



VIP ECO

Natural Refrigerants -86°C Upright Freezer

528 L











Cost-saving and environmentally friendly sample storage within an optimal footprint

The MDF-DU502VH VIP ECO -86°C Upright Freezer provides maximum sample storage capacity within an optimum footprint combined with natural refrigerants to minimise energy consumption, reduce environmental impact and save money.

Efficient Refrigeration

Naturally occurring hydrocarbon (HC) refrigerants provide more efficient cooling due to their high latent heat of evaporation. As well as improved performance this leads to reduced power consumption and energy costs.

Inverter Technology

The MDF-DU502VH VIP ECO ULT Freezer contains Inverter Compressors that maximise cooling performance under different conditions, and contribute to reducing the energy consumption of the freezer.

Intelligent Interface

The EZlatch makes access to stored samples even easier.

A colour LCD touch panel allows full user control, even with gloved hands, while the USB port makes transferring logged data to a PC simple and convenient.



Environmentally Friendly

Ideal for laboratories looking to reduce their carbon footprint and environmental impact to comply with sustainability policies.



Uniform Sample Storage

Inverter compressors provide optimum stability, while quality of design ensures reliability. Ideal for samples that are sensitive to temperature fluctuations.



Easy Data Monitoring

Important information such as freezer temperature, door opening times and alarm history is logged for monitoring in GLP applications.

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Inverter Compressors

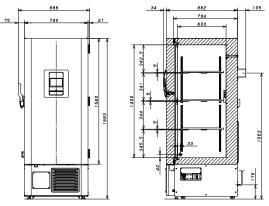
While conventional freezers use single speed compressors which cycle on and off, the MDF-DU502VH VIP ECO ULT Freezer contains inverter compressors that can run at different speeds to maximise cooling performance under different conditions. Combined with hydrocarbon refrigerants, these compressors ensure the most efficient energy use and reduced heat output.

Efficient & Flexible Sample Storage

The combination of VIP PLUS vacuum insulation and an enhanced cabinet design with insulated outer door, ensures optimum temperature uniformity, while the reduced wall thickness maximizes storage capacity. Multiple shelf configurations allow a variety of storage options. Organize your samples byźtransferring your current inventory racks.

Innovative Cabinet Design

The enhanced cabinet design with chamfered edges reduces footprint for use in multi freezer laboratories.



MDF-DU502VH-PE

EEA, Switzerland and Turkey only



The MDF-DU502VH-PE is certified as a Class IIa Medical Device [93/42/EEC and 2007/47/EC]. Applicable countries: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Ireland, Italy, Liechtenstein, Luxembourg, Malta, the Netherlands, Spain, Switzerland and the United Kingdom only



Applicable countries: EEA countries, Switzerland and Turkey

PHC Europe

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External dimensions W x D x H 11	nternal dimensions (W x D x H) /olume Net weight Capacity Performance Cooling performance ²¹ Temperature setting range Temperature control range ²¹ Control Controller Display Temperature sensor Refrigeration Refrigeration system Compressors	mm litres kg 2" boxes	630 x 600 x 1400 528 246 384 -86 -40 to -90 -40 to -86 Microprocessor, non-volatile memory
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Access port qty 3 - position back x 1, bottom x 2		kg	
- position back x 1, bottom x 2			
		qty	Ŭ
- diameter 0 mm 17			
Casters qty 4 (2 leveling feet)			5
Alarms (V = Visual Alarm, B = Buzzer Alarm, R= Remote Alar Power failure V-B-R		(V = Visua	
			· - · ·
High temperature V-B-R			
Low temperature V-B-R	· · · · · · · · · · · · · · · · · · ·		
Filter V		_	
Door open V-B	•		V-B
Electrical and Noise Level		\/	220
Power supply V 230	****		
Power consumption ⁴ kWh/24h 6.7			
Frequency Hz 50			
Noise level ⁵⁾ dB [A] < 52		qR [A]	< 52
Options Craft increase to salide.	<u>' </u>	(5	MDE FIRE DUE
Small inner door kit set of 5 MDF-5ID5-PW ⁶			
Small inner door kit set of 4 MDF-5ID4-PW		set of 4	
Liquid CO ₂ back-up MDF-UB7-PW	* '		MDF-UB7-PW
Temperature recorders			
- Circular type MTR-G85C-PE ⁷⁾			
- Chart paper RP-G85-PW			
- Ink pen PG-R-PW	· ·		
- Continuous strip type MTR-85H-PW ^{7]}	Cantinuous strip tuns		
- Chart paper RP-85-PW	Continuous strip type		RP-85-PW
- Ink pen DF-38FP-PW			DF-38FP-PW
- Recorder housing MDF-S3085-PW	Chart paper		•

Appearance and specifications are subject to change without notice

¹¹ Exterior dimensions of main cabinet only, excluding handle and other external projections - See dimensions drawings for full details.
²¹ Air temperature measured at freezer centre, ambient temperature +30°C, no load.
²³ Max. load is the total of the load distributed over all shelves [3] and chamber bottom surface. The weight is the maximum load

for chamber inside and does not account for maximum load on casters equipped with product.

4 Typical data - individual units may vary and power consumption

will depend on loading and operating conditions. Freezer set-point

^{80°}C, ambient temperature 23°C, unloaded, 230V 50Hz power

⁻ou c, ambient temperature 25 C, ambient tem