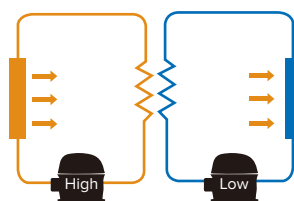


-86°C Ultra-low Temperature Freezer

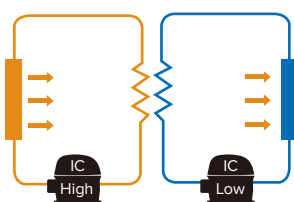
ANTECH offers advanced BioSafe ULT freezers with optimized cooling system and ergonomic design. Both upright freezers and chest freezers are available, from 88 liter compact freezer to 988 liter large volume biobanking freezer. Various of high efficiency cooling systems to meet different requirements of users. Cutting age inverter technology (BioSafe-IC) and dual compressor cooling technology (BioSafe-DUAL) are adopted on ANTECH ULT freezers, providing lowest energy consumption & highest level protection.

BioSafe-ECO series



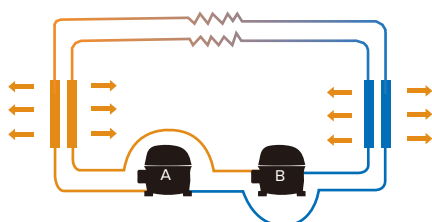
2-compressor cascade system, SECOP brand;
Hydrocarbon refrigerant for lower power consumption;
Capacity: 360L, 580L, 730L.

BioSafe-IC series



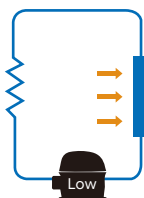
2-Inverter-compressor cascade system;
Inverter compressors (IC) & hydrocarbon refrigerant, lowest power consumption & best temperature performance;
Capacity: 580L, 730L, 988L.

BioSafe-DUAL series



Independent dual compressor system:
inner temperature maintain -75°C when one compressor fails;
Capacity: 360L, 470L, 580L, 730L, 988L.

BioSafe-MINI series



Single compressor cooling system:
compact construction with high efficiency,
reach -86°C with 1 compressor;
Capacity: 88L.

Upright freezers

Capacity	88L	360L	470L	580L	730L	988L
BioSafe-MINI	MDF-86U108	-	-	-	-	-
BioSafe-ECO	-	MDF-86U340T	MDF-86U458T	MDF-86U588T	MDF-86U728T	-
BioSafe-IC	-	-	-	MDF-86U579	MDF-86U729	MDF-86U969
BioSafe-DUAL	-	MDF-86U340D	MDF-86U458D	MDF-86U588D	MDF-86U728D	MDF-86U988D

Chest freezers

Capacity	130L	495L	746L
BioSafe-MINI	MDF-86C118	-	-
BioSafe-ECO	-	MDF-86C458	MDF-86C728

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



NATURAL
REFRIGERANT



CFC /HCFC
FREE



USB PORT



POWER FAILURE
ALARM



DIRECT
COOLING



SAFETY DOOR
LOCK

PERFORMANCE

- Optimized cooling system & high efficiency hydrocarbon refrigerant.
- SECOP brand compressor & EBM brand blower.
- VIP (vacuum insulation panel) + high density polyurethane forming for insulation.
- Forming inner doors for better insulation

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
- Auto heating & manual pressure release port for easy opening of outer door
- Ultra-quiet design reduces noise level
- Optional sliding drawer rack & side access rack for 2ml vials, 5ml vials or SBS boxes

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

ALARMS

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

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



- ▶ **USB port**
Temperature data storage and download



- ▶ **Forming door with door seal**
4 layer door seal for better insulation and less frost.



- ▶ **Door handle with safety lock**
For easy operation and prevent unauthorized access



- ▶ **Adjustable shelves**
Convenient storage of different size products made in SUS304



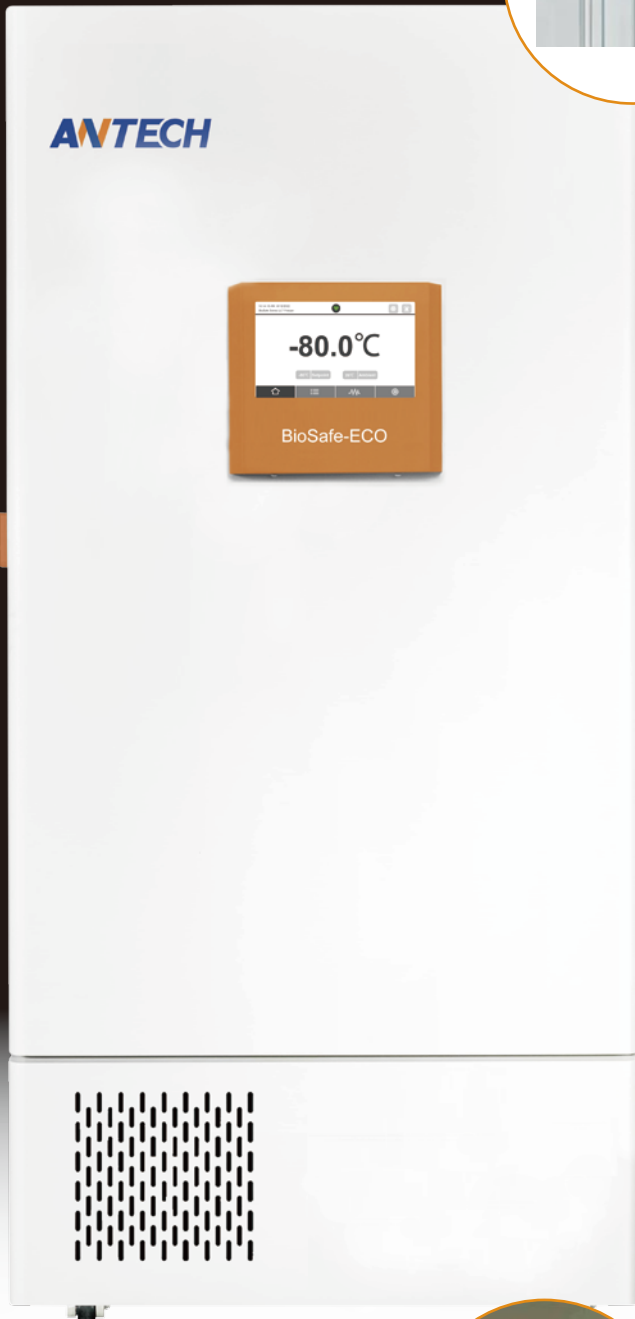
- ▶ **Dual pressure release port**
Auto & manual pressure release port for easy re-opening of outer door in a shorter time



