Panasonic

VIP Eco Series

-86°C Ultra-Low Freezers

MDF-DU500VH-PE

VIP eco

Lower running costs

- Up to 55% reduction in energy use[1)]
- Up to £ 4,000 savings on energy costs over 10 years[1)]

Less environmental impact

- Reduced carbon footprint
- No high GWP refrigerants

- Certified as a Class IIa Medical Device

1) Model MDF-DU500VH-PE (526 litres) compared to MDF-U53V at set value -80°C, 23°C ambient, no load, 230V 50Hz, £ 0.10/kWh. Actual energy use and savings will depend on operating conditions and price of electricity paid.

Discovery powered by precision

-86°C Ultra-Low Freezers MDF-DU500VH-PE

VIP eco

Panasonic VIP Eco Series ultra-low freezers with natural refrigerants minimise energy consumption, reduce environmental impact and save money. Innovative technology and Class IIa medical device certification provide secure storage of valuable research and clinical samples.

Natural refrigerants

Natural hydrocarbon refrigerants provide more efficient cooling due to their high latent heat of evaporation. As a result, smaller compressors can be used leading to greater energy efficiency. With exceptionally low global warming potential natural refrigerants are also better for the environment.

Heat exchanger design

A new patent-pending heat exchanger design provides greater surface area contact at critical points in the refrigeration system. This improves overall efficiency and reduces compressor running time for lower energy consumption.

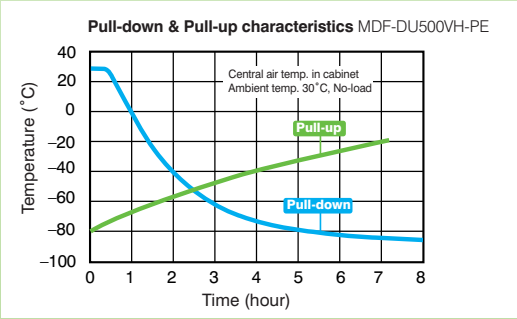
High efficiency Insulation with VIP PLUS technology

Panasonic's latest development in vacuum insulation is VIP PLUS technology. This revolutionary vacuum insulation panel reduces the wall thickness by approximately one half and achieves up to 30% more storage capacity than a conventionally insulated freezer, maximizing storage capacity and saving valuable lab space. Just as importantly, the advanced thermal insulation properties of VIP PLUS improve the energy efficiency of Eco VIP freezers for lower running costs per sample.

Automatic compressor cycling

Compressor ON - OFF cycles are regulated automatically in response to cooling demand to minimise compressor running time and to save energy.

Improved recovery times



CE 0123

The MDF-DU500VH-PE is certified as a Class IIa Medical Device (93/42/EEC and 2007/47/EC) for medical purposes of storing cells, DNA and/or frozen plasma (For EU countries only)

VIP Eco Series		
Characteristics PUF = Rigid polyurethane foamed insulation V = Visual alarm B = Buzzer alarm R = Remote alarm		
MODEL		**MDF-DU500VH-PE**
Dimensions		
External dimensions (WxDxH) [1]	mm	770 x 870 x 1990
Internal dimensions (WxDxH)	mm	630 x 600 x 1400
Volume	litres	526
Capacity	2" boxes	352
Net weight (approx)	kg	291
Performance		
Energy consumption [2]	kWh/24h	9,3
Cooling performance [3]	°C	-86
Temperature setting range	°C	-50 ~ -90
Temperature control range [3]	°C	-50 ~ -86
Control		
Controller		Microprocessor (Non-volatile memory)
Display		LED
Temperature sensor		Pt-1000
Vacuum release port		Yes
Refrigeration		
Refrigeration system		Cascade
High-stage compressor	W	750
High-stage refrigerant		HC
Low-stage compressor	W	750
Low-stage refrigerant		HC
Insulation material		PUF/VIP PLUS
Insulation thickness	mm	70
Alarms		
Power failure		V-B-R
High temperature		V-B-R
Low temperature		V-B-R
Filter		V-B
Door open		V-B
Construction		
Exterior material		Painted steel
Interior material		Painted steel
Outer door/lid lock		Yes, padlock
Shelves adjustable	qty	3
Max. load - per shelf	kg	50
Max. load - total	kg	150
Access port	qty	2
- position		Back / bottom
- diameter	Ø mm	17
Casters	qty	4 (2 levelling feet)
Electrical and Noise level		
Power supply		230V 50Hz Single phase
Noise level [4]	dB	52
Options		
Liquid CO_2 Back-up		CVK-UB2-PW
Liquid N_2 Back-up		CVK-UBN2-PW
Temperature recorders		
- Circular type (-100°C to +40°C) - Chart paper - Ink pen		MTR-G85C-PE[5] RP-G85-PW PG-R-PW
- Continuous strip type (-100°C to +50°C) - Chart paper - Ink pen		MTR-85H-PW[5] RP-85-PW DF-38FP-PW
- Recorder housing		MDF-S3085-PW
RS485 interface module		MTR-480-PW
Drawers	qty	-
Small inner door kit	Set of 2	MDF-5ID-PW (Max 2)

Notes:
[1] Exterior dimensions of main cabinet only, excluding handles and other external projections
[2] 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 supply
[3] Air temperature measured at freezer centre, ambient temperature +30°C, no load
[4] Typical data (background noise: 20 dB)
[5] Requires Sensor Cover KM-DUP01SF1W

Appearance and specification are subject to change without notice.

Panasonic

for more online information:

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Use the above details to contact us if this literature doesn't answer all your questions.

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.