FARRAR®

PURPOSE-BUILT FOR BIOPHARMA AND PHARMACEUTICAL MANUFACTURING

Commercial bulk storage with integrated redundancy, fast temperature recovery, and optimized material handling



ULC-190

FARRAR® pioneered forced air convection cooling to answer the challenge of preserving and storing biological and human tissue donor samples and materials. Purpose-built for life science applications, the Ultra-Low Chamber ULC-190, new ULC-259, and ULC-328 are the only +2°C to +8°C and -20°C to -80°C, forced air, ultra-low-temperature freezers on the market.

Ideal for bulk commercial short and long-term needs, these innovative chambers offer rapid, efficient, and more sustainable product cool-down and accommodate universal product containers (all sizes—bags, bottles, boxes, etc. of pharmaceutical packaging).

With 190 cu. ft./5,380 liters up to 328 cu. ft./9,288 liters of storage, these solutions help optimize footprint requiring only 47 sq. ft./4.36 m2 of space. At +/-3.0°C, the units feature unmatched uniformity, offer fully redundant systems (control, refrigeration, airflow), and provide the fastest temperature recovery from door opening versus competitor offerings. Designed with energy balance in mind, the ULC is a smart storage solution that offers dynamic refrigeration control and low energy consumption (ULC-190 = 0.3 kWh/cu. ft., ULC-259 = 0.25 kWh/cu. ft.).

SERIES KEY FEATURES

- Integrated full redundancy (refrigeration, controls, electrical)
- Best temperature uniformity on the market (+/- 3.0°C)
- Low temperature deviation (+/- 1°C)
- Wide-range (+2°C to +8°C and -20°C to -80°C) forced air convection
- Optimized footprint
- Optional racking/shelving system available
- Optional material handling carts available

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BUILT FOR FREEZING

- 6x capacity of a standard ULT (27 cu. ft.)
- Reliable material storage enabling reduction in emergency product transfer
- Configurable for racks, carts, boxes, and pallets



ULC-259

APPLICATION AND ELECTRICAL REQUIREMENTS

Application	Pharmaceutical, Biopharmaceutical, Biorepository, Bio-Logistics
Chamber Volume	ULC-190 = 190 cu. ft. / 5,380 L ULC-259 = 259 cu. ft. / 7,334 L ULC-328 = 328 cu. ft. / 9,288 L
Temperature Range	+2°C to +8°C and -20°C to -80°C
Electrical	North America: 208-230VAC, Single Phase, 60Hz International: 230VAC, Single Phase, 50Hz
Circuit Breaker	2 x 30 amp
Ambient Operating Temperature	+18°C to +30°C

CUSTOMER BENEFITS

- Fastest temperature recovery from door opening
- Low energy consumption(ULC-190 = 0.3 kWh/cu. ft., ULC-259 = 0.25 kWh/cu. ft.)
- HMI touchscreen provides visual temperature profile progress with export capability
- Universal container acceptance (all sizes—bags or bottles)
- Adjustable shelves available for process optimization
- Accommodates any configuration including hanging systems or Metro Shelving systems
- Available Internationally
- Plug-and-play installation

- Designed with frequent access storage, clinical trial kitting, and logistics prep process needs in mind
- Ergonomically engineered for high-density storage and pull/pack/ship accessibility
- Accommodates smart sliding racks and carts to minimize product/substance/ sample handling
- Enables easy loading and pulling from the ground
- Intelligent drawer systems accommodate blood bag and cryo box upright ULT racking, shippable packaging, bottles, and single-use bags and shells
- Enables maximized storage density without sacrificing organization

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STORAGE CAPACITY / DIMENSIONS

