



NU-99100J -86°C ULTRALOW TEMPERATURE FREEZER

Specifications

Model Number	NU-99100J
Interior Volume	100 L / 3.5 ft ³
Exterior Dimensions (W x D x H)	30.3 x 26 x 31.9 in / 770 x 660 x 810 mm
Interior Dimensions (W x D x H)	13 x 18.9 x 24.8 in / 330 x 481 x 630 mm
Temperature Range	-40°C to -86°C
Net Weight	238 lbs / 108 kg
Noise	< 50 dB(A)
2-Inch Box Capacity	60
Freezer Rack Capacity	4



Performance

Temperature Uniformity	± 4°C
Temperature Accuracy	± 0.1°C
Cool Down Time (25°C ambient to -80°C)	310 Minutes
Warm Up Time (25°C ambient; -80°C to -50°C)	120 Minutes
1 Min Door Open Recovery Time (25°C ambient running temp -75°C)	100 Minutes



Construction

Insulation	VIP + CFC Free Foaming Agent
Exterior Door Seal	Quadruple Gasket on Exterior Door
Interior Door Seal	Single Gasket on Interior Doors
Shelves Quantity & Material	One (1) Stainless Steel Adjustable Shelf
Shelves Width	17.6 in / 316 mm
Shelved Depth	22.8 in / 424 mm
Shelves Max Capacity	48.5 lbs / 22 kg
Casters	Two-Direction w/ Two Front Leg Levelers
Exterior Material	Color-Coated Cold-Plate Steel
Interior Material	Color-Coated Electric Zinc Steel Plate
Exterior Door Thickness	2.8 in / 70 mm
Interior Door Thickness	1.2 in / 30 mm
Chamber Wall Thickness	2.8 in / 70 mm
Inner Doors	Two (2) Stainless-Steel Doors
Condenser Type	Microchannel
Fan Brand	Sunon
Alarm Functions	High/Low Temperature, Power Failure, Door Ajar, Sensor Failure, Low Battery, Hot Condenser, High Ambient Temperature





NU-99100J -86°C ULTRALOW TEMPERATURE FREEZER

Refrigeration

Refrigeration System Type	Direct Cooling
Compressor Type/Brand/Number	Hermetic Reciprocating Type / SECOP / One (1)
Compressor Capacity (W)	938
Evaporator Type	Copper Tube Evaporator
Defrost Method	Manual
Refrigerant Charge/Flammable	R290 in 1st Stage / R290 + R170 Mix in 2nd Stage / Flammable

Controls & System features

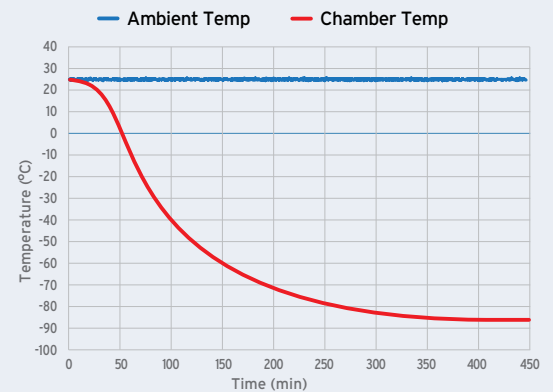
Control Panel Location	Front Top-Right
Power Switch	On/Off with Circuit Breaker
Controller Type	Microprocessor Control, LED Display, USB Data Export
Setpoint Security	Yes
Controller Sensor	PT100
Remote Alarm Terminals	Remote Alarm Port, RS232 / RS485
Adjustable High/Low Temp Alarms	Adjustable
Auto Voltage Safeguard	Included

Environmental & Electrical

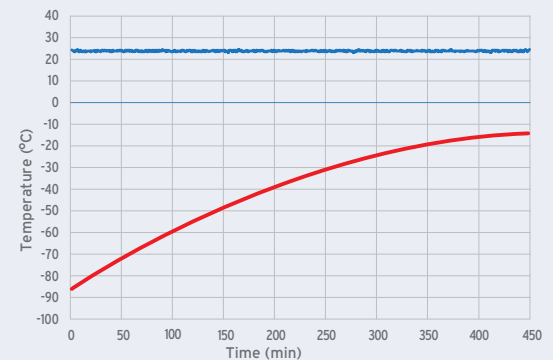
Electrical Power*	GA = 120V / 60Hz / 6.5 A E = 220~240V / 50Hz / 3 A
*Add letter suffix to model number (e.g. NU-99100JE = 220~240V / 50Hz)	
Heat Rejection	16,104 BTU/day
Power	680 W
Power Consumption	5.5 kW-hr/day
Power Cord Length	2.5 m / 8.2 ft.
Ambient Temperature	10°C ~ 32°C
Quality Assurance*	GA = UL E = CE
*Add letter suffix to model number (e.g. NU-99100JE = CE)	



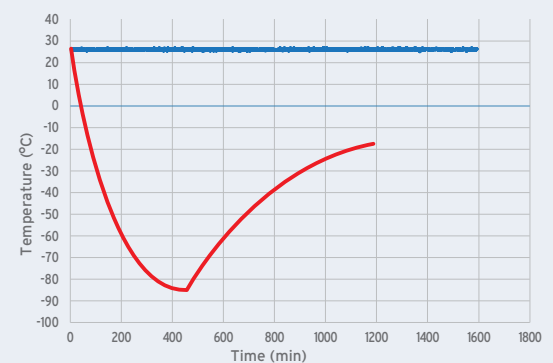
TYPICAL PERFORMANCE CHARACTERISTICS (25°C AMBIENT)



