



# -86°C ULTRALOW TEMPERATURE FREEZERS



The Safer Choice



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#### THE NUAIRE ADVANTAGE

In 1971, Max D. Peters designed his first Biosafety Cabinet (BSC) from inside his garage at the behest of the National Institute of Health (NIH) in Bethesda, Maryland. The NIH put out a public purchase order (NIH-O3-112c) for a machine that could guarantee the safety of scientific personnel and their research specimens. Max D. Peters helped establish the basic fundamental standards that all modern Biosafety Cabinets are held to this very day. After being awarded the NIH contract, a new laboratory equipment engineering and manufacturing company, NuAire, was born. Today, NuAire, Inc. is still owned and operated by the Peters family in Plymouth, MN.

For over half a century, NuAire has consistently led the industry in safety standards and customer satisfaction. We obsess over our customers' needs and continually grow to meet those needs. With invaluable input from customers like you, we now offer a wide range of biological safety cabinets, CO<sub>2</sub> incubators, animal handling devices, centrifuges, ultralow freezers, acid-resistant polypropylene cabinetry and fume hoods, hospital pharmacy compounding isolators, and much more. You can rely on us for exceptional value and dependable service, the cornerstones of NuAire's reputation as the leading provider of laboratory products around the globe.

To better meet the necessities of our customers, we now offer an array of ultralow temperature freezer models. We pride ourselves on our products' premium quality, consistent reliability, overall low cost of ownership, and environmental sustainability. Our quality management system is fully certified to adhere to ISO 9001:2015 and 13485:2016 requirements. Our products are also celebrated for their ergonomic design, ease of use, and quiet operation. All standard ULT units sold in the US and Canada come with a 3 year parts & labor warranty. Our philosophy is that we succeed only when you succeed; we are committed to guaranteeing 100% satisfaction.

As NuAire continues to grow, we are committed to continuously improving our products and expanding our offerings. We always strive to provide you with the optimum level of personnel, environmental, and product protection throughout any industry.

#### **NuAire's Quality Policy:**

Satisfy Customers Comply with System Requirements Continually Improve

Choose NuAire as the Safer Choice for Your Laboratory



#### -86°C ULTRALOW FREEZER MODELS



NU-99729VFT

Blizzard® HC -86°C Ultralow Temperature Freezer (ULT) Models provide dependable performance for storing stem cells, blood & tissue samples, and vaccine vials at an affordable price. Vacuum insulated and/or polyurethane foam filled panels surround the storage chamber to provide greater temperature uniformity and maximize total storage space. Our dual compressor system\* maintains consistent storage temperatures without compromising energy efficiency. Our Blizzard Ultralow Temperature Freezers are the safer choice for your cold storage needs.

\*Excludes Blizzard NU-99100J model.

NuAire Blizzard Models			
Model	Configuration	Storage Capacity	
NU-99100J	Under-Counter	3.5 ft <sup>3</sup> / 100L	
NU-99338J	Upright	11.9 ft³ / 338 L	
NU-99578J	Upright	20.4 ft <sup>3</sup> / 578 L	
NU-99728J	Upright	25.7 ft <sup>3</sup> / 728 L	
NU-99729VFT	Upright	25.74 ft <sup>3</sup> / 729 L	
NU-99828J	Upright	29.2 ft <sup>3</sup> / 828 L	
NU-99420J	Chest	14.8 ft <sup>3</sup> / 420 L	

## FC

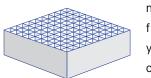
#### **HYDROCARBON (HC) NATURAL REFRIGERANTS**

Lower your total cost of ownership while improving reliable performance.

Blizzard Ultralow Temperature Freezers utilize non-toxic hydrocarbon (HC) refrigerants that are eco-friendly alternatives to CFC, HCFC, and HFC fluorocarbons, which are linked to ozone layer damage. HC refrigerants are found naturally in nature, can be acquired at a lower cost, and provide superior energy efficiency.

#### FREEZER RACK CAPACITY BY MODEL

If your ULT is being used to store small samples, storage racks and boxes provide a much more efficient use of internal space. Storage racks come in various sizes, usually denoted by the amount of rows and columns each rack can contain. The



number of rows and columns needed will depend on the freezer racks manufacturer and the storage capacity of your ULT. The table below outlines the size and quantity of racks each Blizzard model can contain.



#### Freezer Racks for 2" [5 cm] Boxes Model Rack 2" [5 cm] High 2 mL Sample **ULT Model Rack Capacity** Configuration Configuration **Box Capacity Vials Capacity** NU-99100J 5 Rows / 3 Columns 4 60 6,000 **Under-Counter** 6 96 4 Rows / 4 Columns NU-99338J Upright 21,600 5 Rows / 4 Columns 6 120 NU-99578J Upright 5 Rows / 5 Columns 16 400 40,000 NU-99728J 20 500 50,000 Upright 5 Rows / 5 Columns NU-99729VFT Upright 5 Rows / 5 Columns 20 500 50,000 NU-99828J Upright 5 Rows / 5 Columns 24 600 60,000 NU-99420J Chest 10 Rows / 1 Column 27 270 27,000

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#### **BLIZZARD FEATURES & OPTIONS**

#### Hydrocarbon (HC) Refrigerants

Commercially available HC refrigerants are efficient, environmentally safe, and non-ozone depleting.

#### **Audible & Visible Alarms**

The on-board Electronic Control Center comes with internal temperature monitoring and alarm systems with visible and audible notifications.

#### **Battery Backup**

Powers the control center and alarms in the event of an interruption in the primary power source.

#### Insulated Inner Doors\*

Compartmentalizing the inner chambers with individually latching doors greatly increases temperature stability when moving samples in & out of storage.

#### Backup CO<sub>2</sub> / LN<sub>2</sub> Cooling\*

Hook up to a  $CO_2$  and/or  $LN_2$  system to maintain internal storage temperature in the event of a power outage.

