

With the smallest footprint, this unit is perfect for storing biomedical content in a room with limited space.
The unit can be place on a table for easy access in your work environment.



Outer Dimensions HxWxD, mm 672x695x642 Inner Dimensions HxWxD, mm 481x75x495 Weight Eross/Net, Ig 9 6 74x4 Material inner cabinet ABS Material outer cabinet Painted Stoel Packaging weight, kg	DIMENSIONS	
Weight Gross/Net, kg Material inner cubinet ABB Material outer cabinet Packaging weight, kg Packaging weight, kg Packaging weight, kg Packaging dimensions HXWXD, mm Insulation thickness Solian Standard: Adjustable Feet - Option: Castors Refrigerant, Type / gram Reformant, Ty	Outer Dimensions HxWxD, mm	672x595x642
Material uner cabinet Material outer cabinet Packaging weight, kg Packaging dimensions HXWXD, mm Insulation thickness Solution type Polyurethane with Cyclopentame Mobility Standard: Adjustable Feet - Option: Castors Refrigerant, Type / gram Re00a / 38 Variable Speed Compressor Wurber of probes CONTROLLER Controller Controller Controller USB Connection Yes USB Connection Yes High/Low temp. Alarm Open door alarm Yes Probe failure clarm Yes Fower failure alarm Yes Fower failure alarm FEATURES Lock LED light FEATURES Lock Perimeter Heater Hot gos Porthole Closure < 90° Hold Closure > 90° Forthole Door Standard: Solid Door Features Automatic: Closure < 90° Hold Closure > 90° Forthole Door Standard: Solid Door Features Standard: Closure < 90° Hold Closure > 90° Standard: Solid Door Features Standard: Automatic: Closure < 90° Hold Closure > 90° Hold Closure < 90° Hold Closure > 90° Standard: Solid Door Features Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90° Hold Closure < 90° Hold Closure > 90° Standard: Solid Door features Automatic: Closure < 90° Hold Closure > 90° Hold Cl	Inner Dimensions HxWxD, mm	481x475x495
Material outer cabinet Packaging weight, kg Packaging dimensions HXWXD, mm Insulation thickness So Insulation type Polyurethane with Cyclopentane Air distribution Mobility Standard: Adjustable Feet - Option: Coastors Refrigerant, Type / gram Re7000 / 38 Variable Speed Compressor Nor- Adaptive Cooling Technology Number of probes CONTROLLER Controller Controller Pi-Care, Touch screen Controller language Pi-Care, Touch screen Logging Data, Alarms & Events Temperature graph Yes High/Low temp. Alarm Yes Probe failure alarm Yes Probe failure alarm Yes STORAGE Volume, Gross/Net, L Shelf material Perforated Alu FEATURES Lock Perforated Alu FEATURES Lock Permeter Hoater No-Frost System™ Yes Porthole Pore Geatures Poor Standard: Solid Door Features Automatic: Closure < 90° + Hold Closure > 90° Standard: Solid Door Features Automatic: Closure < 90° + Hold Closure > 90° Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90° Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90° Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90° Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90° Standard: Solid	Weight Gross/Net, kg	54 / 43
Packaging weight, kg	Material inner cabinet	ABS
Packaging dimensions HxWxD, mm Insulation thickness Insulation type Polyurethane with Cyclopentane Dynamic Mobility Refrigerant, Type / gram Re00a / 38 Variable Speed Compressor Number of probes CONTROLLER Controller Controller F-Care, Touch screen Controller F-Care, Touch screen Controller F-Care, Touch screen Logging Data, Alarms & Events Temperature graph Yes High/Low temp. Alarm Yes Probe failure alarm Yes STORAGE Volume, Gross/Net, L 90 / 76 Shelves, Full/Half 1/1 Shelf material Perforated Alu FEATURES Lock Yes Shelves, Full/Half Yes Shelves, Full	Material outer cabinet	Painted Steel
Insulation thickness 50 Insulation type Polyurethane with Cyclopentane Mit ridistribution Dynamic Mobility Standard: Adjustable Feet - Option: Castors Refrigerant, Type / gram Re00a / 38 Re00a /	Packaging weight, kg	-
Insulation type Air distribution Dynamic Mobility Standard: Adjustable Feet - Option: Coators Reforgerant, Type / gram Reforgerant Reforgerant, Type / gram Reforgerant Reforgerant, Type / gram Re	Packaging dimensions HxWxD, mm	-
Air distribution Mobility Standard: Adjustable Feet - Option: Castors Refrigerant, Type / gram RE00a / 38 Variable Speed Compressor Number of probes CONTROLLER Controller Controller Controller P-Care, Touch screen EN, DE, FR USB Connection Yes Logging Data, Alarms & Events Temperature graph High/Low temps. Alarm Open door alarm Yes Probe failure alarm Power failure alarm Power failure alarm FEATURES Lock LED light Teptimeter Heater Led System Perimeter Heater Hat gas Porthole Perimeter Heater Perimeter Heater Porthole Tensel Standard: Solid Poor Poor Standard: Solid Poor Poor Standard: Solid Poor Standard: Solid Poor Standard: Solid Poor P	Insulation thickness	50
Mobility Refrigerant, Type / gram Refooa / 38 Refooa / 38 Refrigerant, Type / gram Refooa / 38 Refrigerant, Type / gram Refooa / 38 Refooa / 38 Refrigerant, Type / gram Refooa / 38 Refooa / 38 Refooa / 38 Refooa / 49 Refrigerant, Type / gram Refooa / 49 Refrigerant, Type / 49 Refriger	Insulation type	Polyurethane with Cyclopentane
Refrigerant, Type / gram Variable Speed Compressor Number of probes CONTROLLER Controller Controller Controller i-Care, Touch screen Controller again Data, Alarms & Events Temperature graph Yes High/Low temp. Alarm Yes Open door alarm Yes Probe failure alarm Yes STORAGE Volume, Gross/Net, L Shelves, Full/Half Shelves, Full/Half Shelves, Full/Half Perforated Alu FEATURES Lock Yes Battery Backup for Controller, 24h No-Frost System™ Poythole Door Controller Yes-O20 mm Dry Contact Yes Automatic: Closure < 90° - Hold Closure > 90° Tititi	Air distribution	Dynamic
Variable Speed Compressor Number of probes CONTROLLER Controller Controller F-Care, Touch screen Controller F-Care, Touch screen Controller F-Care, Touch screen Controller F-Care, Touch screen ENDER, Tell USB Connection F-Care, Touch screen Yes High/Low tenp. Alarm Yes Usb Copen door alarm Yes Topen door alarm	Mobility	Standard: Adjustable Feet - Option: Castors
Number of probes CONTROLLER Controller	Refrigerant, Type / gram	R600a / 38
CONTROLLER Controller Figurage Find Expose Find Expo	Variable Speed Compressor	Yes - Adaptive Cooling Technology
Controller inguage 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 STORAGE Volume, Gross/Net, L 90 / 76 Shelves, Full/Half 1/1 Shelf material Perforated Alu FEATURES Lock Yes Battery Backup for Controller, 24h Yes No-Frost System™ Yes Perimeter Heater Heater Hot gas Probe failure of Standard: Solid Door Battery Sustem S	Number of probes	2