- ▶ **Access port**
Two access ports at side and back of freezer, for easy access of additional temperature probe



- ▶ **Remote alarm contact**
Sending signal to a remote alarm system



-86°C

BioSafe-ECO series



	Model	MDF-86U340T	MDF-86U458T	MDF-86U588T	MDF-86U728T
Main specifications	Type	Upright	Upright	Upright	Upright
	Cooling technology	Cascade cooling	Cascade cooling	Cascade cooling	Cascade cooling
	Temperature setting range (°C)	-40~-86	-40~-86	-40~-86	-40~-86
	Climate type	N	N	N	N
	Capacity (L)	360	470	580	730
	2" box storage Qty (Pcs)	240	320	400	500
	Net weight (KGs)	230	252	272	297
	Internal W×D×H (mm)	460×600×1310	600×600×1310	740×600×1310	740×755×1310
	External W×D×H (mm)	715×854×1976	855×854×1976	995×854×1976	995×952×1976
	Door entrance limit (≥mm)*	715	854	854	860
	Cooling type	Direct	Direct	Direct	Direct
	Defrost	Manual	Manual	Manual	Manual
	Refrigerant	Hydrocarbon gas	Hydrocarbon gas	Hydrocarbon gas	Hydrocarbon gas
	Number of compressor	2	2	2	2
Control & display system	Controller	TC-300	TC-300	TC-300	TC-300
	Display	7" LCD touch screen	7" LCD touch screen	7" LCD touch screen	7" LCD touch screen
	Password protection	Yes	Yes	Yes	Yes
Power	Power supply (V/Hz)	220V/50Hz, 220V/60Hz 120V/60Hz	220V/50Hz, 220V/60Hz 120V/60Hz	220V/50Hz, 220V/60Hz 120V/60Hz	220V/50Hz, 220V/60Hz 120V/60Hz
	Rated power (W)	850	920	950	1000
Data memory & monitoring	USB port	Yes	Yes	Yes	Yes
	Chart recorder	Optional	Optional	Optional	Optional
Alarm functions	Visible/audible alarm	Yes	Yes	Yes	Yes
	High/Low temperature	Yes	Yes	Yes	Yes
	Hot condenser	Yes	Yes	Yes	Yes
	Power failure	Yes	Yes	Yes	Yes
	Sensor failure	Yes	Yes	Yes	Yes
	High ambient temperature	Yes	Yes	Yes	Yes
	Door open	Yes	Yes	Yes	Yes
	Remote alarm contact	Yes	Yes	Yes	Yes
Accessories	Inner door	2	2	2	2
	Casters	Yes	Yes	Yes	Yes
	Test access port	Φ 20mm x 2	Φ 20mm x 2	Φ 20mm x 2	Φ 20mm x 2
	Adjustable shelves	3	3	3	3
	Safety door lock	Yes	Yes	Yes	Yes
	Pressure equalization port	Auto x 1 & manual x 1	Auto x 1 & manual x 1	Auto x 1 & manual x 1	Auto x 1 & manual x 1
	Freezer rack	Optional	Optional	Optional	Optional
	Rack type (LxH)	4x5	4x5	4x5	5x5
	Rack Qty	12	16	20	20
	CO2/LN2 backup system	Optional	Optional	Optional	Optional
Material	Exterior	Pre-coated steel	Pre-coated steel	Pre-coated steel	Pre-coated steel
	Interior	Pre-coated steel	Pre-coated steel	Pre-coated steel	Pre-coated steel
	Insulation	Polyurethane	Polyurethane	Polyurethane	Polyurethane
	Vacuum insulation panel (VIP)	Yes	Yes	Yes	Yes
	Cabinet insulation thickness (mm)	90	90	90	90
	Outer door thickness (mm)	90	90	90	90
Shipping	Gross weight (KGs)	261	283	311	332
	Packing W×D×H (mm)	720×890×2180	860×900×2180	1000×870×2180	1010×1010×2180
	Volume (m³)	1.40	1.69	1.90	2.22

* Open outer door for 180° & remove front cover for MDF-86U728T.