



MDF-U731M-PE

# Biomedical

-30°C Freezer

690 L

## Stable -30°C environment with extensive storage possibilities

The MDF-U731M is a large-capacity, biomedical freezer, with a direct cooling system and manual defrost. This freezer is designed with optimised features for laboratory-grade freezing of enzymes, vaccines, and other biologics.

### Precise & Uniform Storage

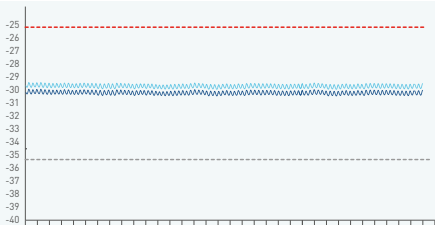
A microprocessor controller ensures precise and uniform storage temperatures regardless of ambient conditions. Manual defrost provides stable temperature control without transient temperature increases.

### Extensive Storage Options

Adjustable shelving accommodates a range of different storage options for a wide number of applications. Optional plastic containers and extra shelves are ideal for storing a variety of different types of samples while inventory racking systems can be used for storage of cryoboxes.

### Excellent Sample Security

A comprehensive visual and audible alarm system with remote alarm contacts ensures users are aware of any abnormalities and can take appropriate actions. A keyed door lock with provision for an optional padlock ensures sample security.



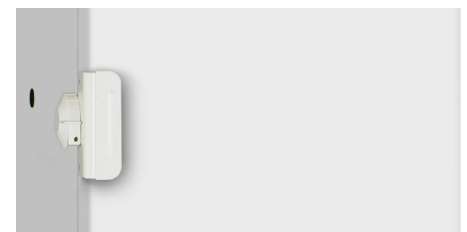
### Temperature Sensitive Samples

Optimum uniformity and stability are ideal for storage of samples that are highly sensitive to temperature fluctuations.



### A Flexible Solution

The flexible storage possibilities and adjustable temperature range can accommodate both current and future storage needs of growing laboratories.



### Valuable Sample Storage

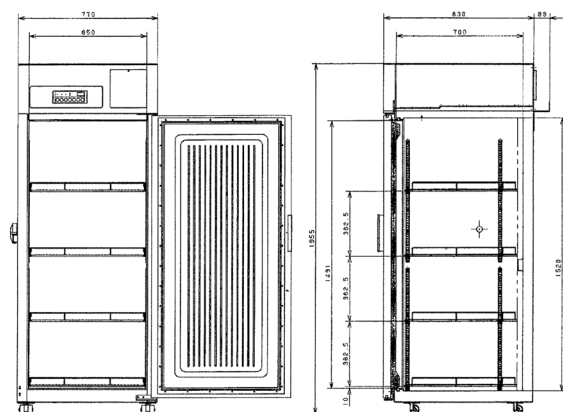
An ideal storage solution for valuable samples such as those in the pharmaceutical, biotechnology and medical research fields.

# BIOMEDICAL -30°C Freezer



## Uniform & Stable Temperature Control

The large capacity MDF-U731M-PE features direct cooling with a full cold wall design. The evaporator pipes are strategically designed to surround the cabinet in a way that prevents warm or cold spots and therefore ensures superior uniformity throughout the freezer. As well as providing optimum uniformity, the cold wall technology also ensures maximum protection by providing a rapid temperature recovery after door opening.



Model Number		MDF-U731M-PE
External dimensions (W x D x H) <sup>1)</sup>	mm	770 x 830 x 1955
Internal dimensions (W x D x H)	mm	650 x 700 x 1520
Volume	litres	690
Net weight	kg	152
Capacity	2" boxes	384
Performance		
Cooling performance <sup>2)</sup>	°C	-30
Temperature setting range	°C	-18 to -35
Temperature control range <sup>2)</sup>	°C	-20 to -30
Control		
Controller		Microprocessor, non-volatile memory
Display		LED
Temperature sensor		Thermistor
Refrigeration		
Refrigeration system		Direct
Compressors	W	400
Refrigerant		R-290
Refrigerant weight	g	110
GWP of refrigerant for each cooling circuit		3
Total Refrigerant weight (CO <sub>2</sub> equivalent)	t	0.000
Insulation material		PUF
Insulation thickness	mm	60
Construction		
Exterior material		Painted Steel
Interior material		Painted Steel
Outer door	qty	1
Outer door lock		Y
Inner doors	qty	-
Shelves	qty	4
Max. load - per shelf	kg	50
Max. load - total	kg	200
Access port	qty	1
- position		Left
- diameter	Ø mm	30
Castors	qty	4 (2 leveling feet)
Alarms (R = Remote Alarm, V = Visual Alarm, B = Buzzer Alarm)		
Power failure		V-B-R
High temperature		V-B-R
Low temperature		V-B-R
Door open		V-B
Electrical and noise level		
Power supply	V	230
Frequency	Hz	50
Noise level <sup>3)</sup>	dB [A]	42
Options		
Storage containers		MDF-T07SC-PW (set of 2)
Additional shelves		MDF-T07ST-PW (set of 3)
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		MTR-4015LH-PE
- Chart paper		RP-40-PW
- Recorder housing		MPR-S30-PW

Appearance and specifications are subject to change without notice.

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

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

<sup>3)</sup> Nominal value - Background noise 20dB

# PHC Europe

A Member of PHC Group

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