

Preservation  
sub-zero



MDF-U5412

### Temperature

(Ambient temperature 30°C)

**-40°C**

### Effective capacity

**482 liters/17.0 cu.ft.**

**280 pcs**

300ml frozen plasma bag

### Biomedical Freezer for reliable preservation of blood plasma and other biologics

- High freezing power
- Stable & Uniform temperature design
- Ideal freezing environment for biologics
- Alarm and safety devices

# MDF-U5412

## Features

Panasonic MDF-U5412 provides an ideal freezing environment for preservation of blood plasma, vaccines, test samples, and other biological specimens.

### Stable & Uniform Temperature Design

- Double outer doors
- Full-height storage containers on each shelf
- Cooling tubes under every shelf
- Direct cooling system for stable temperature control
- Fine-controllable refrigeration circuit with valve

### Large Storage Capacity

- 300ml FFP\* bag x 280 pieces.

\*Fresh Frozen Plasma

### User Friendly Design

- Built-in door latch for each door
- Easy calibration through the control panel

### Visual and Audible Alarm System

- High & Low temperature alarm
- Power failure alarm with non-volatile memory back up
- Self-diagnostic system

### Safety Function

- Remote alarm contact
- Re-activating buzzer, lamp and remote alarm contact (30min. after buzzer stops)
- Standard door lock and independent padlock hasp door latches for extra security
- Remote monitoring by Data acquisition system (Option)
- 1/7/30 days circular recorder (Option)

### Environment friendly

- HCFC-Free refrigerant and insulation

## Specifications

	MDF-U5412
<b>Exterior Dimensions (W x D x H)</b>	804 x 772 x 1802 (mm) / 31.7 x 30.4 x 71.0 (inch)
<b>Interior Dimensions (W x D x H)</b>	658 x 607 x 1272 (mm) / 25.9 x 23.9 x 50.1 (inch)
<b>Net weight</b>	131kg (288.8 lbs.)
<b>Effective capacity</b>	482 liters (17.0 cu.ft.)
<b>Exterior cabinet</b>	Galvanised steel with baked-on finish
<b>Cabinet insulation</b>	Rigid polyurethane foamed-in place
<b>Outer door</b>	2, Insulated and magnetic sealed
<b>Door lock</b>	1 door lock, 2 lockable door latches for each door
<b>Storage container</b>	6 pcs. (Upper room), 4 pcs. (Lower room)
<b>Casters</b>	4
<b>Adjustable leveling feet</b>	2
<b>Compressor</b>	400 W Rotary type sealed
<b>Refrigerant</b>	HFC refrigerant
<b>Temp. control range</b>	-20°C to -40°C (Ambient temperature 5°C to 30°C)
<b>Settable range</b>	-18°C to -45°C
<b>Cooling method</b>	Direct cooling
<b>Temperature control</b>	Microprocessor control
<b>Temperature alarm</b>	High/Low ( $\pm 5^\circ\text{C}$ to $\pm 15^\circ\text{C}$ , adjustable)
<b>Power failure alarm</b>	Buzzer and lamp (Automatic rechargeable battery), Memory back up
<b>Remote alarm contact</b>	Allowable contact capacity: DC30V, 2A, Temperature alarm or power failure alarm
<b>Access hole</b>	$\phi 30$ , Rear side
<b>Accessories</b>	Door lock key, Defrost spatula, Storage containers

### Options

Data acquisition software (MTR-5000-PW)

Interface board (MTR-L03-PW, MTR-480-PW)

Strip chart recorder (MTR-4015LH-PE)

Recorder fixing (MPR-S30-PW), Recording paper (RP-40-PW)

Circular chart recorder (MTR-G85C-PE)

Recorder mounting kit (MPR-S7-PW), Recording paper (RP-G85-PW), Recording pen (PG-R-PW)

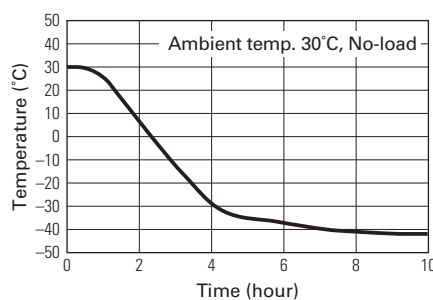
Voltage specification by destination			Model No.
Representative destination	Europe	230V, 50Hz (CE)	MDF-U5412-PE
	Korea	220V, 60Hz	MDF-U5412-PK
	Thailand	220V, 50Hz	MDF-U5412-PB

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.

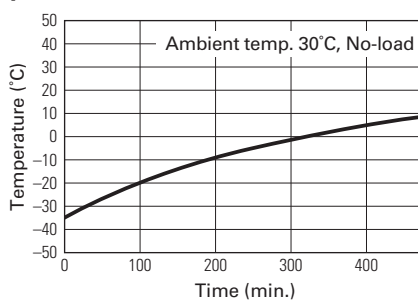
• Appearance and specifications are subject to change without notice.

## Performance Data

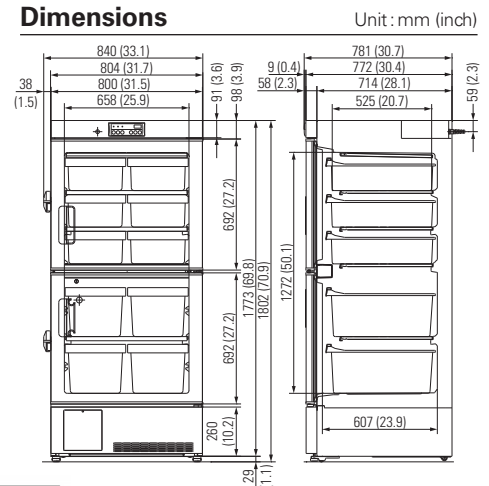
### Pull-down characteristics



### Pull-up characteristics during power failure



## Dimensions



Panasonic Healthcare Co., Ltd., Biomedical Business Unit is certified for:  
**Quality management system: ISO9001**  
**Medical devices quality management system: ISO13485**



Panasonic Healthcare Co., Ltd., Biomedical Business Unit is certified for:  
**Environmental management system: ISO14001**

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