



BIOMEDICAL

# R-281 ESSENTIAL

ENERGY EFFICIENT

ECO MODE AVAILABLE

Vestfrost Solutions' innovative M series glass door cabinets are the perfect choice to display your products.



A built-in ECO function together with the optimized cooling system and hydrocarbon refrigerants save energy and reduces your carbon footprint.

Integrated LED light in the door frame offers full exposure of the stored contents while still maintaining a low operational cost.

The flexible and robust glass shelves can easily be adjusted to fit your products.

DIMENSIONS		VALUE
Dimension		1560x595x595
Packaging dimensions		1625x636x671
Weight		73 / 71
Volume		28l
FEATURES		VALUE
Defrost tray		<input type="checkbox"/>
No. of shelf		4 + 1 no.
Lid color/type		Glass
Light inside lid		<input checked="" type="checkbox"/>
Cabinet color		White
Inside color/material		White / PS
Lock		<input checked="" type="checkbox"/>
Electronic display		<input checked="" type="checkbox"/>
COOLING		VALUE
Refrigerant / amount		R600a / 50g
Max ambient / Relative humidity		32 °C / 65 %
Energy 20 °C		0,962 kWh/24h set 5 °C
EEL		N/A
Noise		45 dB
Noise class		N/A dB
Voltage		220-240 V
Frequenze		50 Hz
Temperature range		+2 to +10 °C
Energy class		B
CONSTRUCTION		VALUE
Carton weight		0 kg
Eps weight		1,2 kg
Wood weight		0 kg
Plastic weight		0,4 kg



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Voltage/Frequency	Voltage/Hz	230V/50Hz
Max Ambient	°C	32°C
Max Humidity	% rh	65%

PERFORMANCE	UNIT	VALUE
<b>All data in RT20°C</b>		
Temperature Range	°C	2 to 10
Uniformity in performance - difference between top and bottom	°C	+/- 0,8
Pull down time	Minutes	24 min to 6°C
Hold over time	Minutes	78 min to 10°C
Noise	dB	45
Energy 24 hours	kWh/24h	0,826kWh/24h set 5°C
Energy year	kWh/year	302kWh/y set 5°C
Instant Power Consumption	kW	PD 0,2 /Stable 0,18
Heat Rejection	W	-
U-Value	W/m <sup>2</sup> K	-

COOLING COMPONENTS	VALUE
Refrigerant/Amount (gram)	R600a/50gr
Number of compressors	1
Varibel speed compressor	No
Internal air distribution (type of)	Dual Air Stream
Evaporator Fan	Yes
Condenser Fan	No
Number of probes	2
Defrost	Yes - automatic

FEATURES	VALUE
Safety thermostat	No
Lock	Yes
LED light	Yes
Battery Back Up For Controller	Yes
Porthole	Yes - Ø 12,7 mm
Dry contact	No
Castors	Optional
Door	Glass
Reference Bottle	No
Door closure	Yes
Door reversibility	Yes
Automatic Hold 90°C	No
Vacum ventil + VIP (Vacum panel)	No
Bluetooth connection	Yes
Aluminum shelf	Optional



