

# AQUAPURA INVERTER

HEATING & COOLING +  
DOMESTIC HOT  
WATER



**AEROTHERMAL HEAT PUMP.**

- IDEAL FOR RADIANT PAVEMENT
- CLIMATE WITH FAN CONVECTORS
- HEATING WITH RADIATORS
- MODELS FROM 4 TO 18 KW



# THE RANGE OF AEROTHERMAL HEAT PUMPS

MODELS FROM 4 TO 18 KW

 PORTUGUESE MANUFACTURING



HYDRAULIC  
**100%**  
INSTALLATION

## KEY FEATURES

- Heating and/or Cooling
- Reduced maintenance and low operating noise
- Operation at outdoor temperatures down to  $-25^{\circ}\text{C}$
- Weather resistant anodized coating construction
- Domestic Hot Water Function

H O T   W A T E R







R A D I A N T F L O O R



C E N T R A L H E A T I N G

# HIGH LEVEL OF EFFICIENCY

## DOMESTIC HOT WATER PRODUCTION

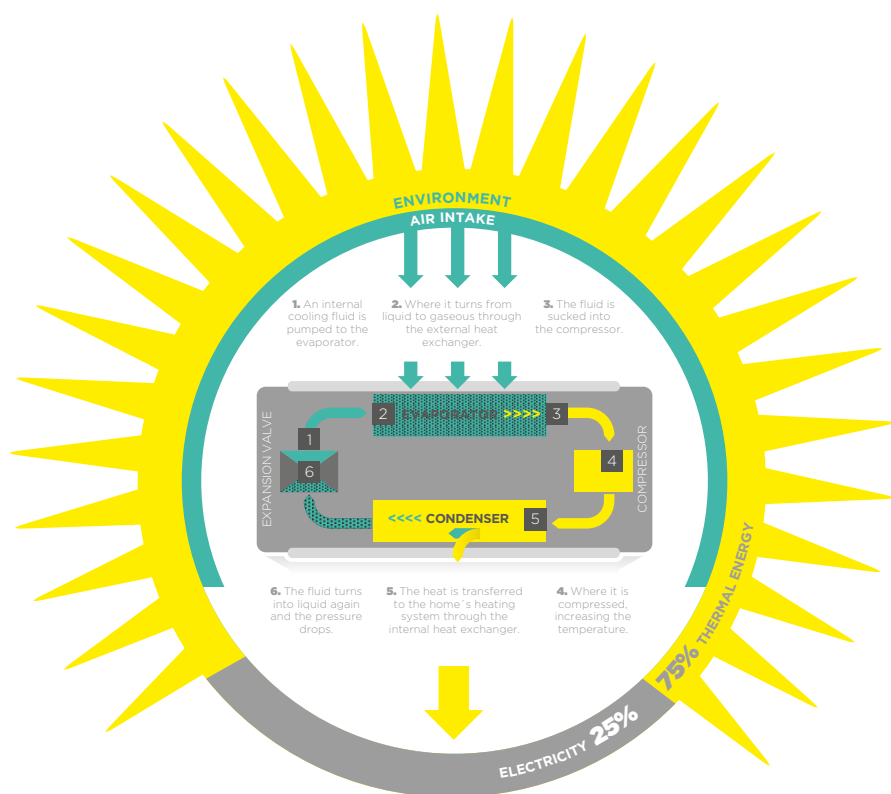
The heat from the environment is indirect solar energy, stored in water, air and soil. The heat pump will extract heat precisely from these heat sources for later use in your home's climate. Air/Water heat pumps with high energy efficiency INVERTER technology are a modern, efficient and clean solution that guarantees the comfort of your home, always respecting the environment.

It's a smart way to use nature's resources to improve your quality of life. By adopting one of these solutions, you will be making a serious commitment to the issue of reducing harmful emissions to our atmosphere, thus contributing to the planet's natural balance. The Air/Water heat pumps with INVERTER technology were developed to meet the needs of both domestic and industrial use, for climatization (heating and cooling) and Domestic Hot Water solutions (DHW).

