

Acquainverter® Air-to-water heat pump

Acquainverter® is a **R410A split heat pump** designed by ECA Technology to satisfy the most diverse system solutions in residential and commercial sectors, owing to a range consisting of 3 product families, each of which is available in 4 power sizes from 7 to 18kW:

WRHL: version with built-in 195L stainless steel DHW water heater (solar water heating ready);

WA: version with built-in 80L puffer;

WM: compact version for applications with external DHW water heater and puffer;

Acquainverter® control electronics allow the working parameters to be customised according to the most diverse system and climatic requirements, including – management of the climate temperature curve for the heating/air conditioning system, management of the external solar system, management of the DHW water heater anti-legionella cycle, availability of potential free contacts for third party control, energy saving function to optimise management costs, detailed self-diagnostics, load partialisation logic and uniform wear of outdoor units (dual versions);

Acquainverter® is an inverter heat pump that produces **hot water up to 55°C** for domestic use even with outdoor temperatures of -20°C, using a split-system, DC inverter heat pump system. The water temperature can be adjusted from 30°C to 50°C on domestic hot water and heating.

Acquainverter® supplies **chilled water for cooling from 7°C to 25°C** for radiant systems or with ventilated units;

The wide range of DHW water heaters and puffers is a perfect complement for all types of systems;



Features



Heating and Cooling

Heat pump for heating, cooling of rooms (max. water temperature 55°).



Condensation Control

Automatic function that measures the condensation temperature and, based on this, switches the fan(s) off or on to ensure optimal levels of efficiency.



Domestic hot water

Heat pump for domestic hot water production (max. water temperature 55°)



Anti-Legionella

Activation of the anti-legionella cycle for weekly heating of the entire tank to thermal shock temperature.



Defrosting

Automatic cycle reversal and base heating cable to prevent ice formation during winter operation.



Climate control

Intelligent self-regulation of the heating/air conditioning setpoint temperature according to the outside temperature.



Corrosion protection

Heat exchanger coils with corrosion protection – manganese aluminium coil fins.



Solar water heating management

Electronics designed to control solar water heating pumping assembly.



Silent Operation

Brushless DC axial fans (aerodynamic optimisation, reduced noise level, increased efficiency and air flow rate).



Energy saving

Activation of energy saving mode using potential free contact.



Auto-restart

Restart in the event of power cut.



DHW only operation

Exclusion of cooling and heating functions using potential free contact.



Self-Diagnostics

Automatic troubleshooting for easy maintenance.



Digital panel

Allows simple management of the main control activities storing all the information needed to control and manage optimum levels of climatic comfort.



Weekly Programme

Set up the different functions of the Acquainverter®, programming it according to your needs for the desired time slots.



Outside temperatures

Outdoor units with extended operating range from -20 °C up to +52 °C outdoor temperature



R32 eco refrigerant gas

New gas with low environmental impact and better performance.

TECHNICAL DATA

WM Compact

Acquainverter WM with COH outdoor unit

TRIVALENT VERSION Heating , Cooling and domestic hot water

WM6.1 - WM11.2 - WM8.1 - WM15.2 - WM9.1 WM19.2

the system is composed of:
- Hydronic unit Acquainverter® WM model
- 1 or 2 external units COH model
- WBX DHW heat storage (optional) from 200 to 1000 liters with solar water heater exchanger (fixed serpentine).
- WACN optional puffer

HC VERSION Heating and Cooling

WM6.1 - WM11.2 - WM8.1 - WM15.2 - WM9.1 WM19.2

the system is composed of:
- Hydronic unit Acquainverter® WM model
- 1 or 2 external units COH model
- WACN optional puffer

S VERSION Domestic hot water

WM6.1 - WM11.2 - WM8.1 - WM15.2 - WM9.1 WM19.2

the system is composed of:
- Hydronic unit Acquainverter® WM model
- 1 or 2 external units COH model
- WBX DHW heat storage (optional) from 200 to 1000 liters with solar water heater exchanger (fixed serpentine).

TRIVALENT VERSION Heating , Cooling and domestic hot water	I.U.	WM 6.1	WM 11.2	WM 8.1	WM 15.2	WM 9.1	WM 19.2
	O.U.	COH3522HE32		COH5022HE32		COH7022HE32	
OU Number		1	2	1	2	1	2
Power supply	V/f/Hz	230/1/50					
Nominal heating capacity (nom-max)1	kW	5,68	11,36	7,40	14,80	8,77	17,54
COP (1)		4,25	4,27	3,97	4,03	3,93	3,97
Nominal cooling capacity (nom-max)2	kW	6,02	12,04	7,92	15,84	11,05	22,10
EER (2)		4,22	4,23	4,66	4,68	4,28	4,34
Sound pressure (max)	dB(A)	54		56		58	
O.U. dimensions (WxHxD)	mm	899 x596 x378		1003 x790 x427		1003 x790 x427	
O.U. weight	kg	46		61		65	
I.U. dimensions (WxHxD)	mm	585x900x485					
I.U. weight in operation	kg	115	129	115	129	115	129
Refrigerant / Pre-charge	tipo/ kg	R32 / 1,00	R32 / 1,00 (x2)	R32 / 1,50	R32 / 1,50 (x2)	R32 / 2,0	R32 / 2,0 (x2)
Global warm potential / CO2 equivalent	GWP / tons	675 / 0,675	675 / 0,675 (x2)	675 / 1,013	675 / 1,013 (x2)	675 / 1,350	675 / 1,350 (x2)
Split length min/max	mt	5 / 20		5 / 25		5 / 30	
Refrigerant gas pipe diameter	mm	1/4" / 3/8"		1/4" / 5/8"		1/4" / 5/8"	
CODE	I.U.	00012WM70	00012WM71	00012WM72	00012WM73	00012WM74	00012WM75
	O.U.	2701620		2701621		2701622	

HC VERSION Heating , Cooling	I.U.	WM 6.1 HC	WM 11.2 HC	WM 8.1 HC	WM 15.2 HC	WM 9.1 HC	WM 19.2 HC
	O.U.	COH3522HE32		COH5022HE32		COH7022HE32	
S VERSION Domestic hot water	I.U.	WM 6.1 S	WM 11.2 S	WM 8.1 S	WM 15.2 S	WM 9.1 S	WM 19.2 S
	O.U.	COH3522HE32		COH5022HE32		COH7022HE32	

ACCESSORIES	Initial	Code	Compatibility					
Initial start-up service	AVV	00013C	✓	✓	✓	✓	✓	✓
Two-phase power supply	BIF	00013E		✓		✓		✓
Solar water heating management	SOL	00013F	✓	✓	✓	✓	✓	✓
Water filter	FIL	00013G	✓	✓	✓	✓	✓	✓
Rubber bases outdoor unit	BAS	6401062			✓	✓	✓	✓

Nominal efficiency under the following conditions, in accordance with UNI EN 14511: 2011
(1) Winter: outside air temperature 7°C DB/ 6°C WB; water temperature 30/35°C (2) Summer: outside air temperature 35°C DB / 24°C WB; water temperature 18/23°C
NOTE: THE ABOVE PRODUCTS CONTAIN FLUORINATED GREENHOUSE GASES GOVERNED BY THE KYOTO PROTOCOL.