-86°C Ultra Low Temperature Freezer

Cascade system ULT series

Cascade System -86ºC ULT freezer is specially designed for long term storage of a wide range of biological materials, including viruses, bacteria, red and white blood cells, and skin samples. Ideal for use in blood banks, hospitals, research institutes, clinical laboratories, electronic and chemical industry labs and biotechnology and bioengineering facilities


MDF-86V338


MDF-86V408


MDF-86V588


MDF-86V728


MDF-86V838

Product Featurers

7” LCD Touch Screen

Intelligent control system, LCD touch screen

Smart Operating System

Authentication, alarms, graphs & logs

Multi-layer Sealing Design

Better sealing and better insulation

International Certifications

ISO9001, ISO13485 & CE certificd

Eco-friendly

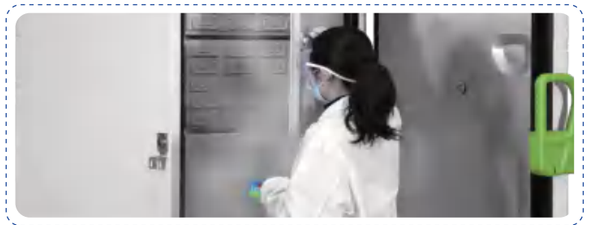
CFC-free refrigerant & insulation

Energy Saving

High efficiency cooling system





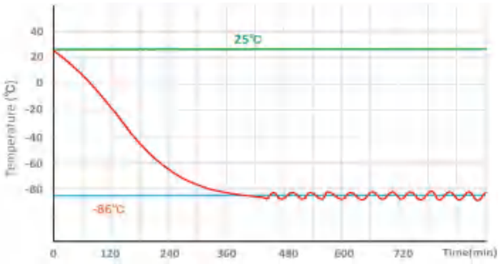




Mether Cascade System

Advanced Thermal Insulation

Advanced insulation materials and a multi-chamber design enhance cooling efficiency and reduce thermal loss, resulting in improved insulation performance and greater energy savings

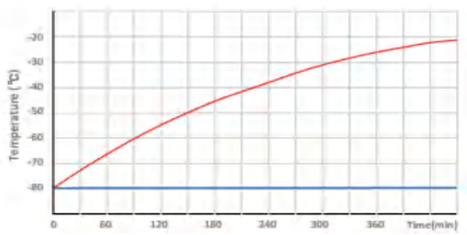


Set temperature: -86°C

Temperature fluctuations ±5°C

Super-stable Cooling System

As the world’s best proven ultra-low temperature refrigeration method, the cascade refrigeration offer exceptionally stable performance, easy maintenance and a long service life



Thawing test at ambient temp. 25°C

Internal Structure


Adjustable shelves


PTC sensor


Pressure-regulated inner door handle




Multi-layer silicone sealing gaskets

Low temperature resistant


Stainless steel inner door filled with PURF

Easily-detachable design

-86°C Ultra Low Temperature Freezer

External Structure

ULT freezers are manufactured using cold-rolled steel and coated with anti-corrosion powder. Varying configurations and ergonomic designs offer great opreating convenience



