# Panasonic



## **VIP**<sup>®</sup> 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.

MDF-U56VC-PA

#### 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<sup>2</sup> (0.67 m<sup>2</sup>) 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.

BATTERY FILTER **ULTRA LOW** ALARM

BUZZER (ALARM) STATUS SET (>>> (A

#### Microprocessor Controls/Alarms

Integrated microprocessorbased controller and LED display include comprehensive setpoint, alarms, monitoring, diagnostic and communication features.\*

\*Control panel color & appearance may vary per equipment model.

ife Science



#### **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.



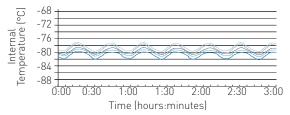


#### VIP Vacuum **Insulated Panels**

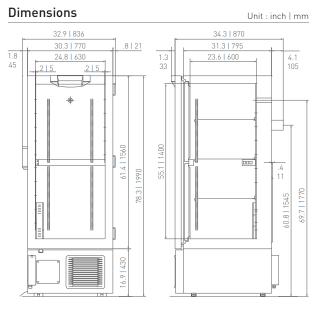
Inside-out engineering starts with a patented VIP insulation composite which results in an efficient, thin-wall cabinet. Insulated inner doors improve temperature uniformity, minimize cold air loss during door openings and extend warm-up times during power outages.

#### Model MDF-U56VC-PA Temperature **Unformity 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.



### Panasonic

Panasonic Healthcare Corporation of North America 1300 Michael Drive, Suite A, Wood Dale, IL 60191 Toll Free USA (800) 858-8442, Fax (630) 238-0074 www.panasonic-healthcare.com/us/biomedical

