

## Farrar ULCi wide temperature range -40°C to -80°C



- ✓ **The only** wide range forced air circulation low temperature freezer available
- ✓ 5,380 Liters of storage space
- ✓ ULC only requires 4.36 m<sup>2</sup> of floor space
- ✓ Best uniformity on the market +/- 3.0°C
- ✓ Fully redundant system (control, refrigeration, air flow)
- ✓ Fastest temperature recovery from door opening
- ✓ Exceptional performance
- ✓ Energy balance design
- ✓ Dynamic refrigeration control
- ✓ Smarter storage solution
- ✓ Low energy consumption 0.33 kWh/cu.ft.

***“Farrar’s ULC will revolutionize long term sample storage”***

### Overview

- ◆ Specifically designed for Pharmaceutical, Biorepository / Biobank
- ◆ Largest volume space available for a -40C to -80C reach-in freezer
- ◆ Smallest foot print with largest storage volume
- ◆ Forced-air circulation provides fastest temperature recovery from door opening
- ◆ Fully redundant systems offer peace of mind (display, electrical, refrigeration and controls)
- ◆ We designed the interior to be fully customizable ; from vials to bulk containers, cassettes and bioshells.
- ◆ Optional shelving system is available

## Application and Electrical Requirements

Application	Pharmaceutical / Biorepository / Biobank
Chamber Volume	190 cu.ft. / 5,380 l
Temperature Range	-40°C to -80°C
Electrical	230 VAC , 1 Ø, 50Hz
Circuit Breaker	2 x 30 amp
Ambient Operating Temperature	+18°C to +30°C

## Storage Capacity / Dimensions

Total Volume	5,380 l
Optional Shelves	54 x 36 in / 1372 x 914 mm (W x D)
Area Footprint	47 sq.ft./ 4,36 m <sup>2</sup>
Interior Dimensions	110 x 38 x 90 in (W x D x H) 2794 x 965 x 2286 mm
Exterior Dimensions	122 x 57 x 143 in (W x D x H) 3098 x 1448 x 3632 mm
Unit Weight	3,150 lbs. / 1,429 Kg
Shipping Weight	3,900 lbs. / 1,769 Kg

## Performance Data

Uniformity Air Temperature	+/- 3.0°C (empty chamber)
Temperature Control	+/- 1.0°C
Warranty	1 Years parts & labor

## Refrigeration System

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

## Controller

Temperature Controller/QTY	Microprocessor/ 2
Display/QTY	LCD/ 2
Sensor/QTY	RTD PT100 Din A/ 2
Alarms	High/Low temperature, door ajar, power failure, remote alarm contacts
Dry Contacts	Standard (C, NO, NC)

## Key Features

- Wide range forced air evaporator
- Best temperature uniformity on the market (+/- 3.0°C)
- Fully redundant systems
- Small foot print
- Low temperature deviation (+/- 1°C)