# FUNCTIONING

## PRINCIPLE

There is a refrigerant fluid that is pumped into an external heat exchanger (evaporator). Here the fluid absorbs energy from the environment due to the temperature differential achieved outside. During this process, the fluid changes state and becomes vapour. The gaseous fluid is aspirated by the mechanical part of the system, the compressor. Here it is compressed, the pressure rises and consequently the fluid temperature rises. The fluid then travels to a second internal heat exchanger (condenser) and transfers the heat it transports to the house's heating system. The fluid goes back to the liquid state by cooling. The fluid pressure is reduced due to throttling that occurs in the expansion valve and the process starts over again.



## THE HEAT PUMPS THAT GIVE MORE COMFORT AND ECONOMY TO YOUR HOME

### AQUAPURA INVERTER

- The ideal heat pump for radiant floor
- Efficient and silent solution
- Attractive and compact design
- Heat pump prepared for DHW
- Allows heating and cooling





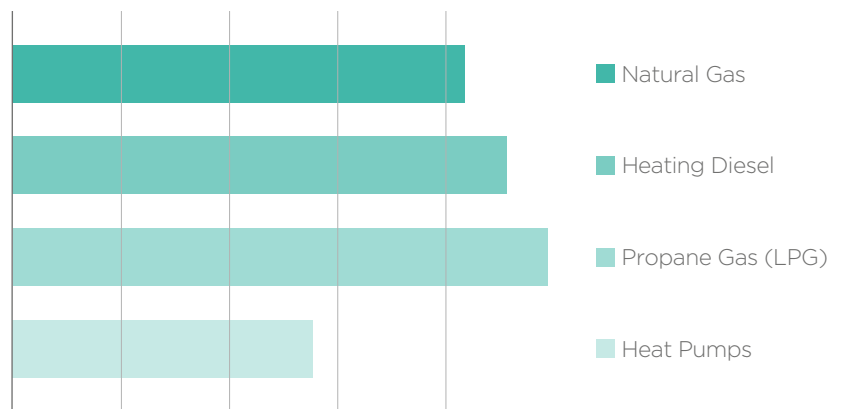


# INVERTER HEAT PUMPS

STAND OUT FOR THEIR  
HIGH PERFORMANCE

Heat pumps are prepared for heating and cooling as well as domestic water heating. These solutions stand out for their high energy efficiency, which makes them capable of achieving an energy rating up to A+++ for heating. They also stand out for their ability to integrate with other heating systems and easy installation.

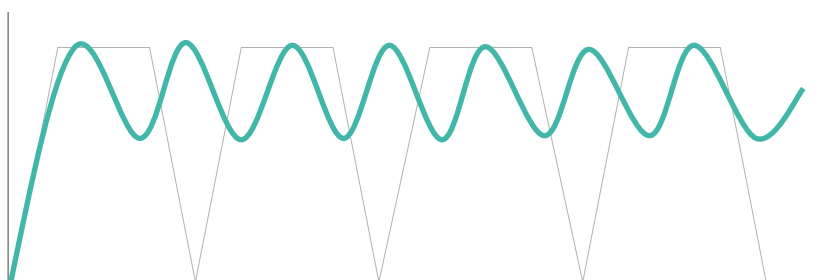
## CONSUMPTION OF PRIMARY ENERGY



**CHART** OF ENERGY CONSUMPTION

## DC INVERTER TECHNOLOGY

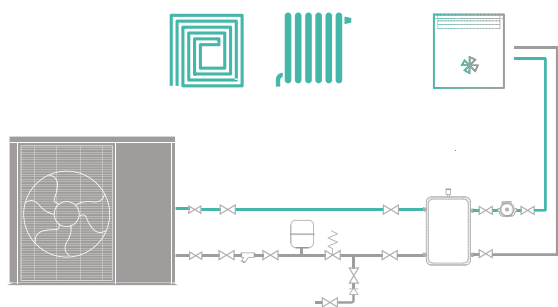
DC INVERTER technology is different from any other technology existing on the market because it has a compressor with the capacity to vary the operating frequency, meeting the exact needs of climatization comfort at home. This achieves greater savings in energy consumption.



