

TWINCORE

THE ONLY ULT FREEZER WITH A REDUNDANT REFRIGERATION SYSTEM



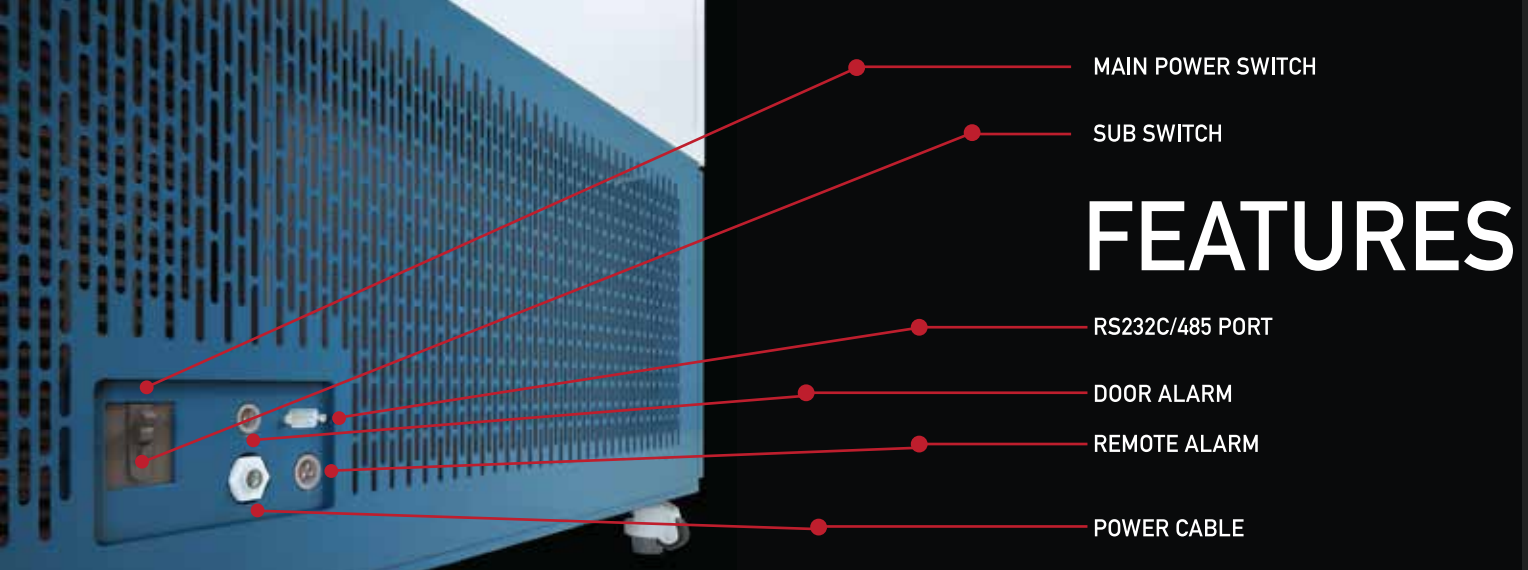
THE SAFEST ULT

-96°C

EACH COMPRESSOR IS CAPABLE OF MAINTAINING -82°C BY ITSELF.

7" TOUCH-SCREEN CONTROLLER WITH WIZBOX SYSTEM

WWW.Z-SCI.COM



MAIN POWER SWITCH

SUB SWITCH

FEATURES

RS232C/485 PORT

DOOR ALARM

REMOTE ALARM

POWER CABLE

7" Touch-screen controller with WizBox system - Setpoints, alarms, diagnostics, password, freezer ID -Inventory management System - TwinCore high efficiency dual cooling system

Filter free mechanism, lowers the heat rejection - Unique double evaporator design with maximum contact on walls for the fastest cooling down - Adjustable shelves available in HDPE Or Stainless Steel - Automatic voltage compensator protects electrical components - Full length door handle with Ergonomic Safety Latch - 100% Natural refrigerant at low pressure -Pull Up capacity almost 12H, no CO2 Back-Up required

Because it has two complete and separate refrigeration systems, the TwinCore has a true backup which will maintain set pointdown to -82°C at all-times and not only -60°C for couple of hours like the leading brand competitor's system. The second compressor will act as a backup. Energy usage is also dramatically reduced.