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Shelf Dimensions (W × D)inchesimm23.9 × 21.0   608 × 535Max. Load - per ShelfIbs l kg110   50Max. Load - Total FreezerIbs l kg440   200Vacuum Release PortIbs l kg440   200Vacuum Release PortIpt g2Access Portsqty2Access Portsqty2Access Port Diameterinches Imm0.6   17Castersqty4   2 leveling feet on front baselAlarms(P v Visual Alarm, B = Buzzer Alarm, R = Remote AlarPower FailureV-B-RHigh TemperatureV-B-RLow TemperatureV-B-RFilterV-B-RDoor OpenV-BEtertrical and Noise LevelV-BPower SupplyEtertrical and Noise LevelFrequencyHzNoise Level 4dB   AlOptionsSet of 2 (total of 4 inner doors]Small Inner Door Kitset of 2 (total of 4 inner doors]Circular Type6', 7 day circularCircular Type6', 7 day circularCircular Type52 charts per boxCircular Type6', 7 day circularChart Paper52 charts per boxUning Long Long Long Long Long Long LongIn Pack of 6R252Optional Communication SystemSet of 6Circular Typefor Ady circularIn Pack of 6R252Optional Communication SystemSet of 6Optional Communication SystemSet of 6Optional Communication SystemSet of 6 <td>Inner Doors</td> <td>qty</td> <td>and positive latches</td>	Inner Doors	qty	and positive latches
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Max. Load - Total FreezerIbs I kg4401 200Vacuum Release PortImage: StandardAccess Portsqty2Access Port PositionImage: Center, upper back wall and back left chamber floorAccess Port Diameterinches I mm0.6117Castersqty4 [2 leveling feet on front base]AarmsV = Visual Alarm, B = Buzzer Alarm, R = Remote AlarPower FailureImage: Center, upper back wall and back left chamber floorLow TemperatureImage: Center, upper back wall and back left chamber floorLow TemperatureImage: Center, upper back wall and back left chamber floorDoor OpenImage: Center, UP = StandardFilterImage: Center, UP = StandardPower SupplyImage: Center, UP = StandardFrequencyHzMoise Level 4dB [A]OptionsImage: Center floorSmall Inner Door KitSet of 2 Itatel of 4 inner doolCircular Type6 <sup>6</sup> , 7 day circularCircular Type6 <sup>6</sup> , 7 day circularChart Paper52 charts per boxCircular Type1m ack of 6Role Conduct Type1m ack of 6Role Conduct Type1m ack of 6Role Conduct Type1m ack of 6Mineter Conduct Type1m ack of 6 <t< td=""><td>Shelf Dimensions (W × D)</td><td>inches   mm</td><td>23.9 × 21.0 608 × 535</td></t<>	Shelf Dimensions (W × D)	inches   mm	23.9 × 21.0 608 × 535
Vacuum Release PortImage: Constraint of the standardAccess Portsqty2Access Port PositionCenter, upper back wall and back left chamber floorAccess Port Diameterinches I mm0.6 [ 17Castersqty4 [2 leveling feet on front base]ArmsV = Visual Alarm, B = Buzzer Alarm, R = Remote AlarPower FailureV = NHigh TemperatureV = NLow TemperatureV = NDoor OpenV = NElectrical and Noise LevelV = NPower SupplyIf a standardFrequencyHzNoise Level 4dB [A]OptionsCKV-UB21-PW [max 2] 4Liquid CO <sub>2</sub> Back-up SystemStandard doesCircular Type6*, 7 day circularCircular Type52 charts per boxCircular Type52 charts per boxCircular Type52 charts per boxCircular Typepack of 6Rest of 2RTR-C954 4Chart Paper52 charts per boxCircular Type6*, 7 day circularMinetocs clawd basedPack of 6Minetocs clawd basedPack of 6Circular Type6*, 7 day circularMinetocs clawd basedPack of 6Minetocs clawd basedPack of 6	Max. Load - per Shelf	lbs kg	110 50
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Access Port Position       Center, upper back wall and back left chamber floor         Access Port Diameter       inches I mm       0.6   17         Casters       qty       4 (2 leveling feet on front base)         Alarms       (V = Visual Alarm, B = Buzzer Alarm, R = Remote Alar         Power Failure        V-B-R         High Temperature        V-B-R         Low Temperature        V-B-R         Door Open       V-B       V-B         Electrical and Noise Level        V-B         Power Supply       Image: Set of 2 (total of 4 inner doors)       208V-230V, 10, NEMA 6-15P, requires NEMA 6-15R receptacle         Frequency       Hz       60       60         Noise Level 4/       dB (A)       49       49         Options        Set of 2 (total of 4 inner doors)       MDF-5ID-PW (max 2) <sup>SI</sup> Liquid C0, Back-up System        CKV-UB21-PW       1         Circular Type       6'', 7 day circular       MTR-C954 <sup>A</sup> 1         Chart Paper       52 charts per box       C7100386REV       1         Ink Pen       pack of 6       R252       1         Wirelose, sleud hored       Jack of 6       R252       1	Vacuum Release Port		Standard
Access Port Position       Inches I mm       0.6   17         Access Port Diameter       qty       4 [2 leveling feet on front base]         Aarms       IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar         Power Failure       IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar         Power Failure       IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar         High Temperature       IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar         Fower Failure       V-B-R         Low Temperature       IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar         Filter       IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar         Fower Supply       IV = IV         Power Supply       IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar         Frequency       Hz         Noise Level       IV = IV         Power Supply       IV = IV         Frequency       Hz         Noise Level <sup>41</sup> dB (A)         Options       IV = IV         Small Inner Door Kit       IV = IV         Iquid C02 Back-up System       IV = IV         Circular Type       6 <sup>o</sup> , 7 day circular         Circular Type       6 <sup>o</sup> , 7 day circular         Circular Type       5 <sup>o</sup> , 7 day circular         Ink Pen       pack of 6<	Access Ports	aty	2
Access Port Diameter     inches   mm     0.6   17       Casters     qty     4 (2 leveling feet on front base)       Alarms     IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar       Power Failure     V-B     V-B-R       High Temperature     0.6   17       Low Temperature     IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar       Power Failure     V-B-R       Low Temperature     IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar       Power Supply     IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar       Power Supply     IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar       Power Supply     IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar       Power Supply     IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar       Power Supply     IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar       Power Supply     IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar       Power Supply     IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar       Power Supply     IV = Visual Alar       Small Inner Door Kit     Set of 2 (total of 4 inner doors)       Small Inner Door Kit     Set of 2 (total of 4 inner doors)       Circular Type     6'', 7 day circular       Circul	Access Port Position		Center, upper back wall and back left chamber floor