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 90 / 76 Shelves, Full/Half 1/1 Shelf material Perforated Alu FEATURES Lock Yes LED light 90 PC Controller, 24h Yes Rottery Backup for Controller, 24h Yes Perimeter Heater Heater Hot gas Porthole Yes - 0 20 mm Dry Contact Yes Door Standard: Solid Door Features 90° - Hold Closure > 90° Automatic: Closure < 90° - Hold Closure > 90° Battery Backup for Standard: Solid Door Standard: Solid Door Standard: Solid Door Battery Survey Automatic: Closure < 90° - Hold Closure > 90° Automatic: Closure < 90° - Hold Closure > 90° Automatic: Closure < 90° - Hold Closure > 90° Battery Backup for Controller, 290° Automatic: Closure < 90° - Hold Closure > 90°	CONTROLLER	
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 90 / 76 Shelves, Full/Half 1/1 Shelf material Perforated Alu FEATURES Lock Yes Lock Yes Battery Backup for Controller, 24h Yes No-Frost System™ Yes Perimeter Heater Hot gas Porthole Yes - Ø 20 mm Dry Contact Yes Door Standard: Solid Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	Controller	i-Care, Touch screen
Logging Data, Alarms & Events Temperature graph Yes High/Low temp. Alarm Yes Open door alarm Yes Probe failure alarm Yes STORAGE Volume, Gross/Net, L 90 / 76 Shelves, Full/Half 1/1 Shelf material Perforated Alu FEATURES Yes Lock Yes Battery Backup for Controller, 24h Yes No-Frost System™ Yes Perimeter Heater Hot gas Porthole Yes - Ø 20 mm Dry Contact Yes Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	Controller language	EN, DE, FR
Temperature graph High/Low temp. Alarm Open door alarm Yes Open door alarm Yes Probe failure alarm Yes STORAGE Volume, Gross/Net, L 90 / 76 Shelves, Full/Half Shelf material Perforated Alu FEATURES Lock LED light Sattery Backup for Controller, 24h No-Frost System™ Yes Perimeter Heater Hot gas Porthole Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90° Door Standard: Solid Door Features Probe digure Yes Yes Automatic: Closure < 90° - Hold Closure > 90° Standard: Solid Door Features Probe digure Yes Yes Automatic: Closure < 90° - Hold Closure > 90° Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90° Standard: Solid Door Features	USB Connection	Yes
High/Low temp. Alarm Open door alarm Yes Probe failure alarm Yes Power failure alarm Yes STORAGE Volume, Gross/Net, L Shelves, Full/Half 1/1 Shelf material Perforated Alu FEATURES Lock LED light Sattery Backup for Controller, 24h No-Frost System™ Yes Perimeter Heater Hot gas Porthole Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90° Tests System > 90° Automatic: Closure < 90° - Hold Closure > 90° Standard: Solid Door Features	Logging	Data, Alarms & Events
Open door alarm Yes Probe failure alarm Yes Power failure alarm Yes STORAGE Volume, Gross/Net, L 90 / 76 Shelves, Full/Half 1/1 Shelf material Perforated Alu FEATURES Lock Yes Battery Backup for Controller, 24h Yes No-Frost System™ Yes Perimeter Heater Hot gas Porthole Yes - Ø 20 mm Dry Contact Yes Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	Temperature graph	Yes
Probe failure alarm Power failure alarm STORAGE Volume, Gross/Net, L Shelves, Full/Half Shelf material Perforated Alu FEATURES Lock LED light Battery Backup for Controller, 24h No-Frost System™ Perimeter Heater Porthole Dry Contact Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	High/Low temp. Alarm	Yes
Power failure alarm STORAGE Volume, Gross/Net, L Shelves, Full/Half Shelf material Perforated Alu FEATURES Lock LeD light Sattery Backup for Controller, 24h No-Frost System™ Perimeter Heater Porthole Prothole Prothole Poor Features Automatic: Closure < 90° - Hold Closure > 90° Standard: Solid Door Features	Open door alarm	Yes
STORAGE Volume, Gross/Net, L Shelves, Full/Half Shelf material Perforated Alu FEATURES Lock LED light Battery Backup for Controller, 24h No-Frost System™ Yes Perimeter Heater Porthole Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	Probe failure alarm	Yes
Volume, Gross/Net, L 90 / 76 Shelves, Full/Half 1/1 Shelf material Perforated Alu FEATURES Lock Yes LED light Yes Battery Backup for Controller, 24h Yes No-Frost System™ Yes Perimeter Heater Hot gas Porthole Yes - Ø 20 mm Dry Contact Yes Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	Power failure alarm	Yes
Shelves, Full/Half Shelf material Perforated Alu FEATURES Lock LED light Battery Backup for Controller, 24h No-Frost System™ Perimeter Heater Porthole Dry Contact Door Features Automatic: Closure < 90° - Hold Closure > 90°	STORAGE	
Shelf material FEATURES Lock LED light Battery Backup for Controller, 24h No-Frost System™ Perimeter Heater Porthole Dry Contact Door Features Perforated Alu Yes Yes Yes Automatic: Closure < 90° - Hold Closure > 90°	Volume, Gross/Net, L	90 / 76
FEATURES Lock LED light Battery Backup for Controller, 24h No-Frost System™ Perimeter Heater Porthole Dry Contact Door Features Automatic: Closure < 90° - Hold Closure > 90°	Shelves, Full/Half	1/1
Lock LED light Battery Backup for Controller, 24h No-Frost System™ Perimeter Heater Porthole Dry Contact Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	Shelf material	Perforated Alu
LED light Battery Backup for Controller, 24h No-Frost System™ Perimeter Heater Porthole Door Door Features Possible Automatic: Closure < 90° - Hold Closure > 90°	FEATURES	
Battery Backup for Controller, 24h No-Frost System™ Perimeter Heater Porthole Pry Contact Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	Lock	Yes
Battery Backup for Controller, 24h No-Frost System™ Perimeter Heater Hot gas Porthole Tyes - Ø 20 mm Dry Contact Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	LED light	
Perimeter Heater Hot gas Porthole Yes - Ø 20 mm Dry Contact Yes Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	Battery Backup for Controller, 24h	Yes
Perimeter Heater Hot gas Porthole Yes - Ø 20 mm Dry Contact Yes Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°		
Porthole Yes - Ø 20 mm Dry Contact Yes Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	Perimeter Heater	
Dry Contact Door Standard: Solid Door Features Automatic: Closure < 90° - Hold Closure > 90°	Porthole	
Door Features Automatic: Closure < 90° - Hold Closure > 90°	Dry Contact	
Automatic closure voc Trial closure voc	Door	Standard: Solid
Door Reversibility Yes	Door Features	Automatic: Closure < 90° - Hold Closure > 90°
	Door Reversibility	Yes





