KAISAI

ARCTIC series heat pumps

Energy-efficient solutions for your home

R32

Heat pump

An ideal alternative for gas-fired, coal-fired or pellet boilers.

The heat pump draws free energy from the air and uses it to heat or 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 the cutting-edge technology, Kaisai heat pumps operate in a wide range of external 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. Kaisai heat pumps can be used in single-family, multifamily, and commercial buildings.

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SmartHome

WiFi as standard

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

- Remote control using an application on a smartphone or tablet
- Monitoring of current device status, zone switching, supply and domestic hot water temperature control
- Displaying error messages and information
- Displaying current energy consumption

R32

Environmentally-friendly refrigerant, available in the entire Kaisai range

Kaisai Eco Home heat pumps of the ARCTIC series currently use the latest green refrigerant – R32. It is more efficient than those previously used, that is why less refrigerant is required. Moreover, a characteristics of the refrigerant is that it has a much better impact on the environment. It is a modern solution taking into account both ecological needs and economy of use.

Heat Pump

Why is it worth a try?

Ecological **energy source**

Heat pumps are one of the green energy sources that use free energy contained in the air instead of coal, gas or oil. This means that up to 80% of the energy is obtained from the outside air. The electrical power supply also allows the use of home photovoltaics in the so-called passive house system (i.e. without drawing energy from outside).

User **comfort**

Thanks to their automation, the operation of the heat pumps ensures full comfort of use. The convenient indoor temperature and the desired domestic water parameters are set using an intuitive controller, and the device automatically maintains thermal comfort throughout the year.

Low operating **costs**

Heat pumps make a significant contribution to reducing the house's operating costs. Using them, the costs of room heating and domestic hot water preparation can drop by up to four times. The use of a heat pump also reduces system maintenance costs, e.g., due to not needing chimney inspections.

Reduced **emission of CO_2**

Heat pumps are an ideal alternative to gas-fired, coal-fired or pellet boilers, reducing CO_2 emissions to the atmosphere. The devices do not produce smoke, ash or any other substances harmful to the environment.

Safe to **use**

Heat pumps are a very safe solution as they do not present a fire hazard, a risk of gas leakage or explosion compared to traditional domestic heating devices. You can stop using gas or carbon monoxide sensors and sleep peacefully.

Comfort **all year round**

During the heating period, the pump transfers energy from the outside air to the heating system and DHW. In the summer, thanks to the built-in cooling function, it provides thermal comfort even during the hottest days.

QUIET OPERATION

The use of inverter compressors in outdoor units and the extremely quiet operation ensure full comfort when using the Kaisai heat pumps.

COMPACT DESIGN

Both Monoblock and Split pumps have a compact design, thus reducing the space required for their installation.

HIGH ENERGY EFFICIENCY

Due to the energy-efficient inverter compressor used, the coefficient of performance (COP) is as high as 5.20.

SAFETY OF USE

The intelligent automation system protects the heat pump against damage. The use of special explosion-proof electronic systems maximises the safety of working with the R32 refrigerant.

HIGH FLEXIBILITY

Thanks to the inverter technology, the heat pump adjusts the heating power to the demand of a specific system. Modulated heating power improves the unit's efficiency and operational comfort.

FINS WITH ANTI-CORROSION COATING

The aluminium fins of the heat exchangers are coated with a hydrophilic layer improving durability and corrosion resistance.

monoblock

In the monoblock heat pump units, the refrigerant system is completely integrated within the outdoor unit. First and foremost, such a solution ensures good thermal insulation, space saving and ensuring the quiet operation of the unit.

The special design allows easy access to the internal components, while the length of the communication cable of up to 50 m provides great freedom, in terms of installing the controller. The intuitive user interface provides a simple and fast way to modify parameters and monitor them in real time.

