

ENERGY-EFFICIENT SOLUTION TAILORED TO YOU



AIR-TO-WATER HEAT PUMPS

INNOVATIVE PRODUCTS DESIGNED FOR YOU

Heat pumps, which use the solar energy stored in the air, can provide heating for your home and domestic hot water.

Low operational costs

Heat pumps significantly reduce the running costs of a house. When compared to traditional heat sources, the cost of heating the house or providing hot water by means of a heat pump can be reduced to as little as a quarter. By using a heat pump, we also reduce the maintenance costs of the system, because the device does not need periodical inspections by chimney inspectors or boiler service technicians.

Comfort of use

Heat pumps are an ideal solution, as thanks to their automated operation they guarantee the ultimate comfort of use. A pleasant room temperature and the domestic water parameters are set by means of an intuitive controller.

Safe use

Heat pumps are also exceptionally safe, because in contrast to traditional domestic heating devices, they do not present a fire hazard, while potential gas leaks or explosions are eliminated. Also, the insulation between the hydraulic and electrical components guarantees additional safety.



PERFECT FOR



RESIDENTIAL
PREMISES



SUMMER
HOUSES



SHOPS

ENVIRONMENTALLY FRIENDLY DEVICES

Their functioning is based on a so-called refrigerant, which circulates in a closed circuit and transfers heat from the environment to the interior of the building.

Nature-friendly source of energy

Heat pumps are considered an eco-friendly energy source, as instead of coal, gas or oil they use the heat stored in the air, while the devices use refrigerants which have a much lower impact on the environment than non-renewable energy sources.

Energy efficient

KAISAI heat pumps are energy-efficient and environmentally friendly devices which use heat from the environment – a renewable source of energy. The devices use very little electricity, and the high COP confirms their excellent energy efficiency parameters.

Reduced CO₂ emissions

Heat pumps – an ideal alternative to gas and coal boilers – contribute to the reduction of CO₂ emissions into the atmosphere. The devices operate at times set by the user and do not produce smoke, ash or any other substances which are harmful to the environment.



TECHNICAL FACILITIES



WORKSHOPS



SERVICE FACILITIES



HEAT PUMP

KAISAI ECO HOME

- HEATING / COOLING
- DOMESTIC HOT WATER (DHW)

The multifunctional KAISAI ECO HOME split-type air-to-water heat pump is able to heat or cool buildings and produce domestic hot water over a wide range of outside temperatures. The elegant design and quiet operation make the device suitable for heating systems in single-family houses, as well as commercial and service facilities.



KEH-08VER/0
KEH-10VER/0



KEH-12VER/0
KEH-14VER/0



CONTROLLER

4 OPERATION MODES OF THE ECO HOME HEAT PUMP



HEATING



COOLING



DHW

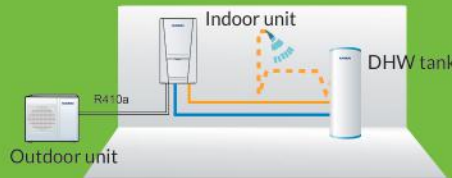


HEATING + DHW

SAMPLE INSTALLATIONS



Cooling/heating



Heating of DHW



Heating and heating of DHW

TECHNICAL DATA

	MODEL	indoor unit		KEH-08VER/I	KEH-10VER/I	KEH-12VER/I	KEH-14VER/I
		outdoor unit		KEH-08VER/O	KEH-10VER/O	KEH-12VER/O	KEH-14VER/O
Power supply			V/Ph/Hz	220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50
Nominal capacity heating: water 30/35°C outdoor temp. 7°C cooling: water 23/18°C outdoor temp. 35°C	Capacity	heating	kW	8	10	12	14
		cooling		7.8	8.2	13.5	14.5
	Power input	heating	kW	1.78	2.27	2.8	3.35
		cooling		1.95	2.1	3.55	3.95
	COP*/EER			4.5/3.9	4.4/4.0	4.3/3.8	4.2/3.7
Nominal capacity heating: water 40/45°C outdoor temp. 7°C cooling: water 12/7°C outdoor temp. 35°C	Capacity	heating	kW	7.60	9.50	12.00	13.50
		cooling		6.30	7.20	10.00	10.50
	Power input	heating	kW	2.24	2.88	3.55	4.05
		cooling		2.33	2.77	3.35	3.60
	COP*/EER			3.4/2.6	3.3/2.7	3.4/3.0	3.35/2.95
Energy rate for heating				A++	A++	A+	A+
Net dimensions (w x h x d)	indoor unit		mm	500/981/324	500/981/324	500/981/324	500/981/324
	outdoor unit			980/788/427	980/788/427	900/1345/412	900/1345/412
Transport dimensions (w x h x d)	indoor unit		mm	608/1043/395	608/1043/395	608/1043/395	608/1043/395
	outdoor unit			1097/862/477	1097/862/477	998/1515/458	998/1515/458
Net weight/transport weight	indoor unit		kg	56/65	56/65	58/67	58/67
Net weight/transport weight	outdoor unit			80/89	80/89	107/117	114/124
Sound pressure level	indoor unit		dB(A)	31	31	31	31
	outdoor unit heating			56	56	57	57
	outdoor unit cooling			54	54	55	55
Refrigerant pipe size	liquid/gas		mm	9.52/15.9	9.52/15.9	9.52/15.9	9.52/15.9
Quantity of refrigerant			kg	2.30	2.30	3.60	3.60
Max. length of refrigerant piping/height difference			m	30/15	30/15	30/15	30/15
Circulation pump model				Wilo RS25/7.5	Wilo RS25/7.5	Wilo RS25/7.5	Wilo RS25/7.5
Water flow			l/min	12	12	12	12
Electric heaters	number x power		kW	6 (2x3)	6 (2x3)	6 (1x6)	6 (1x6)
Water temperature, DHW mode			°C	40÷80	40÷80	40÷80	40÷80
Water temperature	heating mode		°C	25÷55	25÷55	25÷55	25÷55
	cooling mode			7÷25	7÷25	7÷25	7÷25
Outdoor temperature range	heating mode		°C	-20÷35	-20÷35	-20÷35	-20÷35
	DHW mode			-20÷45	-20÷45	-20÷45	-20÷45
	cooling mode			10÷48	10÷48	10÷48	10÷48

