# -30℃ Biomedical Freezer

Midea Biomedical




MD-30L850

## Reliable Sample Storage

High temperature uniformity;
Imported world-famous components.

## Double Door Design

Four independent inner door design reduce heat loss.

## Multi-level Alarms

High,low temperature,sensor error,power failure, high ambient alarm,door open alarm.

## Fast Cooling

High efficiency cooling fans and compressors.

## Structure Features

### 1 Multi-layer Sealing Structure

Multi-layers gaskets provide a tight seal between the inner doors and outer door, reducing heat exchange and retaining the inner temperature better when there is power failure.

### 2 VIP PLUS Design

Provides up to 30% more storage capacity than a conventionally insulated freezer, without increasing the footprint. A glass fibre core provides advanced thermal properties.

### 3 USB Port

Enables users to download historical temperature data for compliance/auditing purposes.

### 4 LED Display

Alarm functions include high, low temperature, sensor error, power failure, high ambient alarm, door open alarm etc.






### 5 Lever Handle Design

Ingenious handle design helps you to open and close door easier. Lockable handle safeguards your precious samples. Padlock can also be added for extra sample safety.

### 6 Relief Ports

It allows users to re-open the main door quickly when entering ,rust-proof, freeze-free.

### 7 Narrow Door Design

The freezer can pass through an 750mm wide door when the door is open.

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Technical Data Sheet
High-Performance, Biomedical Freezer
Model: MD-30L850B

## Application, Rating, & Electrical Data

| | |
|---|---|
| Application | Biomedical freezer |
| Storage Volume (L/Cu.Ft) | 850/30.01 |
| Temperature Range | -10℃~-30℃ |
| Default Set Point | -30℃ |
| Power | 220~240V~/50Hz/60Hz |
| Current | 3.3A |
| Power Cord Length | 1.7m |
| Certification | CE |
| Door type | Solid door |
| Application Environment | Non-corrosive, non-flammable, non-explosive |
| Ambient Operating Temperature | 10°C~32°C |

## Refrigeration

| | |
|---|---|
| Refrigeration System | Direct cooling |
| Compressor | Hermetic, Inverter |
| Condenser Type | Built in + micro channel condenser |
| Expansion Device | Capillary tube |
| Evaporator Type | Shelf evaporator |
| Defrost Method | Manual defrost |
| Refrigerant | R290 |

## Controller / Configuration Settings

| | |
|---|---|
| Display screen | LED |
| Controller Type | Microprocessor |
| Security | Lockable door, protected settings |
| Control Sensor | PT1000 |
| Communication Ports | USB, Remote alarm contacts |
| Power Failure Alarm | Yes |
| High/Low Alarms | Yes, fully adjustable |
| Door Ajar Alarm | Yes |
| Download | Yes, via USB, PDF |
| Temperature Log | Yes, download via USB |

## Performance Characteristics (normal operating conditions)

| | |
|---|---|
| Uniformity \| (℃) | ≤3℃ |
| Energy consumption \| (kWh/day) | 2.9 |
| Noise emission \| (dB) | 65 |
| Pull-down time to -30°C \| (min) | 129 |

### Typical Temperature Map

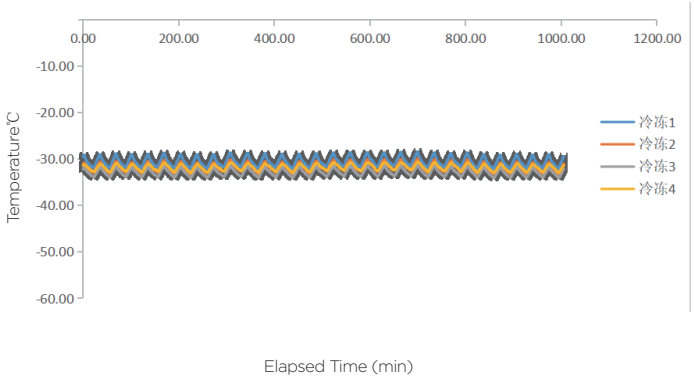
| Fre | test 1 | test 2 | test 3 | test 4 | test 5 | test 6 | test 7 | test 8 | test 9 |
|---|---|---|---|---|---|---|---|---|---|
| Avg | -31.20 | -31.10 | -31.00 | -30.90 | -39.32 | -30.90 | -30.80 | -30.90 | -30.90 |
| Max | -29.50 | -29.40 | -29.30 | -29.20 | -29.10 | -29.10 | -29.20 | -29.30 | -29.50 |
| Min | -32.20 | -32.10 | -32.00 | -32.00 | -31.90 | -31.90 | -31.80 | -31.90 | -31.90 |

## Dimensions and Construction

| | |
|---|---|
| Interior (w*d*h) | 885*720*1310 mm |
| Exterior (w*d*h) | 1175*995*1980 mm |
| Access Port | 2 Access Port- for external monitoring probe(s) (25 mm diameter) |
| Racks (tiers*columns) | 5*5(24) |
| Wheels | 4 Swivel Casters + 2 Leveling Feet |
| Net Weight | 239 kg |
| Gross Weight | 308 kg |

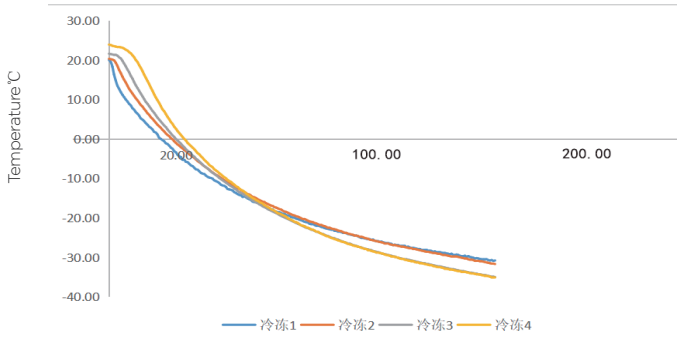
All performance data from 850L biomedical freezer, 25 ambient, -30°C

### Uniformity

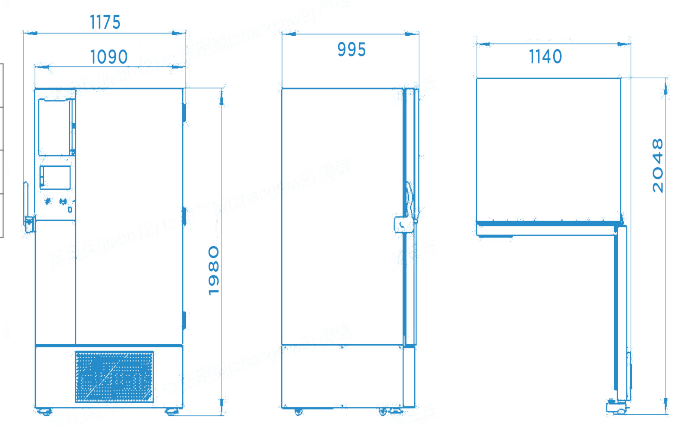



Elapsed Time (min)

### Cooling Speed




Elapsed Time (min)




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