Standard ultra-low freezers rely on a cascade refrigeration system. If this system fails, the freezer and your samples have to be removed within hours. LN2 or CO2 backups only sustain temperatures for approximately 7 hours, and require routine re-filling, maintenance & supervision.

In case of failure, your TwinCore ULT can be on site serviced without compromising or having to remove your precious samples, since it will stay at -82°C indefinitely!

Revolutionary Double Independent refrigeration systems offering unbeatable security and outstanding Integrity for your samples.

TwinCore© ultra-low freezers are designed for -86°C storage of high-value samples. Perfect for critical material storage in bio-repositories, medical research facilities, BSL4 labs, hospitals...

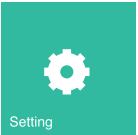
TwinCore© Technology employs 2 optimized autocascade compressors. However it only requires one compressor to hold temperature up to -82°C.

7" TOUCH SCREEN WITH WIZBOX SYSTEM

SETPOINTS, ALARMS, DIAGNOSTICS, PASSWORD, FREEZER ID & STORAGE MANAGEMENT

RECORDER: 24HR TEMP. MONITORING ON SCREEN + OPTIONAL MODELS

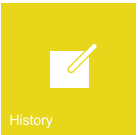
SETTING



CUSTOMIZE DESIRED SETTING FOR TWINCORE UPRIGHT

Built in control panel of TFT-LCD touch screen with convenient user interface allows entire information management by functional interface.
Control Protection by password.
Display of freezer identification information.

HISTORY



MIGRATE TO LOGGING DATA MENU

Monitoring status of freezer for last 24 hours. MMC or USB data download available including separate function.

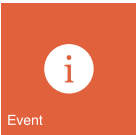
INVENTORY



MIGRATE TO STORAGE INFORMATION MENU

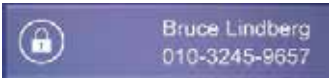
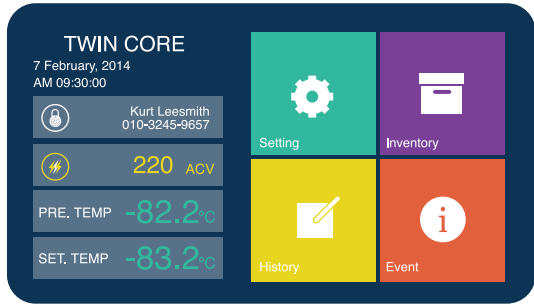
Unique storage management system down to box level. No hand written record keeping. No need to leave the door open to search for your sample location. Inventory system with energy saving environment minimizes energy consumption to keep desired temperature of your freezer.

EVENTS




MIGRATE TO EVENT HISTORY MENU

Real Time monitoring for freezer is provided by central server from manufacturer so end users can enjoy convenient UI and focus on their research.



Register user and contact number. When touched, keypad is activated.
Touch **ENTER** for saving the input information.



Insert information and press **ENTER** for saving. Touch  to remove the keypad screen.

