



F-427i

BIOMEDICAL FREEZER

Our upright design is a great choice when you need a storage solution for larger quantities.



-5°C
-25°C

DIMENSIONS

Outer Dimensions HxWxD, mm	2002x595x642
Inner Dimensions HxWxD, mm	1827x475x495
Weight Gross/Net, kg	99 / 85
Material inner cabinet	ABS
Material outer cabinet	Painted Steel
Packaging weight, kg	-
Packaging dimensions HxWxD, mm	-
Insulation thickness	50
Insulation type	Polyurethane with Cyclopentane
Air distribution	Dynamic
Mobility	Standard: Adjustable Feet - Option: Castors
Refrigerant, Type / gram	R600a / 80
Variable Speed Compressor	Yes - Adaptive Cooling Technology
Number of probes	2

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	Yes
Probe failure alarm	Yes
Power failure alarm	Yes

STORAGE

Volume, Gross/Net, L	427 / 361
Shelves, Full/Half	5 / 1
Shelf material	Perforated Alu

FEATURES

Lock	Yes
LED light	Yes
Battery Backup for Controller, 24h	Yes
No-Frost System™	Yes
Perimeter Heater	Hot gas
Porthole	Yes - Ø 20 mm
Dry Contact	Yes
Door	Standard: Solid
Door Features	Automatic: Closure < 90° - Hold Closure > 90°
Door Reversibility	Yes



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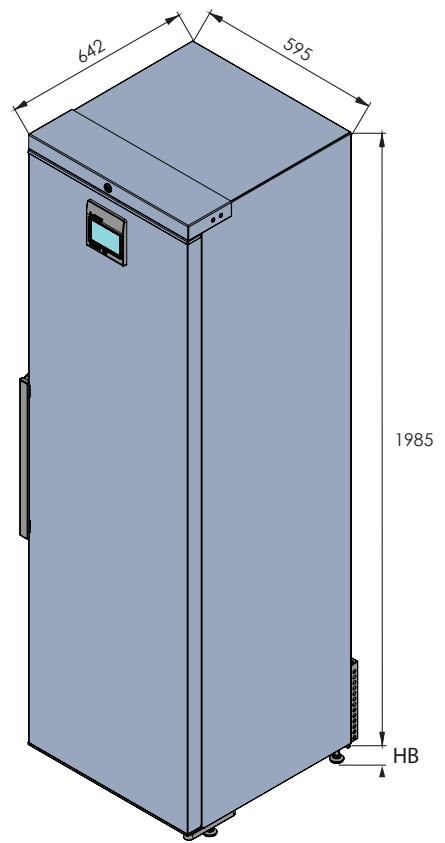
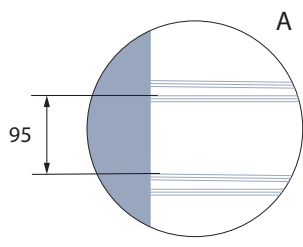
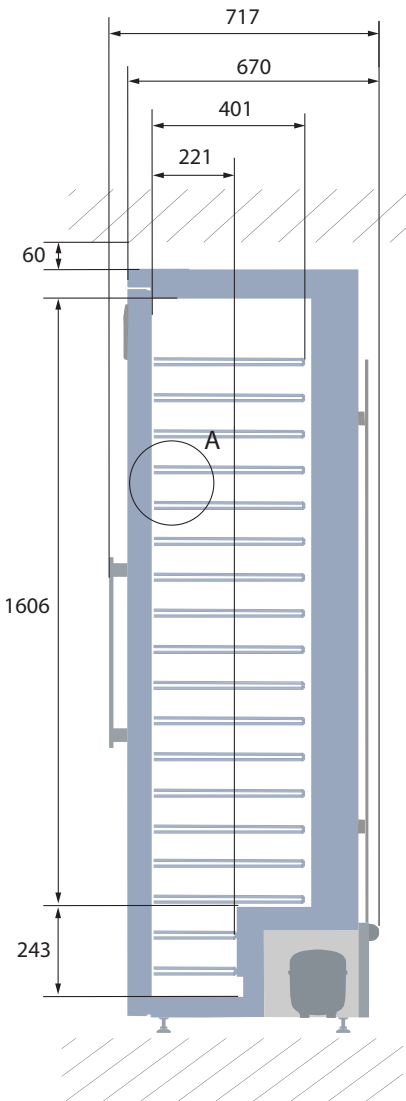
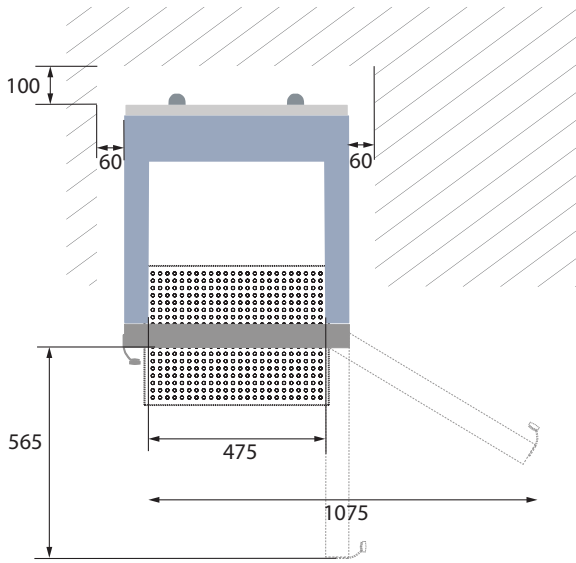
Voltage/Frequency	Voltage/Hz	230V/50-60Hz
Max Ambient	°C	30°C
Max Humidity	% rh	65%
PERFORMANCE		
All data in RT20°C		
Temperature Range	°C	-5 to -25
Uniformity in performance - difference between top and bottom	°C	+/- 3.0
Pull down time	Minutes	110 min to -20°C
Hold over time	Minutes	72 min to -10°C
Noise	dB	50
Energy Saving Mode	kWh/24h	3,18kWh/24h Set -20
Energy Consumption, kWh / 24h	kWh/24h	3,773kWh/24h Set -25
Energy year	kWh/year	1377kWh/y Set -25°
Instant Power Consumption	kW	PD 0,220/Stable 0,150
Heat Rejection	W	260
U-Value	W/m ² K	0.44
COOLING COMPONENTS		
Refrigerant/Amount (gram)		R290/80gr
Number of compressors	pcs	1
Variable speed compressor	Yes/No	Yes
Internal air distribution (type of)		Triple Air Stream
Evaporator Fan	Yes/No/Variable	Yes
Condenser Fan	Yes/No/Variable	Yes
Number of probes	pcs	2
Defrost	Yes/No	Yes - automatic
FEATURES		
Safety thermostat	y/n/optional	No
Lock	y/n	Yes
LED light	y/n	Yes
Battery Back Up For Controller	y/n/optional	Yes - 24h
Porthole	y/n - Ømm	Yes - Ø 20mm
Dry contact	y/n	Yes
Castors	y/n/optional	Optional
Door	glass/solid	Solid
Door closure	y/n/optional	Yes
Door reversibility	y/n	Yes
Automatic Hold 90°C	y/n	Yes
Vacuum valve	y/n	Yes
VIP (Vacum panel)	y/n	No
Perimeter heater		Hot gas loop