#### **Adjustable Internal Shelves**

Provides extra flexibility in storage rack configuration. They can also be removed and rearranged, if desired.

#### **Front Filter Access**

Allows convenient access for routine maintenance to the washable pre-filter.

An easy-to-open front grill allows convenient access to a washable mesh filter and ULT condenser for routine maintenance.



#### Vacuum Insulated Panels (VIP)

The freezer cabinet structures integrate a high density, low conductivity polyurethane foam and vacuum insulation panels (VIP) to improve temperature stability and maximize storage capacity.

#### Circular Chart Recorder\*

A circular chart recorder can be optionally mounted on the front of your ULT for independent internal temperature monitoring and recording.



#### Outer Door Handle w/ Locking Claw Latch

Maintains a tight seal to minimize frost built-up, yet requires minimal effort to open the freezer door. The outer door can be locked with included key or padlocked via the double loop attached to the front of the handle and unit.

#### Individual Latching Inner Doors\*

Individual claw latches on the insulated inner doors ensure that each compartment stays pressure-tight, yet accessible.



#### **Quadruple Gasket Outer Door**

The four gaskets on the outer door ensure a pressure-tight seal, reducing icing.

#### Single Gasket Inner Doors\*

The additional gaskets on the inner doors protect against thermal intrusion.

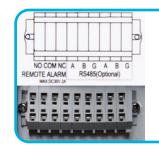
#### **Pressure Equalization Port\***

The Pressure Equalization Port is heated with a spring assisted mechanism to help prevent icing, allowing the freezer door to be opened shortly after adding samples.



#### **USB Data Port**

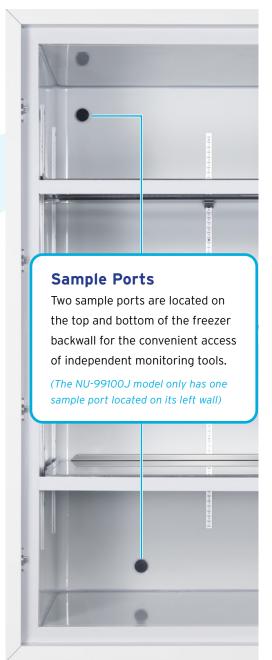
Easily download freezer data via the USB port located on the electronic control center.



#### Remote Alarm & RS485 Ports

Standard remote alarm and RS485 ports, located in the power switch panel, can be used to transmit freezer temperature and alarm data to independent software for monitoring and recording.

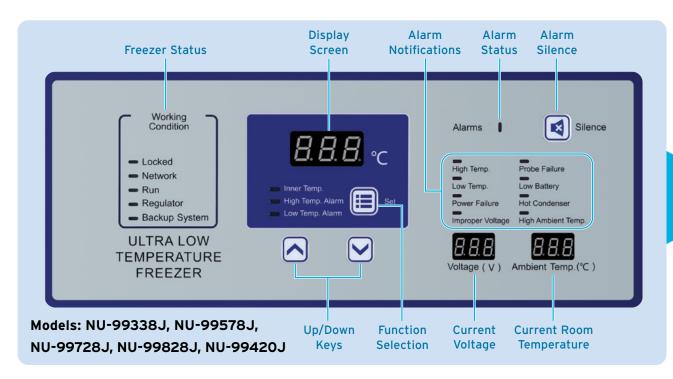


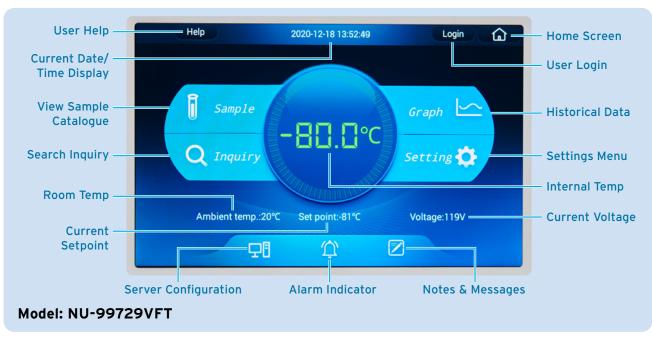


NU-99728.J

#### **CONTROL PANELS**

# Refrigeration Indicator Up/Down Keys Set Up Down Silence Inquiry Hot Condensor Inquiry Key Model: NU-99100J





#### **ALARM CODES**

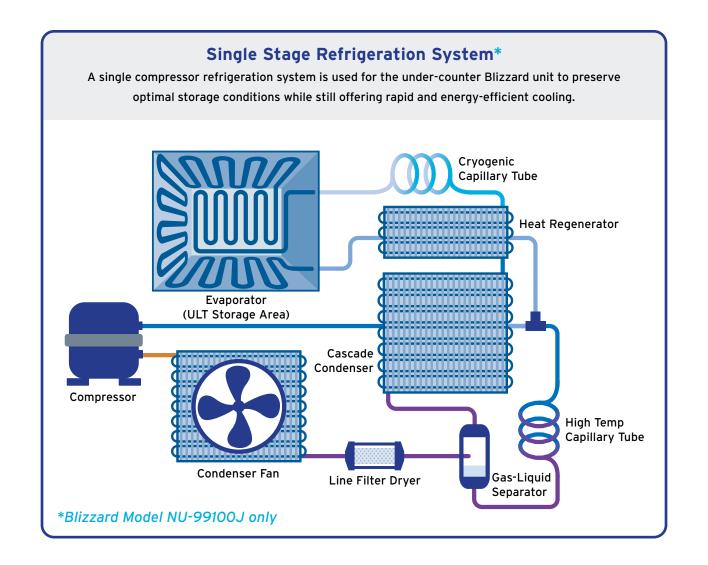
Alarm Indicator	Event	
High/Low Temperature	Internal Temperature Ventures Outside Setpoint Parameters	
High Ambient Temperature	Ambient Temperature Exceeds 35°C	
Power Failure	Loss of Power to Unit	
Door Ajar	Door Opening Exceeds Setpoint (Adjustable 0 to 20 Minutes)	
Sensor Error	E10 - Temperature Control Sensor Failure E11 - Ambient Sensor Failure E12 - Condenser Sensor Failure	
Low Battery	Internal Battery is Close to End of Life / Battery Switch is Off	
Condenser Fault	Condenser Filter Blocked or Overheating Due to High Ambient Temperature	

