KAISAI

NEW!

KHY HEAT PUMP

+ HYDRAULIC MODULE

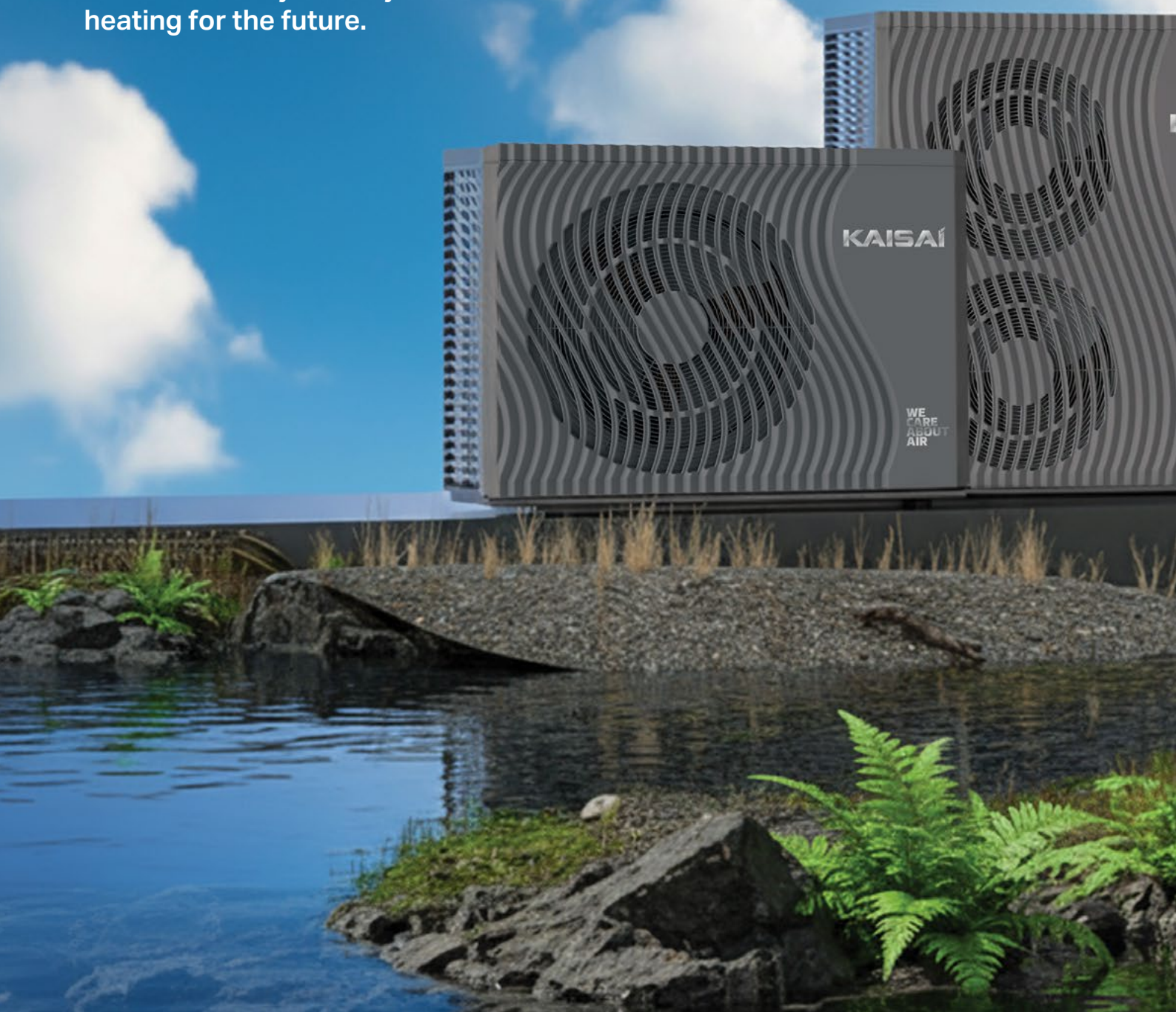
Energy-efficient solutions for your home

Heat pump

KAISAI R290

The KAISAI R290 heat pump is an excellent choice for those who expect thermal comfort, energy savings, full control over the heating system, and an elegant appearance.

It is an investment in modern, environmentally friendly, and reliable heating for the future.



R290

Natural refrigerant 290 – low emissions, high potential for the future

R290 is a natural **gas with a very low GWP = 3 (low greenhouse effect)**, which means it meets the most stringent environmental standards. It is free from bans related to the phase-out of synthetic refrigerants, which means your investment is secure for many years to come.

High energy efficiency – class A+++

Kaisai #R290 heat pumps achieve high efficiency ratings, which means low energy consumption and real savings on heating bills. As a result, these devices are eligible for subsidies from programs such as **"Clean Air"** and **"My Heat"** on Polish market**.**

Efficient operation at temperatures down to -25°C

The devices are designed for **stable operation** even in very low outdoor temperatures, which makes them ideal for the climatic conditions in Europe.

