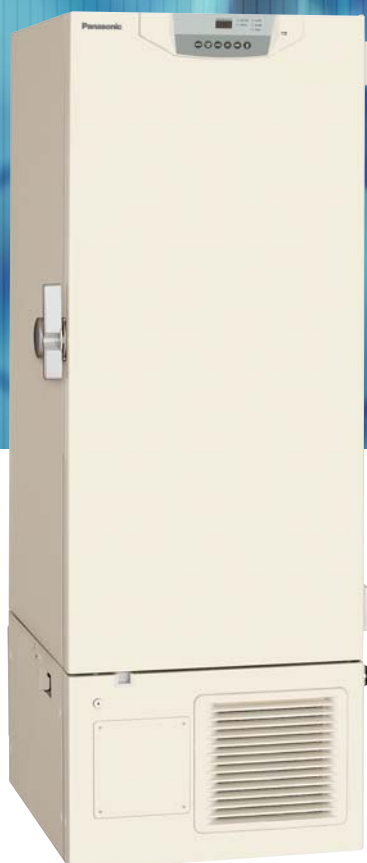


## Ultra-Low Temperature Freezer

MDF-U33V

Preservation  
sub-zero



MDF-U33V

### Temperature

(Ambient temperature 30°C)

**-86°C**

### Effective capacity

**333 liters/11.8 cu.ft.**

**Patented V.I.P.**  
(Vacuum Insulation Panel)

### Ultra slim, space saving Ultra-Low Freezer with Improved energy consumption

- V.I.P. technology maximises storage capacity
- Safe operation with Status Alert continuous condition monitoring
- The inner doors are removable for cleaning and defrosting
- Enhanced security
- Improved accessibility
- Quiet operation
- Improved energy consumption
- Can hold up to 216 pcs of 2-inch boxes or 144 pcs of 3-inch boxes

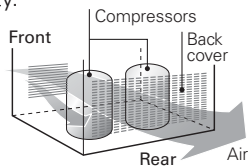


# MDF-U33V

## Features

### EVOLUTIONARY DESIGN

- Panasonic V.I.P. Evolution Series -86°C ultra-low temperature freezers use patented revolutionary vacuum insulation cabinet construction that reduces the wall thickness from 14cm to 7cm (5.5" to 2.7") and achieves up to 30% more storage capacity than a conventionally insulated freezer without increasing the footprint.
- The newly developed refrigeration system and the freezer structure offer a quiet experimental environment.
- Achieves 12% higher energy conservation than previous model. (115V, 60Hz)
- The newly developed back cover combined with new aerodynamically designed and placed components in the refrigeration compartment provide superior air flow, making it possible to drastically reduce the stress on the freezer and contributing to excellent durability.



- Two independent and insulated inner doors with gaskets prevent cold air leakage.

### RELIABILITY

- Status Alert (Condition monitor) Monitors ambient and system conditions continuously and notifies of any abnormalities before a problem happens.

### ACCESSIBILITY

- A beak style inner door latch tightly closes the inner door against the freezer frame. It also helps make opening and closing the door smoother.
- The condenser filter is situated at the bottom right side of the front panel to make filter removal and cleaning easier.



## SAFETY

- Alarm lamp and buzzer offer secure warning of power failure or abnormal temperature increase.
- High and low temperature warning provides an audible and visual alarm when the temperature deviates more than  $\pm 5^{\circ}\text{C}$  to  $\pm 20^{\circ}\text{C}$  (adjustable) from the set point.
- Alarm ring-back function ensures that buzzer will resume operation, should alarm conditions continue after it is silenced.
- Microprocessor-controlled filter-clog check function protects the refrigeration circuit.
- The rugged, one-handed outer door latch has a hole to allow a padlock to securely protect valuable samples.
- Control panel with digital display for easy operation.



## Specifications

Model No.	MDF-U33V
Temperature range	-50°C to -86°C (1°C increments)
Maximum cooling performance	-86°C (Ambient temperature 30°C)
Exterior dimensions (W x D x H)	670 x 867 x 1860 (mm) / 26.4 x 34.1 x 73.2 (inch)
Interior dimensions (W x D x H)	490 x 600 x 1140 (mm) / 19.3 x 23.6 x 44.9 (inch)
Net weight	Approx. 255kg (562 lbs.)
Effective capacity	333 L (11.8 cu.ft.)
Shelves	Stainless steel, 3 shelves
Access port	17mm diameter, 3 locations (back, bottom left/right corner)
Compressor	Hermetic: 450 W (high stage side), 750 W (low stage side)
Refrigerant	HFC
Alarms	High/low temperature, Power failure, Filter check, Self diagnostics, Door check, Remote alarm contact, Part replacement notification
Remote alarm contact	Allowable contact capacity: DC 30V, 2A
Accessories	1 set of keys, 1 scraper

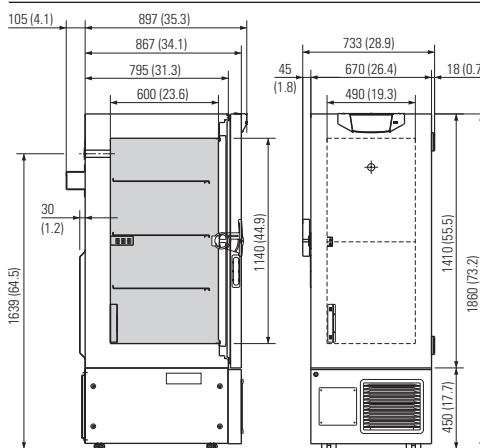
### Voltage specification by destination

Representative destination	Voltage/Frequency	Model
Europe	230V, 50Hz (CE)	MDF-U33V-PE
Korea	220V, 60Hz	MDF-U33V-PK
Thailand	220V, 50Hz	MDF-U33V-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

[Unit: mm (inch)]



## Options

<p>Inventory rack <b>IR-A216U-PW</b></p>	<p>Inventory rack <b>IR-220U-PW</b></p>	<p><b>Rack Capacity</b></p> <table border="1"> <tr> <td colspan="2"><b>For 2-inch box</b></td> </tr> <tr> <td>IR-A216U-PW</td> <td>6</td> </tr> <tr> <td>IR-220U-PW</td> <td>6</td> </tr> <tr> <td colspan="2"><b>For 3-inch box</b></td> </tr> <tr> <td>IR-312UN-PW</td> <td>12</td> </tr> </table>	<b>For 2-inch box</b>		IR-A216U-PW	6	IR-220U-PW	6	<b>For 3-inch box</b>		IR-312UN-PW	12
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<p>Circular recorder <b>MTR-G85C-PE</b></p>	<p>Strip chart recorder <b>MTR-85H-PW</b></p> <p>Recorder mounting bracket <b>MDF-S3085-PW</b> (for MTR-85H-PW)</p>	<p>LC02 backup system <b>CVK-UB2-PW</b></p> <p>LN2 backup system <b>CVK-UBN2-PW</b></p>										
<p>Panasonic DAQ (Data Acquisition) system <b>MTR-5000-PW/MTR-L03-PW</b> or <b>MTR-480-PW</b></p>												



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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