



# ULTF-C198i

## BIOMEDICAL ULT FREEZER

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

-20°C  
-86°C



### DIMENSIONS

Outer Dimensions HxWxD, mm	831x920x608
Inner Dimensions HxWxD, mm	624x760x440
Weight Gross/Net, kg	80 / 63
Material inner cabinet	Painted Steel
Material outer cabinet	Painted Steel
Packaging weight, kg	17
Packaging dimensions HxWxD, mm	900x973x725
Insulation thickness	80
Insulation type	Polyurethane with Cyclopentane
Mobility	Standard: 4 castors with brakes
Refrigerant, Type / gram	Nature R2 / 90
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	198 / 189
Cryobox "2 capacity	117
2 ml vials capacity	11.700
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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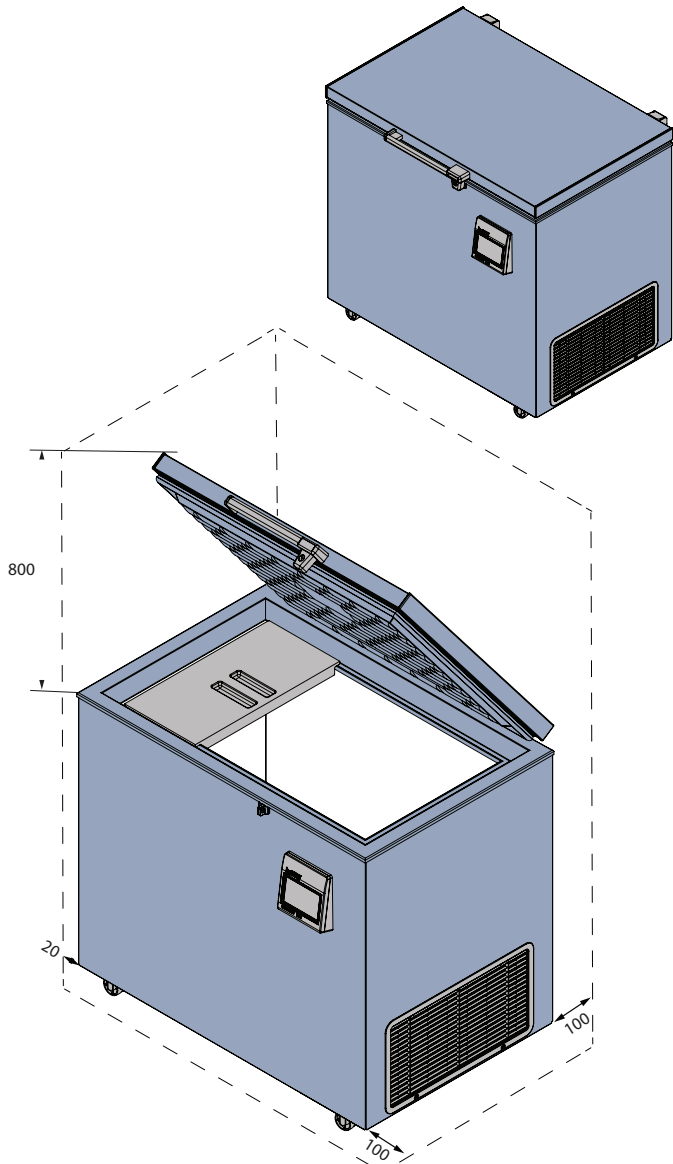
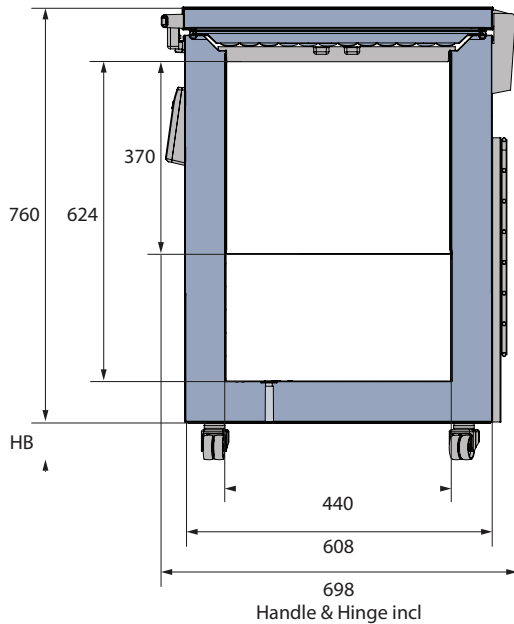
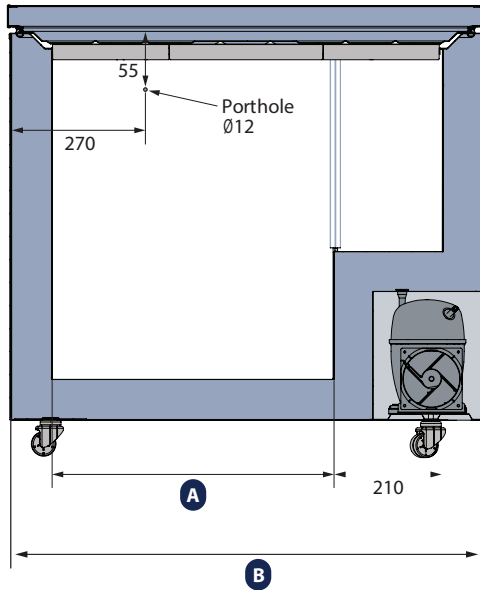
<b>Voltage/Frequency</b>	Voltage/Hz	230V/50Hz
<b>Max Ambient</b>	°C	25°C
<b>Max Humidity</b>	% rh	65%
<b>PERFORMANCE</b>		
<b>All data in RT20°C</b>		
<b>Temperature Range</b>	°C	-20 to -86
<b>Uniformity in performance - difference between top and bottom</b>	°C	+/- 0,9
<b>Pull down time</b>	Minutes	180min to -75°C
<b>Hold over time</b>	Minutes	63 min to -60°C
<b>Noise</b>	dB	55
<b>Energy Saving Mode</b>	kWh/24h	4,839 kWh/24h Set -70
<b>Energy Consumption, kWh / 24h</b>	kWh/24h	5,994 kWh/24h Set -82
<b>Energy year</b>	kWh/year	2187,8 kWh/y Set -82°C
<b>Instant Power Consumption</b>	kW	PD 0,370-0,320/Stable 0,300
<b>Heat Rejection</b>	W	375
<b>U-Value</b>	W/m <sup>2</sup> K	0,2
<b>COOLING COMPONENTS</b>		
<b>Refrigerant/Amount (gram)</b>		Nature R 2/90gr
<b>Number of compressors</b>	pcs	1
<b>Variable speed compressor</b>	Yes/No	No
<b>Internal air distribution (type of)</b>		Static
<b>Evaporator Fan</b>	Yes/No/Variable	No
<b>Condenser Fan</b>	Yes/No/Variable	Yes
<b>Number of probes</b>	pcs	1
<b>Defrost</b>	Yes/No	No