R290 refrigerant heat pumps – environmentally friendly and efficient a new generation heat source

Heat pumps with R290 (propane) refrigerant are a modern heating solution that combines high energy efficiency with environmental care.

Thanks to the use of a natural refrigerant with a **very low GWP** (low global warming potential), these devices meet current environmental requirements and future trends in energy-efficient construction.

R290 heat pumps are ideal for both **new homes** and the **modernization of older installations**, even where higher supply temperatures (up to 70°C) are required. This means that they can easily work with traditional radiators, making them a versatile choice for a wide range of users.

Thanks to their quiet operation, simple control, and low energy consumption, R290 heat pumps provide **yearround comfort** – not only by heating, but also by cooling rooms and preparing hot water.

This solution allows you to significantly reduce operating costs and take advantage of available subsidy programs.

42-48dB(A)
1 meter distance

33-38dB(A)
3 meters distance

30-35dB(A)
5 meters distance

Quiet operation and reliability

Modern inverter compressors and an optimized ventilation system ensure the device to operate quietly and stably, ensuring high acoustic comfort for household members.

Advanced controller with color display

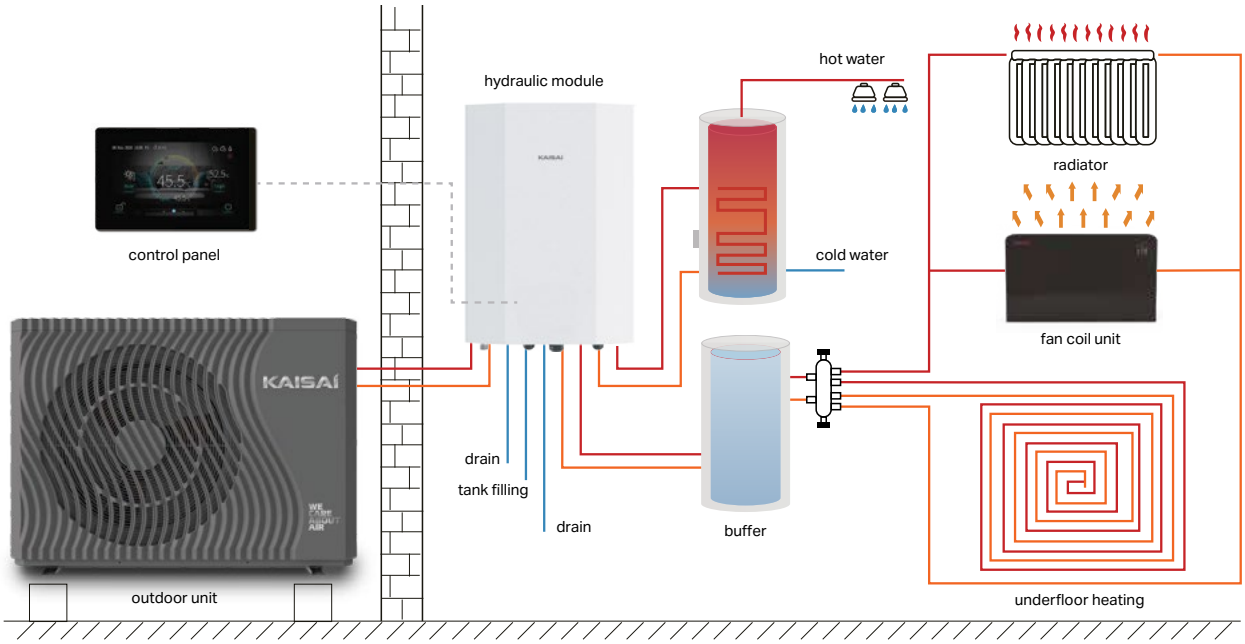
An intuitive, modern controller with a **color screen** allows for easy management of all pump functions. The clear menu and transparent graphics make operation **convenient** and **understandable** even for less advanced users.

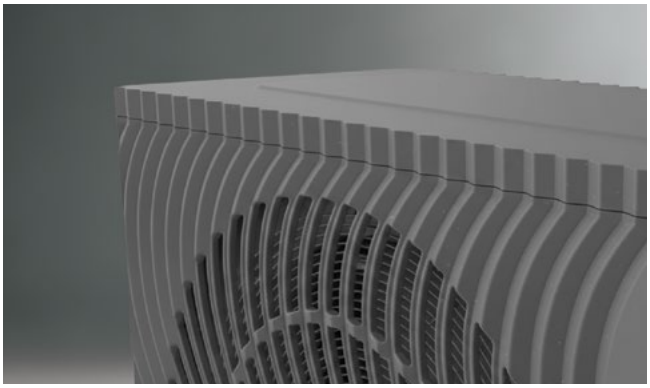
Compact monoblock design

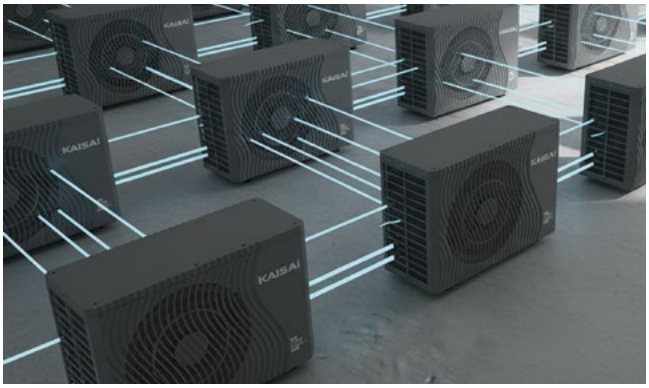
The KAISAI R290 heat pump is a **complete unit and ready to use**, installed outside the building. It doesnot require a refrigeration system or dedicated F-Gas certification, which simplifies installation and reduces costs.

