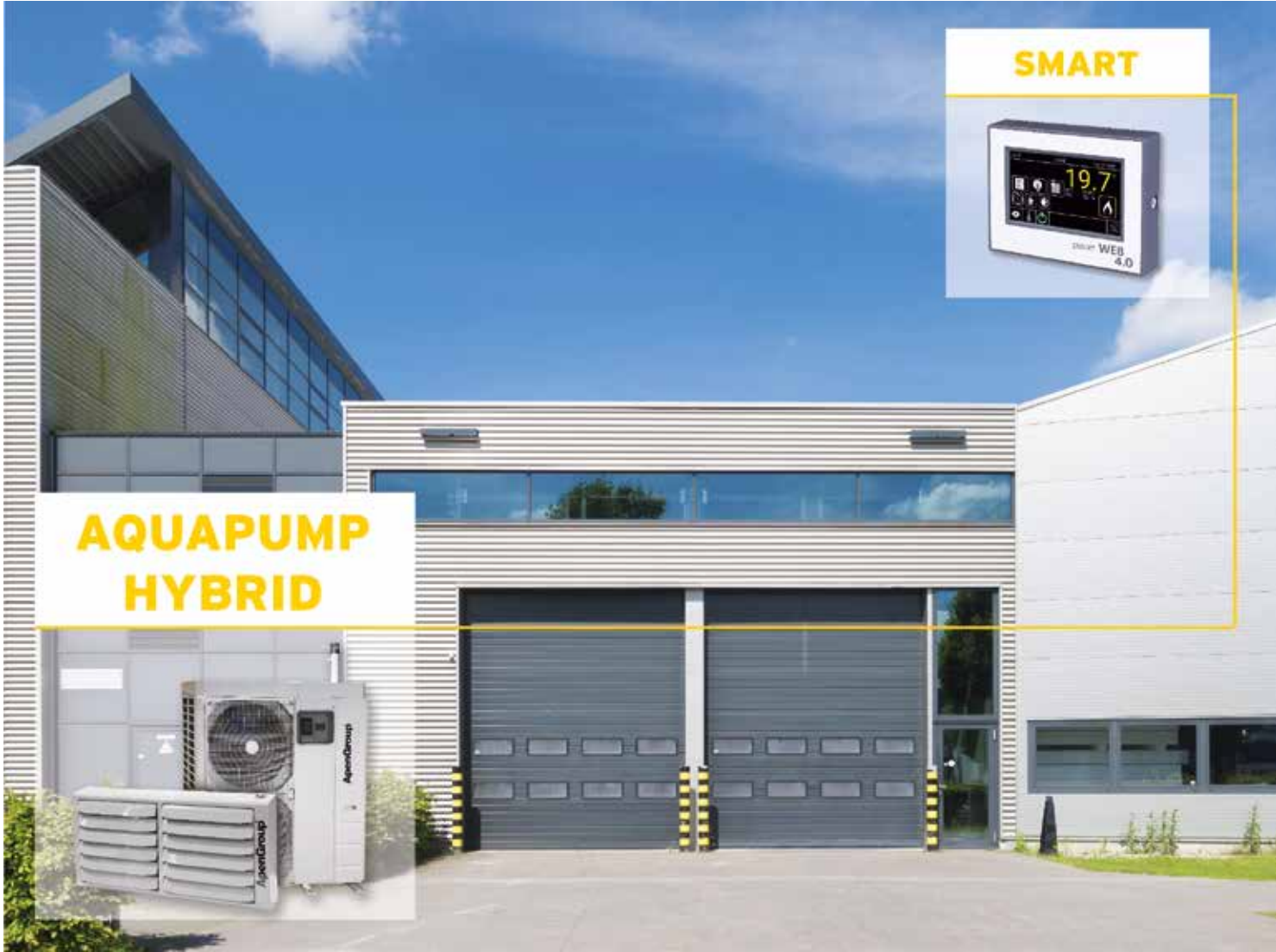


ApenGroup®



**AQUAPUMP
HYBRID**

SMART

AQUAPUMP HYBRID
Outdoor Monobloc Unit
Heat Pump + Boiler

ApenGroup®

AQUAPUMP HYBRID

OUTDOOR MONOBLOC UNIT
HEAT PUMP + BOILER



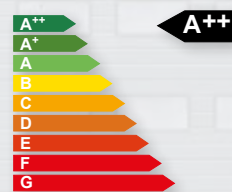
SMARTEASY
SUPPLIED AS STANDARD
EQUIPMENT



