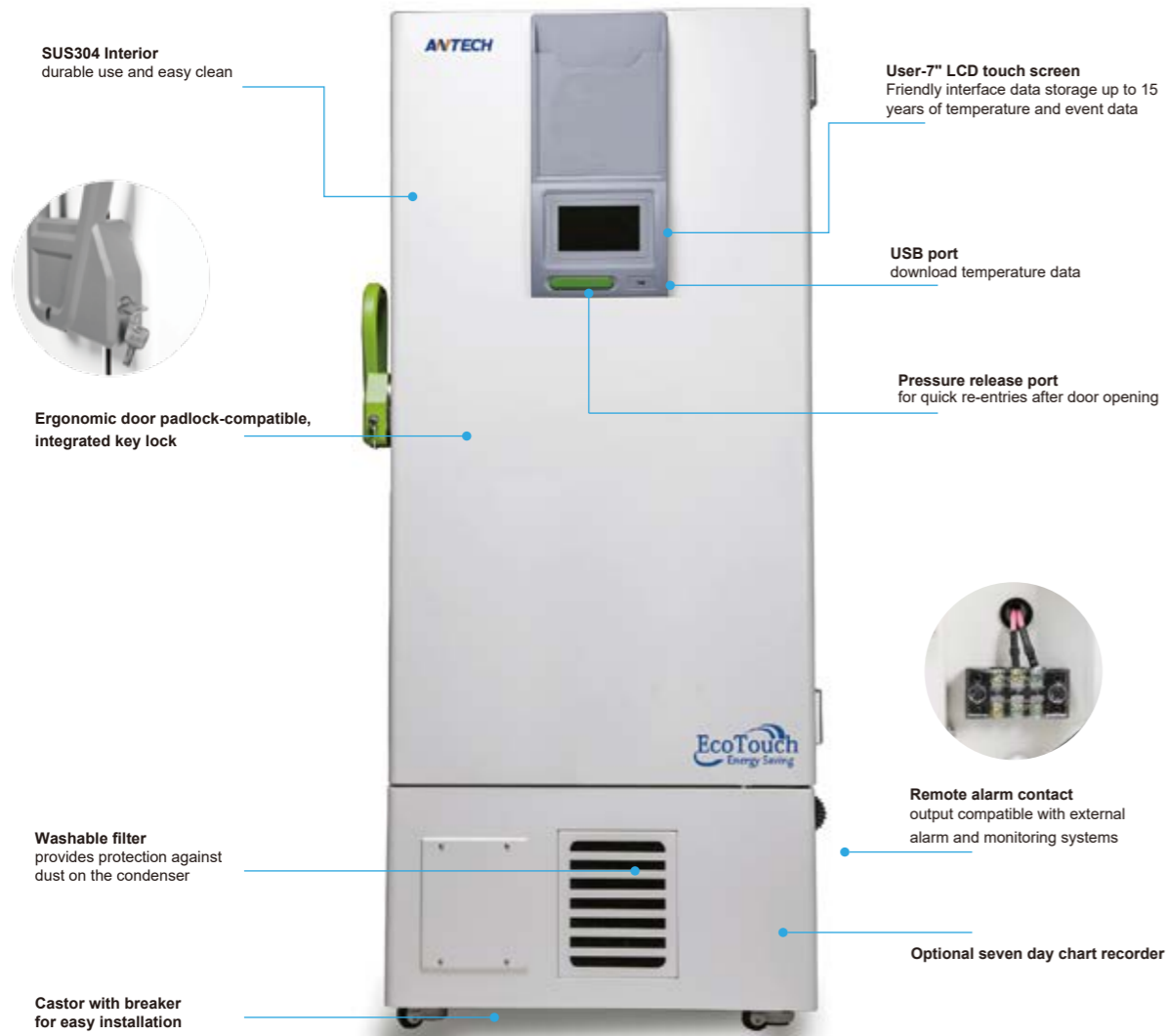


EcoTouch Series ULT freezer

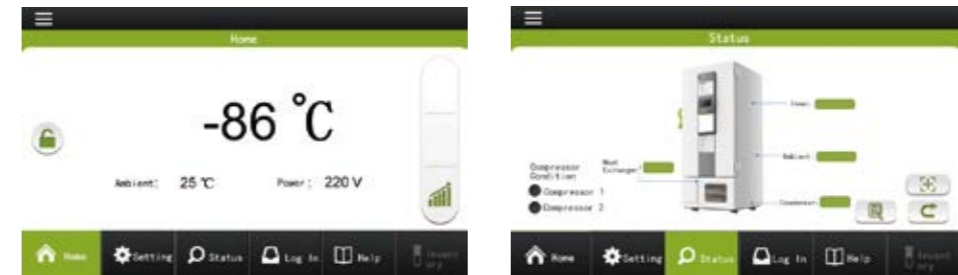


The -86 °C ULT freezer is specially designed for a stable ultra low temperature storage condition, to store germs, erythrocytes, leucocytes, viruses and many other biological materials. Installations can be found in research institutes, pharmacy industry, clinical labs, blood banks and laboratories in electronic & chemical plants.



