Panasonic

MDF-U56VC-PA

VIP® Series

-86°C Ultra-Low Temperature Upright Freezer   18.6 cu.ft. **|** 526 L

Panasonic's VIP Series ultra-low temperature freezers are designed for safe, reliable storage of biologicals. Energy efficiency in VIP Series freezers is achieved through balanced temperature performance and power management. The advanced combination of cabinet design, electronics, refrigeration and critical components are engineered for enhanced security, performance and reliability.

Reliability You Can Count On

The robust refrigeration system is powered by Panasonic engineered compressors. The system provides dependable cooling by balancing temperature performance and energy management. Reserve refrigeration power assures exceptional temperature recovery following door openings. VIP freezers have demonstrated >99% reliability with excellent performance history.

Maximum Storage, Minimal Footprint

The upright freezer employs a patented VIP insulation composite that maximizes space efficiency and holds up to 384 2" boxes or 256 3" boxes within a 7.22 ft^2 (0.67 m^2) footprint.

Uniform Preservation

The combination of patented VIP vacuum insulation panels with Panasonic designed compressors, specific to ultra-low temperature applications, assures superior uniformity (+/- 5°C) throughout the cabinet to maintain the integrity of the samples.

Microprocessor Controls/Alarms

Integrated microprocessor-based controller and LED display include comprehensive setpoint, alarms, monitoring, diagnostic and communication features.*

Control panel color & appearance may vary per equipment model.

Optimum Sample Storage

This space saving cabinet design offers a reduced wall thickness for maximum interior volume. Ideal for storage of DNA, RNA and other biological samples.

Extra Protection, Easy Access

The stainless steel framed, insulated inner doors with gasket seal firmly against the cabinet to help minimize change in interior temperatures during routine door openings. Inner door latches feature an ergonomic design for one-handed operation.
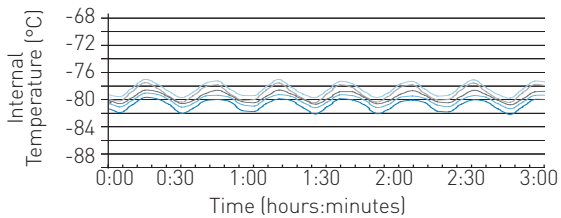
Life Science

Discovery powered by precision™

VIP -86°C ULT Upright Freezer

MDF-U56VC-PA

Model Number		MDF-U56VC-PA
External Dimensions (W × D × H) [1]	inches	mm	30.3 × 34.3 × 78.3	770 × 870 × 1990
Internal Dimensions (W × D × H)	inches	mm	24.8 × 23.6 × 55.1	630 × 600 × 1400
Volume	cu.ft.	liters	18.6	526
Net Weight	lbs.	kg	672	305
Capacity (2" boxes)	qty	384
Capacity (3" boxes)	qty	256
Inventory Racks (2" boxes)	qty	16
Inventory Racks (3" boxes)	qty	16
Performance		
Warranty		Panasonic Five Year Warranty [2]
Cooling Performance [3]	°C	-86
Temperature Setting Range	°C	-50 to -90 in 1°C increments
Temperature Control Range [3]	°C	-50 to -86 in 1°C increments
Control		
Controller		Microprocessor, touchpad data entry with display lockout
Display		LED
Temperature Sensor		Pt-1000
Refrigeration		
Refrigeration System		Cascade
Compressors	W	(1) 450 High-Stage and (1) 750 Low-Stage
Refrigerant		CFC-free R-404A and R-508B
Insulation Material		Rigid polyurethane foam (PUF) + VIP
Construction		
Exterior & Interior Material		Painted steel
Outer Door	qty	1
Outer Door Lock		Standard
Inner Doors	qty	2 insulated, ABS, w/ stainless steel frame and positive latches
Shelves	qty	3
Shelf Dimensions (W × D)	inches	mm	23.9 × 21.0	608 × 535
Max. Load - per Shelf	lbs	kg	110	50
Max. Load - Total Freezer	lbs	kg	440	200
Vacuum Release Port		Standard
Access Ports	qty	2
Access Port Position		Center, upper back wall and back left chamber floor
Access Port Diameter	inches	mm	0.6	17
Casters	qty	4 (2 leveling feet on front base)
Alarms		(V = Visual Alarm, B = Buzzer Alarm, R = Remote 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		208V-230V, 1Ø, NEMA 6-15P, requires NEMA 6-15R receptacle
Frequency	Hz	60
Noise Level [4]	dB (A)	49
Options		
Small Inner Door Kit	set of 2 (total of 4 inner doors)	MDF-5ID-PW (max 2) [5]
Liquid CO₂ Back-up System		CKV-UB2I-PW
Temperature Recorder		
Circular Type	6", 7 day circular	MTR-C954 [6]
Chart Paper	52 charts per box	C7100386REV
Ink Pen	pack of 6	R252
Optional Communication System		
Wireless, cloud-based, automatic data management		LabAlert® Monitoring System

VIP Vacuum Insulated Panels

Inside-out engineering starts with a patented VIP insulation composite which results in an efficient, thin-wall cabinet. Insulated inner doors improve temperature uniformity, minimize cold air loss during door openings and extend warm-up times during power outages.

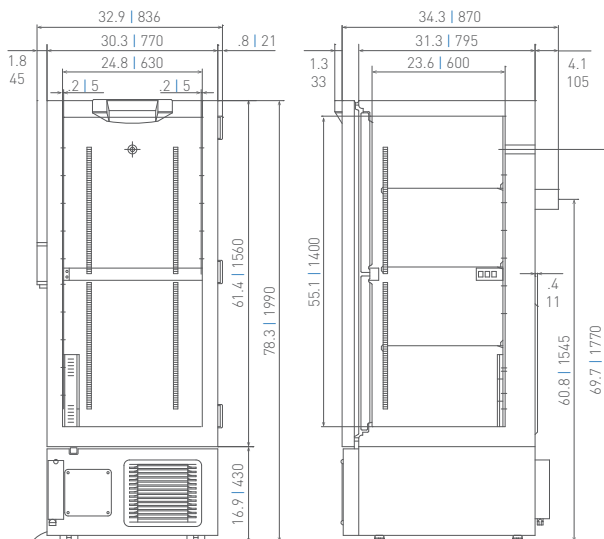## Model MDF-U56VC-PA Temperature Uniformity Data

-80°C setpoint at 22°C ambient temperature, empty freezer

As interior air temperature stabilizes at the desired setpoint, mass storage volume sustains tight temperature uniformity of the load inside the insulated cabinet.

Dimensions

Unit : inch | mm

[1] Exterior dimensions of main cabinet only, excluding handle and other external projections
[2] Current warranty offered at time of printing and may be subject to change
[3] Air temperature measured at freezer center, ambient temperature +30°C, no load
[4] Nominal value - Background noise 20dB[A]
[5] Installation of small inner door kit may affect usable storage capacity
[6] Requires sensor cover MTR-DU700SF-PW