



AX  
Water fan heater  
AX-EC  
Electronic water fan heater



**ApenGroup®**

# RESEARCH, ECOLOGY AND ENERGY SAVING

## OVERVIEW

APEN GROUP S.p.A. is a leading manufacturer of heating systems, and offers a wide range of products: condensing boilers, condensing heat exchangers, suspended warm air heaters, and floor standing condensing warm air heaters.

Apén Group has always been an innovation leader thanks to constant product and process development, and continuous research of advanced solutions in technology.

## OUR VISION

We consider 'caring for the environment' (environment, persons, relationships, cooperation) our way towards the excellence.

## OUR MISSION

Designing, manufacturing and marketing of HVAC products that stand out for their quality and for their compliance with environmental standards. Our R&D staff is deeply committed to the setup of products that assure low polluting emissions, high efficiency and minimum consumption, thereby assuring optimum heating and conditioning, from small residential spaces to large industrial buildings.

## A LEADING COMPANY

Our modern facility is built on an area of 30,000 sqm, 11,000 of which encompass headquarters, manufacturing and research facilities. Easy and timely intercompany communication is provided through an IBM AS400 server with a fully integrated Server Windows NT PC network.

The website [www.apengroup.com](http://www.apengroup.com) and e-mail [apen@apengroup.com](mailto:apen@apengroup.com), allow to communicate easily with all entities outside the company (eg. Customers, suppliers, associations).

## CUSTOMER SERVICE

To be truly customer-oriented, a service must satisfy custom's requests from the clients.

APEN GROUP can meet any project need by developing custom products. Its flexibility in the manufacturing process and the availability of state-of-the-art machinery for metal sheet processing guarantee cost effective products.

Cost effectiveness is another basic characteristic of APEN GROUP products, besides a high potential for technology, commercial and industrial development.

## TECHNOLOGY EXCELLENCE

A qualified team of engineers and researchers, these committees for the development of standards UNICIG, researches and develops products using CAD computer systems, translating into production the best that you obtained from the research, studying cutting-edge technical and manufacturing solutions.

## ENVIRONMENT

Environment protection is essential for present and next generations' quality of life.

Apén Group's challenge is investing in research and development activities which grant the design and the production of environment friendly products.

Such a concern is well resumed in the current slogan "Apén Group caring for environment" and it involves all the company organization: from research of suppliers and partners who share this same goal, to staff personnel, natural source optimization and definition of any prevention control and correction so to respect the fixed quality goals and environment deference.

## MANUFACTURING EXCELLENCE

Each product is tested, checked, and commissioned to guarantee that combustion parameters, efficiency levels, and component reliability fully comply with quality standards required for user comfort and satisfaction.

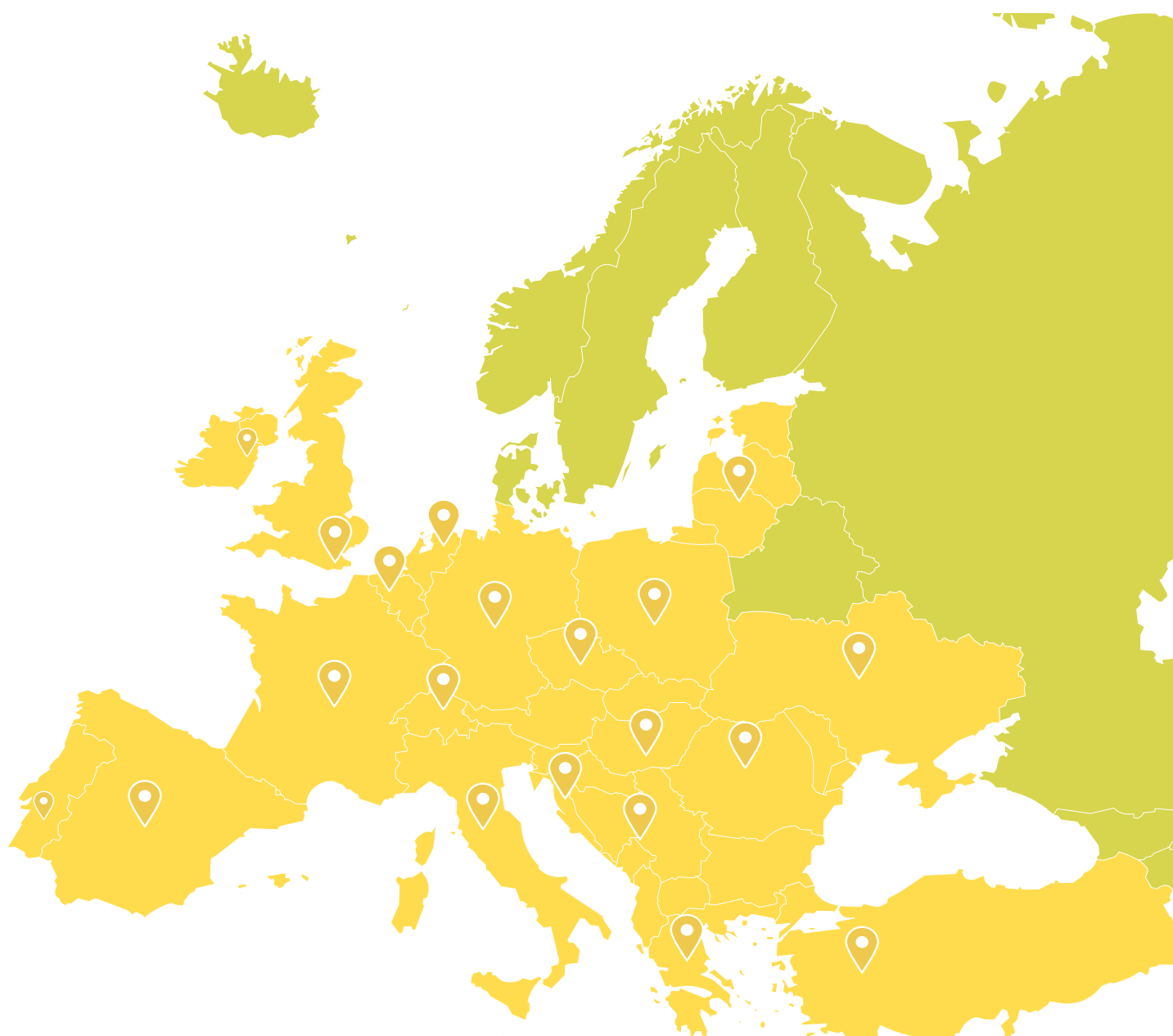
The manufacturing of our products takes advantage of ultimate, state-of-the-art planning and organization methods, which include: Digital control equipment. Welding robots. Forming robots. Computer assisted test lines. Advanced automation assures top-quality products as well as manufacturing flexibility and timely deliveries. Innovation, reliability, and originality are built-in features of each of our products.