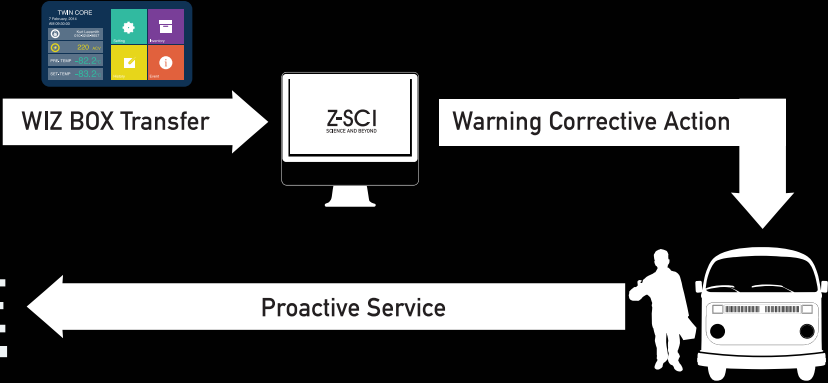
ALERT
MONITORING
SYSTEM

- BRING YOUR ULT ANYWHERE, ANYTIME!
- NO BUTTON, 1-TOUCH TO SET TEMP., TIME & STORAGE MANAGEMENT
- SMART DESIGN USER INTERFACE
- MAIN FUNCTION PARAMETERS ARE DISPLAYED ON SCREEN
- IP ADDRESS FOR EACH ULT UNIT
- INTERNET VIA ETHERNET OR WiFi (LAN or ETHERNET RECOMMENDED)
- ON SCREEN TEMP CHART RECORDING
- USB STORAGE FOR DATA DOWNLOAD
- STORAGE MANAGEMENT FUNCTIONS:
 - [RECORD LOCATION OF SAMPLES IN CHAMBER & TRACK THEM EASILY AFTERWARDS, ON SCREEN]
- AUTO-DIAGNOSTIC FUNCTIONS:
 - [AUTOMATIC CHECKING & ALARMS IN CASE OF FAILURE]



Any Alarm, failure or sign of malfunction,
is reported
LIVE

TWINCORE
SAFEST
ULT



STORAGE CAPACITY



MODEL No.	DF8514J	DF8517J	DF8520J	DF8524J
Rack Capacity	16 Racks	16 Racks	20 Racks	20 Racks
2 inch/50mm boxes	240	320	400	500
Sample Vials, 2mL	24000	32000	40000	50000
3 inch/75mm boxes	144	192	240	300
Sample Vials, 4mL	14400	19200	24000	30000