Heating, cooling and DHW in one device

Thanks to the **active heating** or **cooling function** (two individual zones can be connected, e.g., radiator + floor heating) and domestic hot water preparation, Kaisai heat pumps ensure **thermal comfort** throughout the year – both in winter and summer.







Modern design and solid workmanship

Kaisai heat pumps stand out with their **elegant, minimalist appearance** and modern casing, which perfectly matches the aesthetics of modern homes. The **durable construction** guarantees resistance to weather conditions and long service life.

Can operate in a cascade system

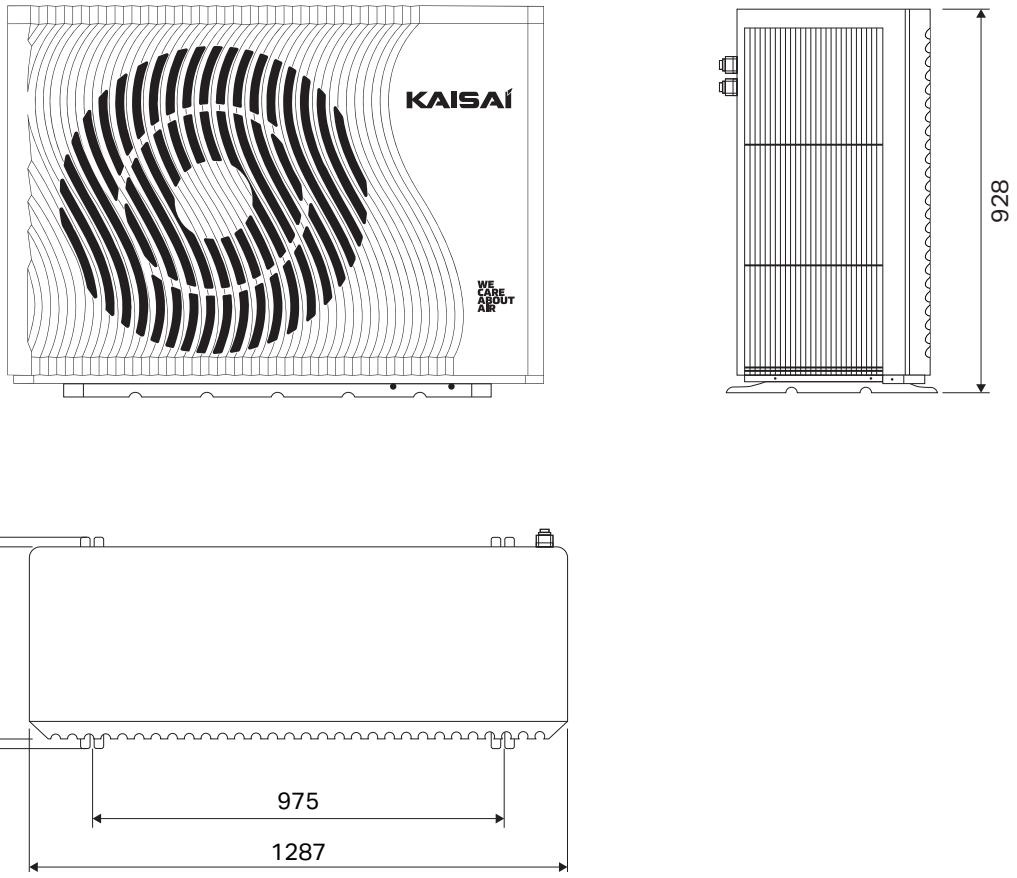
Kaisai R290 heat pumps can be connected to each other into a **cascade system**, which means that several devices work together as one, more powerful heat source. This is an ideal solution for **larger homes, multi-family buildings**, or **commercial facilities**. This allows the system to automatically adjust its power to the current demand, saving energy and ensures continuous operation even when one of the units is turned off. An optional external control unit is required for cascade operation.