## SALES EFFICIENCY

Apén Group operates nationally and internationally: it is present in Italy thanks to an efficient and well distributed organization: professional agents, consultants, engineers and designers are ready to match the demands of customers always and everywhere.

Abroad, distributors, dealers, joint ventures with foreign partners, share with the company the principles of distribution of highly qualified equipment in relation to the needs of different countries.

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 ApenGroup has an international presence. Contact us at **[export@apengroup.it](mailto:export@apengroup.it)** to get our distributor's name in your country, or to become our partner.



# HISTORY

**1967**

## THE ORIGINS: THERMOVÜR

The company - founded under the name Thermovür - began its great adventure with the production and sale of oil and gas burners. The founding partners are two brothers-in-law having the same name - Angelo Rigamonti - with the assistance and great professionalism of their father/father-in-law Emilio Rigamonti.

**1973**

## AERMAX

Thermovür is supported by the company AERMAX for the marketing of floor-standing warm air heaters and burners, particularly for the foreign market.

**1980'S**

## EXPERIENCE AND KNOW-HOW

The heating sector is evolving rapidly, the building boom and the need to keep everyone warm leads to the need for new and different products: floor-standing boilers, wall-hung boilers, gas burners, gas-fired wall-mounted warm air heaters, gas radiators.

**1991**

## APENGROUP IS BORN

The two companies create a single company, which will benefit from the wealth of knowledge of the two brands and the know-how now internalised by the company: APEN GROUP SPA is born, a group of companies for new energies. Apen Group today.

**2000'S**

## NEW PROJECTS, NEW PRODUCTS

In 2008, confirmation of the company's technical capabilities in the field of air conditioning was confirmed by the introduction on the market of the Kondensa product (condensing warm air heater), air handling units and RoofTop monobloc machines with built-in condensing heat exchanger.

**2017**

## 50 YEARS OF LOVE FOR THE CLIMATE!

We are proud to have celebrated our first 50 years in business. In the book "La storia siamo Noi" (We are history), we have recounted the main events that have marked the most important milestones which have made us grow in terms of competence and technological know-how in the heating sector. A continuous evolution, because progress is a never ending process.



**2024**

## RESEARCH, INNOVATION AND ECOLOGY

We are always evolving. The market, the experiences, the difficulties have made us stronger and more committed to facing new challenges, new technologies, new countries. We want to defend the values we believe in to be able to improve environmental comfort, attention to people and the use of energy. We also want our company to contribute to a better future!



## CERTIFIED QUALITY

APEN GROUP S.p.A. ranges among the first Italian companies to be certified by an industry- wide acknowledging system at European level. We have been audited and certified to be in compliance with the quality standards defined in UNI EN ISO 9001:2015 protocol.

Certification has been obtained for the design, manufacturing, marketing and service of hybrid systems, of warm air heaters, condensation heaters and exchangers, condensing boilers, water fan units, air destratifiers, air handling central units, and burners. The commitment to quality took by the company dates back to the beginning of our history, and it is confirmed by the following milestones:

In 1988 APEN GROUP was certified by DVGW Deutscher Verein Des Gas Und Wasserfaches E.V. and it was approved as a trading partner for suspended heaters in Germany. Then approvals for the sale of these heaters in other markets followed, such as France, Switzerland, the Netherlands, and Belgium.

In 1995 all the gas-fired appliances we manufacture were certified according to EC Directives.

In 1991 we were the first Italian company in the HVAC industry to be registered in accordance with UNI EN ISO 9003 requirements. In 1993 the auditing was extended to include compliance with UNI EN ISO 9002 standards.

In 2003, we were acknowledged to be compliant with UNI EN ISO 9001:2000, and the registration was confirmed in 2006.

In 2013 the Board of Directors has adopted the organizational model 231.

In 2017 we obtained the certification in compliance with the UNI EN ISO 9001:2015.

## INTERNATIONAL CERTIFICATES

Apén Group's products have been tested and certified by Gastec-Kiwa CERMET, the famous Dutch Notified Body, with test labs accredited by the EC.





