

# CATALOGUE

### AIR CONDITIONING SYSTEMS



#### AIR CONDITIONING I VENTILATION I HEATING I PHOTOVOLTAICS

### Take sustainability to a new level

CARE FOR THE ENVIRONMENT WITH US





















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We feel responsible for both people and the environment. We take care of air quality and comfort – in the office, at home and in all the rooms where we work and stay every day.

As much as we care about the air, we care about our business environment both near and far. Following the idea of sustainable development, we have set ourselves priorities based on a pro-environmental approach to business, partnership with the client and care for human resources.

## SOLUTIONS TAILORED TO YOUR NEEDS

GET TO KNOW THE RANGE OF PRODUCTS FROM KAISAI KAISAI.COM

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WALL-MOUNTED AIR CONDITIONERS

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MULTI SPLIT SYSTEMS

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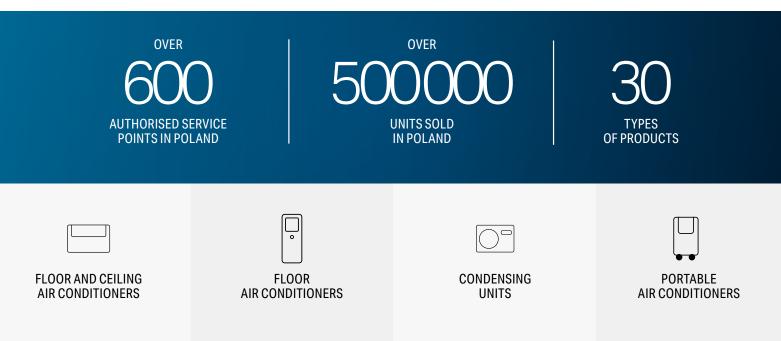
CASSETTE AIR CONDITIONERS



### AIR CONDITIONING • VENTILATION • HEATING • PHOTOVOLTAICS

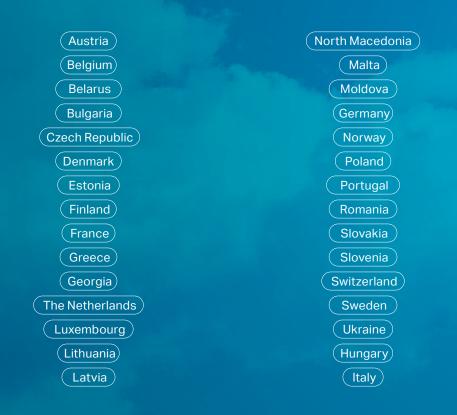
When you choose Kaisai appliances, you get a high-quality, environmentally friendly product designed for user comfort, yet offered at a reasonable price.

The Kaisai brand debuted on the Polish market in 2011 and since then it has recorded sales growth every year in Poland and in foreign markets. The latest technological solutions make Kaisai appliances leaders in their class, meeting high expectations in terms of environmental care, energy savings, quiet operation, safety, user comfort and manufacturer's warranty. Through many years of investment in technology, KAISAI equipment is considered to be some of the most innovative air conditioning solutions for public and residential buildings.



### **THINK GLOBALLY** WORK LOCALLY

As part of the Kaisai International Corporation business platform, following the principle **Think globally – work locally,** the Kaisai brand is present in the following countries:



Kaisai's portfolio includes RAC segment equipment (including wall-mounted air conditioners with Wi-Fi as a standard) and LCAC segment equipment (including Multi Split, ceiling cassette, duct and floor/ceiling air conditioners), as well as portable air conditioners, heat pumps, heat recovery units and air curtains.

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over 10000 outlets OVER 650000 UNITS SOLD WORLDWIDE

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The Academy of Klima-Therm Group offers training at the highest level, carried out on modern facilities, with the support of an experienced team of trainers – experts in the air conditioning industry.



Academy of Klima-Therm Group is an innovative educational and research project, whose main goal is to constantly raise the knowledge of the industry environment in the field of current trends in air conditioning and ventilation, and the latest product solutions, technology and design. Thanks to the activities of the Academy, customers can be sure of the expertise of our installers: it is a guarantee of the safety and failure-free operation of our equipment.

Kaisai is committed to the highest quality of its products and installations. By being a part of Klima-Therm Group, Kaisai Authorised Service Partners benefit from training opportunities offered by the Academy. The trained installers not only receive theoretical knowledge, but can also acquire practical skills under the guidance of qualified trainers. The Academy has 3 training centres serving clients from all over Poland: in Gdańsk, Warsaw and Katowice.











Kaisai products meet stringent requirements related to safety of use, health protection and environmental protection, and as a result have obtained various designations and certifications. The refrigerants used are approved by the National Institute of Public Health.

### Develop WITH KLIMA-THERM ACADEMY



PRODUCT TRAINING



AUTHORISATION TRAINING



TECHNICAL TRAINING

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ABOUT THE BRAND

EQUIPMENT TESTS



ENVIRONMENTAL PROTECTION

THE KEY FUNCTIONALITIES

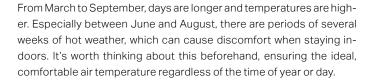
# User guide

With the wide range of air conditioning systems on offer today, it is important to consider which units will be suitable for a particular facility before making a purchase.

Different types of air conditioners will be suitable for cooling and heating purposes in a house, while completely different types will be suitable for an office building or shopping mall. The correct choice of air conditioner type and performance is a prerequisite for satisfaction. It is best to entrust the selection of equipment in terms of efficiency to specialists with the relevant knowledge and experience.



The correct choice of an air conditioner's capacity for an apartment is the basis for efficient air conditioning at home or in the workplace. A unit with not enough power will not cool the room air to the required temperature. And equipment with more power than needed is more expensive to buy and operate. So how do I choose an air conditioner for my existing conditions?



USE UP TO 4 TIMES LESS ELECTRICITY Air conditioning was previously associated mainly with office space. It is now within the financial reach of individual users. Additionally, thanks to the heating function available in modern units, air conditioners can also serve as an additional source of heat during colder periods. Air conditioning is an efficient and economical alternative to fans and electric heaters – it uses up to 4 times less electricity.







SAFETY



### EACH SPLIT AIR CONDITIONER CONSISTS OF **TWO COMPONENTS**:



indoor unit



outdoor unit

The former one is installed inside and the latter – outside of the building.



#### COMFORT AND HEALTH

Air conditioning is available to everyone. It allows you to freely control the temperature in your home, flat, office or small retail outlet; it replaces or complements central heating. But the advantages of installing air conditioning do not end there. Installing it proves to be an excellent way to ensure the health of all users.

Modern air conditioners eliminate bacteria and fungi from the air, preventing the diseases they cause, and special filters improve overall air quality. Air conditioning is also a good solution for maintaining the correct air parameters when the outside air is heavily polluted, e.g. with smog.



#### **COS**T OF OPERATION

In principle, domestic air conditioning differs in power consumption from industrial air conditioning, which is more demanding in this respect. The 2.6 kW unit uses less than 1 kW of electricity per hour of operation, which translates to a cost of around 50 groszys.\* There are a number of general recommendations and indicators that allow the user to initially determine the required power of the appliance himself. The most important parameter is the cubic capacity of the air-conditioned room. It is assumed that for standard rooms with a height of approximately 3 m, a cooling power of 40 W/m3, i.e. 120 W per m<sup>2</sup> area is required. This means that for a room of 21 m<sup>2</sup> even the smallest air conditioner with an output of 2.6 kW may be sufficient.

\* example cost, calculated for Warsaw (Poland), for a private user.

### HOW DOES AN AIR CONDITIONER WORK?

The principle of the air conditioner's operation is based on the physical properties of the refrigerant, which in the case of Kaisai units is the environmentally friendly R32 refrigerant. Depending on the operating mode of the air conditioner, the refrigerant condenses or evaporates in the indoor unit – giving up or drawing heat from the environment, respectively. In this way, the air in the room is heated or cooled and, thanks to a system of filters, also purified.

The unit does not blow additional air from the outside, but only cools the inside. This makes it possible to care for the health of users, especially during periods of smog.

USER GUIDE

### High energy class save money all year long



### The more economical the appliance is, the higher its energy class. When buying an air conditioner, it is therefore worth paying attention to ensure that the energy class of the air conditioner is at least A-rated.

When the air conditioner is running, remember to close the windows in the air-conditioned room, thus contributing to savings in energy bills. Do not set the room temperature too low on the remote control, as such a setting can result in increased running costs, among other things.



### WHAT IS GWP?

**Global warming potential.** Is a figure expressing the potential impact that a refrigerant could have on global warming if released into the atmosphere. It is a relative value comparing the impact of 1 kg of refrigerant with the impact of 1 kg of CO2 over a period of 100 years.

### WHAT IS ODP?

**Ozone Depletion Potential** is an indicator, which refers to the harmful effects that chemicals cause to the ozone layer. This is a value comparing the impact of a given refrigerant with the equivalent mass of Freon R11. ODP for Freon R11 is defined as 1, while a modern refrigerant R32 has a potential defined as 0.

### Environmentally friendly R32 refrigerant THROUGHOUT THE KAISAI RANGE

Attention to environmental protection and energy efficiency of the equipment are among the basic principles of the Kaisai brand. The entire range of Kaisai air conditioners now uses the latest environmentally friendly refrigerant R32.

It is more efficient than previously used, so the air conditioning system requires less of it, and has a much better environmental impact factor. It is a modern solution taking into account both environmental needs and economy of use.



#### ENVIRONMENTALLY FRIENDLY

R32 has one of the lowest GWP values available on the market – 675, it also does not cause damage to the ozone layer thanks to the ODP value equal to 0.



#### ECONOMICAL

Compared to R410A, R32 is more energy-efficient, that is why less refrigerant is required by the cooling system and equipment efficiency is increased by up to 10%.



SAFE

R32 has low toxicity and is almost non-flammable – it does not pose a threat to life and health even in case of system leaks.

## Safe refrigerant R290

The refrigerant R290 is known by the common name propane – a colourless, odourless organic compound belonging to the group of saturated hydrocarbons naturally occurring in natural gas deposits.

Propane-based equipment has been operating successfully in various EU countries for many years. Its popularity continues to grow due to its low environmental impact while maintaining very good thermodynamic properties.

R290 has low sensitivity to moisture and is noncorrosive, making it suitable for use in refrigeration systems equipped with both hermetic and semi-hermetic compressor units.





**ZERO ODP** 

R290 has a zero ODP, meaning no negative impact on the ozone layer, and an extremely low GWP, which indicates its impact on global warming. Propane is a flammable gas and its flammability limit is 2.1% by volume in air. This means that with 230 g of R290 refrigerant in Kaisai appliances and thanks to special fire protection, it is also safe for use in enclosed spaces.

### Renewable ENERGY SOURCES

Renewable energy sources (RES) are based on natural resources, the extraction of which ensures not only zero-emission energy production but also a wide range of possibilities for its use.

Due to relatively easy access to technology and the possibility for it to be used by companies and individual households, the most popular solutions are the units which obtain energy from the air and the sun. Kaisai's product range provides state-of-the-art RES solutions that include air-to-water heat pumps, heat recovery units, and photovoltaic modules and inverters.



The West



### Bet on green energy ALL YEAR

Due to relatively easy access to technology and the possibility for it to be used by companies and individual households, the most popular solutions are the units that obtain energy from the air and the sun.

### **Our offer includes:**

|--|--|

### **HEAT** PUMPS

Thanks to the cutting-edge technology, air-water KAISAI heat pumps operate in a very wide range of outside temperatures and achieve high temperatures in the heating system or for domestic hot water.





### PHOTOVOLTAIC MODULES

KAISAI photovoltaic modules with special cell design allow the electrode resistance to be decreased and a lower current to be achieved, thus improving the module efficiency.





### PHOTOVOLTAIC INVERTERS

KAISAI inverters are a series of devices with the highest technical parameters, ensuring efficient operation in any conditions. Flexible installation, and a compact and lightweight aesthetic design enable general and flexible use in domestic and commercial projects.



#### HEAT RECOVERY UNITS

Kaisai heat recovery units are high-efficiency devices for mechanical ventilation of homes, flats, offices and shops, designed and manufactured in accordance with the latest technological trends.





The full range of products based on renewable energy sources is available on our website

### kaisai.com

### Environmentally friendly in every way CARE FOR THE ENVIRONMENT WITH US



The heat pump draws free energy from the air and uses it to heat and cool the building, or prepare domestic hot water. It is a cheap, ecological and reliable heat source, which can be used by anyone.

Thanks to cutting-edge technology, Kaisai heat pumps operate in a wide range of outside temperatures and achieve the high temperature parameters of the heating system or domestic hot water. No emission of harmful substances into the environment, operational safety, and maintenance-free make the Kaisai heat pumps an ideal solution for everyone who builds a house as well as replaces or retrofits the current heat source. The Kaisai heat pumps can be used in single-family, multifamily, and commercial buildings.



### Heat pumps ECOLOGIC ENERGY SOURCE



### **REDUCED** CO<sub>2</sub> EMISSIONS

Heat pumps are an ideal alternative to gas and coal-fired boilers, helping to reduce  $CO_2$  emissions into the atmosphere. While operating at the time selected by the user, the devices do not produce smoke, ash or any other substances harmful to the environment.

The full range of products based on renewable energy sources is available on our website

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### **COMFORT** ALL YEAR LONG

A heat pump transfers heat from the air to the water, heating it up. Thanks to its automation, the heat pump ensures user comfort and simple operation. The convenient indoor temperature and the desired domestic water parameters are set using an intuitive controller. The user does not have to worry about "firing up the boiler", as the unit will automatically maintain a comfortable level of temperature throughout the year.



### LOW OPERATING COSTS

Heat pumps make a significant contribution to reducing the house's operating costs. The cost of heating and domestic hot water can be reduced by up to four times with a heat pump. The use of a heat pump also reduces system maintenance costs, e.g., as chimney inspections are not needed.

### Use the heat from the air

### TO HEAT YOUR HOME

Heat pumps are one of the environmentally friendly energy sources, because instead of coal, gas or oil, they use the potential of the air, using refrigerants that have a significantly lower impact on the environment than non-renewable energy sources. The electric power supply also allows the use of home photovoltaics in the so-called passive house system (i.e. without drawing energy from outside).



# **Modules and inverters**

Photovoltaics is the conversion of sunlight into electricity, taking place using modules made up of cells connected in series in a frame. It is a stable and inexhaustible source of green energy that does not pollute the environment.

A photovoltaic installation enables the creation of a low- or zero-energy building. By producing its own electricity and storing it in the grid, a household is able to meet its needs for domestic hot water, powering household appliances, heating and recuperation.

KAISAI photovoltaic modules with special cell design allow the electrode resistance to be decreased and a lower current to be achieved, thus improving the module efficiency. This reduces losses caused by partial shading and cell wear, while increasing the solar energy conversion capacity.



### Inverters

Kaisai inverters are modern devices working on proven quality microprocessor chips. They ensure efficient, high-performance and trouble-free operation in the installation and enable monitoring of all parameters of the photovoltaic system, allowing the optimal amount of energy to be extracted.

#### **OPERATION PRINCIPLE**

The solar inverter converts the direct current produced by the photovoltaic panels into alternating current with parameters compatible with those of the power grid. It also monitors the performance of the home solar power plant and automatically tracks the power point to capture the maximum amount of energy from the solar panel array. At dusk, when the intensity of sunlight is too low to generate electricity, the inverter automatically switches off and restarts during the day when the input voltage reaches its initial value.

### Photovoltaic modules FOR YOUR HOME AND OFFICE

Full range of products based on renewable energy sources available on our website

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RESISTANCE TO WIND AND SNOW LOAD

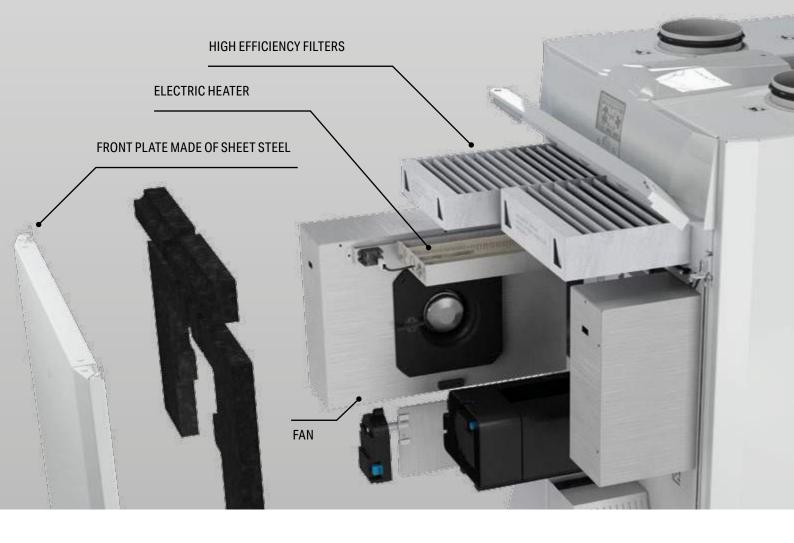
### Heat recovery units HIGHEST AIR COMFORT

Recuperation is a type of mechanical ventilation supplemented with heat recovery. A heat recovery unit makes it possible to control the movement of the air supplied to the room and to recover heat from the polluted air coming from inside the house. Additionally, the filters installed in the unit clean the air of pollutants, allergens and smog.

Kaisai heat recovery air handling units are high-efficiency ventilation units with heat recovery for mechanical ventilation of homes, offices and stores. During their operation, they exchange the exhaust air from the interior with the air drawn from the outside, purified by means of a special high-performance class F7 filter. The counter-current heat recovery exchanger prevents heat loss, recovering up to 92.5% of the energy during the winter. The recovered heat is transferred to the clean air entering the rooms.

