

DualGuard Series ULT freezer

> 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
- USB port, download data conveniently

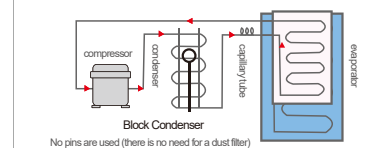
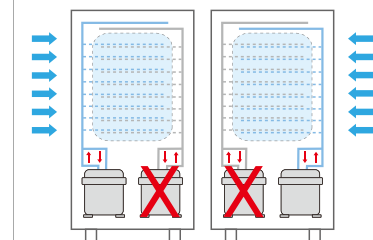


> Dual Cooling System

- Two independent refrigeration systems in one ULT freezer
- Exceptionally uniform and reliable temperature
- User-friendly design and low running costs.

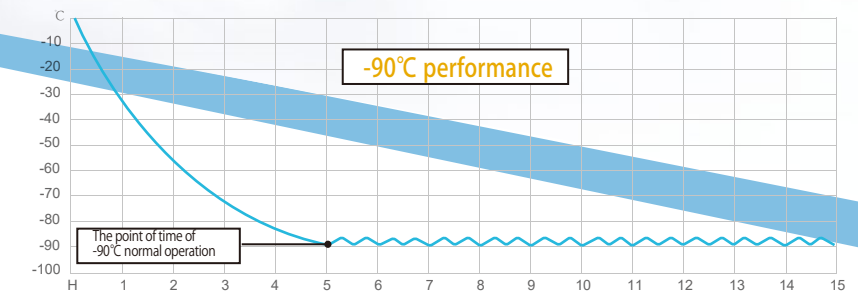
NEW DUAL COMPRESSOR FREEZING SYSTEM

Independent refrigeration system sustain freezing temperature at least -70 °C in the event of a compressor failure.

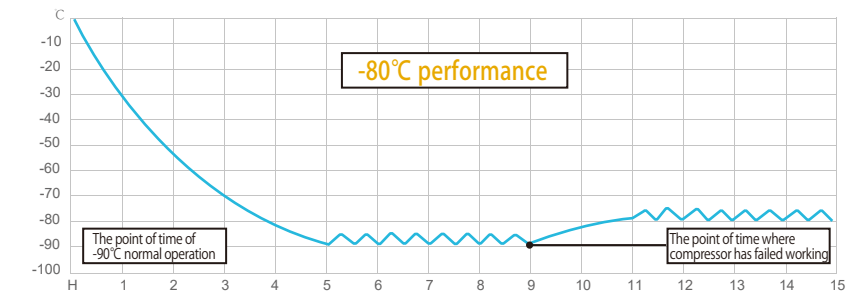


- Dual Compressor System**
- Simplified structure provides high efficiency, lowered noise and no failures.
 - A freezer is enough for ultra cold storage at -90°C

The temperature curve of -90°C normal setting



The temperature curve of one compressor failure



(MDF-86U458D)

SUS304 Interior durable use and easy clean



Ergonomic door padlock-compatible, integrated key lock

User-7" LCD touch screen Friendly interface data storage up to 15 years of temperature and event data

USB port download temperature data

Pressure release port for quick re-entries after door opening



Remote alarm contact output compatible with external alarm and monitoring systems

Washable filter provides protection against dust on the condenser

Castor with breaker for easy installation

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.



DualGuard Series ULT 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



> Optimal Capacity

Model	Capacity(L)	2ml Vial	2" box *	Rack Type	Rack Qty	Total Rack Qty
MDF-86U458D	408	28800	288	5x4 4x4	8	16
MDF-86U588D	588	40000	400	5x5	16	16
MDF-86U728D	728	50400	504	5x4 6x4	18 6	24
MDF-86U838D	838	60000	600	5x5	24	24

* Notes: calculated based on 100-well box.

> Specification

Model		MDF-86U458D	MDF-86U588D	MDF-86U728D	MDF-86U838D
Technical Data	Type	Upright	Upright	Upright	Upright
	2" box load	288	400	504	600
	Capacity (L/cu ft)	408/14.41	588/20.76	728/25.70	838/29.59
	Inner doors	2 pcs, forming door, SUS304	2 pcs, forming door, SUS304	2 pcs, forming door, SUS304	2 pcs, forming door, SUS304
	Shelves	3 pcs, SUS304	3 pcs, SUS304	3, made in SUS304	3, made in SUS304
	Inner chamber material	SUS304	SUS304	SUS304	SUS304
Temperature	Cooling type	Direct cooling	Direct cooling	Direct cooling	Direct cooling
	Refrigerant	Hydrocarbon, CFC Free, Non greenhouse gas	Hydrocarbon, CFC Free, Non greenhouse gas	Hydrocarbon, CFC Free, Non greenhouse gas	Hydrocarbon, CFC Free, Non greenhouse gas
	Noise level (dB)	50	51	52	53
	Ambient temperature (°C)	10~32 C	10~32 C	10~32 C	10~32 C
Cooling & Controller	Temperature range (°C)	-40~-86 C	-40~-86 C	-40~-86 C	-40~-86 C
	Cooling	Two independent	Two independent	Two independent	Two independent
	System	cooling system	cooling system	cooling system	cooling system
	Compressor Brand	SECOP	SECOP	SECOP	SECOP
	Sensor	PT100	PT100	PT100	PT100
	Controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor
Electronic parameter	Display & Control	7" Touch Screen	7" Touch Screen	7" Touch Screen	7" Touch Screen
	Voltage/Frequency	220~240V 50/60Hz 110V 60Hz	220~240V 50/60Hz 110V 60Hz	220~240V 50/60Hz 110V 60Hz	220~240V 50/60Hz 110V 60Hz
	Power (W)	1350	1500	1400	1700
Size & Weight	Current (A)	8.9	10.47	10.37	10.75
	Internal (W*D*H) mm	606*575*1180	606*738*1310	963*558*1350	894*718*1310
	External (W*D*H) mm	900*940*1940	885*1100*1995	1260*890*2010	1190*1045*2010
	Packing (W*D*H) mm	955*960*2100, 1.93CBM	970*1140*2190, 2.42CBM	1320*970*2190, 2.8CBM	1270*1105*2220, 3.12CBM
Alarm System	Net/Gross weight (kg)	255/307	298/359	360/402	337/416
	High/low temperature	√	√	√	√
	Power off failure	√	√	√	√
	Abnormal voltage	√	√	√	√
	Sensor error	√	√	√	√
	Filter screen check	√	√	√	√
	Controller failure	√	√	√	√
	Low battery	√	√	√	√
	Condenser malfunction	√	√	√	√
	High ambient temperature	√	√	√	√
Door ajar	√	√	√	√	
Accessories	Caster	4	4	4	4
	Test hole/Diameter	1/25mm	1/25mm	1/25mm	1/25mm
	Remote alarm contact	√	√	√	√
	USB Port	Y	Y	Y	Y
	Temperature recorder	/	/	/	/
	Freezer racks	Optional	Optional	Optional	Optional
	CO2 backup system	Optional	Optional	Optional	Optional
	LN2 backup system	Optional	Optional	Optional	Optional