6 kW

8-16 kW

22-30 kW

outdoor unit

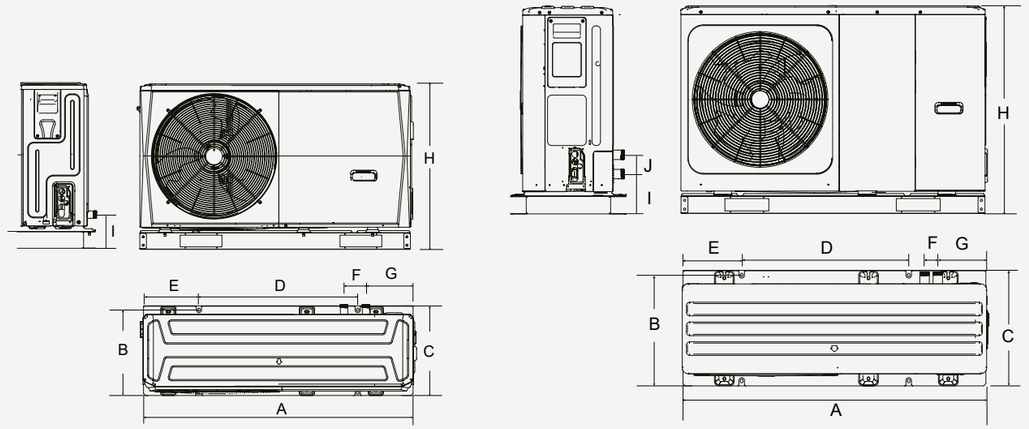
- Easy Installation and Simple Maintenance
- All hydraulic components in the outdoor unit, i.e. a circulating pump, a membrane vessel, a safety and vent valve, a flow sensor, a pressure gauge and a flow heater, are fitted as standard.
- The refrigerant system is fully integrated in the outdoor unit, which means that no additional freon pipes are required.
- Compact design, easy to transport and install.