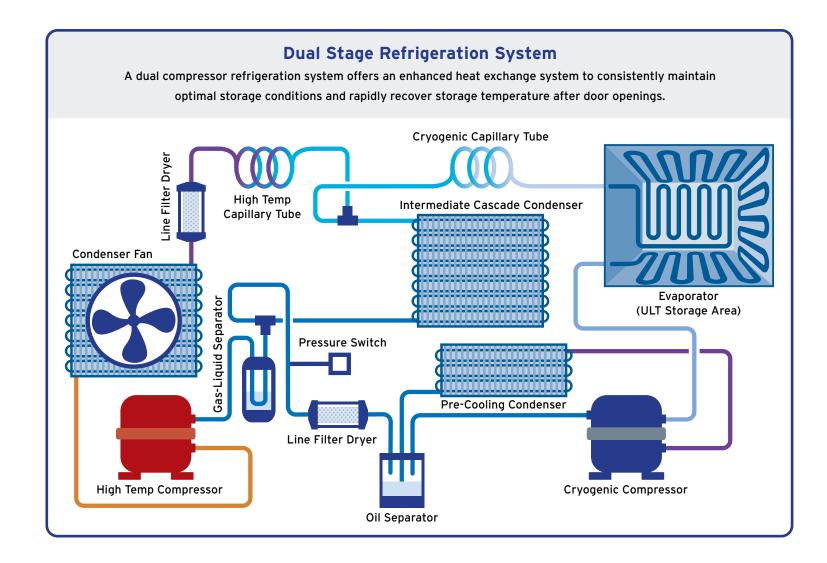
Alarm Indicator	Event		
High Temperature	Internal Temperature Above Setpoint Parameters		
Low Temperature	Internal Temperature Below Setpoint Parameters		
High Ambient Temperature	Ambient Temperature Exceeds 35°C		
Power Failure	Loss of Power to Unit		
Door Ajar	Door Opening Exceeds Set Time Limit (Adjustable 0 to 20 Minutes)		
EO - Ambient Sensor Failure E1 - Condenser Sensor Failure Sensor Error E2 - Temperature Control Sensor Failure E3 - Heat Exchanger Sensor Failure E4 - Heat Exchanger Temperature Failure			
Low Battery	Internal Battery is Close to End of Life / Battery Switch is Off		
Condenser Fault	Condenser Filter Blocked or Overheating Due to High Ambient Temperature		

Alarm Indicator	Event	Indicator Color*
High/Low Temperature	Internal Temperature Exceeds Setpoint Parameters	Red
Power Failure	Loss of Power to Unit	Red
Door Ajar	Door Opening Exceeds Setpoint Parameters	Red
High Ambient Temperature	Ambient Temperature Exceeds 35°C	Yellow
Heat Exchanger Fault	Heat Exchanger Blocked or Exceeds 35°C	Yellow
Sensor Fault	Main Temperature Reading Sensor Failure	Yellow
Battery Fault	Internal Battery is Low on Power / Battery Switch is Off	Yellow
Condenser Fault	Condenser Filter Blocked or Overheating	Yellow
Backup System Fault	Unit Loses Connection to Backup System	Yellow

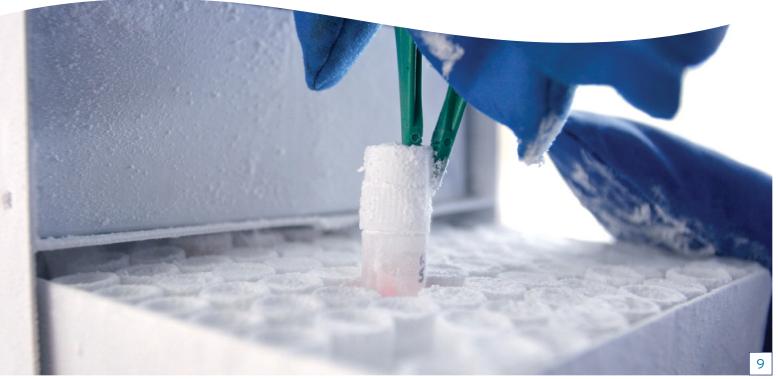
<sup>\*</sup>Red indicates Alarm Types affect internal temperature of ULT. Yellow indicates Alarm Types do not affect internal temperature.

#### **ULT FREEZER CONSTRUCTION**









#### **NU-99100J UNDER-COUNTER**

Capacity: 3.5 ft<sup>3</sup> / 100 L

The Blizzard HC (Hydrocarbon) -86°C Under-Counter Ultralow Mini-Freezer features reliable performance for the storage of stem cells, blood & tissue samples, and vaccine vials while occupying the smallest space among our ultralow freezers. The NU-99100J also fits under standard counters, which is ideal for small pharmacies and labs with limited floorspace available for cold-storage.

