



**Datasheet**

Features	
Lock	Yes
LED Light	Yes
Battery Backup for Controller, 48h	Yes
No-Frost System™	Yes
Perimeter Heater	Hot gas
Porthole	Yes - Ø 20mm
Dry Contact	Yes
Reference bottle	No
Door	Standard: Solid
Door Features	Automatic: Closure < 90° Hold > 90°
Door Reversibility	Yes

Construction	
Outer Dimensions, HxWxD	2002x595x642
Inner Dimensions, HxWxD	1827x475x495
Weight Gross/Net, kg	99 / 85
Material Inner Cabinet	ABS
Material Outer Cabinet	Painted Steel
Insulation Thickness, mm	50
Insulation Type	Polyurethane with Cyclopentane
Air Distribution	Dynamic
Mobility	Standard: Adjustable Feet Option: Castors
Refrigerant, Type / gram	R290 / 80
Variable speed compressor	Yes - Adaptive Cooling Technology
Number of Probes	2

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	Yes
Probe Failure Alarm	Yes
Power Failure Alarm	Yes

-5°C  
-25°C




F-427i

**Biomedical Freezer**

Adaptive Cooling Technology™

Info center



Complexity made simple

Storage	
Volume, Gross/net, L	427 / 335
Shelves, Full/half	5 / 1
Shelf material	Perforated Alu
Max Loading pr. Shelf, kg	20

Performance & Operation	
Temperature Range, C°	-5 to -25
Voltage, V	220
Frequence, Hz	50 / 60
Max Ambient, °C	30
Max Humidity, °C	65
Noise, dB	50
Energy Consumption, kWh / 24h	3,7
Instant Power Consumption	PD 0,220 / Stable 0,150
Heat Rejection	260
K-Value	0,44
Defrost	Automatic

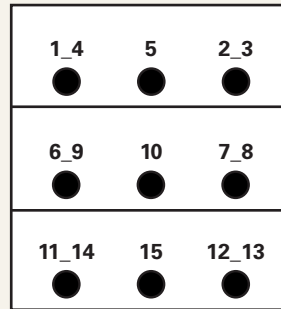


## Temperature Mapping

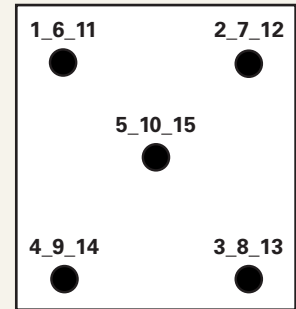
Test overview	
Test type	15-point test
Test environment	Controlled conditions, empty cabinet
Ambient temperature	20°C
Humidity	60%
Set-point	-25°C
Sensors used	25gr tinned brass formed as a cylinder with a diameter of 15,2mm
Installation	Appliance installed according to instruction manual conditions
Refrigerant	R600a

## Sensor position

Front View



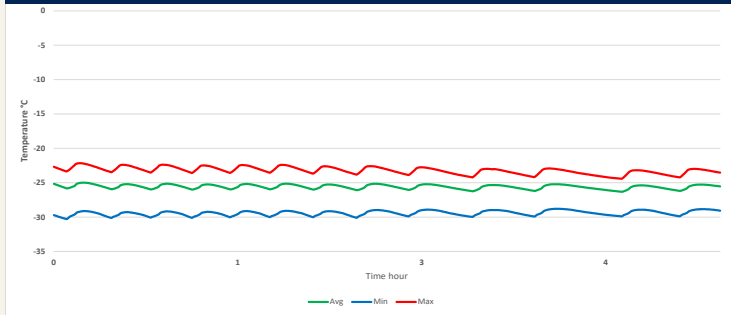
Top View



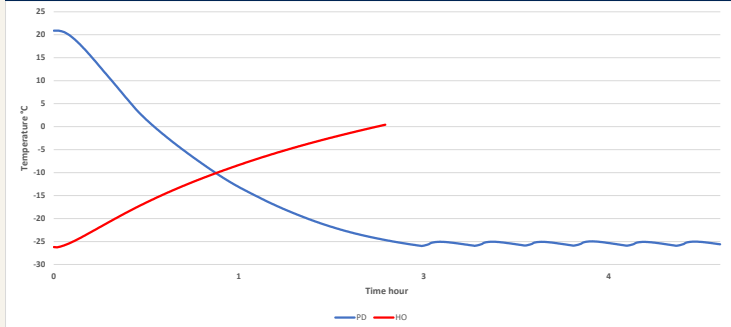
## Sensor temperature

Sensor position	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15
<b>Max.</b>	-22	-22,4	-22,9	-21,5	-22,6	-22,4	-23,5	-23,5	-22,4	-23,4	-22,6	-23,5	-23,6	-22,5	-23,5
<b>Avg.</b>	-22,9	-23,3	-24,1	-22,2	-23,2	-23,4	-24,3	-24,3	-23,5	-24,4	-23,6	-24,6	-24,7	-23,3	-24,6
<b>Min.</b>	-24	-24,6	-25,3	-23,1	-24	-24,6	-25,2	-25,3	-24,8	-25,5	-24,8	-25,9	-25,9	-24,4	-26