# AX SERIES

WATER FAN HEATERS



NEW

OPTIONAL  
CONTROLLER



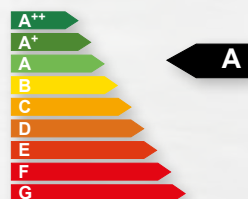
OPTIONAL  
SMART X CONTROLS



ELECTRONIC  
FAN HEATERS



CLASS  
A



# AX SERIES

## Water fan heaters

### WATER FAN HEATERS, AVAILABLE IN STANDARD AND ELECTRONIC VERSIONS

The AX SERIES water fan heaters are a line of modern and reliable products designed for heating many different facilities: from industrial plants to the tertiary sector, from sports facilities to commercial sectors.

### AX SERIES AND AX-EC SERIES

Fan heaters are available in two configurations:

- AX: fan heater with 1-speed fan and 5-speed selector (to be ordered as optional).
- AX-EC: fan heater with electronic fan.

### SECTORS OF USE

- Facilities
- Sheds
- Body shops
- Workshops with all types of processing
- Carpenter's workshops
- Shopping malls
- Public environments
- Data Processing Centres
- Theatres and Conference Centres
- Exhibition and Dancing Rooms
- Tanneries
- Pools and Gyms
- Churches and Oratories

### SIMPLE INSTALLATION

Its particularly small size and weight make it easy to move and position. Installation is limited to fixing by means of practical coupling and support systems.

### ADAPTABILITY

The water fan heaters can be combined with:

- AKN system
- AquaPump Hybrid
- Thermal station
- Water heat pumps
- Cascade boiler modules
- Floor-standing boilers

### POSITIONING VERSATILITY

The water fan heaters can be either wall-mounted or fastened to the ceiling (for heating only) with the air directed downwards.

### SYSTEM MODULARITY

The subdivision of the total heat output over several installed water fan heaters makes it possible to achieve greater rationalisation of the system: "zone" management of the heat output.

### WATER FAN HEATERS IN COOLING MODE

It is possible to set the water fan heaters to operate in cooling mode by activating ventilation, thus improving the comfort of the room in which they are installed. The water fan heaters are designed to house a condensate collection tray, which can be fitted at any time, even after wall installation.

### MODERN AND ESSENTIAL DESIGN

The water fan heaters have been designed with particular attention to line and design.

# AX SERIES WATER FAN HEATERS

## TECHNICAL FEATURES

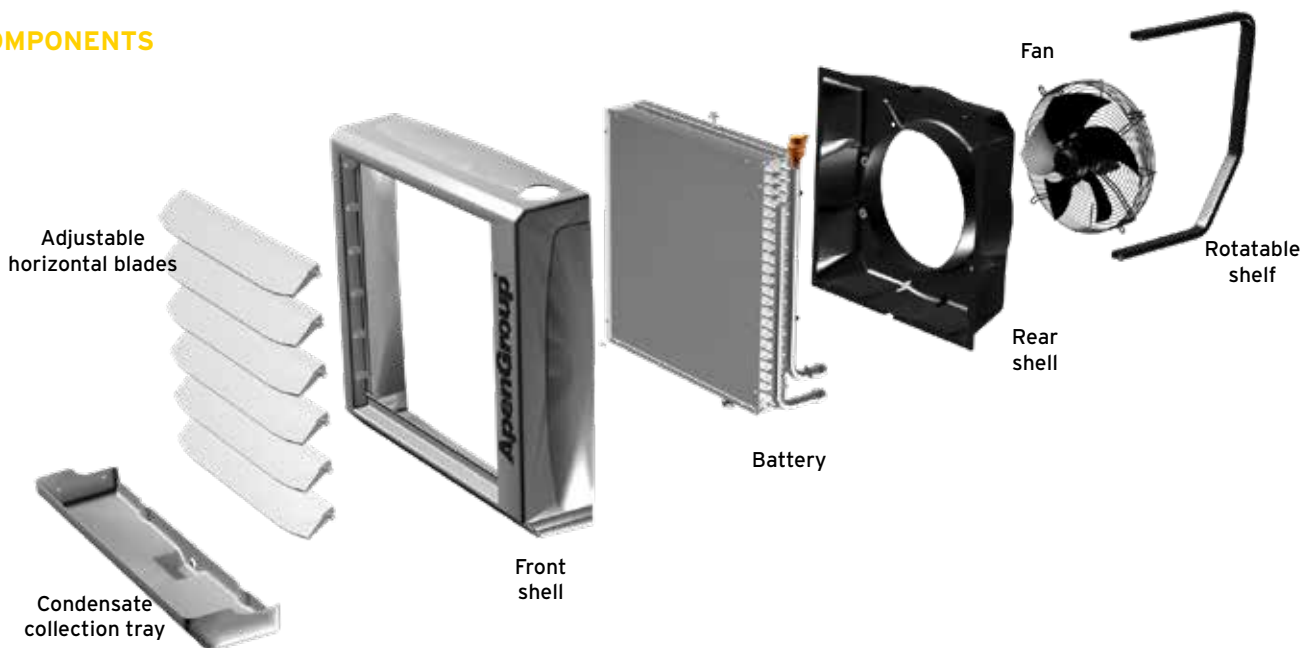
- Available in 7 models with power from 18 kW to 90 kW.
- High-efficiency one, two or three-row finned exchange battery.
- Automatic air vent valve
- Louvres with adjustable horizontal blades.
- 230V/1/50Hz power supply.
- IP25B Protection degree.
- Rotatable shelf as standard.
- Configuration for a condensate collection tray (optional) for use in cooling mode.
- Casing made of ABS material.