The full range of products based on renewable energy sources is available on our website

### kaisai.com



### **Energy efficiency** CLASS OF KAISAI APPLIANCES

		SEER (Cooling mode)	SCOP (Heating mode)
A	•	SEER ≥ 8.50	SCOP ≥ 5.10
$\mathbf{A}^{**}$		6.10 ≤ SEER < 8.50	4.60 ≤ SCOP < 5.10
$\mathbf{A}^{*}$		5.60 ≤ SEER < 6.10	4.00 ≤ SCOP < 4.60
Α		5.10 ≤ SEER < 5.60	3.40 ≤ SCOP < 4.00
В		4.60 ≤ SEER < 5.10	3.10 ≤ SCOP < 3.40
С		4.10 ≤ SEER < 4.60	2.80 ≤ SCOP < 3.10
D		3.60 ≤ SEER < 4.10	2.50 ≤ SCOP < 2.80
Ε		3.10 ≤ SEER < 3.60	2.20 ≤ SCOP < 2.50
F		2.60 ≤ SEER < 3.10	1.90 ≤ SCOP < 2.20
G		SEER < 2.60	SCOP < 1.90



CURRENT ENERGY LABEL

Energy labels are placed on every domestic electrical appliance sold in the European Union. This is regulated by a special EU Directive 2010/30/EU. Labels inform the user about the quality of the product, taking into account, in particular, its energy efficiency. Before purchasing, the label allows everyone to compare which device will be the cheapest in terms of operation. The energy efficiency rating, also known as energy class, is indicated by letters: for air conditioners a scale from G (lowest) to A++ (highest) has been established. We also use seasonal energy efficiency factors to evaluate energy savings: SEER for cooling and SCOP for heating. These ratios determine the ratio between the cooling/heating power achieved by the air conditioner and the electrical power drawn by the unit from the mains for an entire season. Units with SEER=6 and SCOP=4 (A++ class) can generate 6 kW of cooling energy or 4 kW of heating energy from one kW of electricity on average per season and can be up to 4 times cheaper to run than electric fans and heaters.

10-grade energy efficiency scale (from A+++ to G)

Power consumption efficiency for cooling and heating

Performance rating based on a multi-feature calculation, corresponding to the actual power consumption of the unit during operation

#### Sound power level

Data for 3 seasons (temperate – required, warm and cool – optional)

### Modern functions of units TECHNOLOGY FOR YOU



Advanced features of Kaisai appliances ensure high comfort, convenience and safety of use as well as economic and efficient operation. Using modern purification functions means you always have clean air in your home – free of viruses, allergens and smog.



### AUTOMATIC RESTART

For units equipped with the auto restart function, when power is interrupted the air conditioner remembers the last settings and automatically resets them when power is restored.



### 360° AIR SUPPLY

The cassette air conditioners are equipped with additional supply slots in the panel. Thanks to this design, the 360° unit can provide even better air distribution in the conditioned room.



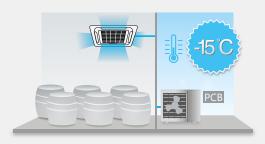
### TEMPERATURE SENSOR

The temperature sensor is built into the remote control. In this way, temperature measurements are taken at the user's location, while the air conditioner's operation is adjusted to the actual conditions in the room.



### OPERATION AT LOW OUTSIDE TEMPERATURES

Thanks to a specially designed control board, the air conditioner can operate in the cooling function even with outdoor temperatures as low as -25°C.



### **3D** AIR SUPPLY

The horizontal and vertical blinds of the air conditioner are controlled automatically, in order to ensure uniform temperature distribution in the room and optimal air circulation.



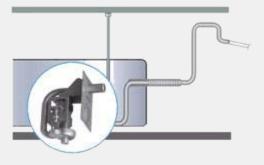
### EMERGENCY USE

The emergency use function of the air conditioner allows the unit to operate even if one of the sensors has failed. With this solution, the operation of the air conditioner is not interrupted and it can be used until the fault is rectified.



### FRESH AIR

Outside air can be supplied through a connection duct to the air conditioner, thus improving the air quality in the room.



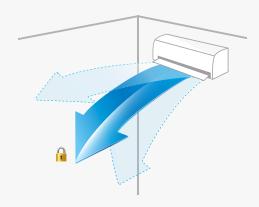
### BUILT-IN CONDENSATE PUMP

Thanks to the integrated condensate pump, it is possible to remove condensate up to a height of 1000 mm.



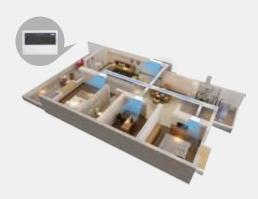
### REFRIGERANT LEAKAGE INDICATION

The air conditioner has a refrigerant leakage indication function. If the unit records a leakage, the EC message will appear on the display of the indoor unit and the air conditioner will automatically switch off. This function additionally protects the compressor from being damaged.



#### BLINDS SETTINGS MEMORY

Thanks to the function of saving the blinds settings, the air conditioner keeps the last settings after it is switched off and restores themwhen restarted.



### **CENTRAL** CONTROLLER

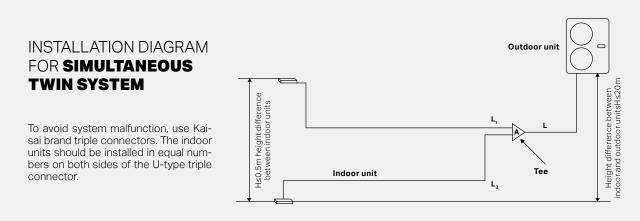
Option to connect a central controller, controlling up to 64 indoor units.

### TWIN SYSTEM

The TWIN simultaneous system makes it possible to connect two indoor units of the same type and capacity to a single unit (outdoor unit). This solution improves air distribution in air-conditioned rooms and saves installation space by installing only one outdoor unit. This system is ideal for air-conditioning large spaces such as conference and banquet halls, open-plan offices, restaurants and other service and commercial buildings. In a twin system, one indoor unit must be set as master and the other as slave. Only the master unit can accept the control signal from the remote control, the slave unit only performs the settings of the master unit.

Outdoor unit	Indoor unit	Branch pipe
(M)=	2 x KUE-18HRG32X 2 x KCA4U-18HRG32X	— UTP-SX236A
KOD30U-36HFN(J)32X	2 x KTI-18HWG32X	011-37230A
	2 x KCD-24HRG32X	_
	2 x KUE-24HRG32X	UTP-SX254A
KOE30U-48HFN32X	2 x KTI-24HWG32X	_

For the new KCA4U compact cassette units, it is possible to install double, triple and quadruple simultaneous systems. Technical details can be found in the service manual for cassette air conditioners.



		Acceptab	le value	Installation
uo	Total installation length (active)	18K+18K	30m	- L+L1+L2
allati ngth 	Total installation length (active)	24K+24K	50m	
nstallati length	Maximum branch length		15m	L1, L2
<u> </u>	Maximum branch length difference		10m	L1-L2
9	Maximum height difference		20m	H1
Height fferenc	between indoor and outdoor units		2011	
Hei diffe	Maximum height difference		0.5m	H2
ġ	between indoor units		0,511	112

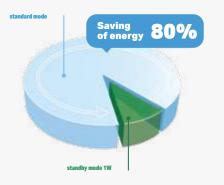


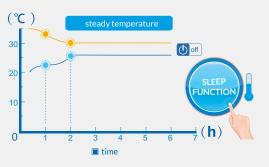
### FIXED HEATING 8°C

The function of maintaining a constant temperature of 8°C in heating mode is a particularly useful solution for holiday homes and detached houses.

It keeps the air conditioner at a constant temperature of up to 8°C; it prev ents rooms from cooling down and pipes from freezing. This counteracts the build-up of moisture and thus the growth of micro-organisms and fungi. Air conditioners with this option are a more efficient solution than the commonly used thermostatically controlled electric heaters.

This is the hallmark of Kaisai brand home air conditioners. Combined with Smart AC and the ability to set the temperature remotely, this makes our products ideal for users who are often away from home.





### **STANDBY MODE**

In standby mode, power is disconnected from unused electronic components, reducing power consumption to 1 watt compared to standard devices, which consume an average of 5 watt in this mode, achieving savings of approximately 80%.

### **SLEEP** FUNCTION

Activating the sleep function causes the unit to raise the temperature set in cooling mode (lower in heating mode) by 1°C per hour within two hours. During this time the fan runs at low speed. After 5 hours, the air conditioner switches off. Slow, hardly noticeable temperature changes and automatic switching off guarantee comfort and energy sav ings.

# For the sake of health

AND COMFORT OF USERS

Modern filters used in Kaisai brand products guarantee clean and fresh air in the air--conditioned room. They capture very small dust particles, bacteria, fungi and germs, leaving healthy and clean air.

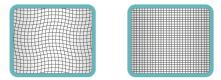
#### SELF-CLEANING EXCHANGER

To ensure the highest standards of hygiene and comfort, Kaisai brand appliances use the latest self-cleaning technology for the internal exchanger. The air conditioner enters cleaning mode after it completes its operation. It removes any moisture that may have accumulated in the unit, which prevents the growth of micro-organisms and fungi.



#### SILVER ION FILTER

The silver ion filter is responsible for destroying bacteria and preventing the growth of micro-organisms such as viruses and fungi. The internal structure of the silver ions destroys micro-organisms.



#### VITAMIN C FILTER

The filter emits vitamin C, which has a positive effect on the skin by protecting it from the sun's rays. As an active antioxidant, vitamin C has a nourishing effect, stimulates collagen production and reduces stress.

### HIGH DENSITY FILTER

The use of high-density filters significantly increases the efficiency of dirt retention – by up to 50%.

### **3M** FILTER

Thanks to its unique design, the filter captures dust particles and other harmful substances from the air, which can cause many respiratory diseases.

### NEW



The air purification function is further supported by the Bio HEPA filter, which effectively traps 99% of dust particles and bacteria measuring 0.3  $\mu$ m and up to 95% of particles from 0.1 to 0.3  $\mu$ m, including fungal cells and some viruses.

### NEW

### **COLD CATALYTIC** FILTER

The cold-catalytic filter eliminates chemicals such as carbon monoxide, hydrogen sulphide, ammonia, benzene and formaldehydes.

## **Modern technologies**

USED IN KAISAI APPLIANCES

Kaisai appliances are characterised by high quality workmanship and the use of modern technology – all for the user's convenience. Efficient and comfortable air conditioning is now available to everyone.





### TOTAL INSTALLATION LENGTH

Kaisai split units have the option of installing the outdoor and indoor units far apart – up to 75 m in total length and up to 30 m in vertical height. This makes it much simpler to lay out appliances even in older buildings. You do not have to adapt your home design to air conditioning – we adapt it for you.

### OPERATING TEMPERATURE

By using modern technology and the new refrigerant R32, Kaisai air conditioners can operate in a wide range of outdoor temperatures: from -15°C to 50°C in cooling mode and from -25°C to 30°C in heating mode. They can fulfil their purpose all year round, guaranteeing users can enjoy the comfort of cool in summer and additional heating in winter.

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KAISIAI	

### DIMENSIONS AND DESIGN

We make every effort to ensure that Kaisai units follow the latest design trends: we want the air conditioner to please the eye with its tasteful form and fit in with modern interior design trends. In addition, when designing indoor cassette and duct units, we are mindful of the space they occupy. Thanks to the optimum size of the units, the suspended ceiling does not require much technical space and thus leaves more usable space.



#### **INVERTER TECHNOLOGY**

The inverter technology in the Kaisai's units reduces power consumption, which is related to the reduction of room cooling and heating costs. Its use translates to the quiet operation of the unit and faster achievement of the desired temperature.

By using durable and high-pressure resistant materials, the compressor in Kaisai's heat pumps is extremely reliable. In addition, it has a high-efficiency motor with a wide voltage range, which is why it can operate in extreme conditions in 24-hour mode and reach temperatures of up to 60°C (230V/50Hz).





BROAD VOLTAGE RANGE



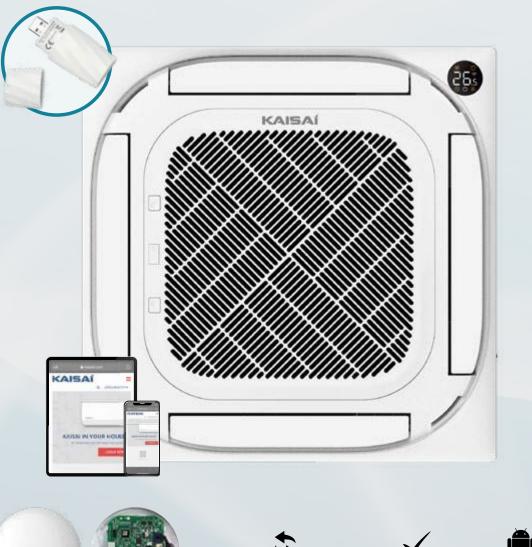
DURABLE COMPRESSOR MATERIAL



RESISTANCE TO HIGH PRESSURE

## **Commercial air conditioners**

EFFECTIVE COOLING AND REAL COMFORT







PREVIEW OF DEVICE OPERATION INFORMATION



MOBILE APP FOR ADROID AND IOS

SMART PORT IS A WI-FI MODULE FOR COMMERCIAL KAISAI AIR CONDITIONERS Wi-Fi control can now be used not only for wall-mounted air conditioners, but also for other models of Kaisai air conditioners.

### Wall-mounted air conditioners elegant appearance and comfort of use

Kaisai products incorporate several features improving the comfort of use; for example, new control options have been added so that managing air conditioning has never been so convenient and simple.



#### **SMART AC**

Smart AC is a Wi-Fi module added as standard to all Kaisai wall air conditioner models. Thanks to its use, the user can control the device via an application installed on a tablet or smartphone, even when away from home or the office.

Using the Wi-Fi function, the user is able to switch the unit on or off, change the temperature and selected operating functions from any place in the world with Internet access. Wi-Fi control allows you to save electricity and increase the comfort of air conditioning by controlling the temperature in your home or office from any location.



#### **NETHOME PLUS APPLICATION**

Reliable operation of the Smart AC system is ensured by the Netho- me Plus app installed on a tablet or smartphone. **Download the app by scanning the QR code** 

### Enable the innovative capabilities of your unit discover all kaisai functions



Kaisai air conditioners are equipped with a number of modern features that, in addition to providing the right temperature, allow you to enjoy the comfort of breathing clean air every day.

> Advanced features of Kaisai appliances are also convenience and safety of use, as well as economical and efficient operation.

#### COMFORTS

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#### TIMER

The timer gives you the option to set the time for automatic switching on and off of the air conditioner.



#### **MONO AND MULTI**

The indoor unit is versatile and can be used in single (mono-split) and multiple (multi-split) arrangements.



#### **CENTRAL CONTROLLER**

Option to connect a central controller, controlling up to 64 indoor units.

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#### SIMPLE INSTALLATION

The air conditioner is designed to be easy to install and require no extra steps.

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#### **MULTI-DIRECTIONAL CASTORS**

Thanks to the integrated castors, relocating the air conditioner is easy.

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#### **DOUBLE-SIDED INSTALLATION**

Refrigerant supply and condensate drainage pipes can be connected on both sides of the indoor unit for easy installation and adaptation to the room layout.



#### **MFB MODULE**

Expansion module that allows the connection of a wired controller, central controller, BMS gateway, external ON/OFF signal and output of an alarm signal.

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#### **AUTOMATIC BLINDS (SWING)**

The automatic operation of horizontal blinds significantly improves the air distribution in the room.

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#### **PERSONALISED REMOTE CONTROL**

Option of changing the factory settings of the remote control in order to adapt it to the current needs of the user.



#### **BLINDS SETTINGS MEMORY**

After each shutdown, the air conditioner remembers the last blinds settings and restores them when restarted.



#### **ON-OFF PORT**

The air conditioner has a port that allows it to be switched on and off remotely (using a potential-free signal).



#### WI-FI CONTROL

The Wi-Fi module allows you to control the air conditioner using your phone or tablet from anywhere in the world.



#### **TWIN COMBINATION**

Two identical indoor units operate simultaneously, connected to a single outdoor unit.



#### **BUILT-IN CONDENSATE PUMP**

Thanks to the integrated pump, it is possible to remove condensate up to a height of 1000 mm.

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#### **COMPACT DIMENSIONS**

Well-planned components make the air conditioner small while retaining full performance parameters.

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#### LARGE INSTALLATION RANGE

The indoor and outdoor units can be up to 50 m apart in total installation length and up to 25 m apart in vertical installation height.



#### VERY LARGE INSTALLATION RANGE

Indoor and outdoor units can be spaced up to 75 m apart in total installation length and up to 30 m apart in vertical installation height.

## Features that help you look after your health

#### HEALTH



#### IONISATION

The ions emitted by the air conditioner break down particles of dust mites, mould, bacteria and viruses, eliminating them from the environment, and humidify the air, which has a positive effect on the skin and gives a pleasant feeling of freshness.



#### VITAMIN C FILTER

The filter emits vitamin C into the room, which is absorbed by the skin. The vitamin increases skin firmness, protects against harmful UV rays and also reduces stress.



#### SILVER ION FILTER

This filter contributes to the elimination of bacteria and other harmful micro-organisms through the use of active silver ions. It ensures a high standard of air hygiene.



#### **3M FILTER**

This filter, thanks to its unique design, more efficiently captures dust and harmful allergic substances from the air, which cause respiratory tract diseases.



#### **COLD CATALYTIC FILTER**

The cold catalytic filter removes chemicals such as carbon monoxide, hydrogen sulphide, ammonia, benzene and formaldehydes.



#### **BIOHEPA FILTER**

The air purification function is supported by a Bio HEPA filter that effectively traps 99% of dust, dirt and bacteria particles of 0.3  $\mu$ m and up to 95% of particles from 0.1 to 0.3  $\mu$ m, including fungal cells and some viruses.



#### **HIGH DENSITY FILTER**

The use of a high-density filter improves the efficiency of the retention of contaminants, including dust and particles. Not only does it protect the appliance but also takes care of the air quality.



#### FRESH AIR

Fresh outside air is supplied to the unit via a connecting pipe. This significantly improves the air quality in the room.

