





# **ULUF 450**

### HIGHLY RELIABLE ULTRA LOW TEMPERATURE FREEZER

ULUF 450 ultra low temperature freezer comes with single cooling technology that offers direct cooling and excellent cooling performance.







SINGLE COMPRESSOR

COOLIN

FILTERLESS

## RELIABLE FREEZING

The single compressor technology provides reliable low temperature freezing and high temperature uniformity.

With the unique single compressor technology the freezer can reach -86 with only one compressor. This is made possible through our special dimensions of the cooling system and our patented refrigerant. With direct cooling of each compartment you achieve maximum uniformity and minimum recovery time.

## WORKING ENVIROMENT

By placing the compressor and other heat and noise generating components on the top of the unit the heat is distributed up- and backwards preventing the heat from warming up the entire room.

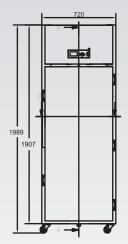
This design also means that there is never a compartment that you will have difficulties overlooking or using fully. Ensuring a ergonomically correct unit which is easy and pleasant to use.

## FILTERLESS CONSTRUCTION

Our filterless construction makes cleaning unnecessary. The evaporator coils are spaced so far apart that dust will not be trapped and obstruct the airflow.

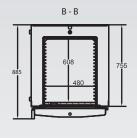
With our compressors located on the top, the dust intake is minimal this eliminating the need for filters entirely, saving you maintenance time and cost.

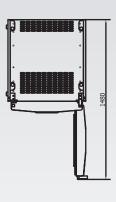
## **MAIN DIMENSION FOR ULUF 450**











### MAIN SPECIFICATIONS

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Item code	US-DAI 1408-1
Temperature range (°C)	-40 / -86
Temperature range (°F)	-40 / -123
Max. ambient temperature (°C)	25
Max. ambient temperature (°F)	77
Capacity (L)	393
Capacity (cu. ft.)	13,9
Exterior dimensions WxDxH (mm)	720x906x1990
Exterior dimensions WxDxH (inches)	28,35x35,67x78,35
Interior dimensions WxDxH (mm)	480x608x1345
Interior dimensions WxDxH (inches)	18,90x23,94x52,95
Weight (KG)	206
Weight (lbs)	454
Insulation (mm)	120
Insulation (inches)	4,7
Cooling technology	single system / static
Controller model / probe type	G214 / PT1000
POWER	

Power supply (V)	110
Frequency (Hz)	60
Power consumption (kWh/24H)	14,8
AMP (A)	11,5
Power (Watt)	820
Horse nower (HP)	3/4

## ALARM FUNCTIONS

Alarm display as text - not codes	yes
Visual / acoustic alarm	yes / yes
Power failure alarm	yes
Adjustable high / low temperature alarm	yes / yes
Open door alarm	yes
Probe failure alarm	yes
Low battery alarm	yes
Compressor failure alarm	no
Battery backup for alarms (approx. hrs.)	72

Voltage free contact for remote alarm (e.g. GSM module)	yes
Electronic data logger	yes
RS 485 port	yes
USB port for software update & data download	yes
Temperature chart recorder	optional

Display type	4,3" with touch buttons
Number of optional reference probes	2
Password protection for turning unit on / off	yes
Town available and in lay	1100

OTHER FEATURES	
Automatic defrost	yes
Vacuum release port	yes
Access port for external probe etc. (int. diameter mm)	12
Access port for external probe etc. (int. diameter inches)	0,47
Light	yes
Lock with key	yes
Castors (total pcs) / castors with brake (pcs)	4/2
Fixed feet (pcs) / levelling feet (pcs)	no
Sub lids / inner doors (pcs)	5
Reversible door(s)	no
Fixed shelves (pcs) / adjustable shelves (pcs)	4/0
Max. load per shelf (kg)	30
Max. load per shelf (lbs)	66
Total capacity of 50 mm / 2 inch boxes 9x9 didviders (pcs)	240
Total capacity of 75 mm / 3 inch boxes 9x9 didviders (pcs)	180
Total capacity of 96 mm / 3.8 inch boxes 9x9 didviders (pcs)	120

Number of compressors	1
Refrigerant	EP88
Interior cabinet material	stainless steel
Exterior cabinet material	electrogalvanized steel
Colour (exterior cabinet)	white
Foam type	polyurethane
VIP vacuum insulated panels	no

SHIFFING	
Shipping weight (KG)	267
Shipping weight (lbs)	589
Shipping dimensions WxDxH (cm)	84x104x231
Shipping dimensions WxDxH (inches)	33,1x40,9x90,9
Shipping volume (m³)	2,02
Shipping volume (cu. ft.)	71,34



User friendly G214 controller standard in the ULUF 450. Includes different alarms as; visual, acoustic, open door and more.



Key lock is standard feature in our ULUF 450. Placed on side of door for optimal security for your samples.



Optimal storage capacity and overview of the stored samples with the stainless steel front rack storage system

## **OPTIONAL ACCESSORIES**

Modbus adapter for G214 controller Temperature chart recorder CO2 back-up system GSM alarm module Voltage converter Voltage stabilizer Racks & boxes Cryo gloves







