





# **MPR**

## **Pharmaceutical Refrigerators** with Natural Refrigerants

+2°C to +14°C





165 L / 345 L

### Uniform storage temperature for the most demanding applications

MPR Pharmaceutical Refrigerators offer a complete solution for the most demanding requirements for storage of pharmaceuticals, medicines, vaccines, and other temperature-sensitive applications.

## **Natural Refrigerants and Inverter Technology**

Hydrocarbon [HC] refrigerants have minimal effect on the environment and are compliant climate control. Combined with inverter technology, these refrigerants also provide more efficient cooling without compromising cooling and recovery time following door

#### **OLED Control Panel**

The microprocessor controller and OLED display have good visibility and intuitive operation. Control buttons allow convenient but secure user control. Refrigerator temperature can be displayed in 0.1°C increments. temperatures are automatically displayed every 12/24 hours. All alarm conditions are displayed and recorded.

#### **User-friendly Design**

The ergonomic design of the MPR Pharmaceutical Refrigerators provides a clear large glass door. The slim, hassle-free sliding glass door products, without the concern for swinging door clearance. Users can prevent unauthorized access by utilizing the keylock on the door.



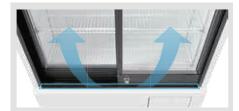
#### **Energy-efficient performance**

Natural refrigerants, compressors and integrated electronics combine to achieve facility sustainability objectives by minimising any environmental impact without compromising cooling performance, ambient tolerance and recovery time following door openings.



#### Safe & Secure storage

Adjustable audible and visual alarms are standard, along with integrated system diagnostics and predictive performance supervision. The password-protected control panel provides security and minimises risk of accidental changes. If desired, alarm and operating history can be uploaded through the USB port.



#### Enhanced sliding glass door

The sliding glass door is meticulously designed to increase energy efficiency and safeguards stored items against heat transfer through the window. The thermal glass door is constructed from a double glass pane where argon gas is used to fill the 12 mm gap. Together with the air vents near the sliding glass door rail, it prevents the formation of moisture.

# Pharmaceutical Refrigerators with Natural Refrigerants

#### **Defrost Methods**

Both models feature automatic defrost which activates electronically when needed. The refrigerator evaporator operates above freezing at all times. This prevents vaccines and lab supplies from freezing.

#### **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.

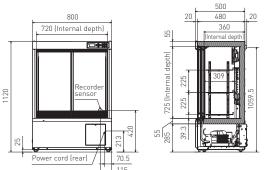


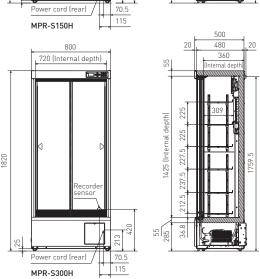


MPR-31RR Wire shelves (left), Sliding racks (right)