TWINCORE



NUMBER OF MODELS

13, 17, 21.3 & 25.8 CU.FT

4

TEMPERATURE MAINTAINED BY 2ND
COMPRESSOR IF 1 FAILS

-82°C

-115.6°F

NUMBER OF COMPARTMENTS

4

ALERT MONITORING SYSTEM

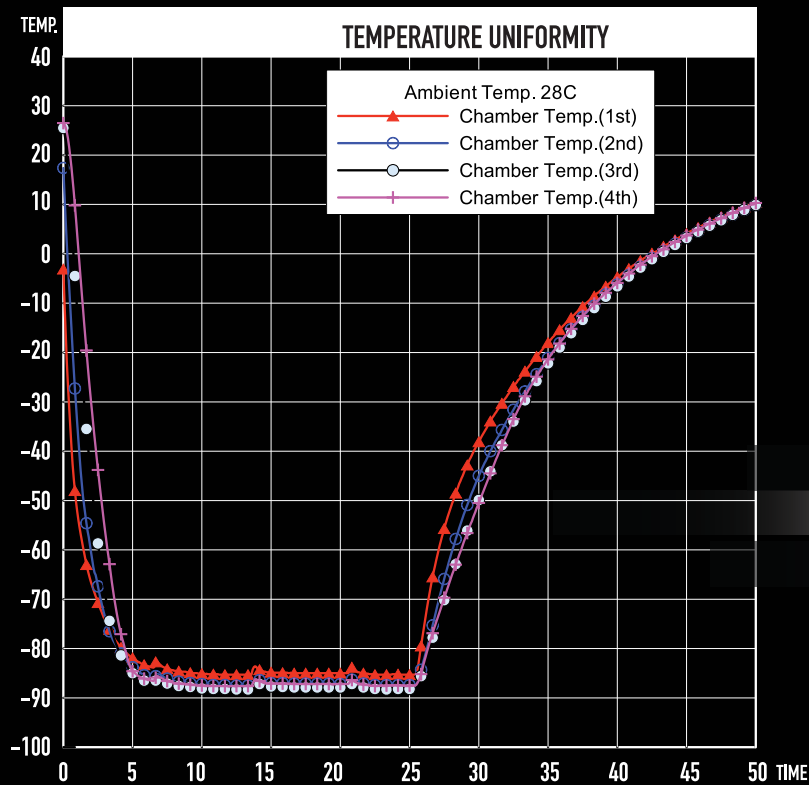
4-20 mA OUTPUT

USB PORT

INSULATION SYSTEM

AUTOMATIC
HIGH PRESSURE FOAMING