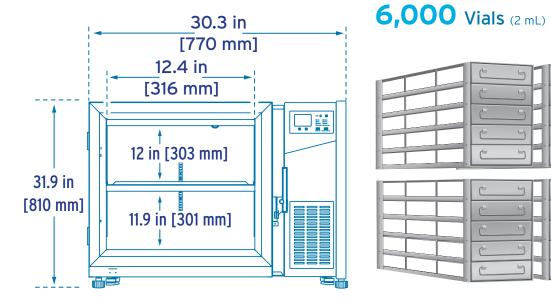


Blizzard NU-99100J Specifications		
Configuration	Under-Counter	
Storage Capacity	3.5 ft³ [100 L]	
Temperature Range	-40°C to -86°C	
Certifications	UL listed, CE	
Interior Dimensions (W x D x H)	13 x 18.9 x 24.8 in [330 x 481 x 630 mm]	
Exterior Dimensions (W x D x H)	30.3 x 26 x 31.9 in [770 x 660 x 810 mm]	
Net Weight	238 lbs [108 kg]	
Temperature Uniformity	±5°C	
Temperature Accuracy	±1°C	
Cool Down Time (25°C Ambient to -80°C)	310 Minutes	
Warm Up Time (-80°C to -50°C)	120 Minutes	
1 min Door Open Recovery Time (25°C Ambient; -75°C Setpoint)	100 Minutes	
Noise Level	Up to 47 dba	
Electrical*	GA = 120 V / 60 Hz / 680 W E = 230 V / 50 Hz / 680 W	
Power Consumption	5.5 kWh/day	
Insulation	VIP + High Density Polyurethane Foam	
Door Sool	Outer: Quadruple Silicone Gasket	
Door Seal	Inner: No Seal	
Number of Inner Doors	2 Stainless Steel w/ Magnetic Latch	
	1 Adjustable Stainless Steel Shelf	
Shelf Info (W x D)	12.4 x 16.7 in [316 x 424 mm]	
(,	Max Weight: 30 lbs [13.6 kg]	
Casters	4 One-Direction Casters w/ 2 Front Leg Levelers	
Exterior Material	Zinc-Coated Steel w/ Matte Finish	
Interior Material	Zinc-Coated Steel	
Enclosure Thickness	2.75 in [70 mm]	
Door Thickness	Outer: 3.5 in [90 mm]	
Door Tilletiless	Inner: 0.1 in [3 mm]	
Condenser Type	Enhanced Micro-Channel & Forced-Air Cooled	
Refrigeration System Type	Air Cooling	
Compressor Type / Brand / Number	Hermetic Reciprocating / SECOP / 1	
Compressor Capacity	950 W	
Evaporator Type	Cold Wall w/ Enhanced Heat Transfer Treatment	
Defrost Method	Manual	
Refrigerant Charge / Flammable	R600A + R1150 + R50 Blend / Flammable	
Controller Type	Microprocessor Control, LED Display, USB Data Export	
Setpoint Security	Yes	
Remote Data Terminals	Remote Alarm + RS485 Ports	
Power Cord Length	8.2 ft [2.5 m]	

<sup>\*</sup>Note: Add letter suffix to model number to indicate electrical specifications. (ex. NU-99100JE = 230V / 50Hz / 680W)

#### Freezer Rack Capacity:

NU-99100J Under-Counter ULT



4 Racks (5 Rows x 3 Columns)

**60** Boxes (2 in [5 cm])

Unit Depth: 26 in [660 mm] Shelf Depth: 16.7 in [424 mm] Electrical: 115V / 60Hz 230V / 50Hz

**WARRANTY** PARTS + LABOR YEAR United States & Canada





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#### NU-99338J UPRIGHT

Capacity: 11.9 ft<sup>3</sup> / 338 L

The Blizzard HC NU-99338J -86°C Upright Ultralow Freezer features reliable performance ideal for storing stem cells, blood & tissue samples, and vaccine vials. Multiple, polyurethane foam insulated interior doors allow easy access with minimal temperature loss to racks set on the stainless-steel shelves inside. The NU-99338J has a storage capacity of 11.9 ft<sup>3</sup> [338 L] and accommodates up to six 4x4, plus six 5x4 ULT freezer racks (216 total 2" [5 cm] high boxes).

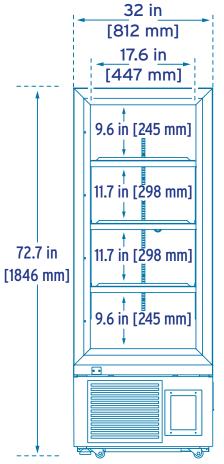


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Blizzard NU-99338J Specifications			
Configuration	Upright		
Storage Capacity	11.9 ft <sup>3</sup> [338 L]		
Temperature Range	-40°C to -86°C		
Certifications	UL listed, CE		
Interior Dimensions (W x D x H)	18.3 x 24.8 x 45.9 in [465 x 630 x 1165 mm]		
Exterior Dimensions (W x D x H)	32 x 35.2 x 72.7 in [812 x 894 x 1846 mm]		
Net Weight	525 lbs [238 kg]		
Temperature Uniformity	±5°C		
Temperature Accuracy	±1°C		
Cool Down Time (25°C Ambient to -80°C)	195 Minutes		
Warm Up Time (-80°C to -50°C)	200 Minutes		
1 min Door Open Recovery Time (25°C Ambient; -75°C Setpoint)	25 Minutes		
Noise Level	Up to 50 dba		
Electrical*	GA = 115 V / 60 Hz / 1,000 W G = 220 V / 60 Hz / 1,000 W E = 230 V / 50 Hz / 650 W		
Power Consumption	8 kWh/day		
Insulation	VIP + CFC Free Foaming Agent		
Deer Seel	Outer: Quadruple Silicone Gasket		
Door Seal	Inner: Single Silicone Gasket		
Number of Inner Doors	2 Individual Latching Doors		
	3 Adjustable Stainless Steel Shelves		
Shelf Info (W x D)	17.6 x 23.4 in [447 x 595 mm]		
<b>,</b>	Max Weight: 110 lbs [50 kg]		
Casters	4 All-Direction Casters w/ 2 Front Leg Levelers		
Exterior Material	Zinc-Coated Steel w/ Matte Finish		
Interior Material	Zinc-Coated Steel		
Enclosure Thickness	5.1 in [130 mm]		
5 71.1	Outer: 3.5 in [90 mm]		
Door Thickness	Inner: 1.4 in [35 mm]		
Condenser Type	Enhanced Micro-Channel & Forced-Air Cooled		
Refrigeration System Type	Direct Cooling		
Compressor Type / Brand / Number	Hermetic Reciprocating / SECOP / 2		
Compressor Capacity	950 W		
Evaporator Type	Cold Wall w/ Enhanced Heat Transfer Treatment		
Defrost Method	Manual		
Refrigerant Charge / Flammable	R290 + R170 / Flammable		
Controller Type	Microprocessor Control, LED Display, USB Data Export		
Setpoint Security	Yes		
Remote Data Terminals	Remote Alarm + RS232 / RS485 Ports		
Power Cord Length	8.2 ft [2.5 m]		
i oner cold Ecligiti	O.L 10 [L.J 111]		