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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)

69 
Wheel

20-58 
Adjustable foot



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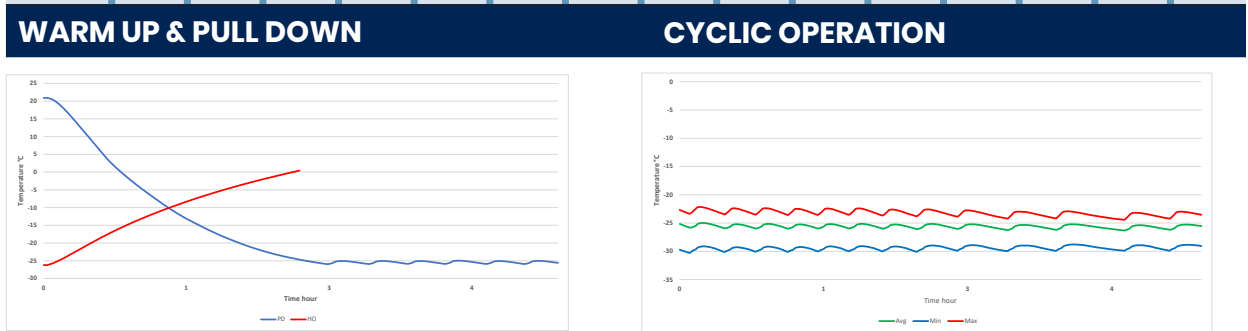
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SENSOR POSITION		MODEL	F-427i
<p>FRONT VIEW</p> <p>TOP VIEW</p>		<p>Test type</p> <p>15-point test</p> <p>Test environment</p> <p>Controlled conditions, empty cabinet</p> <p>Ambient temperature</p> <p>20°C</p> <p>Humidity</p> <p>60%</p> <p>Set-point</p> <p>-25°C</p> <p>Sensor used</p> <p>25gr tinned brass formed as a cylinder with a diameter of 15,2 mm</p> <p>Installation</p> <p>Appliance installed according to instruction manual conditions</p> <p>Refrigerant</p> <p>R600a</p>	

SENSOR TEMPERATURE															
Sensor position	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15
Max	-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
Avg.	-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
Min.	-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



TYPICAL PERFORMANCE IN AMBIENT 20°C – EMPTY CABINET	
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