Panasonic

Preservation
above-zero

Pharmaceutical Refrigerators

Spacious capacity meets versatile requirements of pharmaceutical refrigeration, from small-variety packages to large-variety packages.

MPR-1014R

MPR-514

Panasonic...the new name for SANYO

Stable and reliable environment control — the exacting storage or research requirements

Several factors are important to assure the quality of pharmaceuticals, samples and reagents. These are storage temperature, expiry date, exposure to ultraviolet light and humidity. Of these the most important is storage temperature. If the temperature is too high, chemical changes can occur which affect the quality of the materials. If the temperature is too low, there is a risk of structural changes brought about by freezing. Narrow and uniform temperature control without regard to ambient conditions is very important. Don't compromise your results!

2°C to 14°C
(Ambient temperature −5°C to 35°C)

MPR-1014R
Equipped with sliding racks.
Effective capacity: 1,029 ℓ (36.3 cu. ft.)

Features of the MPR-514(R) and MPR-1014(R) User-friendly design: easy-viewing, easy-opening, and energy-saving

Uniform storage unaffected by ambient temperature
**Microprocessor controlled**

An electronic sensor accurately monitors chamber temperature and feeds the information to the micro-processor for precise control at preset temperature. Fans ensure gentle air circulation to provide uniform top to bottom temperature control after frequent door openings. Panasonic's easily calibrated, reliable and stable controls make validation easier.

Remarkable cooling efficiency

A highly efficient hermetic compressor, specially designed and developed by Panasonic, is utilized to provide powerful and rapid cooling to maintain proper temperature level.

Plenums

Panasonic's plenum design features uniform cold air flow distribution throughout the chamber to ensure temperature uniformity— essential for validated storage requirements.
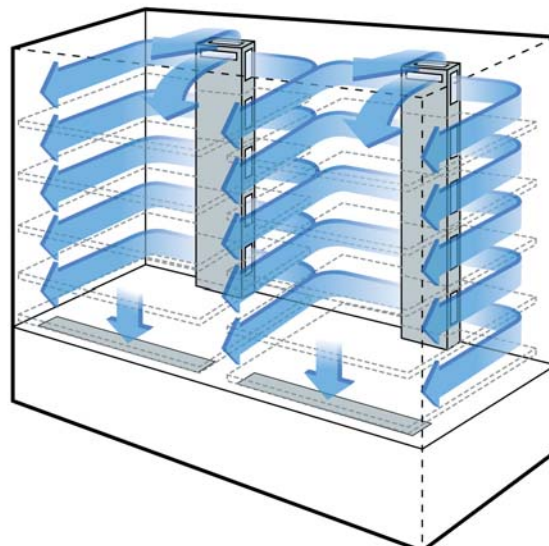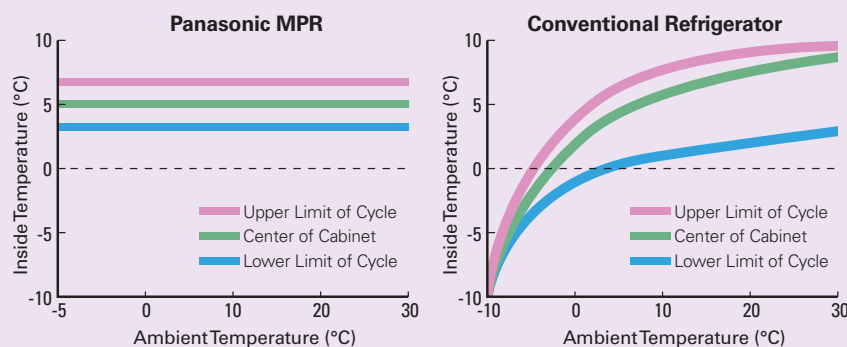
2°C to 14°C
(Ambient temperature –5°C to 35°C)

MPR-514R
Effective capacity: 486 *l* (17.2 cu. ft.)

