

500 Litre -86°C Ultra Low Temperature Freezer, Dual Compressor

Product Code: MDULF-50086

This 500 Litre MDULF model is one of the most advanced and secure ultra-low temperature freezers for the storage of your invaluable samples.

The LabCare+ range of -86°C Ultra Low Temperature Freezers satisfy the demand for safe, long-term storage of highly-valued materials and samples.

Two independent refrigeration systems, combined with an optional liquid CO₂ backup system, provide a critical level of protection that is unmatched in the marketplace.

By using two independent refrigeration systems, the LabCare+ ULT freezers reliably maintain a stable, set temperature down to -86°C. Should either cooling system suffer from any unexpected failure, the other circuit (compressor) will maintain a temperature of -80°C thus keeping all samples safe until service can be arranged.



Features

DIGITAL CONTROLLER

5" Graphic LCD touchscreen. Providing easy programming and greater accuracy of temperature control.

TEMPERATURE

Temperature control range from -40°C to -86°C with datalogger and USB data download port.

SAFETY

Maximum protection thanks with visual and acoustic alarm signals, used in case of power failure, temperature deviations, probe failure, open door after 10-60 seconds, low battery or filter saturation.

100% TESTED

All condenser units are tested in helium chambers to check for refrigerant leaks.

REFRIGERATION

Double circuit cooling system, with independent and hermetically sealed, low-noise compressors. In case of failure of one system, the other can maintain the internal temperature at -80°C. Natural cooling gas HC, biodegradable.

INSULATION

120mm, high quality, CFC-free, VIP (Vacuum Insulation Panel) insulation. Solid door with lock and 4 inner doors to help maintain cabinet temperature during openings.

