



# MODEL ULT25NEU

ECO and PRO Packages



Co-Branding Also Available with a minimum order quantity of 10.

## Portable Ultra-Low Temperature Storage

### Safeguard your temperature-sensitive materials


- Portable design for point-of-use cold storage
- Superior Stirling engine reliability scales down to a remarkably small footprint and weight (21 kg, 46 lbs.), without sacrificing performance
- Provides industry's widest ultra-low temperature range of -86°C to -20°C
- Adaptable power input provides operational flexibility between Universal AC mains power, as well as vehicle-based 12V DC power or external battery devices
- Utilizes 100% natural refrigerants to support sustainable, environmentally-friendly operations
- Optional wireless temperature monitoring for local and remote monitoring via cloud-based software
- Configurable, smart storage capacity for bags, vials, syringes and bottles within a compact frame
- Preserve and deliver temperature-sensitive material anywhere in the world
- Store collected temperature-sensitive samples and specimens in the field without the need for dry ice
- Remain confident with the industry's best warranty for portable cold storage equipment

What's Included	ECO	PRO
ULT25NEU	✓	✓
Power Cord	AC and DC Cords	AC and DC Cords
Warranty	1 Year	3 Year
Stirling UltraGuard	X	✓
Certifications	X	Certificate of Calibration & Conformance



# MODEL ULT25NEU Specifications

## → Application, rating and electric data

<b>Application</b>	Storage of general (non-flammable) laboratory materials
<b>Storage Volume</b>	25 liters (0.9 cu.ft.)
<b>Storage Capacity</b>	18 standard 2" boxes
<b>Temperature Range</b>	-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
<b>Electric Power</b>	100V to 240VAC at either 50 or 60Hz or 12V DC from mobile source
<b>Power Cord Options Available</b>	Multiple options are available. Consult with your sales representative  
<b>Maximum Power (Current)</b>	280 watts (4 amps @120VAC, 2 amps @240VAC, 15 amps @ 12V DC)
<b>Auto-Voltage Capability</b>	100V to 240V, 50 or 60 Hz
<b>Electric Supply Rating</b>	15 amp or greater grounded circuit
<b>Certification/ Agency Listing</b>	CE, cTÜVus
<b>Noise</b>	Advanced noise abatement, <45 dB(A) at 1 meter
<b>Indoor/Outdoor Use</b>	Indoor use only
<b>Environmental Conditions</b>	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

<b>Controller Type</b>	Microprocessor controls
<b>Security</b>	Lockable lid
<b>Warm and Cold Alarms</b>	Setpoint $\pm$ 10°C
<b>Control Sensor</b>	One RTD (PT100 Class A)
<b>Internet Connectivity</b>	Optional, independent wireless temperature monitoring and logging

## → Refrigeration system

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

## → Performance data

<b>Steady State Energy Use at 25°C Ambient</b>	2.8 kWh/day (average power 118 watts) at -80°C (Empty Cabinet)
<b>Pull-Down from 25°C Ambient</b>	4 hours to -80°C (Empty Cabinet)
<b>Recovery from 1 minute lid opening</b>	20 minutes to -80°C (Empty Cabinet)
<b>Warm-up Profile</b>	30 minutes to -60°C (Empty Cabinet) 70 minutes to -40°C (Empty Cabinet)
<b>Heat Dissipation</b>	403 BTU/h (load to HVAC) (Empty Cabinet)

## → Dimensions and construction

<b>Interior (L x W x D)</b>	332 x 221 x 340 mm / (13.1 x 8.7 x 13.4 in.)
<b>Exterior (L x W x D)</b>	692.5 x 350 x 460 mm / (27.3 x 13.8 x 18.1 in.)
<b>Net Weight, Empty</b>	21 kg (46 lbs.), nominal
<b>Shipping (L x W x D)</b>	762 x 457 x 559 mm / (30 x 18 x 22 in.)
<b>Shipping Weight</b>	24 kg (53 lbs.)
<b>Insulation</b>	High performance vacuum insulated panels and polyurethane foam
<b>Gasket Heater</b>	Continuous operation when the power cord is connected
<b>Included Accessories</b>	Stacking utility bin (x 2), insulated sub-lid, AC and DC power cords, removable port seal
<b>Options</b>	Certificate of Calibration, Stirling Ultraguard -70C phase change material