

Air Conditioning

250 - 460 m³/h



SYSCW-AR R513A

Vertical water source heat pumps
with R513A low GWP refrigerant

1,7 - 2,0 kW



1,8 - 2,6 kW



R513A

 systemair

NEW

R513A

SYSCW-AR R513A

Water source heat pumps



- 1,7-2,0 kW
- 1,8-2,6 kW
- Plate heat exchanger
- 250-460 m³/h
- AC or EC fans
- Rotary compressor

- Reversible units available in 2 sizes (07, 09)
- 4 versions :
VC: standard version with cabinet,
VCL: low height version with cabinet,
VN: standard version without cabinet,
VNL: low height version without cabinet.
- Vertical installation
- R513A low GWP refrigerant (631)
- High EER and COP values
- Low sound levels
- Low energy consumption EC fan (option)
- Brazed stainless steel plate heat exchanger for improved efficiency
- Design and elaborate finish cabinet enabling harmonious integration (RAL9010)
- Selection of the hydraulic & electric service sides
- Easy access to the internal components through a large front panel
- 100% factory tested



Silent and efficient

EER
up to
4,9

COP
up to
4,6

The SYSCW-AR R513A units are very silent and efficient. They benefit from excellent EER and COP efficiency values as well as very low sound levels. An "Extra low noise" version is also available as an option and allows an average reduction of -5 dB(A) compared to the standard version. ¹



For an even better efficiency, the SYSCW-AR R513A water source heat pumps **can also be equipped with low consumption EC fans.**

Sustainable and safe

The new Systemair water source heat pumps operate with R513A. Thanks to a GWP (Global Warming Potential) of only 631, this refrigerant is 3 times less polluting than the R407C or the R410A, usually used for this type of units.

R513A



In addition to being more environmentally friendly, this refrigerant also has the advantage of being **non-flammable with a A1 safety classification.**



Smart control



SRC
Control panel
with touch display
(option)



RCS
Thermostat
(option)

All SYSCW-AR R513A units integrate a smart and advanced control system which manages their operation and safety devices. Available either with Modbus RTU or Bacnet MSTP communication protocol, this controller will always create and maintain a perfect indoor climate, under any circumstances. It also offers 2 different control interfaces (SRC or RCS) to fit the needs of every customer.

