



# ULTF-C74i

## BIOMEDICAL ULT FREEZER

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



### DIMENSIONS

Outer Dimensions HxWxD, mm	921x550x550
Inner Dimensions HxWxD, mm	450x390x390
Weight Gross/Net, kg	74 / 50
Material inner cabinet	Painted Steel
Material outer cabinet	Painted Steel
Packaging weight, kg	24
Packaging dimensions HxWxD, mm	1008x705x795
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

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

Volume, Gross/Net, L	74 / 71
Cryobox "2 capacity	40
2 ml vials capacity	4.00
Inner lids	Yes

### FEATURES

Lock	Yes
LED light	No
Battery Backup for Controller, 24h	Yes
VIP (Vacuum Insulated Panel)	No
Door frame heater	No
Porthole	Yes - Ø 12,5 mm
Dry Contact	Yes
Vacuum valve	No
Door	Solid



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Voltage/Frequency		
Voltage/Hz		230V/50Hz
Max Ambient		
°C		30°C
Max Humidity		
% rh		65%
PERFORMANCE		
All data in RT20°C		
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 Consumption, kWh / 24h		
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		250
U-Value		
W/m <sup>2</sup> K		0,19
COOLING COMPONENTS		
Refrigerant/Amount (gram)		
		Nature R 2/121gr
Number of compressors		
pcs		1
Variable 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

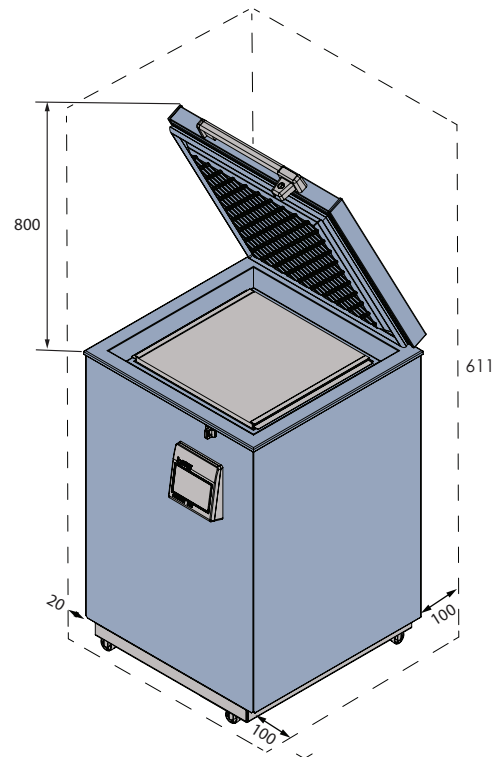
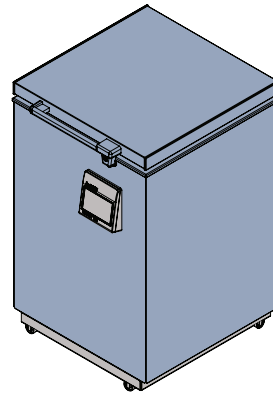
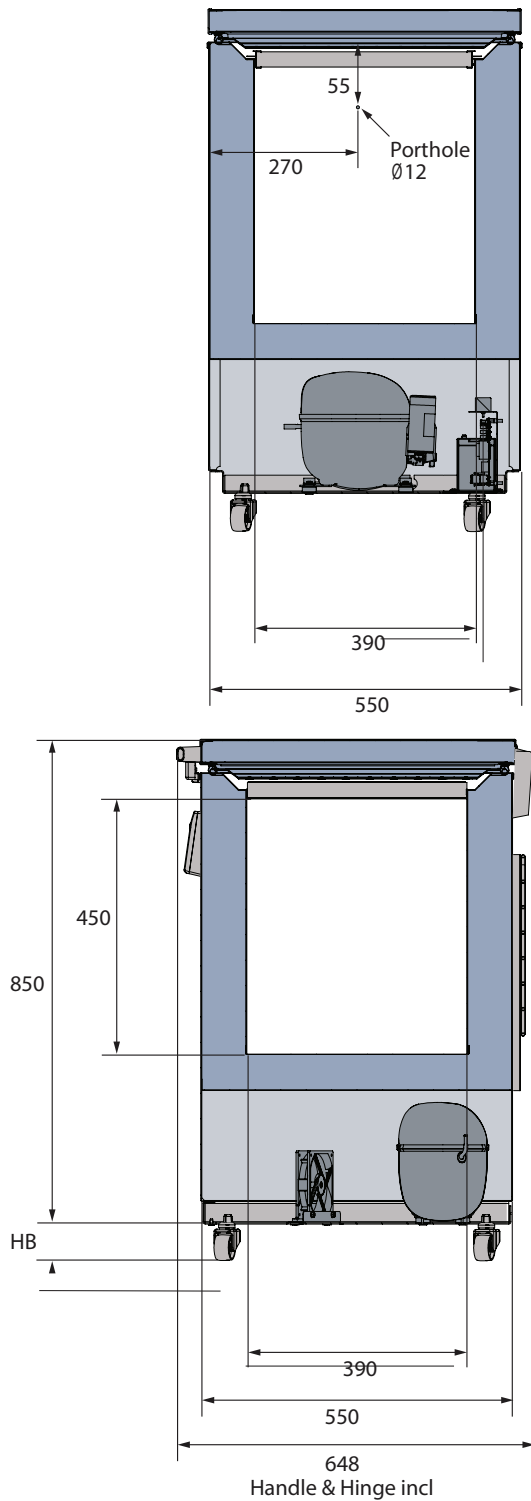
\* Heat Rejection is defined as average power based on energy consumption, rounded up to nearest 50W.



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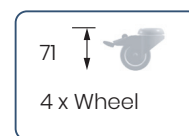
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All measurements in mm.

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





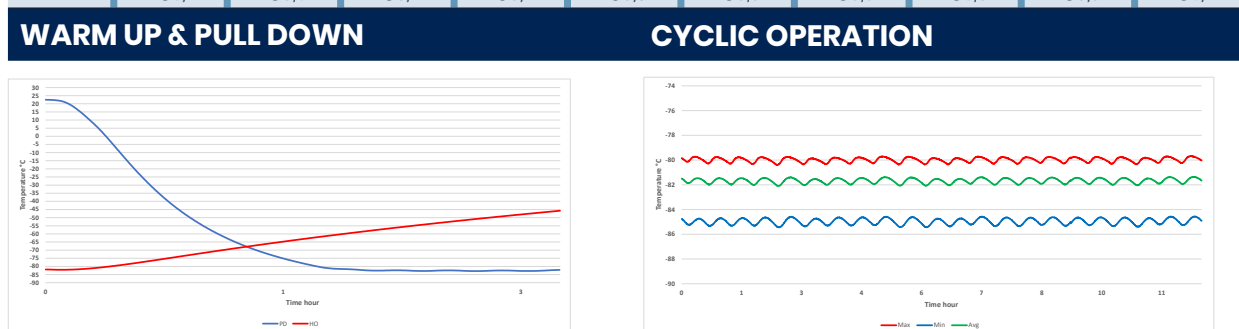
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SENSOR POSITION	MODEL	ULTF-C74I
<p><b>FRONT VIEW</b></p> <p><b>TOP VIEW</b></p>	<b>Test type</b>	10-point test
	<b>Test environment</b>	Controlled conditions, empty cabinet
	<b>Ambient temperature</b>	20°C
	<b>Humidity</b>	60%
	<b>Set-point</b>	-82°C
	<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



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