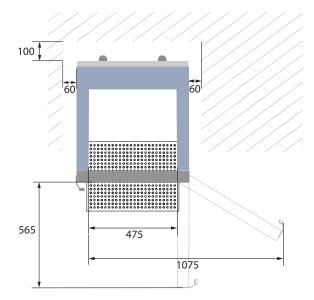
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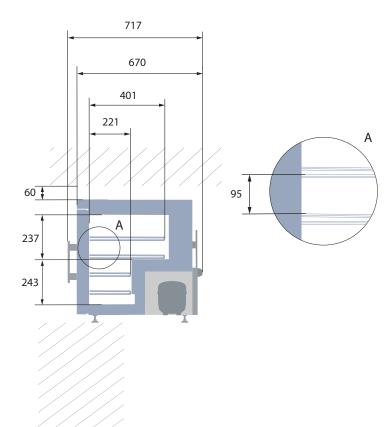
Voltage/Frequency	Voltage/Hz	230V/50-60
Max Ambient	°C	35
Max Humidity	% rh	6
PERFORMANCE		
All data in RT20°C		
Temperature Range	°C	-5 to -
Jniformity in performance · difference between top and bottom	°C	+/-
Pull down time	Minutes	69 min to -20
Hold over time	Minutes	54 min to -10
Noise	dB	
Energy Saving Mode	kWh/24h	0,94kWh/24h Set -
nergy Consumption, kWh / 24h	kWh/24h	1,1kWh/24h Set -
Energy year	kWh/year	401kWh/y Set -2
nstant Power Consumption	kW	PD 0,120/Stable 0,0
leat Rejection	W	
J-Value	W/m^2 K	0
COOLING COMPONENTS		
Refrigerant/Amount (gram)		R600a/38
Number of compressors	pcs	
Variable speed compressor	Yes/No	Υ
Internal air distribution (type of)		Dual Air Strec
Evaporator Fan	Yes/No/Variable	Υ
Condenser Fan	Yes/No/Variable	
Number of probes	pcs	
Defrost	Yes/No	Yes - automa
FEATURES		
Safety thermostat	y/n/optional	
Lock	y/n	Y
LED light	y/n	Υ
Battery Back Up For Controller	y/n/optional	Yes - 2
Porthole	y/n-Ømm	Yes - Ø 20m
Dry contact	y/n	Υ
Castors	y/n/optional	Option
Door	glass/solid	Sc
Door closure	y/n/optional	Υ
Door reversibility	y/n	١
Automatic Hold 90°C	y/n	Y
Vacuum valve	y/n	Υ

