

## TwinGuard®

-86°C Chest Freezer

25.3 cu.ft. | 715 L



MDF-DC700VXC-PA

Panasonic's patented **TwinGuard®** -86°C chest freezers deliver ideal temperature performance and sample security for your most valuable biological samples, while providing exceptional usability and data monitoring.

### Ultimate Sample Protection

The Dual Cooling System offers the highest level of sample protection through the use of two independent refrigeration systems. The primary circuit maintains -86°C temperature, while the back-up circuit will keep temperatures at -70°C if a service event occurs.

### Improved Temperature Performance

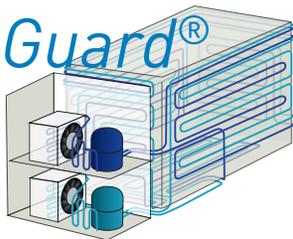
**TwinGuard®** -86°C chest freezer design provides optimal temperature stability and uniformity during routine lid openings, minimizing the loss of cold air even when the freezer lid is open.

### Security Control and Monitoring

A color LCD touch panel allows full user control while the USB port makes transferring logged data to a PC convenient. All performance attributes are displayed and internal temperature log is expressed in graphical form over time.

## TwinGuard®

Dual Cool Compressors



### Valuable Sample Storage

With two independent systems that can sustain ultra-low temperatures, your samples will remain safe. Optional CO<sub>2</sub> back-up provides an extra layer of protection.



### Predictive Maintenance

Unit has compressor protection to determine if the freezer is operating within specifications. External stress on the compressor due to ambient temperature abnormality or excessive load will be displayed for immediate notification.



### Ease of Use

Full alarm display, both audible and visual, along with unit diagnosis and running temperature log is visible on the display panel.

# TwinGuard® -86°C Chest Freezers

MDF-DC700VXC-PA



## Dual Cooling System

Two independent refrigeration systems, with patented TwinGuard® technology, provide a reliable and stable -86°C ultra-low temperature environment. Ideal for long-term storage of high-value samples in life science, biobanking, biopharmaceutical or clinical application.

## ECO Mode Operation

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 VIP® Plus insulation combined with a newly designed refrigeration system layout ensures up to 30%\* more 2" box storage capacity, utilizing less floor space than competitive units.

\*Based on a comparison of the MDF-DC700VXC to a competitor's 20 cu.ft. models.

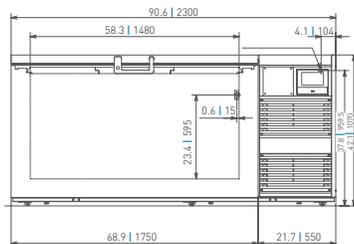
## Sample Security

Full alarm package is available with visual and audible alerts for high and low temperatures, open lid, and power failure.

## Filterless Design

The filterless construction of the freezer reduces routine maintenance time by eliminating the

TwinGuard®  
-86°C Chest Freezer  
MDF-DC700VXC-PA  
(inches | mm)



# Panasonic

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Model Number		MDF-DC700VXC-PA
External Dimensions (W x D x H) <sup>1)</sup>	inches   mm	90.6 x 33.3 x 42.1   2300 x 845 x 1070
Internal Dimensions (W x D x H)	inches   mm	58.3 x 25.2 x 29.8   1480 x 640 x 756
Volume	cu.ft.   litres	25.3   715
Net Weight	lbs.   kg	848.8   358
Capacity (2" Boxes)	qty	520
Capacity (3" Boxes)	qty	360
Inventory Racks (2" Boxes)	qty	40 (SCR-132N)
Inventory Racks (3" Boxes)	qty	40 (SCR-093N)
Performance		
Cooling Performance <sup>2)</sup>	°C	-86
Temperature Setting Range	°C	-50 to -90
Temperature Control Range <sup>2)</sup>	°C	-50 to -86
Control		
Controller		Microprocessor, non-volatile memory
Display		LCD Touch Screen
Temperature Sensor		Pt-1000 Platinum RTD
Refrigeration		
Refrigeration System		Independent Dual-Cooling
Compressors	W	2 x 1100
Refrigerant		HC / HFC mixed
Insulation Material		PUF / VIP Plus
Insulation Thickness	inches   mm	2.8   70 (except rear)
Construction		
Exterior Material		Painted Steel
Interior Material		Stainless Steel
Outer Lid	qty	1
Outer Lid Lock		Y
Inner Door / Lid	qty	3 pieces (Formed Styrene)
Access Port	qty	1
Access Port Position		Back
Access Port Diameter	inches   mm	0.7   17
Casters	qty	6 (3 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		Filterless design
Lid Open		V-B
Electrical and Noise Level		
Power Supply	 V	208 / 220 NEMA 6-15
Frequency	Hz	60
Noise Level <sup>3)</sup>	dB [A]	52
Options		
Liquid CO <sub>2</sub> Back-up		MDF-UB5-PW
Optional Temperature Recorders		
Circular Type	6" 7 Day Circular	MTR-C954
Chart Paper		C6282169REV
Ink Pen		R252
Stand Alone Recorder		MTR-C958
Optional communication systems		
Monitoring		LabAlert® Monitoring System

<sup>1)</sup> Exterior dimensions of main cabinet only, excluding handle and other external projections

<sup>2)</sup> Air temperature measured at freezer center, ambient temperature +30°C, no load

<sup>3)</sup> Nominal value - Background noise 20 dB[A]