technical specification

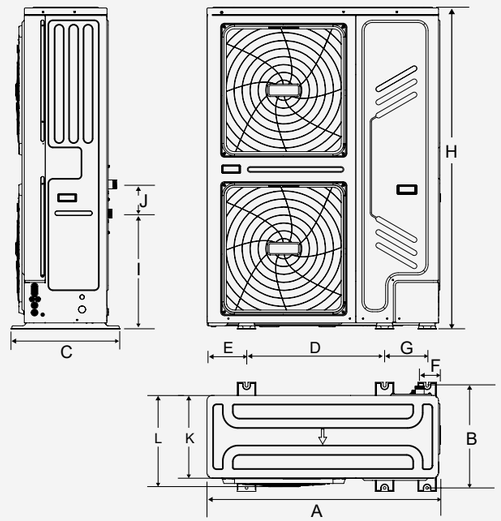
Model		unit	KHC-06RY1	KHC-08RY1	KHC-10RY1	KHC-12RY3	KHC-14RY3	KHC-16RY3	KHC-22RX3	KHC-30RX3
Heating A7W35 ΔT=5, R.H. 85%	nom. heating capacity (range)	kW	6.35 (2.73÷7.41)	8.40 (3.36÷9.11)	10.00 (3.81÷10.3)	12.10 (5.58÷14.6)	14.50 (5.92÷15.50)	15.90 (6.43÷16.80)	22.00 (9.92÷24.93)	30.1 (13.85÷31.75)
	electric energy consumption (range)	kW	1.28 (0.53÷1.56)	1.63 (0.61÷1.80)	2.02 (0.71÷2.09)	2.44 (1.04÷3.11)	3.15 (1.12÷3.37)	3.53 (1.27÷3.79)	5.00 (1.90÷6.47)	7.7 (2.93÷9.51)
	COP (range)	W/W	4.95 (5.32÷4.76)	5.15 (5.54÷5.07)	4.95 (5.39÷4.93)	4.95 (5.38÷4.69)	4.60 (5.27÷4.59)	4.50 (5.08÷4.43)	4.40 (5.33÷3.85)	3.91 (4.73÷3.34)
Heating A2W35 ΔT=5, R.H. 85%	nom. heating capacity	kW	5.50	7.10	8.20	9.20	11.00	13.00	22.00	26.00
	electric power consumption	kW	1.41	1.73	2.05	2.36	3.06	3.77	7.09	9.38
	COP	W/W	3.90	4.10	4.00	3.90	3.60	3.45	3.10	2.80
Heating A-7W35 ΔT=5, R.H. 85%	nom. heating capacity (range)	kW	6.00 (1.48÷6.21)	7.00 (1.82÷7.27)	8.00 (2.05÷8.31)	10.00 (3.97÷11.00)	12.00 (4.57÷12.70)	13.10 (4.99 ÷ 13.90)	21.00 (8.10÷23.73)	23.00 (10.35÷24.89)
	electric energy consumption (range)	kW	2.00 (0.48÷2.17)	2.19 (0.53÷2.26)	2.62 (0.61÷2.61)	3.33 (1.26÷3.89)	4.21 (1.48÷4.55)	4.85 (1.68÷5.19)	8.07 (2.91÷9.25)	9.38 (3.66÷9.93)
	COP (range)	W/W	3.00 (3.06÷2.86)	3.26 (3.44÷3.21)	3.05 (3.37÷3.11)	3.00 (3.14÷2.83)	2.85 (3.10÷2.79)	2.70 (2.97÷2.67)	2.60 (2.75÷2.56)	2.45 (2.83÷2.51)
Cooling A35W18 ΔT=5	nom. cooling capacity	kW	6.50	8.30	9.90	12.00	13.50	14.90	23.00	31.00
	electric power consumption	kW	1.35	1.64	2.18	3.04	3.75	4.38	5.00	7.75
	EER	W/W	4.80	5.05	4.55	3.95	3.60	3.40	4.60	4.00
Cooling A35W7 ΔT=5	nom. cooling capacity	kW	7.00	7.45	8.20	11.50	12.40	14.00	21.00	29.50
	electric power consumption	kW	2.33	2.22	2.52	4.18	4.96	5.60	7.12	11.57
	EER	W/W	3.00	3.35	3.25	2.75	2.50	2.50	2.95	2.55
Seasonal energy efficiency rating for room heating	OWT at 35°C class (temperate climate zone)	class	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A++
	OWT at 55°C class (temperate climate zone)	class	A++	A++	A++	A++	A++	A++	A++	A+
SCOP	OWT at 35°C	W/W	4.95	5.22	5.2	4.81	4.72	4.62	4.53	4.19
	OWT at 55°C	W/W	3.52	3.37	3.47	3.45	3.47	3.41	3.22	3.14
Power supply	voltage / number of phases / frequency	V/Ph/Hz	220÷240/1/50	220÷240/1/50	220÷240/1/50	380÷415/3/50	380÷415/3/50	380÷415/3/50	380÷415/3/50	380÷415/3/50
	Maximum working current (MCA)	A	27	29	30	23	24	25	24.5	28.5
Auxiliary electric heater	electric power	kW	3	3	3	3+3+3	3+3+3	3+3+3	none	none
	capacity levels		1	1	1	3	3	3	none	none
Sound level	Sound power level	dB(A)	58	59	60	65	65	68	73	77
	Acoustic pressure (1 m)	dB(A)	45	46	49	50	51	55	59	63
Outdoor air temperature range	cooling	°C	-5÷43	-5÷43	-5÷43	-5÷43	-5÷43	-5÷43	-5÷46	-5÷46
	heating	°C	-25÷35	-25÷35	-25÷35	-25÷35	-25÷35	-25÷35	-25÷35	-25÷35
	DHW	°C	-25÷43	-25÷43	-25÷43	-25÷43	-25÷43	-25÷43	-25÷43	-25÷43
Outlet water temperature range	cooling	°C	5÷25	5÷25	5÷25	5÷25	5÷25	5÷25	5÷25	5÷25
	heating	°C	25÷65	25÷65	25÷65	25÷65	25÷65	25÷65	25÷60	25÷60
	DHW	°C	30÷60	30÷60	30÷60	30÷60	30÷60	30÷60	40÷60	40÷60
Water connection	diameter(external thread)	inch	1	5/4	5/4	5/4	5/4	5/4	5/4	5/4
Refrigerant	symbol (GWP) / amount of refrigerant	--- / kg	R32(675) / 1.4	R32(675) / 1.4	R32(675) / 1.4	R32(675) / 1.75	R32(675) / 1.75	R32(675) / 1.75	R32(675) / 5.0	R32(675) / 5.0
Dimensions	of the unit (W / H / L)	mm	1295×792×429	1385×945×526	1385×945×526	1385×945×526	1385×945×526	1385×945×526	1129×1558×440	1129×1558×440
	of the packaging (W / H / L)	mm	1375×965×475	1465×1120×560	1465×1120×560	1465×1120×560	1465×1120×560	1465×1120×560	1220×1735×565	1220×1735×565
Weight	net / in packaging	kg	98 / 121	121 / 148	121 / 148	160 / 188	160 / 188	160 / 188	177 / 206	177 / 206
Cost of the unit		**EUR**	**5 875**	**6 050**	**6 400**	**8 750**	**9 150**	**9 350**	**11 300**	**12 250**

