



**Datasheet**



Protection for storage  
CE II 3G nA IIB T6

Features	
Lock	Yes
LED Light	Yes
Battery Backup for Controller, 48h	Yes
Safety Thermostat	Yes
Porthole	Yes - Ø 20mm
Dry Contact	Yes
Reference bottle	Yes
Door	Solid
Door Features	Automatic: Closure < 90° Hold > 90°
Door Reversibility	Yes

Construction	
Outer Dimensions, HxWxD	825x595x642
Inner Dimensions, HxWxD	676x475x495
Weight Gross/Net, kg	56 / 45
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	R600a / 47
Variable Speed Compressor	Yes - Adaptive Cooling Technology
Number of Probes	4

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

+20°C  
+2°C



**R-138i**

**Biomedical Refrigerator**

Adaptive Cooling Technology™

Info center



Complexity made simple

Storage	
Volume, Gross/net, L	138 / 117
Shelves, Full/half	2 / 1
Shelf material	Perforated Alu
Max Loading pr. Shelf, kg	20

Performance & Operation	
Temperature Range, C°	+2 to +20
Voltage, V	220
Frequence, Hz	50 / 60
Max Ambient, °C	35
Max Humidity, °C	75
Noise, dB	44
Energy Consumption, kWh / 24h	0,3
Instant Power Consumption	PD 0,080 / Stable 0,025
Heat Rejection	46
K-Value	0,59
Defrost	Automatic



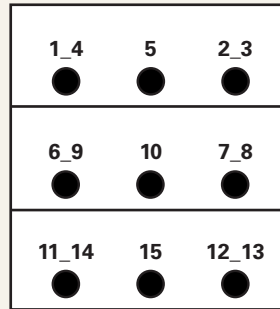
## Temperature Mapping

### Test overview

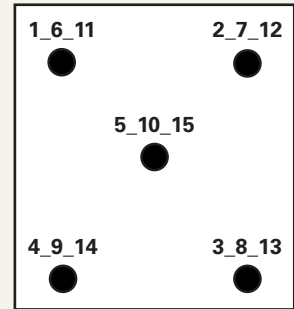
Test type	15-point test
Test environment	Controlled conditions, empty cabinet
Ambient temperature	20°C
Humidity	60%
Set-point	5°C
Sensors used	25gr tinned brass formed as a cylinder with a diameter of 15,2mm
Installation	Appliance installed according to instruction manual conditions
Refrigerant	R600a

