



**Datasheet**

Features	
Lock	Yes
LED Light	No
Battery Backup for Controller, 48h	Yes
VIP (Vacuum Insulated Panel)	No
Perimeter Heater	No
Porthole	Yes - Ø 12,5mm
Dry Contact	Yes
Vacuum Valve	No
Door	Solid
Door Reversibility	N/A

Construction	
Outer Dimensions, HxWxD	921x550x550
Inner Dimensions, HxWxD	450x390x390
Weight Gross/Net, kg	73 / 50
Material Inner Cabinet	Painted Steel
Material Outer Cabinet	Painted Steel
Insulation Thickness, mm	80
Insulation Type	Polyurethane with Cyclopentane
Air Distribution	N/A
Mobility	Standard: 4xCasters with brakes
Refrigerant, Type / gram	Nature R2 / 121
Variable Speed Compressor	No
Internal Air Distribution	Static
Number of Probes	1

Controller & Alarms	
Controller	i-Care, Touch screen
Controller language	EN, DE, FR
USB Connection	Yes
Logging	Data, Alarms & Events
Temperature Graph	Yes
High/Low Temp. Alarm	Yes
Open Door Alarm	No
Probe Failure Alarm	Yes
Power Failure Alarm	Yes

-20°C  
-86°C



**ULTF-C74i**

**Biomedical ULT Freezer**

Complexity made simple    Info center



Storage	
Volume, Gross/net, L	74 / 71
Shelf	N/A
Cryobox "2 capacity	40
2 ml vials capacity	4.000
Inner lids	Yes

Performance & Operation	
Temperature Range, C°	-20 to -86
Voltage, V	220
Frequence, Hz	50
Max Ambient, °C	30
Max Humidity, °C	65
Noise, dB	54
Energy Consumption, kWh / 24h	5,3
Instant Power Consumption	PD 0,540 / Stable 0,340
Heat Rejection	370
K-Value	0,19
Defrost	Manual



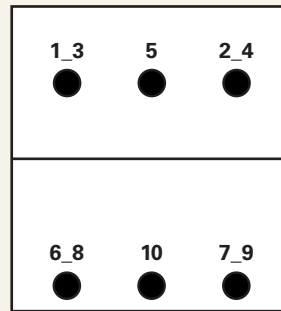
## Temperature Mapping

### Test overview

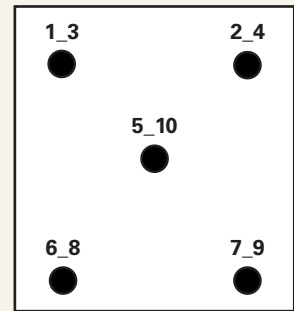
Test type	10-point test
Test environment	Controlled conditions, empty cabinet
Ambient temperature	20°C
Humidity	60%
Set-point	-82°C
Sensors used	25gr tinned brass formed as a cylinder with a diameter of 15,2mm
Installation	Appliance installed according to instruction manual conditions
Refrigerant	Nature R 2

### Sensor position

#### Front View



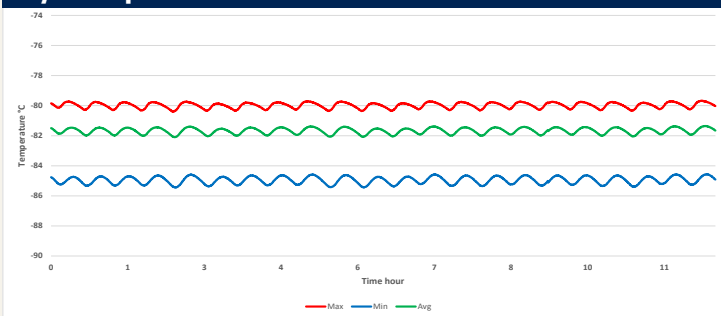
#### Top View



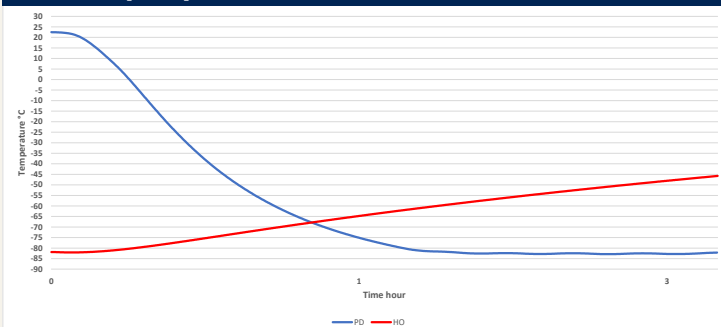
### Sensor temperature

Sensor position	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Max.	-83,9	-85,3	-85,2	-84,9	-85,6	-85	-85	-84,5	-85	-84,6
Avg.	-84,5	-85,9	-85,8	-85,5	-86,2	-85,6	-85,5	-85	-85,6	-85,1
Min.	-85,1	-86,5	-86,2	-86,2	-86,9	-86,3	-86,3	-85,6	-86,3	-85,7