<sup>\*</sup>Note: Add letter suffix to model number to indicate electrical specifications. (ex. NU-99338JE = 230V / 50Hz / 650W)

### Freezer Rack Capacity:

NU-99338J Upright ULT



Unit Depth: 35.2 in [894 mm] Shelf Depth: 23.4 in [595 mm]

Electrical: 115V / 60Hz

220V / 60Hz 230V / 50Hz 12\* Racks (6x 4 Rows / 4 Columns)
216 Boxes (2 in [5 cm])
21,600 Vials (2 mL)

\*Due to the unique two inner door design on the NU-99338J model, 6 sets of 5x5 freezer racking and 6 sets of the 4x5 freezer racking can be used to maximize storage capacity.





\*Contact your local NuAire distributor for international warranty details.





#### **NU-99578J UPRIGHT**

Capacity: 20.4 ft<sup>3</sup> / 578 L

The Blizzard HC NU-99578J -86°C Upright Ultralow Freezer features a storage capacity of 20.4 ft³ [578 L] and reliable performance for the storage of stem cells, blood & tissue samples, and vaccine vials. The NU-99578J model accommodates up to sixteen 5x5 ULT freezer racks (400 total 2" [5 cm] high boxes). The dual compressor refrigeration system employs an enhanced heat exchange apparatus that consistently maintains optimal storage conditions and rapidly recovers internal temperature after door openings.

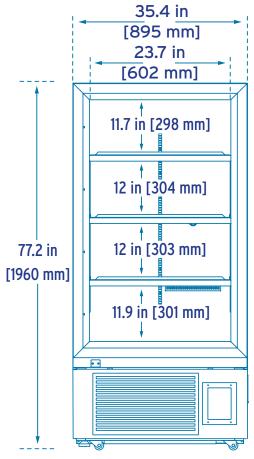


Blizzard NU-99578J Specifications			
Configuration	Upright		
Storage Capacity	20.4 ft³ [578 L]		
Temperature Range	-40°C to -86°C		
Certifications	UL listed, CE		
Interior Dimensions (W x D x H)	24.4 x 28.2 x 51.6 in [620 x 716 x 1310 mm]		
Exterior Dimensions (W x D x H)	35.4 x 38.6 x 77.2 in [895 x 980 x 1960 mm]		
Net Weight	661 lbs [300 kg]		
Temperature Uniformity	±5°C		
Temperature Accuracy	±1°C		
Cool Down Time (25°C Ambient to -80°C)	270 Minutes		
Warm Up Time (-80°C to -50°C)	260 Minutes		
1 min Door Open Recovery Time (25°C Ambient; -75°C Setpoint)	30 Minutes		
Noise Level	Up to 50 dba		
Electrical*	GA = 115 V / 60 Hz / 1,000 W G = 220 V / 60 Hz / 1,000 W E = 230 V / 50 Hz / 750 W		
Power Consumption	8.5 kWh/day		
Insulation	VIP + CFC Free Foaming Agent		
Door Seal	Outer: Quadruple Silicone Gasket		
Door Seal	Inner: Single Silicone Gasket		
Number of Inner Doors	4 Individual Latching Doors		
2	3 Adjustable Stainless Steel Shelves		
Shelf Info (W x D)	23.7 x 26.8 in [602 x 680 mm]		
	Max Weight: 110 lbs [50 kg]		
Casters	4 All-Direction Casters w/ 2 Front Leg Levelers		
Exterior Material	Zinc-Coated Steel w/ Matte Finish		
Interior Material	Zinc-Coated Steel		
Enclosure Thickness	3.5 in [90 mm]		
Door Thickness	Outer: 3.5 in [90 mm]		
Door Tillexiless	Inner: 1.4 in [35 mm]		
Condenser Type	Enhanced Micro-Channel & Forced-Air Cooled		
Refrigeration System Type	Direct Cooling		
Compressor Type / Brand / Number	Hermetic Reciprocating / SECOP / 2		
Compressor Capacity	950 W		
Evaporator Type	Cold Wall w/ Enhanced Heat Transfer Treatment		
Defrost Method Manual			
Refrigerant Charge / Flammable	ble R290 + R170 / Flammable		
Controller Type	Microprocessor Control, LED Display, USB Data Export		
Setpoint Security	Yes		
Remote Data Terminals	Remote Alarm + RS232 / RS485 Ports		
Power Cord Length	8.2 ft [2.5 m]		

<sup>\*</sup>Note: Add letter suffix to model number to indicate electrical specifications. (ex. NU-99578JE = 230V / 50Hz / 750W)

#### Freezer Rack Capacity:

NU-99578J Upright ULT



Unit Depth: 38.6 in [980 mm]
Shelf Depth: 26.8 in [680 mm]

Electrical: 115V / 60Hz

220V / 60Hz 230V / 50Hz 16 Racks (5 Rows x 5 Columns) 400 Boxes (2 in [5 cm]) 40,000 Vials (2 mL)







\*Contact your local NuAire distributor for international warranty details.



#### NU-99728J UPRIGHT

Capacity: 25.7 ft<sup>3</sup> / 728 L

The Blizzard HC NU-99728J -86°C Upright Ultralow Freezer efficiently stores samples by using HC refrigerants and protects them within a stainless steel enclosure. The ULT is insulated with composite VIP and polyurethane foam. The NU-99728J has a storage capacity of 25.7 ft³ [728 L] and accommodates up to twenty 5x5 ULT freezer racks (500 total 2" [5 cm] high boxes). Operation parameters are displayed on the front electronic control panel in real-time and can be downloaded via the USB port for long term data logging.

