

# Biomedical

-30°C Chest Freezer

138 | 221 | 425 L



MDF-237-PE



**Power to counteract frequent door openings Biomedical Chest Freezers** offer outstanding reliability and performance, as required in a wide variety of storage- and research applications.

### Precise & Uniform Storage

Precise and uniform storage temperatures regardless of ambient conditions through microprocessor temperature control.

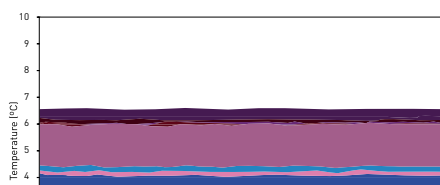
### Stable Temperature Control

Manual defrost provides stable temperature control and does not exhibit transient temperature.

### Ease of Use & Intelligent Security

A comprehensive visual and audible alarm system with remote alarm contacts ensures users are aware of any abnormalities and can take appropriate actions.

MPR-721-PE Temperature Variation 24 hr Temperature Mapping (Unloaded) Refrigerator Set at 5°C



### Outstanding reliability and performance

The outstanding reliability and performance provided are ideal in a wide variety of storage and research applications.



### Effective storage

In the medical field they provide effective storage of life-saving blood supplies and vaccines, as well as samples for diagnosis.



### Valuable Sample Storage

An ideal storage solution with door lock (key included) for valuable samples.

# Biomedical -30°C Chest Freezer



MDF-437-PE

## Easy to read digital display

Temperature readings are displayed and controlled in the range of -20°C to -30°C.

## Direct Cooling System

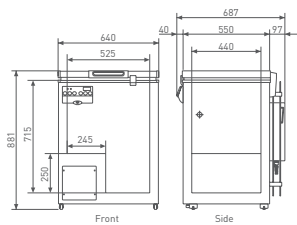
The Biomedical -30°C Chest Freezers feature a direct cooling system for uniform temperature control. Manual defrost ensures a stable environment with no large temperature peaks.

## Visual LED Alarm Alerts

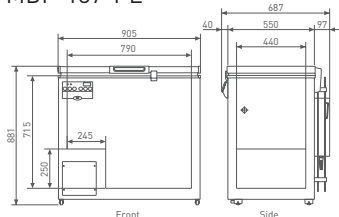
Audible and flashing LED visual alarms alert users to the unlikely event of either a high or low temperature condition to protect stored products.

## Microprocessor Control

Managed and monitored by an integrated microprocessor controller with a comprehensive alarm system and diagnostic functions.



MDF-137-PE



MDF-237-PE

MDF-437-PE



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Model Number		MDF-137-PE*	MDF-237-PE*	MDF-437-PE*		
<b>Dimensions</b>						
External Dimensions (W x D x H) <sup>1)</sup>	mm	640 x 687 x 881	905 x 687 x 881	1265 x 807 x 902		
Internal Dimensions (W x D x H)	mm	525 x 440 x 715	790 x 440 x 715	1140 x 550 x 733		
Volume	litres	138	221	425		
Capacity	2" boxes	51	111	201		
Net weight (approx)	kg	52	60	81		
<b>Performance</b>						
Cooling performance <sup>2)</sup>	°C	-30				
Temperature setting range	°C	-18 ~ -35				
Temperature control range <sup>2)</sup>	°C	-20 ~ -30				
<b>Control</b>						
Controller		Microprocessor				
Display		LED				
Temperature sensor		Thermistor				
<b>Refrigeration</b>						
Cooling method		Direct				
Compressor	W	150	200	250		
Refrigerant		R-134a	R-134a	R-404A		
Refrigerant weight	g	160	175	340		
GWP of refrigerant for each cooling circuit		1430	1430	3922		
Total Refrigerant weight (CO <sub>2</sub> equivalent)	ton	0.229	0.250	1.333		
Insulation material		PUF				
Insulation thickness	mm	55	55	60		
<b>Construction</b>						
Exterior Material		Painted Steel				
Interior Material		Coloured aluminium				
Outer lid	qty	1				
Outer lid lock		Y				
Containers / baskets	qty	2	3	4		
Max. load per container / basket	kg	10				
Max. load - total	kg	50	80	110		
Access port	qty	2				
- position		Right / bottom left				
- diameter	Ø mm	17				
Casters	qty	4 (2 levelling feet)				
<b>Alarms</b> (R = Remote Alarm, V = Visual Alarm, B = Buzzer Alarm)						
Power Failure		V-B-R				
High Temperature		V-B-R				
Low Temperature		V-B-R				
<b>Electrical and Noise Level</b>						
Power Supply	V	230V 50Hz single phase				
Noise Level <sup>3)</sup>	dB [A]	35	41	42		
<b>Options</b>						
Storage systems		MDF-13B2-PW, set of two baskets MDF-13B3-PW, set of three baskets		MDF-43B2-PW, set of two baskets, MDF-43B3-PW, set of three baskets		
Temperature recorders		set of three baskets				
- Circular type					MTR-G85C-PE	
- Chart paper					RP-G85-PW	
- Ink pen					PG-R-PW	
- Recorder housing					MDF-S740-PW	
- Continuous strip type					MTR-4015LH-PE	
- Chart paper		RP-40-PW				
- Recorder housing		MDF-S3040-PW				

Appearance and specifications are subject to change without notice.

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 freezer centre, ambient temperature +35°C, no load

3) Nominal value - Background noise 20dB

\* Complies with Art. 11, Annex III of F-Gas Regulation (EU) No 517/2014. Contains fluorinated greenhouse gases.