

# R-427i

## BIOMEDICAL REFRIGERATOR

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



+2°C  
+20°C

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### DIMENSIONS

Outer Dimensions HxWxD, mm	2002x595x642
Inner Dimensions HxWxD, mm	1827x475x495
Weight Gross/Net, kg	88 / 74
Material inner cabinet	ABS
Material outer cabinet	Painted Steel
Packaging weight, kg	14
Packaging dimensions HxWxD, mm	2218x710x650
Insulation thickness	50
Insulation type	Polyurethane with Cyclopentane
Air distribution	Dynamic
Mobility	Standard: Adjustable Feet - Option: Casters
Refrigerant, Type / gram	R600a / 60
Variable Speed Compressor	Yes - Adaptive Cooling Technology
Number of probes	4

### 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 stainless steel

### FEATURES

Lock	Yes
LED light	Yes
Battery Backup for Controller, 24h	Yes
Safety thermostat	Yes
Porthole	Yes - Ø 20 mm
Dry Contact	Yes
Reference bottle	Yes
Door	Solid
Door Features	Automatic: Closure < 90° - Hold Closure > 90°
Door Reversibility	Yes

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<b>Voltage/Frequency</b>	Voltage/Hz	230V/50-60Hz
<b>Max Ambient</b>	°C	35°C
<b>Max Humidity</b>	% rh	75%
<b>PERFORMANCE</b>		
<b>All data in RT20°C</b>		
<b>Temperature Range</b>	°C	2 to 20
<b>Uniformity in performance - difference between top and bottom</b>	°C	+/- 1,4
<b>Pull down time</b>	Minutes	58 min to 6°C
<b>Hold over time</b>	Minutes	90 min to 10°C
<b>Noise</b>	dB	40
<b>Energy Consumption, kWh / 24h</b>	kWh/24h	0,438 kWh/24h set 5°C
<b>Energy year</b>	kWh/year	159,9kWh/y set 5°C
<b>Instant Power Consumption</b>	kW	PD 0,075/Stable 0,025
<b>Heat Rejection*</b>	W	50
<b>U-Value</b>	W/m <sup>2</sup> K	0,44
<b>COOLING COMPONENTS</b>		
<b>Refrigerant/Amount (gram)</b>		R600a/60gr
<b>Number of compressors</b>	pcs	1
<b>Variable speed compressor</b>	Yes/No	Yes
<b>Internal air distribution (type of)</b>		Dual Air Stream
<b>Evaporator Fan</b>	Yes/No/Variable	Yes
<b>Condenser Fan</b>	Yes/No/Variable	No
<b>Number of probes</b>	pcs	4
<b>Defrost</b>	Yes/No	Yes - automatic
<b>FEATURES</b>		
<b>Safety thermostat</b>	y/n/optional	Yes
<b>Lock</b>	y/n	Yes
<b>LED light</b>	y/n	Yes
<b>Battery Back Up For Controller</b>	y/n/optional	Yes - 24h
<b>Porthole</b>	y/n - Ømm	Yes - Ø 20mm
<b>Dry contact</b>	y/n	Yes
<b>Casters</b>	y/n/optional	Optional
<b>Door</b>	glass/solid	Solid
<b>Reference bottle</b>	y/n/optional	Yes
<b>Door closure</b>	y/n/optional	Yes
<b>Door reversibility</b>	y/n	Yes
<b>Automatic Hold 90°C</b>	y/n	Yes
<b>Vacum ventil + VIP (Vacum panel)</b>	y/n	No