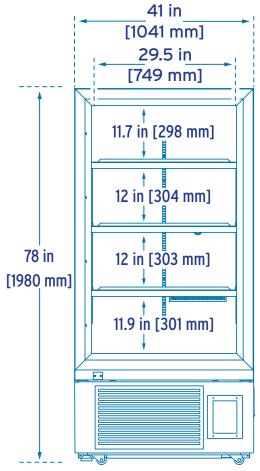


Blizzard NU-99728J Specifications			
Configuration	Upright		
•	25.7 ft³ [728 L]		
Storage Capacity	-40°C to -86°C		
Temperature Range  Certifications	UL listed, CE		
Interior Dimensions	30.2 x 28.2 x 51.6 in		
(W x D x H)	[766 x 716 x 1310 mm]		
Exterior Dimensions (W x D x H)	41 x 38.6 x 78 in [1041 x 980 x 1980 mm]		
Net Weight	761 lbs [345 kg]		
Temperature Uniformity	±5°C		
Temperature Accuracy	±1°C		
Cool Down Time (25°C Ambient to -80°C)	310 Minutes		
Warm Up Time (-80°C to -50°C)	270 Minutes		
1 min Door Open Recovery Time (25°C Ambient; -75°C Setpoint)	45 Minutes		
Noise Level	Up to 50 dba		
Electrical*	GA = 115 V / 60 Hz / 1,000 W G = 220 V / 60 Hz / 1,000 W E = 230 V / 50 Hz / 1,000 W		
Power Consumption	10.5 kWh/day		
Insulation	VIP + CFC Free Foaming Agent		
Door Seal	Outer: Quadruple Silicone Gasket		
Door Seal	Inner: Single Silicone Gasket		
Number of Inner Doors	4 Individual Latching Doors		
	3 Adjustable Stainless Steel Shelves		
Shelf Info (W x D)	29.5 x 26.8 in [749 x 680 mm]		
, ,	Max Weight: 110 lbs [50 kg]		
Casters	4 All-Direction Casters w/ 2 Front Leg Levelers		
Exterior Material	Zinc-Coated Steel w/ Matte Finish		
Interior Material	Zinc-Coated Steel		
Enclosure Thickness	3.5 in [90 mm]		
Door Thickness	Outer: 3.5 in [90 mm]		
Door Tilleriness	Inner: 1.4 in [35 mm]		
Condenser Type	Enhanced Micro-Channel & Forced-Air Cooled		
Refrigeration System Type	Direct Cooling		
Compressor Type / Brand / Number	Hermetic Reciprocating / SECOP / 2		
Compressor Capacity	950 W		
Evaporator Type	Cold Wall w/ Enhanced Heat Transfer Treatment		
Defrost Method	Manual		
Refrigerant Charge / Flammable	R290 + R170 / Flammable		
Controller Type	Microprocessor Control, LED Display, USB Data Export		
Setpoint Security	Yes		
Remote Data Terminals	Remote Alarm + RS232 / RS485 Ports		
Power Cord Length	8.2 ft [2.5 m]		

<sup>\*</sup>Note: Add letter suffix to model number to indicate electrical specifications. (ex. NU-99728JE = 230V / 50Hz / 1,000W)

#### Freezer Rack Capacity:

NU-99728J Upright ULT



Unit Depth: 38.6 in [980 mm] Shelf Depth: 26.8 in [680 mm]

230V / 50Hz

Electrical: 115V / 60Hz 220V / 60Hz

20 Racks (5 Rows x 5 Columns)500 Boxes (2 in [5 cm])50,000 Vials (2 mL)







\*Contact your local NuAire distributor for international warranty details.



#### **NU-99729VFT UPRIGHT**

Capacity: 25.74 ft<sup>3</sup> / 729 L

#### The Blizzard NU-99729VFT (Variable Frequency & Touchscreen) -86°C Upright Ultralow Freezer

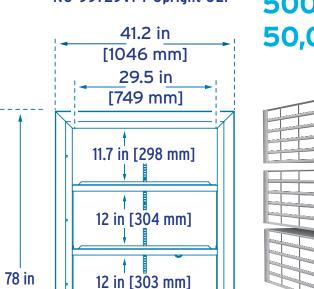
features an intuitive LCD touchscreen control center that can catalogue ULT inventory, allows user account creation, graphs past freezer performance, and produces visual/audible alarms. Because this model utilizes a variable frequency motor, it can be operated on a wide array of electrical outputs. The ultra-silent compressor motor is also Energy Star Certified for US and Canada.



