



TECHNICAL DATA SHEET


MODEL ULT25NEU

Portable Ultra-Low Temperature Storage



SPECIFICATIONS

→ Application, rating and electric data

Application	Storage of general (non-flammable) laboratory materials
Storage Volume	25 liters (0.9 cu.ft.)
Storage Capacity	18 standard 2" boxes
Temperature Range	-86°C to -20°C @ 32°C (90°F) ambient, uniformity +/- 3°C at -80°C top to bottom, adjustable in 1°C increments. Default temperature setting is -80°C. Preset options are -86°C, -40°C and -20°C
Electric Power	100V to 240VAC at either 50 or 60Hz or 12V DC from mobile source
Power Cord Options Available	Multiple options are available. Consult with your sales representative 
Maximum Power (Current)	280 watts (4 amps @120VAC, 2 amps @240VAC, 15 amps @ 12V DC)
Auto-Voltage Capability	100V to 240V, 50 or 60 Hz
Electric Supply Rating	15 amp or greater grounded circuit
Certification/Agency Listing	CE, cTUVus
Noise	Advanced noise abatement, <45 dB(A) at 1 meter
Indoor/Outdoor Use	Indoor use only
Environmental Conditions	Non-corrosive, non-flammable, non-explosive, indoor use, altitude up to 2,000m, temperature 5°C to 40°C (41°F to 104°F), maximum relative humidity 80% f or temperature up to 31°C decreasing linearly to 50% at 40°C

→ Controller

Controller Type	Microprocessor controls
Security	Lockable lid
Warm and Cold Alarms	Setpoint $\pm 10^{\circ}\text{C}$
Control Sensor	One RTD (PT100 Class A)
Dry Contacts	Optional
Internet Connectivity	Optional SenseAnywhere wireless temperature monitoring and logging

→ Refrigeration system

Cooling Engine	Helium charged free-piston Stirling engine with continuous modulation
Heat Transport System	Gravity driven thermosiphon
Refrigerant	R-170 (Ethane) 10–12 grams
Evaporator	Cold wall (inner liner)
Heat Rejection	Finned heat exchanger with forced air cooling. Air inlet: Right front side of unit. Air outlet: Below control panel of front mechanical compartment
Defrost Method	Manual

SPECIFICATIONS (CONTINUED)

→ Performance data

Steady State Energy Use at 25°C Ambient 2.8 kWh/day (average power 118 watts) at -80°C (Empty Cabinet)

Pull-Down from 25°C Ambient 4 hours to -80°C (Empty Cabinet)

Recovery from 1 minute lid opening 20 minutes to -80°C (Empty Cabinet)

Warm-up Profile 30 minutes to -60°C (Empty Cabinet)
70 minutes to -40°C (Empty Cabinet)

Heat Dissipation 403 BTU/h (load to HVAC) (Empty Cabinet)

→ Dimensions and construction

Interior (L x W x D) 332 x 221 x 340 mm / (13.1 x 8.7 x 13.4 in.)

Exterior (L x W x D) 692.5 x 350 x 460 mm / (27.3 x 13.8 x 18.1 in.)

Net Weight, Empty 21 kg (46 lbs.), nominal

Shipping (L x W x D) 762 x 457 x 559 mm / (30 x 18 x 22 in.)

Shipping Weight 24 kg (53 lbs.)

Insulation High performance vacuum insulated panels and polyurethane foam

Gasket Heater Continuous operation when the power cord is connected

Options Plastic Utility Bin, AC Power Cords, Mobile Power DC Cord, Sub-Lid, Certificate of Calibration, Remote Alarm Contacts

DIMENSIONS