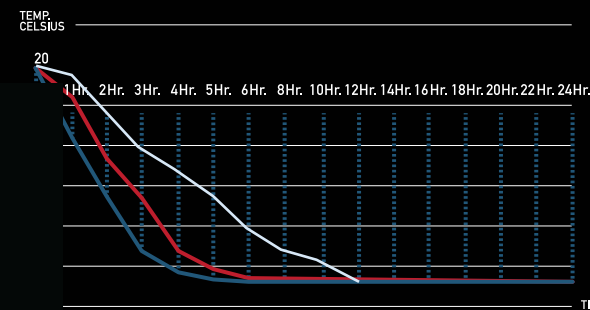


TWINCORE TEMPERATURE CHARACTERISTICS

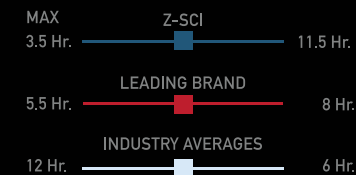


LET
THE GRAPHS
BEGIN

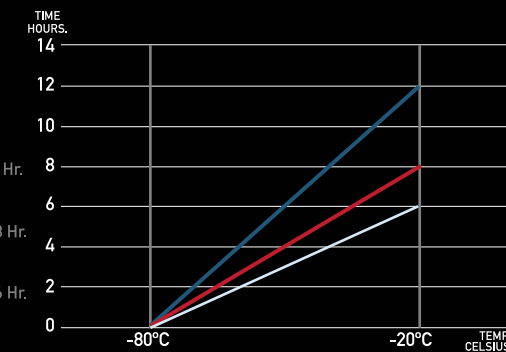
PULL-DOWN TIME FROM
+20°C to -80°C



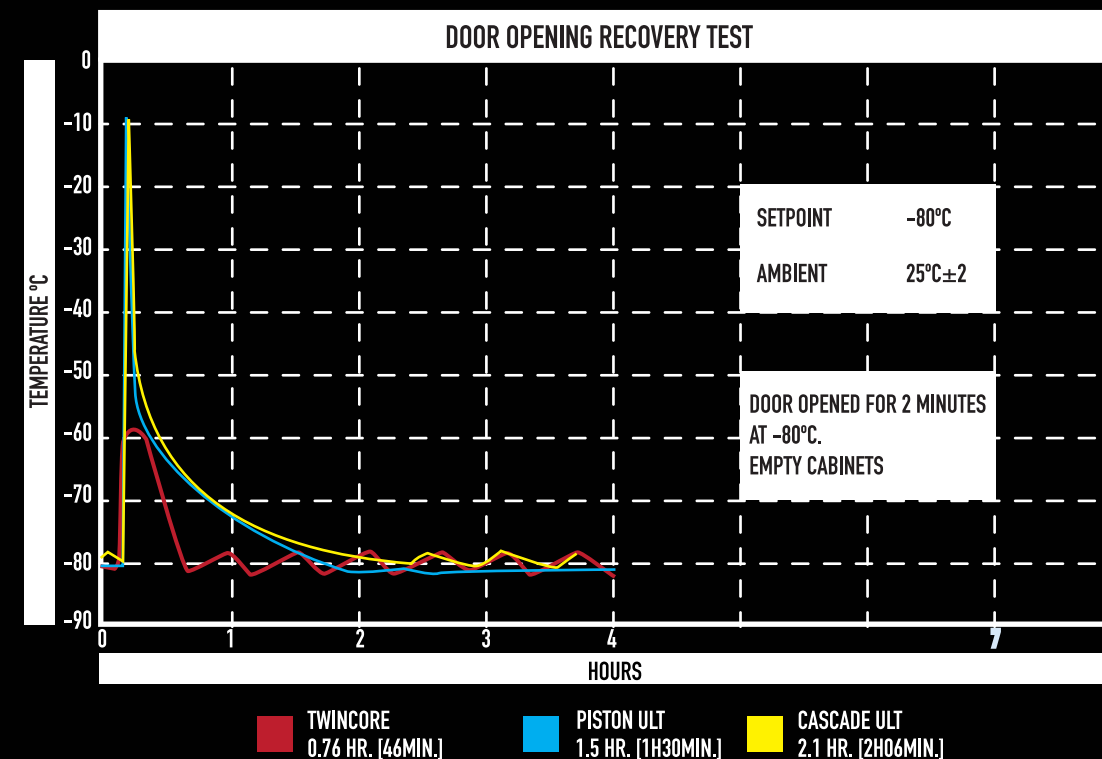
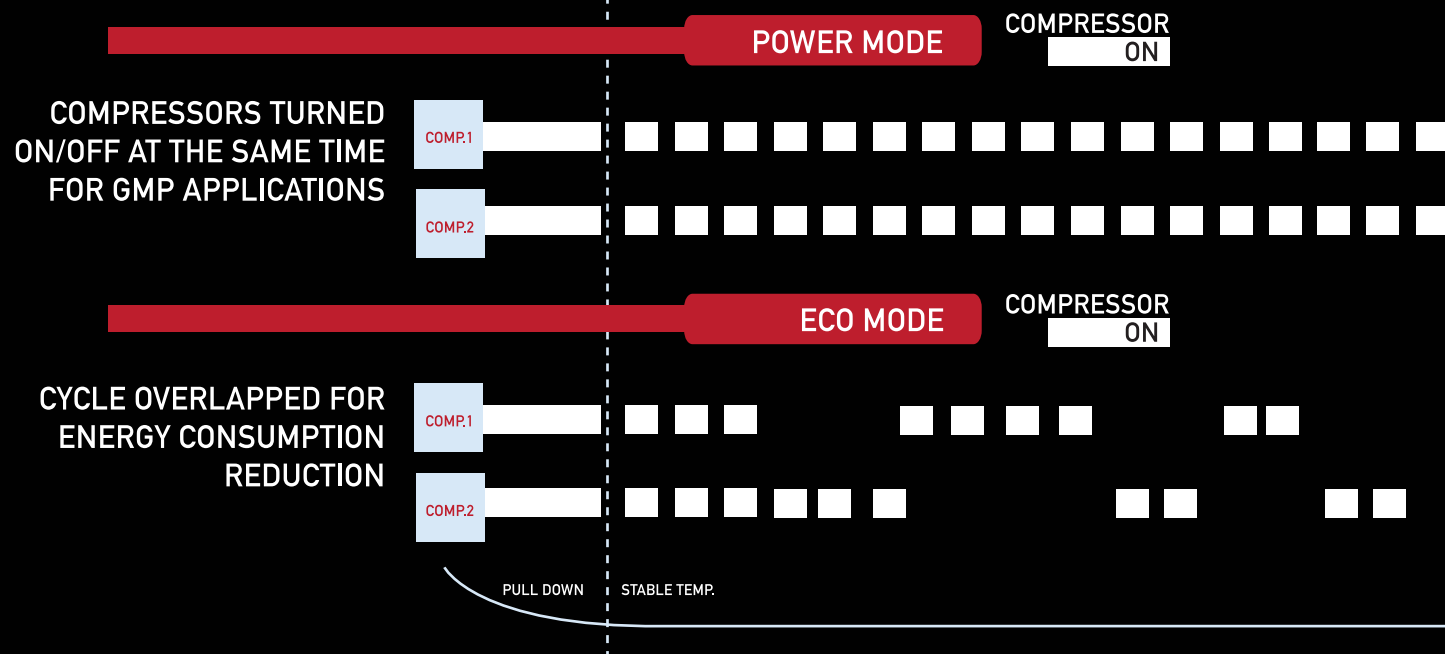
CO2
BACKUP SYSTEM
IS NOT ESSENTIAL