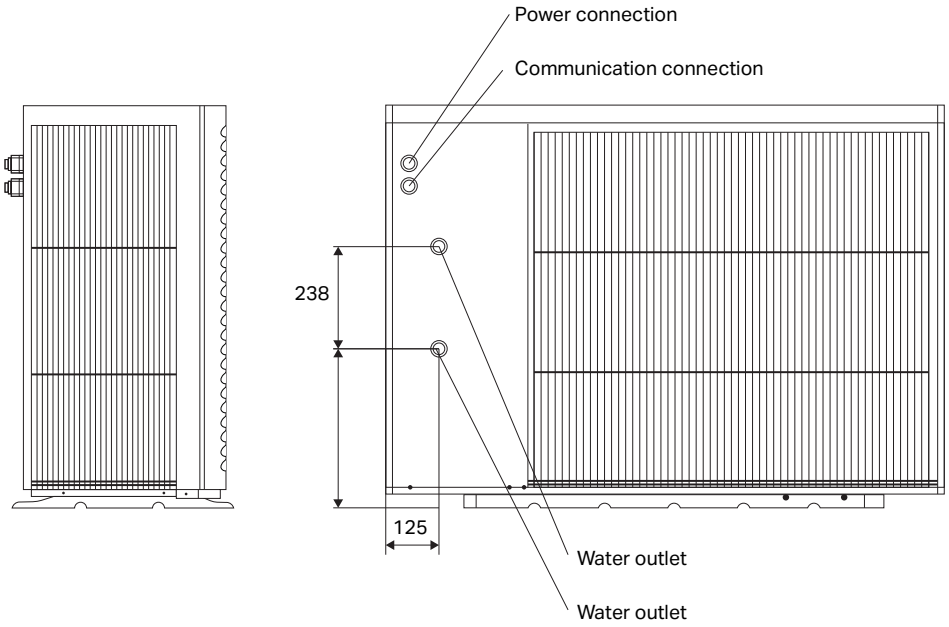
Technical data

KAISAI KHY R290

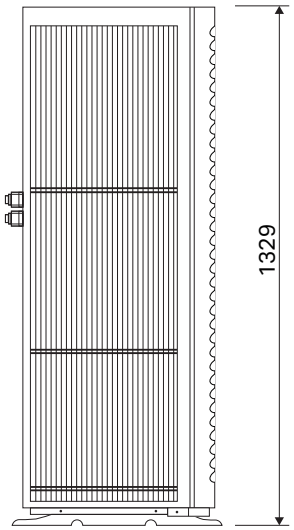
Model			KHY-12PY3	KHY-15PY3
Heating A7W35	Nominal heating capacity	kW	11,60	15,45
	Power consumption	kW	3,80	5,20
	COP	W/W	3,11	2,98
Heating A7W55	Nominal heating capacity	kW	10,36	16,4
	Power consumption	kW	3,41	6,14
	COP	W/W	3,04	2,67
Cooling A35W7	Nominal cooling capacity	kW	9,90	12,50
	Power consumption	kW	4,10	5,20
	EER	W/W	2,40	2,40
Seasonal energy efficiency class (average climate zone)	Energy efficiency class for 35°C	–	A+++	A++
	Energy efficiency class for 55°C	–	A++	A++
Power supply	Voltage / phases / frequency	V / Ph / Hz	380~415 / 3N / 50	380~415 / 3N / 50
	Maximum operating current (MCA)	A	10,5	15,0
Hydraulic system	Nominal medium flow	m^3/h	1,7	2,9
	Pump lift value	mH_2O	5,5	6,9
Sound level	Sound power level (EN 12102)	dB(A)	63	62
	Sound pressure level (1m)	dB(A)	51,5	50
Outdoor	Heating	°C	-25~43	-25~43
	Cooling	°C	-5~43	-5~43
Outlet water temperature	Heating	°C	9~70	9~70
	Cooling	°C	5~15	5~15
Water connection	Diameter – external thread	cal	G1	G1
Refrigerant	Symbol (GWP) / refrigerant quantity	--- / kg	R290(3) / 0,85	R290(3) / 1,30
Dimensions	Device (W/H/L)	mm	1287x928x458	1250x1330x540
	Packaging (W/H/L)	mm	1420x1080x540	1380x1480x570
Weight	Net / in packaging	kg	160 / 163	202 / 205

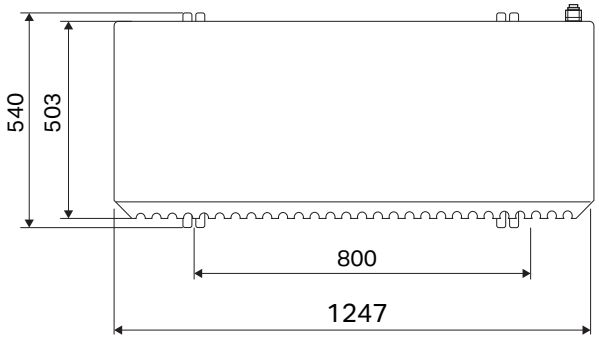
Dimensions devices[mm]