BACnet Modbus

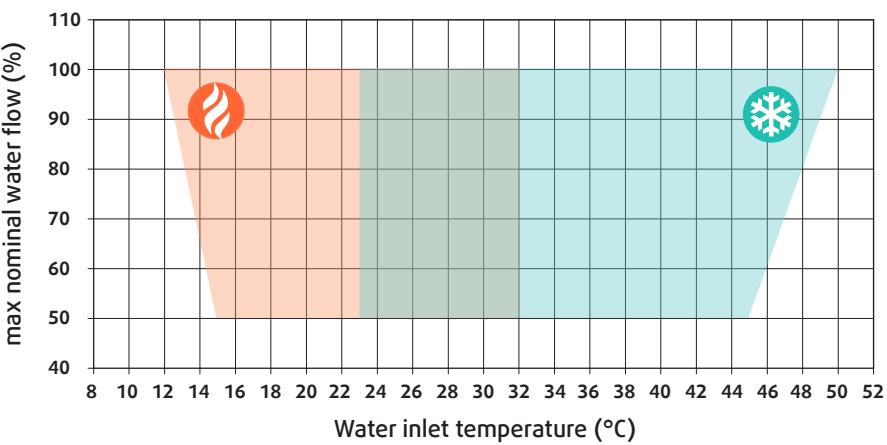
Technical features

SYSCW-AR R513A			07	09
Performance				
Cooling	Total cooling capacity ¹	W	1690	2040
	Sensible cooling capacity ¹	W	1410	1600
	Power input (with EC fan / AC fan) ³	W	345 / 355	480 / 487
	EER according to EN14511 (with EC fan / AC fan)		4,9 / 4,75	4,25 / 4,19
Heating	Heating capacity ²	W	1790	2630
	Power input (with EC fan / AC fan) ³	W	395 / 405	610 / 617
	COP according to EN14511 (with EC fan / AC fan)		4,6 / 4,41	4,31 / 4,26
Ventilation				
Air flow - Min.		m³/h	250	340
Air flow - Nominal		m³/h	340	400
Air flow - Max.		m³/h	400	460
Nominal power input (EC fan / AC fan)		W	15 / 25	20 / 27
Motor power (EC fan / AC fan)		W	40 / 75	40 / 75
Air filter - Number / Efficiency			1 / G2	
Hydraulic circuit				
Water heat exchanger		Nbr	1	
Maximum water pressure		Bar	10	
Nominal water flow - cooling ¹		l/h	351	434
Nominal water flow - heating ²		l/h	405	586
Cutoff water flow		l/h	180	180
WPD at nominal water flow - cooling ¹		kPa	3,8	5,8
WPD at nominal water flow - heating ²		kPa	5,1	10,8
Hydraulic connections - Inlet / Outlet		inches	Female ISO G 1/2" INT	
Condensate outlet Ø		mm	15 x 20	
Refrigerant circuit				
Number of circuit			1	
Type of compressor			Rotary	
Load		g	500	490
Operating weight				
With cabinet		kg	70	73
Without cabinet		kg	55	58
Sound data				
Sound power Lw (LS/MS/HS)		dB(A)	47,2 / 49,8 / 51,5	49,8 / 51,5 / 54,3
Sound pressure Lp (LS/MS/HS)		dB(A)	38,2 / 40,8 / 42,5	40,8 / 42,5 / 45,3
NR (LS/MS/HS)		dB(A)	32 / 34 / 36	34 / 36 / 40
Sound power Lw (LS/MS/HS) - Extra low noise version		dB(A)	42,5 / 44,6 / 46,5	44,7 / 46,5 / 48,6
Sound pressure Lp (LS/MS/HS) - Extra low noise version		dB(A)	33,5 / 35,6 / 37,5	35,7 / 37,5 / 39,6
NR (LS/MS/HS) - Extra low noise version		dB(A)	28 / 30 / 32	30 / 32 / 34
Electrical data				
Electrical power supply			230V/1Ph/50Hz ±10%	
Max. current ⁴		A	4,6	5,7
Starting current ⁵		A	16	16,5

¹ Nominal cooling capacities based on : entering air temperature of 27 °C dry bulb, 19 °C wet bulb with entering water temperature of 30 °C.
² Nominal heating capacities based on : entering air temperature of 20 °C dry bulb, 15 °C wet bulb with entering water temperature of 20 °C.
³ Absorbed power (compressor + fan) at nominal conditions
⁴ Max. currents are given at +/- 5%.
⁵ Starting currents are given at +/- 10%.



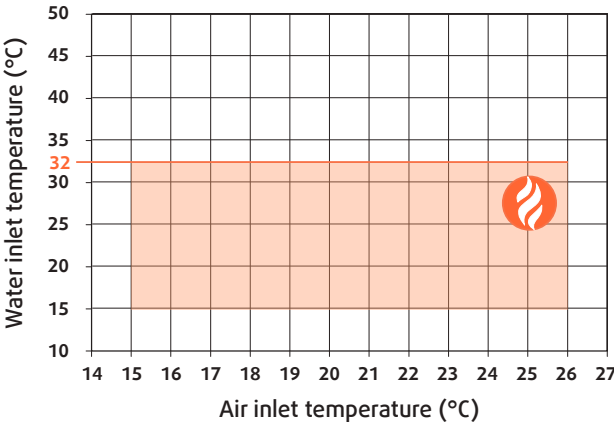
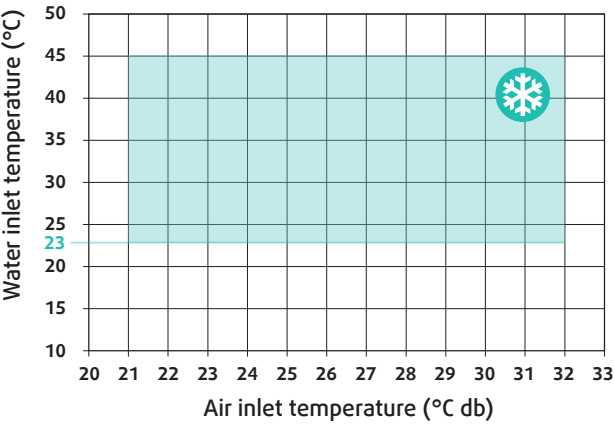
Operating limits