ELECTRONIC
FAN HEATERS



CLASS
A++



AQUAPUMP HYBRID

Outdoor monobloc unit
heat pump + boiler

AQUAPUMP HYBRID, INTEGRATED HEAT PUMP AND CONDENSING BOILER

AquaPump Hybrid is an outdoor monobloc unit designed to produce hot and cold water using renewable energy. IT IS a hybrid system in one product, the only one on the market in a one-package configuration.

Particular attention has been paid to:

- The environment, guaranteeing very low polluting emissions.
- Savings thanks to high efficiency and low energy consumption.
- Design, where originality and reliability become product standards.

It always ensures optimal heating and air conditioning standards in any type of environment.

RENEWABLE ENERGIES AND ENERGY SAVING

The key factor in the development of the AquaPump Hybrid project was the study of an integrated control system capable of independently managing the operation of the heat pump or the boiler, as stand-alone units, or both at the same time in order to generate energy savings and cost-effectiveness, maximising the use of renewable energy. The system adjustment flexibility allows using this technology both for high temperature and medium or low temperature systems.

FIELDS OF APPLICATION

- Labs
- Public buildings
- Offices
- Supermarkets
- Restaurants
- Bar
- Shopping malls
- Shops and Showrooms
- Gyms

A++ CLASS

The A++ energy class, as per 811/2013 ECOLABEL EU regulation, derives from the sum of the efficiencies of the latest generation condensing boiler, the heat pump with inverter and the SmartWeb intelligent control. The final label highlights the overall performance of the system.

HYBRID SYSTEM AND ELECTRONIC FAN HEATER

In case of high temperature systems, an AB fan heater has been designed to be matched with a Hybrid system characterised by high exchange surfaces with high efficiency batteries, double fan with automatic speed control, direct current brushless motor and condensate collection tray for use in cooling operation.

SMART OPERATION WITH INTELLIGENT CONTROL

The system, condensing boiler and hydronic heat pump with inverter (already assembled electrically and hydraulically with refrigerant circuit R 410 A, closed and tested), is managed by SmartEasy or SmartWeb control. The touch-screen controls act as a stand-alone chronothermostat.

SMALL DIMENSIONS FOR HIGH POWER

The entire monobloc system (boiler + heat pump) has the same dimensions as a heat pump, the inverter technology and the new generation of compressors and fans, the result of the latest research of the global manufacturers of these components, allows to reach new levels of noiselessness.

PLUG AND PLAY INSTALLATION

The AquaPump Hybrid is a plug and play product with integrated regulation. The installer is aided in his installation work by a system that is already assembled, adjusted and with the values already set.

All that is required is the hydraulic connection of the water supply and return to the system, the connection of the gas line and that of the power supply. And then you can plug it in.



AQUAPUMP HYBRID

TECHNICAL FEATURES

CONDENSING BOILER

- Premixed burner with low NOx polluting emissions, class 6 according to EN15502-1.
- Low carbon stainless steel heat exchanger.
- Electronic equipment and microprocessor with self-testing that manages all burner control and verification operations.
- CE approval in accordance with product directives.

