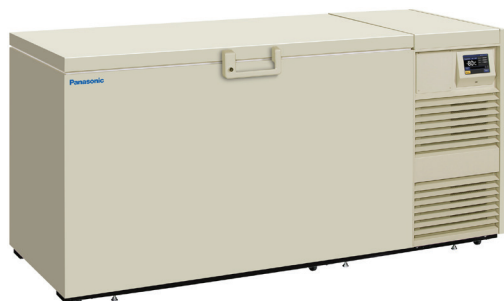


TwinGuard®

-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

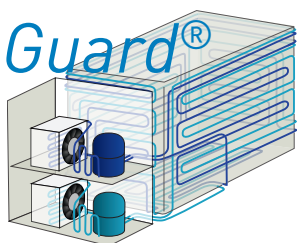
TwinGuard® -86°C chest freezer design provides optimal temperature stability and uniformity during routine lid openings, minimizing the loss of cold air even when the freezer lid is open.

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



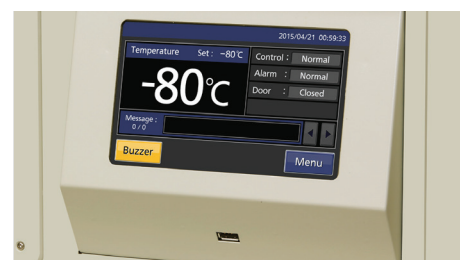
Valuable Sample Storage

With two independent systems that can sustain ultra-low temperatures, your samples will remain safe. Optional CO₂ 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.

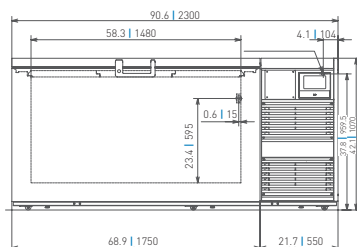
Sample Security

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) ¹⁾ | 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 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 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 ³⁾ | dB [A] | 52 |
| Options | | |
| Liquid CO ₂ 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 |

¹⁾ Exterior dimensions of main cabinet only, excluding handle and other external projections

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

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