

MDF-DU702VH-PE

## VIP ECO Vertikalus šaldiklis

2. Natural Refrigerants -86°C Upright Freezer

729 L



### 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

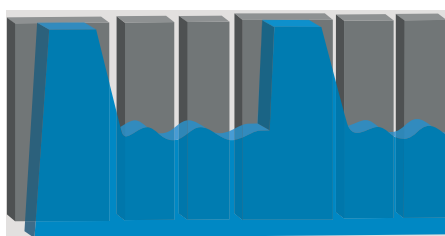
The EZlatch makes access to stored samples even easier. 15. A colour LCD touch panel allows full user control, even with gloved hands, while the USB port makes transferring logged data to a PC simple and convenient.

15. Spalvotame LCD jutikliniame skydelyje galima visiškai valdyti net ir rankomis su pirštinėmis



#### 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.

# VIP ECO

## Natural Refrigerants -86°C Upright Freezer



17. Įprastuose šaldikliuose naudojami vieno greičio kompresoriai, kurie įsijungia ir išsijungia, o "MDF-DU702VH VIP ECO ULT" šaldiklyje yra inverteriniai kompresoriai, kurie gali veikti skirtingu greičiu, kad būtų maksimaliai padidintas šaldymo našumas įvairiomis sąlygomis. Kartu su angliavandenilių šaltnešiais šie kompresoriai užtikrina efektyviausią energijos naudojimą ir mažesnę šilumos kiekį.

### Inverter Compressors

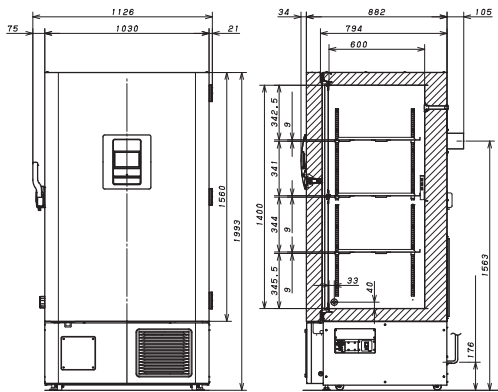
17. While conventional freezers use single speed compressors which cycle on and off, the MDF-DU702VH VIP ECO ULT Freezer contains inverter compressors that can run at different speeds to maximise cooling performance under different conditions. Combined with hydrocarbon refrigerants, these compressors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

### 10. 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 by transferring your current inventory racks.


### Innovative Cabinet Design


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



MDF-DU702VH-PE

EEA, Switzerland and Turkey only

30.  **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**  
Applicable countries: EEA countries, Switzerland and Turkey



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10. VIP PLUS vakuuminės izoliacijos ir patobulinto korpuso su izoliuotomis išorinėmis duralėmis derinys užtikrina optimalų temperatūros tolygumą, o sumažintas sienelių storis maksimaliai padidina sandėliavimo talpą.

Model Number		MDF-DU702VH-PE	
External dimensions (W x D x H) <sup>1)</sup>	11.	mm	1030 x 882 x 1993
Internal dimensions (W x D x H)	12.	mm	870 x 600 x 1400
Volume	13.3	litres	729
Net weight		kg	278
Capacity		2" boxes	576
Performance			
Cooling performance <sup>2)</sup>		°C	-86
Temperature setting range	8.	°C	-40 to -90
Temperature control range <sup>2)</sup>	9.	°C	-40 to -86
Control			
Controller	16.		Microprocessor, non-volatile memory
Display	15.		LCD Touch Screen
Temperature sensor			Pt-1000
Refrigeration			
Refrigeration system			Cascade
Compressors		W	2 x 750
Refrigerant			HC
Insulation material	10.		PUF / VIP Plus
Insulation thickness		mm	80
Construction			
Exterior material		4.	Painted Steel
Interior material			Painted Steel
Outer door		qty	1
Outer door lock			Y
14.3. Inner doors		qty	2
14.1. Shelves		qty	3
14.2. Max. load - per shelf		kg	50
Max. load - total <sup>3)</sup>		kg	515
Vacuum release port	6.1-2		2 (1 automatic, 1 manual)
7. Access port		qty	3
- position			back x 1, bottom x 2
- diameter		Ø mm	17
Casters		qty	4 (2 leveling feet)
Alarms [V = Visual Alarm, B = Buzzer Alarm, R= Remote Alarm]			
Power failure			V-B-R
High temperature			V-B-R
Low temperature			V-B-R
Filter			V
Door open			V-B
Electrical and Noise Level			
Power supply	V	25.	230
Power consumption <sup>4)</sup>	kWh/24h	26.	7.7
Frequency	Hz	25.	50
Noise level <sup>5)</sup>	dB [A]	27.	< 52
Options			
Small inner door kit	set of 5		MDF-7ID5-PW <sup>6)</sup>
Small inner door kit	set of 4		MDF-7ID4-PW
Liquid CO <sub>2</sub> back-up			MDF-UB7-PW
Temperature recorders			
- Circular type			MTR-G85C-PE <sup>7)</sup>
- Chart paper			RP-G85-PW
- Ink pen			PG-R-PW
- Continuous strip type			MTR-85H-PW <sup>7)</sup>
- Chart paper			RP-85-PW
- Ink pen			DF-38FP-PW
- Recorder housing			MDF-S3085-PW

Appearance and specifications are subject to change without notice.

<sup>1)</sup> Exterior dimensions of main cabinet only, excluding handle and other external projections - See dimensions drawings for full details.  
<sup>2)</sup> Air temperature measured at freezer centre, ambient temperature +30°C, no load.  
<sup>3)</sup> 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.

<sup>4)</sup> 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.  
<sup>5)</sup> Nominal value - Background noise 20dB[A].  
<sup>6)</sup> Usable storage capacity will be 480 x 2" boxes with installation of MDF-7ID5-PW and additional shelf.  
<sup>7)</sup> Requires sensor cover MTR-DU7005F-PW.