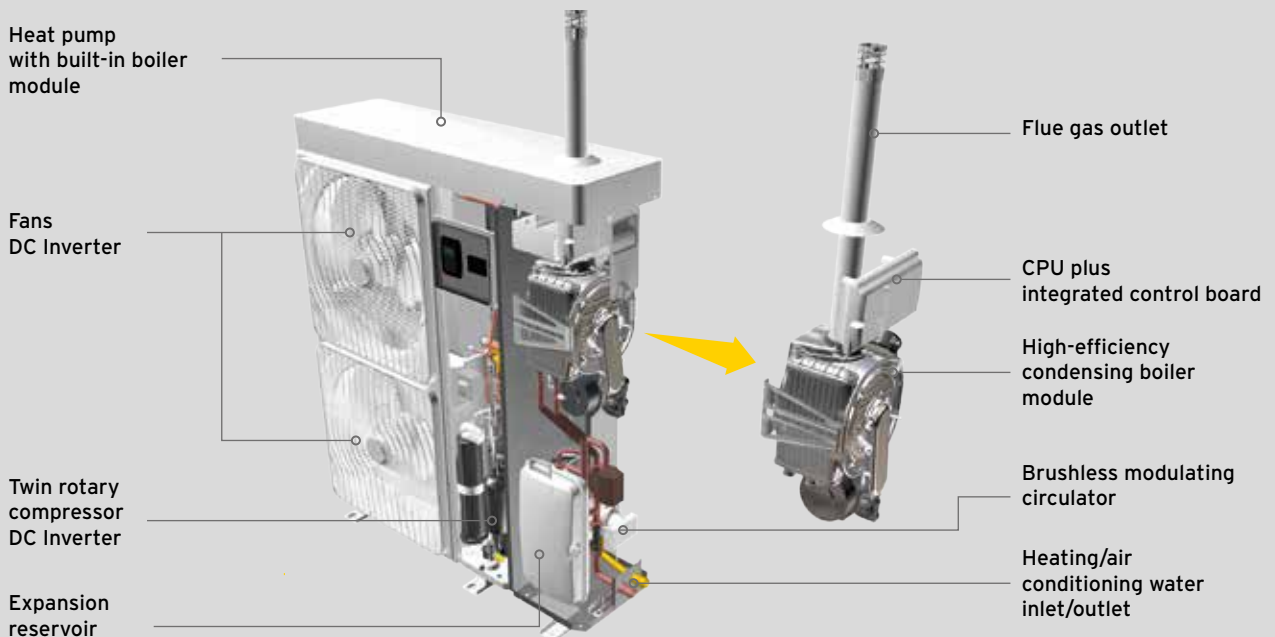
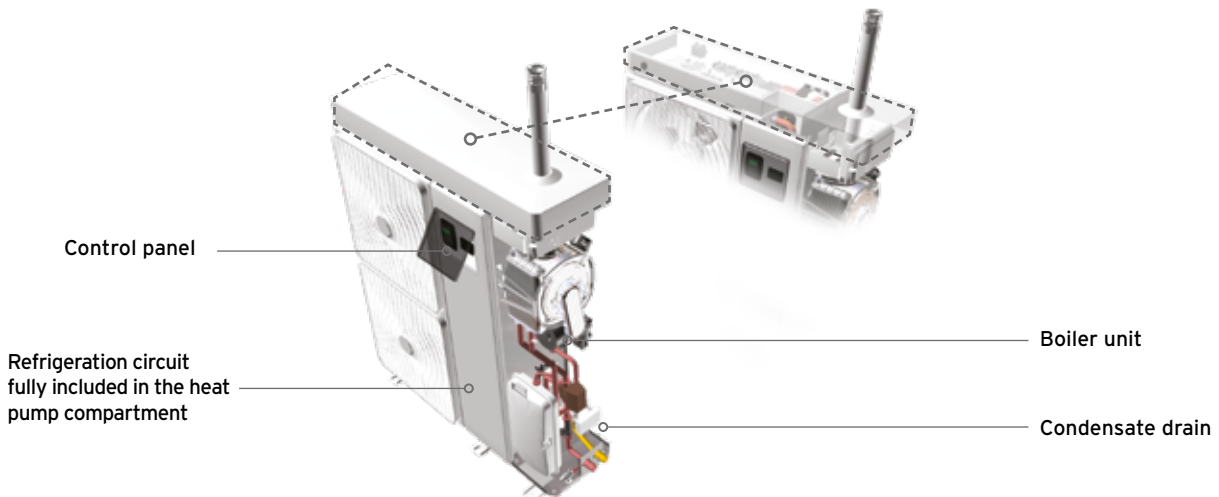
INVERTER HEAT PUMP:

- DC inverter fan motor.
- Twin Rotary DC inverter compressor with permanent magnets.
- R410A Refrigerant gas.
- Source heat exchanger with finned battery with copper tubes and aluminium fins with hydrophilic treatment.

