# **Panasonic**



MDF-DU900V-PE

# VIP

-86°C Upright Freezer

845 L







Panasonic's MDF-DU900V VIP -86°C Upright Freezer provides maximum sample storage space within an optimum footprint combined with industry leading cooling performance and reliability for an ideal long-term preservation solution.

## Maximum Sample Storage

The use of patented VIP PLUS panels within the large freezer cabinet allows a capacity of up to 672 2" boxes inside a footprint of just 1m² for maximum storage. The freezer's conventional depth allows for easy installation.

## Reliable Panasonic Technologies

Cool Safe® compressors that are specifically designed for ultra-low temperature applications are employed in the proven Panasonic cascade refrigeration system ensuring high levels of performance and reliability.

# Enhanced Use & Intelligent Security

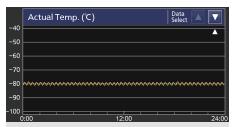
The new EZlatch makes access to stored samples even easier.

A colour LCD touch panel allows full user control, even with gloved hands, while the USB port makes transferring logged data to a PC convenient.



#### **High Capacity Sample Storage**

Ideal for high volume and long term sample storage in biobanks and biorepositories.



#### **Dependable Preservation**

Quality design ensures trusted, reliable storage that maintains the integrity of precious samples.



#### Simple Data Monitoring

Important information such as freezer temperature, door opening times and alarm history is logged for monitoring in GLP applications.

### VIP -86°C Upright Freezer



### **Application Specific Design**

Refrigeration components are carefully selected and matched for optimum operation under demanding laboratory environments. This improves temperature recovery after door openings and sample placement, while ensuring lower internal temperatures for increased durability.

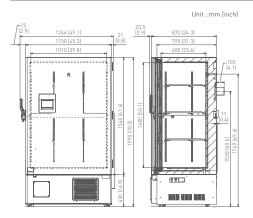
#### **Highest Box Capacity**

The use of highly efficient VIP PLUS insulation optimizes interior volume in the smallest footprint possible. This ensures the most efficient use of space for up to 40%\* more 2" box storage capacity within the same footprint.

\*MDF-DU900V-PE compared with Panasonic model with an equivalent footprint.

### **Microprocessor Control** with Touch Screen Display

Managed and monitored by an integrated microprocessor controller with a comprehensive alarm system and diagnostic functions. An LCD touch screen displays freezer temperature and important status information while a USB port allows logged data to be easily transferred to a PC.



The MDF-DU900V-PE is certified as a Class IIa Medical Device (93/42/EEC and 2007/47/EC) for medical purposes of storing cells, tissues, organs and embryos.

For more information, please visit our website:

Model Number		MDF-DU900V-PE
External Dimensions (W x D x H) <sup>1)</sup>	mm	1150 x 870 x 1990
Internal Dimensions (W x D x H)	mm	1010 x 600 x 1400
Volume	litres	845
Net Weight	kg	372
Capacity		
- Aluminium Racks	2" boxes	616
- Stainless steel Racks	2" boxes	672
Performance		
Cooling performance 2	°C	-86
Temperature setting range	°C	-50 to -90
Temperature control range 21	°C	-50 to -86
Control		M: Left
Controller		Microprocessor, non-volatile memory
Display		
Temperature sensor		Pt-1000
Refrigeration		
Refrigeration system	144	Cascade
Compressors	W	2 x 1100
Refrigerant		HFC
Insulation material		PUF / VIP Plus
Insulation thickness  Construction	mm	70
Exterior Material		Painted Steel
Interior Material		Painted Steel
Outer Door	atv	1
Outer Door Lock	qty	Y
Inner Doors	atv	2 pieces (insulated)
Shelves	qty	3
	qty	50
Max. load - per shelf  Max. load - total	kg kg	150
Vacuum release port	Ny Ny	Y
Access Port	qty	2
Access Port Position	919	Back, Bottom
Access Port Diameter	Ø mm	17
Casters	qty	4 (2 leveling feet)
Alarms		Alarm, V = Visual Alarm, B = Buzzer Alarm)
Power Failure		V-B-R
High Temperature		V-B-R
Low Temperature		V-B-R
Filter		V-B
Door open		V-B
Electrical and Noise Level		
Power Supply	V	230
Face and a second secon	Hz	50
Frequency	112	
Frequency  Noise Level <sup>3]</sup>	dB [A]	52
Noise Level <sup>3</sup> Options	dB [A]	
Noise Level <sup>3)</sup> Options  Small Inner Door Kit		MDF-9ID-PW (max 2) <sup>41</sup>
Noise Level <sup>3</sup> Options  Small Inner Door Kit  Liquid CO <sub>2</sub> back-up	dB [A]	
Noise Level <sup>3)</sup> Options  Small Inner Door Kit  Liquid CO <sub>2</sub> back-up  Temperature recorders	dB [A]	MDF-9ID-PW (max 2) <sup>4)</sup> MDF-UB6-PW
Noise Level <sup>3]</sup> Options  Small Inner Door Kit  Liquid CO <sub>2</sub> back-up  Temperature recorders  - Circular type	dB [A]	MDF-9ID-PW (max 2) <sup>41</sup> MDF-UB6-PW  MTR-G85C-PE <sup>5)</sup>
Noise Level <sup>3)</sup> Options  Small Inner Door Kit  Liquid CO <sub>2</sub> back-up  Temperature recorders  - Circular type  - Chart paper	dB [A]	MDF-91D-PW (max 2) <sup>41</sup> MDF-UB6-PW  MTR-G85C-PE <sup>5)</sup> RP-G85-PW
Noise Level <sup>3]</sup> Options  Small Inner Door Kit  Liquid CO <sub>2</sub> back-up  Temperature recorders  - Circular type	dB [A]	MDF-9ID-PW (max 2) <sup>41</sup> MDF-UB6-PW  MTR-G85C-PE <sup>51</sup> RP-G85-PW PG-R-PW
Noise Level <sup>3)</sup> Options  Small Inner Door Kit  Liquid CO <sub>2</sub> back-up  Temperature recorders  - Circular type  - Chart paper	dB [A]	MDF-9ID-PW (max 2) <sup>41</sup> MDF-UB6-PW  MTR-G85C-PE <sup>51</sup> RP-G85-PW PG-R-PW MTR-85H-PW
Noise Level <sup>3)</sup> Options  Small Inner Door Kit  Liquid CO <sub>2</sub> back-up  Temperature recorders  - Circular type  - Chart paper  - Ink pen  - Continuous strip type  - Chart paper	dB [A]	MDF-9ID-PW (max 2) <sup>41</sup> MDF-UB6-PW  MTR-G85C-PE <sup>51</sup> RP-G85-PW PG-R-PW MTR-85H-PW RP-85-PW
Noise Level <sup>3)</sup> Options  Small Inner Door Kit  Liquid CO <sub>2</sub> back-up  Temperature recorders  - Circular type  - Chart paper  - Ink pen  - Continuous strip type  - Chart paper  - Ink pen	dB [A]	MDF-9ID-PW (max 2) <sup>41</sup> MDF-UB6-PW  MTR-G85C-PE <sup>51</sup> RP-G85-PW PG-R-PW MTR-85H-PW RP-85-PW DF-38FP-PW
Noise Level <sup>3)</sup> Options  Small Inner Door Kit  Liquid CO <sub>2</sub> back-up  Temperature recorders  - Circular type  - Chart paper  - Ink pen  - Continuous strip type  - Chart paper  - Ink pen  - Recorder housing	dB [A]	MDF-9ID-PW (max 2) <sup>41</sup> MDF-UB6-PW  MTR-G85C-PE <sup>51</sup> RP-G85-PW PG-R-PW MTR-85H-PW RP-85-PW
Noise Level <sup>3)</sup> Options  Small Inner Door Kit  Liquid CO <sub>2</sub> back-up  Temperature recorders  - Circular type  - Chart paper  - Ink pen  - Continuous strip type  - Chart paper  - Ink pen	dB [A]	MDF-9ID-PW (max 2) <sup>41</sup> MDF-UB6-PW  MTR-G85C-PE <sup>51</sup> RP-G85-PW PG-R-PW MTR-85H-PW RP-85-PW DF-38FP-PW

<sup>&</sup>lt;sup>11</sup> Exterior dimensions of main cabinet only, excluding handle and other external projections - See dimensions drawings on website for full details.

<sup>21</sup> Air temperature measured at freezer centre, ambient temperature +30°C, no load

<sup>21</sup> Nominal value - Background noise 20dB[A]



<sup>4)</sup> Installation of small inner door kit may effect usable storage