Uniform Storage Temperature–Ambient Temperature

Panasonic MPR

Conventional Refrigerator

Inside Temperature (°C)

Ambient Temperature (°C)

Upper Limit of Cycle
Center of Cabinet
Lower Limit of Cycle

Uniform Storage Temperature–Cycle Defrost

Panasonic MPR

Conventional Refrigerator

Temperature (°C)

Ambient Temperature

Inside Temperature

Temperature Rise During Defrost Cycle

8   16   24 (hr)
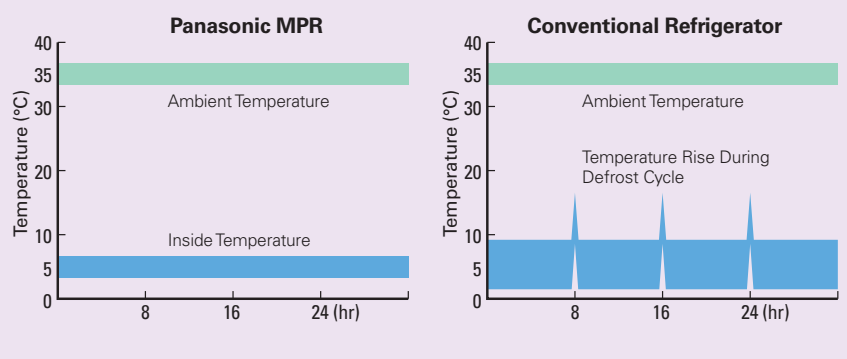
Ergonomic design

The ergonomic design of the MPR series refrigerators provides a clear view of stored items through the large framed windows. The slim profile allows for easy-reach retrieval of your products. Users can choose from two types to suit their needs; one with all wire shelves or one with sliding racks on one side.

Double-sensor temperature management

The double-sensor control system with alarm-exclusive sensor added to the temperature control sensor always monitors the precise chamber temperature.

Safety is a Panasonic standard

Even the best designed refrigerator must be prepared for the unexpected.

● **Cabinet construction**

View Window design with protective film to prevent shattered glass from scattering onto the floor. Also features key locked doors.

● **Control safety devices**

Audible and flashing LED visual alarms alert you to the unlikely event of either a high or low temperature condition. An over-shooting prevention circuit automatically switches off the fan motor or heater, if the inside temperature rises abnormally.

● **Comprehensive alarms**

In addition to Low/High temperature alarms and door ajar alarm, power failure alarm can be installed as an option. Remote alarm terminal is also provided as standard.

Control Panel

Worry-free cycle defrosting system

With Panasonic's cycle defrost system, defrosting is performed automatically during compressor "off" cycles, and by sensing frost levels. This way defrosting is performed only when required, further protecting the contents against unnecessary temperature rise. The defrosting heater also acts as an emergency heat source to prevent samples from freezing.

HFC refrigerant & HCFC-free insulation

Panasonic biomedical equipment is designed for low environmental impact. The MPR-514 and 1014 series use HFC refrigerant and the foamed-in-place insulation is HCFC free.

Data Acquisition System (optional)

The Panasonic original DAQ (data acquisition) system enables remote monitoring of pharmaceutical refrigerators.

Specifications

| Model No.	MPR-514/514R	MPR-1014/1014R
Temperature range	2°C to 14°C (Ambient temperature -5°C to 35°C)	
External dimensions (W x D x H)	900 x 600 x 1790 (mm) / 35.4 x 23.6 x 70.5 (inch)	1800 x 600 x 1790 (mm) / 70.9 x 23.6 x 70.5 (inch)
Interior dimensions (W x D x H)	800 x 465 x 1300 (mm) / 31.5 x 18.3 x 51.2 (inch)	1700 x 465 x 1300 (mm) / 66.9 x 18.3 x 51.2 (inch)
Effective capacity	489 liters (17.3 cu.ft.) MPR-514 486 liters (17.2 cu.ft.) MPR-514R	1033 liters (36.4 cu.ft.) MPR-1014 1029 liters (36.3 cu.ft.) MPR-1014R
Exterior cabinet	Galvanised steel with baked on finish	
Interior cabinet	Stainless steel	
Outer door	2 sliding doors, Double layer glass with heat reflection film	
Cabinet insulation	Rigid polyurethane foamed-in-place (HCFC free)	
Outer door lock	1	
Shelves & Sliding racks	5 polyester-coated wire shelves Load: 50kg per shelf (MPR-514)	10 polyester-coated wire shelves Load: 50kg per shelf (MPR-1014)
	5 polyester-coated wire shelves Load: 20kg per shelf 5 polyester-coated sliding racks Load: 20kg per rack (MPR-514R)	5 polyester-coated wire shelves Load: 50kg per shelf 10 polyester-coated sliding racks Load: 20kg per rack (MPR-1014R)
Cooling method	Forced cool air circulation	
Evaporator	Fin and tube	
Condenser	Wire and tube, Tube on sheet	Fin and tube
Compressor	Hermetic type, output: 200W	Hermetic type, output: 250W
Refrigerant	R-134a (HFC)	R-404A (HFC)
Fan motor — for cooling	For cooling: output 3W x 1	For cooling: output 3W x 2
Fan motor — for condensing	—	For condenser: output 4W
Defrosting	Forced type, fully automatic	
Defrost heater	73.8W x 2	141W
Net weight	141kg (300lbs) MPR-514 / 147kg (313lbs) MPR-514R	246kg (542lbs) MPR-1014 / 258kg (569lbs) MPR-1014R

