ACQUAINVERTER® SMART

Acquainverter® SMART is a **reversible DC inverter outdoor monoblock heat pump** that uses ecological **R32** gas for residential and commercial applications to produce **domestic hot water**, **hot water for heating** and **chilled water for cooling**.

ECA Technology's experience combined with the sophisticated technology that has been developed to optimise winter operation allows it to achieve the highest performance available on the market with hot water (DHW) production of up to 50°C even at very cold outside operating temperatures of down to -25°C.

All this is made possible because of a series of state-of-the-art design and construction solutions. In particular, the sophisticated electronic management system regulates compressor power and electricity consumption from 15% to 100% according to need, carries out self-diagnostics and external climate control processes to ensure optimum performance at all times.
The unit can be **combined** with **traditional systems** or **radiant panels**, and guarantees **high energy efficiency**.

Inverter technology guarantees control over the heating capacity supplied by the unit by modifying the frequency or intensity of the supply current. This means that the rotation speed or the power of the compressor can be varied without any steps. This makes it possible to quickly and accurately adapt cooling or heating capacity to the actual operating conditions required without further increasing electrical consumption.
The Twin Rotary DC Inverter compressor is a DC type compressor which minimises losses due to leakage currents, typical of AC motors. In this way, the overall performance of the system is further improved and the control made more precise.

Simplified, functional **control**

Acquainverter® Smart includes a **touch control panel** that is practical and intuitive and not only allows simple management of the main switching on and off activities, but also continuously communicates the temperature of the water, storing all the information necessary for control and management.

Among other functions, the control panel allows priority setting between Cooling and Domestic Hot Water (DHW) or between Heating and Domestic Hot Water (DHW).
Activate and deactivate silent mode (unit noise reduction), set the parameters for the working setpoints according to the variations in the outside air temperature.
A weekly timer allows the unit to be programmed, automatically switched on and/or off for one week or set to programmed changes in the system's water set delivery.

Every aspect is easily accessible using a **smartphone**. Using the EWPE Smart application, **system control** can be managed directly using your mobile phone.

EWPE Smart App
Available on:

Download on the App Store

GET IT ON Google Play

Features

Heating and Cooling

Heat pump for heating, cooling of rooms (max. water temperature 60°).

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 50°)

Anti-Legionella

Activation of the anti-legionella cycle for weekly heating of the entire DHW 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: coil fins made of aluminium manganese (Al-Mn), coated with epoxy resin and a hydrophilic layer.

Wi-Fi function

Controlling the Acquainverter® SMART using a smart-phone is simple and intuitive. Using the EWPE Smart application, system control can be managed directly using your mobile phone.

Brushless DC fans

Brushless DC axial fans designed for aerodynamic optimisation, allowing reduced noise levels, increased efficiency and airflow.

Remote digital panel

Allows simple management of the main control activities, continuously communicates temperature states of the water while storing all the information needed to control and manage optimum levels of climatic comfort.

Auto-restart

Restart in the event of power cut.

Economiser

Fridge circuit with Economiser for optimum performance.

Self-Diagnostics

Automatic troubleshooting for easy maintenance.

Emergency operation

Activation of replacement heat source: allows emergency operation to be set in
heating or domestic hot water mode.

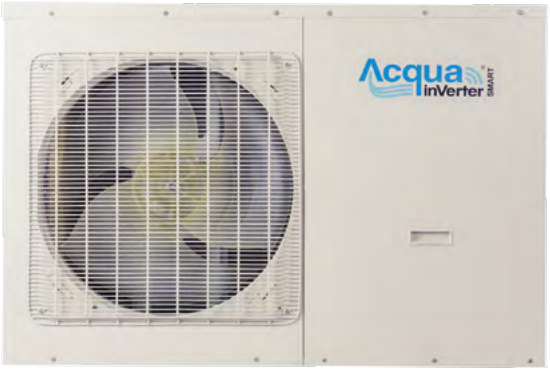
Weekly Programme

Set up all the functions of the Acquainverter SMART, programming it according to your needs.

EWM Single-Phase Outdoor Monoblock

Heating and Cooling
Domestic hot water
Defrosting
Weekly Pro-gramme
Anti-corrosion coil protection
Silent Operation
Auto-restart
Self-Diagnostics
Anti-Legionella
Condensation control
Climate control
Economiser
Wi-Fi function
Remote digital panel
Emergency operation

Control panel



Single-phase Acquainverter SMART EWM

MODEL	I.U.	EWM08	EWM10	EWM12
Power supply	V/Ph/Hz	230/1/50	230/1/50	230/1/50
Application with air terminal units or radiators*[1]				
Heating capacity (with fan coil/radiator)	kW	7.50	10.00	12.00
Cooling capacity (with fan coil)	kW	5.00	7.80	9.50
Heating power consumption (with fan coil/radiator)	kW	2.00	2.70	3.48
Cooling power consumption (with fan coil)	kW	1.61	2.48	3.20
COP	W/W	3.75	3.70	3.45
EER	W/W	3.11	3.15	2.97
Application with underfloor radiant panels [2]				
Heating capacity (with underfloor heating)	kW	7.50	10.00	12.00
Cooling capacity (with underfloor cooling)	kW	6.80	8.80	11.00
Power consumption with underfloor heating	kW	1.63	2.17	2.64
Power consumption with underfloor cooling	kW	1.55	1.96	2.56
COP	W/W	4.60	4.61	4.55
EER	W/W	4.39	4.49	4.30
Seasonal energy efficiency class room heating (average climatic conditions)		A++	A++	A++
Nominal input current (max)	A	8.70 (10.40)	12 (23)	15.5 (25)
Sound pressure (cooling function)	dB(A)	53	56	56
Sound pressure (heating function)	dB(A)	51	54	54
Refrigerant	Type/Qty.	R32 / 0.87	R32 / 2.20	R32 / 2.20
Global Warming Potential / CO2 equivalent	GWP / Tons	675 / 0.587	675 / 1.485	675 / 1.485
Dimensions (WxHxD)	mm	1150x758x345	1200x878x460	1200x878x460
Unladen weight	kg	96	151	151
Operating weight	kg	108	163	163
CODE	**I.U.**	**00012EW10**	**00012EW20**	**00012EW30**