Blizzard NU-99729	Blizzard NU-99729VFT Specifications		
Configuration	Upright		
Storage Capacity	25.74 ft³ [729 L]		
Temperature Range	-40°C to -86°C		
Certifications	UL listed, CE, Energy Star		
Interior Dimensions (W x D x H)	30.2 x 28.2 x 51.6 in [766 x 716 x 1310 mm]		
Exterior Dimensions (W x D x H)	41.2 x 38.9 x 78 in [1046 x 998 x 1980 mm]		
Net Weight	771 lbs [350 kg]		
Temperature Uniformity	±3°C		
Temperature Accuracy	±1°C		
Cool Down Time (25°C Ambient to -80°C)	310 Minutes		
Warm Up Time (-80°C to -50°C)	300 Minutes		
1 min Door Open Recovery Time (25°C Ambient; -75°C Setpoint)	45 Minutes		
Noise Level	Up to 43.5 dba		
Electrical	100-230 V / 50-60 Hz / 15-20 A / 1,100 W		
Power Consumption	8 kWh/day		
Insulation	VIP + CFC Free Foaming Agent		
B 6 4	Outer: Quadruple Silicone Gasket		
Door Seal	Inner: Single Silicone Gasket		
Number of Inner Doors	4 Individual Latching Doors		
	3 Adjustable Stainless Steel Shelves		
Shelf Info (W x D)	29.5 x 26.8 in [749 x 680 mm]		
, ,	Max Weight: 110 lbs [50 kg]		
Casters	4 All-Direction Casters w/ 2 Front Leg Levelers		
Exterior Material	Zinc-Coated Steel w/ Matte Finish		
Interior Material	Zinc-Coated Steel		
Enclosure Thickness	3.5 in [90 mm]		
Door Thickness	Outer: 3.5 in [90 mm]		
Door Hilleriess	Inner: 1.4 in [35 mm]		
Condenser Type	Enhanced Micro-Channel & Forced-Air Cooled		
Refrigeration System Type	Direct Cooling		
Compressor Type / Brand / Number	Fully Closed / NLV12.6CN-SECOP / 2		
Compressor Capacity	950 W		
Evaporator Type	Cold Wall w/ Enhanced Heat Transfer Treatment		
Defrost Method	Manual		
Refrigerant Charge / Flammable	R290 + R170 / Flammable		
Controller Type	Microprocessor Control, LCD Touch- screen Display, USB Data Export		
Setpoint Security	Yes		
Remote Data Terminals	Remote Alarm + RS485 Ports		
Power Cord Length	8.2 ft [2.5 m]		

#### Freezer Rack Capacity:

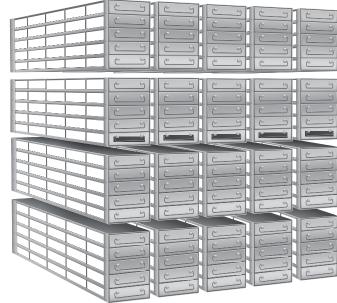
NU-99729VFT Upright ULT



20 Racks (5 Rows x 5 Columns) **500** Boxes (2 in [5 cm]) **50,000** Vials (2 mL)

Unit Depth: 38.9 in [988 mm]

Shelf Depth: 26.8 in [680 mm]









11.9 in [301 mm]



125V US (15A)



www.nuaire.com

[1980 mm]







\*Contact your local NuAire distributor for international warranty details.



**Electrical:** 

100-230 V 50-60 Hz

15-20 A

#### NU-99828J UPRIGHT

Capacity: 29.2 ft<sup>3</sup> / 828 L

The Blizzard HC NU-99828J -86°C Upright Ultralow Freezer features the largest storage capacity among NuAire Blizzard models of 29.2 ft<sup>3</sup> [828 L] and accommodates up to twenty-four 5x5 ULT freezer racks (600 total 2" [5 cm] high boxes). The Pressure Equalization Port, located on the interior of the coated steel outer door, helps prevent icing and allows the freezer door to be easily opened again shortly after adding or removing samples.

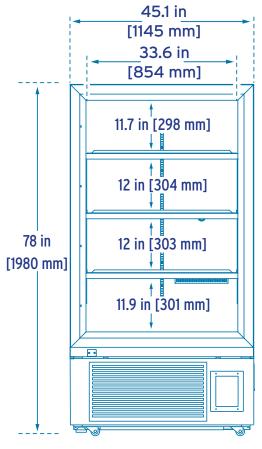


Blizzard NU-99828J Specifications			
Configuration	Upright		
Storage Capacity	29.2 ft <sup>3</sup> [828 L]		
Temperature Range	-40°C to -86°C		
Certifications	UL listed, CE		
Interior Dimensions	34.3 x 28.2 x 51.6 in		
(W x D x H)	[870 x 716 x 1310 mm]		
Exterior Dimensions (W x D x H)	45.1 x 38.6 x 78 in [1145 x 980 x 1980 mm]		
Net Weight	836 lbs [380 kg]		
Temperature Uniformity	±4°C		
Temperature Accuracy	±1°C		
Cool Down Time (25°C Ambient to -80°C)	320 Minutes		
Warm Up Time (-80°C to -50°C)	300 Minutes		
1 min Door Open Recovery Time (25°C Ambient; -75°C Setpoint)	50 Minutes		
Noise Level	Up to 50 dba		
Electrical*	G = 220 V / 60 Hz / 1,000 W E = 230 V / 50 Hz / 1,000 W		
Power Consumption	12 kWh/day		
Insulation	VIP + CFC Free Foaming Agent		
	Outer: Quadruple Silicone Gasket		
Door Seal	Inner: Single Silicone Gasket		
Number of Inner Doors	4 Individual Latching Doors		
	3 Adjustable Stainless Steel Shelves		
Shelf Info	33.6 x 26.8 in [854 x 680 mm]		
(W x D)	Max Weight: 110 lbs [50 kg]		
Casters	4 All-Direction Casters w/ 2 Front Leg Levelers		
Exterior Material	Zinc-Coated Steel w/ Matte Finish		
Interior Material	Zinc-Coated Steel		
Enclosure Thickness	3.5 in [90 mm]		
	Outer: 3.5 in [90 mm]		
Door Thickness	Inner: 1.4 in [35 mm]		
Condenser Type	Enhanced Micro-Channel & Forced-Air Cooled		
Refrigeration System Type	Direct Cooling		
Compressor Type / Brand / Number	Hermetic Reciprocating / SECOP / 2		
Compressor Capacity	950 W		
Evaporator Type	Cold Wall w/ Enhanced Heat Transfer Treatment		
Defrost Method	Manual		
Refrigerant Charge / Flammable	R290 + R170 / Flammable		
Controller Type	Microprocessor Control, LED Display, USB Data Export		
Setpoint Security	Yes		
Remote Data Terminals	Remote Alarm + RS232 / RS485 Ports		
Power Cord Length	8.2 ft [2.5 m]		

\*Note: Add letter suffix to model number to indicate electrical specifications. (ex. NU-99828JE = 230V / 50Hz / 1,000W)

#### Freezer Rack Capacity:

NU-99828J Upright ULT



Unit Depth: 38.6 in [980 mm] Shelf Depth: 26.8 in [680 mm]

Electrical: 220V / 60Hz 230V / 50Hz

WARRANTY

PARTS + LABOR

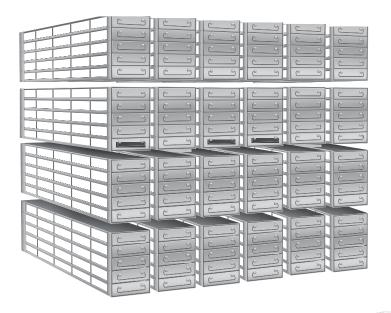
United States & Canada

\*Contact your local NuAire distributor for international warranty details.



