PHCbi

Pharmaceutical Refrigerators

MPR-S163/MPR-S313

Temperature range

+2°C to 14°C

Compact and large capacity

New cycle defrosting system

MPR-S313

MPR-S163

Pharmaceutical Refrigerators for reliable storage of pharmaceuticals, samples and reagents

- Precise temperature control
- Superior cooling performance
- Forced air circulation
- Double-glazing glass door
- Slim, and space saving design
- Useful alarm functions

PHC Corporation, Biomedical Division

Formerly Known as Panasonic Healthcare , Biomedical

Life Science Innovator Since 1966

Features

Improved Energy Saving

PHCbi's new cycle defrosting system achieved 15 %* energy saving compared to conventional models. This system observes the defrosting condition after every cycle, and prevents temperature rises that are caused by defrosting.

*The data is a measured example (set temp. 5˚C, AT 23˚C, 230 V 50 Hz, no load). Actual power consumption will vary depending on the set and ambient conditions, loading and local voltage.

User Friendly Design

1. New Control Panel

- Newly designed for improved operability, visibility, and calibration
- Digital setup for easy and secure operation
- Temperature alarm settings made on the control panel

2. LED Interior Light

The LED interior light automatically turns on/off in conjunction with the door opening/closing. It can also be controlled from the control panel.

3. Double-Paned Glass with Heat-Reflective Film

The refrigerator doors constructed of double-paned glass with heat- reflective film, allow easy loading and unloading of samples while preventing ultraviolet rays, which may damage stored items, from entering the unit. PHCbi's unique heatreflective film blocks the passage of radiant heat rays through the glass panels and keeps the inside temperature from being adversely affected by excessive amounts of heat.

Effective Temperature Control

1. Microprocessor Temperature Control

A thermistor sensor monitors temperature inside the chamber, and microprocessor temperature control ensures that the set temperature is maintained. Even if the door is opened and closed frequently, the circulation fan ensures rapid temperature adjustment to provide a highly reliable, stable preservation environment that is not affected by ambient temperature.

2. Fan-Forced Air Circulation

The temperature stays even throughout the inside of the refrigerator with the fan-forced air circulation system. No matter how the load is distributed, every corner of the unit is immediately cooled with no noticeable variation in temperature apparent inside the cabinet.

Enhanced Alarm and Safety Functions

1. Door Open Alarm

When the door is opened, the Door Open indicator lamp lights automatically. After approx. 2 minutes, a buzzer alarm will sound if the door has not been closed (settable from 0 to 15 minutes). If the door remains open even after the buzzer is stopped, the buzzer rings again after 30 minutes (settable from 0 to 60 minutes in increments of 10 minutes).

2. Abnormal Temperature Alarm

If the inside temperature changes ±2˚C to ±14˚C from the set temperature, the digital temperature display flashes, and a buzzer sounds an alarm after 15 minutes (settable from 0 to 15 minutes).

Specifications

	Model No.	
220 V, 60 Hz	MPR-S163-PT MPR-S163-PK MPR-S163-PR	—
220 V, 50 HZ/60 Hz	—	MPR-S313-PT MPR-S313-PK MPR-S313-PR
230 V/240 V, 50 Hz (CE)	—	MPR-S313-PE
220 V/230 V/240 V, 50 Hz (CE)	MPR-S163-PE	—
External dimensions (W x D x H)*1	800 x 465 x 1090 (mm) 31.5 x 18.3 x 42.9 (inch)	800 x 465 x 1800 (mm) 31.5 x 18.3 x 70.9 (inch)
Internal dimensions (W x D x H)	720 x 300 x 725 (mm) 28.3 x 11.8 x 28.5 (inch)	720 x 350 x 1435 (mm) 28.3 x 13.8 x 56.5 (inch)
Effective capacity	158 liters (5.6 cu.ft.)	340 liters (12.0 cu.ft.)
Net weight	71 kg (156 lbs.)	100 kg (220 lbs.)
External cabinet	Galvanised steel with baked-on finish	
Internal cabinet	Stainless steel	
Insulation	Polyurethane foam	
Doors	Sliding glass doors, double-glazing glass with heat-reflective film	
Shelves	Hard steel wire	
Access port	ø30 mm on back wall	
Lighting / Casters	LED/2 casters	
Compressor	Hermetic type, 90 W	Hermetic type,160 W
Refrigerant	HFC	
Evaporator	Fin & Tube, Forced-air circulation	
Condenser	Wire & Tube	
Defrosting	Cyclical defrosting & evaporator temp. detection system	
Defrosting heaters	87 W	101 W
Temperature control range	2˚C to 14˚C	
Temperature display	Digital (1˚C increments)	
High / Low temperature alarm system	±2˚C to ±14˚C from temperature setting value	
Door ajar alarm	Buzzer / door ajar lamp	

Options
Temperature recorder: MTR-0621LH-PE (recorder fixing: MPR-S30-PW)
MTR-G04C-PE (recorder fixing: MPR-S7-PW)
Battery mounting box: MPR-48B1-PW
Interface board (For data acquisition system MTR-5000 users only)
MTR-L03-PW / MTR-480-PW

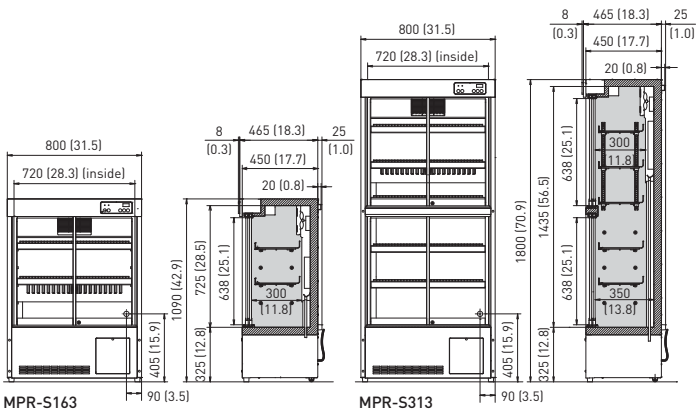
Caution: PHC Corporation guarantees this product under certain warranty conditions. However, please note that PHC Corporation shall not be responsible for any loss or damage to the contents of the product.

- Appearance and specifications are subject to change without notice.
- Water condensation may sometimes appear on the glass doors, but this is normal and not a malfunction.

*1 External dimensions of main cabinet only - see dimension drawings showing handles and other external projections.

Dimensions

Unit : mm (inch)



Preservation (freezers, refrigerators) and Culturing (incubators) Equipment

The management of the design, development, production, sales support, and servicing of the above.

PHC Corporation, Biomedical Division

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PHC Corporation, Biomedical Division is certified for:

Environmental management system: ISO14001

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