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#### COMFORT



#### **SMOOTH FAN SPEED ADJUSTMENT**

This function allows smooth control of the indoor unit's fan capacity in a range of 1-100%.



#### **AUTOMATIC RESTART**

During a power outage, the air conditioner remembers the last settings and restores them when power is resumed. No need to reprogramme the device every time the power is switched off.

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#### **3D AIR SUPPLY**

The horizontal and vertical blinds of the air conditioner are controlled automatically, in order to ensure uniform temperature distribution and optimal air circulation.

Turbo
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#### **TURBO MODE**

With this option, the air conditioner operates at an increased speed and provides rapid cooling or heating of the room.



#### **TEMPERATURE COMPENSATION**

The unit compensates for differences in the temperature sensor reading on the indoor unit compared to the actual temperature at the room floor. The desired temperature is achieved throughout the room, not just around the air conditioner.



#### **MULTIFUNCTIONAL REMOTE CONTROL**

Using the remote control, you can easily set the appropriate air parameters in the room. In addition, the remote control is equipped with practical functions such as: self-cleaning evaporator (SELF CLEAN), constant heating at 8°C (HEATING 8°C), temperature sensor (FOLLOW ME).



#### **VANE FUNCTION**

With this option, the user can individually control each of the air conditioner's blinds, directing the airflow where they choose.



#### **BREEZE AWAY FUNCTION**

This function allows the blinds to be set in parallel so that the air supply from the unit is not directed directly at the user.



#### **EVAPORATOR SELF-CLEANING**

After operation, the air conditioner goes into cleaning mode and removes any moisture that may have accumulated in the indoor unit. This prevents the growth of micro-organisms and fungi.



#### 360° AIR SUPPLY

The unit can provide the best air distribution throughout the room thanks to the additional supply slots in the air conditioner panel.



#### **BROAD TEMPERATURE RANGE**

Operating in a wide range of outdoor temperatures. In cooling mode from -15 to 50°C and from -25 to 30°C in heating mode.



#### **COLD AIR SUPPLY CONTROL**

To minimise the feeling of unpleasant cold airflow, the air conditioner automatically reduces the fan speed when it starts to operate in heating mode and increases it as the air warms up.



### COMPRESSOR AND CONDENSATE TRAY HEATER

The compressor crankcase heater prevents absorption of the refrigerant by the oil, which may occur when the temperature drops. The drip tray heater assists the air conditioner's operation in heating mode by preventing ice build-up, improving efficiency and minimising the risk of fan failure.



#### **QUIET OPERATION**

Possibility to set the minimum sound level of the unit in the conditioned room.

#### MONEY SAVING



#### 8°C CONTINUOUS HEATING FUNCTION

When the user is away, in heating mode, the air conditioner keeps the room at a constant temperature of up to 8°C, preventing it from cooling down.



#### **STANDBY MODE**

In standby mode, disconnecting power from unused components reduces power consumption by up to 80%.



#### **SLEEP FUNCTION**

The unit raises the temperature set in cooling mode (lower in heating mode) by 1°C per hour within two hours and the fan operates at a low speed. This reduces electricity consumption and the air conditioning provides the best comfort for the user.



#### 5 FAN SPEEDS FOR THE OUTDOOR UNIT

Thanks to inverter technology, the outdoor unit has 5 operating modes, which increases energy efficiency and improves comfort.

#### SAFETY



#### **CONDENSATE EVAPORATION**

The condensed water is transported to the condenser where it evaporates. This eliminates the need for a condensate tank.



#### OPERATION AT LOW OUTSIDE TEMPERATURES

The air conditioner operates in cooling mode even when the outside temperature reaches  $-15^{\circ}$ C.



#### OPERATION AT VERY LOW OUTSIDE TEMPERATURES

The air conditioner even works at outdoor temperatures as low as -25°C.



#### **ALARM PORT**

The air conditioner has an alarm port from which a fault signal can be connected.



#### TEMPERATURE SENSOR IN REMOTE CONTROL

The temperature sensor built into the remote control allows it to be measured closer to the user, allowing the device to more accurately match the environment.

#### ECO

With the Eco function activated, the appliance consumes up to 60% less energy compared to conventional operation.



eco

#### **GEAR FUNCTION**

With the Gear Mode's ability to control the temperature and speed of air supply, it is possible to control electricity consumption and decide on the maximum intensity level.



#### 12 FAN SPEEDS FOR THE INDOOR UNIT

Adjusting the 12 fan speeds of the indoor unit allows you to ensure maximum comfort in the room and save electricity.



#### **REFRIGERANT LEAKAGE INDICATION**

The error code will be displayed on the control panel of the indoor unit when the outdoor unit detects a refrigerant leakage.



#### **SELF-DIAGNOSIS**

The air conditioner monitors its operation and shuts down if it detects a malfunction or failure. The error code is displayed on the control panel of the indoor unit.



#### **EMERGENCY USE**

If one of the sensors fails, the operation of the unit is not interrupted and it can be used until the fault is rectified.



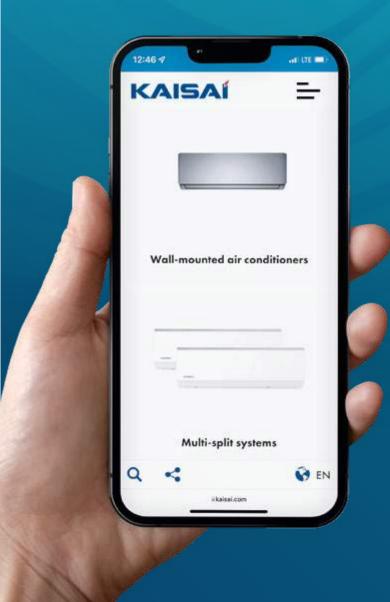
#### **ELECTRONIC EXPANSION VALVE**

The electronic expansion valve reduces refrigerant pressure in a variable, controlled way. This makes it possible to accurately regulate both the superheat value and the cooling/heating capacity.

## **Explore solutions you did not know** KAISAI RANGE OF APPLIANCES

## KAISAI offers modern solutions ensuring comfort and efficient cooling of rooms inside the house - the living room, the bedroom or the children's room.

The universal design of KAISAI air conditioners blends perfectly with the furnishings of any interior, and the high energy efficiency parameters ensure economical operation with low energy consumption.



#### WALL-MOUNTED AIR CONDITIONERS

Compact dimensions ensure a subtle, elegant appearance, and a range of unit types allows them to adapt to a variety of interiors – whether for home use, offices or retail outlets.

#### **COMMERCIAL** AIR CONDITIONERS

Commercial buildings require equipment that provides a particularly efficient air conditioning system. Depending on the area and purpose of the facility, we can apply floor, floor/ceiling, cassette, duct, or condensing units.

#### MULTI SPLIT SYSTEMS

These systems are recommended for facilities requiring multi-room air conditioning. All the advantages of split appliances are retained with a single outdoor unit.

#### **PORTABLE** AIR CONDITIONERS

Portable air conditioners are used where it is not possible to install split air conditioning. They match the décor of home and office spaces thanks to their modern design.

## A planet-friendly home

Eco-friendly air conditioning, ventilation and heating systems reduce electricity consumption, giving real benefits during use. The offered Kaisai brand appliances are not only a high class of energy efficiency, but also innovative functionality that will meet the needs of the most demanding customers.

		WALL	FLOOR	FLOOR AND CEILING	CONSOLE	CASSETTE Compact	CASSETTE SUPER SLIM	DUCT SLIM	PORTABLE
	STANDARD OPTIONAL	-						_	
‡⊡+	Self-cleaning evaporator	1.0							
	High-density filter	•							
¢ ¢	The 3D air supply		•						
¢ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	Automatic restart		•		•				
360°	360° air supply						•		
	Temperature compensation		•	•	•				
	Cold air control		•	-					
	Wide temperature range		•						
*	8°C continuous heating function								
	Standby mode	•							
	Sleep function	•	•	•	•	•	•	•	•
	Temperature sensor in remote control	•	•	•	•	•	•	•	
<u>.ilil.</u>	Condensate evaporation								•
*	Operation at low outside tempera- tures		•	•	•	•		•	
EC	Refrigerant leakage indication			•					
$\langle \land \rangle$	Emergency use		•	•	•	•	•	•	
Ū.	Self-diagnosis		•	•	•	•	•	•	•
((هَ))	Alarm port			•		•	•	•	
	Timer		•						•
٦,	Automatic blinds (swing)		•	•	•	•	•		•
	Mono and multi	•			•	•		•	
X	Simple installation								•
	Twin combination								
رېک	Double-sided installation	•		•	•			•	
R	Fresh air			•		•	•	•	
	Blinds settings memory	•		•	•		•		
	On-off port			•					
o)) ⊙[	Multidirectional castors								•
$((\circ$	Wi-Fi control	•					•		
<u>بالمجارعة</u>	Built-in condensate pump			. •			1.1	12.1	

## Series of kaisal air conditioning appliances

		COOLING / HEATING CAPACITY [kW]							
ТҮРЕ		PAGE NUMBER	2,6	3,5	5,3	6,0	7,0÷7,2		
WALL-MOU	UNTED AIR CONDITIONERS								
-	FLY	52	•	•	•		•		
]	ICE	56	•	•	•		•		
	GEO	60	•	•	•		•		
	PRO HEAT	64	•	•	•		•		
MULTI SPL	.IT SYSTEMS			1			<u> </u>		
	WALL	70	•	•	•		•		
_	DUCT	71			•				
	CONSOLE	72		•	•				
	CASSETTE COMPACT	71	•	•	•				
	OUTDOOR UNITS	72			•				
COMMERC	CIAL AIR CONDITIONERS								
	FLOOR	76					•		
	FLOOR AND CEILING	84			•		•		
	CONSOLE	88		•	•				
	CASSETTE COMPACT	92		•	•				
	CASSETTE SUPER SLIM	96					•		
-	DUCT SLIM	100			•		•		
6	CONDENSING UNITS	104		•	•		•		

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COOLING / HEATING CAPACITY [kW]						
7,9÷8,2	9,0	10,0	10,6	12,0÷12,4	14,0÷14,1	15,2÷15,8
••			•	•		
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fly

ice

geo

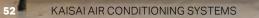
pro heat

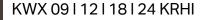
## Wall-mounted air conditioners

The compact dimensions of the wall-mounted units provide an elegant appearance and comfort of use, combined with high efficiency and simple installation.

All wall-mounted KAISAI air conditioners use the environmentally friendly R32 refrigerant, and standard accessories include the Wi-Fi function to control the unit using mobile devices. Depending on the model, there is a number of practical functions available for intuitive control and the optimum adaptation of the device to the needs of the user.

KAMAIN



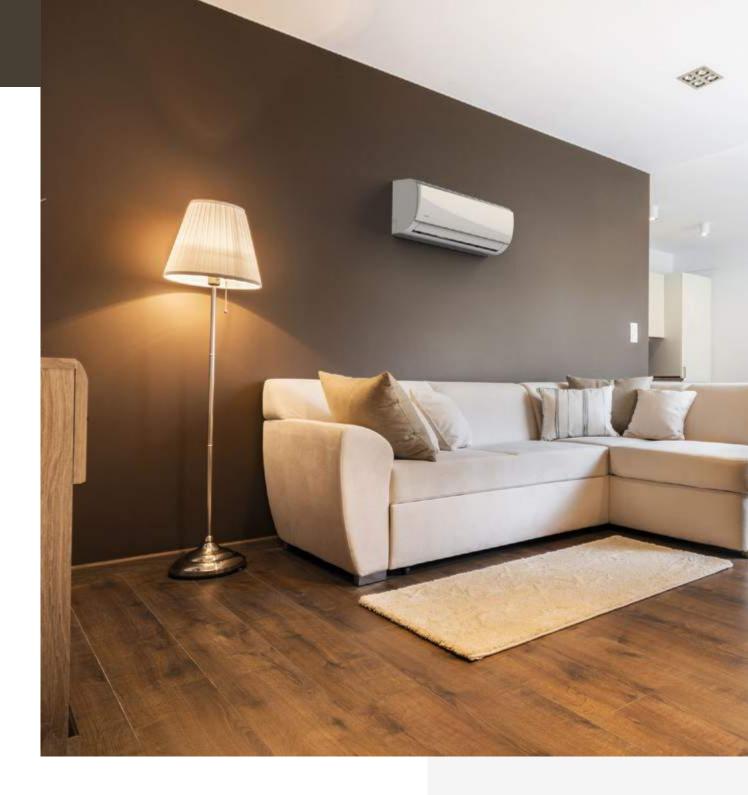


The energy-efficient Kaisai Fly wall air conditioner with R32 refrigerant combines elegance with functionality. Its universal, timeless design makes it fit into any interior.

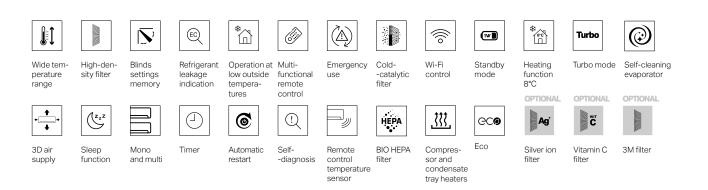
The unit stands out for its ability to heat at outdoor temperatures as low as -25°C. The Wi-Fi function as standard increases the convenience of air conditioning control, and a modern wireless remote control allows you to use 3 additional functions: self-cleaning evaporator (Self Clean), constant heating at 8°C (Heating 8°C) and temperature sensor in the remote control (Follow Me).



KAISAEE



#### Features of Kaisai Fly



#### Technical specification

MODEL	indoor unit		KWX-09KRHI	KWX-12KRHI	KWX-18KRHI	KWX-24KRHI	
MODEL	outdoor unit		KWX-09KRHO	KWX-12KRHO	KWX-18KRHO	KWX-24KRHO	
Capacity	cooling	kW	2,6(0,9÷3,4)	3,5(1,1÷3,9)	5,3(1,8÷6,1)	7,0(2,1÷7,9)	
average (min÷max)	heating	kW	2,9(0,8÷3,4)	3,8(1,1÷4,2)	5,6(1,3÷6,7)	7,3(1,6÷7,9)	
Energy class	cooling/heating	g	A++/A+	A++/A+	A++/A+	A++/A+	
SEER	average	W/W	7,0	6,5	7,4	6,1	
SCOP	average	W/W	4,1	4,1	4,0	4,0	
Average power consumption	cooling	W	800(100÷1240)	1320(83÷1600)	1550(140÷2300)	2600(420÷3150	
(min÷max)	heating	W	930(120÷1200)	1190(167÷1400)	1570(220÷2350)	2400(300÷2750	
Average operating current	cooling	А	3,48(0.4÷5,4)	5,8(0,8÷7,3)	6,7(0,6÷10,0)	11,5(1,8÷13,8)	
(min÷max)	heating	А	4,05(0,5÷5.5)	5,3(1,4÷6,4)	6,8(0,9÷10,2)	11,0(1,3÷12,2)	
	indoor	m³/h	435/333/259	530/430/310	840/680/540	980/817/662	
Air flow rate	outdoor	m³/h	1750	1750	2100	3500	
Operating temperature	indoor	°C	17÷32/0÷30	17÷32/0÷30	17÷32/0÷30	17÷32/0÷30	
cooling/heating	outdoor	°C	-15÷50/-25÷30	-15÷50/-25÷30	-15÷50/-25÷30	-15÷50/-25÷30	
0 1 1	indoor	dB(A)	37/32/25/21,5	39,5/35,5/25/21.5	42,5/36/26/20	45/40,5/36/30	
Sound pressure level	outdoor	dB(A)	55	55	56	59	
Net dimensions w/h/d	indoor	mm	715/285/194	805/285/194	957/302/213	1040/327/220	
	outdoor	mm	720/495/270	720/495/270	805/554/330	890/673/342	
	indoor	mm	780/365/270	870/365/270	1035/385/295	1120/405/315	
Transport dimensions w/h/d	outdoor	mm	835/540/300	835/540/300	915/615/370	995/740/398	
Network	indoor	kg	6,7	7,3	10,0	12,3	
Net weight	outdoor	kg	21	21	32,7	42,9	
Torona anti-contrata	indoor	kg	8,8	9,5	13,0	15,8	
Transport weight	outdoor	kg	22,8	22,8	35,4	45,9	
Pipe diameter: liquid/gas		mm	6,35/9,52	6,35/9,52	6,35/12,7	9,52/15,9	
Maximum installation length		m	25	25	30	50	
Maximum height difference		m	10	10	20	25	
Power supply	outdoor	V/Hz/Ph	220÷240/50/1	220÷240/50/1	220÷240/50/1	220÷240/50/1	
Circuit breaker/fuse	outdoor	А	10	16	16	20	
Power supply lines	outdoor	# of wires x mm <sup>2</sup>	3x1,5	3x1,5	3x2,5	3x2,5	
Control lines	ind outd.	# of wires x mm <sup>2</sup>	5x1,5	5x1,5	5x1,5	5x1,5	
Factory amount of refrigerant	up to 5 rm	kg	0,47	0,52	1,08	1,42	
Additional amount of refrigerant	over 5 rm	g/m	12	12	12	24	

#### Controllers

WIRELESS REMOTE CONTROL







WIRED REMOTE CONTROL





WALL-MOUNTED AIR CONDITIONERS



KLB-09 | 12 | 18 | 24 HRHI KLW-09 | 12 | 18 | 24HRHI

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## Wall air conditioner with stylish panel in two color variants: crystal white and mirror black.

A high energy class and a number of features that take care of the health and high comfort of the user comfort are additional hallmarks of this model. Kaisai Ice is equipped with compressor and condensate tray heaters, an ionizer air and a Bio HEPA filter. In addition to the standard control capabilities control, it offers rich additional options, such as connecting a controller central controller or a BMS gateway.