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

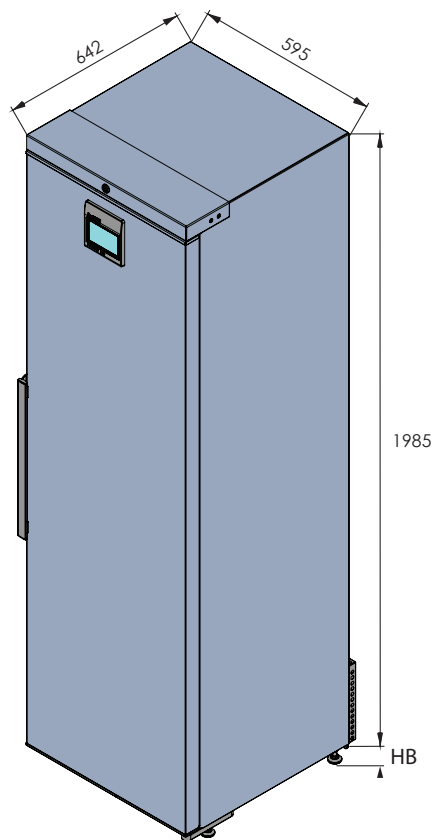
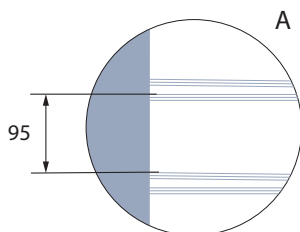
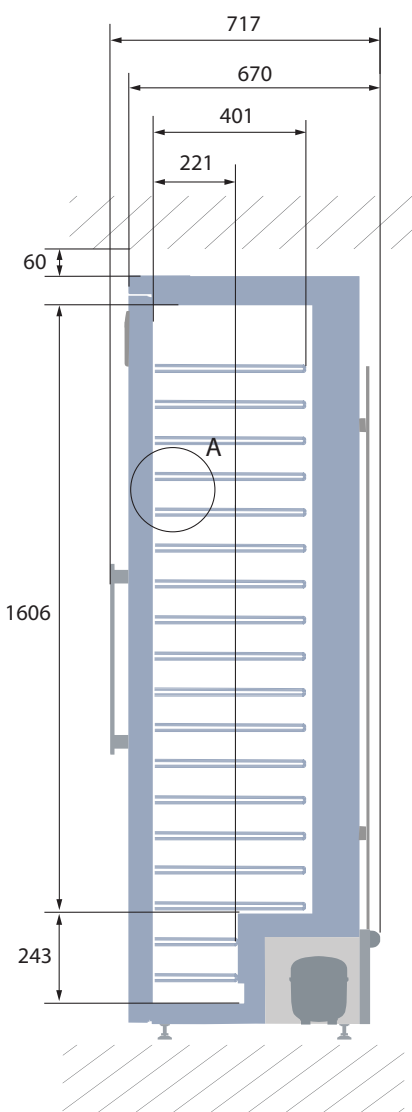
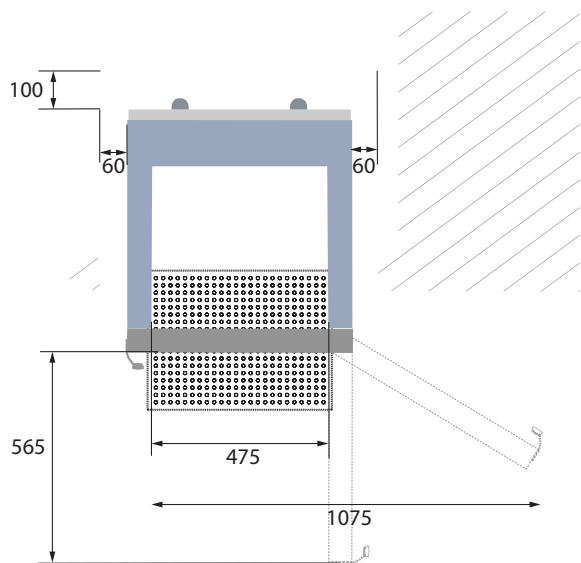
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Updated 02/2026

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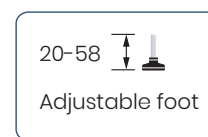
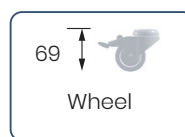
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All measurements in mm.

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


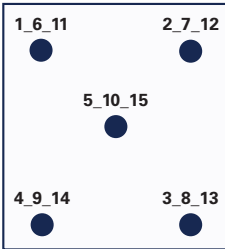


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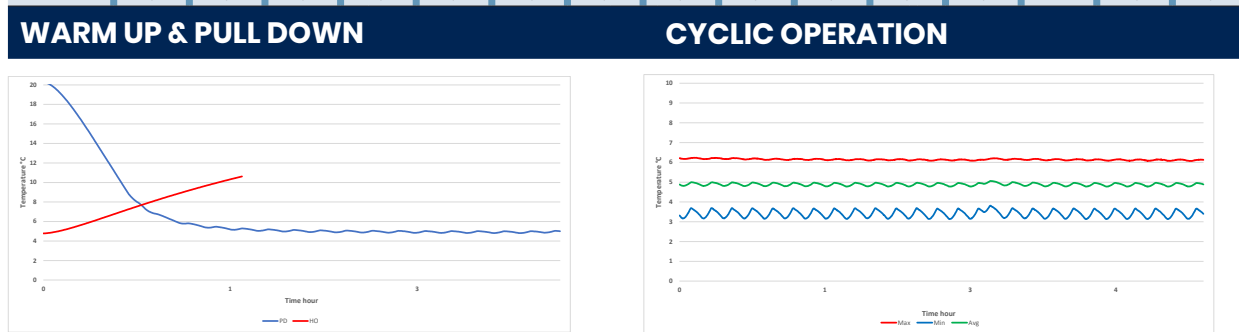
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SENSOR POSITION		MODEL	R-427i
<p><b>FRONT VIEW</b></p>  <p><b>TOP VIEW</b></p> 		<p><b>Test type</b></p> <p>15-point test</p> <p><b>Test environment</b></p> <p>Controlled conditions, empty cabinet</p> <p><b>Ambient temperature</b></p> <p>20°C</p> <p><b>Humidity</b></p> <p>60%</p> <p><b>Set-point</b></p> <p>5°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>R600a</p>	

SENSOR TEMPERATURE															
Sensor position	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15
Max	5,9	5,7	5,9	6,2	5,8	3,8	4,4	4,7	4,3	4	4,8	5	5,3	5,3	4,9
Avg.	5,8	5,6	5,8	6,1	5,7	3,4	4	4,6	4,1	3,7	4,6	4,8	5,1	5,2	4,8
Min.	5,7	5,5	5,7	6,1	5,6	3,1	3,8	4,5	3,9	3,5	4,5	4,7	5	5,1	4,7



TYPICAL PERFORMANCE IN AMBIENT 20°C – EMPTY CABINET	
Avg. cabinet temperature	4,9°C
Uniformity	+/- 1,4°C
Stability in avg.	0,3°C
1 min. door open recovery to 6°C avg. temperature	10 min.
Cycle rate on/off	6,5 / 4,4 min.
Duty cycle	59%
Energy consumption	0,438 kWh/day
Pull down time to 6°C avg. temperature	58 min.
Hold over time from 5°C to 10°C	90 min.
Sample temperature does not exceed	8°C
Heat rejection	61 W

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