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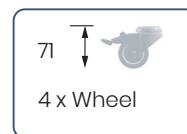
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MODEL	A	B
ULTF-C198i	550	920
ULTF-C296i	890	1260
ULTF-C383i	1190	1560

All measurements in mm.

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





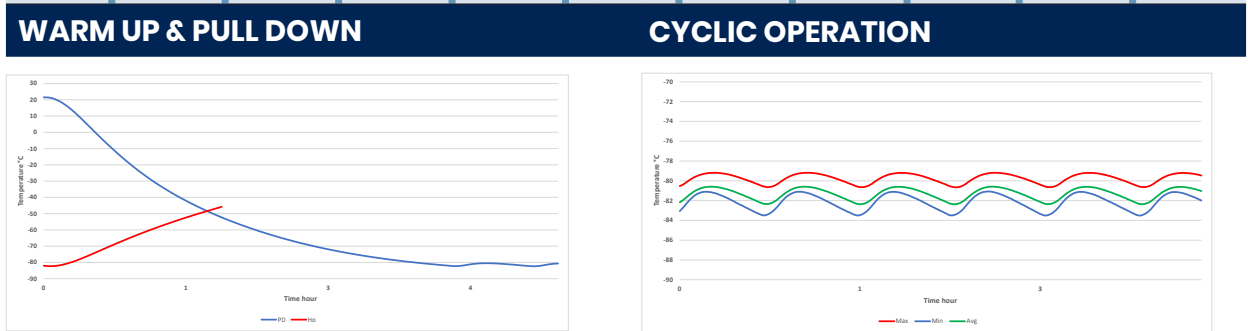
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SENSOR POSITION		MODEL	ULTF-C198I
<p><b>FRONT VIEW</b></p> <p><b>TOP VIEW</b></p>		<p><b>Test type</b></p> <p>10-point test</p>	
		<p><b>Test environment</b></p> <p>Controlled conditions, empty cabinet</p>	
		<p><b>Ambient temperature</b></p> <p>20°C</p>	
		<p><b>Humidity</b></p> <p>60%</p>	
		<p><b>Set-point</b></p> <p>-82°C</p>	
		<p><b>Sensor used</b></p> <p>25gr tinned brass formed as a cylinder with a diameter of 15,2 mm</p>	
		<p><b>Installation</b></p> <p>Appliance installed according to instruction manual conditions</p>	
		<p><b>Refrigerant</b></p> <p>Nature R 2</p>	

SENSOR TEMPERATURE										
Sensor position	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Max	-81	-81,1	-81,1	-80,7	-79,2	-80,5	-81	-80,4	-80,8	-79,8
Avg.	-81,9	-82,1	-81,9	-81,6	-79,8	-81,1	-81,6	-81,1	-81,6	-80,6
Min.	-83,1	-83,5	-83	-82,9	-80,7	-82	-82,5	-82	-82,6	-81,7



TYPICAL PERFORMANCE IN AMBIENT 20°C – EMPTY CABINET	
<b>Avg. cabinet temperature</b>	-81,3°C
<b>Peak variation from set-point</b>	+/- 1,2°C
<b>Stability in avg.</b>	0,9°C
<b>1 min. door open recovery to -75°C avg. temperature</b>	<1 min.
<b>Cycle rate on/off</b>	35 / 6 min.
<b>Duty cycle</b>	81,6%
<b>Energy consumption - Normal mode</b>	5,99 kWh/day
<b>Energy consumption - Energy saving mode</b>	4,83 kWh/day
<b>Pull down time to -75°C avg. temperature</b>	180 min.
<b>Hold over time from -82°C to -60°C</b>	63 min.
<b>Heat rejection</b>	375 W