## ACCESSORIES UPON REQUEST

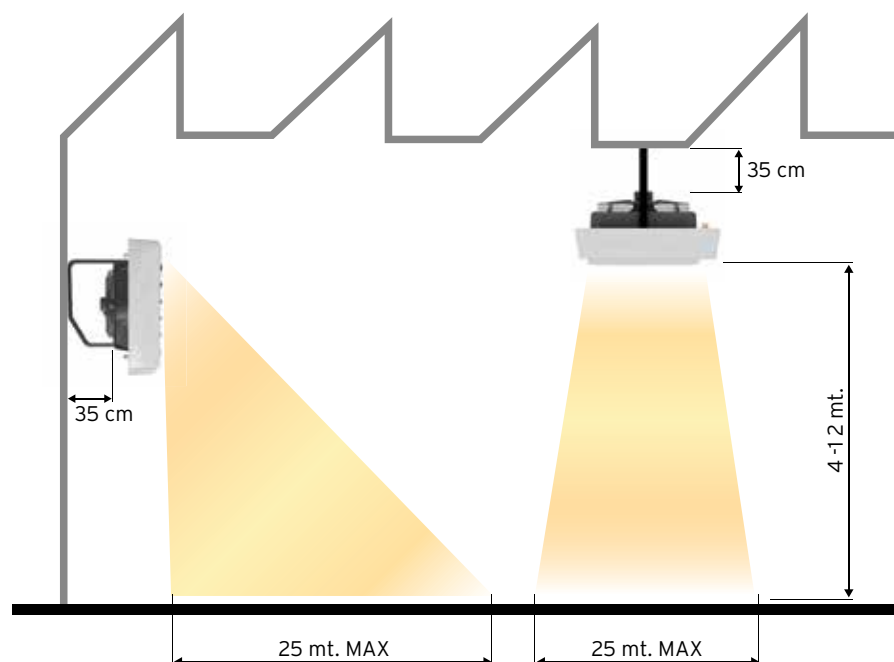
Remote control in IP54 complete with SUMMER/O/WINTER button and switch to select the 5 speeds.



## COMPONENTS



## INSTALLATION HEIGHT





# AX-EC SERIES ELECTRONIC WATER FAN HEATERS

## TECHNICAL FEATURES

- Available in 7 models with power from 18 kW to 90 kW.
- High-efficiency one, two or three-row finned exchange battery.
- Electronic fans with integrated inverter.
- Automatic air vent valve
- Louvres with adjustable horizontal blades.
- 230V/1/50Hz power supply.
- IP25B Protection degree.
- Switch-on, switch-off and air flow rate regulation with 0-10 Vdc signal.
- Rotatable shelf as standard
- Configuration for a condensate collection tray (optional) for use in cooling mode.
- Casing made of ABS material.

## ACCESSORIES UPON REQUEST

- KIT G24600:
- SMART X Web.
  - CPU electronic board.
  - Immersion probe to be connected to CPU.
  - Room probe.
  - Control panel.



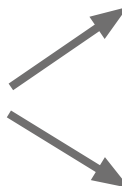
## POSSIBLE CONFIGURATIONS



**AX-EC  
WATER FAN HEATER**



**STAND  
ALONE**



**CONTROLLABLE WITH  
0-10 VOLT SIGNAL**

**KIT G03780  
POTENTIOMETER  
MANUAL REMOTE CONTROL**



**AX-EC  
WATER FAN HEATER**



**G24600 KIT COMPOSED BY:**

- SMART X WEB
- CPU electronic board
- Immersion probe to be connected to CPU
- Ambient probe
- Electric board



**G24600**



**AX-EC  
WATER FAN HEATER**



**\* AKN BOILER**



**FLEXIBLE METAL HOSES KIT  
C07211 OR C07212 CODES**



**SMART X WEB  
OR SMART X EASY**

**\* FOR COMBINATION WITH AKN, TAKE FLEXIBLE METAL  
HOSES FOR BOILER CONNECTION + FAN HEATER**

## AX / TECHNICAL DATA

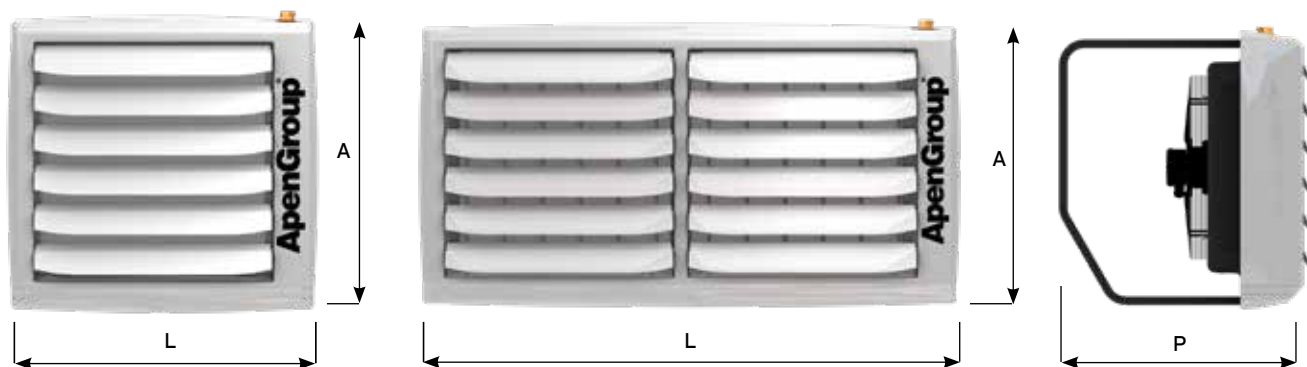
Model	Max air flow rate	Air throw distance	Sound pressure (5m)*	Heating heat output **	Cooling heat output ***	Power supply	Max water temperature	Max running pressure	Weight
	(m <sup>3</sup> /h)	m	dB(A)	kW	kW	V/Hz	°C	bar	kg
AX020	2,590	25	51.2	10.2	4.4	230V/1/50Hz	105	16	20
AX025	6,150	25	52.2	16.3	5.8	230V/1/50Hz	105	16	22
AX030	2,390	25	50.9	17.6	9.0	230V/1/50Hz	105	16	21
AX040	5,100	25	55.7	27.9	10.7	230V/1/50Hz	105	16	24
AX050	4,710	25	55.5	36.7	13.4	230V/1/50Hz	105	16	26
AX070	8,600	25	63.3	51.6	21.9	230V/1/50Hz	105	16	38
AX090	8,000	25	63.2	66.9	27.9	230V/1/50Hz	105	16	40

