729 L



MDF-DU702VH-PE

VIP ECO

Natural Refrigerants -86°C Upright Freezer



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

The MDF-DU702VH 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-DU702VH VIP ECO ULT Freezer contains Inverter Compressors that maximise cooling performance under different conditions, and contribute to reducing the energy consumption of the freezer.

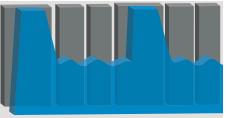
Intelligent Interface

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

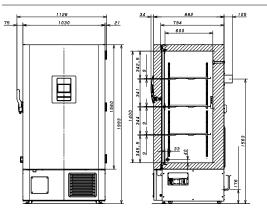
While conventional freezers use single speed compressors which cycle on and off, the MDF-DU702VH VIP ECO ULT Freezer contains inverter compressors that can run at different speeds to maximise cooling performance under different conditions. Combined with hydrocarbon refrigerants, these compressors ensure 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-DU702VH-PF

EEA, Switzerland and Turkey only

For medical use For medical use The MDF-DU702VH-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

For laboratory use CE

Applicable countries: EEA countries, Switzerland and Turkey

PHC Europe

A Member of PHC Group

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Model Number		MDF-DU702VH-PE
External dimensions $[W \times D \times H]^{1]}$	mm	1030 x 882 x 1993
Internal dimensions (W x D x H)	mm	870 x 600 x 1400
Volume	litres	729
Net weight	kg	278
Capacity	2" boxes	576
Performance		
Cooling performance ^{2]}	°C	-86
Temperature setting range	°C	-40 to -90
Temperature control range ²	°C	-40 to -86
Control	U	-40 10 -00
Controller		Microprocessor, non-volatile memory
Display		LCD Touch Screen
Temperature sensor		Pt-1000
Refrigeration		
Refrigeration system		Cascade
Compressors	W	2 x 750
Refrigerant		HC
Insulation material		PUF / VIP Plus
Insulation thickness	mm	80
Construction		
Exterior material		Painted Steel
Interior material		Painted Steel
Outer door	qty	1
Outer door lock		Y
Inner doors	qty	2
Shelves	qty	3
Max. load - per shelf	kg	50
Max. load - total ³⁾	kg	515
Vacuum release port		2 (1 automatic, 1 manual)
Access port	qty	3
- position		back x 1, bottom x 2
- diameter	Ømm	17
Casters	qty	4 (2 leveling feet)
Alarma		
AuguIIIS	(V = Visua	al Alarm. B = Buzzer Alarm. R= Remote Alarm)
Alarms Power failure	(V = Visua	al Alarm, B = Buzzer Alarm, R= Remote Alarm) V-B-R
Power failure	(V = Visua	V-B-R
Power failure High temperature	(V = Visua	V-B-R V-B-R
Power failure High temperature Low temperature	(V = Visua	V-B-R V-B-R V-B-R
Power failure High temperature Low temperature Filter	(V = Visua	V-B-R V-B-R V-B-R V
Power failure High temperature Low temperature Filter Door open	(V = Visua	V-B-R V-B-R V-B-R
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level		V-B-R V-B-R V-B-R V V-B
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply	V	V-B-R V-B-R V-B-R V V-B 230
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴⁾	V kWh/24h	V-B-R V-B-R V-B-R V V-B 230 7.7
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴⁾ Frequency	V kWh/24h Hz	V-B-R V-B-R V-B-R V V-B 230 7.7 50
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴⁾ Frequency Noise level ⁵⁾	V kWh/24h	V-B-R V-B-R V-B-R V V-B 230 7.7
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴¹ Frequency Noise level ⁵¹ Options	V kWh/24h Hz dB [A]	V-B-R V-B-R V-B-R V V-B 230 7.7 50 < 52