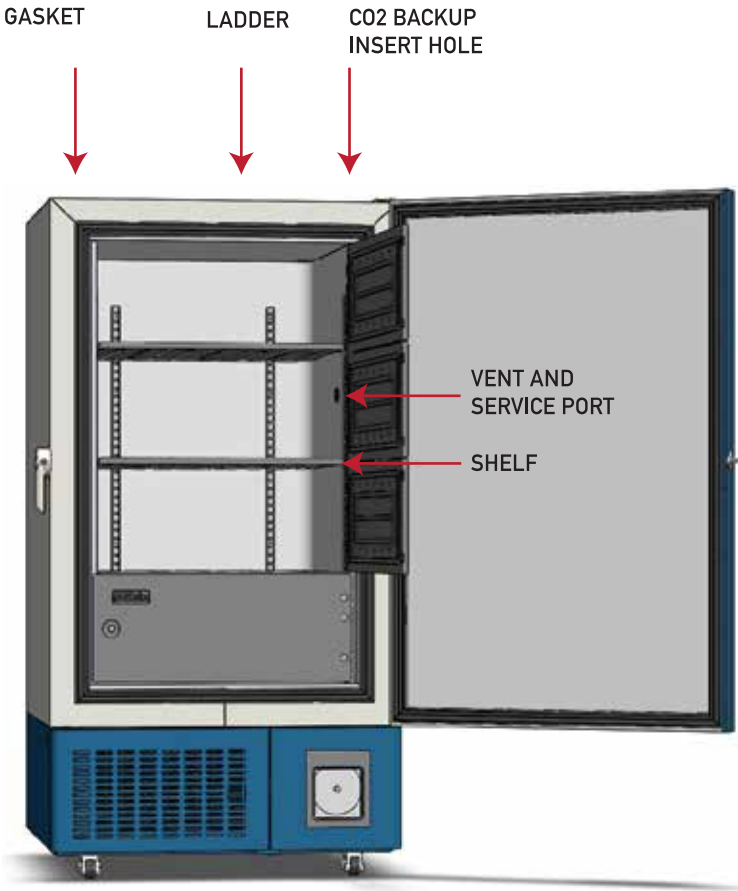
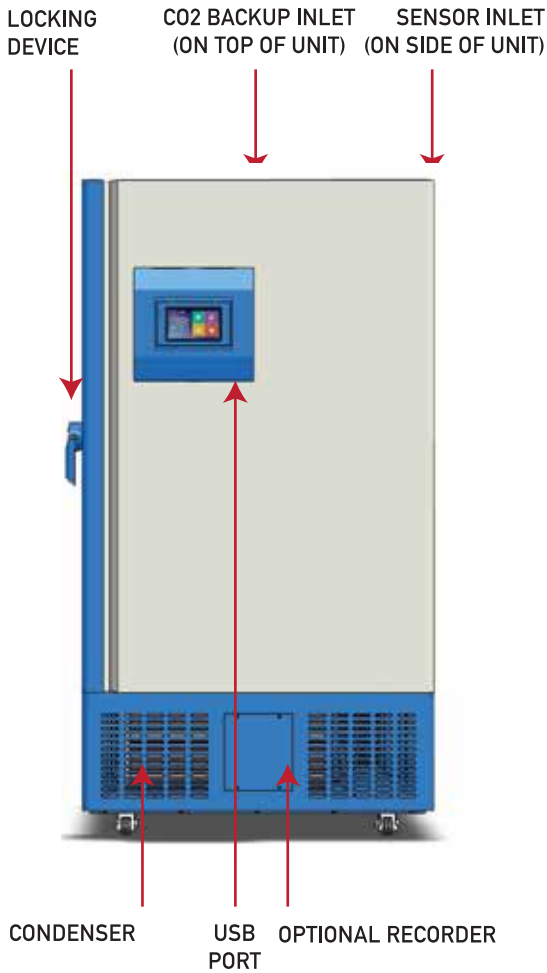
PULL-UP TIME FROM
-80°C to -20°C



