

NU-99829VFT

ULTRALOW TEMPERATURE FREEZER

Refrigeration

PERFORMANCE	
Temperature Range	-40 ~ -86 °C
Cooling Performance	-86 °C
Internal Temp. Uniformity	+/- 3 °C
Internal Temp. Accuracy	0.1 °C
Sound Level	43.5 dBA
Certification	UL, ENERGY STAR®
Cooling Speed (20°C ambient)	
20 °C down to -80 °C	354 minutes
Holdover Time (20°C ambient)	
-80 °C up to -50 °C	340 minutes
1-Minute Door-Open Recovery to -75°C (All Doors Open)	
20 °C ambient	22 minutes
25 °C ambient	40 minutes
Heat Rejection	
At 20 °C ambient	28661 Btu/day
At 25 °C ambient	27980 Btu/day
TECHNOLOGY	
Climate Class	N
Cooling Type	Direct cooling
Compressor(s)	2
Size of Compressor	1 hp
Compressor Capacity	938 W
Refrigerant	HC
Refrigerant Model	R290 / R170
Temperature Sensor	Thermistor Sensor
Controller Sensor	PT100
Defrost Mode	Manual

Capacity

SIZE & FOOTPRINT	
Cabinet Type	Upright
Capacity	829 L / 29.2 ft³
Exterior Dimension	W*D*H 1145 * 998 * 1980 mm 45.1 * 39.3 * 78.0 in
Cabinet Width	w/o handle & hinge 1050 mm
Door Width	w/o handle 1075 mm
Depth	w/o door, w/ drawers 860 mm



Net / Gross Weight	380 / 415 kg 837.7 / 914.9 lb
Interior Dimension	W*D*H 870 * 716 * 1310 mm 34.3 * 28.2 * 51.6 in
Usable Compartment Dimensions	298 / 303 / 303 / 302 mm
Packing Dimension	W*D*H 1204 / 1072 / 2125 47.5 * 42.3 * 83.7
Container Load	20'/40'/40'H 8 / 20 / 20

STORAGE	
Rack Configuration	5 x 5
Frozen Storage Rack Loading Quantity (2 in)	24
Frozen Storage Box Loading Quantity (2 in)	600
Sample Loading Quantity Calculated at 10 * 10	60000
Shelves	3
Shelf Dimensions	W*D 856 * 650 mm 33.7 * 25.6 in
Shelf Max. Capacity	108 kg / 238.1 lb

Construction

FEATURES	
Cabinet Thickness	90 mm / 3.54 in
Porthole(s)	2
Outer Door	Single Solid Door
Outer Door Thickness	90 mm / 3.54 in
Outer Door Sealing Structure	2 outer sealing strips, 2 layers each (4 layers total)
Padlock Adapter Kit	1
Built-in Key Door Lock	1
Keys	4
Inner Door	Four Solid Doors
Inside Door Sealing Structure	1 inner sealing strip, 1 layer
Shelves / Inner Doors	3 / 4
Adjustable Shelves	Yes
Foot	Yes
Caster	Yes
Caster Count	4
Stop Moving Feet	Yes
MATERIALS	
Exterior Material	Color-coated Cold Plate Steel
Interior Material	Color-coated Steel Plate
Insulation	VIP+CFC-Free Foaming Agent
Shelf Material	Stainless Steel

Electrical

REQUIREMENTS	
Power Supply	100~230 V / 50/60 Hz
Power	1400 W
Max Power Draw	1400 W
Electrical Current	15 A
Power Lead Length	2 m
POWER CONSUMPTION	
Set -70 °C @ 25 °C ambient	8.0 kWh / 24 h
Set -80 °C @ 25 °C ambient	8.2 kWh / 24 h
Set -70 °C @ 20 °C ambient	5.9 kWh / 24 h
Set -80 °C @ 20 °C ambient	8.4 kWh / 24 h
Power Consumption	8.5 kWh / 24 h
OTHER	
5V Power Supply Port	Yes

Control System

INTERFACE	
Display	Touch Screen LCD
Controller Level	TOP
Controller Type	Microprocessor
Temperature Setting Mode	Digital (Min. Accuracy 1° C)
Screen Setting Protection	Yes (Password)
Setpoint Security	Yes
ALARMS & INDICATIONS	
High / Low Temperature	Yes
Adj. High / Low Temperature	Yes
Ambient Temperature Display	Yes
High Ambient Temperature	Yes
Start-up Delay	Yes
Sensor Error	Yes
Power Failure	Yes
High / Low Voltage	Yes
Voltage Exceed	Yes
Filter Dirty	Yes
Hot Condenser	Yes
Door Ajar	Yes
Low Battery	Yes
DATA OUTPUTS	
USB Interface	Yes
Remote Alarm Terminals	Yes
RS232 / 485 Port	NA / Standard
OTHER	
Power Switch	15 A
Backup Battery	Yes
Battery Runtime	22 hours
Temp. Recorder Batt. Runtime	6 hours
Boot Delay Protection	Yes

Accessories

ACCESSORIES	
Temperature Chart Recorder	Optional
CO2 Backup System	Optional
LN2 Backup System	Optional