Voltage specification by destination

Representative destination			MPR-514/514R	MPR-1014/1014R
Europe	230V, 50Hz (CE)		MPR-514-PE/514R-PE	MPR-1014-PE/1014R-PE
Korea	220V, 60Hz		MPR-514-PK/514R-PK	MPR-1014-PK/1014R-PK
Thailand	220V, 50Hz		MPR-514-PB/514R-PB	MPR-1014-PB/1014R-PB
Taiwan	110V/220V, 60Hz		MPR-514-PT/514R-PT	MPR-1014-PT/1014R-PT

• Appearance and specifications are subject to change without notice. **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.

Dimensions

Unit : mm (inch)

MPR-514

MPR-1014R

Front elevation   End section   Front elevation   End section
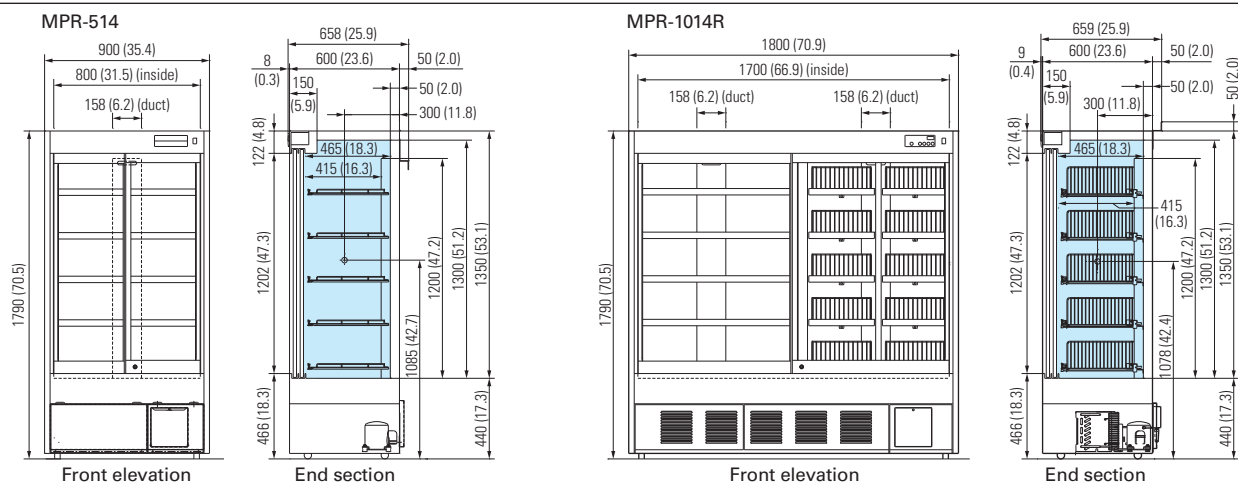
Options

• Automatic Temperature Recorders

	MTR-G04 (Circular Type)	MTR-0621LH-PE (Strip Chart Type)
Recording Paper	RP-G04-PW	RP-06-PW
Recorder Mounting Kit	MPR-S7-PW	MPR-S30-PW

• External mounting Power Failure Alarm **MPR-48B-PW**

• Panasonic DAQ (Data Acquisition) System **MTR-5000-PW/MTR-L03-PW or MTR-480-PW**

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