\* Sound level in typical installation at 5 m

\*\* Data measured under the following conditions: Δt of water 70/50°C ambient air temperature +15°C 50% R.U.

\*\*\* Data measured under the following conditions: Δt of water 7/12°C ambient air temperature 30°C 50% R.U. - Air flow rate (speed 2)

## AX SERIES AND AX-EC SERIES / DIMENSIONS



Model	Width mm	Height mm	Depth mm
AX020 - AX020EC	765	730	595
AX025 - AX025EC	765	730	595
AX030 - AX030EC	765	730	595
AX040 - AX040EC	765	730	595
AX050 - AX050EC	765	730	595
AX070 - AX070EC	1390	730	595
AX090 - AX090EC	1390	730	595



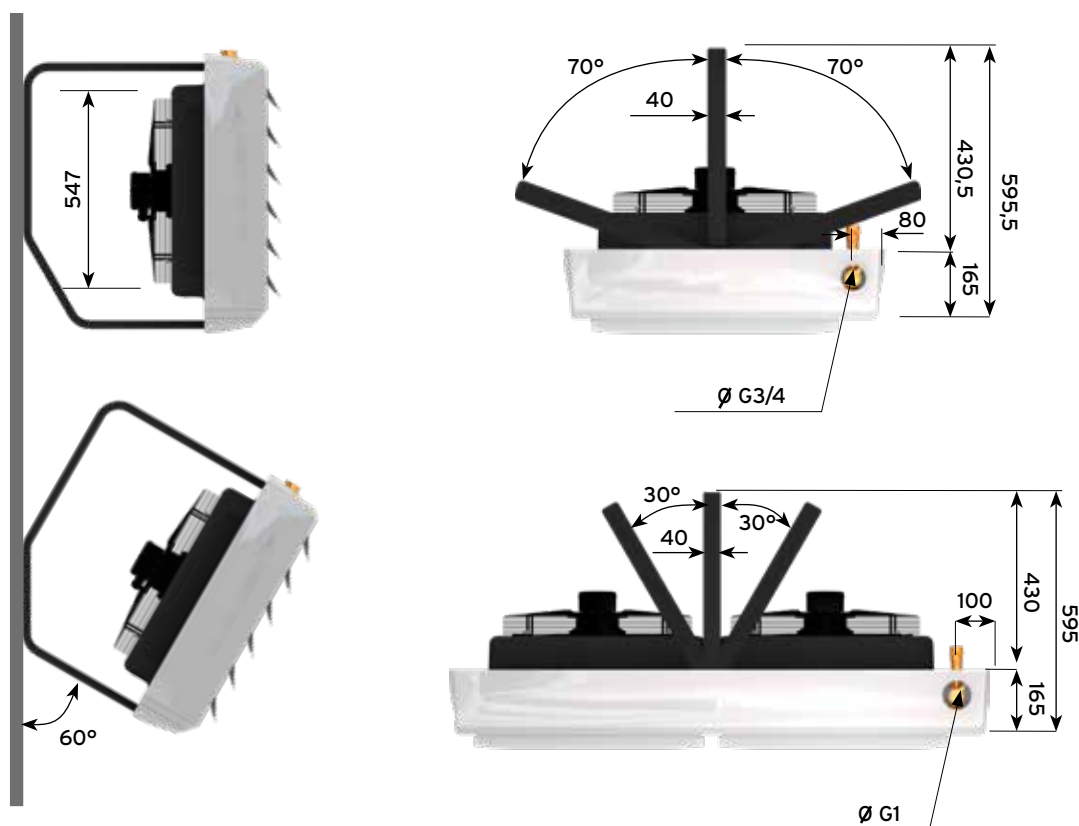
## AX-EC / TECHNICAL DATA

Model	Rated heating performance				Rated cooling performance			Weight
	Max air flow rate	Heat output max*	Water heat drop	Water flow rate	Max air flow rate	Max** heat output	Water heat drop	
	m <sup>3</sup> /h	kW	°C	l/h	m <sup>3</sup> /h	kW	°C	
AX020EC	2850	17.0	80-60	750	2530	4.2	7-12	22
AX025EC	4500	22.5	80-60	990	2360	4	7-12	24
AX030EC	2550	23.9	80-60	1050	2550	9.4	7-12	23
AX040EC	4350	34.1	80-60	1500	2330	8.9	7-12	26
AX050EC	3900	42.4	80-60	1870	2440	12.2	7-12	28
AX070EC	8560	68.9	80-60	3040	5550	20.7	7-12	40
AX090EC	7950	86.8	80-60	3830	4985	25.2	7-12	42

