

Preservation  
sub-zero



MDF-U5386S

### Temperature

(Ambient temperature 30°C)

**-86°C**

### Effective capacity

**483 liters/17.1 cu.ft.**

**320 pcs**

**2" inventory boxes**

### Large capacity Ultra-Low Freezer with robust cooling performance

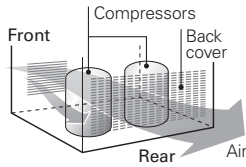
- Safe operation with advanced refrigeration system
- Improved accessibility
- Quiet operation
- Enhanced security
- The inner doors are removable for cleaning and defrosting
- Can hold up to 320 pcs. of 2-inch boxes or 192 pcs. of 3-inch boxes

# MDF-U5386S

## Features

### EVOLUTIONARY DESIGN

- The newly developed refrigeration system and the freezer structure offer a quiet experimental environment.
- Achieves 10% higher energy conservation than previous model.  
(For model rated 220V, 50Hz)
- 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 to the freezer and contributing to excellent durability.
- Two independent and insulated inner doors prevent cold air leakage.



### ACCESSIBILITY

- A new 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.
- New 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-U5386S  |  |
|---------------------------------|---|--|
| 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) | 890 x 875 x 1990 (mm) / 35.0 x 34.4 x 78.3 (inch)                                       |  |
| Interior dimensions (W x D x H) | 630 x 600 x 1280 (mm) / 24.8 x 23.6 x 50.4 (inch)                                       |  |
| Net weight                      | Approx. 305kg (672 lbs.)  |  |
| Effective capacity              | 483 L (17.1 cu.ft.)   |  |
| Shelves                         | Stainless steel, Adjustable, 3 shelves, W464 x D535mm, Max. load: 50kg (110 lbs.)/shelf |  |
| Access port                     | 17mm diameter, 3 locations (back, bottom left/right corner)                             |  |
| Compressor                      | Hermetic: 1100 W (high stage side), 1100 W (low stage side)                             |  |
| Refrigerant                     | HFC   |  |
| Alarms                          | High/low temperature, Power failure, Filter check, Battery check                        |  |
| 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-U5386S-PE |
| Korea                      | 220V    | 60Hz      | MDF-U5386S-PK |
| Thailand                   | 220V    | 50Hz      | MDF-U5386S-PB |

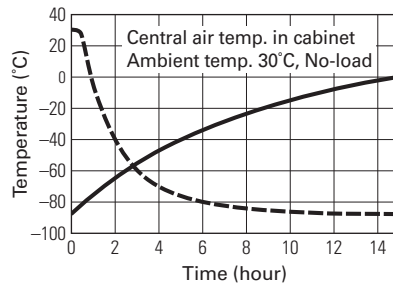
\*Cooling performance is indicated by the temperature reached at the center of the freezer (at ambient temperature of 30°C with no load). In order to use the freezer at a stable temperature for a long time, it is recommended that the temperature be set to at least 5°C higher than the indicated lowest 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. The battery for power failure alarm is an article for consumption. It is recommended that the battery will be replaced about every 3 years.

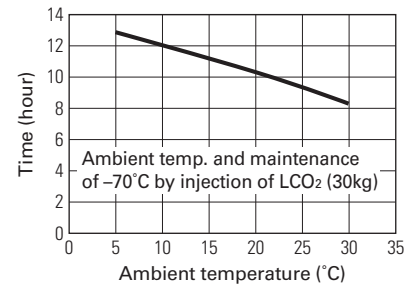
• Appearance and specifications are subject to change without notice.

## Performance Data

- Pull-up characteristics during power failure
- - - Pull-down characteristics

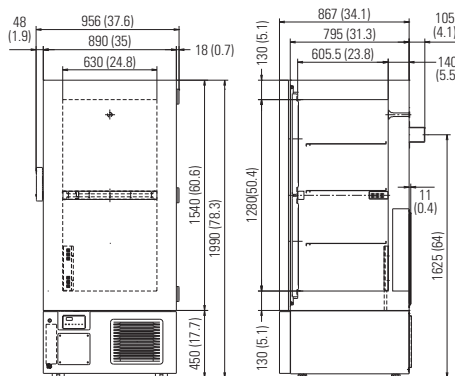


### CO<sub>2</sub> backup system operation characteristics



## Dimensions

Unit: mm (inch)



## Options



Inventory rack  
**IR-220U-PW**

### Rack Capacity

|                |            |    |
|----------------|------------|----|
| For 2-inch box | IR-220U-PW | 16 |
| For 3-inch box | IR-312U-PW | 16 |



Circular recorder  
**MTR-G85C-PE**

### 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**

Panasonic DAQ  
(Data Acquisition)  
system

**MTR-5000-PW/  
MTR-L03-PW or  
MTR-480-PW**



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**Quality management system: ISO9001**

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