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴ Frequency Noise level ⁵ Options Small inner door kit	V kWh/24h Hz dB [A]	V-B-R V-B-R V-B-R V V-B 230 7.7 50 < 52 MDF-7ID5-PW ^{6]}
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴⁾ Frequency Noise level ⁵⁾ Options Small inner door kit	V kWh/24h Hz dB [A]	V-B-R V-B-R V-B-R V V-B 230 7.7 50 50 < 52 MDF-7ID5-PW ^{6]}
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴⁾ Power consumption ⁴⁾ Frequency Noise level ⁵¹ Options Small inner door kit Small inner door kit	V kWh/24h Hz dB [A]	V-B-R V-B-R V-B-R V V-B 230 7.7 50 < 52 MDF-7ID5-PW ^{6]}
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴⁾ Frequency Noise level ⁵⁾ Options Small inner door kit Liquid CO ₂ back-up Temperature recorders	V kWh/24h Hz dB [A]	V-B-R V-B-R V-B-R V V-B 230 230 7.7 50 50 < 52 MDF-7ID5-PW ⁶⁾ MDF-7ID5-PW ⁶⁾
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴⁾ Frequency Noise level ⁵¹ Options Small inner door kit Small inner door kit	V kWh/24h Hz dB [A]	V-B-R V-B-R V-B-R V V-B 230 7.7 50 50 < 52 MDF-7ID5-PW ^{6]}
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴⁾ Frequency Noise level ⁵¹ Options Small inner door kit Liquid CO ₂ back-up Temperature recorders	V kWh/24h Hz dB [A]	V-B-R V-B-R V-B-R V V-B 230 230 7.7 50 50 < 52 MDF-7ID5-PW ⁶⁾ MDF-7ID5-PW ⁶⁾
Power failure High temperature Low temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴¹ Frequency Noise level ⁵¹ Options Small inner door kit Small inner door kit Liquid CO ₂ back-up Temperature recorders - Circular type	V kWh/24h Hz dB [A]	V-B-R V-B-R V-B-R V V-B 230 7.7 50 50 50 52 MDF-7ID5-PW ^{6]} MDF-7ID5-PW ^{6]} MDF-7ID4-PW
Power failure High temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ⁴¹ Frequency Noise level ⁵¹ Options Small inner door kit Liquid CO ₂ back-up Temperature recorders - Circular type - Chart paper	V kWh/24h Hz dB [A]	V-B-R V-B-R V-B-R V V-B 230 7.7 50 50 50 52 MDF-7ID5-PW ^{4]} MDF-7ID5-PW ^{4]} MDF-7ID4-PW MDF-7ID4-PW MDF-VID4-PW
Power failure High temperature Low temperature Compenature Filter Door open Electrical and Noise Level Power supply Power consumption ^{4j} Frequency Noise level ^{5j} Options Small inner door kit Liquid CO ₂ back-up Temperature recorders - Circular type - Chart paper - Ink pen	V kWh/24h Hz dB [A]	V-B-R V-B-R V-B-R V V V-B 230 7.7 50 50 50 52 MDF-7ID5-PW ^{6]} MDF-7ID5-PW ^{6]} MDF-7ID4-PW MDF-UB7-PW
Power failure High temperature Low temperature Low temperature Filter Door open Electrical and Noise Level Power supply Power consumption ^{4]} Frequency Noise level ^{5]} Options Small inner door kit Liquid CO ₂ back-up Temperature recorders - Circular type - Chart paper - Ink pen - Continuous strip type	V kWh/24h Hz dB [A]	V-B-R V-B-R V-B-R V V-B V-B 230 7.7 50 50 52 MDF-7ID5-PW ⁶¹ MDF-7ID5-PW ⁶¹ MDF-7ID4-PW MDF-UB7-PW MDF-UB7-PW MDF-UB7-PW

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 tempera-ture +30°C, no load.
³² 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 ⁴¹ Jypical 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 supply.
 ⁴¹ Nominal value - Background noise 20dB[A].
 ⁴¹ Usable storage capacity will be &80 x 2° boxes with installation of MDF-7ID5-PW and additional sheft.
 ⁴¹ Requires sensor cover MTR-DU700SF-PW.