

Biomedical

R-138



R-138

Premium Biomedical +2°C to +20°C Refrigerator

The new undercounter refrigerator is great for storing medicine or samples. Suitable under your work bench, it features 138L of safe and reliable storage formedicine and samples. This makes it great for customers in need of decentralized or dedicated storage. Equipped with our ETR-system™ (Extended temperature Range) this model can easily be used for multiple purposes i.e. storage of chilled medicine, room temperature medicine or breast milk. Fitted with acustic and visual alarms, a dry contact and logging and extraction of data, you can rest assured that whatever the content, it is safely stored.

- Energy Effecient
- **Q** Very Low Noise
- **()** ETR-system™
- **©** Flexible Accessory Options
- **§** Stable and Uniform Temperature







R-138 | Gallery





R-138 |

Construction	Value				
Dimension	857x595x642 mm				
Dimension inner	676x475x495 mm				
Weight	59 / 48 gross/net				
Package weight	11 kg				
Material inner cabinet	ABS Kg. gross/net				
Material outer cabinet	Painted steel Kg. gross/net				
Insulation type	Polyurethane with cyclopentane				
Insulation thickness	50 mm				
Type of packaging	Cardboard, EPS, Vinyl bag, Wooden pallet				
Mobility	4 x Adjustable feet				

R-138 |

Storage	Value
Volume	138 / 117
Shelves	2
Half shelf	1

R-138 |

Safety thermostatOptionalLockImage: Constraint of the second s	Features	Value
LockImage: Constraint of the second seco	Safety thermostat	Optional
LED lightImage: Constraint of the second	Lock	I
Battery backupOptionalPortholeImage: Constant of the sizePorthole sizeImage: Constant of the sizeDry contactImage: Constant of the sizeReference bottleImage: Constant of the sizeDoor closureImage: Constant of the sizeDoor reversibilityImage: Constant of the sizeAutomatic hold 90°Image: Constant of the size	LED light	I
PortholeImage: Constant of the sizePorthole size20 mmDry contactImage: Constant of the sizeReference bottleImage: Constant of the sizeDoor closureImage: Constant of the sizeDoor reversibilityImage: Constant of the sizeAutomatic hold 90°Image: Constant of the size	Battery backup	Optional
Porthole size20 mmDry contactImmode of the sizeReference bottleImmode of the sizeDoor closureImmode of the sizeDoor reversibilityImmode of the sizeAutomatic hold 90°Immode of the size	Porthole	I
Dry contactImage: Contact of the second	Porthole size	20 mm
Reference bottleImage: Comparison of the	Dry contact	I
Door closureImage: ClosureDoor reversibilityImage: Image: ClosureAutomatic hold 90°Image: Image: Closure	Reference bottle	I
Door reversibility Image: Open content of the second conte	Door closure	I
Automatic hold 90°	Door reversibility	I
	Automatic hold 90°	I

R-138 |

Alarms	Value
High / Low temperature	⊘
Open door	•
Power failure	0
Probe failure	•

R-138 |

Test	Value
Voltage	220-240 V
Frequence	50 Hz
Max ambient	35 °C
Max Humidity	75 %
Test condition	20

R-138 |

Operation	Value				
Temperature range	+2 to +20 °C				
Unifromity in performance	0,9 / -0,7 °C				
Pull dowm time (from test condition to fabric setpoint)	57 Minutes				
Hold over time (from fabric SP to 10) empty	108 Minutes				
Noise	44 dB				
Energy 24 hours	0,4 kWh/24h				
Instant Power Consumption	PD 0,085 / Stable 0,080 kW				
Heat Rejection	99 W				
K-Value	0,59 W/m^2k				



R-138 |

Cooling components	Value
Refrigerant/amount	R600a / 47g Type & gram
Number of compressors	1
Internal air distribution (Type)	Dynamic
Number of probes	2
Defrost	⊘

R-138 |

Controller	Value
Controller	Dixell
Controller type	ХW737К
USB Connection	Yes
Data connection	MODBUS
Controller abilities	Logging of data & alarms
Controller languages	Digits
Log numbers	35000
Temperature graph in controller	•



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

Cyclic operation





Typical Performan	ce data
Avg. cabinet temperature	4,2°C
Peak variation from set-point	+0,9/-0,7°C
Stability in avg.	1,3°C
1 min. door open recovery to 6°C avg. temperature	6 min.
Cycle rate on/off	1,2/4,9 min.
Duty cycle	20%
Energy consumption	0,45 kWh/day
Pull down time to 6°C avg. temperature	57 min.
Hold over time from 5°C to 10°C	108 min.
Sample temperature does not exceed	8°C

Biomedical | R-138



Dimensions