HYDRAULIC CIRCUIT:

- Pressure gauge and probe to control the system pressure.
- NTC probes for water regulation.
- Hydraulic circuit temperature control thermometer.
- Flow meter for measuring the system water flow rate.

- Brushless circulator with DC motor with variable flow rate and built-in automatic air separator (degasser).
- 90°C Safety thermostat.
- 3 bar system safety valve.
- IPX5D Protection degree.
- 10-litre expansion reservoir.



SMARTEASY AND SMARTWEB CONTROL

The Apen Group remote control of the new SmartEasy/ SmartWeb series acts as a stand-alone chronothermostat and can be used in a system that controls a zone in which one up to a maximum of 32 machines can be installed at the same time. Connection via 4 polarised cables is very simple. Installation can be built-in or flush with the wall. It is possible to install up to 3 remote probes in addition to the one on board the control.

The controls are easy to use thanks to a 4.3" colour display and a very intuitive management menu. The user program is multilingual (9 languages). The simplicity of connection, the clear and intuitive management menu and the possibility of reading up to 4 temperature points within the controlled zone make these chronothermostats versatile and suitable for different needs and types of system.



HEAT PUMP OR BOILER?

The single system, condensing boiler and hydronic heat pump with inverter (already assembled electrically and hydraulically with R 410 A refrigerant circuit, closed and tested), is managed by Smart Easy or Smart Web control. These controls give priority to air-water heat pump operation. The condensing boiler starts operating automatically only when the temperature conditions around the system

do not guarantee the possibility of making the best use of renewable energy, or when the power required from the system is greater than the power supplied by the heat pump. The modulation of the operating power of both technologies is regulated in such a way as to always favour heat pump operation; each system operates with a dedicated regulation curve and with different delivery

set-points that work according to the chosen mode of operation.

In order to optimise the heat pump performance, it is possible to choose to work with the optimum economy, by setting an external temperature limit (for example +3°C) below which heat pump operation is deactivated.

For systems with availability of electrical energy from renewable sources

(photovoltaic), the heat pump can be set to operate with colder external temperatures, even below 0°C, already equipped as standard with an antifreeze kit.

THE FUNCTIONS

- Boiler only
- Heat pump only
- Air conditioning chiller
- Boiler + heat pump



ELECTRONIC FAN HEATERS

TECHNICAL FEATURES

- High-efficiency three-row finned exchange battery.
- Electronic fans with integrated inverter.
- Automatic air vent valve.
- Louvres with adjustable horizontal blades.
- IP25B Protection degree.

STANDARD ACCESSORIES

- Rotatable wall mounting shelf and paper template for drilling.
- Stainless steel hoses with $\varnothing 1''$ for connecting the fan heater to the boiler, length 500mm.
- Condensate collection tray for use in cooling mode.

In winter operation, the ventilation speed is adjusted automatically according to the inlet water temperature.

In air-conditioning operation, the ventilation speed is fixed and programmable.

ROTATABLE SHELF AS STANDARD

The fan heaters are fitted as standard with a rotatable shelf.

Thanks to its particular conformation, this shelf allows to satisfy the multiple requirements of installation.

- Easy and quick fixing on: walls, pillars, beams or other suitable supporting structures.

- Possibility of orienting the indoor unit and the relative air flow, according to the characteristics of the environment to be heated and the user's needs.

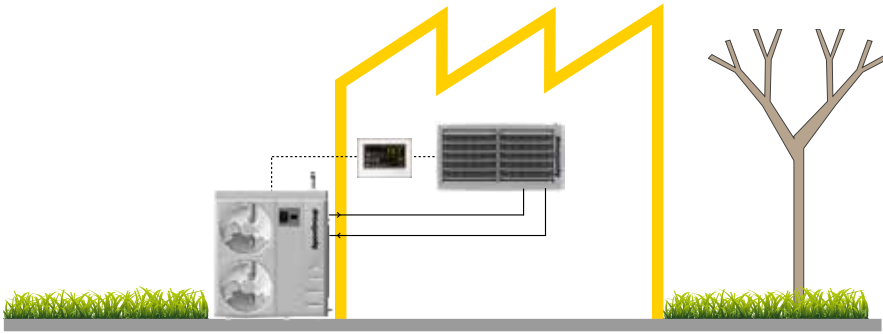


FAN HEATERS IN COOLING MODE

The fan heaters are designed to house a condensate collection tray, which can be fitted at any time, even after wall installation.