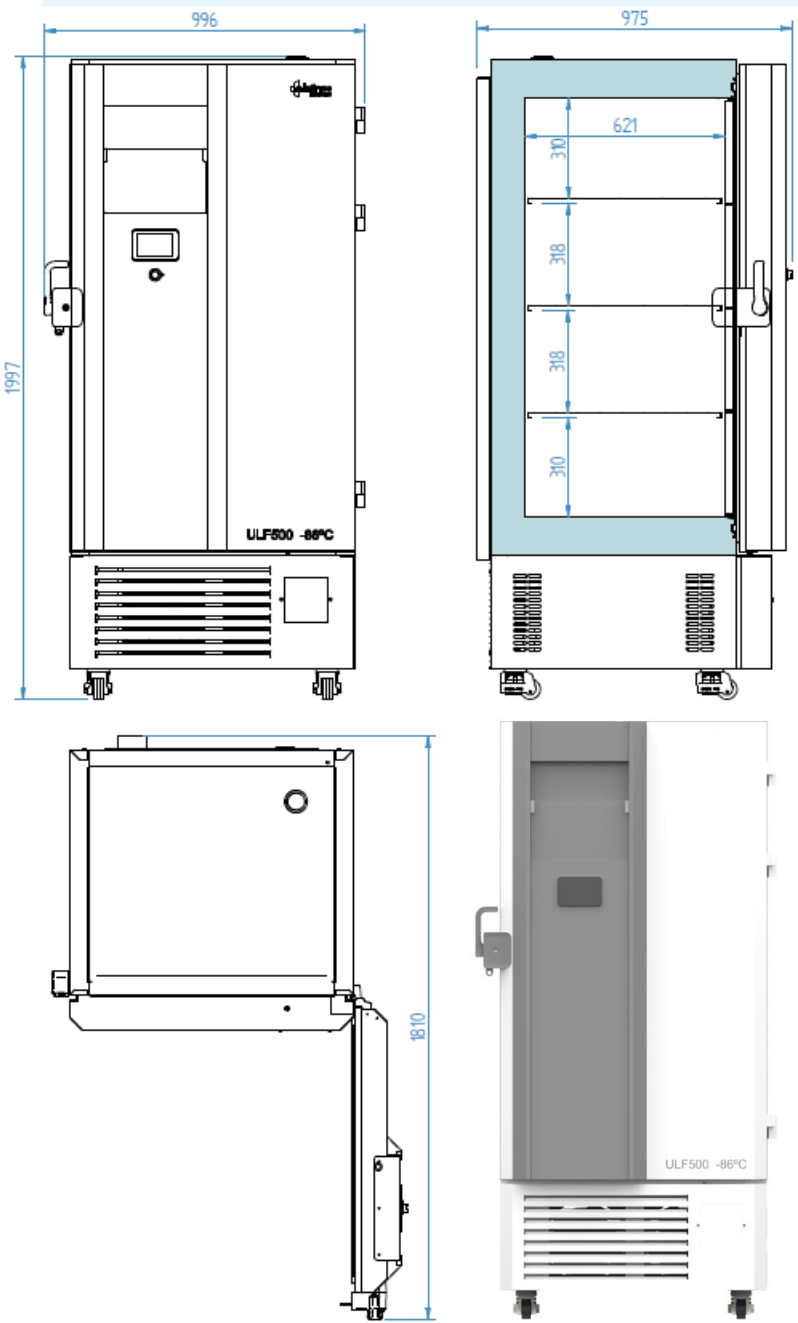
CERTIFIED

AENOR audited and certified by internationally recognised firm. ISO 9007:2015 (Quality); ISO 14001:2015 (Environmental); OSHAS18001:2007 (Prevention and Worker Safety).

Specifications

Core Elements	
Operating Temperature (°C)	-40 / -86
Net Capacity	500
External Dimensions; W x D x H (mm)	996 x 919 x 1986
Internal Dimensions; W x D x H (mm)	640 x 621 x 1300
Door Opening; W x H (mm)	666 x 1297
Cabinet Construction	
Exterior Material	Powder coated, galvanised steel
Interior Material	AISI 304 stainless steel
Interior Construction	<ul style="list-style-type: none"> - Internal structure made of stainless steel, AISI 304 - Pressed inner guides, rounded interior corners - 3 access ports
Insulation	Polyurethane with high density 40Kg / m ³ , CFCs free, zero ODP and low GWP
Insulation Thickness (mm)	120 + VIP
Features	
Doors	Outer 1 / Inner 4
Door Construction	<ul style="list-style-type: none"> - Solid hinged door with integrated handle, key lock and front document holder - Single-handed operation - Easy to replace double door gasket - Door open sensor
Door Lock	✓
Door Frame Heater	✓
Shelving	3
Compartments	4
Shelf Dimensions; W x D (mm)	617 x 553
Shelves/Drawers Material	AISI 304 stainless steel
Feet	Adjustable feet with lockable castors
System	
Digital Plus Controller	<ul style="list-style-type: none"> - Temperature range -40°C / -86°C - PT1000 temperature probe with precision of 0.1°C on the display - Audible and visual warning functions in case of: <ul style="list-style-type: none"> Maximum and minimum temperature deviation Power failure, Probe failure, Open door - Volt-free contact - USB port - RS485 remote control interface port - Datalogger (historical alarms and temperatures)
Back Up Battery	48 hours
Defrost	Manual
Condensation	Forced air
Evaporation	Forced air evaporator with anti-corrosion epoxy coating

Technical Features	
Refrigerant	R600a / R1150
Power Supply	230V / 50 Hz
Refrigeration Capacity (W)	723
Power Consumption (kWh/24h)	14.50
Nose Level (dB)	51
Dimensions	



Accessories

- Electrical connection 230 V / 1 ph / 60 Hz
- Electrical connection 115 V / 1 ph / 60 Hz
- Special plugs available
- 5 Inner doors / 4 shelves
- Temperature chart recorder
- Bluetooth datalogger
- WiFi datalogger
- CO₂ backup
- Side Access rack 50/75/100mm
- Sliding rack 50/75/100mm
- Cryogenic gloves

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