

MDF-DU703VXH-PE

TwinGuard eco

-86°C Upright Freezer

729 L

DUAL cooling system | ECO natural refrigerants | IC+ inverter compressor | MDR Medical Device Regulation | VIP PLUS vacuum insulation | electronic door lock

Next generation "Twin Guard" Dual Cooling system with reduced power consumption.

The next generation **Twin Guard Eco** Ultra Low Temperature freezers use natural refrigerants and inverter controlled compressors, reducing energy usage up to 50%*, with enhanced access control via an electronic lock with facial recognition (optional) and NFC protection (optional). to provide the highest level of protecting for your valuable samples.

Ultimate Sample Protection

The Dual Cooling System offers high levels of protection through the use of two independent refrigeration systems.
If one system unexpectedly fails the other can maintain the freezer in the -75°C range.

Performance and Reliability

Naturally ocurring hydrocarbon (HC) refrigerants have minimal effect on the environment. Combined with inverter technology, these refrigerants also provide more efficiency without compromising cooling performance, ambient tolerance, and recovery speeds following door openings.

Security control and Monitoring

An eye level, door mounted, 10.1 inches high resolution LCD touchscreen allows full user control. A USB port makes transferring logged data to a PC convenient. All performance attributes are displayed and an internal temperature log can be expressed in graphic form over time.



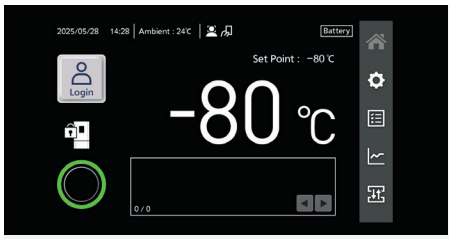
Valuable Sample Storage

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



Natural Refrigerants

Natural refrigerants, compressors and integrated electronics combined to lower operating costs resulting in less energy consumption and less heat output. Freezer operation is managed by effectively balancing temperature performance and energy management.



Electronic Door Lock

Know who entered the freezer and when. Track how long the door was open.
4 Ways to Lock
- Pin code
- Unique individual key
- Facial recognition (optional)
- Proximity Card (optional)

* compared to previous model MDF-DU702VX-PE

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Dual Cooling System

The Dual Cooling System offers ultimate sample protection. The two independent refrigeration systems provide a reliable and exceptionally stable -86°C ultra low temperature environment. If one system unexpectedly fails, the other can maintain the freezer in the -75°C range until service can be arranged.

Filterless Design

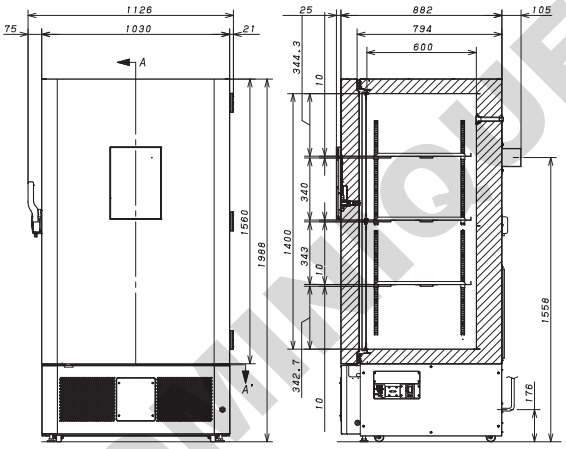
The filterless construction of the freezers reduces routine maintenance time by eliminating the need for regular cleaning of filters.

Innovative Cabinet Design

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

Dimensions

Unit: mm



Front view | Side view

CE 0123 Available in these countries as a Class IIa Medical Device.
Austria, Belgium, Cyprus, Denmark, France, Germany, Ireland, Italy, Liechtenstein, Luxemburg, Malta, the Netherlands, Poland, Spain, Switzerland and the United Kingdom.

CE Available as equipment for laboratory use in:
EEA countries, Switzerland, the United Kingdom and Turkey.

Model Number		MDF-DU703VXH-PE
External dimensions (W x D x H)[1]	mm	1030 x 882 x 1988
Internal dimensions (W x D x H)	mm	870 x 600 x 1400
Volume	litres	729
Net weight	kg	296
Capacity	2" boxes	576
Performance		
Cooling performance [2]	°C	-86
Temperature setting range	°C	-90 to -40
Temperature control range [2]	°C	-86 to -40
Control		
Controller		Microprocessor, non-volatile memory
Display		LCD Touch Screen
Temperature sensor		Pt-1000
Refrigeration		
Refrigeration system		Independent Dual-Cooling
Compressors	W	2 x 920
Refrigerant		HC mixed refrigerant (R-600/R-170/R-50)
GWP of refrigerant		GWP= 1.7
Total Refrigerant weight (CO_2 equivalent)	t	0.00011
Insulation material		PUF / VIP Plus
Insulation thickness	mm	80 mm
Construction		
Exterior material		Painted Steel
Interior material		Painted steel
Outer doors	qty	1
Outer door lock		Y
Inner doors	qty	2
Shelves	qty	3 (stainless steel)
Max. load - per shelf	kg	50
Max. load - total [3]	kg	515
Vacuum release port	qty	1 automatic
Access port	qty	3
- position		back x 1, bottom x 2
- diameter	Ø mm	17
Casters	qty	4 (2 leveling feet)
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
Door open		V-B
Electrical and noise level		
Power supply	V	220 / 230 / 240 V
Frequency	Hz	50
Noise level[4]	dB [A]	52
Options		
Small inner door kit	set of 5	MDF-7ID5-PW [5]
Small inner door kit	set of 4	MDF-7ID4-PW
Face regognition kit		MTR-FRC-PW
NFC System [7]		NFC reader: MTR-NFC-PW
	set of 5	IC Cards: MTR-IC-PW
Liquid CO_2 back-up		MDF-UB9-PW
Temperature recorders - Circular type		MTR-G85C-PE [6] Chart paper: RP-G85-PW / Ink pen: PG-R-PW
Temperature recorders - Continuous strip type		MTR-85H-PW [6] Chart paper: RP-85-PW / Ink pen: DF-38FP-PW Recorder housing: MDF-S3085-PW
Recorder sensor cover		MTR-DU700SF-PW

Appearance and specifications are subject to change without notice.

[1] Exterior dimensions of main cabinet only, excluding handle and other external projections
[2] Air temperature measured at freezer centre, ambient temperature +30°C, no load
[3] 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] Nominal value - Background noise 20dB[A]
[5] Usable storage capacity will be 480 x 2" boxes with installation of MDF-7ID5-PW and additional shelf
[6] Requires sensor cover MTR-DU700SF-PW
[7] The NFC System is only available in EEA member countries, UK, Switzerland, and Turkey.

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