

# AIRHEAT | GEOHEAT SERIES

High efficiency heat pumps for sanitary water heating

The new Air/Geo Heat family has been specifically designed to produce hot water up to 90°C. The new product combines efficiency with simplicity and the use of the natural refrigerant CO<sub>2</sub>.



## CHARACTERISTICS

- Plug and Play unit / Easy service / Robust design / Smooth operation
- Compactness
- Low noise due to special mounting of compressors and cladding protection
- Two different version: air water and water-water
- Dedicated control logic with COP optimization
- User friendly with setting keyboard
- Web Server included for remote monitoring
- Variable speed
- Modulating water pump for sanitary applications
- Standard design pressure 80 bar Lp side - 130 bar HP side



MODEL	Qth <sub>NOM</sub> / COP(a) [kWt] / [ ]	Qth <sub>NOM</sub> / COP(b) [kWt] / [ ]	Design data		Weight [kg]
			Max Power in [kW]	Max current in [A]	
AIR&GEO HEAT 18	14,6 / 3,5 (a)	16,5 / 3,9 (b)	6	13	400
AIR&GEO HEAT 24	23,1 / 3,6 (a)	26,1 / 4,0 (b)	11	26	500
AIR&GEO HEAT 48	43,5 / 3,7 (a)	49,1 / 4,0 (b)	17	35	750

(a) AirHeat Nominal capacity Qth<sub>NOM</sub>: water inlet/outlet 15/70°C - Ambient 7°C

(b) GeoHeat Nominal capacity Qth<sub>NOM</sub>: water inlet/outlet 10/70°C - Source temperature 15°C

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## OPTIONS

- Evaporator with anti-corrosion coating
- Stratified water tank
- Manometers panel
- Electronic soft starter
- Metallic mesh for protection of finned coil evaporator
- EC ventilation
- Source side water pump (Geo Heat version)

## APPLICATIONS

### Where to use ?

Whenever big quantities of hot water are needed and/or big peaks of absorption are present.

- Restaurants - Hotel - Canteens
- Laundries - Residential Complex - Sport Centers
- Hospitals - Agrifood industry - Gyms

### How does it work?

Transcritical cycle operated by CO<sub>2</sub> is ideal for efficient use of the high temperature glide of refrigerant for heating water from a low temperature.

High pressure CO<sub>2</sub> at high temperature circulates in one heat exchanger - single or double wall- and heats up in a single passage (once-through) mains water, circulated with a variable speed pump so as to reach the set water temperature in the most efficient way.

The high water temperature makes it possible to store it in a special vessel, so avoiding, as with normal heat pumps, to mix water at different temperatures.

By using this kind of water storage it is possible to operate the heat pump at night time, taking advantage of lower energy costs.

