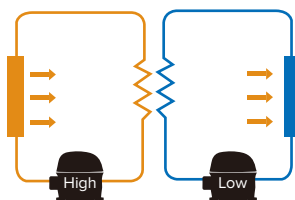


-86°C Ultra-low Temperature Freezer

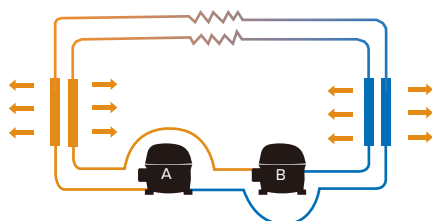
ANTECH offers advanced BioSafe ULT freezers with optimized cooling system and ergonomic design. Both upright freezers and chest freezers are available, from 88 liter compact freezer to 838 liter large volume biobanking freezer. Various of high efficiency cooling systems to meet different requirements of users. Dual compressor cooling technology (BioSafe-DUAL) are adopted on ANTECH ULT freezers, providing lowest energy consumption & highest level protection.

BioSafe-ECO series



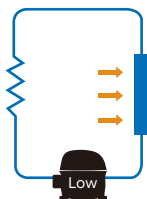
2-compressor cascade system, SECOP brand;
Hydrocarbon refrigerant for lower power consumption;
Capacity: 338L, 408L, 588L, 728L, 838L.

BioSafe-DUAL series



Independent dual compressor system:
inner temperature maintain -75°C when one
compressor fails;
Capacity: 408L, 588L, 728L, 838L.

BioSafe-MINI series



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

Upright freezers

Capacity	88L	338L	408L	588L	728L	838L
BioSafe-MINI	MDF-86U108	-	-	-	-	-
BioSafe-ECO	-	MDF-86U340T	MDF-86U458T	MDF-86U588T	MDF-86U728T	MDF-86U838T
BioSafe-DUAL	-	-	MDF-86U458D	MDF-86U588D	MDF-86U728D	MDF-86U838D

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



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 foaming 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

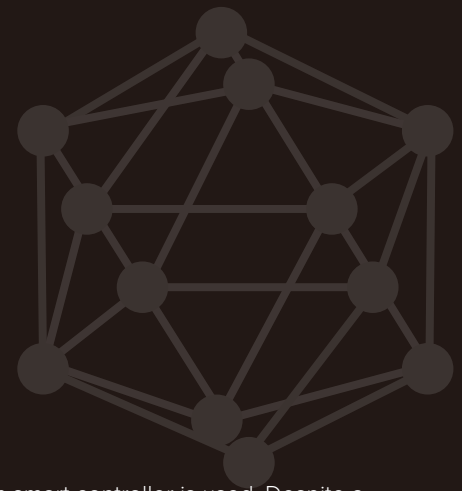
- High temperature
- Low temperature
- High ambient temperature
- Door ajar
- Power failure
- Sensor error

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

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

-86°C

BioSafe-MINI



Model	MDF-86U108			MDF-86U58			MDF-86U158			
Main specifications	Type	Under-counter, upright			Upright			Upright		
	Cooling technology	Single compressor			Single compressor			Single compressor		
	Temperature setting range (°C)	-40~-86			-40~-86			-40~-86		
	Climate type	N			N			N		
	Capacity (L)	88			58			158		
	2" box storage Qty (Pcs)	60			36			108		
	Net weight (KGs)	85			75			130		
	Internal W×D×H (mm)	320×450×610			364×405×409			460×455×800		
	External W×D×H (mm)	794×676×812			540×620×1115			700×700×1580		
	Door entrance limit (≥mm)	676			620			700		
	Cooling type	Direct			Direct			Direct		
	Defrost	Manual			Manual			Manual		
	Refrigerant	Mixed gas			Mixed gas			Mixed gas		
Number of compressor	1			1			1			
Control & display system	Controller	TC-300			TC-300E			TC-300E		
	Display	7" LCD touch screen			LED			Electronic		
	Password protection	Yes			Yes			Yes		
	Temperature display accuracy	0.1			0.1			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)	410	460	520	500	500	500	500	500	500
	Rated Current (A)	2.3	2.6	6.6	3.2	3.2	6.0	3.2	3.2	6.0
Data memory & monitoring	USB port	Yes			N/A			N/A		
	Cloud monitoring (Wi-Fi)	CryoMonitor 2000TF, optional			CryoMonitor 2000TF, optional			CryoMonitor 2000TF, optional		
	Chart recorder/ data logger	Optional			Optional			Optional		
Alarm functions	Visible/audible alarm	Yes			Yes			Yes		
	High/Low temperature	Yes			Yes			Yes		
	Hot condensor	Yes			N/A			N/A		
	Power failure	Yes			Yes			Yes		
	Sensor failure	Yes			Yes			Yes		
	High ambient temperature	Yes			N/A			N/A		
	Door open	Yes			Yes			Yes		
	Remote alarm contact	Yes			Yes			Yes		
Accessories	Inner door	2			2			3		
	Casters	Yes			Yes			Yes		
	Test access port	Φ 20mm x 2			Φ 20mm x 1			Φ 20mm x 1		
	Adjustable shelves	1			1			2		
	Safety door lock	Yes			Yes			N/A		
	Pressure equalization port	Manual			N/A			N/A		
	Freezer rack	Optional			N/A			N/A		
	Rack type (LxH)	3x5			N/A			N/A		
	Rack Qty	4			N/A			N/A		
CO2/LN2 backup system	Optional			Optional			Optional			
Material	Exterior	Powder coated steel			Powder coated steel			Powder coated steel		
	Interior	Pre-coated steel			SUS			SUS		
	Insulation	Polyurethane			Polyurethane			Polyurethane		
	Vacuum insulation panel (VIP)	Yes			N/A			N/A		
	Cabinet insulation thickness (mm)	90			90			120		
	Outer door thickness (mm)	90			90			120		
Shipping	Gross weight (KGs)	105			95			160		
	Packing W×D×H (mm)	850×730×953			610×700×1240			780×800×1710		
	Volume (m ³)	0.59			0.53			1.07		