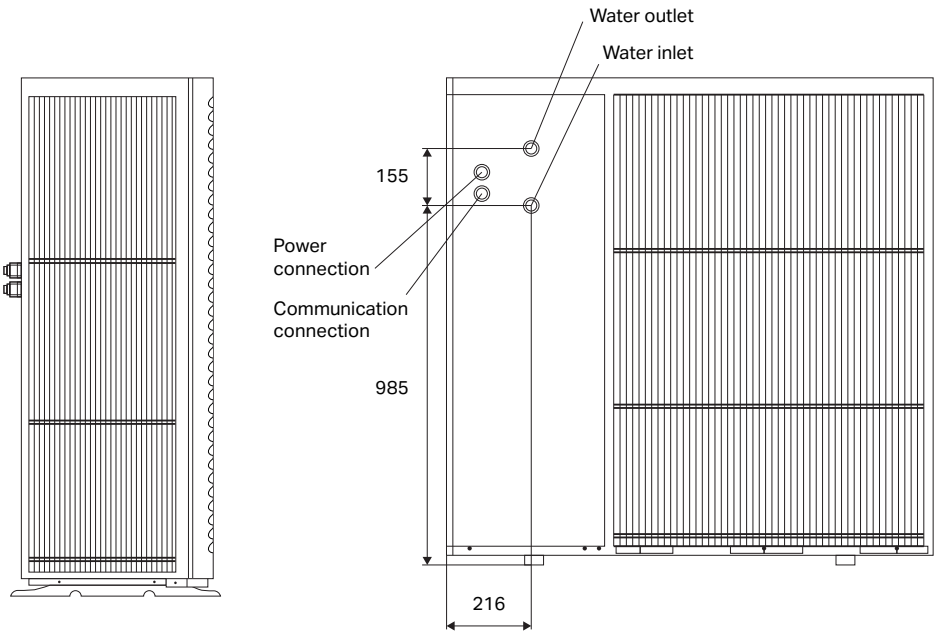




Monoblock R290 heat pumps (KHY)







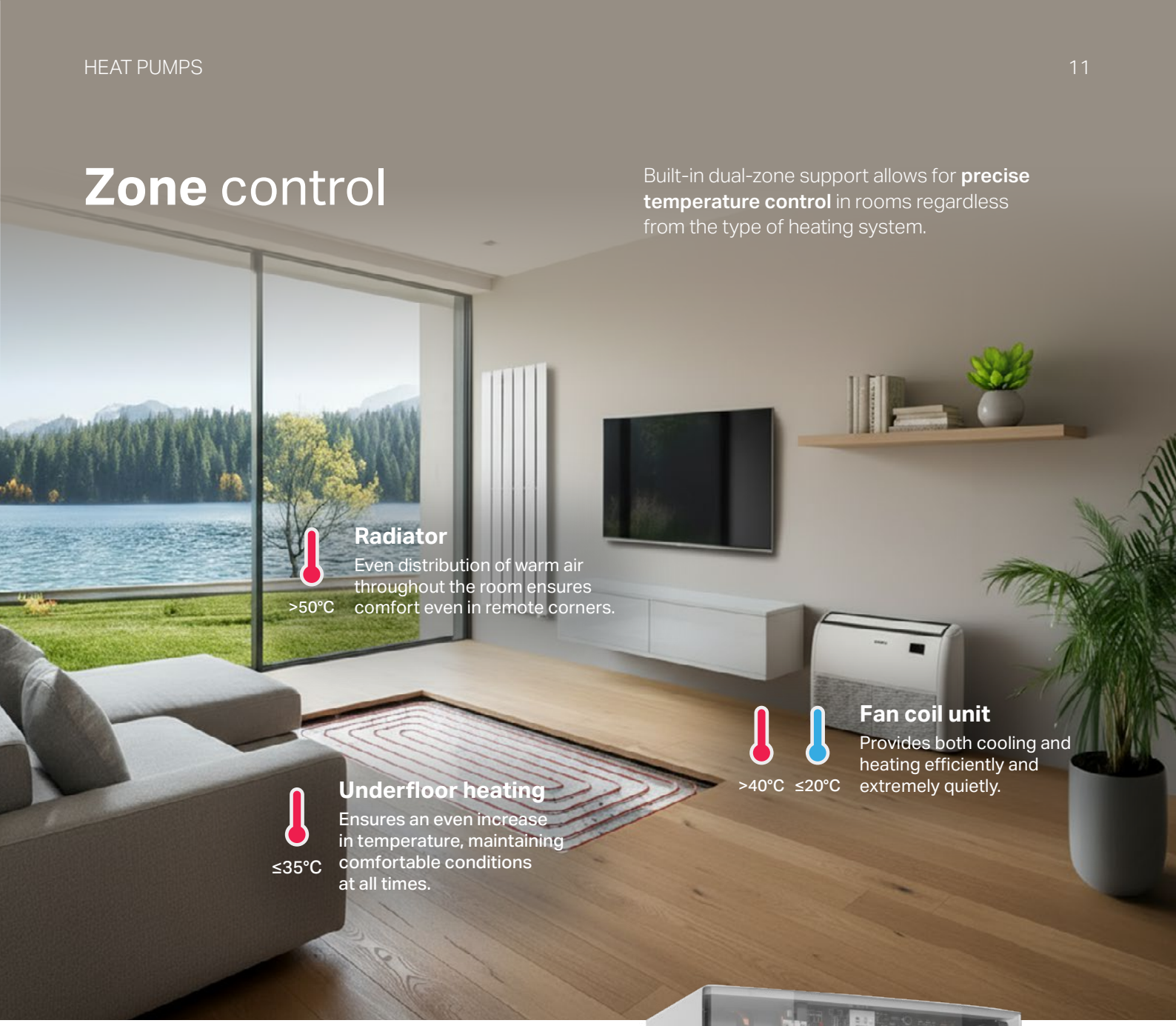
Hydraulic module

The hydraulic module for KHY R290 heat pumps has been designed with a design that fits both modern and traditional interiors.

