

# VIP Dual Cool Series

## -86°C Ultra-Low Freezers

MDF-U500VX-PE



VIP dual cool



### Secure storage with Dual Cooling refrigeration

- Dual Cooling System for ultimate sample protection
- Intelligent ECO mode operation provides more energy savings
- Improved accessibility with vacuum release port
- Quiet operation
- User-friendly filterless design

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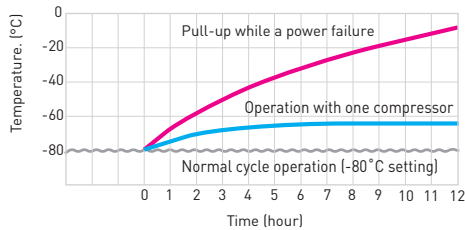
## Secure storage with new Dual Cooling system

The Dual Cooling System is newly designed to securely store valuable biological samples. Two independent refrigeration systems provide a reliable -86°C ultra-low temperature environment. Should unexpected failure occur in one cooling circuit, the other will maintain the freezer in the -70°C range.

## High efficiency insulation using VIP technology

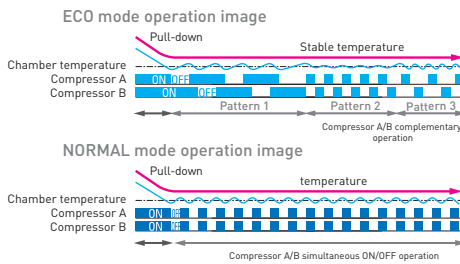
Panasonic's patented VIP technology has resulted in a revolutionary

vacuum insulation cabinet construction that reduces wall thickness by approximately one half and achieves up to 30% more storage capacity than conventionally insulated freezers, without increasing its footprint.



## Intelligent ECO mode operation

"ECO mode," an industry first operation, achieves approx. 15% energy savings than conventional models. The two compressors, A and B, are independently controlled to optimise operation efficiently to minimise energy consumption by monitoring load status on the freezer



## Graphic control panel

A central LCD display panel allows for ultimate operability. Temperature performance graphs can be visualized on screen and a data log function allows information to be transmitted to a PC via the interface module.

## User-friendly design

- Various alarms including high/low temperatures, door ajar, power failure alarm and part replacement notification keep samples safe even in an emergency.
- A vacuum release port allows smooth door opening when the door seal is tightened by negative pressure generated from temperature difference between chamber and ambient environment.
- Filterless construction eliminates bothersome filter cleaning.
- New rugged, one-handed outer door latch allows a padlock to be attached.

VIP Dual Cool Series		
<b>Characteristics</b>		
PUF = Rigid polyurethane foamed insulation V = Visual alarm B = Buzzer alarm R = Remote alarm		
<b>MODEL</b>		<b>MDF-U500VX-PE</b>
<b>Dimensions</b>		
External dimensions (W x D x H)	mm	770 x 870 x 1990
Internal dimensions (W x D x H)	mm	630 x 600 x 1380
Effective capacity	litres	519
Net weight (approx)	kg	320
<b>Performance</b>		
Cooling performance <sup>1)</sup>	°C	-86
Temperature setting range	°C	-50 ~ -90
Temperature control range <sup>1)</sup>	°C	-50 ~ -86
<b>Control</b>		
Controller	Microprocessor Non-volatile memory	
Vacuum release port	Yes	
Display	LCD	
Temperature sensor	Pt-1000	
<b>Refrigeration</b>		
Refrigeration system	Independent Dual-Cooling	
Low-stage compressor	W	2 x 1100
Low-stage refrigerant	HFC Mixed	
Insulation material	PUF / VIP Plus	
Insulation thickness	mm	70
<b>Alarms</b>		
Power failure	V-B-R	
High temperature	V-B-R	
Low temperature	V-B-R	
Filter	Filterless design	
Door open	V-B	
<b>Construction</b>		
Exterior material	Painted steel	
Interior material	Painted steel	
Inner door	qty	2 (Insulated)
Outer door lock	Y	
Shelves (adjustable)	qty	3
Max. load - per shelf	kg	50
Max. load - total	kg	150
Access port	qty	3
- position	Back/Bottom x 2	
- diameter	Ø mm	17
Casters	qty	4 (2 leveling feet)
<b>Electrical and Noise Level</b>		
Power supply	230V 50Hz Single phase	
Noise level <sup>2)</sup>	dB	53
<b>Options</b>		
Liquid CO <sub>2</sub> Back-up	CVK-UB2-PW	
Liquid N <sub>2</sub> Back-up	CVK-UBN2-PW	
<b>Temperature recorders</b>		
- Circular type (-100°C to +40°C)	MTR-G85C-PE	
- Chart paper	RP-G85-PW	
- Ink pen	PG-R-PW	
- Continuous strip type (-100°C to +50°C)	MTR-85H-PW	
- Chart paper	RP-85-PW	
- Ink pen	DF-38FP-PW	
- Recorder housing	MDF-S3085-PW	
RS485 interface module	MTR-480-PW	
Drawers	qty	MDF-50R-PW (Max 1)
Small inner door kit	set of 2	MDF-51D-PW (Max 2)

notes: <sup>1)</sup> Air temperature measured at freezer centre, ambient temperature +30°C, no load  
<sup>2)</sup> Nominal Value

Appearance and specification are subject to change without notice.

**Panasonic**

for more information:

[www.biomedical.panasonic.eu](http://www.biomedical.panasonic.eu)