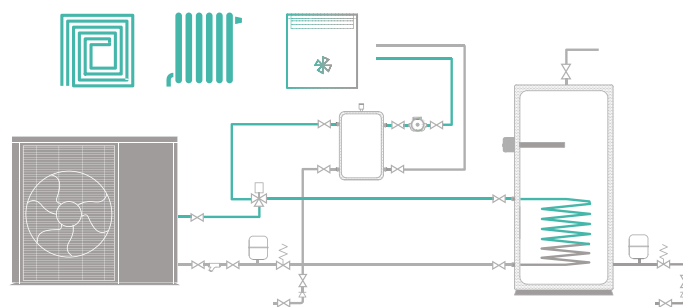
**INVERTER** vs TRADITIONAL

Operation Period

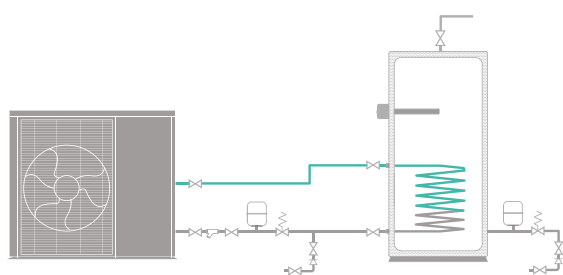
## WELL-BEING



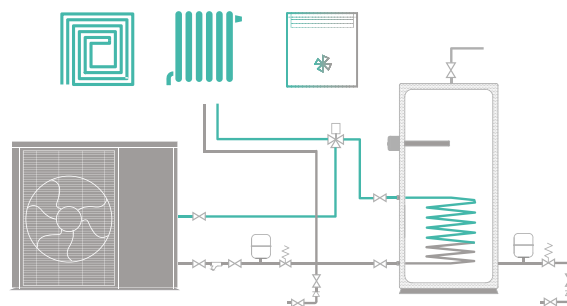
CLIMATE WITH INERTIA



CLIMATE WITH INERTIA + DHW



DOMESTIC HOT WATER



CLIMATE WITHOUT INERTIA + DHW

### THE PRESENCE OF AN INERTIA TANK IN THE INSTALLATION GUARANTEES SEVERAL ADVANTAGES:

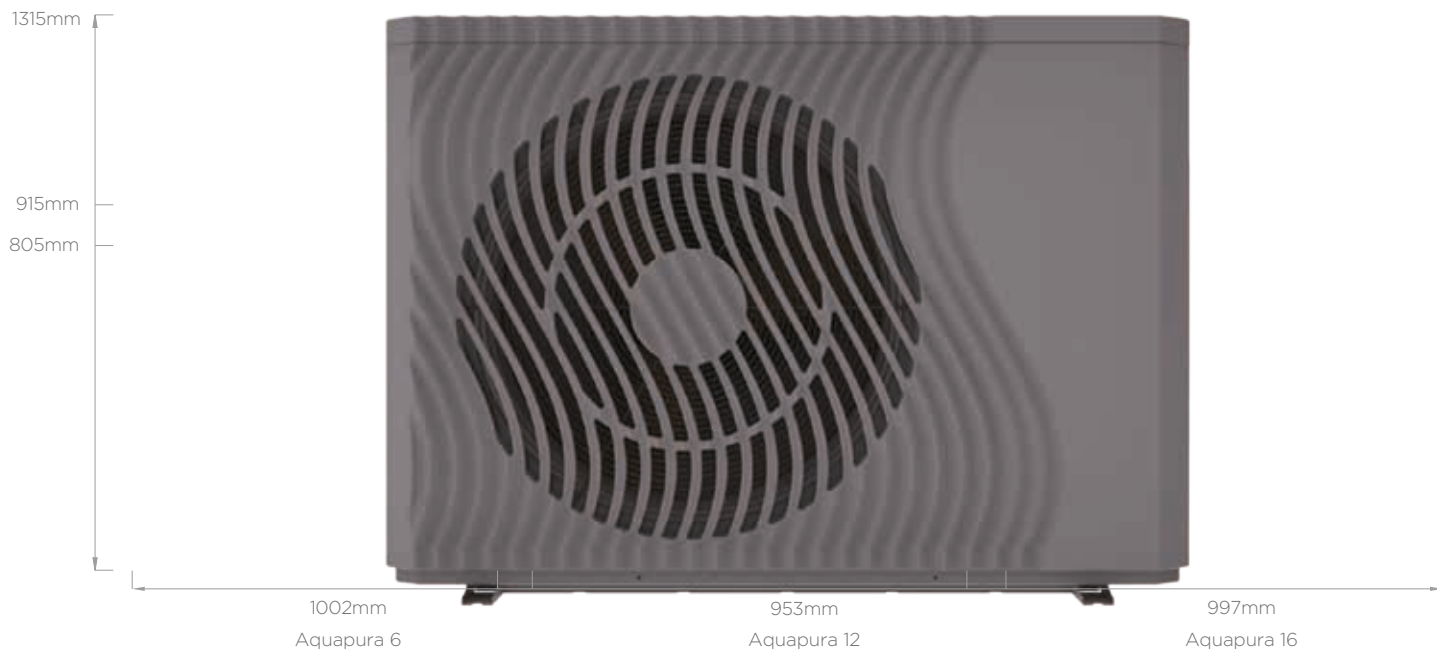
- Supplement in energy savings
- Increased thermal output available
- Shorter operating periods