THE SAFEST ULT

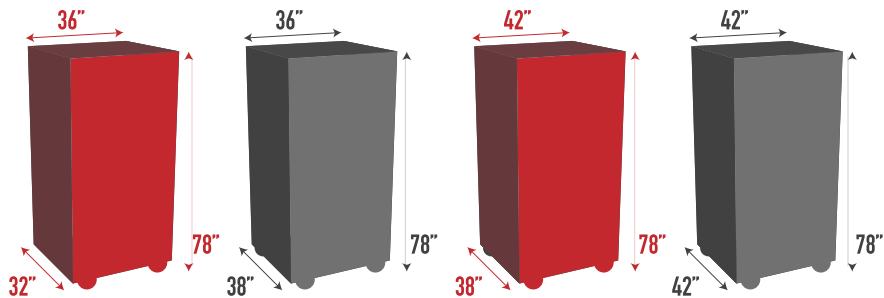


ULT SERIES
TWINCORE
SAFEST ULT YET



EXTERNAL **CuFt** DIMENSIONS

13 17 21 26



DATA SHEET
SAFESTULT.COM

MODEL No.	DF8514J	DF8517J	DF8520J	DF8524J
Capacity	13 CuFt	17 CuFt	21 CuFt	26 CuFt
Inner Doors	4	4	4	4
Shelves	3	3	3	3
Noise Level According NEN-EN-ISO 11202	46dB(A)	46dB(A)	46dB(A)	47dB(A)
Internal Dimensions W x D x H mm (in)	600x480x1290 (23.5x19x51)	600x630x1290 (23.5x25x51)	750x630x1290 (29.5x25x51)	750x740x1290 (29.5x29x51)
External Dimensions W x D x H mm (in)	914x813x1981 (36x32x78)	914x965x1981 (36x38x78)	1066x965x1981 (42x38x78)	1066x1066x1981 (42x42x78)
Shipping Dimensions W x D x H mm (in)	1150x1050x2200 (45.2x41.3x86.6)	1150x1050x2200 (45.2x41.3x86.6)	1150x1200x2200 (45.2x47.2x86.6)	1150x1200x2200 (45.2x47.2x86.6)
Energy Efficiency	0.49 kWh 11.76 kWh / 24h	0.50 kWh 12 kWh / 24h	0.51 kWh 12.24 kWh / 24h	0.59 kWh 14.16 kWh / 24h
Net Weight	334Kg	380Kg	410Kg	450Kg
Shipping Weight	354Kg	400Kg	430Kg	470Kg
Sample Throughput Holes	Built-in Access Port (18 mm inner diameter)			
Temperature Range	-40°C to -86°C (Factory set on -80°C)			
Temperature Uniformity	+/- 3°C			
Microprocessor	Z-TOUCH Control Panel with Inventory Management & WIZ BOX System Audible, Visual and Remote Alarms, History, Events, Log In, Setting			
Refrigeration	Hydrocarbon Natural Mix Refrigerants (CFC/HFC free) - Safety Compliant EN60335-2-24			
Twin Core Technology	2 x 1 ^{1/4} HP 2 Independent Refrigeration Systems Capable of Holding -82°C at All Time			
Cabinet Material	Standard Epoxy Coated Steel Interior Stainless Steel Interior or PO Interior			
Insulation	Automatic High Pressure Foaming Under Vacuum (HPF-VIP Tech)			
Certification	CE, CSA, UL, ETL Certified			
Electrical	208-230V / 60Hz			
Built-In Voltage Booster	Standard for all models including voltage indicator alarm			



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