 270                          |        |        | 450                          |        |        |
|                      | Internal W*D*H (mm)       | 500*485*532                  |        |        | 500*460*1235                 |        |        | 650*570*627x2                |        |        |
|                      | External W*D*H (mm)       | 645*660*815                  |        |        | 640*700*1792                 |        |        | 735*810*1960                 |        |        |
|                      | Weight (KGs)              | 54                           |        |        | 90                           |        |        | 144                          |        |        |
|                      | Refrigerant               | R290                         |        |        | R290                         |        |        | R290                         |        |        |
| Number of compressor | 1                         |                              |        | 1      |                              |        | 2      |                              |        |        |
| Control system       | Controller                | Microprocessor               |        |        | Microprocessor               |        |        | Microprocessor               |        |        |
|                      | Display                   | LED digital                  |        |        | LED digital                  |        |        | LED digital                  |        |        |
|                      | Display accuracy          | 1                            |        |        | 1                            |        |        | 0.1                          |        |        |
| Power                | Power supply (V/Hz)       | 220/50                       | 220/60 | 120/60 | 220/50                       | 220/60 | 120/60 | 220/50                       | 220/60 | 120/60 |
|                      | Rated power (W)           | 131                          | 170    | 172    | 255                          | 210    | 179    | 346                          | 375    | 305    |
|                      | Rated Current (A)         | 1.3                          | 1.8    | 4.2    | 2.8                          | 2.2    | 4.2    | 4.5                          | 3.7    | 5.3    |
| Data                 | USB port                  | Yes                          |        |        | Yes                          |        |        | Yes                          |        |        |
|                      | Cloud monitoring (Wi-Fi)  | CryoMonitor 2000TF, optional |        |        | CryoMonitor 2000TF, optional |        |        | CryoMonitor 2000TF, optional |        |        |
|                      | RS485 port                | Yes                          |        |        | Yes                          |        |        | Yes                          |        |        |
| Alarm functions      | Visible/audible alarm     | Yes                          |        |        | Yes                          |        |        | Yes                          |        |        |
|                      | High/low temp             | Yes                          |        |        | Yes                          |        |        | Yes                          |        |        |
|                      | Sensor failure            | Yes                          |        |        | Yes                          |        |        | Yes                          |        |        |
|                      | Door open                 | Yes                          |        |        | Yes                          |        |        | Yes                          |        |        |
|                      | Low battery               | Yes                          |        |        | Yes                          |        |        | Yes                          |        |        |
|                      | Power failure             | Yes                          |        |        | Yes                          |        |        | Yes                          |        |        |
|                      | Remote alarm contact      | Yes                          |        |        | Yes                          |        |        | Yes                          |        |        |
| Other feature        | Door lock with key        | Yes                          |        |        | Yes                          |        |        | Yes                          |        |        |
|                      | Adjustable foot           | 2                            |        |        | 2                            |        |        | N/A                          |        |        |
|                      | Caster                    | 2                            |        |        | 2                            |        |        | 4                            |        |        |
|                      | Test access port          | Φ 25mm x 1                   |        |        | Φ 25mm x 1                   |        |        | Φ 25mm x 2                   |        |        |
|                      | Drawers                   | 3                            |        |        | 7                            |        |        | 12                           |        |        |
|                      | Door Qty                  | 1                            |        |        | 1                            |        |        | 2                            |        |        |
| Material             | Exterior cabinet material | Pre-coated steel             |        |        | Pre-coated Steel             |        |        | Pre-coated steel             |        |        |
|                      | Interior cabinet material | Pre-coated aluminum          |        |        | Pre-coated aluminum          |        |        | Pre-coated aluminum          |        |        |
|                      | Door type                 | Solid door                   |        |        | Solid door                   |        |        | Solid door                   |        |        |
|                      | Insulation material       | Polyurethane                 |        |        | Polyurethane                 |        |        | Polyurethane                 |        |        |
| Shipping             | Gross weight (KGs)        | 67                           |        |        | 103                          |        |        | 172                          |        |        |
|                      | Packing W*D*H (mm)        | 765*735*935                  |        |        | 757*717*1865                 |        |        | 895*820*2135                 |        |        |
|                      | Volume (m <sup>3</sup> )  | 0.53                         |        |        | 1.0                          |        |        | 1.57                         |        |        |