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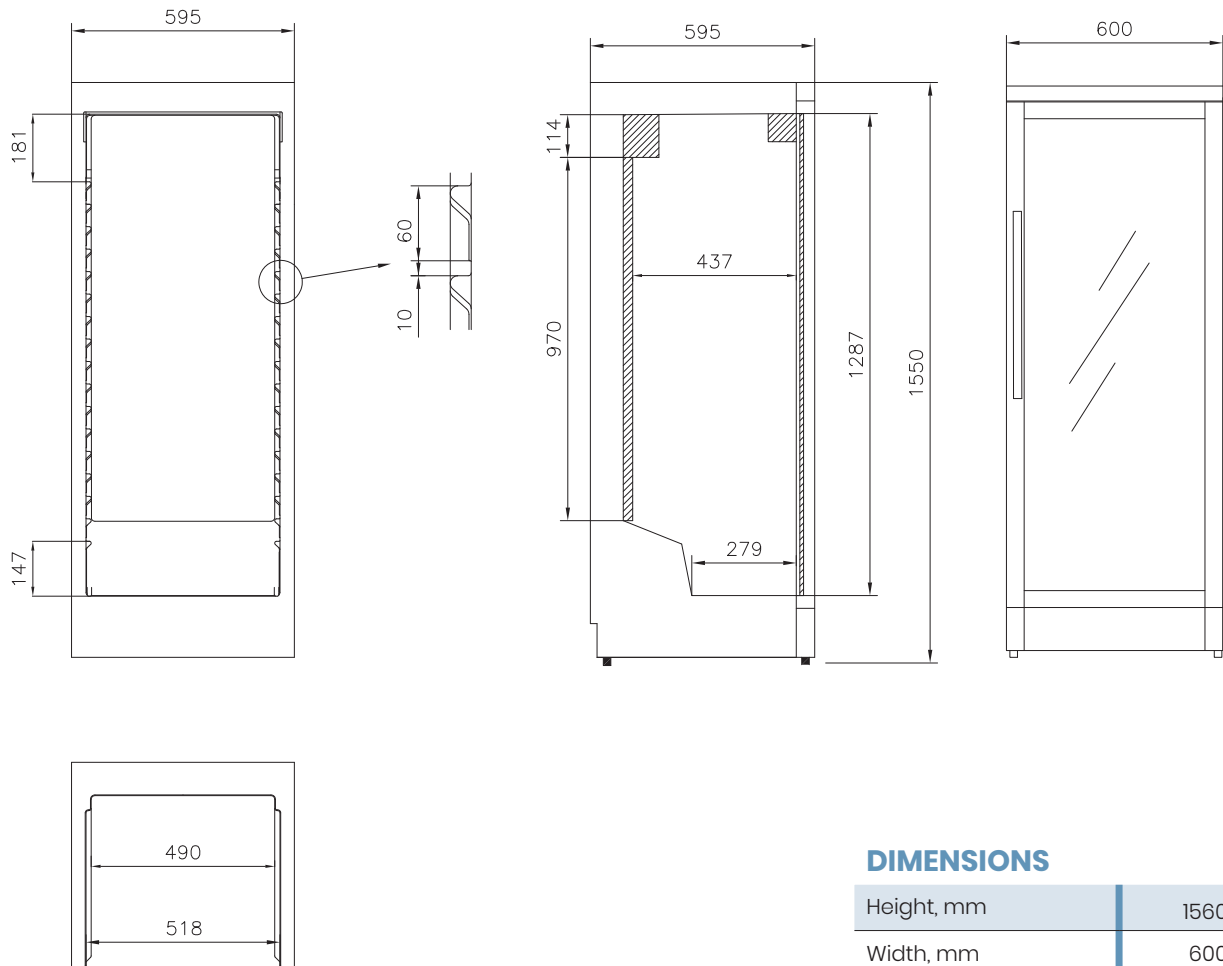
CONTROLLER		VALUE
Controller	y/n/optional	Danfoss
Controller type		ERC 112
USB Connection	y/n	No
Data connection		-
Controller abilities		-
Controller languages		No Language - only 3 digits
Logs/numbers	y/n	-
Alarms		"High and low temperature alarm Door alarm Probe failure"
Temperature curve in controller	y/n	No
STORAGE		VALUE
SPOR Full length half length		15 Full/2Half
Shelves Full length half length		4Full/1Half
Gross Volume		281
Net Volume		193
Max loading total		
DIMENSIONS AND CONSTRUCTION		VALUE
Inner Height (Net)	mm	1282
Inner Width (Net)	mm	500
Inner Depth (Net)	mm	415
Height + (Feet)	mm	1560
Width	mm	595
Depth (Rear point to door front)	mm	595
Depth (including doorhandle)	mm	-
Brutto weight	kg	73,0
Netto weight	kg	71,0
Packing	Kg	2
Material Inner cabinet		White/PS
Material Outer Cabinet		Painted steel
Insulation thickness	mm	42
Insulation type		"Polyurethane with cyclopentane"
Mobility		"2 feet front 2 wheels back"
Type of packaging		EPS
REFERENCE		
Uniformity in performance - difference between top and bottom	TR	TR23126
Pull down time (from 25 to fabric setpoint)	TR	TR23126
Hold over time (From fabric SP to -25, -40 and -60) Empty	TR	TR23126
Hold over time (From fabric SP to -25, -40 and -60) Full	TR	TR23126
Energy 24 hours	TR	TR23126
Energy year (beregnet ud fra Energy 24 hours)	Kwh/year	301
Noise	45	According to EU standard
Humidity	TR	TR23126



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## DIMENSIONS

Height, mm	1560
Width, mm	600
Depth, mm	595
Incl. handle, mm	640
Incl. open door, mm	1180

All measurements in mm.