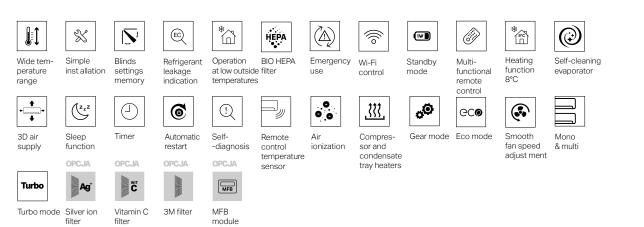








#### Features of Kaisai Ice



58 KAISAI AIR CONDITIONING SYSTEMS

#### Technical specification

MODEL	indoor unit		KLW-09HRHI KLB-09HRHI	KLW-12HRHI KLB-12HRHI	KLW-18HRHI KLB-18HRHI	KLW-24HRHI KLB-24HRHI	
	outdoor un	it	KLWB-09HRHO	KLWB-12HRHO	KLWB-18HRHO	KLWB-24HRHO	
Capacity	cooling	kW	2,6 (1,0-3,2)	3,5 (1,4-4,3)	5,3 (1,9-6,2)	7,0 (3,0-8,7)	
average (min÷max)	heating	kW	2,9 (0,8-3,4)	3,8 (1,1-4,4)	5,6 (1,3-6,9)	7,3 (1,5-9,3)	
Energy class	cooling/hea	ating	A+++ / A++	A+++ / A++	A++ / A+	A++ / A+	
SEER	average	W/W	8,8	8,5	7,0	6.4	
SCOP	average	W/W	4,6	4,6	4,0	4,0	
Average power con-	cooling	W	628 (80÷1100)	1005 (130÷1650)	1550 (150÷2250)	2420 (340÷3450)	
sumption (min÷max)	heating	W	651 (70÷990)	977 (160÷1560)	1630 (220÷2350)	2130 (300÷3150)	
Average operating	cooling	А	2.7 (0.3÷4.8)	4.4 (0.6÷7.2)	6.7 (0.7÷9.8)	10.5 (1.4÷15)	
current (min÷max)	heating	А	2.8 (0.3÷4.3)	4.2 (0.7÷6.8)	7.1 (0.9÷10.2)	9.3 (1.3÷13.7)	
A := 61	indoor	m³/h	510/360/300	520/370/310	800/600/500	1090/770/610	
Air flow rate	outdoor	m³/h	2150	2200	2100	3500	
Operating temp.	indoor	°C	17÷32/0÷30	17÷32/0÷30	17÷32/0÷30	17÷32/0÷30	
cooling/heating	outdoor	°C	-15+50/-25+30	-15+50/-25+30	-15+50/-25+30	-15+50/-25+30	
Sound pressure	indoor	dB(A)	37/31/22/19	39/33/22/21	41/37/31/20	46/37/34.5/21	
level	outdoor	dB(A)	54,0	54,5	57,0	60,0	
Net dimensions	indoor	mm	835x295x208	835x295x208	969x320x241	1083x336x244	
w/h/d	outdoor	mm	765x555x303	765x555x303	805x554x330	890x673x342	
Transport dimen-	indoor	mm	905x355x290	905x355x290	1045x405x315	1155x415x315	
sions w/h/d	outdoor	mm	887x610x337	887x610x337	915x615x370	995x740x398	
Natwoight	indoor	kg	8,7	8,7	11,2	13,6	
Net weight	outdoor	kg	26,4	26,4	33,5	43,9	
Transportweight	indoor	kg	11,5	11,5	14,6	17,3	
Transport weight	outdoor	kg	28,8	28,8	36,1	46,9	
Pipe diameter: liquid/g	las	mm	6,35/9,52	6,35/9,52	6,35/12,7	9,52/15,9	
Maximum installation	length	m	25	25	30	50	
Maximum height diffe	rence	m	10	10	20	25	
Power supply	outdoor	V/Hz/Ph	220-240/50/1	220-240/50/1	220-240/50/1	220-240/50/1	
Circuit breaker/fuse	outdoor	А	10	16	16	20	
Power supply lines	outdoor	# of wires	3x1,5	3x1,5	3x2,5	3x2,5	
Control lines	ind outd.	x mm <sup>2</sup>	5x1,5	5x1,5	5x1,5	5x1,5	
factory Refrigerant amt.	up to 5 rm	kg	0,62	0,62	1,1	1,45	
add amt.	over 5 rm	g/m	12	12	12	24	

KLW – white indoor unit / KLB – black indoor unit

#### Controllers

WIRELESS REMOTE CONTROL

**RG10A1** 

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WIRED REMOTE CONTROL

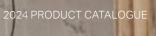
KJR-120X2 (optional)

WIRED REMOTE CONTROL E KJR-120N (optional)

WIRED REMOTE CONTROL : 355°

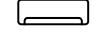


CCM (optional)



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KGE-09 | 12 | 18 | 24 GRHI

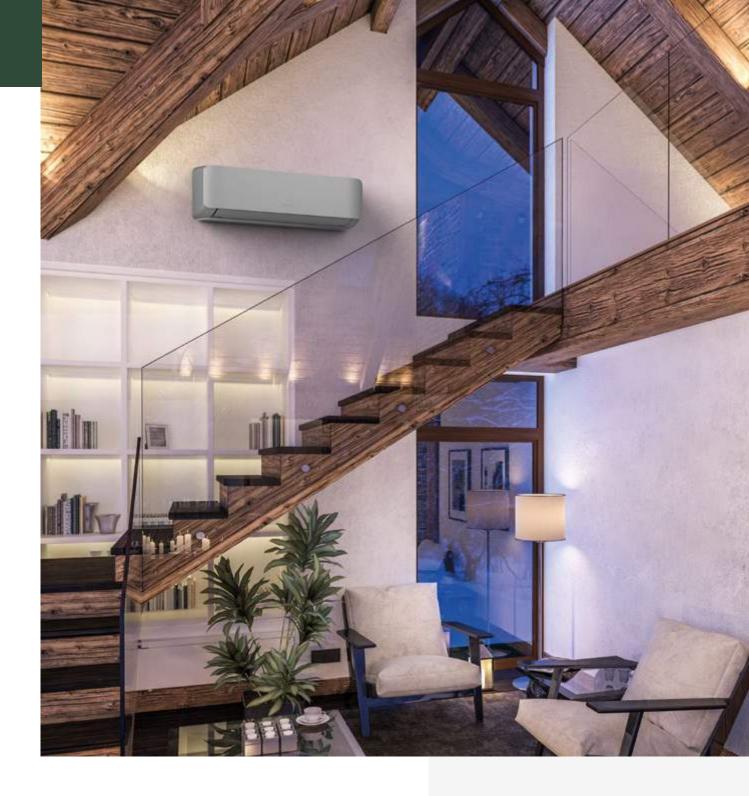
# geo

## Geo units offer the highest energy efficiency class and modern air purification functions.

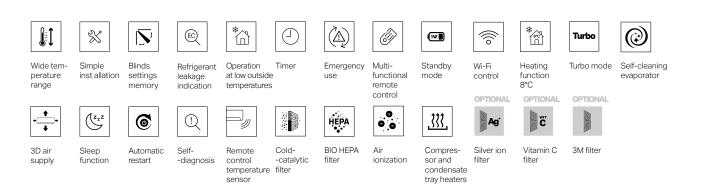
The Geo air conditioner series is the perfect combination of original design and top energy class A+++ in cooling mode and A+++ in heating mode. Thanks to the double filtration system and the air ionisation function, the device effectively cleans the air-conditioned room from dust, microbes and unwanted chemical substances. High comfort of use of the air conditioner is ensured by the Wi-Fi module as standard and the 3D air intake allowing for optimal air circulation and even temperature distribution in the room.



KAIEAI



#### Features of Kaisai Geo



#### Technical specification

NODEL	indoor unit		KGE-09GRHI	KGE-12GRHI	KGE-18GRHI	KGE-24GRHI
MODEL	outdoor unit		KGE-09GRHO	KGE-12GRHO	KGE-18GRHO	KGE-24GRHO
Capacity	cooling	kW	2,6(1,0÷3,2)	3,5(1,4÷4,3)	5,3(3,4÷5,9)	7,0(2,1÷8,2)
average (min÷max)	heating	kW	2,9(0,8÷3,4)	3,8(1,1÷4,4)	5,6(3,1÷5,8)	7,3(1,5÷8,5)
Energy class	cooling/heat	ting	A+++/A++	A+++/A++	A++/A+	A++/A+
SEER	average	W/W	9,3	8,5	7,0	6,5
SCOP	average	W/W	4,6	4,6	4,0	4,0
Average power consumption	cooling	W	613(90÷1140)	977(130÷1650)	1550(560÷2050)	2510(420÷3200)
(min÷max)	heating	W	637(110÷1080)	977(160÷1560)	1500(780÷2000)	2130(300÷3100)
Average operating current	cooling	A	2,66(0,4÷4,7)	4,2(0,6÷7,2)	6,7(2,4÷9,0)	10,9(1,8÷13,9)
(min÷max)	heating	A	2,77(0,48÷4,7)	4,2(0,7÷6,8)	6,5(3,4÷8,7)	9,3(1,3÷13,5)
	indoor	m³/h	483/362/303	584/477/395	730/500/420	1020/830/640
Air flow rate	outdoor	m³/h	2150	2100	2200	3500
Operating temperature	indoor	°C	17÷32/0÷30	17÷32/0÷30	17÷32/0÷30	17÷32/0÷30
cooling/heating	outdoor	°C	-15÷50/-25÷24	-15÷50/-25÷24	-15÷50/-25÷24	-15÷50/-25÷24
	indoor	dB(A)	36,5/29,0/24,0	39,5/33/25	43/33,5/28	47/41,5/30,5
Sound pressure level	outdoor	dB(A)	54	54,5	55,5	60,5
<b>.</b>	indoor	mm	802/297/189	802/297/189	965/319/215	1080/335/226
Net dimensions w/h/d	outdoor	mm	765/555/303	765/555/303	805/554/330	890/673/342
<b>-</b>	indoor	mm	875/380/285	875/380/285	1045/410/305	1155/415/320
Transport dimensions w/h/d	outdoor	mm	887/610/337	887/610/337	915/615/370	995/740/398
NI	indoor	kg	8,6	8,6	10,9	13,7
Net weight	outdoor	kg	26,7	26,7	33,5	43,9
Torona anti-contract	indoor	kg	11,1	11,1	14,2	17,3
Transport weight	outdoor	kg	29,1	29,1	36,1	46,9
Pipe diameter: liquid/gas		mm	6,35/9,52	6,35/9,52	6,35/12,7	9,52/15,9
Maximum installation length		m	25	25	30	30
Maximum height difference		m	10	10	20	20
Power supply	outdoor	V/Hz/Ph	220÷240/50/1	220÷240/50/1	220÷240/50/1	220÷240/50/1
Circuit breaker/fuse	outdoor	А	10	10	16	20
Power supply lines	outdoor	# of wires	3x1,5	3x1,5	3x1,5	3x2,5
Control lines	ind outd.	x mm <sup>2</sup>	5x1,5	5x1,5	5x1,5	5x1,5
Factory amount of refrigerant	up to 5 rm	kg	0,62	0,62	1,1	1,45
Additional amount of refrigerant	over 5 rm	g/m	12	12	12	24

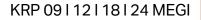
#### Controllers

WIRELESS REMOTE CONTROL

RG10B1







# pro heat

A wall-mounted air conditioner designed for energy-efficient and reliable heating, characterized by exceptionally high energy efficiency coefficients and the ability to efficiently heat rooms at outdoor temperatures down to -25°C.

ProHeat combines modern design with high comfort thanks to the air ionization function and advanced air purification filters.



KAISAÍ



#### Features of Kaisai Pro Heat

		$\overline{\mathbf{N}}$
Wide tem- perature range	High-den- sity filter	Blinds settings memory
<b>↑</b> <b>↓</b>		ecø
3D air supply	Sleep function	Eco
OPTIONAL	OPTIONAL	OPTIONA
Ag⁺	Č	

Blinds settings memory	Refrigerant leakage indication
ecø	
Eco	Wi-Fi control
OPTIONAL	OPTIONAL

*	9
Operatio at low ou	Timer

temperatures

° 6

Automatic Gear mod





Turbo

Standby mode installation



。 。 。 Air ionization





Smooth fan speed adjust ment Self--diagnosis



Electronic expansion valve

\$

sor and condensate tray heaters

Silver ion filter Vitamin C filter

OPTIONAL	OPTIONA
	MFB
3M filter	MFB

module

EC

	Automati	v
	restart	
NL.		

de	Remote
	control
	temperatur
	sensor

シ

Cold- BIO HE -catalytic filter filter
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HEPA

Compres-

#### Technical specification

MODEL	indoor unit		KRP-09MEGI	KRP-12MEGI	KRP-18MEGI	KRP-24MEGI
MODEL	outdoor unit		KRP-09MEGO	KRP-12MEGO	KRP-18MEGO	KRP-24MEGO
Capacity	cooling	kW	2,7(1,3-3,8)	3,5(1,3-3,9)	5,3(3,7-6,1)	7,0(2,1-8,2)
average (min÷max)	heating	kW	3,1(0,9-4,4)	3,9(0,9-4,5)	5,6(2,6-6,7)	7,3(1,6-8,2)
Energy class	cooling/heating		A+++ / A++	A+++ / A++	A+++/A+	A+++/A+
SEER	average	W/W	8,6	8,5	8,5	8,5
SCOP	average	W/W	4,6	4,6	4,3	4,2
Average power con-	cooling	W	600(130÷1200)	880(130÷1250)	1318(587÷1787)	1760(420÷3200)
sumption (min÷max)	heating	W	690(120÷1400)	990(120÷1450)	1500(943÷1695)	1975(300÷3100)
Average operating current	cooling	А	2,66(0.6÷5.35)	3,9(0.6÷5.55)	5,73(2.81÷7.90)	7,7(1.8÷13.9)
(min÷max)	heating	А	3,05(0.6÷6.2)	4,4(0.6÷6.4)	6,52(4.26÷7.50)	8,6(1.3÷13.5)
A. ()	indoor	m³/h	530/360/280	560/380/290	685/580/400	1092/724/379
Air flow rate	outdoor	m³/h	2200	2200	3500	3500
Operating temp. cooling/	indoor	°C	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30
heating	outdoor	°C	-15÷50/-25÷24	-15÷50/-25÷24	-15÷50/-25÷24	-15÷50/-25÷24
	indoor	dB(A)	37/32/21,5/20,5	40/33/22/21	41/35/23/22	44,5/40/33/21
Sound pressure level	outdoor	dB(A)	57	57,5	56	58,5
	indoor	mm	795x295x225	795x295x225	965x319x239	1140x370x275
Net dimensions w/h/d	outdoor	mm	805x554x330	805x554x330	890x673x342	890x673x342
Transport dimensions	indoor	mm	870x370x305	870x370x305	1045x400x325	1230x455x355
w/h/d	outdoor	mm	915x615x370	915x615x370	995x740x398	995x740x398
Networkelet	indoor	kg	10,2	10,2	12,3	20,0
Net weight	outdoor	kg	28,4	28,4	38,8	45,6
Trananart weight	indoor	kg	13	13	16,4	25,3
Transport weight	outdoor	kg	31,0	31,0	41,9	48,8
Pipe diameter: liquid/gas		mm	6,35/9,52	6,35/9,52	6,35/12,70	9,52/15,90
Maximum installation length	1	m	25	25	30	50
Maximum height difference		m	10	10	20	25
Power supply	outdoor	V/Hz/Ph	220-240/50/1	220-240/50/1	220-240/50/1	220-240/50/1
Circuit breaker/fuse	outdoor	А	10	16	16	20
Power supply lines	outdoor	# of wires x mm <sup>2</sup>	3x1,5	3x1,5	3x2,5	3x2,5
Control lines	ind outd.	# of wires x mm <sup>2</sup>	5x1,5	5x1,5	5x1,5	5x1,5
Factory amount of refrigera	nt up to 5 rm	kg	0,69	0,69	1,10	1,50
Additional amount of refrige	erant over 5 rm	g/m	12	12	12	24

#### Controllers

WIRELESS REMOTE CONTROL

**RG10A1** 



WIRED REMOTE CONTROL

KJR-120X2 (optional) WIRED REMOTE CONTROL

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MOTE

KJR-120N (OPTIONAL)





2÷5 indoor units

## Multi split systems

Multi Split air conditioners are extremely energy-efficient units. The system allows the connection from 2 to 5 Fly, One+ or Ice wall units, kompakt cassette, console or duct units to one (external) unit.

Each of the indoor units operates individually, has the option of independently adjusting the temperature and adjusting the power to the users' needs. When buying a Multi Split air conditioner, it is important to select the cooling capacity needed for each room in which the wall or cassette air conditioner will be placed.

The selected units are installed in the rooms and at the very end, each of the air conditioners is connected to a pre-installed single large unit (outdoor unit). This way, there is no need to install an indoor and an outdoor unit for each room.