A SMART Freezer

- 7" touch screen, easy observation & convenient operation
- Checking history temperature curve and alarm record on screen
- Self-diagnostic, automatic check & alarm for key components
- Optional USB port, download data conveniently

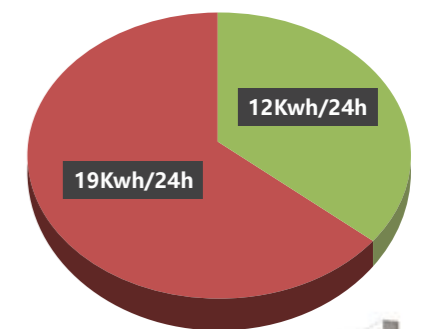


A GREEN Freezer

- Non greenhouse gas is used, an environmental friendly freezer.
- Hydrocarbon two compressor cascade cooling system for super low power consumption.

Power consumption of traditional freezer & energy-saving freezer

- energy saving freezer
- traditional freezer



A USER-FRIENDLY Freezer

- SUS304 interior for easy cleaning & rust free
- Document groove to put paper, create a stylish lab
- Optional electric lock for safety and convenient administration
- Maximum sample storage capacity with an optimum footprint
- Special noise reduction design, a real quite lab partner



▲ Insulated inner door with latch



▲ SS304 inner door latch



▲ SS304 inner cabinet, figure marked strip and sensor



▲ Protection against Wall



▲ Washable filter



▲ Heavy-duty caster with lock



▲ Testing port



▲ 7-day circular chart recorder is Optional

Optimal Capacity

Model	Capacity(L)	2ml Vial	2" box *	Rack Type	Rack Qty	Total Rack Qty
MDF-86U340T	338	19200	192	4x4	12	12
MDF-86U458T	408	28800	288	5x4	8	16
				4x4	8	
MDF-86U588T	588	40000	400	5x5	16	16
MDF-86U728T	728	50400	504	5x4	18	24
				6x4	6	
MDF-86U838T	838	60000	600	5x5	24	24

* Notes: calculated based on 100-well box.

Model	MDF-86U340T	MDF-86U458T	MDF-86U588T	MDF-86U728T	MDF-86U838T
Type	Upright	Upright	Upright	Upright	Upright
Capacity (L/cu ft)	338/11.93	408/14.41	588/20.76	728/25.70	838/29.59
Inner doors	2 pcs, SUS304 forming door	2 pcs, SUS304 forming door	2 pcs, SUS304 forming door	2 pcs, SUS304 forming door	2 pcs, SUS304 forming door
Shelves	3 pcs, SUS304	3 pcs, SUS304	3 pcs, SUS304	3 pcs, SUS304	3, made in SUS304
Inner chamber material	SUS304	SUS304	SUS304	SUS304	SUS304
Cooling type	Direct cooling	Direct cooling	Direct cooling	Direct cooling	Direct cooling
Refrigerant	Hydrocarbon, CFC Free, Non greenhouse	Hydrocarbon, CFC Free, Non greenhouse	Hydrocarbon, CFC Free, Non greenhouse gas	Hydrocarbon, CFC Free, Non greenhouse gas	Hydrocarbon, CFC Free, Non greenhouse gas
Noise level (dB)	50	50	51	52	53
Ambient temperature (°C)	10~32°C	10~32°C	10~32°C	10~32°C	10~32°C
Temperature range (°C)	-40~-86°C	-40~-86°C	-40~-86°C	-40~-86°C	-40~-86°C
Cooling System	Two compressor cascade system	Two compressor cascade system	Two compressor cascade system	Two compressor cascade system	Two compressor cascade system
Compressor Brand	SECOP	SECOP	SECOP	SECOP	SECOP
Sensor	PT100	PT100	PT100	PT100	PT100
Controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor
Display & Control	7" Touch Screen	7" Touch Screen	7" Touch Screen	7" Touch Screen	7" Touch Screen
Voltage/Frequency	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz
Power (W)	870	845	815	935	890
Power Consumption (kWh/24h)	6.75	11.6	12	13.28	13.86
2ml Vials (pcs)	19200	28800	40000	50000	60000
Internal (W*D*H) mm	854×1072×1907	606×575×1180	606×738×1310	963×558×1350	894×718×1310
External (W*D*H) mm	488×607×1140	891×992×1945	891×1155×1995	1248×975×1995	1179×1135×1995
Packing (W*D*H) mm	935×1070×2128	954×955×2094	970×1138×2185	1320×970×2185	1212×1098×2185
Net/Gross weight (kg)	286/306	292/317	335/363.5	380/400	397/430
High/low temperature	√	√	√	√	√
Power off failure	√	√	√	√	√
Abnormal voltage	√	√	√	√	√
Sensor error	√	√	√	√	√
Filter screen check	√	√	√	√	√
Controller failure	√	√	√	√	√
Low battery	√	√	√	√	√
Condenser malfunction	√	√	√	√	√
High ambient temperature	√	√	√	√	√
Door ajar	√	√	√	√	√
Caster	4	4	4	4	4
Test hole/Diameter	1/25mm	1/25mm	1/25mm	1/25mm	1/25mm
Remote alarm contact	√	√	√	√	√
RS232/485 port	√	√	√	√	√
USB Port	Y	Y	Y	Y	Y
Temperature recorder	Optional	Optional	Optional	Optional	Optional
Freezer racks	Optional	Optional	Optional	Optional	Optional
CO2 backup system	Optional	Optional	Optional	Optional	Optional
LN2 backup system	Optional	Optional	Optional	Optional	Optional