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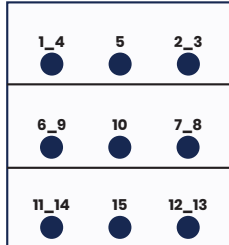
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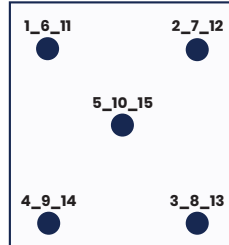
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## SENSOR POSITION

FRONT VIEW



TOP VIEW



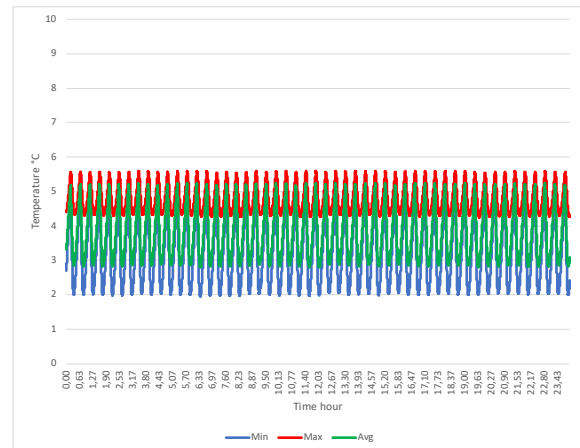
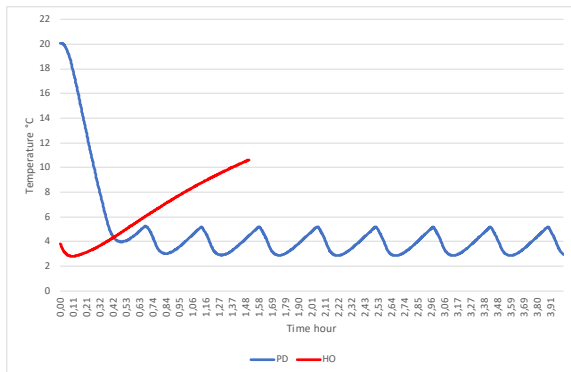
## MODEL

**R-281 ESSENTIAL**

<b>Test environment</b>	Controlled conditions
<b>Sensor used</b>	25gr tinned brass formed as a cylinder with a diameter of 15,2mm
<b>Installation</b>	Appliance installed according to instruction manual condition
<b>Refrigerant</b>	R600a

## SENSOR TEMPERATURE WITH SET POINT 5°C IN STABLE CONDITION 24HR AMBIENT 20°C

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
4,1	3,7	4,3	4,8	3,8	3,8	3,7	3,8	3,9	3,3	3,7	3,2	3,7	3,8	3,8	Avg
5,3	5,2	5,6	5,6	5,1	5,4	5,4	5,4	5,3	5	5,1	4,8	5	5,3	5	Max
3,1	2,6	3,4	4,3	2,8	2,6	2,4	2,5	2,8	2	2,7	2,8	2,8	2,6	3	Min



## TYPICAL PERFORMANCE IN AMBIENT 20°C - EMPTY CABINET

<b>Average Cabinet Temp at 5°C setpoint</b>	3,8	°C
<b>Uniformity</b>	1,5	°C
<b>Stability</b>	2,4	°C
<b>1 min door open recovery to 6 °C</b>	7	min
<b>Cycle rate on/off</b>	5/23	min/min
<b>Duty cycle</b>	18	%
<b>Energy consumption</b>	0,826	kWh/day
<b>Pull down time to 6°C</b>	24	min
<b>Hold over time from avg to 10°C</b>	78	min
<b>Heat Rejection</b>	-	W
<b>U-Value</b>	-	W/m <sup>2</sup> *K
<b>Noise</b>	45	dB