-86°C

Chest type



Model	MDF-86C118			MDF-86C458			MDF-86C728			
Main specifications	Type	Chest			Chest			Chest		
	Cooling technology	Single compressor			Cascade cooling			Cascade cooling		
	Temperature setting range (°C)	-40~-86			-40~-86			-40~-86		
	Climate type	N			N			N		
	Capacity (L)	130			495			746		
	2" box storage Qty (Pcs)	96			360			585		
	Net weight (KGs)	98			225			275		
	Internal W×D×H (mm)	630×440×470			1310×600×630			1310×740×770		
	External W×D×H (mm)	850×740×1023			1930×780×900			1930×997×1035		
	Door entrance limit (≥mm)	740			780			997		
	Cooling type	Direct			Direct			Direct		
	Defrost	Manual			Manual			Manual		
	Refrigerant	Hydrocarbon gas			Hydrocarbon gas			Hydrocarbon gas		
	Number of compressor	1			2			2		
Control & display system	Controller	TC-300			TC-300			TC-300		
	Display	7" LCD touch screen			7" LCD touch screen			7" LCD touch screen		
	Password protection	Yes			Yes			Yes		
	Temperature display accuracy	0.1			0.1			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)	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
Data memory & monitoring	USB port	Yes			Yes			Yes		
	Cloud monitoring (Wi-Fi)	CryoMonitor 2000TF, optional			CryoMonitor 2000TF, optional			CryoMonitor 2000TF, optional		
	Chart recorder/ data logger	Optional			Optional			Optional		
Alarm functions	Visible/audible alarm	Yes			Yes			Yes		
	High/Low temperature	Yes			Yes			Yes		
	Hot condensor	Yes			Yes			Yes		
	Power failure	Yes			Yes			Yes		
	Sensor failure	Yes			Yes			Yes		
	High ambient temperature	Yes			Yes			Yes		
	Door open	NO			Yes			Yes		
	Remote alarm contact	Yes			Yes			Yes		
Accessories	Inner door	N/A			2			2		
	Casters	Yes			Yes			Yes		
	Test access port	Φ 20mm x 2			Φ 20mm x 2			Φ 20mm x 2		
	Adjustable shelves	N/A			N/A			N/A		
	Safety door lock	Yes			Yes			Yes		
	Pressure equalization port	Manual			Auto x 1 & manual x 1			Auto x 1 & manual x 1		
	Freezer rack	Optional			Optional			Optional		
	Rack type (LxH)	1x8			1x10			1x13		
	Rack Qty	12			36			45		
CO2/LN2 backup system	Optional			Optional			Optional			
Material	Exterior	Powder coated steel			Powder coated steel			Powder coated steel		
	Interior	Stainless steel			Stainless steel			Stainless steel		
	Insulation	Polyurethane			Polyurethane			Polyurethane		
	Vacuum insulation panel (VIP)	Yes			Yes			Yes		
	Cabinet insulation thickness (mm)	90			90			90		
	Outer door thickness (mm)	90			90			90		
Shipping	Gross weight (KGs)	116			278			318		
	Packing W×D×H (mm)	930×780×1160			2010×880×1030			2010×1095×1165		
	Volume (m ³)	0.84			1.82			2.56		