## **Indoor units**



#### KWX 09 | 12 | 18 | 24 KRHI

WI-FI AS A STANDARD

MODEL			KWX-09KRHI	KWX-12KRHI	KWX-18KRHI	KWX-24KRHI
Power supply		V/Hz/Ph	220÷240/50/1	220÷240/50/1	220÷240/50/1	220÷240/50/1
	cooling	kW	2,6	3,5	5,3	7,0
Capacity	heating	kW	2,9	3,8	5,6	7,3
Air flow rate		m³/h	435/333/259	530/430/310	840/680/540	980/817/662
Sound pressure level	(high/medium/low)	dB(A)	37/32/25/21,5	39,5/35,5/25/21.5	42,5/36/26/20	45/40,5/36/30
	net	mm	715/285/194	805/285/194	957/302/213	1040/327/220
Dimensions w/h/d	transport	mm		1035/385/295	1120/405/315	
	net	kg	6,7	7,3	10,0	12,3
Weight	transport	kg	8,8	9,5	13,0	15,8
	liquid	mm	6,35	6,35	6,35	9,52
Pipe diameter	gas	mm	9,52	9,52	12,70	15,90



#### KLW 09 | 12 | 18 | 24 HRHI / KLB 09 | 12 | 18 | 24 HRHI

WI-FI AS A STANDARD

MODEL			KLW-09HRHI Klb-09hrhi	KLW-12HRHI KLB-12HRHI	KLW-18HRHI KLB-18HRHI	KLW-24HRHI KLB-24HRHI
Power supply		V/Hz/Ph	220÷240/50/1	220÷240/50/1	220÷240/50/1	220÷240/50/1
O it.	cooling	kW	2,6	3,5	5,3	7,0
Capacity	heating	kW	2,9	3,8	5,6	7,3
Air flow rate		m³/h	510/360/300	520/370/310	800/600/500	1090/770/610
Sound pressure level	(high/medium/ low)	dB(A)	37/31/22/19	39/33/22/21	41/37/31/20	46/37/34.5/21
Dimensions w/h/d	net	mm	835x295x208	835x295x208	969x320x241	1083x336x244
	transport	mm	905x355x290	905x355x290	1045x405x315	1155x415x315
Moight	net	kg	8,7	8,7	11,2	13,6
Weight	transport	kg	11,5	11,5	14,6	17,3
Dina diamatar	liquid	mm	6,35	6,35	6,35	6,35
Pipe diameter	gas	mm	9,52	9,52	12,7	15,9



#### KGE-09 | 12 | 18 | 24 GRHI

WI-FI AS A STANDARD

MODEL			KGE-09GRHI	KGE-12GRHI	KGE-18GRHI	KGE-24GRHI
Power supply		V/Hz/Ph	220÷240/50/1	220÷240/50/1	220÷240/50/1	220÷240/50/1
Orrest	cooling	kW	2,6	3,5	5,3	7,0
Capacity	heating	kW	2,9	3,8	5,6	7,3
Air flow rate		m³/h	483/362/303	584/477/395	730/500/420	1020/830/640
Sound pressure level	(high/medium/low)	dB(A)	36,5/29,0/24,0	39,5/33/25	43/33,5/28	47/41,5/30,5
Discoursions and the	net	mm	802/297/189	802/297/189	965/319/215	1080/335/226
Dimensions w/h/d	transport	mm	875/380/285	875/380/285	1045/410/305	1155/415/320
\\/_:-!+	net	kg	8,6	8,6	10,9	13,7
Weight	transport	kg	11,1	11,1	14,2	17,3
	liquid	mm	6,35	6,35	6,35	9,52
Pipe diameter	gas	mm	9,52	9,52	12,70	15,90



#### KTI-18HWG32X



#### KFAU-12 | 17 HRG32X

		KTI-18HWG32X	MODEL	KFAU-12HRG32X	KFAU-17HRG32X
	V/Hz/Ph	220÷240/50/1		220÷240/50/1	220÷240/50/1
ooling	kW	5,3		3,5	5,0
eating	kW	5,6		3,8	5,3
	m³/h	911/706/515		650/580/490	780/690/600
nigh/medium/low)	dB(A)	41/38/34/26		37/34/27	41/38/32
actory / max.	Pa	25/100			
et	mm	880/210/674		794/621/206	794/621/206
ansport	mm	1070/280/725		865/719/280	865/719/280
et	kg	24,4		14,9	14,9
ansport	kg	29,6		18,8	18,8
quid	mm	6,35		6,35	6,35
as	mm	12,70		9,52	12,7
	gh/medium/low) etory / max. t nsport t nsport uid	m³/h gh/medium/low) dB(A) etory / max. Pa t mm nsport mm t kg nsport kg uid mm	m³/h 911/706/515   gh/medium/low) dB(A) 41/38/34/26   story / max. Pa 25/100   t mm 880/210/674   nsport mm 1070/280/725   t kg 24,4   nsport kg 29,6   uid mm 6,35	m³/h 911/706/515   gh/medium/low) dB(A) 41/38/34/26   etory / max. Pa 25/100   t mm 880/210/674   nsport mm 1070/280/725   t kg 24,4   nsport kg 29,6   uid mm 6,35	m³/h 911/706/515 650/580/490   gh/medium/low) dB(A) 41/38/34/26 37/34/27   story / max. Pa 25/100 794/621/206   t mm 880/210/674 794/621/206   nsport mm 1070/280/725 865/719/280   t kg 24,4 14,9   nsport kg 29,6 18,8   uid mm 6,35 6,35



#### KCA3I-09HRG32X | KCA4U-12 | 18 HRG32X

MODEL			KCA3I-09HRG32X	KCA4U-12HRG32X	KCA4U-18HRG32X
Power supply		V/Hz/Ph	220÷240/50/1	220÷240/50/1	220÷240/50/1
<b>2</b>	cooling	kW	2,6	3,5	5,3
Capacity	heating	kW	2,8	3,8	5,6
Air flow rate		m³/h	580/500/450	620/520/330	660/540/300
Sound pressure level	(high/medium/low)	dB(A)	38/33/29	42/38.5/31.5/25.5	44/41/31.5/25
<b>.</b>	net	mm	570/260/570	570/245/570	570/245/570
Dimensions w/n/d	transport	mm	662/317/662	715/295/640	715/295/640
	net	mm	620/50/620	620/50/620	647/50/647
Dimensions w/n/dpanei	transport	mm	715/123/715	715/115/700	715/115/700
\\/_:-!+	net	kg	14,5/2,5	16,1/2,7	16,2/2,7
weight	transport	kg	17,3/4,5	18,8/4,3	19/4,3
Dina diamatar	liquid	mm	6,35	6,35	6,35
Dimensions w/h/d Dimensions w/h/dpanel Weight Pipe diameter	gas	mm	9,52	9,52	12,70

## **Outdoor units**

MODEL	outdoor unit		K20E-18HFN32H	K30A-27HFN32H	K40E-28HFN32H	K40B-36HFN32H	K50E-42HFN32H
Capacity	cooling	kW	5,3(2,3÷5,7)	7,9(3,2÷8,2)	8,2(2,0÷9.8)	10,6(2,0÷12,7)	12,3(3,0÷12,3)
average (min÷max)	heating	kW	5,6(2,4÷5,7)	8,2(2,3÷8,5)	8,8(2,4÷10,6)	10,8(2,3÷13,0)	12,3(3,5÷12,3)
Energy class	cooling/heating		A++/A+	A++/A+	A++/A	A++/A	A++/A
SEER	average	W/W	6,1	6,1	6,1	6,2	6,1
SCOP	average	W/W	3,8	4,0	3,8	3,8	3,5
Average power con-	cooling	W	1635(690÷2000)	2450(290÷3100)	2540(890÷3180)	3270(1140÷4090)	3810(280÷4650)
sumption (min+max)	heating	W	1500(600÷1780)	2210(370÷2900)	2200(770÷2750)	2760(970÷3450)	3300(650÷3800)
Average operating	cooling	А	7.3(3.2÷9.0)	11.2(2.0÷13.5)	11.3(3.9÷14.1)	14.3(5.1÷18.2)	16(1.4÷20.7)
current (min÷max)	heating	А	6.6(2.80÷7.95)	10.1(2.4÷13)	9.8(3.4÷12.2)	12.1(4.3÷15.3)	14.6(3.0÷16.6)
Air flow rate		m³/h	2100	3000	3800	4000	3850
Operating temperatu	re cooling/heating	°C	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24
Sound pressure level		dB(A)	54	58	61.5	63	64
Net dimensions w/h/c	k	mm	805/554/330	890/673/342	946/810/410	946/810/410	946/810/410
Transport dimensions	s w/h/d	mm	915/615/370	1030/750/438	1090/875/500	1090/875/500	1090/875/500
Net weight		kg	35,0	48,0	62,1	68,8	74,1
Transport weight		kg	38	51,8	67,7	75,6	79,5
Pipe diameter: liquid/	gas	mm	2x 6,35/9,52	3x 6,35/9,52	3x 6,35/9,52 + 1x 6,35/12,7	3x 6,35/9,52 + 1x 6,35/12,7	4x 6,35/9,52 + 1x 6,35/12,7
Maximum installation	length	m	40	60	80	80	80
Max. installation lengt	th for 1 indoor unit	m	25	30	35	35	35
Maximum height diffe	erence	m	15	15	15	15	15
Power supply		V/Hz/Ph	220-240/50/1	220-240/50/1	220-240/50/1	220-240/50/1	220-240/50/1
Circuit breaker/fuse		А	16	20	25	25	25
Power supply lines		# of wires	3x2,5	3x2,5	3x4,0	3x4,0	3x4,0
Control lines		x mm <sup>2</sup>	4x1,5	4x1,5	4x1,5	4x1,5	4x1,5
Factory amount of re	frigerant	kg	1,25	1,85	2,10	2,10	2,90
Additional amount of	refrigerant	g/m	12 (powyżej 15 m instalacji)	12 (powyżej 22,5 m instalacji)	12 (powyżej 30 m instalacji)	12 (powyżej 30 m instalacji)	12 (powyżej 37,5 n instalacji)

### Indoor units **Configuration table**

The table shows possible options for connecting indoor units of different capacities to outdoor units. The figures in the table correspond to the capacity of the units expressed in thousands of BTU/h.

### K2OE-18HFN32H

### K3OA-27HFN32H

1 UNIT	NIT 2 UNITS		2 UNITS		3 UNITS	
9	9+9	9	9+9	12+12	9+9+9	12+12+12
12	9+12	12	9+12	12+18	9+9+12	
18	12+12	18	9+18		9+12+12	

### K4OE-28HFN32H

1 UNIT	2 UNITS		3 UNITS		4 UNITS	4 UNITS	
9	9+9	12+12	9+9+9	9+12+12	9+9+9+9		
12	9+12	12+18	9+9+12				
18	9+18	18+18	9+9+18				
24	9+24	12+24	12+12+12				

### K4OB-36HFN32H

1 UNIT	2 UNITS		3 UNITS		4 UNITS	
9	9+9	12+24	9+9+9	9+18+18	9+9+9+9	
12	9+12	24+9	9+9+12	9+12+24	9+9+9+12	
18	9+18		9+9+18	12+12+12	9+9+9+18	
24	12+12		9+9+24	12+12+18	9+9+12+12	
	12+18		9+12+12		9+12+12+12	
	18+18		9+12+18		12+12+12	

### K5OE-42HFN32H

1 UNIT	2 UNITS			3 UNITS		
9	9+9	12+12		9+9+9	9+12+12	12+12+12
12	9+12	12+18		9+9+12	9+12+18	12+12+18
18	9+18	12+24		9+9+18	9+12+24	12+12+24
24	9+24	18+18		9+9+24	9+18+18	12+18+18
4 UNITS				5 UNITS		
9+9+9+9	9	+9+12+18	12+12+12+18	9+9+9+9+9		
9+9+9+12	9	+9+18+24		9+9+9+9+1	2	
9+9+9+18	9	+12+12+12		9+9+9+9+1	8	
9+9+9+24	9	+12+12+18		9+9+9+12+	12	
9+9+12+12	1	2+12+12+12		9+9+12+12	+12	



floor	floor and ceiling	console	cassette	duct	condensing units



Commercial air conditioning systems combine efficient operation with a wide range of solutions for offices, conference rooms, hotels and other rooms that require efficient air conditioning.

Depending on the area and purpose of the facility, as well as the installation possibilities, we can apply floor, floor/ceiling, cassette, duct, or condensing units.

2024 PRODUCT CATALOGUE



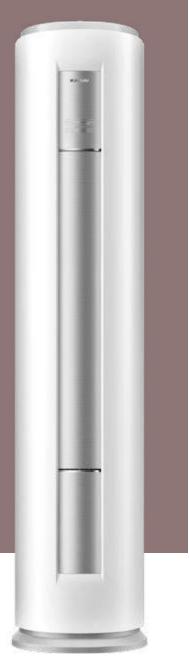
76



The new floor standing air conditioner model is ideal for rooms of 60-70 m<sup>2</sup>, such as offices, lounges or conference rooms.

In addition to traditional control via a wireless remote control, the KFS-24 air conditioner also offers a modern touch panel built into the unit. This makes use even more convenient and intuitive, allowing quick and precise control of various functions and parameter settings. The VLED display adds style to the panel and makes the digits easy to read from any angle. Thanks to the extended and widened air outlet, the air conditioner provides even cooling throughout the room for exceptional thermal comfort.







### Features of Kaisai KFS























Wide tem-perature range





Refrigerant leakage indication



Sleep function

Automatic restart

Electronic expansion valve Self--diagnosis

Operation at low outside temperatures





Silver ion filter

Vitamin C filter

Č

3M filter

OPTIONAL

78 KAISAI AIR CONDITIONING SYSTEMS

	indoor unit		KFS-24HRG32X
MODEL	outdoor unit		KOX430L-24HFN32X
Capacity	cooling	kW	7,0 (2,3-7,9)
verage (min÷max)	heating	kW	7,6 (3,6-8,6)
nergy class	cooling/heating		A++ / A+
EER	average	W/W	6,3
COP	average	W/W	4,1
erage power consumption	cooling	W	2200 (570~2800)
in÷max)	heating	W	2180 (700~2745)
	cooling	A	9.8 (2.5~12.4)
erage operating current (min÷max)	heating	A	9.7 (3.10~12.2)
	indoor	m³/h	1050/800/670
flow rate	outdoor	m³/h	3500
perating temperature	indoor	°C	17÷32/0÷30
oling/heating	outdoor	°C	-15÷50/-15÷24
	indoor	dB(A)	45/40/37/32
und pressure level	outdoor	dB(A)	59,5
	indoor	mm	405x405x1775
dimensions w/h/d	outdoor	mm	490x510x2000
	indoor	mm	29,1
nsport dimensions w/h/d	outdoor	mm	38,3
·	indoor	kg	890x342x673
tweight	outdoor	kg	995x398x740
	indoor	kg	43,8
nsport weight	outdoor	kg	46,8
e diameter: liquid/gas		mm	6,35/12,7
ximum installation length		m	50
ximum height difference		m	25
wer supply	outdoor		220-240, 50, 1
cuit breaker/fuse	outdoor	А	20
wer supply lines	outdoor	# of wires x mm <sup>2</sup>	3x2,5
ontrol lines	ind outd.		4x1,5
ctory amount of refrigerant	up to 5 rm	kg	1,13
ditional amount of refrigerant	over 5 rm	g/m	12

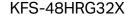
### Controllers

WIRELESS REMOTE CONTROL

RG10B







## kfs

The floor air conditioner is used in large rooms, such as stores, showrooms, restaurants and airport halls.

The KFS air conditioner is distinguished by an elegant and intuitive control panel, a functional wireless remote control with temperature sensor and energy saving technology, allowing the unit to operate in economy mode.The comfort of use is ensured by practical functions of the air conditioner, such as: 3D airflow for uniform temperature distribution in the room and the temperature sensor built in the remote control (thanks to which the temperature is measured where the user is located, and the operation of the air conditioner is adjusted to the actual conditions in the room). The device can be used in rooms of up to approx. 120-140 m2.



### A‡ | R32



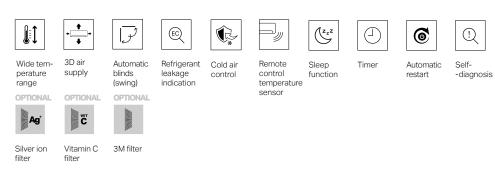
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Operation at low outside temperatures

\$

Electronic expansion valve

### Features of Kaisai KFS



NODEL	indoor unit		KFS-48HRG32X
MODEL	outdoor unit		KOE30U-48HFN32X
Capacity	cooling	kW	14,1(3,5÷15,7)
average (min÷max)	heating	kW	16,1(4,1÷17,9)
Energy class	cooling/heating		A++/A+
SEER	average	W/W	6,1
SCOP	average	W/W	4
Average power consumption	cooling	W	4950(900÷5950)
(min÷max)	heating	W	5100(1000÷6200)
	cooling	A	8,0(1.9÷10.3)
Average operating current (min÷max)	heating	A	8,5(1,6÷10.5)
A := 61	indoor	m³/h	2413/2222/2027
Air flow rate	outdoor	m³/h	7500
Operating temperature	indoor	°C	17÷32/0÷30
cooling/heating	outdoor	°C	-15+50/-15+24
0	indoor	dB(A)	53/49/47
Sound pressure level	outdoor	dB(A)	63,5
Nat dimensione w/b/d	indoor	mm	629/1935/456
Net dimensions w/h/d	outdoor	mm	952/1333/415
Transport dimensions w/b/d	indoor	mm	750/2055/575
Transport dimensions w/h/d	outdoor	mm	1095/1480/495
Notwoight	indoor	kg	59,0
Net weight	outdoor	kg	103,7
Transport weight	indoor	kg	77,0
Inalisport weight	outdoor	kg	118,3
Pipe diameter: liquid/gas		mm	9,52/15,9
Maximum installation length		m	75
Maximum height difference		m	30
Power supply	outdoor		380-420/50/3
Circuit breaker/fuse	outdoor	А	16
Power supply lines	outdoor	# of wires x mm <sup>2</sup>	5x2,5
Control lines	ind outd.		4 x 1,5
Factory amount of refrigerant	up to 5 rm	kg	2,9
Additional amount of refrigerant	over 5 rm	g/m	24
Outer diameter of condensate drain		mm	25

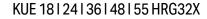
### Controllers

WIRELESS REMOTE CONTROL

RG10B







### KUE

### Universal floor/ceiling air conditioners, which are perfect for rooms without false ceilings, among others.

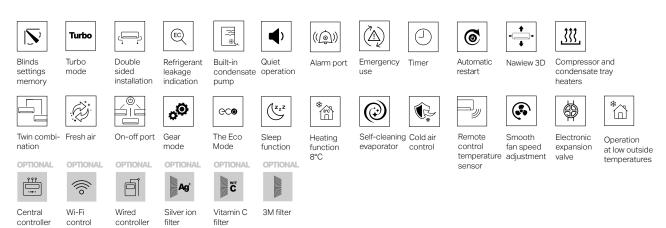
They are characterised by a three-dimensional air flow thanks to the automatic control of the blinds. This ensures optimum air circulation and even temperature distribution. The timer allows you to set a time for the automatic activation and deactivation of the air conditioner. To minimise the feeling of unpleasant, cold air, the air conditioner starts in heating mode and automatically reduces the fan speed – until the heat exchanger heats up.