**Dimensions** 

Unit: mm







Model Number		MPR-S150H-PK	MI K-330011-1 L	MPR-S300H-P <i>E</i>	
External dimensions (W x D x H) 1)	mm	800 x 500 x 1120	800 x 50	0 x 1820	
Internal dimensions (W x D x H)	mm	720 x 360 x 725 720 x 360 x 1425			
Volume	litres	165 345			
Net weight	kg	73	105	104	
Performance					
Temperature control range <sup>2]</sup>	°C		2 to 14		
Control					
Controller		Microproc	essor with non-volatil	e memory	
Display		Digital (White graphic OLED), 1°C (increment of 0.1)			
Temperature sensor			Thermistor		
Refrigeration					
Cooling method		Fan forced air circulation			
Defrost method		Cyclical defrost + forced defrost			
Refrigerant		HC refrigerant			
Insulation		PUF (Rigid polyurethane foamed insulation)			
Construction					
Exterior material		Painted Steel			
Interior material		Painted Steel			
Outer doors	qty	2 (Highly insulated double glass door with tempered glass			
Outer door lock			Υ		
Shelves	qty	3 coated steel wires 6 coated steel wires			
Dimensions	mm	W697 x D270			
Max. load - per shelf	kg	20			
Access port	qty	1			
Access port position		Back			
Access port diameter	Ømm	30			
Casters	qty	4 [2 levelling feet]			
Interior light		LED			
Accessories					
Key	set		x 1		
Alarms (V	= Visual /	Alarm, B = Buzzer Al	arm, M = Message,	R = Remote Alarn	
Power failure <sup>3]</sup>		R 3)			
High temperature		V-B-M-R			
			V-B-M-R		
Low temperature			V-B-M-R		
			V-B-M-R V-B-M		
Low temperature					
Low temperature Door open	V / Hz	PE: 220, 230, 240/50 PK: 220/60		115/60	
Low temperature Door open Electrical and Noise Level Power supply	V / Hz		V-B-M	115/60	
Low temperature Door open Electrical and Noise Level Power supply			V-B-M 220, 230, 240/50	115/60	
Low temperature Door open Electrical and Noise Level Power supply Noise level 4) Options			V-B-M 220, 230, 240/50 38		
Low temperature  Door open  Electrical and Noise Level  Power supply  Noise level 4)  Options  Temperature chart recorders		PK: 220/60	V-B-M 220, 230, 240/50 38		
Low temperature  Door open  Electrical and Noise Level  Power supply  Noise level 4)  Options  Temperature chart recorders - Chart paper		PK: 220/60	V-B-M 220, 230, 240/50 38 21LH-PE		
Low temperature  Door open  Electrical and Noise Level  Power supply  Noise level 4)  Options  Temperature chart recorders - Chart paper		PK: 220/60	V-B-M 220, 230, 240/50 38 21LH-PE RP-06-PW MPR-S30-PW		
Low temperature Door open  Electrical and Noise Level  Power supply  Noise level 4)  Options  Temperature chart recorders - Chart paper - Recorder housing		PK: 220/60 MTR-062	V-B-M 220, 230, 240/50 38 21LH-PE RP-06-PW MPR-S30-PW	MTR-0621LH-PA	
Low temperature Door open  Electrical and Noise Level  Power supply  Noise level 4)  Options  Temperature chart recorders - Chart paper - Recorder housing  Circular type chart recorders		PK: 220/60 MTR-062	V-B-M 220, 230, 240/50 38 21LH-PE RP-06-PW MPR-S30-PW 04C-PE	MTR-0621LH-PA	
Low temperature Door open  Electrical and Noise Level  Power supply  Noise level 41  Options  Temperature chart recorders - Chart paper - Recorder housing  Circular type chart recorders - Chart paper		PK: 220/60 MTR-062	V-B-M  220, 230, 240/50  38  21LH-PE  RP-06-PW  MPR-S30-PW  04C-PE  RP-G04-PW	MTR-0621LH-PA	
Low temperature Door open  Electrical and Noise Level  Power supply  Noise level 41  Options  Temperature chart recorders - Chart paper - Recorder housing  Circular type chart recorders - Chart paper - Chart paper		PK: 220/60 MTR-062	V-B-M  220, 230, 240/50  38  21LH-PE  RP-06-PW  MPR-S30-PW  04C-PE  RP-G04-PW  PG-R-PW	MTR-0621LH-PA	
Low temperature Door open  Electrical and Noise Level  Power supply  Noise level 41  Options  Temperature chart recorders - Chart paper - Recorder housing  Circular type chart recorders - Chart paper - Ink pen - Recorder housing		PK: 220/60 MTR-062	V-B-M  220, 230, 240/50  38  21LH-PE  RP-06-PW  MPR-S30-PW  04C-PE  RP-G04-PW  PG-R-PW  MPR-57-PW  MPR-48B2-PW  MPR-31RR-PW [fa	MTR-0621LH-PA	
Low temperature Door open  Electrical and Noise Level  Power supply  Noise level 41  Options  Temperature chart recorders - Chart paper - Recorder housing Circular type chart recorders - Chart paper - Ink pen - Recorder housing Battery kit for power failure alarm  Shelves & Sliding racks		PK: 220/60 MTR-062	V-B-M  220, 230, 240/50  38  21LH-PE  RP-06-PW  MPR-S30-PW  04C-PE  RP-G04-PW  PG-R-PW  MPR-57-PW  MPR-48B2-PW  MPR-31RR-PW [fa	MTR-0621LH-PA  MTR-G04A-PA  or lower right side)	
Low temperature Door open  Electrical and Noise Level  Power supply  Noise level 41  Options  Temperature chart recorders - Chart paper - Recorder housing Circular type chart recorders - Chart paper - Ink pen - Recorder housing Battery kit for power failure alarm  Shelves & Sliding racks  Optional Communication Systems		PK: 220/60 MTR-062	V-B-M  220, 230, 240/50  38  21LH-PE  RP-06-PW  MPR-S30-PW  04C-PE  RP-G04-PW  PG-R-PW  MPR-57-PW  MPR-48B2-PW  MPR-31RR-PW (fo	MTR-0621LH-PA  MTR-G04A-PA  or lower right side)	
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Low temperature Door open  Electrical and Noise Level  Power supply  Noise level 40  Options  Temperature chart recorders - Chart paper - Recorder housing Circular type chart recorders - Chart paper - Ink pen - Recorder housing  Battery kit for power failure alarm  Shelves & Stiding racks  Optional Communication Systems  Digital interface (RS232C/RS485) 40		PK: 220/60 MTR-062	V-B-M  220, 230, 240/50  38  21LH-PE  RP-06-PW  MPR-S30-PW  04C-PE  RP-G04-PW  MPR-57-PW  MPR-48B2-PW  MPR-31RR-PW (fo	MTR-0621LH-PA  MTR-G04A-PA  or lower right side)	

- 1) Exterior dimensions of main cabinet only, excluding external projections - See dimensions drawings on website for full details.
- <sup>2)</sup> Air temperature measured at refrigeration compartment centre and freezer compartment centre, ambient temperature +35°C, no load.
- <sup>3]</sup> Remote alarm includes optional power failure alarm MPR-48B2-PW (V-B-M-R alarm).
- 4) Nominal value Background noise 20dB (A)
- 5) Must be used in combination with MPR-31RR.
- <sup>6]</sup> Only for MTR-5000 (data acquisition system) users.
- Appearance and specifications are subject to change without notice.

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 stored in the product.



Preservation Equipment, Experimental Environment Equipment, Dispensary Equipment, Culturing Equipment and Drying & Sterilising Equipment for General Laboratory use

The management of the design, development, production and servicing of the above. PHC Corporation, Biomedical Division

1-1-1 Sakada, Oizumi-machi, Ora-gun, Gunma 370-0596, Japan







PHC Corporation Biomedical Division is certified for:

Environmental management system: IS014001

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