



BIOMEDICAL

# R-138i

## BIOMEDICAL REFRIGERATOR

With a compact design, this undercounter fits perfectly beneath your work bench, providing a storage solution that is ideal for places where space is limited.



Protection for storage  
CE II 3G nA IIB T6

+2°C  
+20°C



### DIMENSIONS

Outer Dimensions HxWxD, mm	825x595x642
Inner Dimensions HxWxD, mm	676x475x495
Weight Gross/Net, kg	56 / 45
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 / 47
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	138 / 117
Shelves, Full/Half	2 / 1
Shelf material	Perforated Alu

### 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

Updated 11/2024



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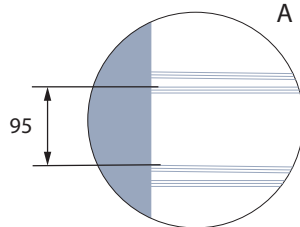
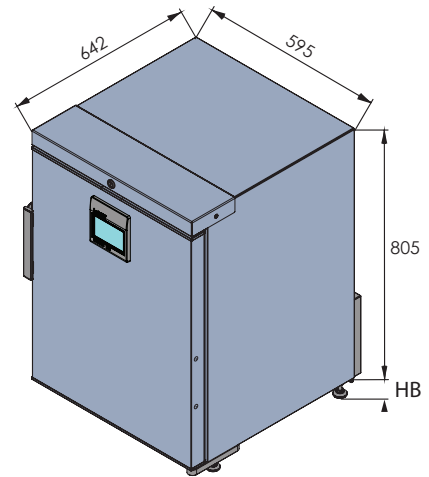
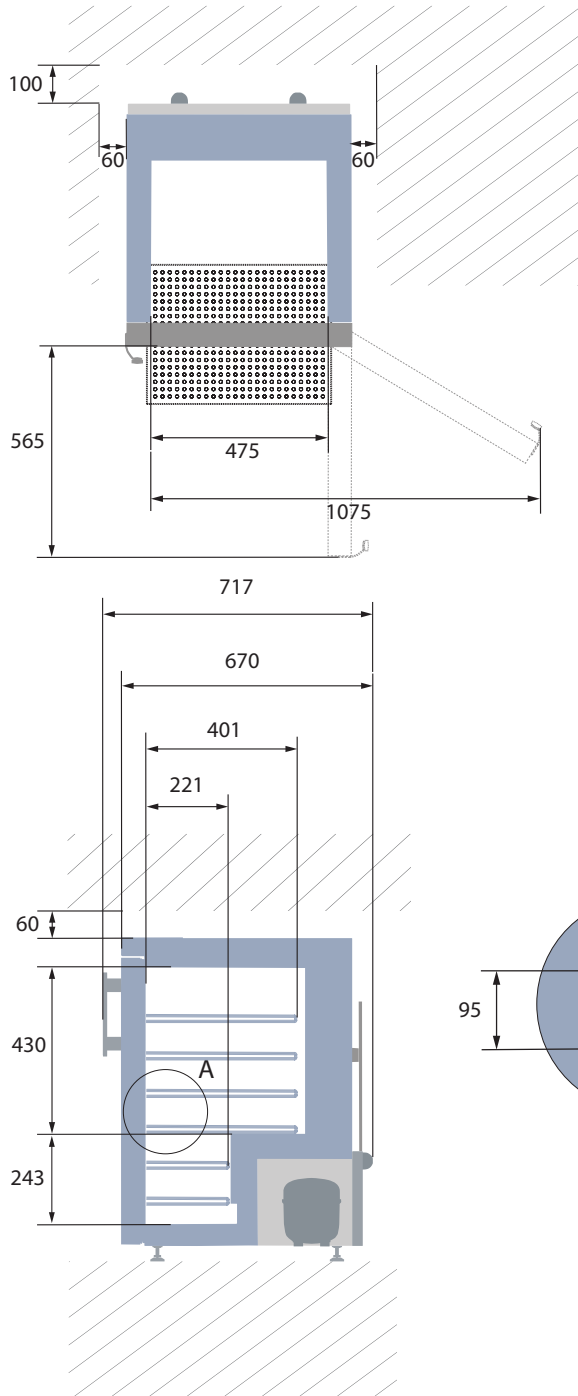
<b>Voltage/Frequency</b>	Voltage/Hz	230V/50-60Hz
<b>Max Ambient</b>	°C	35°C
<b>Max Humidity</b>	% rh	75%
<b>PERFORMANCE</b>		
All data in RT20°C		
<b>Temperature Range</b>	°C	2 to 20
<b>Uniformity in performance - difference between top and bottom</b>	°C	+/- 0,4
<b>Pull down time</b>	Minutes	30 min to 6°C
<b>Hold over time</b>	Minutes	108 min to 10°C
<b>Noise</b>	dB	44
<b>Energy Consumption, kWh / 24h</b>	kWh/24h	0,334 kWh/24h set 5°C
<b>Energy year</b>	kWh/year	121,9kWh/y set 5°C
<b>Instant Power Consumption</b>	kW	PD 0,080/Stable 0,025
<b>Heat Rejection</b>	W	46
<b>U-Value</b>	W/m <sup>2</sup> K	0,59
<b>COOLING COMPONENTS</b>		
<b>Refrigerant/Amount (gram)</b>		R600a/47gr
<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>Castors</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