### Features of Kaisai KUE



86 KAISAI AIR CONDITIONING SYSTEMS

	indoor unit outdoor unit		KUE-18HRG32X	KUE-24HRG32X	KUE-36HRG32X	KUE-36HRG32X	KUE-48HRG32X	KUE-55HRG32X
MODEL			KOX330-18HF- N32X	KOX430-24HF- N32X	KOD30U- 36HFJ32X	KOD30U-36HF- N32X	KOE30U-48HF- N32X	KOE30U-55HF- N32X
Capacity average	cooling	kW	5,3 (2,7÷5,9)	7,0 (3,2÷7,8)	10,6 (2,7÷11,4)	10,6 (2,7÷11,8)	14,1 (3,5÷15.2)	15,8 (4,1÷16,7)
(min÷max)	heating	kW	5,6 (2,4÷6,3)	7,6 (2,7÷8,3)	11,7 (2,8÷12,8)	11,7 (2,8÷12,8)	16,1 (4,1÷17,0)	18,2 (4,4÷19,6)
Energy class	cooling/he	ating	A++/A+	A++/A+	A++/A+	A++/A+	A++/A+	A++/A+
SEER	average	W/W	6,2	6,1	6,2	6,4	6,1	6,1
SCOP	average	W/W	4,0	4,0	4,0	4,1	4,0	4,0
Avg. power con-	cooling	W	1450 (670÷2027)	2300 (747÷2930)	3900 (900÷4250)	40000 (890÷4300)	5000 (900÷5950)	5650 (1100÷6650
sumption (min÷max)	heating	W	1500 (540÷1640)	2050 (650÷2850)	3350 (800÷3950)	3350 (780÷3950)	5100 (1000÷6050)	6050 (1050÷7100
Avg. operating	cooling	A	6,0 (3,2÷9,0)	10,5 (3,9÷13,1)	17,0 (4,2÷19,0)	6,3 (1,4÷6,8)	8,8 (1,9÷10,3)	9,7 (3,2÷11,5)
current (min÷max)	heating	A	6,6 (2,7÷7,3)	9,5 (3,5÷12,7)	15,0 (3,5÷17,5)	5,4 (1,3÷6,2)	8,9 (2,1÷10,5)	10,5 (2,2÷12,0)
	indoor	m³/h	958/839/723	1192/1023/853	1955/1728/1504	1955/1728/1504	2100/1850/1600	2200/1950/1650
Air flow rate	outdoor	m³/h	2200	3500	4000	4000	7500	7500
Operating temp.	indoor	°C	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30
cooling/heating	outdoor	°C	-15+50/-15+24	-15+50/-15+24	-15÷50/-15+24	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24
	indoor	dB(A)	43,5/41/36,5/24	49/46/43/32	50/48,5/44/37	50/48,5/44/37	53/50/45/36	54/50,5/46,5/38
Sound pressure level	outdoor	dB(A)	56	60	63	63	63,5	64
Net dimensions	indoor	mm	1068/675/235	1068/675/235	1650/675/235	1650/675/235	1650/675/235	1650/675/235
w/h/d	outdoor	mm	805/554/330	890/673/342	946/810/410	946/810/410	952/1333/415	952/1333/415
Transp. dimensions	indoor	mm	1145/755/318	1145/755/318	1725/755/318	1725/755/318	1725/755/318	1725/755/318
w/h/d	outdoor	mm	915/615/370	995/740/398	1090/885/500	1090/885/500	1095/1480/495	1095/1480/495
N	indoor	kg	28,0	28,0	41,5	41,5	41,7	42,3
Net weight	outdoor	kg	26,6	43,9	66,9	80,5	103,7	107,0
- · · · ·	indoor	kg	33,1	33,3	48,0	48,0	48,5	49,2
Transport weight	outdoor	kg	29,0	46,9	71,5	85,0	118,3	121,2
Pipe diameter: liquid/g	as	mm	6,35/12,7	9,52/15,9	9,52/15,9	9,52/15,9	9,52/15,9	9,52/15,9
Maximum installation I	ength	m	30	50	75	75	75	75
Maximum height differ	rence	m	20	25	30	30	30	30
Power supply	outdoor	V/Hz/Ph	220÷240/50/1	220÷240/50/1	220÷240/50/1	380÷420/50/3	380÷420/50/3	380÷420/50/3
Circuit breaker/fuse	outdoor	А	16	20	25	16	16	16
Power supply lines	outdoor	# of wires	3x2,5	3x2,5	3x4,0	5x2,5	5x2,5	5x2,5
Control lines	ind outd.	-	4x1,5	4x1,5	4x1,5	4x1,5	4x1,5	4x1,5
Factory amount of	up to 5 rm	kg	1,15	1,5	2,4	2,4	2,9	3,0
Additional refrigerant		g/m	12	24	24	24	24	24
Outer diameter of cond	ensate drain	mm	25	25	25	25	25	25

### Controllers

WIRELESS REMOTE CONTROL



RG10A



WIRED REMOTE CONTROL

: 355 mm-



CCM (optional)









COMMERCIAL AIR CONDITIONERS



KFAU 12117 HRG32X

# console

The console air conditioner is a solution designed to be installed in the skirting area, leaving the wall space free.

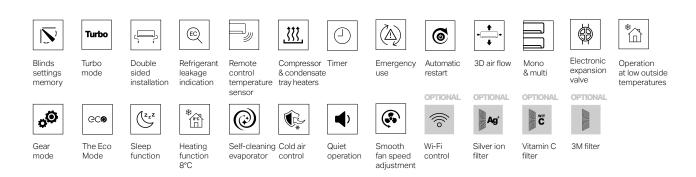
Thanks to its design, which allows the air to flow both up and down, it can be used in rooms where it is not possible to install wall units: in attics, in rooms with sloping roofs and in recesses under windows. Thanks to the movable supply fins and their wide angle of inclination, the console provides efficient and effective air distribution throughout the room.







### Features of Kaisai CONSOLE



MODEL	indoor unit		KFAU-12HRG32X	KFAU-17HRG32X
MODEL	outdoor unit		KOX230-12HFN32X	KOX330-18HFN32X
Capacity	cooling	kW	3,5(0,8÷4,2)	5,0(2,6÷5,6)
average (min÷max)	heating	kW	3,8(0,4÷4,7)	5,3(2,2÷6,3)
Energy class	cooling/heating		A++/A+	A++/A+
SEER	average	W/W	7,3	6,7
SCOP	average	W/W	4,0	4,0
Average power consumption	cooling	W	1000(170÷1350)	1500(650÷1950)
(min÷max)	heating	W	980(150÷1300)	1420(600÷1900)
	cooling	А	4,5(1,4÷5,9)	6,7(3,0÷8,7)
Average operating current (min÷max)	heating	А	4,4(1,2÷6,0)	6,4(2,7÷8,5)
Airflowrata	indoor	m³/h	650/580/490	780/690/600
Air flow rate	outdoor	m³/h	2100	2200
Operating temperature	indoor	°C	16÷32/0÷30	16÷32/0÷30
cooling/heating	outdoor	°C	-15÷50/-15÷24	-15÷50/-15÷24
	indoor	dB(A)	37/34/27	41/38/32
Sound pressure level	outdoor	dB(A)	53,6	56,0
Net dimensions w/h/d	indoor	mm	794/621/206	794/621/206
inet dimensions w/n/d	outdoor	mm	765/555/303	805/554/330
Trananart dimanajana w/h/d	indoor	mm	865/719/280	865/719/280
Transport dimensions w/h/d	outdoor	mm	887/610/337	915/615/370
Notwoight	indoor	kg	14,9	14,9
Net weight	outdoor	kg	26,6	32,5
Transport weight	indoor	kg	18,8	18,8
Iransport weight	outdoor	kg	29,0	35,2
Pipe diameter: liquid/gas		mm	6,35/9,52	6,35/12,7
Maximum installation length		m	25	30
Maximum height difference		m	10	20
Power supply	outdoor		220-240/50/1	220-240/50/1
Circuit breaker/fuse	outdoor	А	16	16
Power supply lines	outdoor	# of wires x	3x2,5	3x2,5
Control lines	ind outd.	mm <sup>2</sup>	4x1,5	4x1,5
Factory amount of refrigerant	up to 5 rm	kg	0,72	1,15
Additional amount of refrigerant	over 5 rm	g/m	12	12
Outer diameter of condensate drain		mm	25	

### Controllers

WIRELESS REMOTE CONTROL

RG10A







KCA4U 12 | 18 HRG32X

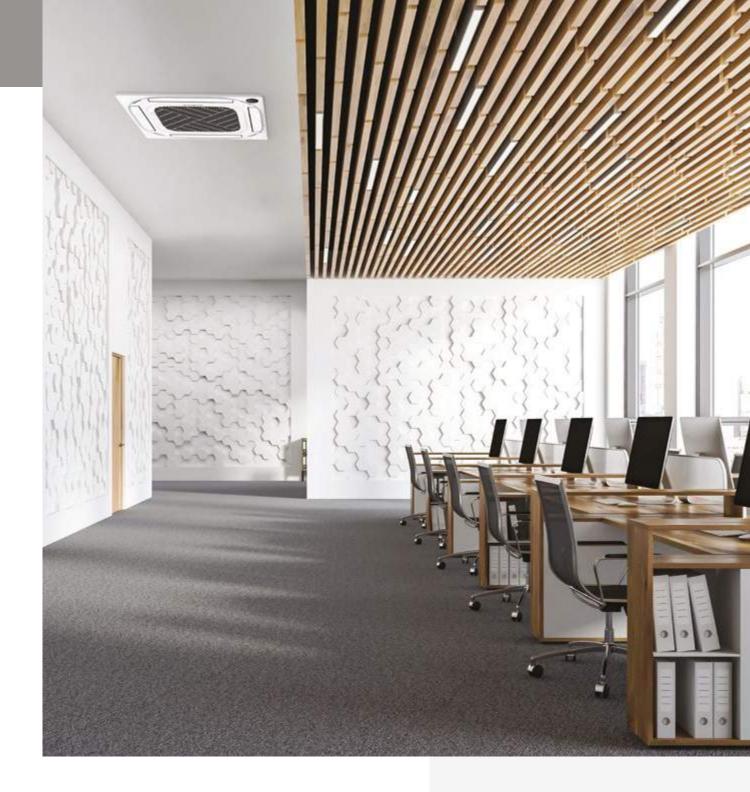
### NEW 2024



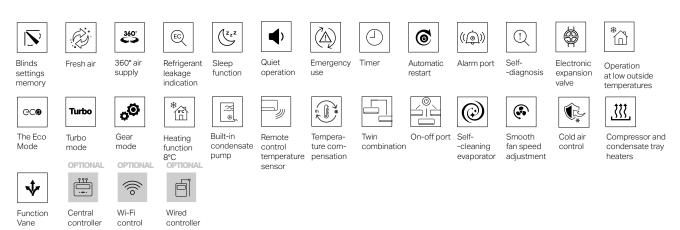
Cassette air conditioners are perfect for offices, conference rooms, or any other space requiring efficient air conditioning.

Compared to the previous Compact series of cassette air conditioners, the dimensions of the panel and indoor unit have been reduced. In addition, the panel was equipped with an elegant temperature display. The lift height of the condensate pump has been increased to 100 cm.





### Features of Kaisai KCA



MODEL	indoor unit		KCA4U-12HRG32X	KCA4U-18HRG32X
MUDEL	outdoor unit		KOX230-12HFN32X	KOX330-18HFN32X
Capacity	cooling	kW	3,5 (0,8÷4,1)	5,3 (2,9÷5,9)
average (min÷max)	heating	kW	3,8 (0,5÷4,3)	5,6 (2,4÷6,3)
Energy class	cooling/heating		A++/A+	A++/A+
SEER	average	W/W	6,8	6,5
SCOP	average	W/W	4,1	4,1
Average power consumption	cooling	W	1015 (160÷1450)	1550 (720÷2040)
(min÷max)	heating	W	1020 (125÷1390)	1560 (700÷1950)
Average operating current	cooling	А	4.5 (1.3÷6.4)	6.9 (3.2÷9.0)
(min÷max)	heating	А	4.5 (1.1÷6.2)	6.8 (3.1÷8.6)
A := {	indoor	m³/h	620/520/330	660/540/300
Air flow rate	outdoor	m³/h	2100	2200
Operating temperature	indoor	°C	16÷32/0÷30	16÷32/0÷30
cooling/heating	outdoor	°C	-15÷50/-15÷24	-15÷50/-15÷24
	indoor	dB(A)	42/38.5/31.5/25.5	44/41/31.5/25
Sound pressure level	outdoor	dB(A)	57	58
	indoor	mm	570/245/570	570/245/570
Net dimensions w/h/d	outdoor	mm	620/50/620	620/50/620
with a	panel	mm	765/555/303	805/554/330
	indoor	mm	715/295/640	715/295/640
Transport dimensions w/h/d	outdoor	mm	715/115/700	715/115/700
with a	panel	mm	887/610/337	915/615/370
Natwoight	indoor	kg	16,1/2,7	16,2/2,7
Net weight	outdoor	kg	26,6	32,5
Transport weight	indoor	kg	18,8/4,3	19/4,3
Transport weight	outdoor	kg	29,0	35,2
Pipe diameter: liquid/gas		mm	6,35/9,52	6,35/12,7
Maximum installation length		m	25	30
Maximum height difference		m	10	20
Power supply	outdoor	V/Hz/Ph	220÷240/50/1	220÷240/50/1
Circuit breaker/fuse	outdoor	A	16	16
Power supply lines	outdoor	# of wires x mm <sup>2</sup>	3x2,5	3x2,5
Control lines	ind outd.	# of wires x mm <sup>2</sup>	4x1,5	4x1,5
Factory amount of refrigerant	up to 5 rm	kg	0,72	1,15
Additional amount of refrigerant	over 5 rm	g/m	12	12
External diameter of condensate d	rain	mm	25	25

### Controllers

WIRELESS REMOTE CONTROL

**RG10N2** 



WIRED REMOTE CONTROL

KJR-120X2 (optional)

WIRED REMOTE CONTROL

· 전

KJR-120N (optional)

: <u>35</u>5



CCM (optional)



62 1



KCD 24 | 36 | 48 | 55 HRG32X

### 

### Air conditioners that are ideal for suspended ceilings with particularly limited technical space.

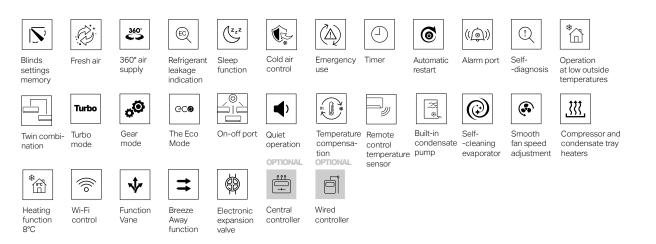
The air gap area has been increased by 23%, making the air conditioner quieter and more efficient. Compared to the previous model, the height of the condensate pump lift has also been increased to 100 cm and its placement outside the unit makes maintenance or potential replacement much easier. A new feature is the Wi-Fi port built into the air conditioner, allowing you to control the unit via an app on your phone or tablet.



