

# 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

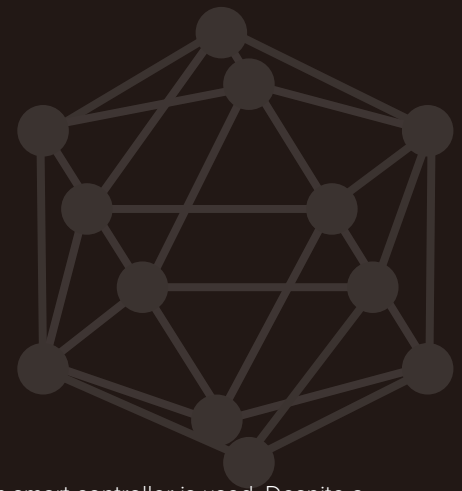
- High temperature
- Low temperature
- High ambient temperature
- Door ajar
- Power failure
- Sensor error

## 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.



# -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	●			●			●		
	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	●			N/A			N/A		
	Cloud monitoring (Wi-Fi)	○ CryoMonitor 2000TF			○ CryoMonitor 2000TF			○ CryoMonitor 2000TF		
	Chart recorder/ data logger	○			○			○		
Alarm functions	Visible/audible alarm	●			●			●		
	High/Low temperature	●			●			●		
	Hot condensor	●			N/A			N/A		
	Power failure	●			●			●		
	Sensor failure	●			●			●		
	High ambient temperature	●			N/A			N/A		
	Door open	●			●			●		
	Remote alarm contact	●			●			●		
Accessories	Inner door	2			2			3		
	Casters	●			●			●		
	Test access port	Φ 20mm x 1			Φ 20mm x 1			Φ 20mm x 1		
	Adjustable shelves	1			1			2		
	Safety door lock	●			●			N/A		
	Pressure equalization port	Manual			N/A			N/A		
	Freezer rack	○			N/A			N/A		
	Rack type (LxH)	3x5			N/A			N/A		
	Rack Qty	4			N/A			N/A		
CO2/LN2 backup system	○			○			○			
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)	●			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 <sup>3</sup> )	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	●			●			●		
	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	●			●			●		
	Cloud monitoring (Wi-Fi)	○ CryoMonitor 2000TF			○ CryoMonitor 2000TF			○ CryoMonitor 2000TF		
	Chart recorder/ data logger	○			○			○		
Alarm functions	Visible/audible alarm	●			●			●		
	High/Low temperature	●			●			●		
	Hot condensor	●			●			●		
	Power failure	●			●			●		
	Sensor failure	●			●			●		
	High ambient temperature	●			●			●		
	Door open	NO			●			●		
	Remote alarm contact	●			●			●		
Accessories	Inner door	N/A			2			2		
	Casters	●			●			●		
	Test access port	Φ 20mm x 1			Φ 20mm x 2			Φ 20mm x 2		
	Adjustable shelves	N/A			N/A			N/A		
	Safety door lock	●			●			●		
	Pressure equalization port	Manual			Auto x 1 & manual x 1			Auto x 1 & manual x 1		
	Freezer rack	○			○			○		
	Rack type (LxH)	1x8			1x10			1x13		
	Rack Qty	12			36			45		
CO2/LN2 backup system	○			○			○			
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)	●			●			●		
	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 <sup>3</sup> )	0.84			1.82			2.56		