Temperature Cool Down Curve



Temperature Recovery Curve



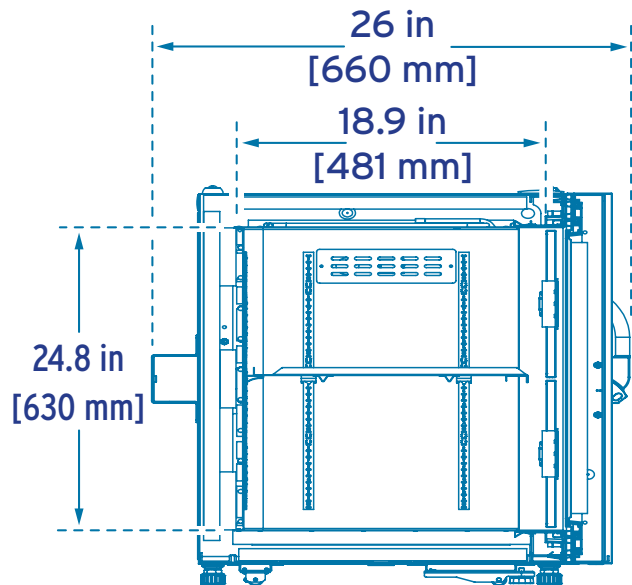
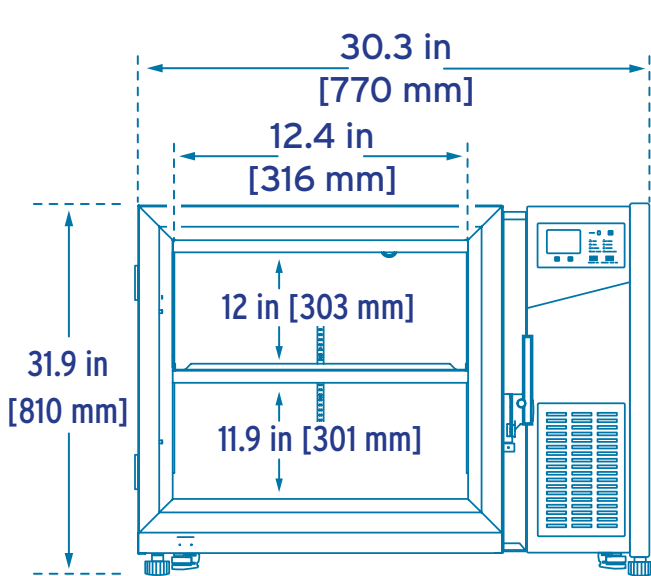
Comprehensive Curve





NU-99100J -86°C ULTRALOW TEMPERATURE FREEZER

Product Dimensions

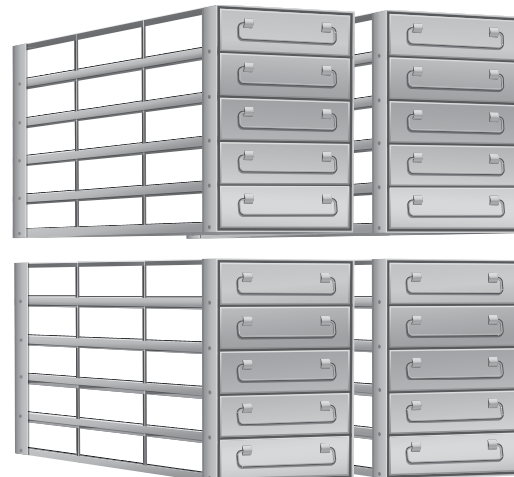


Freezer Rack Capacity:

4 Racks (5 Rows x 3 Columns)

60 Boxes (2 in [5 cm])

6,000 Vials (2 mL)



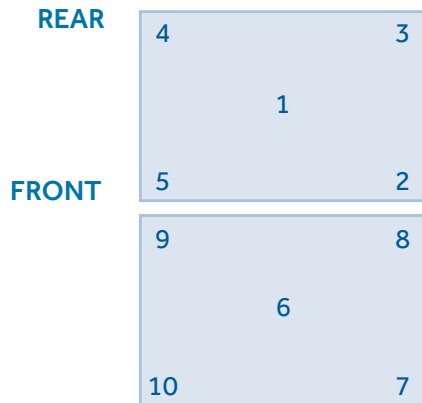
3 YEAR	WARRANTY
	PARTS + LABOR United States & Canada

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

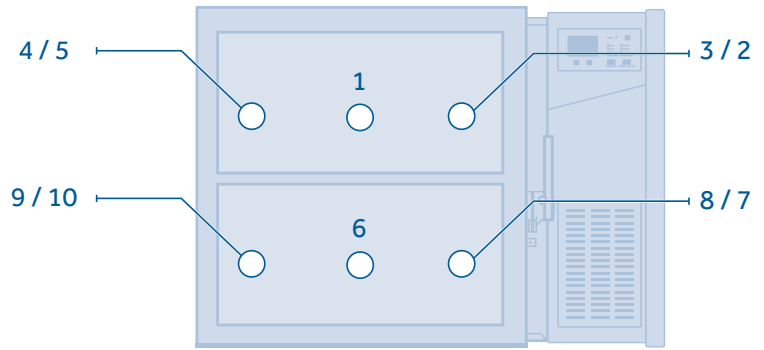


Average Chamber Temperature Map

TOP VIEW OF SHELVES



FRONT VIEW OF SHELVES



°C	1	2	3	4	5	6	7	8	9	10
Max.	-79.9	-79.4	-79.5	-79	-79.8	-81.2	-79.6	-81.0	-79.5	-79.7
Min.	-80.5	-81.9	-81.6	-81.6	-81.5	-82.1	-82.0	-83.0	-81.7	-81.8
Avg.	-80.2	-80.7	-80.6	-80.3	-80.5	-81.6	-80.8	-82.0	-80.6	-80.8