Its functionality and integration of basic functions such as peak heat source and domestic hot water production ensure the highest thermal comfort for the user.

Zone control

Built-in dual-zone support allows for **precise temperature control** in rooms regardless from the type of heating system.



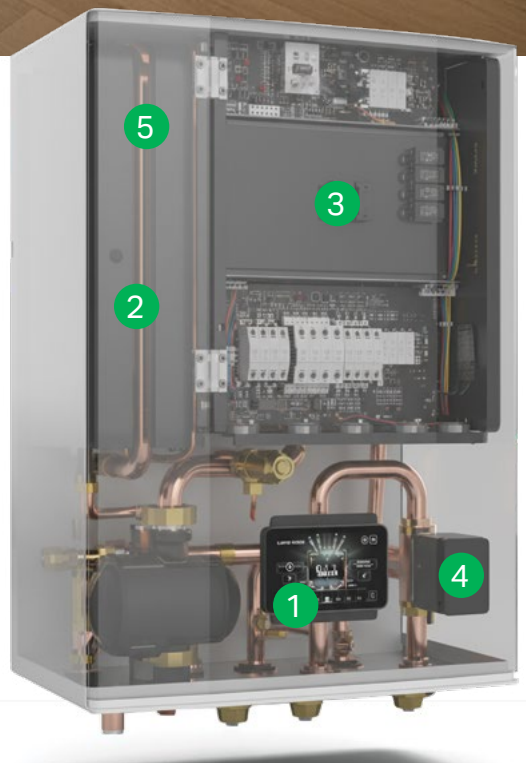
Radiator
Even distribution of warm air throughout the room ensures comfort even in remote corners.
>50°C

Fan coil unit
Provides both cooling and heating efficiently and extremely quietly.
>40°C ≤20°C

Underfloor heating
Ensures an even increase in temperature, maintaining comfortable conditions at all times.
≤35°C

KAISAI hydraulic module

shortens the installation process and increases the reliability of the heating system by integrating components in a factory-prepared 2 device.