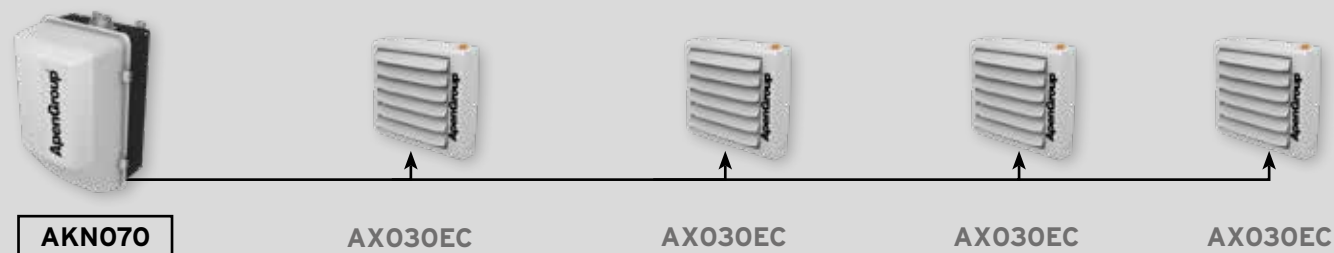
\* Air temperature 15°C and relative humidity 50%

\*\* Air temperature 27°C and relative humidity 50%

## AX SERIES AND AX-EC SERIES / DIMENSIONS

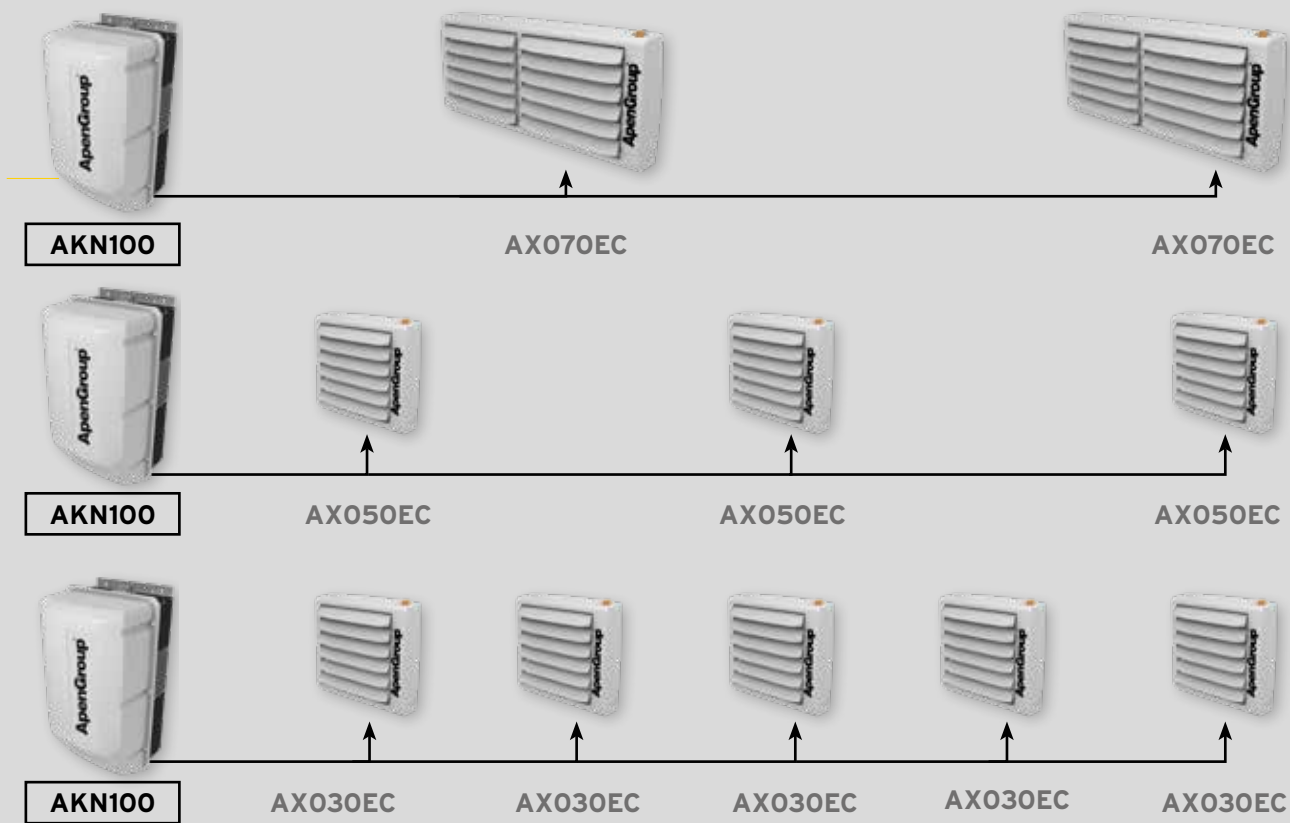


# COMBINATIONS OF AKN BOILERS WITH AX-EC SERIES WATER FAN HEATERS





# COMBINATIONS OF AKN BOILERS WITH AX-EC SERIES WATER FAN HEATERS



# SMART X SYSTEM

REMOTE CHRONOTHERMOSTATS



ADVANCED  
ELECTRONICS



WATER FAN  
HEATERS



AIR  
DESTRATIFIERS



GUARANTEED  
EFFICIENCY



GAS CONDENSING  
BOILERS



WALL-MOUNTED  
HEATERS





# SMART X SYSTEM

## Remote chronothermostats

### SMART X EASY AND SMART X WEB CONTROLS

Being touch-screen chronothermostats, the Apen Group SMART X EASY and SMART X WEB 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

- AKN gas condensing boilers.
- AQUAPUMP HYBRID system, hybrid heat pump with gas boiler.
- AX-EC electronic water fan heaters.
- QUEEN-EC Air destratifiers.
- LK and LKN wall-mounted condensing warm air heaters.
- LRP and LRN wall-mounted warm air heaters.
- AH and AH-SPORT modular heating units.
- PK and PK-SPORT floor standing warm air heaters.

