



BIOMEDICAL

# ULTF-C74i

## CHEST ULT FREEZER

The chest design is an economical choice, that preserves cold well due to the horizontal lid.

-20°C  
-86°C



DIMENSIONS		VALUE
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		80
Insulation type		Polyurethane with Cyclopentane
Mobility		Standard: 4 castors with brakes
Refrigerant, Type / gram		Nature R2 / 121
Variable Speed Compressor		No
Internal Air Distribution		Static
Number of probes		1
CONTROLLER		VALUE
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
STORAGE		VALUE
Volume, Gross/Net, L		74 / 71
Cryobox "2 capacity		40
2 ml vials capacity		4.00
Inner lids		Yes
FEATURES		VALUE
Lock		Yes
LED light		No
Battery Backup for Controller, 24h		Yes
VIP (Vacuum Insulated Panel)		No
Perimeter Heater		No
Porthole		Yes - Ø 12,5 mm
Dry Contact		Yes
Vacuum valve		No
Door		Solid



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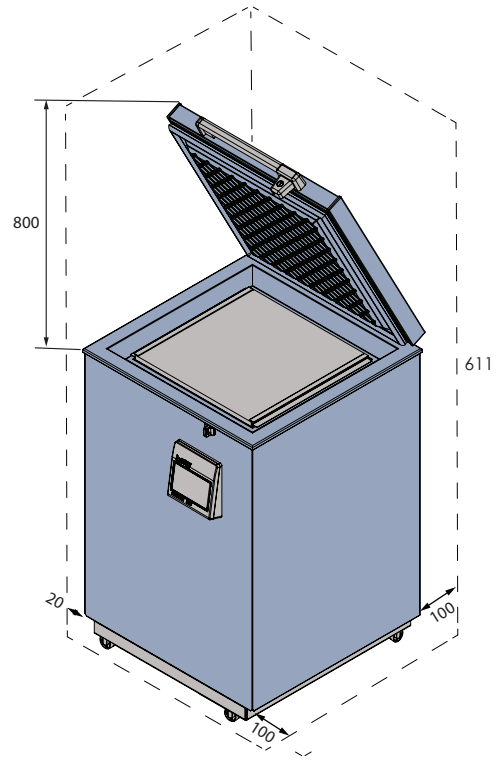
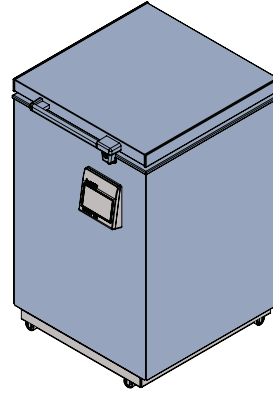
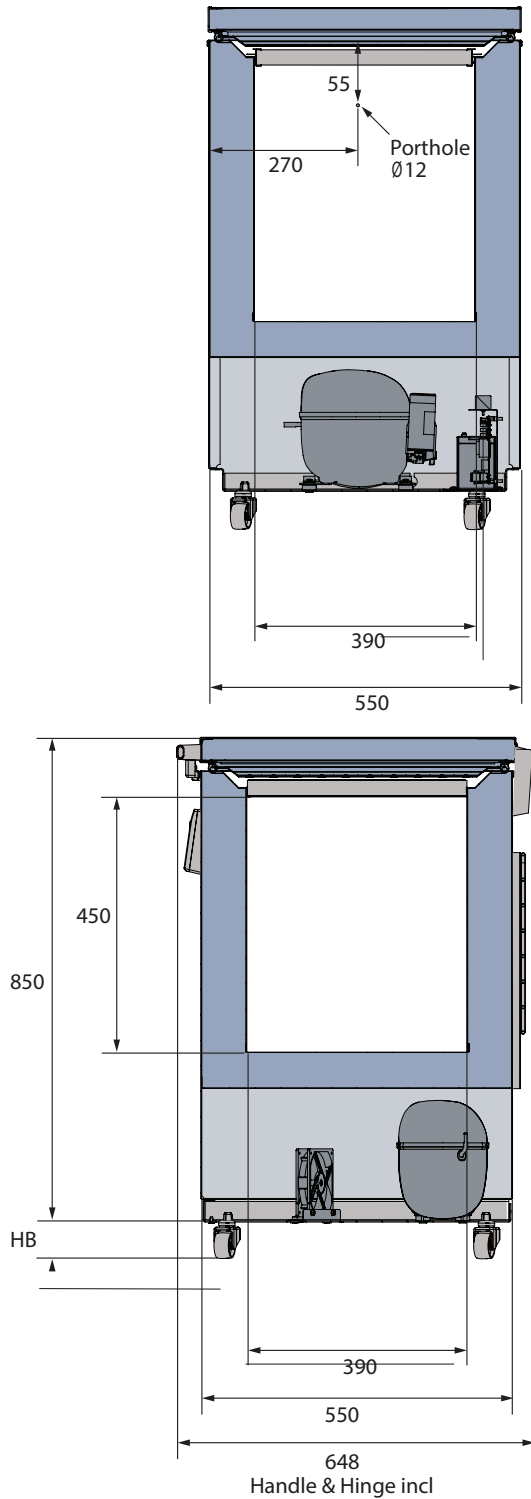
PERFORMANCE	UNIT	VALUE
<b>All data in RT20°C</b>		
Temperature Range	°C	-20 to -86
Uniformity in performance - difference between top and bottom	°C	+/- 0,9
Pull down time	Minutes	72min to -75°C
Hold over time	Minutes	64 min to -60°C
Noise	dB	54
Energy Saving Mode	kWh/24h	4,018 kWh/24h Set -70
Energy 24 hours	kWh/24h	5,325 kWh/24h Set -82
Energy year	kWh/year	1943,25 kWh/y Set -82°C
Instant Power Consumption	kW	PD 0,540-0,370/Stable 0,340
Heat Rejection	W	370
U-Value	W/m <sup>2</sup> K	0,19
COOLING COMPONENTS		VALUE
Refrigerant/Amount (gram)		Nature R 2/121gr
Number of compressors	pcs	1
Varibel speed compressor	Yes/No	No
Internal air distribution (type of)		Static
Evaporator Fan	Yes/No/Variable	No
Condenser Fan	Yes/No/Variable	Yes
Number of probes	pcs	1
Defrost	Yes/No	No