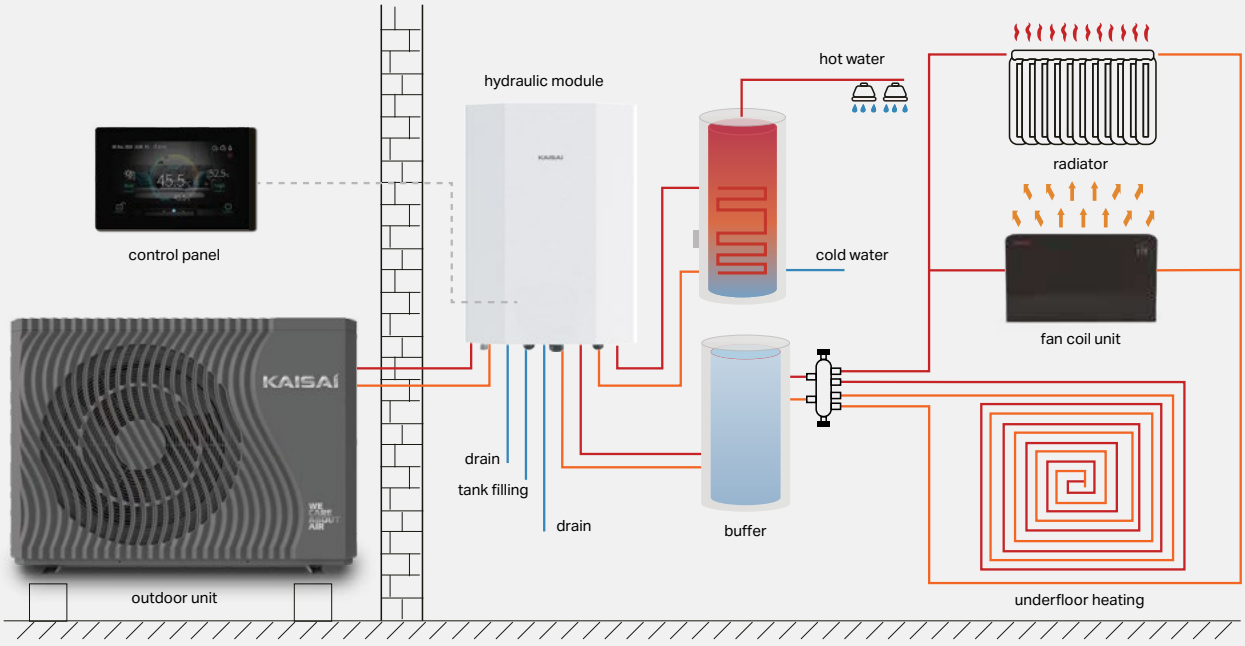


1. Color screen controller
2. 10L expansion tank
3. Control automation
4. 3-way valve
5. Electric heater

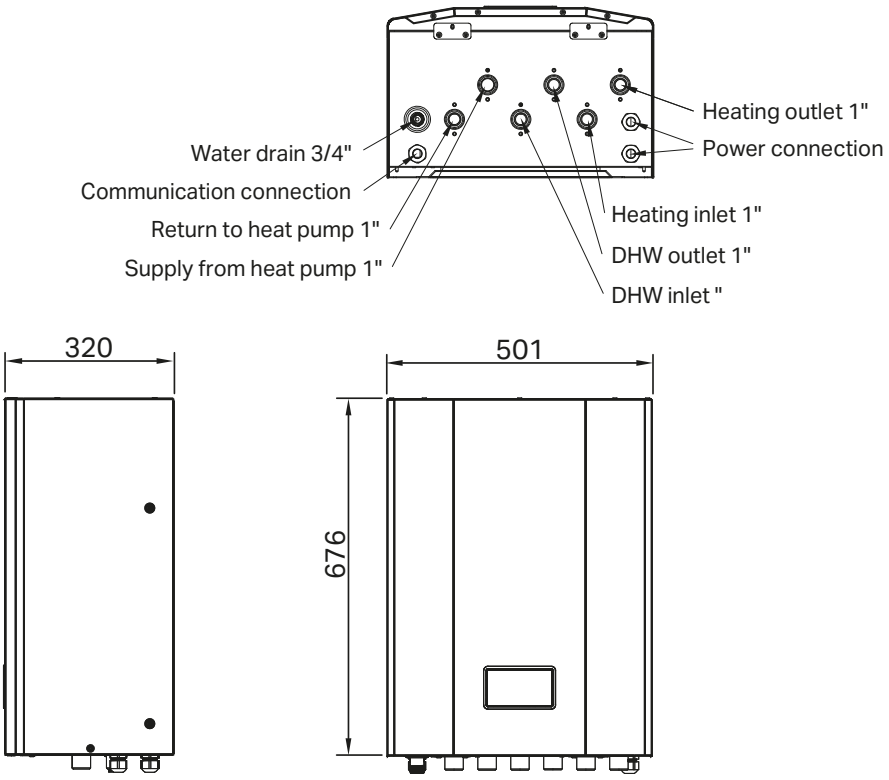
Installation diagram

The built-in peak heat source is **precisely controlled** by an automatic system, and the original switching valve ensures comfortable heating and domestic hot water production.

The system of electrical connectors between the heat pump and the hydraulic module **reduces the number** of installation steps.



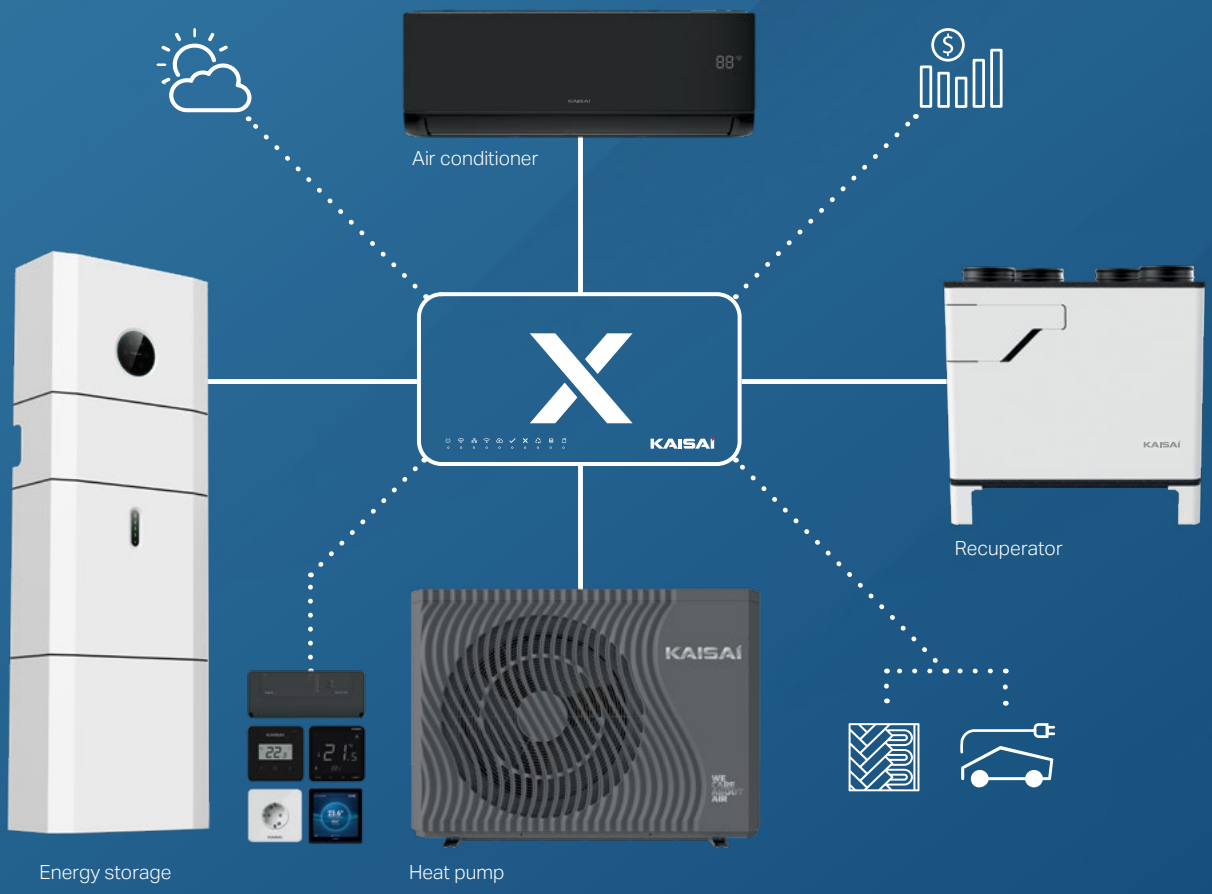
Device **dimensions** [mm]