A⁺₊ R32



### Features of Kaisai KCD



98 KAISAI AIR CONDITIONING SYSTEMS

	indoor unit		KCD-24HRG32X	KCD-36HRG32X	KCD-36HRG32X	KCD-48HRG32X	KCD-55HRG32X	
MODEL	outdoor unit		KOX430-24HF- N32X	KOD30U- 36HFJ32X	KOD30U-36HF- N32X	KOE30U-48HF- N32X	KOE30U-55HF- N32X	
Capacity	cooling	kW	7,0(3,3÷7,9)	10,6(2,7÷11,4)	10,6(2,7÷11,4)	14,1(3,5÷15,8)	15,2(4,1÷16,7)	
average (min÷max)	heating	kW	7, 6(2,8÷8,9)	11,1(2,8÷12,0)	11,1(2,8÷12,7)	16,1(4,1÷17,3)	18,2(4,4÷19,9)	
Energy class	cooling/heatin	g	A++/A+	A++/A+	A++/A+	A++/A+	A++/A+	
SEER	average	W/W	6,2	6,7	6,4	6,1	6,3	
SCOP	average	W/W	4,0	4,0	4,0	4,0	4,0	
Average power con-	cooling	W	2320 (780÷2748)	3950 (900÷4200)	4000 (890÷4150)	4650 (800÷5900)	5000 (980÷6200)	
sumption (min÷max)	heating	W	1900 (610÷2700)	3000 (800÷3950)	3000 (780÷4000)	4580 (900÷5500)	5550 (1020÷6700)	
Average operating	cooling	А	10,2(4,2÷12,0)	17,5 (4,2÷18,5)	6,5 (1,4÷6,5)	8,1 (1,8÷10,2)	8,6 (2,1÷10.7)	
current (min÷max)	heating	А	8,5 (3,6÷12,1)	13,5 (3,5÷17,5)	5,0 (1,3÷6,4)	8,0 (1,9÷9,5)	9,6 (2,1÷10,7)	
AL (1 )	indoor	m³/h	1300/1140/1000	1700/1550/1380	1800/1600/1400	1970/1780/1580	2000/1850/1650	
Air flow rate	outdoor	m³/h	3500	4000	4000	7500	7500	
Operating temp.	indoor	°C	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30	
cooling/heating	outdoor	°C	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24	
	indoor	dB(A)	45,5/42,5/39,5/27	50/47,5/44,5/39	50/47,5/44,5/39	51/48,5/46,5/37,5	53/50,5/48/40	
Sound pressure level	outdoor	dB(A)	60	63	63	63,5	64	
	indoor	mm	830/205/830	830/245/830	830/245/830	830/287/830	830/287/830	
Net dimensions w/h/d	outdoor	mm	950/55/950	950/55/950	950/55/950	950/55/950	950/55/950	
wind	panel	mm	890/673/342	946/810/410	946/810/410	952/1333/415	952/1333/415	
	indoor	mm	910/250/910	910/290/910	910/290/910	910/330/910	910/330/910	
Transport dimensions w/h/d	outdoor	mm	1035/90/1035	1035/90/1035	1035/90/1035	1035/90/1035	1035/90/1035	
wind	panel	mm	995/740/398	1090/885/500	1090/885/500	1095/1480/495	1095/1480/495	
	indoor	kg	21,6/6,0	27,2/6,0	27,2/6,0	29,3/6,0	29,3 /6,0	
Net weight	outdoor	kg	43,9	66,9	80,5	103,7	107,0	
	indoor	kg	25,4/9,0	31,2/9,0	31,2/9,0	33,5/9,0	33,5/9,0	
Transport weight	outdoor	kg	46,9	71,5	85,0	118,3	121,2	
Pipe diameter: liquid/ga	s	mm	9,52/15,9	9,52/15,9	9,52/15,9	9,52/15,9	9,52/15,9	
Maximum installation le	ngth	m	50	75	75	75	75	
Maximum height differe	ence	m	25	30	30	30	30	
Power supply	outdoor	V/Hz/Ph	220÷240/50/1	220÷240/50/1	380÷420/50/3	380÷420/50/3	380÷420/50/3	
Circuit breaker/fuse	outdoor	А	20	25	16	16	16	
Power supply lines	outdoor	# of wires	3x2,5	3x4,0	5x2,5	5x2,5	5x2,5	
Control lines	ind outd.	x mm <sup>2</sup>	4x1,5	4x1,5	4x1,5	4x1,5	4x1,5	
Factory amount of refrigerant	up to 5 rm	kg	1,5	2,4	2,4	2,9	3,0	
Additional amount of refrigerant	over 5 rm	g/m	24	24	24	24	24	
External diameter of co	ndensate drain	mm	25	25	25	25	25	

### Controllers

WIRELESS REMOTE CONTROL





WIRED REMOTE CONTROL

WIRED REMOTE CONTROL

KJR-120N (optional)

: 355°



CCM (OPTIONAL)



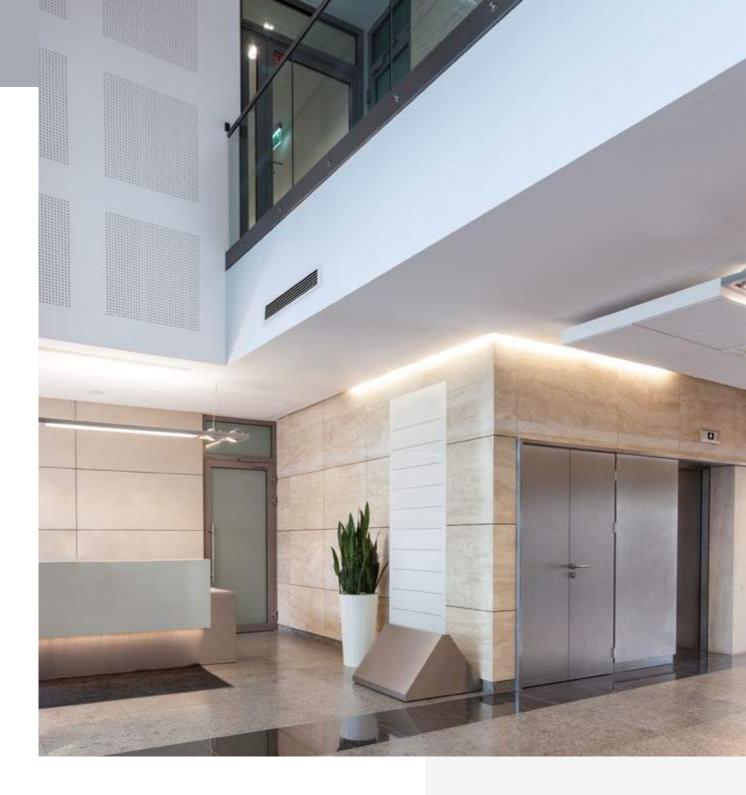


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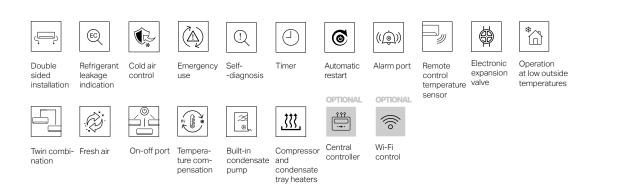
Duct air conditioners are used in buildings with large areas. Their advantage lies in the ability to freely distribute air through the ducts and air intakes in the entire false ceiling space.

Slim series duct air conditioners are characterised by a high external static pressure – 160 Pa, while maintaining a low level of noise. The unit has a lower height than a standard duct unit, making it possible to install it in a small suspended ceiling space. The air conditioner automatically adjusts the static pressure and maintains a constant airflow.





### Features of Kaisai KTI



	indoor unit		KTI-18HWG32X	KTI-24HWG32X	KTI-36HWG32X	KTI-36HWG32X	KTI-48HWG32X	KTI-55HWG32X
MODEL	outdoor unit		KOX330-18HF- N32X	KOX430-24HF- N32X	KOD30U- 36HFJ32X	KOD30U-36HF- N32X	KOE30U-48HF- N32X	KOE30U-55HF- N32X
Capacity	cooling	kW	5,3 (2,6÷5,9)	7,0 (3,3÷8,2)	10,6 (2,8÷11,1)	10,6 (2,7÷11,8)	14,1 (3,5÷15,5)	15,2 (4,1÷17,3)
average (min÷max)	heating	kW	5,6 (2,2÷6,2)	7,6 (2,8÷8,5)	11,7 (2,8÷12,8)	11,7 (2,8÷12,8)	16,1 (4,1÷18,2)	18,2 (4,4÷20,5)
Energy class cooling/heating		ating	A++/A+	A++/A+	A++/A+	A++/A+	A++/A+	A++/A+
SEER	average	W/W	6,5	6,2	6,2	6,1	6,1	6,1
SCOP	average	W/W	4,0	4,0	4,0	4,0	4,0	4,0
Avg. power con-	cooling	W	1530 (710÷2150)	2190 (750÷2960)	3950 (900÷4150)	4000 (890÷4200)	4800 (880÷6000)	5250 (1030÷6650
sumption (min÷max)	heating	W	1510 (740÷1760)	1900 (640÷2580)	3250 (800÷3950)	3250 (780÷4000)	4500 (950÷5700)	5150 (950÷6600)
Avg. operating	cooling	A	7,1 (3,2÷9,6)	10,2 (4,2÷13,2)	17,5 (4,2÷18,5)	6,5 (1,4÷6,7)	8,4 (1,9÷10,4)	9,6 (3,1÷11,5)
current (min÷max)	heating	A	6,8 (3,3÷7,7)	9,2 (3,8÷11,6)	14,5 (3,5÷17,5)	5,3 (1,3÷6,4)	8,0 (2,0÷9,8)	9,5 (2,0÷11,5)
	cooling	m³/h	911/706/515	1229/1035/825	2100/1800/1500	2100/1800/1500	2400/2040/1680	2600/2210/1820
Air flow rate	heating	m³/h	2200	3500	4000	4000	7500	7500
Available compression	n ratio	Pa	25/100	25/160	37/160	37/160	50/160	50/160
Operating temp.	indoor	°C	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30	16÷32/0÷30
cooling/heating	outdoor	°C	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24
	indoor	dB(A)	41/38/34/26	42/40/37/27	49,5/48/46/42	49,5/48/46/42	50/49/47/42	52,5/49/47/42
Sound pressure level	outdoor	dB(A)	56	60	63	63	63,5	64
Net dimensions	indoor	mm	880/210/674	1100/249/774	1360/249/774	1360/249/774	1200/300/874	1200/300/874
w/h/d	outdoor	mm	805/554/330	890/673/342	946/810/410	946/810/410	952/1333/415	952/1333/415
Transp. dimensions	indoor	mm	1070/280/725	1305/315/805	1570/330/805	1570/330/805	1405/365/915	1405/365/915
w/h/d	outdoor	mm	915/615/370	995/740/398	1090/885/500	1090/885/500	1095/1480/495	1095/1480/495
	indoor	kg	24,4	32,3	40,5	40,5	47,4	47,6
Net weight	outdoor	kg	26,6	43,9	66,9	80,5	103,7	107,0
	indoor	kg	29,6	39,1	48,2	48,2	55,8	56,1
Transport weight	outdoor	kg	29,0	46,9	71,5	85,0	118,3	121,2
Pipe diameter: liquid/g	as	mm	6,35/12,7	9,52/15,9	9,52/15,9	9,52/15,9	9,52/15,9	9,52/15,9
Maximum installation	ength	m	30	50	75	75	75	75
Maximum height diffe	rence	m	20	25	30	30	30	30
Power supply	outdoor	V/Hz/Ph	220÷240/50/1	220÷240/50/1	220÷240/50/1	380÷420/50/3	380÷420/50/3	380÷420/50/3
Circuit breaker/fuse	outdoor	А	16	20	25	16	16	16
Power supply lines	outdoor	# of wires	3x2,5	3x2,5	3x4,0	5x2,5	5x2,5	5x2,5
Control lines	ind outd.		4x1,5	4x1,5	4x1,5	4x1,5	4x1,5	4x1,5
Factory amount of	up to 5 rm	kg	1,15	1,5	2,4	2,4	2,9	3,0
Additional refrigerant		g/m	12	24	24	24	24	24
Outer diameter of conde	ensate drain	 mm	25	25	25	25	25	25

### Controllers

WIRED REMOTE CONTROL

KJR-120X2





WIRED REMOTE CONTROL



WIRED REMOTE CONTROL







CCM (optional)

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### condensing units

Inverter condensing units are equipped with a control module, which enables connection of a universal outdoor unit to the freon exchanger in the air handling unit.

This solution makes it possible to control the capacity of the condensing unit by means of a 0-10 V signal sent from the automation of the air handling unit. Both cooling and heating operation is possible. The units have built-in expansion valves, so no additional refrigeration fittings are required. Kaisai condensing units can only be used with air-handling units equipped with safety features due to the flammable properties of the R32 refrigerant.





MODEL			KOX230-12HFN32X	KOX330-18HFN32X	KOX430-24HFN32X
Capacity	cooling	kW	3,5(0,8÷4,1)	5,3(2,7÷5,9)	7,0(3,2÷7,8)
average (min÷max)	heating	kW	3,8(0,5÷4,3)	5,6(2,4÷6,3)	7,6(2.7÷8,3)
Energy class	cooling/heating		A++/A+	A++/A+	A++/A+
SEER	średni	W/W	6,6	6,2	6,1
SCOP	średni	W/W	4,1	4,0	4,0
Average power consumption (min÷max)	cooling	W	1010(168÷1434)	1450(670÷2027)	2300(747÷2930)
	heating	W	1019(124÷1376)	1500(540÷1640)	2050(650÷2850)
Average operating current	cooling	А	4,4(1,3÷6,3)	6,0(3,2÷9,0)	10,5(3,9÷13,1)
(min÷max)	heating	А	4,7(1,0÷6,1)	6,6(2,7÷7,3)	9,5(3,5÷12,7)
Air flow rate		m³/h	2100	2200	3500
Operating temperature	cooling	°C	-15÷50/-15÷24	-15+50/-15+24	-15+50/-15+24
Sound pressure level		dB(A)	53,6	56	60
Net dimensions w/h/d		mm	765/555/303	805/554/330	890/673/342
Transport dimensions w/h/d		mm	887/610/337	915/615/370	995/740/398
Net weight		kg	26,6	26,6	43,9
Transport weight		kg	29,0	29,0	46,9
Pipe diameter: liquid/gas		mm	6,35/9,52	6,35/12,7	9,52/15,9
Maximum installation length		m	25	30	50
Maximum height difference		m	10	20	25
Power supply		V/Hz/Ph	220-240/50/1	220-240/50/1	220-240/50/1
Circuit breaker/fuse		А	16	16	20
Power supply lines		# of wires	3x2,5	3x2,5	3x2,5
Control lines		x mm <sup>2</sup>	4x1,5	4x1,5	4x1,5
Factory amount of refrigerant	up to 5 rm	kg	0,72	1,15	1,5
Additional amount of refrigerant	over 5 rm	g/m	12	12	24

MODEL			KOD30U- -36HFJ32X	KOD30U- -36HFN32X	KOE30U- -48HFN32X	KOE30U- -55HFN32X
Capacity	cooling	kW	10,6(2,7÷11,4)	10,6(2,7÷11,8)	14,1(3,5÷15.2)	15,8(4,1÷16,7)
average (min÷max)	heating	kW	11,7(2,8÷12,8)	11,7(2,8÷12,8)	16,1(4,1÷17,0)	18,2(4,4÷19,6)
Energy class	cooling/heat	ing	A++/A+	A++/A+	A++/A+	A++/A+
SEER	średni	W/W	6,2	6,4	6,1	6,1
SCOP	średni	W/W	4,0	4,1	4,0	4,0
Average power consumption (min÷max)	cooling	W	3900(900÷4250)	40000(890÷4300)	5000(900÷5950)	5650(1100÷6650)
	heating	W	3350(800÷3950)	3350(780÷3950)	5100(1000÷6050)	6050(1050÷7100)
Average operating current (min÷max)	cooling	А	17,0(4,2÷19,0)	6,3(1,4÷6,8)	8,8(1,9÷10,3)	9,7(3,2÷11,5)
	heating	А	15,0(3,5÷17,5)	5,4(1,3÷6,2)	8,9(2,1÷10,5)	10,5(2,2÷12,0)
Air flow rate		m³/h	4000	4000	7500	7500
Operating temperature	cooling	°C	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24	-15+50/-15+24
Sound pressure level		dB(A)	63	63	63,5	64
Net dimensions w/h/d		mm	946/810/410	946/810/410	952/1333/415	952/1333/415
Transport dimensions w/h/d		mm	1090/885/500	1090/885/500	1095/1480/495	1095/1480/495
Net weight		kg	66,9	80,5	103,7	107,0
Transport weight		kg	71,5	85,0	118,3	121,2
Pipe diameter: liquid/gas		mm	9,52/15,9	9,52/15,9	9,52/15,9	9,52/15,9
Maximum installation length		m	75	75	75	75
Maximum height difference		m	30	30	30	30
Power supply		V/Hz/Ph	220-240/50/1	380-420/50/3	380-420/50/3	380-420/50/3
Circuit breaker/fuse		А	25	16	16	16
Power supply lines		# of wires	3x4,0	5x2,5	5x2,5	5x2,5
Control lines		x mm <sup>2</sup>	4x1,5	4x1,5	4x1,5	4x1,5
Factory amount of refrigerant	up to 5 rm	kg	2,4	2,4	2,9	3,0
Additional amount of refrigerant	over 5 rm	g/m	24	24	24	24

### Generator types and controllers



KOX230-12HFN32X KOX330-18HFN32X KOX430-24HFN32X KOD30U-36HFJ32X KOD30U-36HFN32X



KOE30U 48155 HFN32X



Control Module KMS-8142

# Portable air conditioners

Portable air conditioners are perfect for places where you need to relocate or where stationary air conditioning is not possible.

KPPH air conditioners with a cooling capacity of 2.6 kW have cooling, dehumidification and condensate evaporation functions. It is the perfect solution for rooms with low heat loads, up to approx. 20 m<sup>2</sup>. The KPPD model with a cooling capacity of 3.5 kW has an additional heating function and can also be used in larger rooms up to approx. 30 m<sup>2</sup>.

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### Technical specification

MODEL			KPPH-09HRG29
	cooling	kW	2,6
Capacity	heating	kW	-
Energy class	cooling/heating		A
EER	average	W/W	2,6
COP			-
Devene e e e e e e e e e e e e e e e e e	cooling	W	1000
Power consumption	heating	W	-
On anothing a summation	cooling	А	4,4
Operating current	heating	А	-
Air flow rate		m³/h	295/195
Operating temperature		°C	17÷35
Sound pressure level		dB(A)	52/47,5
Net dimensions w/h/d		mm	355/703/345
Transport dimensions w/h/d		mm	400/870/370
Net weight		kg	24,7
Transport weight		kg	27,3
Electric power supply		V/Hz/Ph	220÷240/50/1
Refrigerant			R290
The amount of refrigerant		kg	0,17
Moisture removal rate		l/h	2,3

### Controllers

WIRELESS REMOTE CONTROL

RG51



## Everything is always under control CONTROLLERS

WIRELESS REMOTE CONTROL

**RG10A4** 

#### Controller dedicated for wall-mounted air conditioners

Basic functions: On/off | Operating mode | Air temperature | Fan speed | Timer | Remote control temperature sensor | Automatic blinds | Air direction | Turbo | Self-cleaning of evaporator | Sustained heating at 8°C | Eco





WIRED CONTROLLER

Standard controller for duct air conditioners and optional controller for ICE, PRO HEAT wall, cassette and floor/ceiling air conditioners.

Basic functions: On/off | Operating mode | Air temperature | Fan speed | Timer | Weekly programmer / Temperature sensor in remote control



WIRED CONTROLLER

KJR12B

Optional controller for wall-mounted and compact cassette air conditioners.

Basic functions: On/off | Operating mode | Air temperature | Fan speed | Timer | Temperature sensor in remote control | Auto blinds



PILOT BEZPRZEWODOWY

**RG10B, RG10B1** 

### Controller dedicated for wall and floor mounted air conditioners

Basic functions: On/off | Operating mode | Air temperature | Fan speed | Timer | Remote control temperature sensor | Automatic blinds | Air direction | Turbo | Self-cleaning of evaporator | Sustained heating at 8°C | Eco



WIRELESS REMOTE CONTROL

RG10N2

### Controller dedicated for super slim cassette air conditioners.

Basic functions: On/Off | Operating mode | Air temperature | Fan speed | Timer | VANE function | Clock | ECO function | GEAR function | Breeze away function | Temperature sensor on remote control



WIRELESS REMOTE CONTROL

RG10A,RG10A1

Controller dedicated for compact cassette, floor/ceiling, console and wall-mounted air conditioners from ICE and PROHEAT series.

