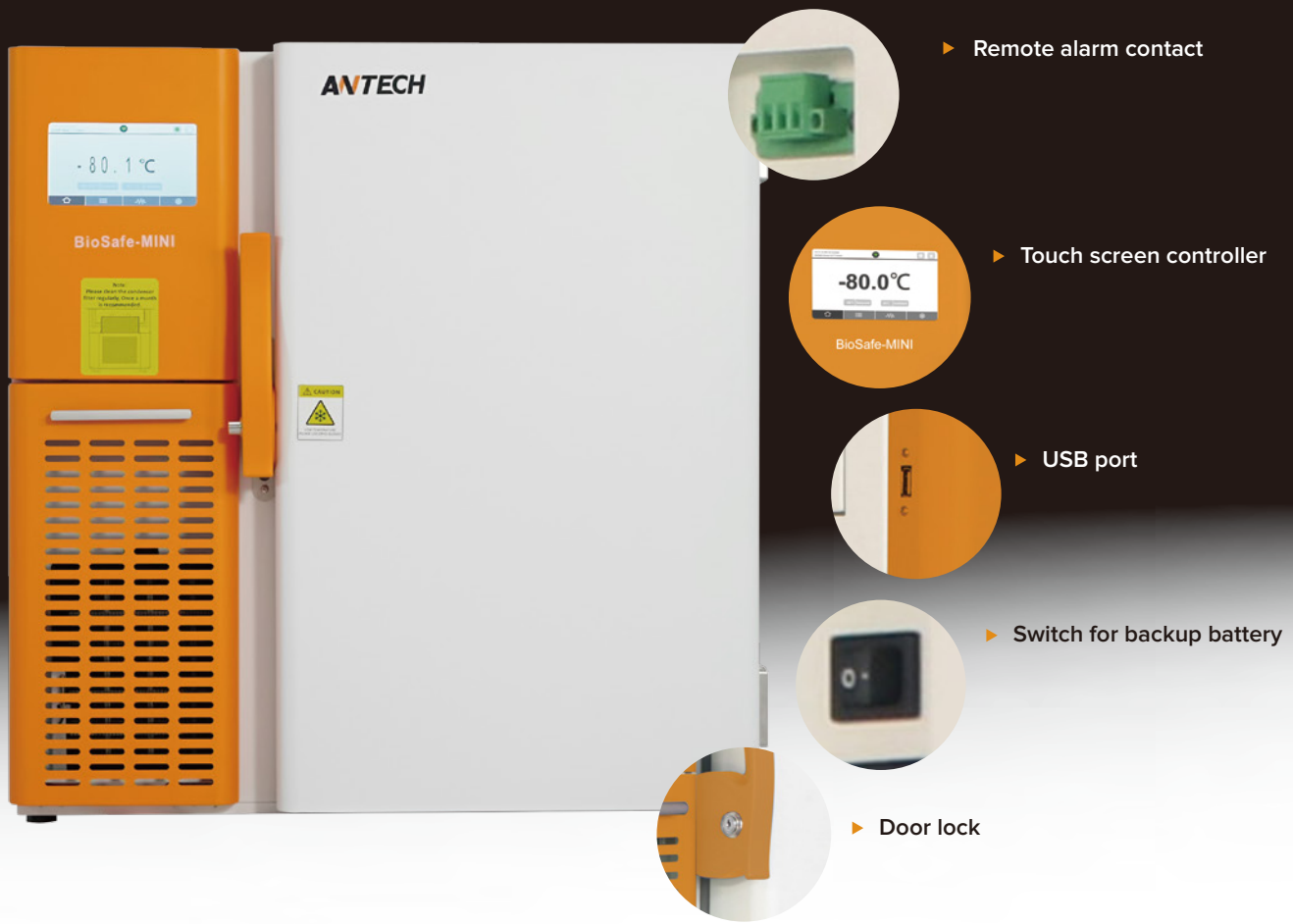
# BioSafe-MINI
## Under-counter ULT Freezer

ANTECH's compact under-counter ULT freezer MDF-86U108 is an ideal solution to store biological materials in a limited space. The freezer size is designed to match laboratory table height, so that it can be put under counter.

BioSafe-MINI adopts high efficiency single compressor cooling system, with reduced energy consumption and lower noise.

TC-300 touch screen smart controller is used. Despite a compact freezer, the functions are complete for medical and laboratory applications, including data storage and USB port for download, high/low temperature alarm, door open alarm, power failure alarm, remote alarm contact, etc. Therefore, MDF-86U108 meets the most rigorous requirements of healthcare and scientific research.