File box

Service port



Remote interface
RS232/485

Power on/off switch



Heavy duty casters
Universal wheels





7'' touch screen
Comprehensive information display

Air pressure balance valve



USB interface, white board



Ergonomic handle
Easy open
Lock & keys
Padlock latch



Quick-release filter
Easy to access and clean

Accessories



LN_2/CO_2 backup system



Data logger



Chart recorder



Racks & Boxes



Gloves

Product Parameters

Model		MDF-86V338	MDF-86V408	MDF-86V588	MDF-86V728	MDF-86V838
Specifications	Shelf or Drawer/ Quantity	Stainless steel shelf/3	Stainless steel shelf/3	Stainless steel shelf/3	Stainless steel shelf/3	Stainless steel shelf/3
	Cooling Type	Direct cooling	Direct cooling	Direct cooling	Direct cooling	Direct cooling
	Defrost Mode	Manual	Manual	Manual	Manual	Manual
	Refrigerant Type	HC	HC	HC	HC	HC
	Power Consumption (kWh/24h)	11.17	12.43	14.85	14.98	16.47
	Noise (dBA)	50	50	53	53	53
	Ambient Temperature (°C)	10~32	10~32	10~32	10~32	10~32
	Temperature Range (°C)	-40~-86	-40~-86	-40~-86	-40~-86	-40~-86
Cooling System	Compressor Brand/Quantity	SECOP/2	SECOP/2	SECOP/2	SECOP/2	SECOP/2
	Sensor	PTC	PTC	PTC	PTC	PTC
	Controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor
	Display	LCD	LCD	LCD	LCD	LCD
Electrical Data	Voltage/Frequency (V/Hz)	220/50Hz	220/50Hz	220/50Hz	220/50Hz	220/50Hz
	Power (W)	620	650	690	710	720
	Current (A)	7.93	8.95	8.33	8.48	8.64
Material & Build	Internal Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	External Material	Powder coated steel	Powder coated steel	Powder coated steel	Powder coated steel	Powder coated steel
	Insulation	PUF	PUF	PUF	PUF	PUF
Dimensions	Capacity (L/Cu. ft)	338/11.93	408/14.40	588/20.76	728/25.70	838/29.59
	NT./GT. (kg)	296/306	292/317	335/363.5	380/400	397/430
	Exterior Size (W×D×H)(mm)	854×1072×1907	891×992×1945.5	891×1155×1994.5	1248×975×1994.5	1179×1135×1994.5
	Interior Size (W×D×H)(mm)	488×607×1140	606×575×1180	606×738×1310	963×571×1350	894×718×1310
	Package Size (W×D×H)(mm)	960×1090×2090	970×1035×2120	975×1185×2200	1330×1015×2200	1270×1170×2200
	Volume (m^3)	2.19	2.13	2.54	2.97	3.27
	20GP/40GP/40HQ	12/24/24	12/24/24	12/24/ 24	8/18/18	8/18/18
Frozen Racks	Loading Quantity (Racks)	12 (4×4)	16 (5×4, 4×4)	16 (5×5)	18 (5×4) + 6 (6×4)	24 (5×5)
	Loading Quantity (2-Inch Boxes)	192	288	400	504	600
	Loading Quantity (2ml Tubes)	19200	28800	40000	50400	60000
Alarms	High/Low Temperature	Y	Y	Y	Y	Y
	Power Failure	Y	Y	Y	Y	Y
	Abnormal Voltage	Y	Y	Y	Y	Y
	Sensor Error	Y	Y	Y	Y	Y
	Filter Dirty	Y	Y	Y	Y	Y
	Thermostat Failure	Y	Y	Y	Y	Y
	Low Battery	Y	Y	Y	Y	Y
	Clean Condenser Reminder	Y	Y	Y	Y	Y
	High Ambient Temperature	Y	Y	Y	Y	Y
	Door Ajar	Y	Y	Y	Y	Y
	Controller Power Failure Alarm	72h	72h	72h	72h	72h
Accessories	Castor Wheels	Y	Y	Y	Y	Y
	Interior Door/Quantity	Y/2	Y/2	Y/2	Y/2	Y/2
	Service Port Quantity/Diameter	2/25mm	2/25mm	2/25mm	2/25m	2/25m
	USB Port	Y	Y	Y	Y	Y
	RS485 Port	Optional (Free)	Optional (Free)	Optional (Free)	Optional (Free)	Optional (Free)
	Graph Recorder	Optional	Optional	Optional	Optional	Optional
	Data Logger	Optional	Optional	Optional	Optional	Optional
	Remote Alarm port	Y	Y	Y	Y	Y
Add-Ons	CO_2 Back Up System	Optional	Optional	Optional	Optional	Optional
	LN_2 Back Up System	Optional	Optional	Optional	Optional	Optional
Other	Certification	ISO 9001/13485/14001/45001 CE	ISO 9001/13485/14001/45001 CE	ISO 9001/13485/14001/45001 CE, UL	ISO 9001/13485/14001/45001 CE, UL	ISO 9001/13485/14001/45001 CE, UL