Nominal conditions in accordance with the standard EN 14511-2

SYSCW-AR R513A		07		09	
					
Nominal water flow	l/h	351	405	434	586
50% of the nominal water flow	l/h	180 *	203	217	293
Maximum hydraulic pressure	bar	10	10	10	10

* Cutoff water flow : 180 l/h



SYSCW-AR R513A		07	09
LS - Minimum airflow	m³/h	250	340
MS - Nominal airflow **	m³/h	340	400
HS - Maximum airflow	m³/h	400	460

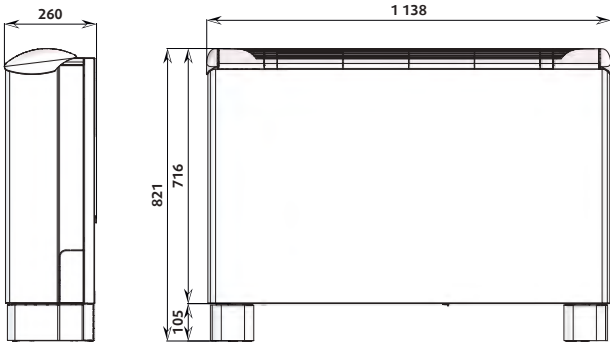
** Nominal conditions in accordance with the standard EN 14511-2

