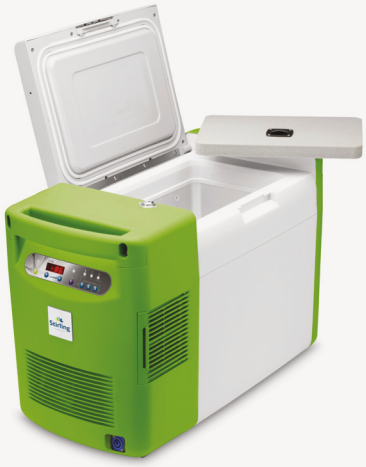
MODEL ULT25NEU

Portable Ultra-Low Temperature Storage

Stirling ULTRACOLD

Safeguards 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 standard AC main outlets, worldwide, as well as vehicle-based 12V DC power or external battery devices
- Utilizes 100% natural refrigerants to support sustainable, environmentally-friendly operations
- Optional SenseAnywhere wireless temperature logging allows for remote monitoring via cloud-based software
- Ample storage capacity for thousands of 2mL vials within a surprising compact frame



Uniquely portable and reliable ultra-low ULT25NEU storage benefits scientists, clinicians and patients alike

- Preserve and deliver temperature-sensitive material anywhere in the world
- Easily deploy long-term storage of biological materials with low power use in any form – freezer can be powered by AC mains or a 12V DC power source
- Collect temperature-sensitive samples and specimens at remote or field locations
- Remain confident in performance with a one-year warranty for parts and service in the U.S. and Canada

Industry's widest ULT temperature range **-86°C to -20°C**

MODEL ULT25NEU 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, cTÜVus
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 ± 10°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

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

Stirling ULTRACOLD

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