

## POLYVALENT AIR COOLED HEAT PUMP



**Cooling capacity:**  
50 - 320 kW

**Heating capacity:**  
50 - 340 kW

## AQUA4

More thermal comfort with less energy consumption  
Unique concept to reduce our environmental footprint

- 2 and 4 pipes high efficiency systems
- Balance the needs - Cooling and Heating simultaneously
- Recovery and production of hot water all the year
- High energy ratio values - Extra quiet
- Complete hydraulic systems with high content water tank



## Conserving and optimizing energy consumption

- High energy ratio at part load and full load
- Constantly balance heating and cooling needs to obtain maximum Total Efficiency Ratio
- Simultaneous or independent demands for heating and cooling
- 100% heat recovery at any conditions
- Advanced programmable control with local display

## Quieter unit

- -8 dB(A) noise level reduction vs traditional heat pump in standard, -12 dB(A) in option
- Innovative hybrid structure of fan blades
- Unique sound proof cabinet enclosing all components to reduce radiated sound levels
- EC technology on fans in option

## Secured operating map as standard

- Winter cooling operation down to -15°C ambient.
- Heating operation down to -10°C ambient with 45°C outlet water temperature
- Heat recovery or production of hot water temperature from 25°C to 55°C
- High ambient up to 45°C

## Defrost without impacting comfort

- Hydrophilic treatment on coil
- Dynamic control on defrost
- Circuits defrost completely independent
- Integrated high content water tank

### 4 pipes system



### 2 pipes system



## Main options

### 2 Pipes / 4 Pipes

- Hydraulic module with LP/HP pump(s) for reversible/cold user
- Hydraulic module with LP/HP pump(s) for recovery/hot user
- Water tank (200 -> 765 liters)
- High efficiency EC fans
- Antifreeze protection heat exchangers and hydraulic components
- Anti-corrosion coil treatment

- Refrigerant LP/HP gauges
- Condenser coil protection guard
- Soft starter / power factor correction
- Spring anti-vibration mounts
- Rubber anti-vibration mounts
- Supplied 4-way water flow inversion valve
- ModBus®, LonWorks®, BacNET® communication interfaces
- pCOWeb interface board
- Water filters

AQUA <sup>4</sup> - 2 pipes/4 pipes	AAH	41	51	61	71	81	94	104	124
Cooling capacity (water: 12/7°C, air: 35°C)	kW	50	54	65	71	81	98	107	129
EER		3,1	3,0	3,2	3,1	3,1	3,0	2,9	3,0
ESEER		4,1	4,1	4,2	4,2	4,1	4,5	4,6	4,0
Heating capacity (air: 7°C, hot water : 40/45°C)	kW	52	57	68	75	85	103	114	136
COP		3,2	3,2	3,3	3,2	3,2	3,2	3,2	3,0
Cooling capacity (cold water: 12/7°C, hot water: 40/45°C)		49	54	64	70	82	98	108	126
Heating capacity (cold water: 12/7°C, hot water: 40/45°C)		63	70	82	91	106	127	140	163
Total efficiency ratio		7,4	7,3	7,5	7,4	7,7	7,4	7,3	7,4
Global sound power level - Standard	dB(A)	80	80	81	81	81	82	82	84
Global sound power level - Low noise		73	73	75	75	75	77	77	79

AQUA <sup>4</sup> - 2 pipes/4 pipes	AAH	144	164	194	214	244	274	294	324
Cooling capacity (water: 12/7°C, air: 35°C)	kW	142	162	181	216	236	259	296	314
EER		2,9	3,0	2,7	2,9	2,8	2,8	2,9	2,7
ESEER		4,1	4,2	4,3	4,4	4,2	4,2	4,3	4,3
Heating capacity (air: 7°C, hot water : 40/45°C)	kW	150	170	195	229	254	280	317	341
COP		3,0	3,1	3,1	3,1	3,2	3,2	3,3	3,1
Cooling capacity (cold water: 12/7°C, hot water: 40/45°C)		139	160	184	218	243	263	302	327
Heating capacity (cold water: 12/7°C, hot water: 40/45°C)		181	207	239	282	313	340	388	423
Total efficiency ratio		7,4	7,5	7,3	7,4	7,6	7,5	7,6	7,4
Global sound power level - Standard	dB(A)	84	85	85	86	86	86	87	87
Global sound power level - Low noise		80	80	80	82	82	82	83	83