Versions and Dimensions

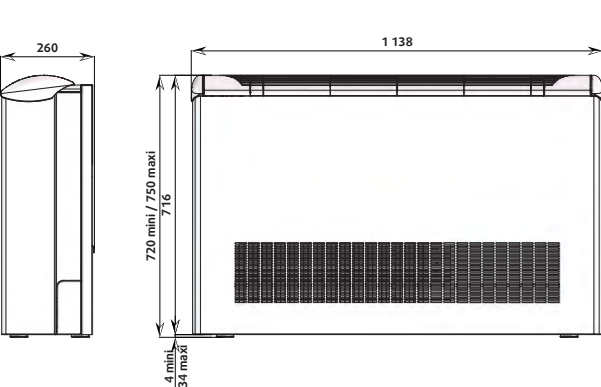


VC : Standard version with cabinet

Bottom air intake with feet

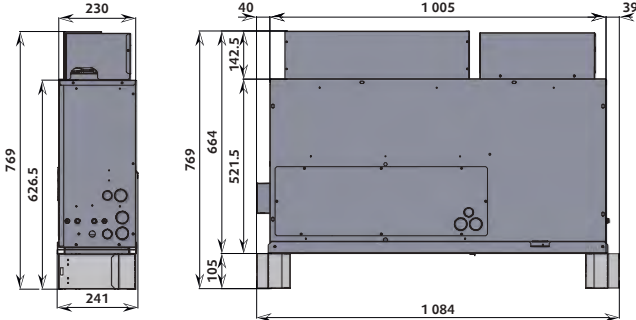


Front air intake with adjustable leg pads

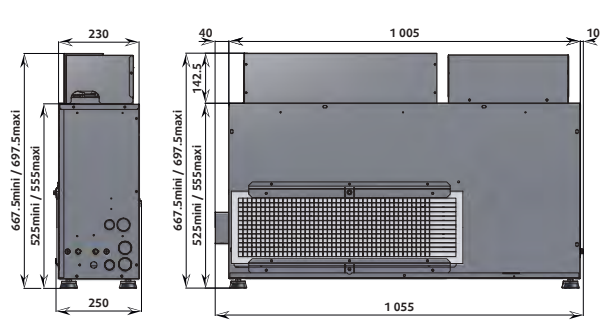


VN : Standard version without cabinet

Bottom air intake with feet

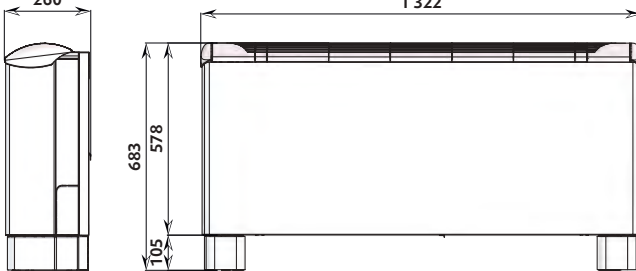


Front air intake with adjustable leg pads

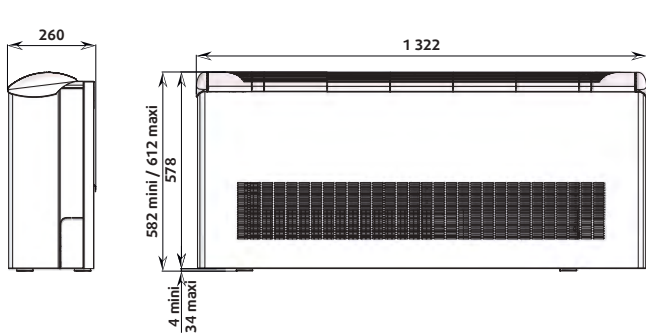


VCL : Low height version with cabinet

Bottom air intake with feet

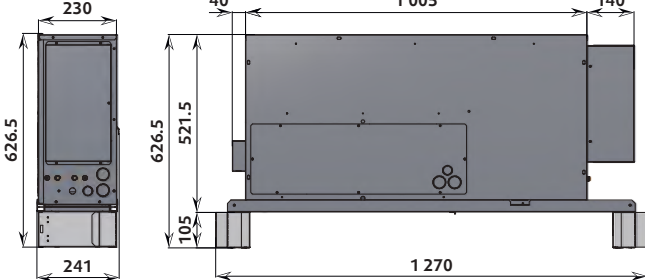


Front air intake with adjustable leg pads

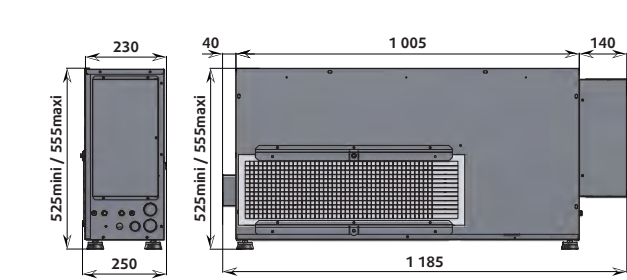


VNL : Low height version without cabinet

Bottom air intake with feet



Front air intake with adjustable leg pads



Selection software

AC SELECT



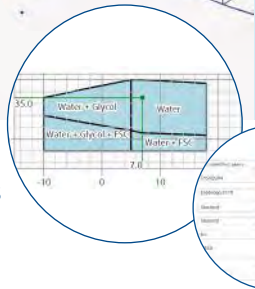
A new asset for your business

With AC SELECT, the new Systemair online selection program, select and customise easily and quickly the air conditioning products that perfectly satisfy your requirements.

- 1 - Select "THE" unit that meets your needs
- 2 - Customise by adding accessories & options
- 3 - Generate a price offer
- 4 - Download a complete and detailed unit and project report

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