LOW CO2 EMISSIONS

DOOR AJAR ALARM

CFC /HCFC FREE

USB PORT

POWER FAILURE ALARM

DIRECT COOLING

SAFETY DOOR LOCK

# TC-300 touch screen controller

TC-300 smart control system is adopted for easy observation and convenient operation.

- 7” LCD touch screen: sensitive touch, user-friendly HIM;
- Large display of chamber temperature, easy observation at distance;
- Status icon to show freezer situation at first sight: normal or abnormal;
- Password administration to prevent unauthorized change of settings;
- Show temperature curve on touch screen;
- Temperature and event data storage and USB port for download.




## PERFORMANCE

- Single compressor cooling system with high efficiency
- SECOP brand compressor & EBM brand blower.
- High density polyurethane forming for insulation.
- Forming inner doors for better insulation

## ALARMS

- High temperature
- Low temperature
- High ambient temperature
- Door ajar
- Power failure
- Sensor error

## ERGONOMIC DESIGN

- 7-inch touch screen for easy operation
- Forming inner doors with door seal for better insulation and less frost
- Adjustable stainless steel shelves to load different size products
- Pressure release port for easy opening of outer door
- Ultra-quite design reduces noise level
- Optional sliding drawer rack & side access rack for 2ml vials, 5ml vials or SBS boxes

## SAFETY

- Build-in data storage and USB port for download
- Temperature quick check via temperature curve
- Password protection avoids key parameters unauthorized change
- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- Remote alarm contacts
- Optional online monitoring system
- Optional CO2/LN2 backup system

## ENVIRONMENT FRIENDLY

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

# -86°C
# BioSafe-MINI



| | Model | MDF-86U108 |
|---|---|---|
| Basic | Type | Under-counter, upright |
| | Cooling technology | Single compressor |
| | Temperature setting range (°C) | -40～-86 |
| | Climate type | N |
| | Capacity (L) | 88 |
| | 2" box storage Qty (Pcs) | 60 |
| | Door entrance limit (≥mm) | 676 |
| | Cooling type | Direct |
| | Defrost type | Auto |
| | Refrigerant | Mixed gas |
| | Number of compressor | 1 |
| Control | Controller | TC-300 |
| | Display | 7" LCD touch screen |
| | Temperature display accuracy | 0.1 |
| | Password protection | ● |
| | USB port | ● |
| | Cloud monitoring (Wi-Fi) | O |
| | Chart recorder | / |
| Power | Power supply (V/Hz) | 220/50; 220/60; 120/60 |
| | Rated power (W) | 410; 460; 520 |
| | Rated current (A) | 2.3; 2.6; 6.6 |
| Alarm | Visible/audible alarm | ● |
| | High/Low temperature | ● |
| | Hot condenser | ● |
| | Power failure | ● |
| | Sensor failure | ● |
| | High ambient temperature | ● |
| | Door open | ● |
| | Remote alarm contact | ● |
| Accessories | Safety door lock | ● |
| | Inner door | 2 |
| | Test access port | Φ19mm x 2 |
| | Adjustable shelves | 1 |
| | Freezer rack | O |
| | Rack type (DxH) | 3x5 |
| | Rack Qty | 4 |
| | Pressure equalization port | Manual |
| | Casters | ● |
| | CO2/LN2 backup system | O |
| Material | Exterior | Pre-coated steel |
| | Interior | Pre-coated steel |
| | Insulation | Polyurethane |
| | Vacuum insulation panel (VIP) | ● |
| | Cabinet insulation thickness (mm) | 90 |
| | Outer door thinkness (mm) | 90 |
| Weight & size | Net weight（kg） | 85 |
| | Gross weight (kg) | 105 |
| | Internal W×D×H (mm) | 320×450×610 |
| | External W×D×H (mm) | 800×700×870 |
| | Packing W×D×H (mm) | 850×730×953 |
| | Packing volume (m3) | 0.59 |

● Basic equipment O Optional / Not available

# -86°C Chest ULT Freezer

BioSafe series chest ULT freezers are stable in performance, convenient in operation and durable in use. 130L freezer adopts high efficiency single compressor system, while 495L & 746L freezers adopts 2-compressor cascade system for stable performance and lower power consumption.

## TC-300 touch screen controller

TC-300 smart control system is adopted for easy observation and convenient operation.

- 7” LCD touch screen: sensitive touch, user-friendly HIM;
- Large display of chamber temperature, easy observation at distance;
- Status icon to show freezer situation at first sight: normal or abnormal;
- Password administration to prevent unauthorized change of settings;
- Show temperature curve on touch screen;
- Temperature and event data storage and USB port for download.