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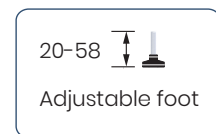
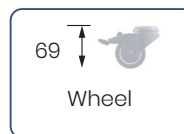
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All measurements in mm.

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





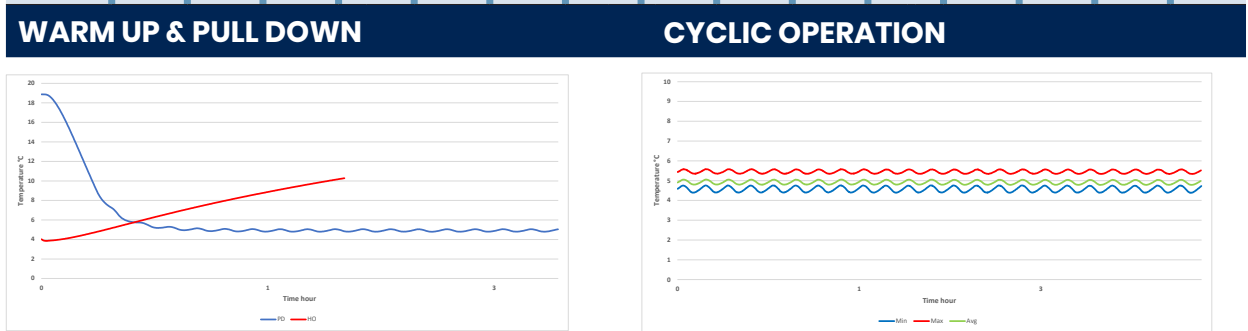
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SENSOR POSITION		MODEL	R-138I
<p><b>FRONT VIEW</b></p>		<p><b>TOP VIEW</b></p>	
		<b>Test type</b>	15-point test
		<b>Test environment</b>	Controlled conditions, empty cabinet
		<b>Ambient temperature</b>	20°C
		<b>Humidity</b>	60%
		<b>Set-point</b>	5°C
		<b>Sensor used</b>	25gr tinned brass formed as a cylinder with a diameter of 15,2 mm
		<b>Installation</b>	Appliance installed according to instruction manual conditions
		<b>Refrigerant</b>	R600a

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	



TYPICAL PERFORMANCE IN AMBIENT 20°C – EMPTY CABINET	
<b>Avg. cabinet temperature</b>	4,9°C
<b>Uniformity</b>	+/- 0,4°C
<b>Stability in avg.</b>	0,1°C
<b>1 min. door open recovery to 6°C avg. temperature</b>	8 min.
<b>Cycle rate on/off</b>	4 / 6,5 min.
<b>Duty cycle</b>	37,9%
<b>Energy consumption</b>	0,33 kWh/day
<b>Pull down time to 6°C avg. temperature</b>	30 min.
<b>Hold over time from 5°C to 10°C</b>	108 min.
<b>Sample temperature does not exceed</b>	8°C
<b>Heat rejection</b>	46 W