## Cyclic operation



## Warm up & pull down

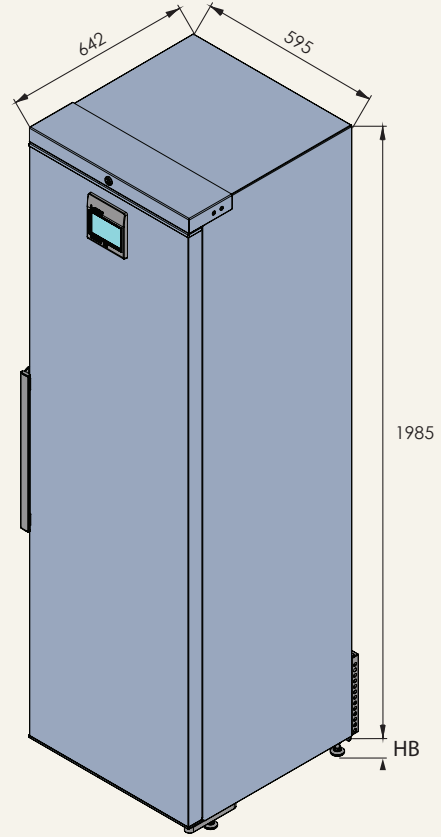
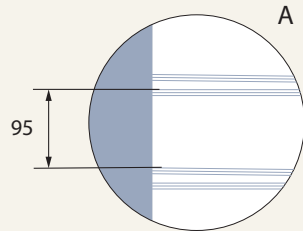
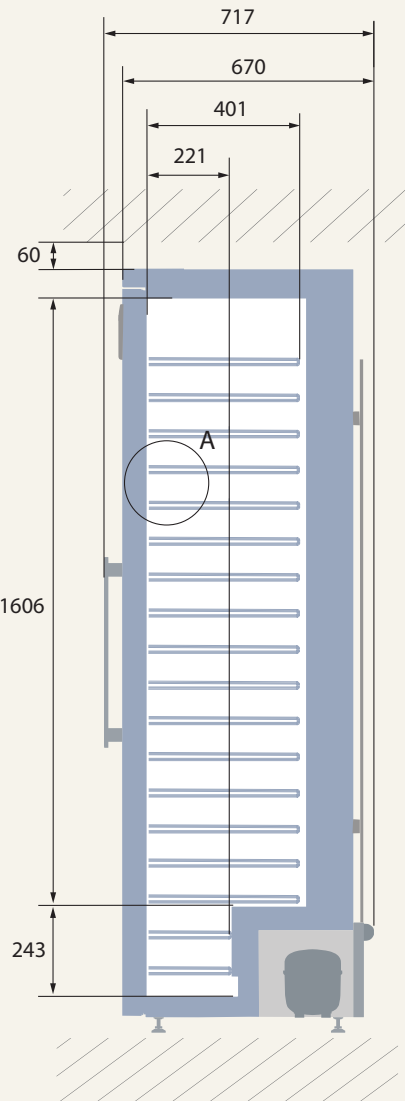
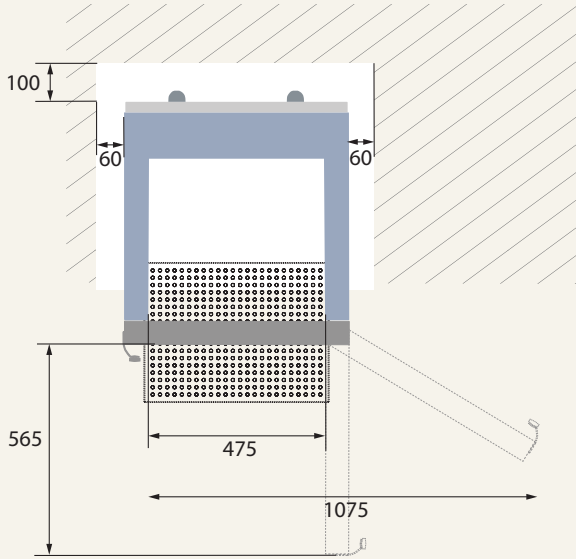


## Typical performance data

Avg. cabinet temperature	-25,6°C
Uniformity	+/- 3,0°C
Stability in avg.	0,6°C
1 min. door open recovery to -20°C avg. temperature	15 min.
Cycle rate on/off	19 / 3 min.
Duty cycle	84%
Energy consumption - Normal mode	3,7 kWh/day
Energy consumption - Energy saving mode (-20)	3,1 kWh/day
Pull down time to -20°C avg. temperature	110 min.
Hold over time from -25°C to -10°C	72 min.
Sample temperature does not exceed	-15°C
Heat rejection	260



**Dimensions**



All dimensions in milimeter

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