* complies with EN 14511

ECO HOME HEAT PUMP – CHARACTERISTICS



Excellent energy efficiency

Thanks to the energy efficient inverter compressor, the COP can be as high as 4.5.



Compact design

With its small size and weight of approx. 56 kg, the indoor unit can be installed on the wall of even a small room inside a building. The compact design of the outdoor unit reduces transportation costs and requires little installation space.



Quiet operation

Its low noise operation means that the indoor unit can be located near “quiet” rooms, such as bedrooms or offices.



Innovative controller

A technologically advanced controller built into the indoor unit provides the user with a choice of many practical functions.



Effective operation

A highly-effective axial fan with aerodynamic design ensures a high air flow rate and stable operation of the unit. The fins of the heat exchanger feature an extended surface, thanks to which its efficiency is as much as 5% higher than that of typical heat exchangers.



Defrosting function

In the event of frost forming on the heat exchanger, the automatic system immediately activates the defrosting function to prevent its complete icing up and to increase the efficiency of the pump.



Safe use

An intelligent control system prevents the tank from heating up when it lacks water. Complete isolation of electrical components from water prevents the risk of electric shock. Temperature sensors installed in the pump, together with a microprocessor controller, prevent the device from overheating.



Wide range of operating temperatures

	OUTDOOR AIR	WATER
HEATING	-20° → 35°	25° → 55°
COOLING	10° → 48°	7° → 25°
DHW	-20° → 45°	40° → 80°



Additional electric heater

The built-in electric heater allows for effective heating of water in the event of very low outside temperatures.



Anti-corrosive fin coating

Aluminium fins of the exchangers, protected with hydrophilic coating, feature much higher durability and corrosion resistance.

HEAT PUMP KAISAI KHP

■ DOMESTIC HOT WATER (DHW)

The KAISAI KHP -2.4/D270 heat pump is an energy-saving air-to-water unit for domestic hot water production. It is provided with a stainless steel tank, built-in electric heater and a modern controller. The maximum temperature of the heated water is 70°C, which meets the requirements of the most demanding customers, and allows the pump to be used in a wide variety of locations.

Compact design



The compact size of the pump means it can be installed in the basement or garage of any house or commercial facility.

Energy efficient



The high COP of 3.5 confirms the energy-saving operation of the device.

Additional cooling capacity



The cold outlet air may be used to cool a pantry or technical rooms.

Convenient water supply



The bottom-fed water tank facilitates installation of the device.



Corrosion resistance

As the tank is made of stainless steel and uses a magnesium anode, this unit is extremely resistant to corrosion.



Electronic expansion valve

The valve regulates the refrigerant flow depending on the actual needs.



Innovative controller

The intuitive controller features an anti-freeze function, which solves the problem of icing and frosting.



Wide temperature range

The heat pump can be operated at intake air temperatures of -7 to 45°C.

TECHNICAL DATA

MODEL	KHP - 2.4/D270
Rated heating capacity	2400W
Rated input power	685W
COP	3.50
DHW tank volume	270L
Energy rate	A
Heating capacity of the electric heater	1500W
Outlet water temperature	35°C~70°C
Rated outlet water temperature	55°C
Power supply	220V-240V ~50Hz
Watertightness class	IPX4

MODEL	KHP - 2.4/D270
Refrigerant	R134a
Refrigerant charge	1.10kg
Air connection diameter	150mm
Water connection diameter	¾inch
Dimensions (w x d x h)	660×667×1958mm
Transport dimensions (w x d x h)	813×813×2100mm
Net/gross weight	114/139kg
Sound pressure level	49 dB(A)
Inlet air temperature range	-7~45°C

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