



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 | 672x595x642 |
| Inner Dimensions, HxWxD | 481x475x495 |
| Weight Gross/Net, kg | 54 / 43 |
| 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 / 38 |
| 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 |



Biomedical Freezer

Adaptive Cooling Technology™ Info center

Complexity made simple

| Storage | |
|---------------------------|----------------|
| Volume, Gross/net, L | 90 / 76 |
| Shelves, Full/half | 1 / 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 | 35 |
| Max Humidity, °C | 65 |
| Noise, dB | 40 |
| Energy Consumption, kWh / 24h | 1,1 |
| Instant Power Consumption | PD 0,120 / Stable 0,046 |
| Heat Rejection | 110 |
| K-Value | 0,59 |
| Defrost | Automatic |



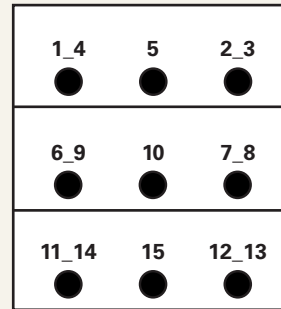
Temperature Mapping

Test overview

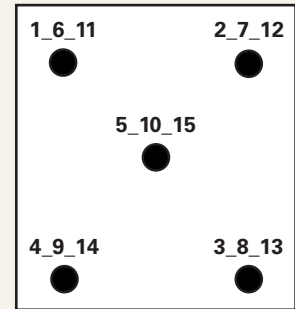
| | |
|---------------------|--|
| Test type | 15-point test |
| Test environment | Controlled conditions, empty cabinet |
| Ambient temperature | 20°C |
| Humidity | 60% |
| Set-point | -25°C |
| Sensors used | 25gr tinned brass formed as a cylinder with a diameter of 15,2mm |
| Installation | Appliance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

Sensor position

Front View



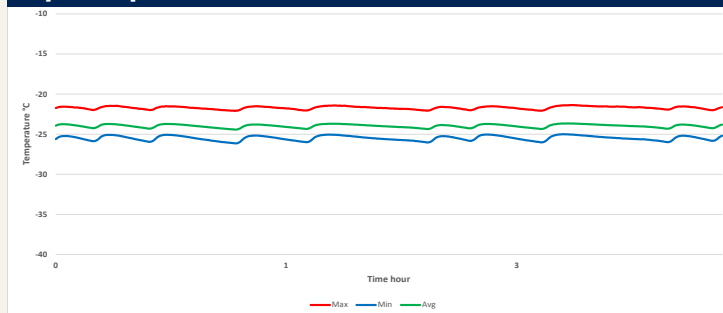
Top View



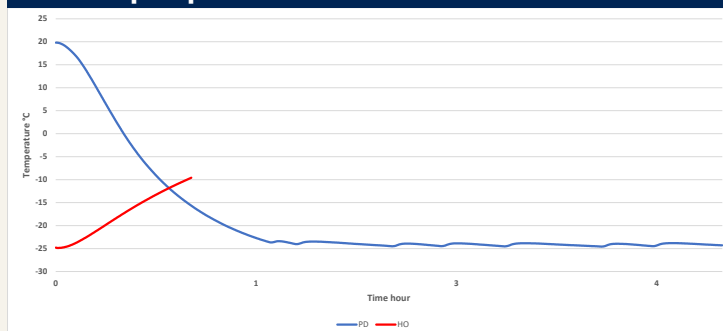
Sensor temperature

| Sensor position | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 | P10 | P11 | P12 | P13 | P14 | P15 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 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 |

Cyclic operation



Warm up & pull down

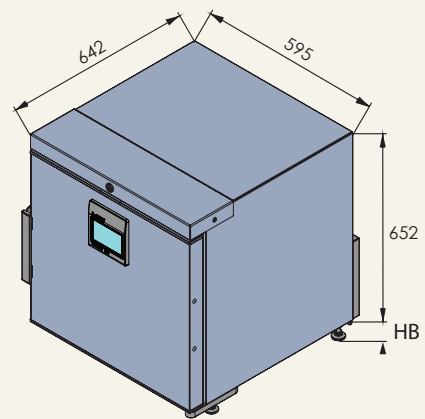
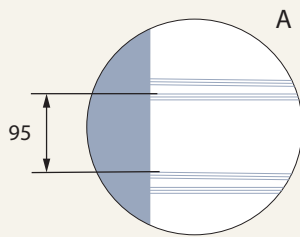
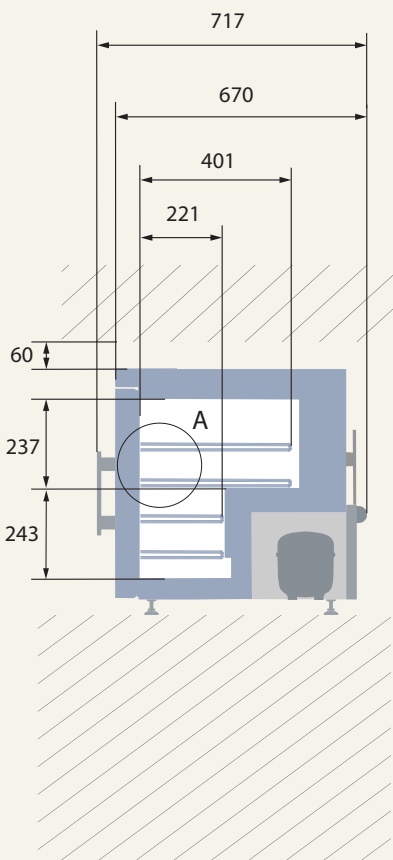
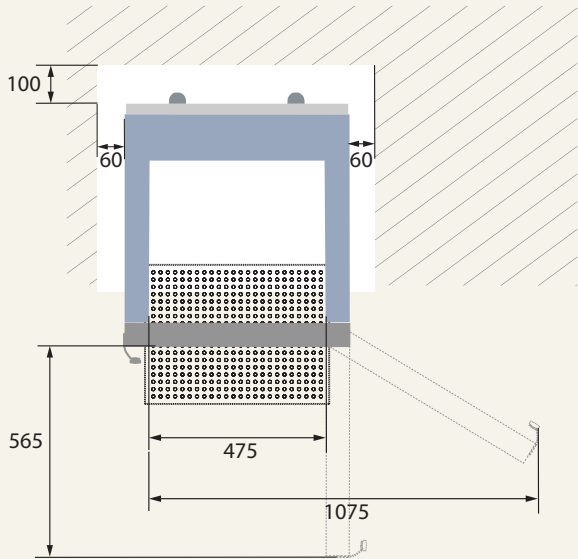


Typical performance data

| | |
|---|-----------------|
| Avg. cabinet temperature | -24°C |
| Uniformity | +/- 1,9°C |
| Stability in avg. | 0,3°C |
| 1 min. door open recovery to -20°C avg. temperature | 9 min. |
| Cycle rate on/off | 5,1 / 13,9 min. |
| Duty cycle | 25,2% |
| Energy consumption - Normal mode | 1,1 kWh/day |
| Energy consumption - Energy saving mode (-20) | 0,94 kWh/day |
| Pull down time to -20°C avg. temperature | 69 min. |
| Hold over time from -25°C to -10°C | 54 min. |
| Sample temperature does not exceed | -15°C |
| Heat rejection | 100 |



Dimensions



All dimensions in milimeters

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

