

Preservation  
sub-zero



MDF-U700VX

**Dual Cooling System**

**-86°C**  
**728 liters/25.7 cu.ft.**

**Intelligent  
ECO mode operation**

### Safe and Secure Extra-Large Capacity Ultra-Low Freezer with 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 528 boxes (2-inch) or 336 boxes (3-inch).
- User-friendly filterless design

**VIP**  
Vacuum Insulation Panel series

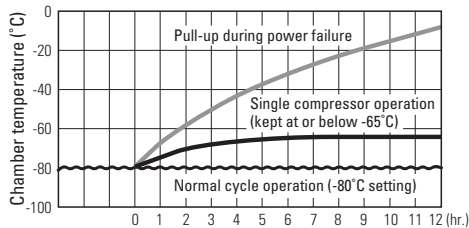


# MDF-U700VX

## 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 at least -65°C.



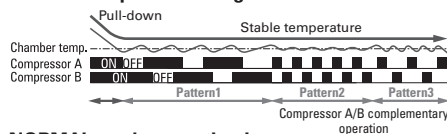
### High efficiency insulation using V.I.P. technology

The MDF-U700VX uses patented V.I.P. vacuum insulation that reduces the cabinet wall thickness by approximately half and achieves up to 30% more storage capacity than conventionally insulated freezers, all without increasing its footprint.

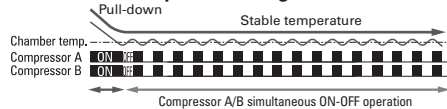
### Intelligent ECO mode operation

“ECO mode” is an industry first feature. The two compressors, A and B, are independently controlled to optimise operation efficiently to minimise energy consumption by monitoring freezer load status.

#### 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 be directly transmitted to a PC via MTR-480-PW interface.

The MDF-U700VX is certified as a Class IIa Medical Device (93/42/EEC and 2007/47/EC) for medical purposes of storing cells, DNA and/or frozen plasma. (For EU countries only)



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**

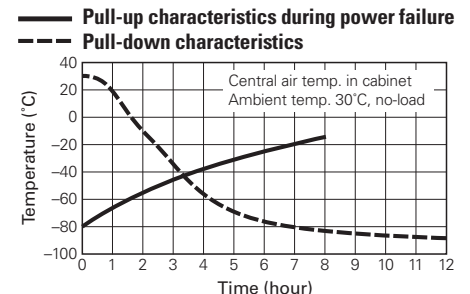
## User-friendly design

- Various alarms including high/low temperatures, door ajar, power failure alarm and part replacement notification help to keep samples safe even in an emergency.
- A vacuum release port allows smooth door opening even when the door seal is tightened by negative pressure generated by the temperature difference between chamber and ambient environment.

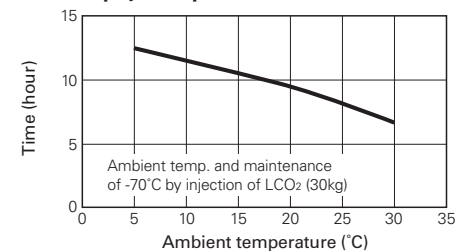
- Filterless construction eliminates bothersome filter cleaning.
- Rugged, one-handed outer door latch allows a padlock to be attached.



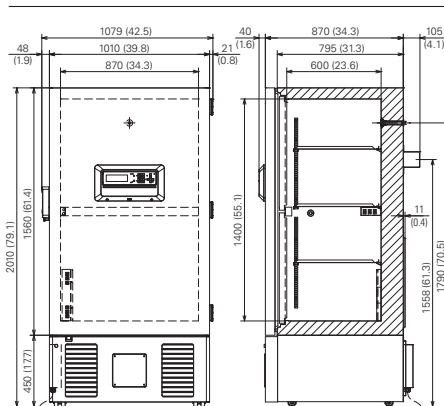
## Performance Data



## CO<sub>2</sub> backup system operation characteristics



## Dimensions



## Specifications

Model No.	MDF-U700VX
Temperature range	-50°C to -86°C
Maximum cooling performance	-86°C (Ambient temp. 30°C)
External dimensions (W x D x H)	1010 x 870 x 2010 (mm) / 39.8 x 34.3 x 79.1 (inch)
Internal dimensions (W x D x H)	870 x 600 x 1400 (mm) / 34.3 x 23.6 x 55.1 (inch)
Net weight	Approx. 375kg (827 lbs.)
Effective capacity	728 liters (25.7 cu.ft.)
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	Frequency	Model
Europe	230V	50Hz (CE)	MDF-U700VX-PE
Korea	220V	60Hz	MDF-U700VX-PK
Thailand	220V	50Hz	MDF-U700VX-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.

**Options** Inventory rack: **IR-220U-PW/IR-224U-PW**, Circular recorder: **MTR-685C-PE**, Small inner doors: **MDF-71D-PW**, Strip chart recorder: **MTR-85H-PW**, Recorder mounting bracket: **MDF-S3085-PW** (for MTR-85H-PW), LCO<sub>2</sub> backup system: **CVK-UB2-PW/UB21-PW**, Panasonic DAQ (data acquisition) System: **MTR-5000-PW**, Ethernet (LAN) Interface: **MTR-L03-PW** (Except for EU countries), RS232C/RS485 Interface: **MTR-480-PW**

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