*) The technical data above is compliant with the guidelines specified in the following standards: EN14511; EN14825; EN50564; EN12102; (EU) No. 811:2013; (EU) No. 813:2013; OJ 2014/C 207/02:2014.
*) The SCOP seasonal heating efficiency was determined for temperate climate conditions.
*) The sound power level in the heating mode was determined in accordance with EN 12102, under the conditions consistent with EN 14825;

dimensions



MODEL	A	B	C	D	E	F	G	H	I	J
KHC-06RY1	1295	397	429	760	265	105	225	792	161	/
KHC-08/10/12/14/16RY1	1385	482	526	760	270	60	221	945	182	81



MODEL	A	B	C	D	E	F	G	H	I	J	K	L
KHC-22/30RX3	1129	494	528	668	192	98	206	1558	558	143	400	440

split

R32

A compact design, an independent indoor unit, and a flexible installation make the Split type heat pump an ideal choice for owners of houses, shops, offices and retail premises.

All the hydraulic components are easily accessible. The refrigerating connection between the outdoor and indoor units is resistant to freezing, even during a prolonged power failure, and an additional charge of refrigerant is only required if the length of the refrigerant lines exceeds 15 m.

6 kW

8-16 kW

6-16 kW

outdoor unit

- Compact design, independent hydraulic module, and flexible installation
- The refrigerating connection between the outdoor and indoor units is resistant to freezing, even during a prolonged power failure.
- An additional charge of refrigerant is only required if the length of the refrigerant lines exceeds 15 m.
- Built-in drip tray with heater