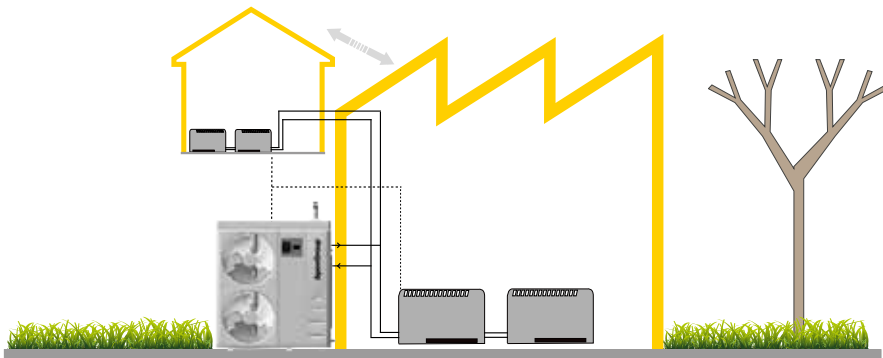
AQUAPUMP HYBRID



Heat pump
AcquaPump



Smart Easy
Smart Web



Tertiary
Industrial type
building



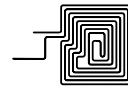
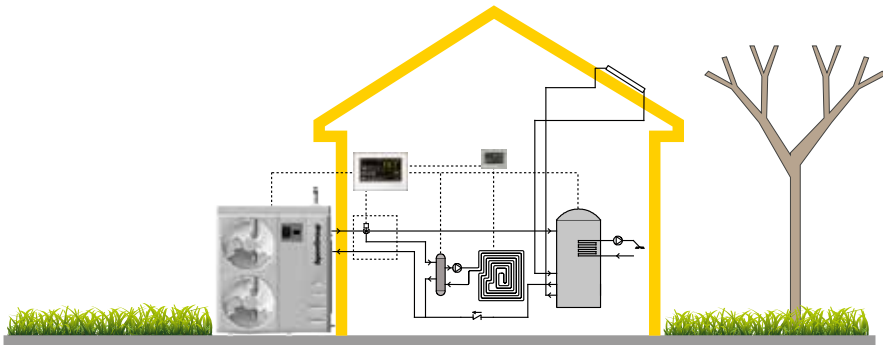
Commercial
residential type
building



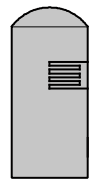
Indoor fan
heater



Fan coils



Radiant
heating



Technical
storage puffer



AQUAPUMP HYBRID / TECHNICAL DATA

			HY534IT-V4 Three-phase	
HEAT PUMP	In heating	Output ¹	kW	15.1
		COP ¹	W/W	4.3
		Output ²	kW	14.9
		COP ²	W/W	3.35
	In cooling	Output ³	kW	15.2
		EER ³	W/W	4.7
		Output ⁴	kW	12.05
		EER ⁴	W/W	3.1
BOILER	Furnace heat output [min-max]		kW	8.0-34.8
	Useful output ⁵ [min-max]		kW	8.6-36.8
	Efficiency ⁵		%	106.9-105.8
	Useful output ⁶ [min-max]		kW	8.5-36.2
	Efficiency ⁶		%	106.3-103.9
	Rated power [min-max]		W	90-130
GENERAL DATA	Power supply		V/F/Hz	400V/3F+N+T/50Hz
	Absorbed output		kW	7.7
	Maximum absorbed current		A	10.9
	Gas supply connection		Ø	G 3/4" M
	Hydraulic circuit connection		Ø	G 1" M
	Sound pressure ⁷		dbA	57.5
	Weight		kg	170