### STORAGE WATER HEATER FOR PRODUCTION OF DOMESTIC HOT WATER (DHW-HP):

- Capacities of 200, 300 and 500 litres
- AISI 444 stainless steel tank
- 5-year warranty
- High-efficiency XL coil

TECHNICAL DATA			AQUAPURA 6 (INVERTER R 3-8)	AQUAPURA 12 (INVERTER R 8-12)	AQUAPURA 16 (INVERTER R 5-18)	AQUAPURA 16T (INVERTER R 5-18)
Power Supply			1-/ 230V/ 50Hz	1-/ 230V/ 50Hz	1-/ 230V/ 50Hz	3N-/ 400V/ 50Hz
Power supplied	Heating (Nom./Max)	kW	6,47 / 8,25	8,25 / 12,52	15,36 / 18,51	
	Cooling (Nom./Max)	kW	5,12 / 6,10	7,01 / 11,31	13,92 / 16,23	
Power consumed	Heating (Nominal)	kW	1,33	1,71	3,21	
	Cooling (Nominal)	kW	1,40	1,94	3,88	
COP <sup>1</sup>	Nominal	-	4,87	4,82	4,79	
EER <sup>1</sup>	Nominal	-	3,65	3,61	3,58	
Energy efficiency class at 35°C	Hot climate	-	A+++	A+++	A+++	
SCOP <sup>2</sup> - Seasonal efficiency at 35°C		-	5,36	5,03	5,11	
Energy efficiency class at 35°C	Medium climate	-	A++	A++	A++	
SCOP <sup>2</sup> - Seasonal efficiency at 35°C		-	4,76	4,73	4,67	
Energy efficiency class at 55°C		-	A++	A++	A++	
SCOP <sup>2</sup> - Eficiência sazonal a 55°C		-	3,91	3,86	3,72	
Maximum consumption (Power/current)		kW / A	2,9 / 13	4,6 / 21,5	7,2 / 33,2	7,2 / 12
Water temperature	Heating	°C	60	60	60	
	Cooling	°C	7	7	7	
Outdoor operating temperatures	Heating	°C	-25 a 35	-25 a 35	-25 a 35	
	Cooling	°C	10 a 43	10 a 43	10 a 43	
Refrigerant (R32) / CO <sub>2</sub> Eq.		Kg / Ton	1,3 / 0,88	1,7 / 1,15	2,0 / 1,35	
Compressor		-	DC Inverter	DC Inverter	DC Inverter	
Number of fans / Typology		-/-	1/ DC	1/ DC	2 / DC	
Sound power at 1m		dB(A)	37-54	42-55	44-58	
Sound power <sup>3</sup>		dB	64	65	68	
Hydraulic Connections Diameter		inches	1"	1"	1" 1/4	
Integrated recirculation pump		-	Integrated	Integrated	Integrated	
Water flow (min)		m3/h	1,0	1,7	2,9	
Hydraulic circuit load loss		kPa	28	32	45	
Dimensions		(WxHxD)	805 x 1002x 490	915 x 953 x 460	1315 x 997 x 437	
Weight		Kg	90	108	157	

<sup>1</sup> COP and EER were calculated based on the EN14511-2 standard. | <sup>2</sup> SCOP was calculated according to the EN14825 standard. | <sup>3</sup> Sound power was calculated according to the 12102-1 standard.



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