### 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 15 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).

### SMART X WEB

With the SMART X WEB 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.

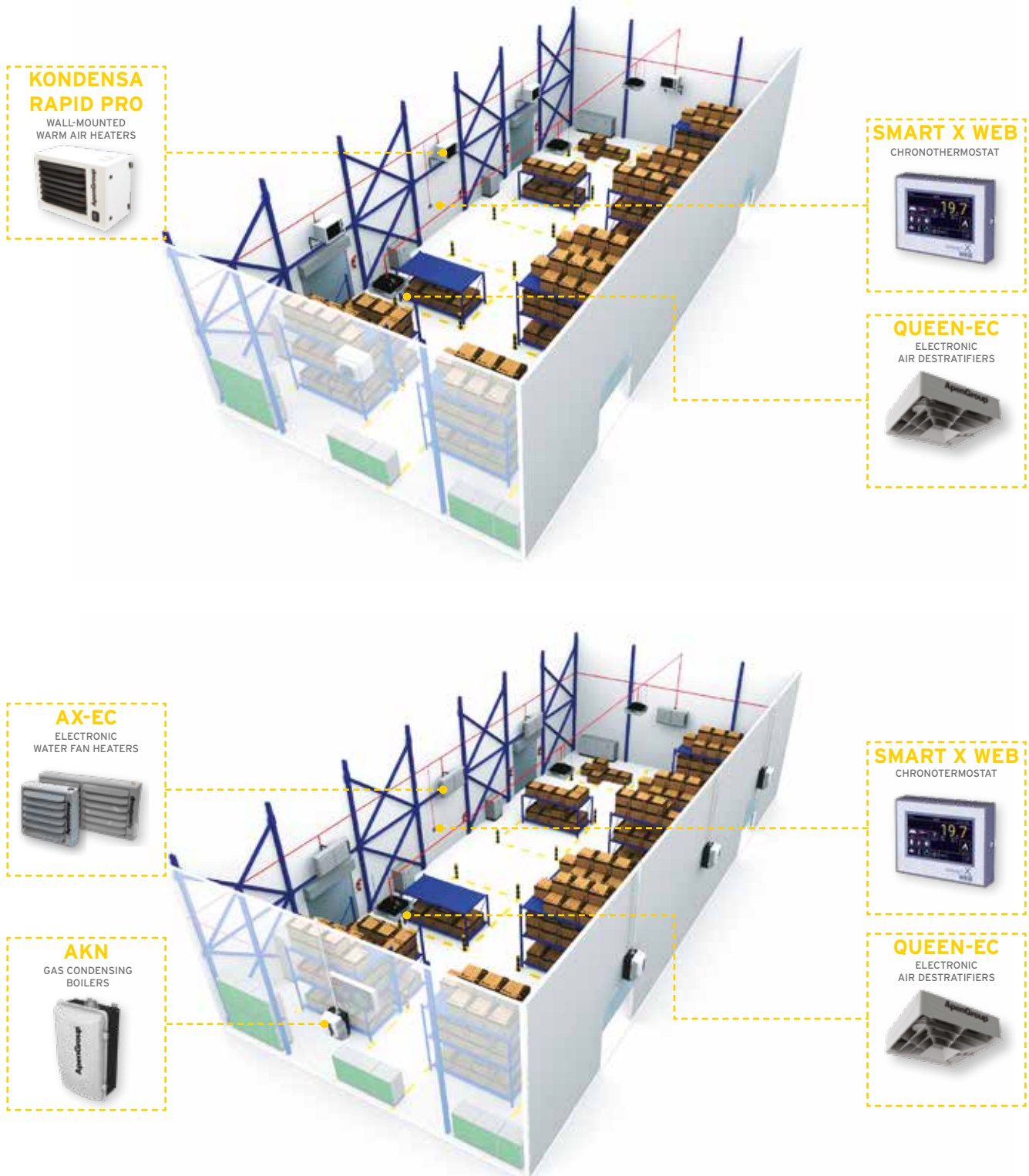
### FAN MODE

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

# SMART X SYSTEM

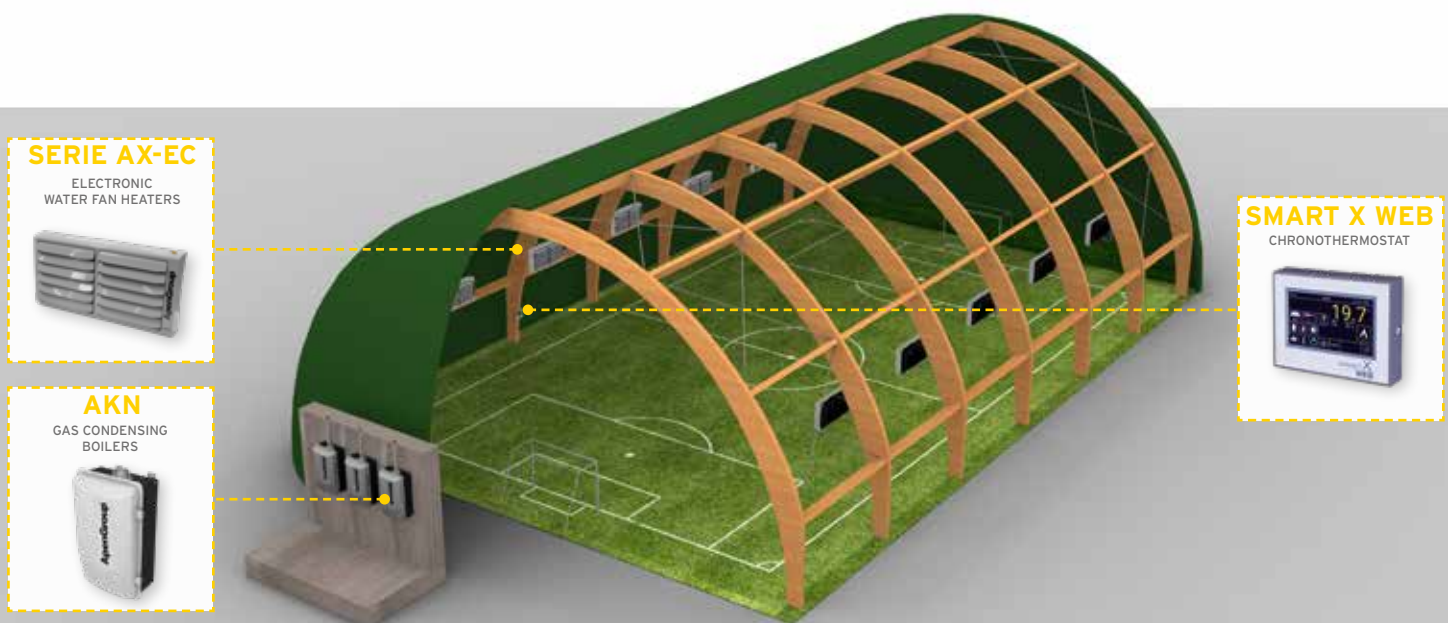
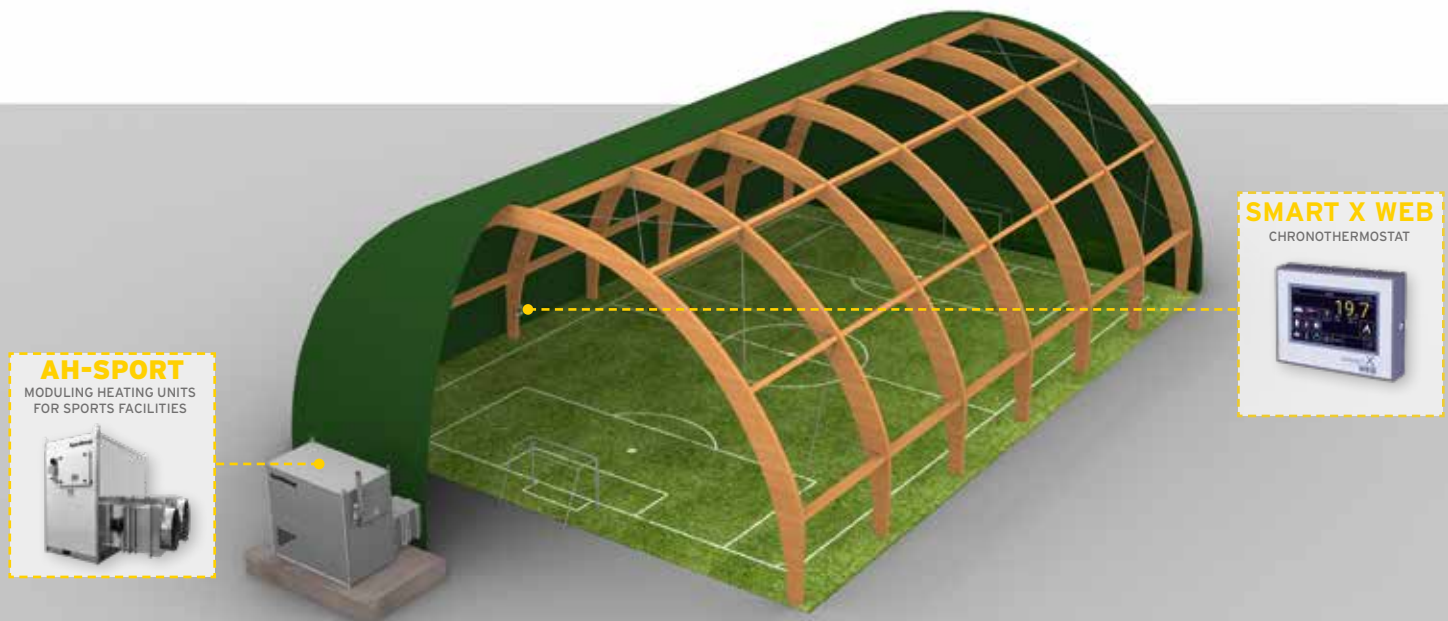
## THERMOSTAT CONFIGURATION FOR CONTROL OF:

- AKN Gas condensing boilers.
- AX-EC Electronic water fan heaters.
- QUEEN-EC Electronic air destratifiers.
- KONDESA LK-LKN Wall-mounted condensing warm air heaters.
- RAPID PRO LRP-LRN Wall-mounted warm air heaters.



## THERMOSTAT CONFIGURATION FOR CONTROL OF:

- AH-SPORT Moduling heating units.
- AKN Gas condensing boilers.
- AX-EC Electronic water fan heaters.







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