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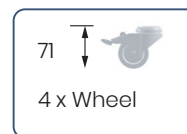
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All measurements in mm.

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



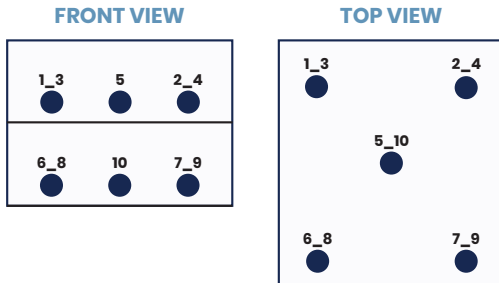


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### SENSOR POSITION



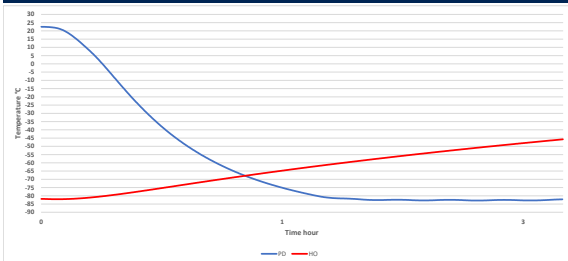
### MODEL ULTF-C74I

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

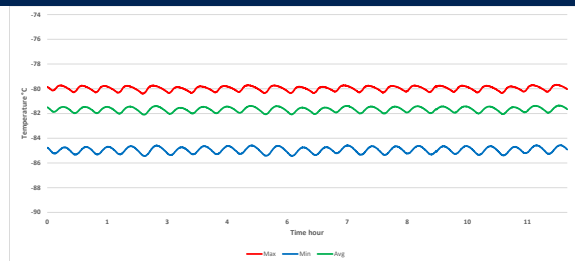
### SENSOR TEMPERATURE

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

### WARM UP & PULL DOWN



### CYCLIC OPERATION



### TYPICAL PERFORMANCE IN AMBIENT 20°C - EMPTY CABINET

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