

## Large Capacity Laboratory Refrigerators



MPR-1411-PA | MPR-1411R-PA

### Uniformity with Forced Air Circulation

Fan-forced air circulation allows for precise temperature uniformity. Efficient temperature recovery properties allow for minimal temperature fluctuations around set points.

### Unique Defrost Cycle

Electronically monitored 'cycle defrost' initiates only when needed minimizing temperature fluctuations during defrost cycle.

### Design Versatility

Adjustable shelves and wide range setpoint for varying laboratory applications, including chromatography and pharmaceutical storage.

High Performance



Uniformity



Optimum Footprint



48.2 cu.ft. | MPR-1411R 48.0 cu.ft

### Operating Range

With a temperature range of 2°C to 23°C, Panasonic's MPR Series refrigerators are ideally suited for many products that require a **stable, cool temperature** or **general cold storage environment**.

#### Stable Temperature



### Microprocessor Controls

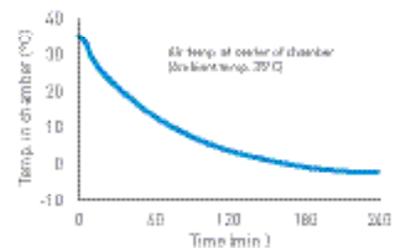
Panasonic's **temperature control** system, with microprocessor, reliably maintains temperature at the set level and is unaffected by outside ambient temperature.



### Performance

For frequent door openings, Panasonic's MPR Series refrigerators are equipped with powerful, hermetically sealed compressors that ensure **superior pull-down characteristics** and **precise temperature control**.

#### MPR-1411-PA Pull-down characteristics (no-load)





# MPR Series

## Large Capacity Laboratory Refrigerators

### Large Fans

The double 4.7" - diameter fans create a double flow system to ensure even temperatures throughout the cabinet. Because of this, heat spots from a powered test apparatus are minimized, while recovery characteristics after door openings remain outstanding.



### Easy-to-Manage Layout

The interior layout flexibility of the MPR Series refrigerators makes them ideal for running experiments that require changeable shelf configurations.

### Shelves and Drawers:

The shelves can be arranged to accommodate tall apparatus such as fraction collectors. These shelves are deep and strong enough to hold most apparatus.

The "R" model is fitted with stainless steel pull-out drawers. These drawers are deep enough to hold large bottles or reagent kits. They also allow convenient, space-efficient storage and management of patient medications and other items.

### Alarm and Safety Features

Panasonic's MPR Series refrigerators are fitted with alarms and flashing indicator LED to warn of high and low temperature conditions.

Door locks are standard to safeguard valuable contents.

### Key Advantages of with MPR Refrigerators

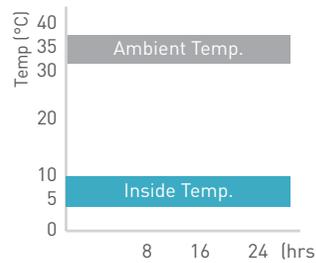
- Stable, uniform and controlled cabinet temperature is unaffected by outside temperature.
- Cycle defrost allows defrosting without an increase in cabinet temperature.
- Standard alarm and safety features monitor irregular temperature fluctuations in cabinet

MPR Series provides stable and reliable environment for exacting laboratory requirements, making them ideal for clinical research, pharmaceutical and industrial use.

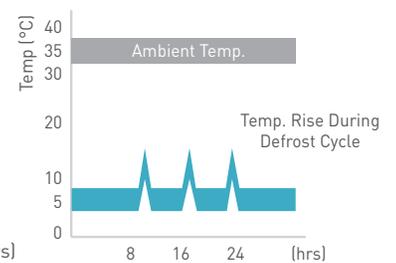
## Cycle Defrost Function

Panasonic's cycle defrost and evaporator temperature sensor system ensures that defrost occurs only when necessary and automatically so there is no need to turn off the power for defrosting. Temperature rise during defrost is minimal with no temperature spikes. The evaporation heater also doubles as protection against drops in cabinet temperature caused by a low ambient temperature.

Panasonic Cycle Defrost



Others-Auto Defrost Refrigerator



At 35°C, no load, measured at center of chamber.

MODEL	MPR-1411-PA	MODEL	MPR-1411R-PA
SHELVES	8 (W 565 x D 604 mm)	DRAWERS	10 (W 550 x D 530 mm)
TEMPERATURE RANGE	2°C to 23°C temperature range, adjustable by 1°C increments	TEMPERATURE RANGE	2°C to 23°C temperature range, adjustable by 1°C increments
DEFROST SYSTEM	Forced type (cycle defrost system). Fully automatic hot pipe for automatic evaporation of chain water.	DEFROST SYSTEM	Forced type (cycle defrost system). Fully automatic hot pipe for automatic evaporation of chain water.
VOLUME	48.2 cu.ft (1364 liters)	VOLUME	48.0 cu.ft (1359 liters)
EXTERIOR DIMENSIONS	56.7" x 32.7" x 76.8" 1440 x 830 x 1950 mm	EXTERIOR DIMENSIONS	56.7" x 32.7" x 76.8" 1440 x 830 x 1950 mm
INTERIOR DIMENSIONS	52.0" x 28.0" x 59.1" 1320 x 710 x 1500 mm	INTERIOR DIMENSIONS	52.0" x 28.0" x 59.1" 1320 x 710 x 1500 mm
NET WEIGHT	547 lbs (248 kg)	NET WEIGHT	633 lbs (287 kg)
DOOR	Double, swinging, self closing	DOOR	Double, swinging, self closing
ENERGY CONSUMPTION	8.88 kWh/Day [5°C at 23°C ambient temperature]	ENERGY CONSUMPTION	8.88 kWh/Day [5°C at 23°C ambient temperature]
TEMPERATURE CONTROL	Microprocessor controlled	TEMPERATURE CONTROL	Microprocessor controlled
ACCESS PORT	3 x 30 mm (2 in sides, 1 in cabinet top)	ACCESS PORT	3 x 30 mm (2 in sides, 1 in cabinet top)
ALARMS AND SAFETY	High temperature protection circuit, low temperature protection circuit, temperature lock, self diagnostics, memory backup (nonvolatile memory)	ALARMS AND SAFETY	High temperature protection circuit, low temperature protection circuit, temperature lock, self diagnostics, memory backup (nonvolatile memory)