



MDF-MU339

MDF-MU539

-30°C Biomedical Freezers

369 L / 504 L

Stable -30°C environment with extensive storage possibilities.

PHCbi medical freezers are equipped with various features that enable flexibility and maintain the quality of the samples during preservation such as height-adjustable shelf trays and separate top and bottom doors that suppress cold air leakage. Users can choose the model that meets their specific needs.

Height-adjustable shelf trays

By installing the refrigerant piping in the frame of the unit instead of in shelf trays as in conventional models, the unit enabled completely height-adjustable shelf trays.



Maintains the quality of the samples during preservation

Equipped with doors that suppress the leakage of cold air during opening and closing, and manual defrosting that helps avoid temperature impact on the samples.

Superior energy conservation

Improvements in the fan motor (ON/OFF controls) has led to reduction in power consumption compared to our previous models.*

*The actual energy consumption may vary depending on the use.



Adjusts the inside of the chambers according to the size of the samples

By changing the height of the shelf trays, the unit can accommodate chamber containers of various sizes including storage boxes of conventional models. The slim-type allows for the space between equipment to be used effectively.



MDF-MU539

Security functions that help protect valuable samples

With a temperature control capability that inhibits the change in temperature inside the chamber, and an alarm/security function that prevents errors, the unit maintains the quality of the preserved samples.



Reduces energy costs of the facility

Replacing a conventional model with this model can save on energy costs. Save even more by replacing multiple units.

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Easy disposal of water used for defrosting

Even the cumbersome task of disposing water used for defrosting becomes easy with the drainage hose that is attached to the main unit. (Hose is usually stowed away when not in use)

Easy to operate control panel

Button-type control panel is easy to operate. All inputs including temperature and alarm settings can be selected on the panel.



Lockable door latch

To securely preserve/manage the valuable samples, In addition to a standard-feature door lock, a hole in the latch allows a padlock to be attached.

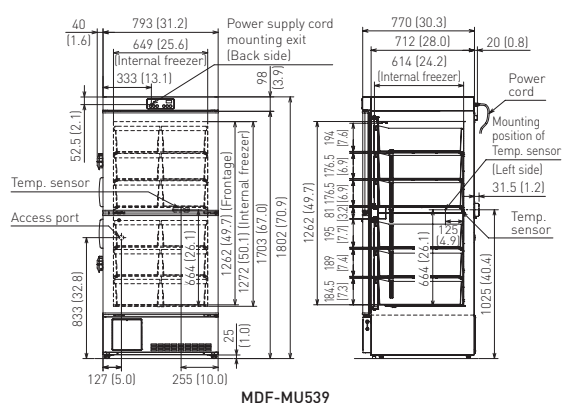
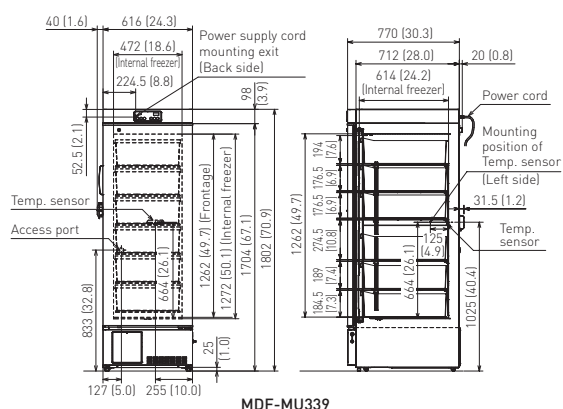
Storage containers useful for organizing

The standard storage containers are useful for dividing small items and allow for efficient sample storage.



Dimensions

Unit : mm (inch)



Model Number	MDF-MU339-PE	MDF-MU539-PE
External dimensions (W x D x H) ¹⁾	mm 616 x 770 x 1802	793 x 770 x 1802
Internal dimensions (W x D x H)	mm 472 x 614 x 1262	649 x 614 x 1262
Volume	litres 369	504
Net weight	kg 135	163
Performance		
Cooling performance ²⁾	°C	-30
Temperature setting range ²⁾	°C	-35 to -18
Temperature control range ²⁾	°C	-30 to -20
Control		
Controller	Microprocessor, non-volatile memory	
Display	LED	
Temperature sensor	Thermistor	
Refrigeration		
Cooling method	Direct	
Compressor	W	250
Refrigerant	HFC	
Insulation material	PUF	
Insulation thickness	mm	70
Construction		
Exterior material	Painted Steel	
Interior material	Painted Steel	
Outer door	qty 1	2
Outer door lock	Yes	
Shelves	qty 6	
Max. load - per shelf	kg 30	
Access port	qty 1	
Access port position	Back	
Access port diameter	∅ mm 30	
Casters	qty 4 [2 levelling feet]	
Accessories		
Storage containers	qty 6	12
Inner dimension	mm W420 x D552 x H157	W280 x D552 x H157
Key	set 1	
Defrost spatula	pc 1	
Alarms (V = Visual Alarm, B = Buzzer Alarm, R = Remote Alarm)		
Power failure	V-B-R	
High temperature	V-B-R	
Low temperature	V-B-R	
Electrical and Noise Level		
Power supply	V 220/230/240	
Frequency	Hz 50	
Noise level ³⁾	dB [A] 42	
Options		
Temperature recorders	- Circular type	MTR-G85C-PE — Chart paper: RP-G85-PW — Ink pen: PG-R-PW — Recorder housing: MPR-S7-PW
	- Continuous strip type	MRT-4015LH-PE — Chart paper: RP-40-PW — Recorder housing: MPR-S30-PW
Optional Communication Systems		
Digital interface (RS232C/RS485) ⁴⁾	MTR-480-PW	
Ethernet interface (LAN) ⁴⁾	MTR-L03-PW	
Quality Management System		
Certification	ISO 9001	

¹⁾ External dimensions of main cabinet only, excluding handle and other external projections.
²⁾ Air temperature measured at freezer centre, ambient temperature 35°C (MDF-MU339) / 30°C (MDF-MU539), no load.
³⁾ Nominal value - Background noise 20 dB[A]
⁴⁾ 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 of 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.
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PHC Corporation, Biomedical Division is certified for:
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