

Preservation
sub-zero



MDF-U500VX

Dual Cooling System

-86°C
519 liters/18.3 cu.ft.

**Intelligent
ECO mode operation**

Safe and secure large-capacity Ultra-Low Freezer with new Dual Cooling System

- Newly developed Dual Cooling System for ultimate sample protection
- Intelligent ECO mode operation provides more energy savings
- Inner doors removable for cleaning and defrosting
- Enhanced security
- Improved accessibility with vacuum release port
- Quiet operation
- Can hold up to 352 boxes (2-inch) or 224 boxes (3-inch).
- User-friendly filterless design

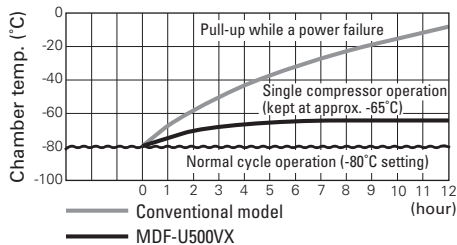


MDF-U500VX

Features

Secure storage with New Dual Cooling System

The Dual Cooling System is newly designed to securely store valuable biological samples. It consists of two individual compressors to provide a reliable -86°C ultra-low temperature environment. Should unexpected failure occur in one cooling circuit, the other will maintain -65°C range.



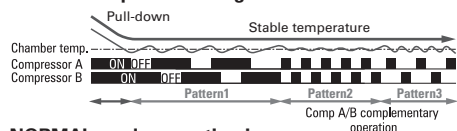
High efficiency insulation using V.I.P. technology

Panasonic's patented V.I.P. technology has resulted in a revolutionary vacuum insulation cabinet construction that reduces wall thickness by approximately one half and achieves up to 30% more storage capacity than conventionally insulated freezers, without increasing its footprint.

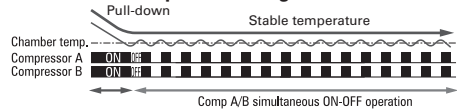
Intelligent ECO mode operation

"ECO mode," an industry first operation, achieves approx. 15% (230V/50Hz) energy savings than conventional models. The two compressors, A and B, are independently controlled to optimise operation efficiently to minimise energy consumption by monitoring load status on the freezer.

ECO mode operation image



NORMAL mode operation image



Graphic Control Panel

Central LCD display control panel enhances operability and visibility. Data log function retains operation data for a preset period and the data can directly be transmitted to a PC via MTR-480-PW interface.

User-friendly design

- Various alarms including high/low temperatures, door ajar, power failure alarm and part replacement notification keep samples safe even in an emergency.
- A vacuum release port allows smooth door opening when the door seal is tightened by negative pressure generated from temperature difference between chamber and ambient environment.
- Filterless construction eliminates bothersome filter cleaning.
- New rugged, one-handed outer door latch allows a padlock to be attached.

Specifications

Model No.	MDF-U500VX
Temperature range	-65 to -86°C (1°C increments)
Maximum cooling performance	-86°C (Ambient temp. 30°C)
Exterior dimensions (W x D x H)	770 x 870 x 1990 (mm) / 30.3 x 34.3 x 78.3 (inch)
Interior dimensions (W x D x H)	630 x 600 x 1380 (mm) / 24.8 x 23.6 x 54.3 (inch)
Effective capacity	519 Liter (18.3 cu.ft.)
Net weight	Approx. 320 kg (705 lbs.)
Shelves	3 pcs, stainless steel tray
Access port	17mm diameter, 3 locations (back, bottom left/right corner)
Compressor	2 compressors, hermetic 1100 W
Refrigerant	HFC
Alarms and safety	High/low temperature, Door ajar, Power failure, Remote alarm contact, Part replacement notification, Fan lock alarm, Refrigeration circuit abnormal alarm
Remote alarm contact	Allowable contact capacity: DC 30V, 2A
Accessories	1 scraper/Vacuum release port cleaning gear, 1 set of keys

Voltage specification by destination

Representative destination	Voltage	Model
Europe	230V, 50Hz (CE)	MDF-U500VX-PE
China	220V, 50Hz	MDF-U500VX-SC
Korea	220V, 60Hz	MDF-U500VX-PK
Thailand	220V, 50Hz	MDF-U500VX-PB

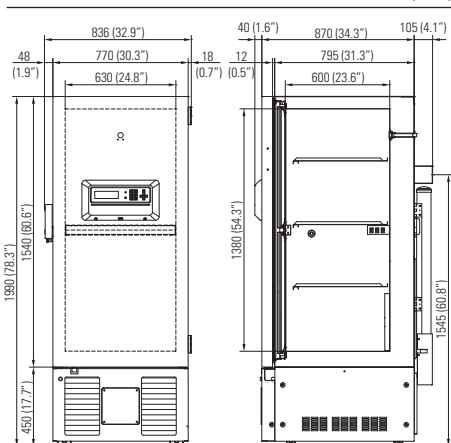
*Cooling performance is indicated by the temperature reached at the center of the freezer (at ambient temperature of 30°C with no load).

In order to use the freezer at a stable temperature for a long time, it is recommended that the temperature be set to at least 5°C higher than the indicated lowest temperature. In addition, depending on the usage conditions, it may not be possible to reach the indicated lowest temperature.

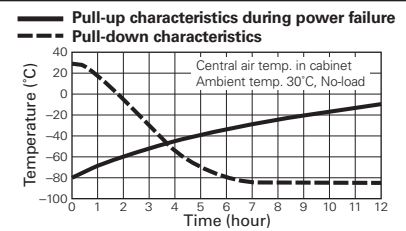
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• Appearance and specifications are subject to change without notice.

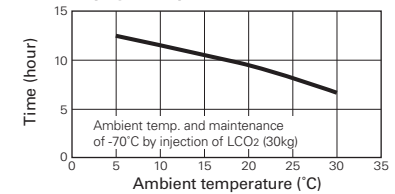
Dimensions



Performance Data



CO2 backup system operation characteristics



Options

Inventory rack IR-220U-PW IR-224U-PW	Circular recorder MTR-G85C-PE	Strip chart recorder MTR-85H-PW	CVK backup system CVK-UB2-PW
Small inner doors MDF-51D-PW	Drawers MDF-50R-PW	Recorder mounting bracket MDF-S3085-PW (for MTR-85H-PW)	
Panasonic DAQ (data acquisition) System MTR-5000-PW Ethernet (LAN) Interface MTR-L03-PW RS232C/RS485 Interface MTR-480-PW			



Panasonic Healthcare Co., Ltd., Gunma Factory is certified for:
Quality management system: ISO9001
Medical devices quality management system: ISO13485



Panasonic Healthcare Co., Ltd., Gunma Factory is certified for:
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