Technical data

Model		**KHSH090NPA3**
Power	V / Ph / Hz	380-415 / 3N / 50Hz
Electric heater	kW	9.00
Maximum power consumption	kW	9.18
Pressure drop for 1.7 m3/h	kPa	22
Maximum water pressure	bar	3
Noise level	dB(A)	35
Water connection on the heat pump side	cal	1
Water connection on the heating side		1
Water connection on the DHW side		1
Device dimensions (W/H/L)	mm	501 x 676 x 320
Package dimensions (W/H/L)	mm	565 x 765 x 350
Net weight	kg	53
Weight in packaging	kg	58

One brand, many devices



Kaisai X Controller

By combining Kaisai solutions and products, the system **effectively integrates with the customer's everyday life and external data** (weather forecasts, dynamic energy prices) along with the logic and algorithms of Kaisai products, generating real savings.

Find out how to increase thermal efficiency!
KAISAI X configurator

The full range of products is available on our website **kaisai.com**

Contact

For consumers:

Are you interested in purchasing our products?
Check the current list of distributors at: www.kaisai.com

Hotline
(0)22 23 23 055

For distributors and installers:

Headquarters
101A Ostrobramska Street
04-041 Warszawa
22 517 36 00 | 22 879 99 07

Sales department
22 465 65 85
handlowy@kaisai.com

B2B purchasing platform
https://pl.shop.klima-therm.com/pl/

Would you like to become our distributor? Write or call us.

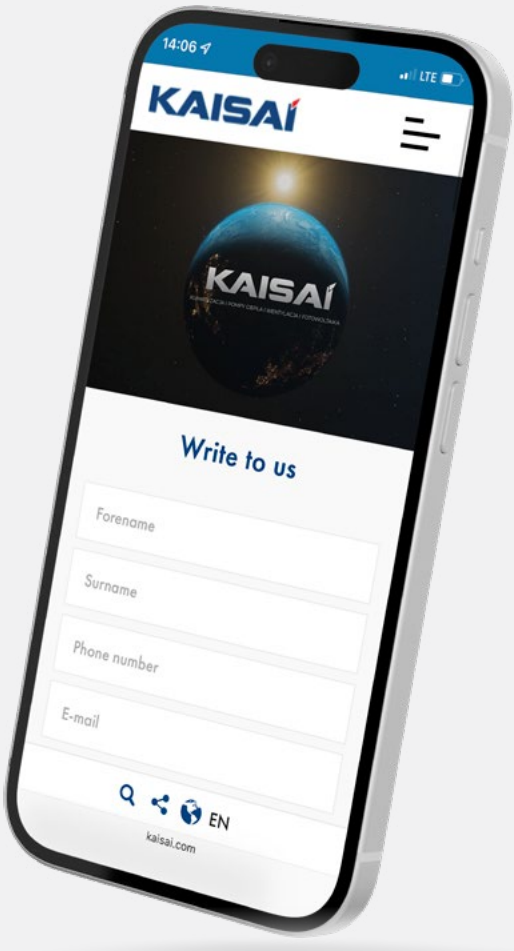
Klima-Therm Group Academy:

Gdańsk Academy
48 Budowlanych Street
80-298 Gdańsk
58 768 03 33

Warsaw Academy
101A Ostobramska Street
04-041 Warszawa
22 517 36 00

Katowice Academy
108 Chorzowska Street, Building B
40-101 Katowice
32 209 49 26

Would you like to obtain an authorization certificate and become our Installer?
Write to: handlowy@kaisai.com



This document is for informational and presentation purposes only regarding Kaisai heat pumps. | The technologically advanced production process requires constant monitoring and improvement, therefore the information contained in this publication is subject to change. | The technical data contained in the catalog is subject to change. Current information is always available at: **www.kaisai.com**

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