### Sensor position

#### Front View



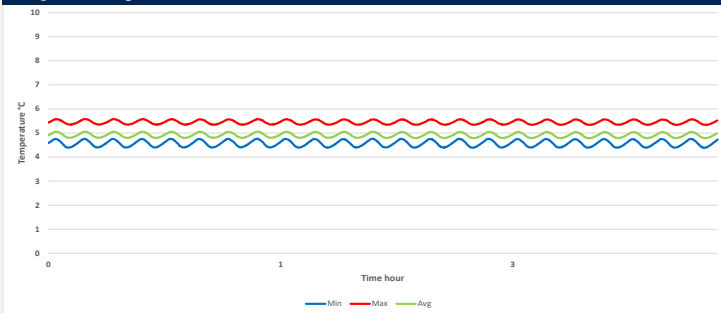
#### Top View



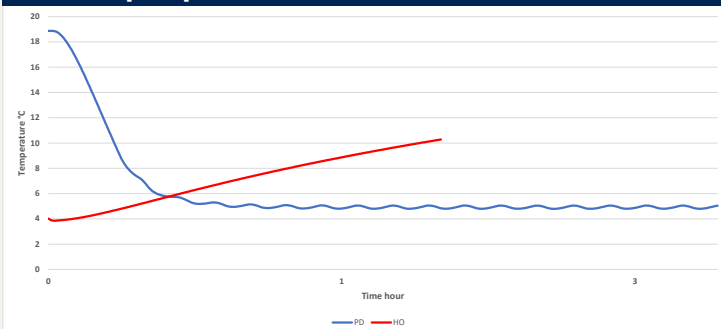
### Sensor temperature

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

### Cyclic operation



### Warm up & pull down

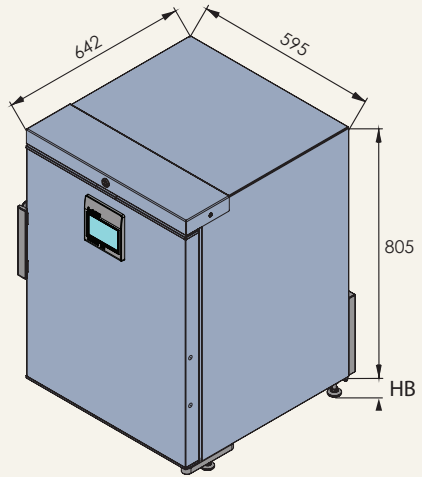
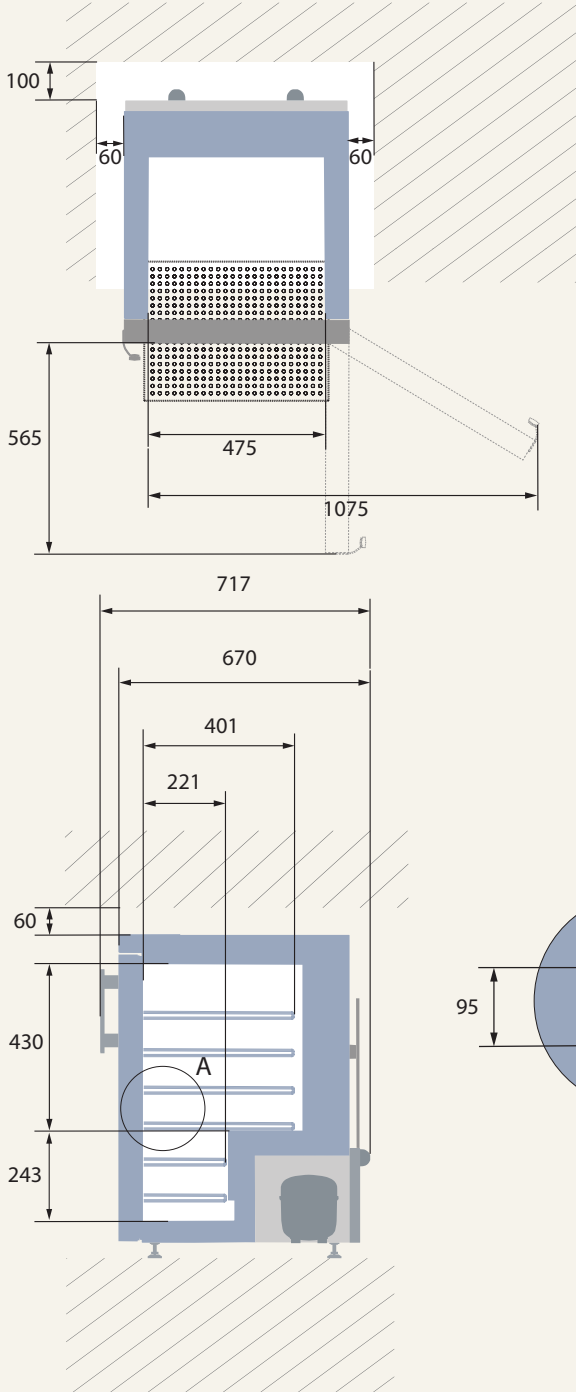


### Typical performance data

Avg. cabinet temperature	4,9°C
Uniformity	+/- 0,4°C
Stability in avg.	0,1°C
1 min. door open recovery to 6°C avg. temperature	8 min.
Cycle rate on/off	4 / 6,5 min.
Duty cycle	37,9%
Energy consumption	0,33 kWh/day
Pull down time to 6°C avg. temperature	30 min.
Hold over time from 5°C to 10°C	108 min.
Sample temperature does not exceed	8°C
Heat rejection	46 W



## Dimensions



All dimensions in millimeters

HB: Height of base (HB is ajustastable when