### Cyclic operation



### Warm up & pull down

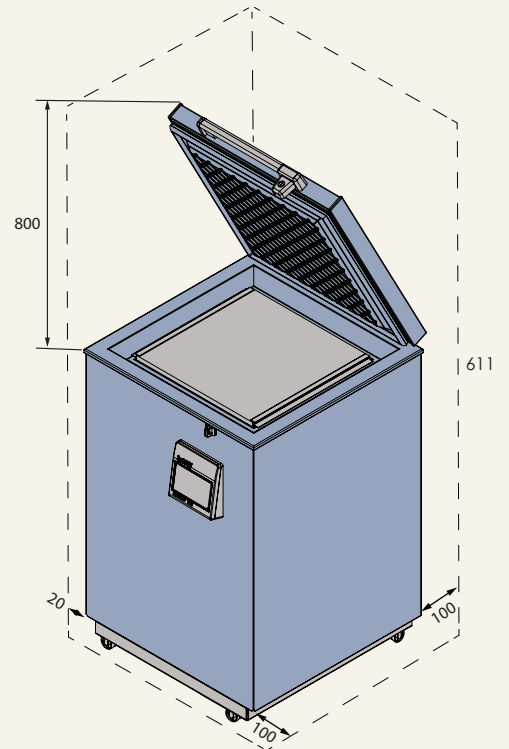
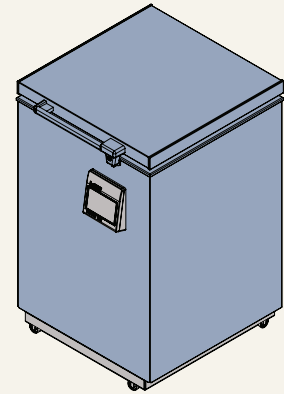
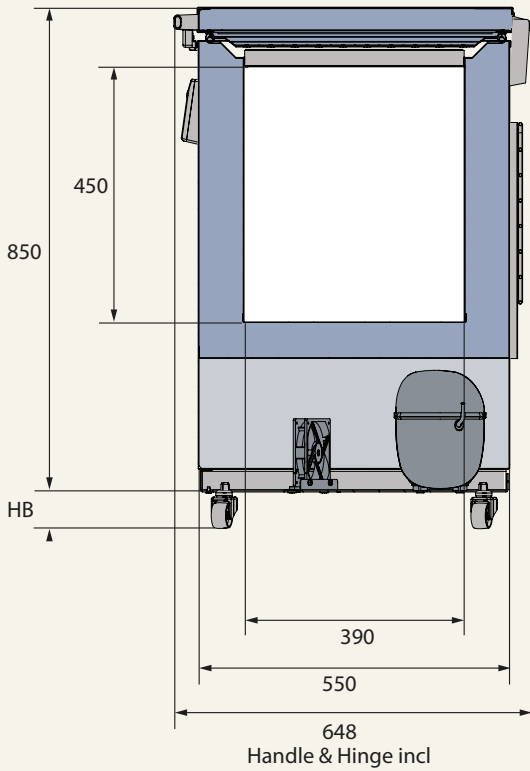
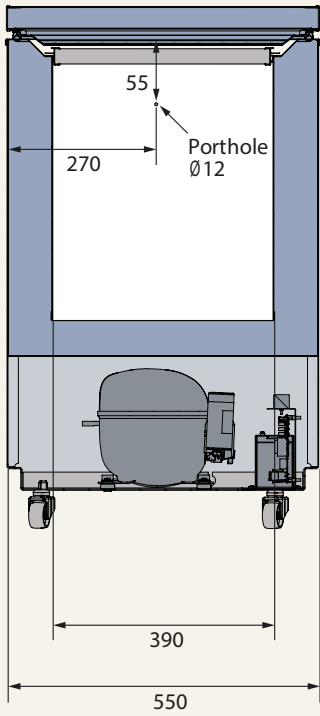


### Typical performance data

Avg. cabinet temperature	-85,5°C
Uniformity	+/- 0,9°C
Stability in avg.	1,0°C
1 min. door open recovery to -75°C avg. temperature	6 min.
Cycle rate on/off	16 / 7 min.
Duty cycle	68 %
Energy consumption - Normal mode	5,32 kWh/day
Energy consumption - Energy saving mode	4,01 kWh/day
Pull down time to -75°C avg. temperature	72 min.
Hold over time from -82°C to -60°C	64 min.
Heat rejection	370 W



**Dimensions**



All dimensions in millimeter

HB: Height of base (HB is ajustable when given value is xx-xx)