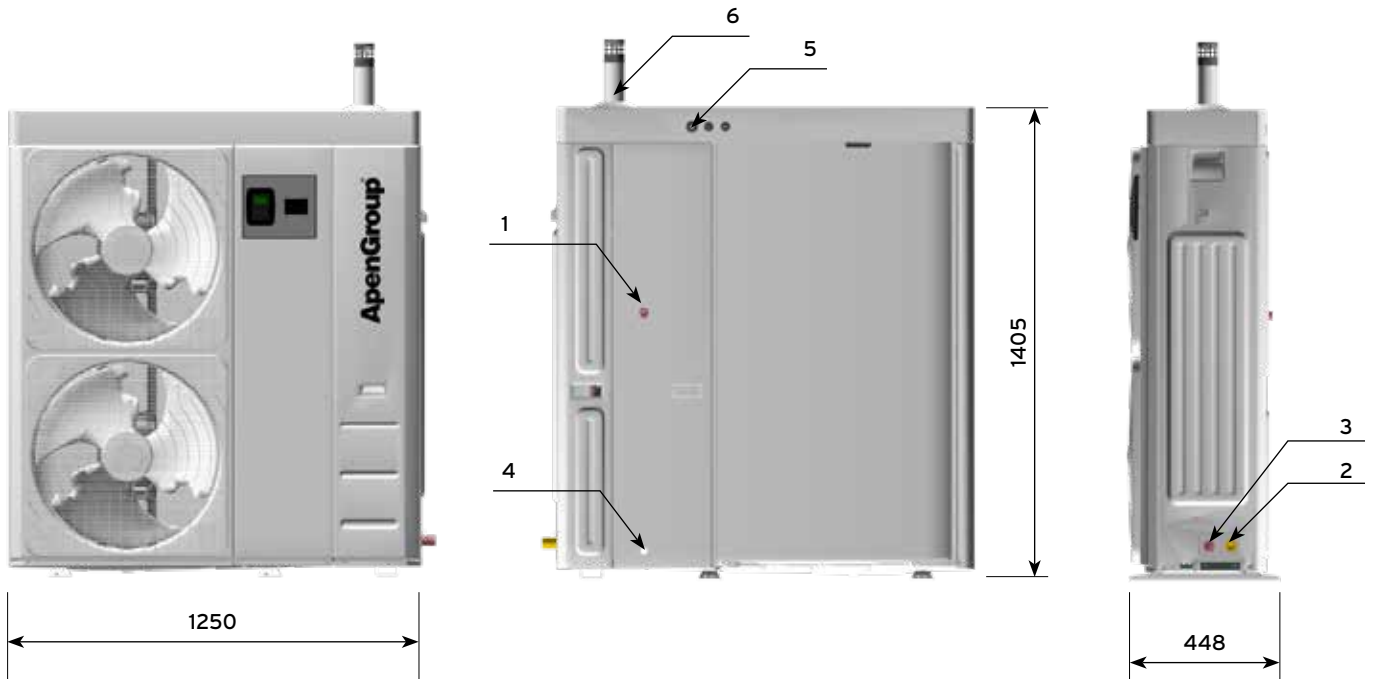
1. external air temp. 7°C dry bulb /6°C wet bulb; in/out water temp. 30/35°C
2. external air temp. 7°C dry bulb /6°C wet bulb; in/out water temp. 40/45°C
3. external air temp. 35°C, in/out water temp. 23/18°C
4. external air temp. 35°C; in/out water temp. 12/7°C

5. calculated on L.C.V., with water 50/30°C
6. calculated on L.C.V., with water 60/35°C
7. Free field average sound pressure level, one metre from the unit according to ISO 3744

