



-86°C

Ultra-low Freezer

QuickCool Pro Series

Model: MDF-86V408E



Applications

The -86°C ultra-low temperature freezers are designed for the long-term preservation of viruses, germs, vaccines, biological tissues and organs, special food, medicines, reagents, etc.

Features

- Accurate temperature controller, setting temperature range of -40 to -86°C
- 7-inch touch screen display, accuracy of 0.1 °C.
- Suggested ambient temperature: +10 to 32°C.
- Stainless steel inner chamber for friendly use and easy cleaning.
- Brand compressor to ensure excellent stability of the cooling system.
- Patented refrigeration technology, high-efficiency mixed gas for the cooling system.

Security

- Safety door lock to prevent unauthorized access.
- 72h built-in backup battery to power the controller and save temp. data when power failure or system error.
- Visual and audible alarm system: High/low temperature, sensor failure, controller error, etc.
- Power failure protection: turn-on delay of the cooling system after power failure.
- Controller error protection: the cooling system will remember the normal working cycle and keep working depending on this memory when the controller or two sensors failed.

Humanized design

- Adjustable shelves for easy storage.
- Casters with stoppers for easy moving and fixation.
- Special-designed service-free drainage system.



Specifications

Model NO.	MDF-86V408E
Main Specifications	
Temperature Range	-40 ~ -86 °C
Ambient Temperature	10~32°C
Capacity (L/Cu. Ft.)	408 / 14.41
Noise	50 dB
Cold Rack Max. Loading Capacity (pcs)	254D Rack / 8, 244D Rack / 8
2' Cold Box Max. Loading Capacity (pcs)	288
0.5~2ml Vials Max. Loading Capacity (pcs)	28,800
Control and Power	
Controller / Display	Microprocessor / 7' Touch Screen
Sensor	PTC
Voltage and Frequency	220V±10%, 50/60Hz
Power	890 W
Electric Current	5.34A
Power Consumption (kWh/24h)	12.65 (-81°C), 10.33 (-75°C)
Audible and Visual Alarms	
High / Low Temp. Alarm	Yes
Power Failure Alarm	Yes, 72h
Sensor Error Alarm	Yes
Controller Error Alarm	Yes
Door Ajar Alarm	Yes
Abnormal Voltage Alarm	Yes
Abnormal Ambient Temp. Alarm	Yes
Battery Error Alarm	Yes
Condenser Error / Filter Net Clean Alarm	Yes
Refrigeration	
Refrigeration / Defrost Type	Direct Cooling / Manual
Compressor (Brand/pcs)	SECOP / 1
Refrigerant / Weight (kgs)	R4001 / 350g
Cabinet	
External / Internal Door (pcs)	Foamed Solid Door x 1 / Foamed Solid Door x 2
Adjustable Shelf (pcs)	3
Exterior / Interior Cabinet Material	Coated Steel / Stainless Steel
Insulation Material	PURF (δ100mm) and Vacuum Insulation Panel (VIP)
Door Lock	Yes
Test Hole (pcs)	1
Castors (pcs)	4
Accessories	
USB Data Download Port	Yes
Remote Alarm Port	Yes
RS485 Port	Yes
Temperature Datalogger	Optional
Temperature Printer	Optional
Temperature Chart Recorder	Optional
Protective Gloves	Optional
LN2/CO2 Backup System	Optional
Dimensions	
Interior Dimensions (W×D×H)	606×575×1180 mm
Exterior Dimensions (W×D×H)	872×1028×1946 mm
Packing Dimensions (W×D×H)	960×1030×2120 mm
Net / Gross Weight	268 / 318 kgs
Package	Plywood box with pallet

* Due to continuous product upgrades, the above specifications are for reference only. For the latest specifications, please contact us.