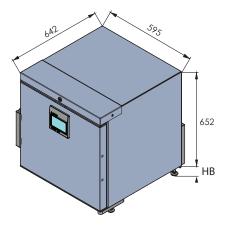


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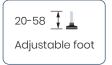




All measurements in mm.

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





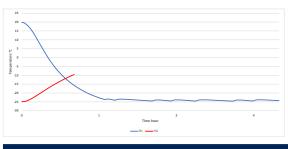
3



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SENSOR POSITION MODEL F-90I **Test type** 15-point test **FRONT VIEW TOP VIEW Test environment** Controlled conditions, empty cabinet 1_6_11 2_7_12 5 1 4 2 3 **Ambient temperature** 20°C **Humidity** 5_10_15 -25°C 6 9 10 7 8 Set-point 25gr tinned brass formed as a Sensor used cylinder with a diameter of 15,2 4_9_14 3_8_13 15 11 14 12 13 Installation Appliance installed according to instruction manual conditions Refrigerant R600a **SENSOR TEMPERATURE** Sensor P1 **P2** Р3 **P4** Р5 P6 **P7** Р8 Р9 P10 P11 P12 P13 P14 P15 position -22,4 -23,4 -22 -22,4 -22.9 -21,5 -22,6 -23,5 -23,5 -22,4 -22,6 -23,5 -23,6 -22.5 -23,5 Max 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

WARM UP & PULL DOWN





TYPICAL PERFORMANCE IN AMBIENT 20°C - EMPTY CABINET	
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

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