



BIOMEDICAL

ULTF-C198i

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		831x920x608
Inner Dimensions HxWxD		624x760x440
Weight Gross/Net, kg		80 / 63
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 / 90
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		198 / 189
Cryobox "2 capacity		117
2 ml vials capacity		11.700
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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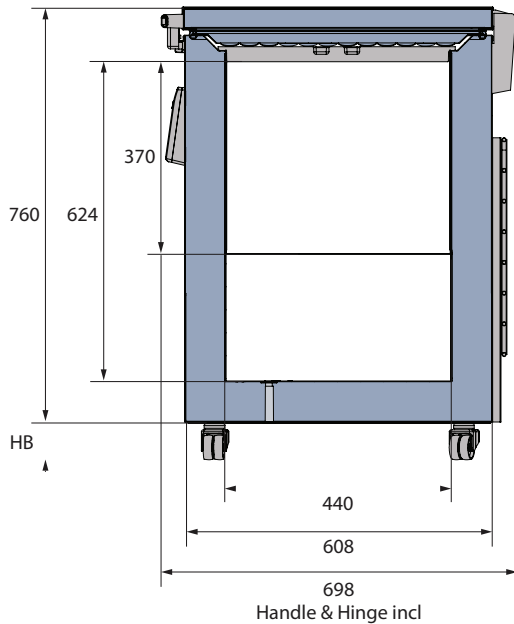
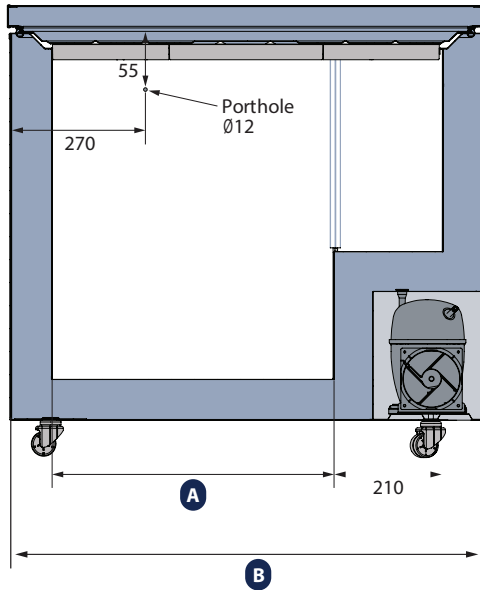
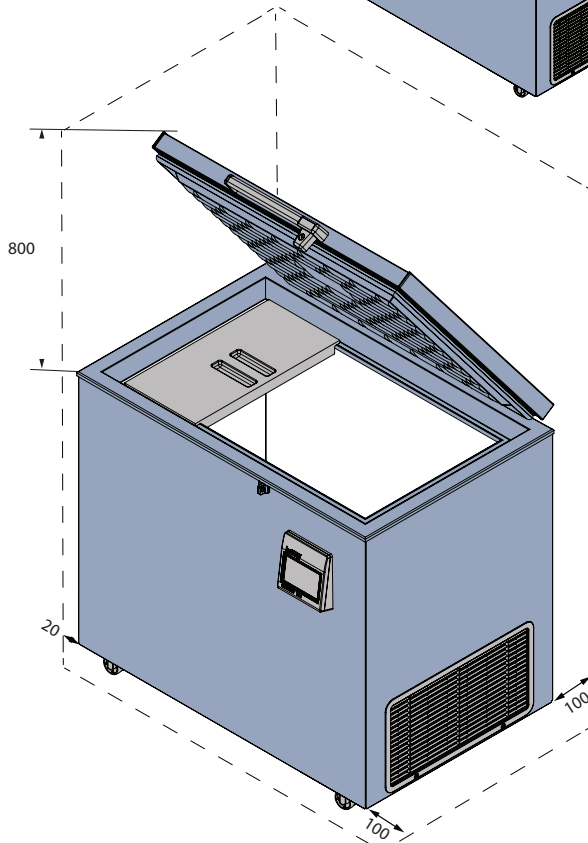
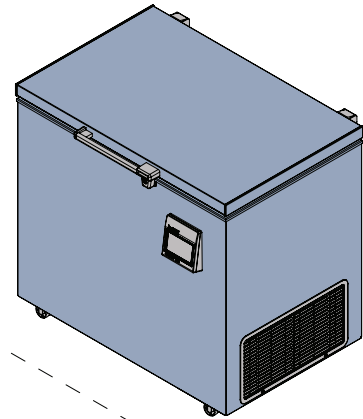
PERFORMANCE	UNIT	VALUE
All data in RT20°C		
Temperature Range	°C	-20 to -86
Uniformity in performance - difference between top and bottom	°C	+/- 0,9
Pull down time	Minutes	180min to -75°C
Hold over time	Minutes	63 min to -60°C
Noise	dB	55
Energy Saving Mode	kWh/24h	4,839 kWh/24h Set -70
Energy 24 hours	kWh/24h	5,994 kWh/24h Set -82
Energy year	kWh/year	2187,8 kWh/y Set -82°C
Instant Power Consumption	kW	PD 0,370-0,320/Stable 0,300
Heat Rejection	W	375
U-Value	W/m ² K	0,2
COOLING COMPONENTS		VALUE
Refrigerant/Amount (gram)		Nature R 2/90gr
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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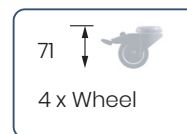
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MODEL	A	B
ULTF-C198i	550	920
ULTF-C296i	890	1260
ULTF-C383i	1190	1560

All measurements in mm.

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



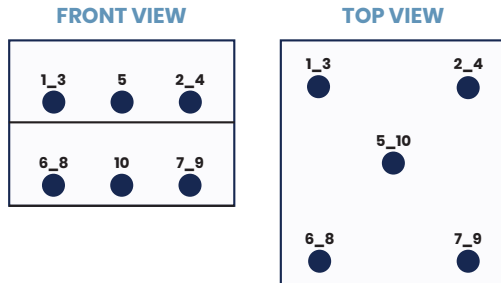


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SENSOR POSITION



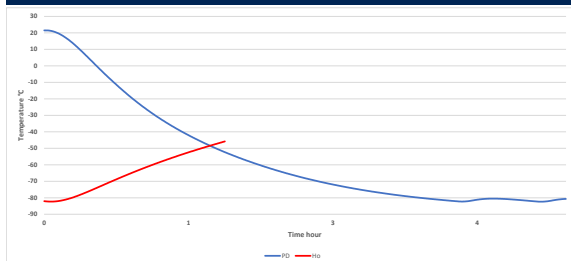
MODEL ULTF-C198i

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

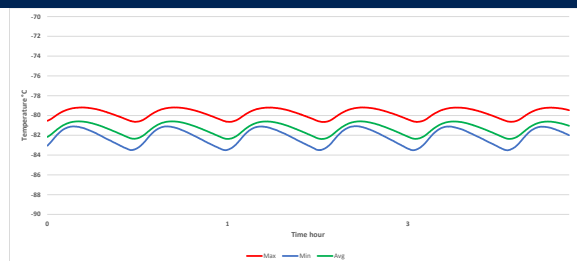
SENSOR TEMPERATURE

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

WARM UP & PULL DOWN



CYCLIC OPERATION



TYPICAL PERFORMANCE IN AMBIENT 20°C - EMPTY CABINET

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