	ULC-190	ULC-259	ULC-328
Total Volume	190 cu. ft. / 5,380 L	259 cu. ft. / 7,334 L	328 cu. ft. / 9,288 L
Area Footprint	47 sq. ft. / 4.36 m2	73.2 sq. ft. / 6.8 m2	73.2 sq ft. / 6.8 m2
Interior Dimensions	110 x 38 x 90 in (W x D x H) 2794 x 965 x 2286 mm	121 x 54 x 68.625 in (W x D x H) 3073.4 x 1371.6 x 1743.0 mm	121 x 54 x 87 in (W x D x H) 3073.4 x 1371.6 x 2210 mm
Exterior Dimensions	123.25 x 60.25 x 145.25 in (W x D x H) 3130.55 x 1530.35 x 3689.35 mm	138.25 x 76.25 x 127.25 in (W x D x H) 3508 x 1936.7 x 3232.1 mm	138.25 x 76.25 x 145.25 in (W x D x H) 3508 x 1936.7 x 3689.35 mm
Unit Weight	3,150 lbs. / 1,429 Kg	3,500 lbs. / 1,588 Kg	3,900 lbs. / 1,769 Kg
Shipping Weight	3,900 lbs. / 1,769 Kg	4,100 lbs. / 1,860 Kg	4,500 lbs. / 2,132 Kg


ULC-190


ULC-328

REFRIGERATION SYSTEM

Evaporator/QTY	Forced Air / (2)
Condenser/QTY	Forced Air-Cooled / (2) or Water-Cooled
Metering Device	Electronic
High Stage/ Low Stage	R-449A / R-508B
Air Cooled Condenser	+18°C to +30°C
Water Cooled Condenser	Tower Water 85°F (29.5°C), Max. flow rate 7gpm (26.5 l/min)
Requirements	Chilled Water 45°F (7.2°C), Max. flow rate 3.5 gpm (13.25 l/min)

PERFORMANCE DATA

Uniformity Air Temperature	+/- 3.0°C (empty chamber)
Temperature Control	+/- 1.0°C
Warranty	1 year parts and labor (North America) 1 year parts only (Outside of North America)

CONTROLLER

Temperature Controller/QTY	Microprocessor (2)
Displays (145mm)	LCD (2)
Modbus TCP/IP	Communication Protocol
Alarms	High/Low temperature, door ajar, power failure, remote alarm contacts
Dry Contacts	Standard (C, NO, NC)

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ORDERING INFORMATION

Model Numbers			Description	Voltage (Hz)	Amps (FLA) / Breaker
ULC-190	ULC-259	ULC-328			
ULC-190_AC	ULC-259_AC	ULC-328_AC	Air-Cooled	208-230VAC - 1 Phase - 60 Hz	2 x 24 FLA / 30A
ULC-190_WC	ULC-259_WC	ULC-328_WC	Water- Cooled	208-230VAC - 1 Phase - 60 Hz	2 x 24 FLA / 30A
ULC-190i_AC	ULC-259i_AC	ULC-328i_AC	Air-Cooled	230VAC - 1 Phase - 50 Hz	2 x 24 FLA / 32A
ULC-190i_WC	ULC-259i_WC	ULC-328i_WC	Water-Cooled	230VAC - 1 Phase - 50 Hz	2 x 24 FLA / 32A

ULC SERIES MATERIAL HANDLING SOLUTIONS

Product	Options	Dimensions
ULC-190	Shelves	54" x 36" (1372 x 914 mm) Adustable @ 1" Increments
	Product Cart	36 3/4" (934 mm) D x 33" (838 mm) W x 61 1/2" (1562 mm) H, (4) Shelves 18" (457 mm)
	Transfer Cart	27" (686 mm) W x 56" (1423 mm) D x 45 1/8" (1146 mm) H
ULC-259	Sliding Shelves	55 1/8" x 40 1/2" (1400 x 1029 mm) - 4 across by 6 high @ 10" increments - individually sliding
	Product Cart	49 3/8" (1229 mm) D x 20 3/8" (517 mm) W x 51 1/4" (1302 mm), (6) shelves 10" (254 mm)
	Transfer Cart	41 1/16" (1043 mm) D x 39" (991 mm) W 45 1/8" (1146 mm) H
ULC-328	Palette Capacity	4 - 40" (1016 mm) W x 48" (1219 mm) D x 36" (914 mm) H
	Product Cart	51 1/2" (1308 mm) D x 21" (534 mm) W x 61 1/2" (1562 mm) H, (4) Shelves 18" (457 mm)
	Transfer Cart	41 1/16" (1043 mm) D x 39" (991 mm) W 45 1/8" (1146 mm) H

ADDITIONAL SERVICES & OPTIONS

- Warranty Options
- Validation IQ/OQ
- Temperature Mapping Studies
- Shelving System and Portable Material Handling
- Custom Programming and Testing






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