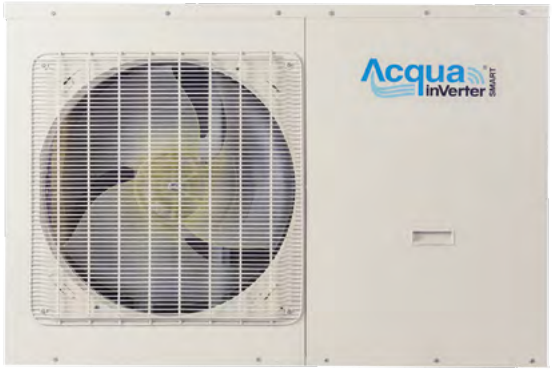
Nominal efficiency under the following conditions, in accordance with UNI EN 14511: 2013/2018
1) Cooling: user-side water temp. 12°C/7°C, outdoor temp. 35°C DB/ 24°C WB / Heating: user water temp. 40°C/45°C, outdoor temp. 7°C DB/ 6°C WB
2) Cooling: user-side water temp. 23°C/18°C, outdoor temp. 35°C DB/ 24°C WB / Heating: user water temp. 30°C/35°C, outdoor temp. 7°C DB/ 6°C WB
*radiators can only be connected in heating mode and must be appropriately sized.

THE ABOVE HERMETICALLY SEALED PRODUCTS CONTAIN FLUORINATED GREENHOUSE GASES GOVERNED BY THE KYOTO PROTOCOL.

EWM Three-Phase Outdoor Monoblock

Heating and Cooling
Domestic hot water
Defrosting
Weekly Pro-gramme
Anti-corrosion coil protection
Silent Operation
Auto-restart
Self-Diagnostics
Anti-Legionella
Condensation control
Climate control
Economiser
Wi-Fi function
Remote digital panel
Emergency operation

Control panel



Three-phase Aquainverter SMART EWM

MODEL	I.U.	EWM12T	EWM14T	EWM16T
Power supply	V/Ph/Hz	400/3/50	400/3/50	400/3/50
Application with air terminal units or radiators* [1]				
Heating capacity (with fan coil/radiator)	kW	12.00	14.00	15.50
Cooling capacity (with fan coil)	kW	9.50	12.00	13.00
Heating power consumption (with fan coil/radiator)	kW	3.48	4.18	4.70
Cooling power consumption (with fan coil)	kW	3.11	4.38	4.91
COP	W/W	3.45	3.35	3.30
EER	W/W	3.05	2.74	2.65
Application with underfloor radiant panels [2]				
Heating capacity (with underfloor heating)	kW	12.00	14.00	15.50
Cooling capacity (with underfloor cooling)	kW	11.00	12.50	14.50
Power consumption with underfloor heating	kW	2.64	3.22	3.60
Power consumption with underfloor cooling	kW	2.56	3.05	3.82
COP	W/W	4.55	4.35	4.31
EER	W/W	4.30	4.10	3.80
Seasonal energy efficiency class room heating (average climatic conditions)		A++	A++	A++
Nominal input current (max)	A	5 (12)	6 (12)	7 (12)
Sound pressure (cooling function)	dB(A)	56	57	59
Sound pressure (heating function)	dB(A)	54	55	57
Refrigerant	Type/Qty.	R32 / 2.20	R32 / 2.20	R32 / 2.20
Global Warming Potential / CO2 equivalent	GWP / Tons	675 / 1.485	675 / 1.485	675 / 1.485
Dimensions (WxHxD)	mm	1200x878x460	1200x878x460	1200x878x460
Unladen weight	kg	151	151	151
Operating weight	kg	163	163	163
CODE	**I.U.**	**00012EW40**	**00012EW50**	**00012EW60**

Nominal efficiency under the following conditions, in accordance with UNI EN 14511: 2013/2018
1) Cooling: user-side water temp. 12°C/7°C, outdoor temp. 35°C DB/ 24°C WB / Heating: user water temp. 40°C/45°C, outdoor temp. 7°C DB/ 6°C WB
2) Cooling: user-side water temp. 23°C/18°C, outdoor temp. 35°C DB/ 24°C WB / Heating: user water temp. 30°C/35°C, outdoor temp. 7°C DB/ 6°C WB
*radiators can only be connected in heating mode and must be appropriately sized.

THE ABOVE HERMETICALLY SEALED PRODUCTS CONTAIN FLUORINATED GREENHOUSE GASES GOVERNED BY THE KYOTO PROTOCOL.