LOW CO2 EMISSIONS

CFC /HCFC FREE

USB PORT

POWER FAILURE ALARM

DIRECT COOLING

SAFETY DOOR LOCK

### PERFORMANCE

- Optimized cooling system with high efficiency
- SECOP brand compressor & EBM brand blower.
- High density polyurethane forming for insulation.
- Forming inner doors for better insulation

### ALARMS

- High temperature
- Low temperature
- High ambient temperature
- Door ajar
- Power failure
- Sensor error

### ERGONOMIC DESIGN

- 7-inch touch screen for easy operation
- Forming inner doors with door seal for better insulation and less frost
- Adjustable stainless steel shelves to load different size products
- Pressure release port for easy opening of outer door
- Ultra-quite design reduces noise level
- Optional sliding drawer rack & side access rack for 2ml vials, 5ml vials or SBS boxes

### SAFETY

- Build-in data storage and USB port for download
- Temperature quick check via temperature curve
- Password protection avoids key parameters unauthorized change
- Safety door lock, preventing unauthorized access
- Access port for additional temperature probe
- Remote alarm contacts
- Optional online monitoring system
- Optional CO2/LN2 backup system

### ENVIRONMENT FRIENDLY

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

# -86°C
# Chest type





| | Model | MDF-86C118 | MDF-86C458 | MDF-86C728 |
|---|---|---|---|---|
| Basic | Type | Chest | Chest | Chest |
| | Cooling technology | Single compressor | Cascade cooling | Cascade cooling |
| | Temperature setting range (℃) | -40～-86 | -40～-86 | -40～-86 |
| | Climate type | N | N | N |
| | Capacity (L) | 130 | 495 | 746 |
| | 2" box storage Qty (Pcs) | 96 | 360 | 585 |
| | Door entrance limit (≥mm) | 740 | 780 | 997 |
| | Cooling type | Direct | Direct | Direct |
| | Defrost type | Manual | Manual | Manual |
| | Refrigerant | Mixed gas | Hydrocarbon gas | Hydrocarbon gas |
| | Number of compressor | 1 | 2 | 2 |
| Control | Controller | TC-300 | TC-300 | TC-300 |
| | Display | 7" LCD touch screen | 7" LCD touch screen | 7" LCD touch screen |
| | Temperature display accuracy | 0.1 | 0.1 | 0.1 |
| | Password protection | ● | ● | ● |
| | USB port | ● | ● | ● |
| | Cloud monitoring (Wi-Fi) | ○ | ○ | ○ |
| | Chart recorder | / | ○ | ○ |
| 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) | 480; 480; 540 | 900; 850; 780 | 980; 900; 820 |
| | Rated current (A) | 2.8; 2.8; 6.7 | 7.0; 5.0; 8.8 | 7.2; 5.8; 9.0 |
| Alarm | Visible/audible alarm | ● | ● | ● |
| | High/Low temperature | ● | ● | ● |
| | Hot condenser | ● | ● | ● |
| | Power failure | ● | ● | ● |
| | Sensor failure | ● | ● | ● |
| | High ambient temperature | ● | ● | ● |
| | Door open | ● | ● | ● |
| | Remote alarm contact | ● | ● | ● |
| Accessories | Safety door lock | ● | ● | ● |
| | Inner door | / | 2 | 2 |
| | Test access port | Φ20mm x 2 | Φ20mm x 2 | Φ20mm x 2 |
| | Adjustable shelves | N/A | N/A | N/A |
| | Freezer rack | ○ | ○ | ○ |
| | Rack type (DxH) | 1×8 | 1×10 | 1×13 |
| | Rack Qty | 12 | 36 | 45 |
| | Pressure equalization port | Manual | Auto x 1 & manual x 1 | Auto x 1 & manual x 1 |
| | Casters | ● | ● | ● |
| | CO2/LN2 backup system | ○ | ○ | ○ |
| Material | Exterior | Pre-coated steel | Pre-coated steel | Pre-coated steel |
| | Interior | Stainless steel | Stainless steel | Stainless steel |
| | Insulation | Polyurethane | Polyurethane | Polyurethane |
| | Vacuum insulation panel (VIP) | ● | ● | ● |
| | Cabinet insulation thickness (mm) | 90 | 90 | 90 |
| | Outer door thinkness (mm) | 90 | 90 | 90 |
| Weight & size | Net weight（kg） | 98 | 242 | 275 |
| | Gross weight (kg) | 116 | 278 | 318 |
| | Internal W×D×H (mm) | 630×440×470 | 1310×600×600 | 1310×740×730 |
| | External W×D×H (mm) | 850×740×1023 | 1965×860×910 | 1965×1000×1040 |
| | Packing W×D×H (mm) | 930×780×1160 | 2010×880×1030 | 2010×1095×1165 |
| | Packing volume (m3) | 0.84 | 1.82 | 2.56 |

● Basic equipment ○ Optional / Not available