Casters       qty       4 [2 leveling feet on front base]         Alarms       IV = Visual Alarm, B = Buzzer Alarm, R = Remote Alar         Power Failure           High Temperature           Low Temperature           Filter           Door Open           Electrical and Noise Level           Power Supply       Image: State of 2 (ball of 4 inner doors)       208V-230V, 10, NEMA 6-15P, requires NEMA 6-15R receptacle         Frequency       Hz       60          Noise Level 40       dB (A)       49         Options         MDF-5ID-PW (max 2) State         Liquid C0, Back-up System         CKV-UB21-PW         Circular Type       6'', 7 day circular       MTR-C954 4          Chart Paper       52 charts per box       C7100386REV          Ink Pen       pack of 6       R252          Winders cloud bored        R252		inches mm	
Alarms     (V = Visual Alarm, B = Buzzer Alarm, R = Remote Alar       Power Failure     V-B-R       High Temperature     V-B-R       Low Temperature     V-B-R       Filter     V-B-R       Door Open     V-B       Door Open     V-B       Etectrical and Noise Level     V-B       Power Supply     Image: Comparison of the temperature of the temperature of the temperature of the temperature of temperatemerature of temperature of temperatur			
Power FailureV-B-RHigh TemperatureImage: Constraint of the second sec		qty	
High TemperatureImage: Constraint of the sector			
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Filter     Image: Constraint of the sector of	• •		
Door Open     V-B       Electrical and Noise Level     V-B       Power Supply     Image: Comparison of the second of the sec	Low Temperature		V-B-R
Electrical and Noise Level         Power Supply       Image: Comparison of the state of the sta	Filter		V-B
Power Supply         208V-230V, 10, NEMA 6-15P, requires NEMA 6-15R receptacle           Frequency         Hz         60           Noise Level 4I         dB (A)         49           Options          49           Small Inner Door Kit         Ital of 4 inner doors)         MDF-5ID-PW [max 2] 4I           Liquid C0 <sub>2</sub> Back-up System          CKV-UB2I-PW           Circular Type         6*, 7 day circular         MTR-C954.4I           Chart Paper         52 charts per box         C7100386REV           Ink Pen         pack of 6         R252	Door Open		V-B
Prover Suppy     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) <sup>SI</sup> Liquid Co <sub>2</sub> Back-up System     6"     CKV-UB2I-PW       Temperature Recorder       Circular Type     6", 7 day circular     MTR-C954 <sup>4</sup> Chart Paper     52 charts per box     C7100386REV       Ink Pen     pack of 6     R252       Optional Communication System	Electrical and Noise Level		
Noise Level 4         dB (A)         49           Options         Set of 2 [total of 4 inner doors]         MDF-5ID-PW [max 2] <sup>SI</sup> Small Inner Door Kit         set of 2 [total of 4 inner doors]         MDF-5ID-PW [max 2] <sup>SI</sup> Liquid Co <sub>2</sub> Back-up System         6"         MDF-5ID-PW [max 2] <sup>SI</sup> Circular Type         6", 7 day circular         MTR-C954 <sup>AI</sup> Chart Paper         52 charts per box         C7100386REV           Ink Pen         pack of 6         R252           Optional Communication System         Umplement         Umplement	Power Supply	•	
Noise Level 4         dB (A)         49           Options         Set of 2 [total of 4 inner doors]         MDF-5ID-PW [max 2] <sup>SI</sup> Small Inner Door Kit         set of 2 [total of 4 inner doors]         MDF-5ID-PW [max 2] <sup>SI</sup> Liquid Co <sub>2</sub> Back-up System         6"         MDF-5ID-PW [max 2] <sup>SI</sup> Circular Type         6", 7 day circular         MTR-C954 <sup>AI</sup> Chart Paper         52 charts per box         C7100386REV           Ink Pen         pack of 6         R252           Optional Communication System         Umplement         Umplement	Frequency	Hz	60
Options         Set of 2 [total of 4 inner doors]         MDF-5ID-PW [max 2] <sup>si</sup> Liquid CO <sub>2</sub> Back-up System         CKV-UB2I-PW           Temperature Recorder         CKV-UB2I-PW           Circular Type         6", 7 day circular         MTR-C954 <sup>4</sup> Chart Paper         52 charts per box         C7100386REV           Ink Pen         pack of 6         R252           Optional Communication System         MTR-C954 for an and and and and and and and and and			
Small Inner Door Kit     set of 2 (total of 4 inner doors)     MDF-5ID-PW (max 2) <sup>si</sup> Liquid CO2 Back-up System     CKV-UB2I-PW       Temperature Recorder     CKV-UB2I-PW       Circular Type     6", 7 day circular     MTR-C954 <sup>4</sup> Chart Paper     52 charts per box     C7100386REV       Ink Pen     pack of 6     R252       Optional Communication System     Uirplages cloud based		35.04	
Small Inner Door Kit         [total of 4 inner doors]         MDF-3ID-PW (max 2) <sup>a</sup> Liquid C02 Back-up System         CKV-UB2I-PW           Temperature Recorder         Circular Type         6", 7 day circular           Circular Type         6", 7 day circular         MTR-C954 <sup>a</sup> Chart Paper         52 charts per box         C7100386REV           Ink Pen         pack of 6         R252           Optional Communication System         Viraless cloud based	opaons		
Temperature Recorder       Circular Type     6", 7 day circular       MTR-C954 <sup>A</sup> Chart Paper     52 charts per box       C7100386REV       Ink Pen     pack of 6       R252       Optional Communication System			
Circular Type     6", 7 day circular     MTR-C954 4       Chart Paper     52 charts per box     C7100386REV       Ink Pen     pack of 6     R252       Optional Communication System     Image: Communication System			CKV-UB2I-PW
Chart Paper         52 charts per box         C7100386REV           Ink Pen         pack of 6         R252           Optional Communication System         Visulant of the sector of the secto	Temperature Recorder		
Ink Pen pack of 6 R252 Optional Communication System Wimplers cloud based	Circular Type	6", 7 day circular	MTR-C954 6)
Ink Pen pack of 6 R252 Optional Communication System Wimplers cloud based	Chart Paper	52 charts per box	C7100386REV
Optional Communication System			R252
Wireless cleud based			
automatic data management LabAlert® Monitoring System			LabAlert® Monitoring System

<sup>1)</sup> Exterior dimensions of main cabinet only, excluding handle and other external projections
 <sup>2)</sup> Current warranty offered at time of printing and may be subject to change
 <sup>3)</sup> Air temperature measured at freezer center, ambient temperature +30°C, no load
 <sup>4)</sup> Nominal value - Background noise 20dB[A]

<sup>51</sup> Installation of small inner door kit may affect usable storage capacity <sup>40</sup> Requires sensor cover MTR-DU700SF-PW

#### MDF-U56VC-PA