



MPR-414F-PE

Pharmaceutical Refrigerator with Freezer

340/82 L (Ref/Frz)

Providing a complete storage solution; refrigerator and freezer in one unit.

The MPR-414F combines high-performance refrigeration with a -30°C freezing environment within a small footprint for flexible, reliable and convenient sample storage.

Optimum Temperature Distribution

Fan-forced air circulation system in the refrigerator offers better uniformity and fast recovery of temperature after routine door openings to minimise fluctuations.

Excellent Stability

A unique defrost system in the refrigerator operates only short cycles as required to prevent unnecessary temperature spikes. The freezer compartment is manually defrosted for the most stable temperature performance.

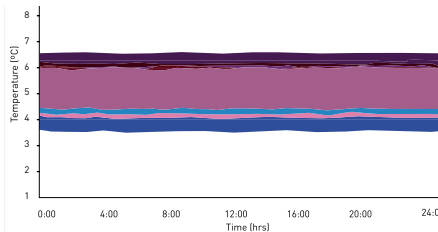
Precise Control & Monitoring

Microprocessor controller, combined with accurate sensors, maintains precise temperatures within the refrigerator and freezer, whilst a comprehensive alarm system alerts of any temperature deviations.



Two Temperatures, One Unit

Secure storage at both freezing and refrigerated temperatures, within a minimal footprint, is an ideal solution for installation in smaller spaces.



Usability with Performance

PHCbi refrigerators are designed specifically for laboratory applications, with precise performance even under demanding conditions.



Safe & Secure Storage

Multiple safety systems such as high/low temperature audible and visual alarms, remote alarm, door open alarm and keyed door locks.

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Optimized for Superior Usability

One unit with dual temperature control requires minimal installation space.

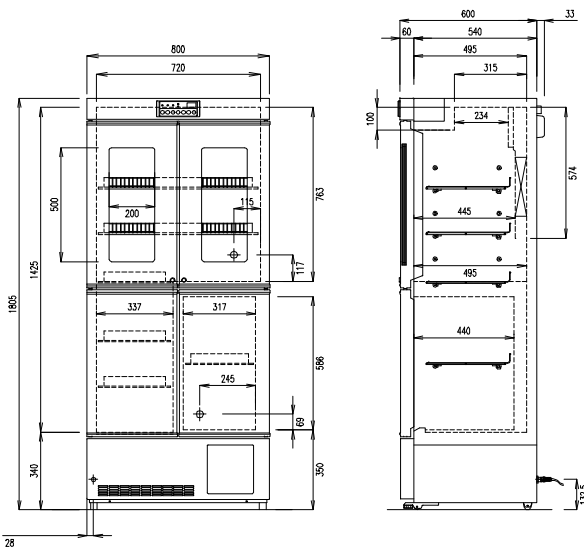
Four-door design reduces air loss during door opening and makes efficient use of space in front of the unit.

PHCbi Design

Refrigeration systems within both compartments are specially designed for demanding scientific and laboratory storage. Compressors are application specific, components are carefully matched and systems are laid out to ensure high-performance cooling with ultimate reliability.

Quiet operation

Two specially designed compressors offer quiet operation for installation in busy working environments without disruption.



MPR-414F-PE

Model Number		MPR-414F-PE
External Dimensions (W x D x H) ¹⁾	mm	800 x 600 x 1805
Internal Dimensions (W x D x H)	mm	720 x 495 x 1425 (Ref)
		317 x 440 x 576 (Frz)
Volume	litres	340/82 (Ref/Frz)
Net Weight	kg	126
Performance		
Cooling performance ²⁾	°C	+5 / -30
Temperature setting range (Ref/Frz)	°C	+2 to +14/ -35 to -15
Temperature control range (Ref/Frz)	°C	+2 to +14/ -30 to -20
Control		
Controller		Microprocessor, non-volatile memory
Display		LED
Temperature sensor		Thermistor
Refrigeration		
Cooling Method		Fan forced air circulation (Ref) / Direct cooling (Frz)
Defrost method		Cyclical defrost (Ref) / Manual (Frz)
Refrigerant		HFC
Insulation material		PUF
Insulation thickness	mm	40 / 60
Construction		
Exterior Material		Painted Steel
Interior Material		Styrol resin (Ref) / Painted aluminium (Frz)
Outer Doors	qty	4, glass window (2)
Outer Door Lock		2
Shelves	qty	2 & 2 (Ref) / 1 (Frz)
Max. load - per shelf	kg	25 & 15/15 (Ref/Frz)
Max. load - total	kg	95
Access Port	qty	2
Access Port Position		Left
Access Port Diameter	Ø mm	30
Casters	qty	4
Interior light		Fluorescent (Ref)
Alarms (R = Remote Alarm, V = Visual Alarm, B = Buzzer Alarm)		
Power Failure		R
High Temperature		V-B-R
Low Temperature		V-B-R
Door open		V-B
Electrical and Noise Level		
Power Supply	V	230V
Frequency	Hz	50
Noise Level ³⁾	dB [A]	39
Options		
Temperature recorders		
- Circular type		MTR-G3504C-PE
- Chart paper		RP-G3504-PW
- Ink pen		PG-RB-PW
- Continuous strip type		MTR-0621LH-PE (Ref) / MTR-4015LH-PE (Frz)
- Chart paper		RP-06-PW (Ref) / RP-40-PW (Frz)
- Ink pen		-
- Recorder housing		MPR-S30-PW
Drawers for bottom left compartment		MPR-41R-PW
Optional communication systems		
Ethernet interface (LAN)		MTR-L03-PW
Digital interface (RS232C/RS485)		MTR-480-PW

¹⁾ Exterior dimensions of main cabinet only, excluding handle and other external projections - See dimensions drawings on website for full details.

²⁾ Air temperature measured at refrigerator / freezer centre, ambient temperature +30°C, no load

³⁾ Nominal value - Background noise 20dB[A]