Classic Series ULT freezer

Performance

- Temperature reaches -86 °C, adjustable -40 °C ~ -86 °C ,
- Microprocessor controller with LED display increment 0.1
- Wide range operating voltage system from 185V to 260 V

Upright type



MDF-86U58

MDF-86U158

Reliability

- Single compressor and auto-cascade cooling system
- World class compressor (SECOP) and blower (EBM)
- Low noise and low power consumption

Safety

- Audible and visual alarm:
- High/Low temperature alarm
 - Sensor error alarm
 - Power failure alarm
 - Remote alarm contact

Ergonomic Design

- Safety lock to prevent unauthorized entry
- Universal lockable caster for ease moving
- Unique CFC-free mixed refrigerant

Chest type



MDF-86C258

Specification

Model	MDF-86U58	MDF-86U158	MDF-86C118	MDF-86C258	MDF-86C458
Technical Data					
Cabinet Type	Upright	Upright	Chest	Chest	Chest
Capacity (L)	58	158	118	258	458
Climate Class	N	N	N	N	N
Cooling Type	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling
Cooling System	Single Compressor Auto-cascade System	Single Compressor Auto-cascade System	Single Compressor Auto-cascade System	Single Compressor Auto-cascade System	Single Compressor Auto-cascade System
Defrost Mode	Manual	Manual	Manual	Manual	Manual
Refrigerant	CFC-Free	CFC-Free	CFC-Free	CFC-Free	CFC-Free
Door	Single Solid Door	Single Solid Door	Single Solid Door	Single Solid Door	Single Solid Door
Noise (dB)	50	50	50	50	50
Performance					
Temperature Range (°C)	-60 ~ -86	-60 ~ -86	-60 ~ -86	-60 ~ -86	-60 ~ -86
Cooling Performance (°C)	-86	-86	-86	-86	-86
Control					
Temperature Control	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor
Display	LED	LED	LED	LED	LED
Material					
Interior	SUS304	SUS304	SUS304	SUS304	SUS304
Exterior	Powder Coated Steel	Powder Coated Steel	Powder Coated Steel	Powder Coated Steel	Powder Coated Steel
Shelf	SUS304	SUS304	N/A	N/A	N/A
Insulation	PU Forming	PU Forming	PU Forming	PU Forming	PU Forming
Electrical Data					
Voltage/Frequency	220V~240V, 50Hz/60Hz 115V/60Hz	220V~240V, 50Hz/60Hz 115V/60Hz	220V~240V, 50Hz/60Hz 115V/60Hz	220V~240V, 50Hz/60Hz 115V/60Hz	220V~240V, 50Hz/60Hz 115V/60Hz
Power (W)	400	450	450	500	550
Dimensions					
Net/Gross Weight (kg)	75/95	130/160	90/135	220/240	240/270
Internal Dimension (W/D/H, mm)	364x405x409	460x455x800	700x470x360	780x500x660	1330x500x600
External Dimension (W/D/H, mm)	540x620x1115	700x700x1580	900x750x920	1510x885x1095	2110x885x1095
Packing Dimension (W/D/H, mm)	610x700x1240	780x800x1710	1330x850x1140	1570x945x1230	2170x945x1230
Container Load (20'/40'/40'H)	27/57/104	21/45/45	16/36/36	7/15/30	5/11/22
Functions					
High/Low Temperature Alarm	Y	Y	Y	Y	Y
Remote Alarm Contact	Y	Y	Y	Y	Y
Power Failure Alarm	Y	Y	Y	Y	Y
Sensor Error Alarm	Y	Y	Y	Y	Y
Accessories					
Door Lock	Y	Y	Y	Y	Y
Caster	4	4	6	6	8
Shelf/Chamber	1/2	2/3	N/A	N/A	N/A
Inner Door	1	3	1	1	1
Remote Alarm Contact	Y	Y	Y	Y	Y
Test Hole	Y	Y	Y	Y	Y
Chart Recorder	Optional	Optional	Optional	Optional	Optional
CO2 Backup System	Optional	Optional	Optional	Optional	Optional
LN2 Backup System	Optional	Optional	Optional	Optional	Optional
Others					
Certificate	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001	CE, ISO9001