

TwinGuard

-86°C Chest Freezers

715 L



PHCbi's **TwinGuard** -86°C chest freezers deliver the unsurpassed level of safety and sample security that is critical for valuable biological samples alongside exceptional ease of use and data monitoring.

MDF-DC700VX-PE

Ultimate Sample Protection

The Dual Cooling System offers the highest level of protection through the use of two independent refrigeration systems. If one system unexpectedly fails the other can maintain the freezer in the -70°C range.

Improved Temperature Performance

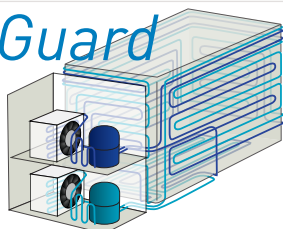
TwinGuard chest freezers maintain better temperature stability and uniformity during routine door openings than equivalent upright models as less cold air leaves the freezer while the door is open.

Enhanced Use & Intelligent Security

A colour LCD touch panel allows full user control, even with gloved hands, while the USB port makes transferring logged data to a PC convenient. The filterless design of the freezers reduces routine maintenance.

TwinGuard

Dual Cool Compressors



Valuable Sample Storage

Securely store valuable and irreplaceable samples with the upmost confidence that they won't be lost in the case of compressor failure.



Temperature Sensitivity

Enhanced uniformity and greatly reduced risk of sample degradation as a result of temperature fluctuation during freezer failure.



Restricted Access Laboratories

Significantly extended critical time to react to any sudden mechanical failure. Ideal for high security applications.

TwinGuard -86°C Chest Freezers



Dual Cooling System

Two independent refrigeration systems, with CoolSafe compressors, provide a reliable and exceptionally stable -86°C ultra-low temperature environment.

In the case of an unexpected failure of one cooling circuit, the other circuit will maintain the freezer in the -70°C range, protecting samples until service can be arranged.

Microprocessor Control with Touch Screen Display

An LCD touch screen displays freezer temperature and important status information while a USB port allows logged data to be easily transferred to a PC.

When set to ECO mode, the microprocessor controller will establish an overlapping cycle of the two refrigeration systems based on the load status of the freezer, significantly reducing energy consumption.

Efficient Sample Storage

The use of highly efficient VIP Plus insulation combined with a newly designed refrigeration system layout ensures the most efficient use of space for up to 30%* more 2" box storage capacity.

*MDF-DC500VX compared with previous equivalent PHCbi models.

Filterless Design

The filterless construction of the freezers reduces routine maintenance time by eliminating the need for regular cleaning of filters.

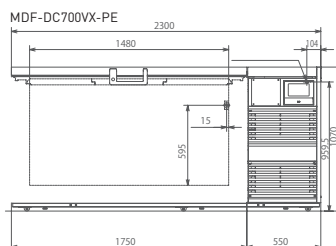
Model Number		MDF-DC700VX-PE
External dimensions (W x D x H) ¹⁾	mm	2300 x 845 x 1070
Internal dimensions (W x D x H)	mm	1480 x 640 x 756
Volume	litres	715
Net Weight	kg	358
Capacity	2" boxes	520
Performance		
Cooling performance ²⁾	°C	-86
Temperature setting range	°C	-50 to -90
Temperature control range ²⁾	°C	-50 to -86
Control		
Controller		Microprocessor, non-volatile memory
Display		LCD Touch Screen
Temperature sensor		Pt-1000
Refrigeration		
Refrigeration system*		Independent Dual-Cooling
Compressors	W	2 x 1100
Refrigerant		MU-NC700
Refrigerant weight	g	550
GWP of refrigerant for each cooling circuit		5370
Total Refrigerant weight (CO ₂ equivalent)	t	5.907
Insulation material		PUF / VIP Plus
Insulation thickness	mm	70/135
Construction		
Exterior material		Painted Steel
Interior material		Stainless Steel
Outer lid	qty	1
Outer lid lock		Y
Inner lid		3 pieces (Styrofoam)
Access Port	qty	1
- position		Back
- diameter	Ø mm	17
Alarms (R = Remote Alarm, V = Visual Alarm, B = Buzzer Alarm)		
Power failure		V-B-R
High temperature		V-B-R
Low temperature		V-B-R
Filter		Filterless design
Lid open		V-B
Electrical and Noise Level		
Power supply	V	230
Frequency	Hz	50
Noise level ³⁾	dB [A]	52

Appearance and specifications are subject to change without notice.

¹⁾ Exterior dimensions of main cabinet only, excluding handle and other external projections - See dimensions drawings on website for full details.

²⁾ Air temperature measured at freezer centre, ambient temperature +30°C, no load

³⁾ Nominal value - Background noise 20dB[A]



EEA, Switzerland and Turkey only



For medical use

The MDF-DC500&700VX freezers are 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

DISTRIBUTED BY:



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