Basic functions: On/off | Operating mode | Air temperature | Fan speed | Timer | Remote control temperature sensor | Automatic blinds | Air direction | ECO | Ioniser | Sustained heating at 8°C KANNA

WIRELESS REMOTE CONTROL

**RG51** 

Controller dedicated for KPPD and KPPH portable air conditioners and optional for wall, cassette and floor/ceiling units.

Basic functions: On/off | Operating mode | Air temperature | Fan speed | Timer | Air direction | Auto blinds | Turbo



WIRED Controller

KJR-120N

Standard controller for duct air conditioners and optional controller for ICE, PRO HEAT wall, cassette and floor/ceiling air conditioners.

Basic functions: On/off | Operating mode | Air temperature | Fan speed | Timer | Weekly programmer / Temperature sensor in remote control



WIRED CONTROLLER

ССМ

Optional controller for cassette, floor/ceiling, wall-mounted ICE, PRO HEAT and duct air conditioners.

Control up to 64 indoor units. In addition to the standard functions, it has options for locking: operating mode, individual controls and central control buttons. The maximum length of communication cables is 1200 m.



wall	floor and ceiling	floor	cassette	console	duct	multi	portable

# Dimensions of the units

The compact size of Kaisai units provides a sleek look and convenience while maintaining high performance and ease of installation.

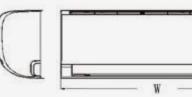
Kaisai air conditioners are energy efficient and easy to use units that require little space and provide the ideal room temperature in a very short time. All Kaisai air conditioners use environmentally friendly refrigerant and standard equipment includes Wi-Fi functionality for control using mobile devices. A number of practical functions ensuring optimal adjustment of the device to the needs of the user and a high level of comfort are available, depending on the model.

### **Dimensions** SPLIT UNITS



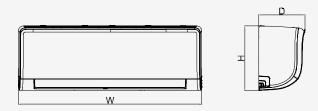
### $\mathsf{WALL}\,\mathsf{FLY}$

MODEL	DIMENSIONS [mm]					
	W	D	Н			
KWX-09KRHI	715	194	285			
KWX-12KRHI	805	194	285			
KWX-18KRHI	957	213	302			
KWX-24KRHI	1040	220	327			





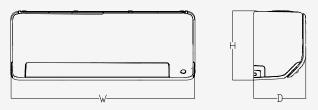




### WALL ICE

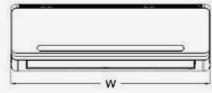
MODEL	DIMENSIONS [mm]			
	W	D	Н	
KLW-09HRHI	835	208	295	
KLB-09HRHI	835	208	295	
KLW-12HRHI	835	208	295	
KLB-12HRHI	835	208	295	
KLW-18HRHI	969	241	320	
KLB-18HRHI	969	241	320	
KLW-24HRHI	1083	244	336	
KLB-24HRHI	1083	244	336	

### WALL PRO HEAT



MODEL	DIMENSIONS [mm]					
	w	D	н			
KRP-09MEGI	795	225	295			
KRP-12MEGI	795	225	295			
KRP-18MEGI	965	239	319			
KRP-24MEGI	1140	275	370			



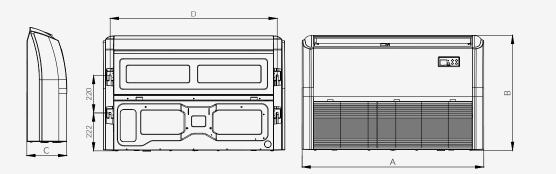




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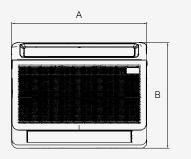
MODEL DIMENSIONS [mm]						
w	D	н				
802	189	297				
802	189	297				
965	215	319				
1080	226	335				
	₩ 802 802 965	W D   802 189   802 189   965 215				

### FLOOR AND CEILING



MODEL	DIMENSIONS [m	nm]			
	Α	B	C	D	
KUE-18HRG32X	1068	675	235	983	
KUE-24HRG32X	1068	675	235	983	
KUE-36HRG32X	1650	675	235	1565	
KUE-48HRG32X	1650	675	235	1565	
KUE-55HRG32X	1650	675	235	1565	

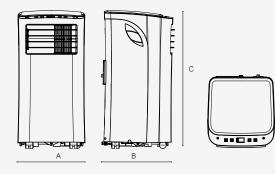
### CONSOLE





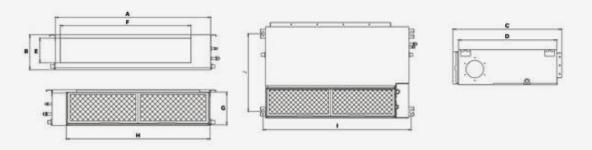
MODEL	DIMENSIONS [mm]					
	A	В	C			
KFAU-12HRG32X	794	621	200			
KFAU-17HRG32X	794	621	200			

### PORTABLE **KPPH**



MODEL	DIMENSIONS [mm]					
	A	В	C			
KPPH-09HRG29	355	345	703			

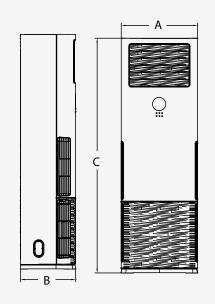
### DUCT SLIM



MODEL	DIMENS	ions [mn	n]							
	A	В	C	D	E	F	G	н	I	J
KTI-18HWG32X	880	210	674	600	136	706	190	782	920	508
KTI-24HWG32X	1100	249	774	700	175	926	228	1001	1140	598
KTI-36 HWG32X	1360	249	774	700	175	1186	228	1261	1400	598
KTI-48HWG32X, KTI-55HWG32X	1200	300	874	800	227	1044	280	1101	1240	697

### DEVICE DIMENSIONS

В



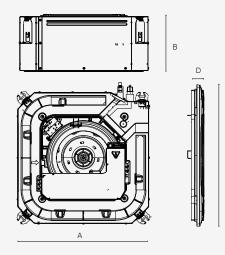
MODEL			
	A	В	C
KFS-48HRG32X	629	456	1935

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MODEL	DIMENS	DIMENSIONS [mm]				
	A	В	C			
KFS-24HRG32X	405	405	1775			

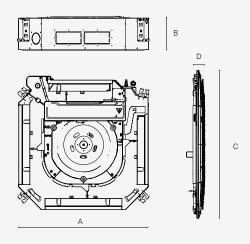
### CASSETTE COMPACT



С

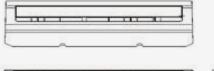
MODEL	DIMENSIONS [mm]					
	A	В	C	D		
KCA4U-12HRG32X	570	245	620	50		
KCA4U-18HRG32X	570	245	620	50		

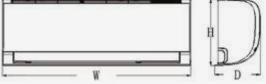
### CASSETTE SUPER SLIM

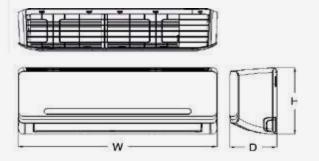


MODEL	DIMENSIONS [mm]						
	A B C D						
KCD-24HRG32X	830	205	950	55			
KCD-36HRG32X	830	205	950	55			
KCD-48HRG32X	830	205	950	55			
KCD-55HRG32X	830	205	950	55			

### **Dimensions** MULTI SPLIT APPLIANCES

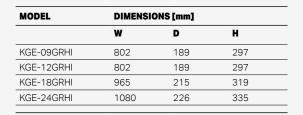




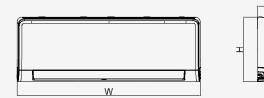


### WALL FLY

MODEL	DIMENSIONS [mm]					
	w	D	н			
KWX-09KKRHI	715	194	285			
KWX-12KKRHI	805	194	285			
KWX-18KKRHI	957	213	302			
KWX-24KKRHI	1040	220	327			



WALL GEO



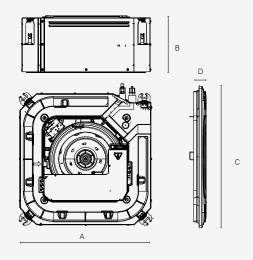
### WALL ICE

MODEL	DIMENSIONS [mm	1		
	_	D		
	W	D	Н	
KLW-09HRHI	835	208	295	
KLB-09HRHI	835	208	295	
KLW-12HRHI	835	208	295	
KLB-12HRHI	835	208	295	
KLW-18HRHI	969	241	320	
KLB-18HRHI	969	241	320	
KLW-24HRHI	1083	244	336	
KLB-24HRHI	1083	244	336	

n

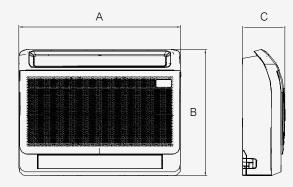
### CASSETTE

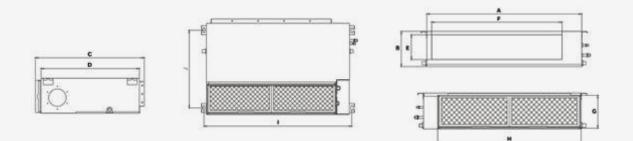
MODEL	DIMENSIONS [mm]					
	A	В	C	D		
KCA4U-12HRG32X	570	245	620	50		
KCA4U-18HRG32X	570	245	620	50		



### CONSOLE

MODEL	DIMENSIONS [mm]				
	A	В	C		
KFAU-12HRG32X	794	621	200		
KFAU-17HRG32X	794	621	200		

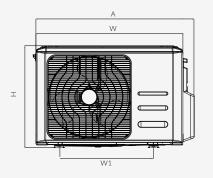


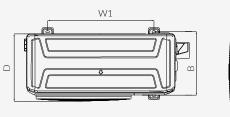


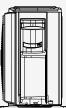
### DUCT

MODEL	DIMEN	DIMENSIONS [mm]								
	A	В	C	D	E	F	G	н	I	J
KTI-18HWG32X	880	210	674	600	136	706	190	782	920	508

### **Dimensions** outdoor units





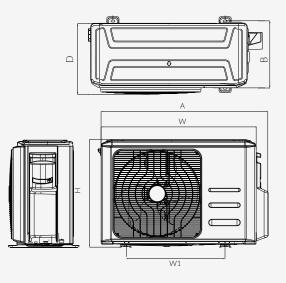


### FOR WALL UNITS

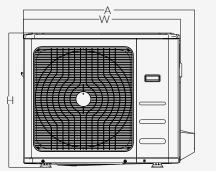
MODEL	DIMENSION	S [mm]				
	W	D	н	W1	Α	В
KWX-09KRHO	720	270	495	452	790	255
KWX-12KRHO	720	270	495	452	790	255
KWX-18KRHO	805	330	554	511	874	317
KWX-24KRHO	890	342	673	663	955	348
KLWB-09HRHO	765	303	555	452	835	286
KLWB-12HRHO	765	303	555	452	835	286
KLWB-18HRHO	805	330	554	511	874	317
KLWB-24HRHO	890	342	673	663	955	348
KGE-09GRHO	765	303	555	452	835	286
KGE-12GRHO	765	303	555	452	835	286
KGE-18GRHO	805	330	554	511	874	317
KGE-24GRHO	890	342	673	663	955	348
KRP-09MEHO	805	330	554	511	874	317
KRP-12MEHO	805	330	554	511	874	317
KRP-18MEHO	890	342	673	663	955	348
KRP-24MEHO	890	342	673	663	955	348

### FOR MULTI-SPLIT MODELS

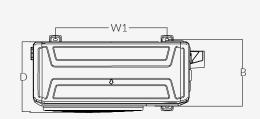
MODEL	DIMENSIONS [mm]							
	w	D	н	W1	A	В		
K2OE-18HFN32H	805	330	554	511	877	317		
K3OA-27HFN32H	890	342	673	663	990	354		
K4OE-28HFN32H	946	410	810	673	1034	403		
K4OB-36HFN32H	946	410	810	673	1034	403		
K5OE-42HFN32H	946	410	810	673	1034	403		



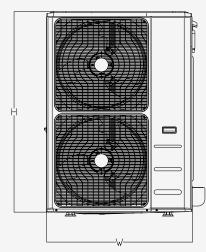
### FOR CASSETTE, FLOOR, FLOOR/CEILING MOUNTED, CONSOLE AND DUCT MODELS



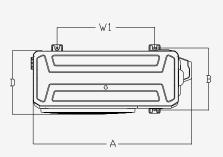




KOX230-12HFN32X, KOX330-18HFN32X, KOX430-24HFN32X, KOD30U-36HFJ32X, KOD30U-36HFN32X







KOE30U-48HFN32X, KOE30U-55HFN32X

MODEL	DIMENSIONS [mm]					
	w	D	н	W1	Α	В
KOX230-12HFN32X	765	303	555	452	835	286
KOX330-18HFN32X	805	330	554	511	874	317
KOX430-24HFN32X	890	342	673	663	955	348
KOX430L-24HFN32X	890	342	673	663	955	348
KOD30U-36HFJ32X	946	410	810	673	1030	403
KOD30U-36HFN32X	946	410	810	673	1030	403
KOE30U-48HFN32X	952	415	1333	634	1045	404
KOE30U-55HFN32X	952	415	1333	634	1045	404

# Accessories



Applies to all split air conditioner models

It is used to control the operation of 2 air conditioners

(optionally 4) in an alternate manner. The controller com-

municates with air conditioners using an infra-red module

(copies the signal from the wireless remote control).

SEQUENTIAL

CONTROLLER

**SPN-IR** 



SEQUENTIAL CONTROLLER

TS4

### Applies to all split air conditioner models (except wall units)

It is used to control the operation of 2 to 4 devices in the alternate mode. The TS4 controller replaces time switches and other complex electrical systems and communicates with air conditioners via a wired installation.



### FOR THE HEATING FUNCTION Applies to all split models

The kit consists of compressor and drip tray heaters and a thermostat. It quickly removes snow and ice from the outdoor unit, ensuring trouble-free operation during winter.

### FOR THE COOLING FUNCTION Applies to all split models

The kit consists of a compressor heater and a thermostat. Prevents absorption of refrigerant by oil.



CONTROL MODULE FOR AIR HANDLING UNIT

**KMS-8142** 

### Applies to condensing units with communication lines L,N,S

The module allows the inverter condensing unit to be controlled by a 0-10 V DC signal from the air handling unit automation.



CONNECTION SET FOR WIRED REMOTE CONTROL

### **ZPPP-FLY**

#### **Applies to FLY air conditioners**

The kit allows you to connect a KJ-R-12B wired remote control to a Kaisai FLY series air conditioner.



**EXTENSION MODULE** 

### MFB ICE/HOT, MFB PRO HEAT

### Applies to ICE, HOT, PRO HEAT air conditioners

Enables connection of: KJ-R-120X2 wired controller, CCM central controller, Modbus gateway, ON/OFF control signal, alarm signal output



### **DIAGNOSTIC MODULE**

DR SMART

#### Applies to all split air conditioner models

The diagnostic module makes it possible to read the operating parameters of split air conditioners and facilitates their diagnosis and repair. 123



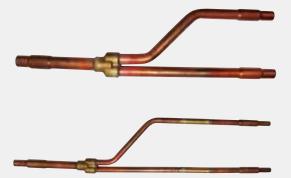


#### MODBUS GATE

**MD-AC-MBS1** 

#### Applies to all split air conditioner models

The gateway makes it possible to connect the air conditioner to the BMS central control system.



**BRANCH PIPE** 

UTP-SX236A UTP-SX354A

#### For TWIN simultaneous system

T-pieces are required for the cooling installation of the Twin simultaneous system.



WIFI MODULE

Applies to wall-mounted air conditioners

The module allows you to control your split air conditioner with your smartphone or tablet.



WIFI MODULE

LCAC

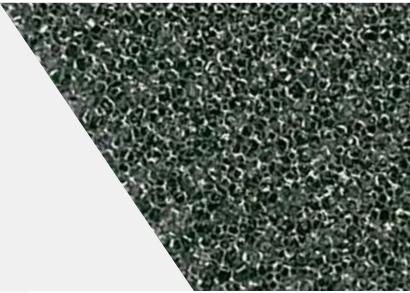
Applies to commercial air conditioners

The module allows you to control your split air conditioner with your smartphone or tablet.

# **Filters**

### SILVER ION FILTER

The silver ion filter is responsible for destroying bacteria and preventing the growth of micro-organisms such as viruses and fungi. The internal structure of the silver ions destroys micro-organisms.





### **BIOHEPA FILTER**

The air purification function is further supported by the Bio HEPA filter, which effectively traps 99% of dust particles and bacteria with a size of 0.3 pm and up to 95% of particles from 0.1 to 0.3 pm, including fungal cells and some viruses



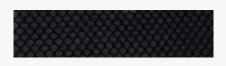
### **VITAMIN C FILTER**

The filter emits vitamin C, which has a positive effect on the skin by protecting it from the sun's rays. Being an active antioxidant agent, vitamin C has a nourishing effect, stimulates collagen production and reduces stress.



### **3M FILTER**

Thanks to its unique design, the filter captures dust particles and other harmful substances from the air, which can cause many respiratory diseases.



### COLD CATALYTIC FILTER

The cold-catalytic filter eliminates chemicals such as carbon monoxide, hydrogen sulphide, ammonia, benzene and formaldehyde



### AIR CONDITIONING | HEATING VENTILATION | PHOTOVOLTAICS



AIR CONDITIONING



PUMPS







PHOTOVOLTAIC MODULES AND INVERTERS



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

# **Contact details**

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Do you want to obtain an authorisation certificate and become our Installer? Contact us: handlowy@kaisai.com

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#### SALES DEPARTMENT

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