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# MPR Pharmaceutical Refrigerators

+2°C to +23°C

## 684 L / 671 L (R type)

The MPR-722 (shelves) and MPR-722R (drawers) pharmaceutical refrigerators deliver stable, reliable temperature control for clinical, pharmaceutical, biomedical storage and processing. Fast recovery following door openings assures safe storage even with frequent access and high ambient conditions and to remove heat loads generated by powered instruments.

Airflow Assures Quick Recovery, Interior Uniformity

Vertical, forced air circulation with blower creates a uniform temperature at all shelf or drawer levels, top to bottom and front to back. Internal shelf or drawer clearances permit positive airflow to help restore temperature to setpoint following door openings, and safely accommodates busy, high traffic demand for access to stored contents in pharmacies, clinics and hospitals.

#### Precision Temperature Control Protects Inventory

Because many pharmaceuticals are degraded or destroyed if accidentally frozen, it is important that temperature be adjusted to desired setpoint in accordance with drug manufacturers' insert specifications. MPR Series pharmaceutical refrigerators operate over a temperature range of 2°C to 23°C. Actual interior air temperature is displayable in 0.1°C increments.

#### Choose Your Inventory Management Preference

The MPR Series pharmaceutical refrigerator offers two choices in inventory management. The MPR-722 includes 4 open-wire shelves strong enough to hold bulk loads. The MPR-722R is equipped with heavy-duty, fully-extendable painted steel pull-out drawers for more convenient access to the stored product such as large bottles or reagent kits.



# Airflow Prevents Temperature Stratification

The top-mounted air circulation blower directs air downward so it goes along the back, side and front of the load-in drawers or shelves. Regardless of location, all products are subjected to the same safe temperature to assure repeatability of stored product viability.



#### Microprocessor Controls Simplify Operation

A microprocessor controller monitors all functions. Setpoint is factory set at 5°C. A soft key interface allows setpoint adjustment throughout the operating range. Audible and visual warnings indicate door ajar or temperature deviation from setpoint. The large easy-to-read LED display confirms actual temperature.



#### Adjustable Shelves Offer Flexibility in Storage Options

Open wire shelves (shown) are adjustable to allow for loads of varying heights such as bulk storage or process equipment such as fraction collectors. The Model MPR-722R with pull-out drawers (not shown) offers a practical solution with additional ergonomic advantages.

> Life Science Innovator Since 1966

# PHC Corporation, Biomedical Division



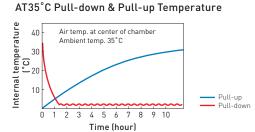
## Large Capacity Laboratory Refrigerators

MPR-722

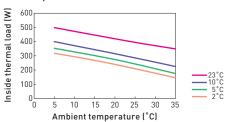
#### **Cycle Defrost Function**

The 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. Irregular temperature increase 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.

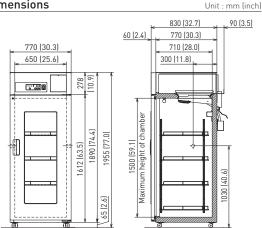
#### **Performance Data**



Test of permissible inside thermal load



Dimensions



1500 [59,1]	Prese Equip Labo	oment, ratory	on Equipr , Culturin use	ng Equ
155 (77.0) 150 (59.1) 1995 (77.0) 150 (59.1)		65 (2.6)	Maxim	
	1612 (63.5)	1890 (74.4) 1955 (77.0)	1500 (59.1) num height of chamber	

Experimental Environment Equipment, Dispensary uipment and Drying & Sterilising Equipment for General The management of the design, development, production and servicing of the above.



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

Model Number		MPR-722-PE/MPR-722R-PE		
		MPR-722-PK, MPR-722-PR/M		
External dimensions (W x D x H) <sup>1]</sup>	mm	770 x 83		
Internal dimensions (W x D x H)	mm	650 x 710 x 1500		
Volume	litres	684 (MPR-722) / 671 (MPR-722R)		
Net weight	kg	174 (MPR-722) / 193 (MPR-722R)		
Performance				
Temperature control range		+2°C to		
		+2°C to	+23°C <sup>3]</sup>	
Control Controller		Microprocess with pop velatile	mamany (Cafaty Lack with Keynad	
		Microprocessor with non-volatile memory (Safety Lock with keypad		
Digital temperature display		Thern		
Temperature sensor		Inern	nistor	
Refrigeration			1. 1. a.a.	
Cooling method		Forced cool a		
Defrost method		Cycle o		
Refrigerant		HFC and HFO com		
Insulation		Rigid polyurethane foam		
Construction		MPR-722	MPR-722R	
Exterior material		Paintee		
Interior material		Paintee		
Outer doors	qty	1, Double pane gl	ass (Self closing)	
Outer door lock		١	(	
Shelves	qty	4 wire shelves (polyethylene- coated, 565 x 604 mm, adjustable)	_	
Drawers	qty	_	5 solid steel drawers (painted steel, 550 x 530 x 100 mm)	
Max. load - per shelf / drawer	kg	50	40	
Access port	qty	3	}	
Access port position		Left / right / top		
Access port diameter	Ømm	30		
Casters	qty	4		
Interior light		Fluorescent lamp		
Alarms		(V = Visual Alarm, B = Buzze	r Alarm, R = Remote Alarm)	
Power failure		R (V-B optional) <sup>4]</sup>		
High temperature		V-E	3-R	
Low temperature		V-E	3-R	
Door open		V-B		
Electrical and Noise Level				
Power supply	V	PE: 230/240 V, 50 Hz / PK/PR: 220 V, 60 Hz		
Noise level 5)	dB (A)	48		
Options				
Temperature chart recorder		MTR-0621LH-PE		
- Chart paper		RP-06-PW		
- Recorder housing		MPR-S30-PW		
Circular type recorder		MIR-G30-FW MTR-G04C-PE		
- Chart paper		RP-G04-PW		
- Ink pen		PG-R-PW		
- Recorder housing				
External mounting power failure alarm		MPR-57-PW MPR-48B1-PW 4)		
		MPR-4881-PW ** MPR-728P-PW		
Blackout panel Optional Communication Systems		MPR-72		
Digital interface (RS232C/RS485) <sup>6</sup>		MTR-480-PW		
Ethernet interface (LAN) <sup>6</sup>		MTR-480-PW MTR-L03-PW		
		MIR-L	US-F VV	
Quality Management System Certification		ISO	9001	
<ul> <li>Letrinication</li> <li>External dimensions of main cabinet o external projections - See dimensions website for full details</li> <li>Air temperature measured at refrigera compartment centre at AT; -5°C to 0°C</li> <li>Air temperature measured at refrigera compartment centre at AT; 0°C to 35°C</li> <li>Remote alarm includes optional power MPR-48B1-PW (IV-B apritonal power</li> </ul>	drawings tion 2, no load tion 5, no load	<ul> <li><sup>5]</sup> Nominal value - Bacl</li> <li><sup>6]</sup> Only for MTR-5000 (c</li> <li>Appearance and spec</li> <li>without notice.</li> <li>Caution: PHC Corporat</li> <li>under certain warranty</li> <li>that PHC Corporations</li> </ul>	you i kground noise 20 dB (A) Jata acquisition system) users. cifications are subject to change tion guarantees this product conditions. However, please not shall not be responsible for any contents of the product.	

compartment centre at AT; 0°Cto 35°C, no load <sup>4]</sup> Remote alarm includes optional power failure alarm MPR-48B1-PW (V-B alarm)



PHC Corporation, Biomedical Division is certified for:

Environmental management system: IS014001



### **PHC Corporation**

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