



MDF-DU900V-PE

VIP

-86°C Upright Freezer

845 L



PHCbi's MDF-DU900V **VIP** -86°C Upright Freezer provides maximum sample storage capacity 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 space saving patented VIP PLUS panels within the 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 PHCbi Technologies

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

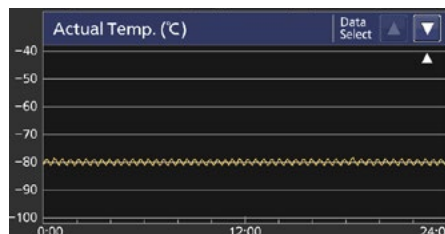
Enhanced Use & Intelligent Security

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 simple and convenient.



High Capacity Sample Storage

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



Dependable Preservation

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



Easy 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 and efficient operation under demanding laboratory environments. This improves temperature recovery after door openings and sample placement, while ensuring lower internal temperatures for increased durability.

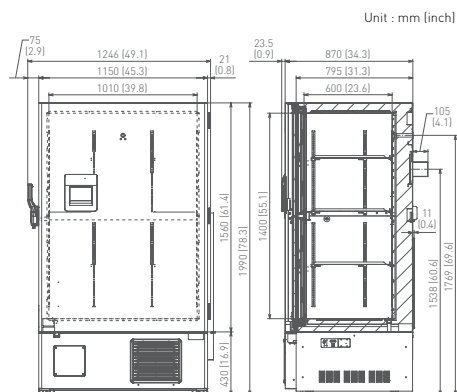
Highest Box Capacity

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 PHCbi 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 self- diagnostic functions. Freezer temperature and important status information are clearly displayed and logged, with the possibility to export the data to USB.



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.



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| Model Number | | MDF-DU900V-PE |
|---|-------------------------------------|----------------------------------|
| External Dimensions (W x D x H) ¹⁾ | 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 | 2" boxes | 672 |
| Performance | | |
| Cooling performance ²⁾ | °C | -86 |
| Temperature setting range | °C | -50 to -90 |
| Temperature control range ²⁾ | °C | -50 to -86 |
| Control | | |
| Controller | Microprocessor, non-volatile memory | |
| Display | LCD Touch Screen | |
| Temperature sensor | Pt-1000 | |
| Refrigeration | | |
| Refrigeration system | Cascade | |
| Compressors | W | 2 x 1100 |
| Refrigerant | HFC | |
| Insulation material | PUF / VIP Plus | |
| Insulation thickness | mm | 70 |
| Construction | | |
| Exterior Material | Painted Steel | |
| Interior Material | Painted Steel | |
| Outer Door | qty | 1 |
| Outer Door Lock | Y | |
| Inner Doors | qty | 2 pieces (insulated) |
| Shelves | qty | 3 |
| Max. load - per shelf | kg | 50 |
| Max. load - total | kg | 150 |
| Vacuum release port | Y | |
| Access Port | qty | 2 |
| Access Port Position | Back, Bottom | |
| Access Port Diameter | Ø mm | 17 |
| Casters | 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 | |
| Filter | V-B | |
| Door open | V-B | |
| Electrical and Noise Level | | |
| Power Supply | V | 230 |
| Frequency | Hz | 50 |
| Noise Level ³⁾ | dB [A] | 52 |
| Options | | |
| Small Inner Door Kit | set of 2 | MDF-9ID-PW (max 2) ⁴⁾ |
| Liquid CO ₂ back-up | MDF-UB6-PW | |
| Temperature recorders | | |
| - Circular type | MTR-G85C-PE ⁵⁾ | |
| - Chart paper | RP-G85-PW | |
| - Ink pen | PG-R-PW | |
| - Continuous strip type | MTR-85H-PW | |
| - Chart paper | RP-85-PW | |
| - Ink pen | DF-38FP-PW | |
| - Recorder housing | MDF-S3085-PE | |
| Optional communication systems | | |
| Ethernet interface (LAN) | MTR-L03-PW | |

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 +30°C, no load.

³⁾ Nominal value - Background noise 20dB(A).

⁴⁾ Installation of small inner door kit may effect usable storage capacity.

⁵⁾ Requires sensor cover MTR-DU700SF-PW.