ELECTRONIC FAN HEATERS / TECHNICAL DATA

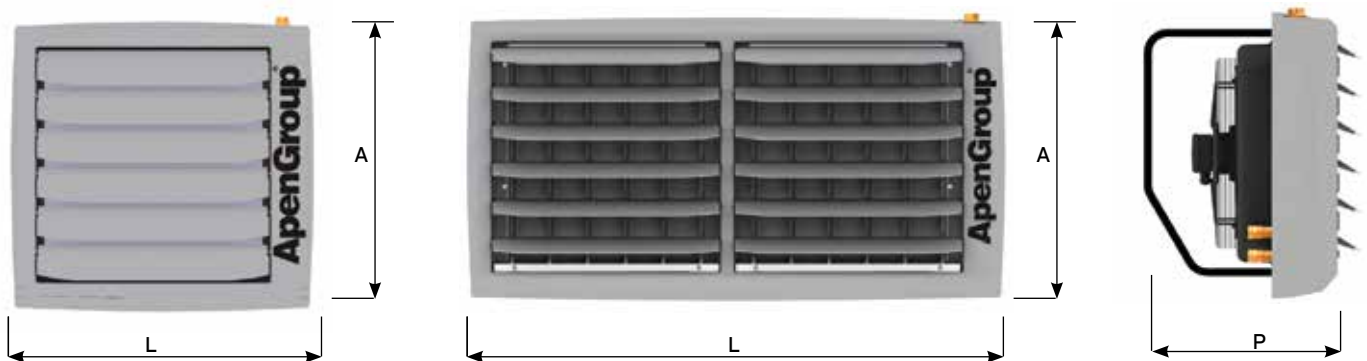
			ABO18IT-HY	ABO34IT-HY
HEATING RATED PERFORMANCE	Max heat output		kW	17.0
	Max air flow rate		(m ³ /h)	3000
	Water heat drop		°C	60-35
	Water flow rate		l/h	650
COOLING RATED PERFORMANCE	Max heat output		kW	8.8
	Max air flow rate		(m ³ /h)	1,600
	Water heat drop		°C	7-12
GENERAL DATA	Sound pressure level (5 m) [max. flow rate]		dB(A)	55.7
	Sound pressure level (5 m) [min. flow rate]		dB(A)	42.3
	Supply voltage		V/Hz	230V/1/50 Hz
	Weight		Kg	28

AQUAPUMP HYBRID / DIMENSIONS



Description	Dimension
1 Gas supply	G3/4"
2 Water return	G1"
3 Water supply	G1"
4 Condensate drain	Ø19 mm
5 Electrical connections	PG09 x 2 + PG13 x 1
6 Flue gas chimney	60 mm

ELECTRONIC FAN HEATERS / DIMENSIONS



Model	Width	Height	Depth
	mm	mm	mm
AB018IT-HY	765	730	595
AB034IT-HY	1,390	730	595

SMART SYSTEM

REMOTE CHRONOTHERMOSTATS



ADVANCED
ELECTRONICS



HEAT PUMP



AIR
DESTRATIFIERS



GUARANTEED
EFFICIENCY



BOILERS AND
WATER FAN HEATERS



WALL-MOUNTED
HEATERS



SMART SYSTEM

Remote chronothermostats

SMARTEASY AND SMARTWEB CONTROLS

Being touch-screen chronothermostats, the Apen Group SmartEasy and SmartWeb control all Apen Group products, guaranteeing operation with maximum efficiency and minimum energy consumption.

These user-friendly controls allow a wide choice of adjustments and a clear reading of the operating parameters as well as the resolution of any technical interventions.

PRODUCT CONTROL

- AKY gas condensing boilers
- HYBRID system, hybrid heat pump with gas boiler
- AX-EC electronic water heaters
- LK wall-mounted condensing warm air heaters
- LRP wall-mounted warm air heaters
- AH modular heating units
- QUEEN-EC Air destratifiers

SIMPLE INSTALLATION

Connection via 2 power cables and 2 modbus cables is very simple. Installation can be built-in or flush with the wall.

MULTITASKING CONTROL

It acts as a stand-alone chronothermostat and can be used by one to a maximum of 32 machines simultaneously.

CONTROL VERSATILITY

IT is possible to install up to 3 remote probes in addition to the one on board the control.

TOUCH SCREEN TECHNOLOGY

The controls are easy to use thanks to a 4.3" colour TFT display and a very intuitive management menu. The user program is multilingual (9 languages).

SMARTWEB

With the SmartWeb version (through the connection to an intranet network) it is possible to carry out the complete management of the plant remotely via browser on a computer or via http address.

FAN MODE

Ventilation mode management for combination of AX-EC water fan heaters with AKY boilers.



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