Scan or click QR code to learn more online at www.nuaire.com **24** Racks (5 Rows x 5 Columns)

**600** Boxes (2 in [5 cm]) **60,000** Vials (2 mL)





#### **NU-99420J CHEST**

Capacity: 14.8 ft<sup>3</sup> / 420 L



Freezer features a storage capacity of 14.8 ft<sup>3</sup> [420 L] and reliable performance for the storage of stem cells, blood & tissue samples, and vaccine vials in labs with limited vertical space. The chest ULT configuration accommodates up to twenty-seven 10x1 ULT freezer racks (270 total 2" [5 cm] high boxes).

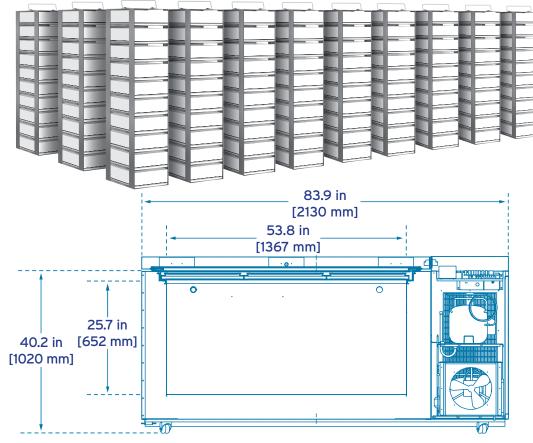
Blizzard NU-99420J Specifications			
Configuration	Chest	Number of Inner Doors	3 Individual Doors
Storage Capacity	14.8 ft <sup>3</sup> [420 L]	Casters	4 All-Direction Casters w/ 2 Front Leg Levelers
Temperature Range	-40°C to -86°C	Exterior Material	Zinc-Coated Steel w/ Matte Finish
Certifications	UL listed, CE	Interior Material	Zinc-Coated Steel
Interior Dimensions (W x D x H)	53.8 x 18.2 x 25.7 in [1367 x 462 x 652 mm]	Enclosure Thickness	5.5 in [140 mm]
Exterior Dimensions (W x D x H)	83.9 x 34.3 x 40.2 in [2130 x 870 x 1020 mm]	Door Thickness	Outer: 3.94 in [100 mm]
Net Weight	682 lbs [310 kg]		Inner: 1.57 in [40 mm]
Temperature Uniformity	±5°C	Condenser Type	Enhanced Micro-Channel & Forced-Air Cooled
Temperature Accuracy	±1°C	Refrigeration System Type	Direct Cooling
Cool Down Time (25°C Ambient to -80°C)	240 Minutes	Compressor Type / Brand / Number	Hermetic Reciprocating / SECOP / 2
Warm Up Time (-80°C to -50°C)	150 Minutes	Compressor Capacity	950 W
1 min Door Open Recovery Time (25°C Ambient; -75°C Setpoint)	30 Minutes	Evaporator Type	Cold Wall w/ Enhanced Heat Transfer Treatment
Noise Level	Up to 50 dba	Defrost Method	Manual
Insulation	VIP + CFC Free Foaming Agent	Setpoint Security	Yes
Electrical*	G = 220 V / 60 Hz / 1,000 W E = 230 V / 50 Hz / 1,000 W	Refrigerant Charge / Flammable	R290 + R170 / Flammable
Power Consumption	12 kWh/day	Controller Type	Microprocessor Control, LED Display, USB Data Export
Dear Saal	Outer: Single Silicone Gasket	Remote Data Terminals	Remote Alarm + RS232 / RS485 Ports
Door Seal	No Gasket Seal	Power Cord Length	8.2 ft [2.5 m]

<sup>\*</sup>Note: Add letter suffix to model number to indicate electrical specifications. (ex. NU-99420JE = 230V / 50Hz / 1,000W)

## Freezer Rack Capacity:

NU-99420J Chest ULT

27 Racks (10 Rows x 1 Column)270 Boxes (2 in [5 cm])27,000 Vials (2 mL)



Unit Depth: 34.3 in [870 mm] Shelf Depth: N/A

Electrical: 220V / 60Hz 230V / 50Hz



\*Contact your local NuAire distributor for international warranty details.





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needs. We routinely reshape our cabinet's inner and outer dimensions to neatly fit within any space inside your lab. We often add computer arms, monitors, and microscope windows into our standard cabinets, as well. Another common customization involves installing an IV bar and smooth interiors for efficient and ergonomic pharmacy compounding. Regardless of what type of modification your lab and research may require, NuAire is capable of meeting any esoteric laboratory need and provide you with excellent troubleshooting support for years to come, ensuring your custom equipment continues to perform at peak levels for the entirety of its lifespan.

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This LabGard BSC was fitted with a microscope viewing window to accommodate workflow specializing in human cell tissue research.





A custom model NU-240 was designed to offer a broader and taller work zone to accommodate a single workflow process involving microscopes. A customized isolation table was added to eliminate vibration in the work surface. The extended work surface allows a technician to perform several protocols without having to leave the work zone.



## -86°C ULTRALOW TEMPERATURE FREEZERS



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