

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

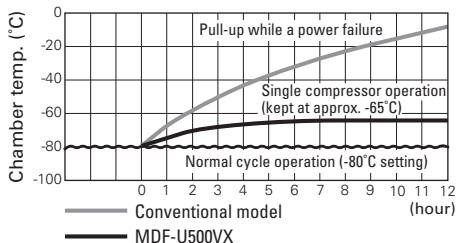


# MDF-U500VX

## 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.



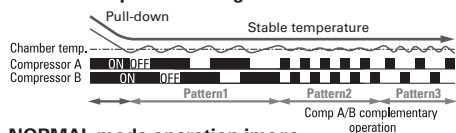
### High efficiency insulation using V.I.P. technology

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.

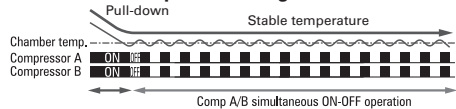
### Intelligent ECO mode operation

"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

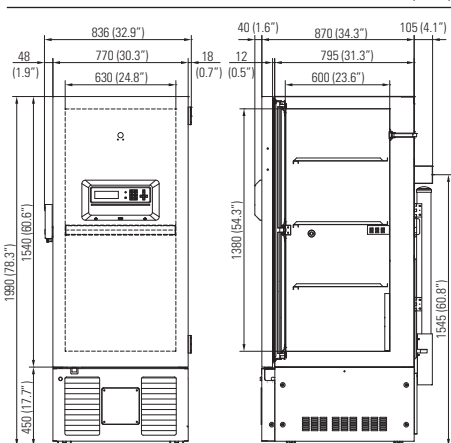
Model No.	MDF-U500VX
<b>Temperature range</b>	-65 to -86°C (1°C increments)
<b>Maximum cooling performance</b>	-86°C (Ambient temp. 30°C)
<b>Exterior dimensions (W x D x H)</b>	770 x 870 x 1990 (mm) / 30.3 x 34.3 x 78.3 (inch)
<b>Interior dimensions (W x D x H)</b>	630 x 600 x 1380 (mm) / 24.8 x 23.6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

#### Voltage specification by destination

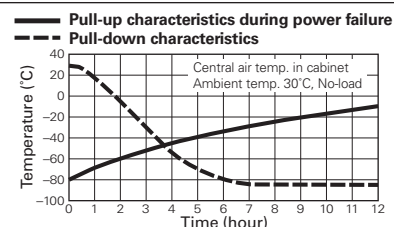
Representative destination	Voltage	Model
Europe	230V, 50Hz (CE)	MDF-U500VX-PE
China	220V, 50Hz	MDF-U500VX-SC
Korea	220V, 60Hz	MDF-U500VX-PK
Thailand	220V, 50Hz	MDF-U500VX-PB

\*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. Caution: Panasonic guarantees the product under certain warranty conditions. Panasonic in no way shall be responsible for any loss of content or damage to content. • Appearance and specifications are subject to change without notice.

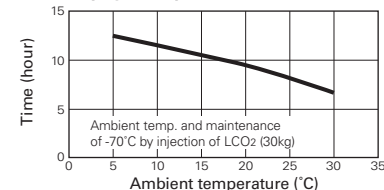
## Dimensions






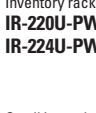


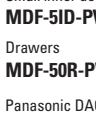
## Performance Data



#### CO2 backup system operation characteristics



## Options

		
Inventory rack <b>IR-220U-PW</b> <b>IR-224U-PW</b>	Circular recorder <b>MTR-G85C-PE</b>	LC02 backup system <b>CVK-UB2-PW</b>
		
Small inner doors <b>MDF-51D-PW</b>	Strip chart recorder <b>MTR-85H-PW</b>	Recorder mounting bracket <b>MDF-S3085-PW</b> (for MTR-85H-PW)
	Panasonic DAQ (data acquisition) System <b>MTR-5000-PW</b>	
Drawers <b>MDF-50R-PW</b>	Ethernet (LAN) Interface <b>MTR-L03-PW</b>	
	RS232C/RS485 Interface <b>MTR-480-PW</b>	



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:  
**Environmental management system: ISO14001**

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