

1. Cryogenic

-150°C Chest Freezer

231 L



MDF-C2156VAN-PE

The most uniform storage temperatures for cryopreservation solutions

The MDF-C2156VAN **Cryogenic** Freezer offers unparalleled safety, reliability and uniform temperatures well below -135°C for ideal long-term cryopreservation solutions.

Optimum Sample Storage

The use of patented space saving VIP PLUS panels within the freezer cabinet provides a reduced wall thickness for maximum interior volume. This results in a capacity of up to 150 2" boxes.

Reliable Technologies

Compressors that are specifically designed for ultra-low temperature applications are employed in the proven cascade refrigeration system ensuring the highest levels of performance and reliability.

Ease of Use & Intelligent Security

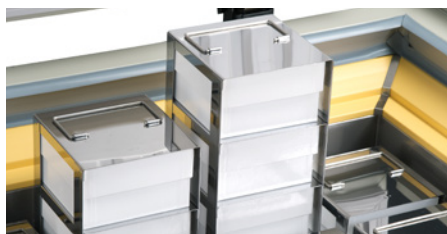
12.2 All alarm functions, self-diagnostic notifications and a graphical display of temperature performance over time are available in the specially designed LCD control panel.

12.2 Specialiai sukurta LCD ekrane galima pamatyti visas alarm funkcijas savi diagnostikos pranešimus ir grafinį temperatūros vaizdavimą.



Uniform Sample Storage

The uniform and stable temperatures provided are ideal for storage of cells, tissues and other important biological samples.



Dry Storage

The highest levels of protection for valuable samples, without the risks of cross contamination and vertical temperature gradients.



12.1 Easy Monitoring

The blue display provides a clear view of the temperature and gives a notification in the case of abnormalities.

12.1 Mėlyname ekrane galima pamatyti aiškią informaciją apie temperatūrą ir įvykius.

Cryogenic -150°C Chest Freezer



Application Specific Design

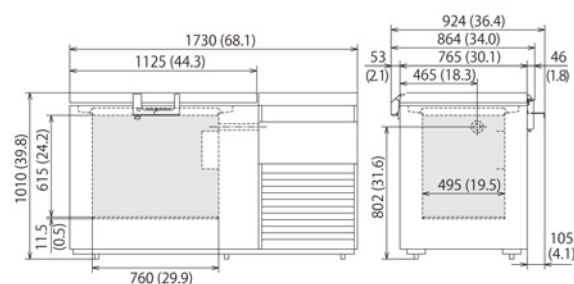
Due to the extended operation of compressors within ultra-low temperature freezers, lubricant oil is essential to reduce wear, prevent abrasions and seizure and therefore maintain the highest levels of freezer performance. However, when lubricant oil circulates within the refrigeration circuit, it can cause piping to become clogged, resulting in compressor damage. Incorporating a high-efficiency oil separator, Cryogenic -150°C freezers effectively separate lubricant oil from refrigerant, increasing the durability of the compressors and offering a reliable ultra-low temperature environment.

High Storage Capacity

Cryogenic freezers with VIP PLUS insulation provide up to 30% more storage capacity than a conventionally insulated freezer without increasing the footprint.

Microprocessor Control

Managed and monitored by an integrated microprocessor controller with a comprehensive alarm system and diagnostic functions.



	Model Number		MDF-C2156VAN-PE
7.	Isorniai matmenys External Dimensions (W x D x H) ¹⁾	mm	1730 x 765 x 1010
8.	Vidiniai matmenys Internal Dimensions (W x D x H)	mm	760 x 495 x 615
9.1	Volume Talpa	litres litrai	231
	Net Weight	kg	318
9.2	Capacity Talpa		
	- Aluminium Racks Aliuminiai stovai	2" boxes 2" dėžutės	150
	- Stainless steel RacksPlieniniai stovai	2" boxes 2" dėžutės	
	Performance		
	Cooling performance ²⁾	°C	-150
	Temperature setting range	°C	-125 ~ -152
6.	Palaikoma temperatūra Temperature control range ²⁾	°C	-125 ~ -150
	Control		
13.	Controller Valdymas	Mikroprocesorinis	Microprocessor, non-volatile memory
	Display Ekranas		LCD
	Temperature sensor		Pt-1000
	Refrigeration		
16.1	Refrigeration system Šaldymo sistema		Cascade Kaskadinė
16.1	Compressors Kompresoriai	W	2 x 1100
16.2	Refrigerant Šaldymo mišinys		HFC mixed
4.2	Insulation material Izoliacinė medžiaga		PUF / VIP Plus
	Insulation thickness	mm	135
	Construction		
4.1	Exterior Material Korpusas		Painted Steel Dažytas plienas
8.	Interior Material Vidus		Aluminium Aliuminis
	Outer Lid	qty	1
	Outer Lid Lock		Y
5.2	Inner Lid Vidinis dangtis	qty	2 pieces 2 dalys
	Max. load - total	kg	207
10.	Access Port Įvedimo jungtis	qty	1
10.	Access Port Position Įvedimo jungties vieta		Right Dešinė
10.	Access Port Diameter Įvedimo jungties skersmuo	Ø mm	40
22.	Casters Ratukai	qty	6 (3 leveling feet) išlyginamosios kojelės
14.	Alarms Aliarmai (R = Remote Alarm, V = Visual Alarm, B = Buzzer Alarm)		
9.1.2	Power Failure Energijos tiekimo sutrikimai		V-B-R R=distancinis aliarmas; V=vizualinis aliarmas; B=garsinis aliarmas.
	High Temperature Per aukšta temperatūra		V-B-R
	Low Temperature Per žema temperatūra		V-B-R
9.1.4	Filter Filtrai		V-B
9.1.3	Lid open Atviras dangtis		V-B
	Electrical and Noise Level		
23.	Power Supply El. energijos tiekimas	V	230
23.	Frequency Dažnis	Hz	50
24.	Noise Level ³⁾ Triukšmo lygis	dB [A]	51
	Options		
	Liquid N ₂ back-up		Supplied as standard
21.	Temperature recorders		
	- Continuous strip type		MTR-155H-PW
	- Chart paper		RP-155-PW
	- Ink pen		DF-38FP-PW
	- Recorder housing		MDF-S30150-PW
	Storage case		MDF-49SC-PW
	Optional communication systems		
16.2	Ethernet interface (LAN)		MTR-L03-PW

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]. capacity.

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