technical specification

Model		unit	KHA-06RY1	KHA-08RY1	KHA-10RY1	KHA-12RY3	KHA-14RY3	KHA-16RY3
Heating A7W35 ΔT=5, R.H. 85%	nom. heating capacity (range)	kW	6.20 (2.73÷7.41)	8.30 (3.36÷9.11)	10.00 (3.81÷10.3)	12.10 (5.58÷14.60)	14.50 (5.92÷15.50)	16.00 (6.43÷16.80)
	electric energy consumption (range)	kW	1.24 (0.53÷1.56)	1.60 (0.61÷1.80)	2.00 (0.71÷2.09)	2.44 (1.04÷3.11)	3.09 (1.12÷3.37)	3.56 (1.27÷3.79)
	COP (range)	W/W	5.00 (5.32÷4.76)	5.20 (5.54÷5.07)	5.00 (5.39÷4.93)	4.95 (5.38÷4.69)	4.70 (5.27÷4.59)	4.50 (5.08÷4.43)
Heating A2W35 ΔT=5, R.H. 85%	nom. heating capacity	kW	5.50	7.10	8.20	9.30	11.40	13.00
	electric power consumption	kW	1.39	1.73	2.02	2.35	3.12	3.71
	COP	W/W	3.95	4.10	4.05	3.95	3.65	3.50
Heating A-7W35 ΔT=5, R.H. 85%	nom. heating capacity (range)	kW	6.10 (1.48÷6.21)	7.10 (1.82÷7.27)	8.25 (2.05÷8.31)	10.00 (3.97÷11.00)	12.00 (4.57÷12.70)	13.30 (4.99÷13.90)
	electric energy consumption (range)	kW	2.00 (0.48÷2.17)	2.18 (0.53÷2.26)	2.62 (0.61÷2.61)	3.33 (1.26÷3.89)	4.29 (1.48÷4.55)	4.93 (1.68÷5.19)
	COP (range)	W/W	3.05 (3.06÷2.86)	3.25 (3.44÷3.21)	3.15 (3.37÷3.11)	3.00 (3.14÷2.83)	2.80 (3.10÷2.79)	2.70 (2.97÷2.67)
Cooling A35W18 ΔT=5	nom. cooling capacity	kW	6.55	8.40	10.00	12.00	13.50	14.90
	electric power consumption	kW	1.34	1.66	2.08	3.00	3.75	4.38
	EER	W/W	4.90	5.05	4.80	4.00	3.60	3.40
Cooling A35W7 ΔT=5	nom. cooling capacity	kW	7.00	7.40	8.20	11.60	12.70	14.00
	electric power consumption	kW	2.33	2.19	2.48	4.22	4.98	5.71
	EER	W/W	3.00	3.38	3.30	2.75	2.55	2.45
Seasonal energy efficiency rating for room heating	OWT at 35°C (temperate climate zone)	class	A+++	A+++	A+++	A+++	A+++	A+++
	OWT at 55°C (temperate climate zone)	class	A++	A++	A++	A++	A++	A++
SCOP	LWT at 35°C		4.95	5.21	5.19	4.81	4.72	4.62
	LWT at 55°C		3.52	3.36	3.49	3.45	3.47	3.41
Power supply	voltage / number of phases / frequency	V/Ph/Hz	220÷240/1/50	220÷240/1/50	220÷240/1/50	380÷415/3/50	380÷415/3/50	380÷415/3/50
	maximum working current (MCA)	A	14	16	17	10	11	12
Sound level	sound power level (acc. to EN 12102)	dB	58	59	60	64	65	68
	acoustic pressure (1 m)	dB	45	46	49	50	51	55
Outdoor air temperature range	cooling	°C	-5÷43	-5÷43	-5÷43	-5÷43	-5÷43	-5÷43
	heating	°C	-25÷35	-25÷35	-25÷35	-25÷35	-25÷35	-25÷35
	DHW	°C	-25÷43	-25÷43	-25÷43	-25÷43	-25÷43	-25÷43
Compressor type	Twin Rotary		DC	DC	DC	DC	DC	DC
refrigeration system	liquid / gas pipe diameters	mm	6.35 / 15.88	9.52 / 15.88	9.52 / 15.88	9.52 / 15.88	9.52 / 15.88	9.52 / 15.88
	" permissible system length / permissible height difference"	m	2÷30 / 20	2÷30 / 20	2÷30 / 20	2÷30 / 20	2÷30 / 20	2÷30 / 20
	connection method		socket	socket	socket	socket	socket	socket
Additional refrigerant	charge	g/m	20	38	38	38	38	38
	length without charge	m	<15	<15	<15	<15	<15	<15
Refrigerant	symbol (GWP) / amount of refrigerant	kg	R32(675) / 1.5	R32(675) / 1.5	R32(675) / 1.65	R32(675) / 1.84	R32(675) / 1.84	R32(675) / 1.84
Dimensions	of the unit (W / H / L)	mm	1008 ×712 × 426	1118 ×865 × 523	1118 ×865 × 523	1118 ×865 × 523	1118 ×865 × 523	1118 ×865 × 523
	of the packaging (W / H / L)	mm	1065 × 800 × 485	1180 × 890 × 560	1180 × 890 × 560	1180 × 890 × 560	1180 × 890 × 560	1180 × 890 × 560
Weight	net / in packaging	kg	58 / 64	77 / 88	77 / 88	112 / 125	112 / 125	112 / 125
Cost of the unit		**EUR**	**3 160**	**3 230**	**3 780**	**4 600**	**4 800**	**4 950**

*) The technical data above is compliant with the guidelines specified in the following standards: EN14511; EN14825; EN50564; EN12102; (EU) No. 811:2013; (EU) No. 813:2013; OJ 2014/C 207/02:2014.
*) The SCOP seasonal heating efficiency was determined for temperate climate conditions.
*) The sound power level in the heating mode was determined in accordance with EN 12102, under the conditions consistent with EN 14825;

hydraulic module

- Built-in controller in the indoor unit
- Indoor unit to be connected to the outdoor unit
- More compact design (depth only 270 mm) and simple installation
- Standard equipment: a plate heat exchanger, a membrane vessel, a flow sensor, a water pump and a pressure gauge
- All the hydraulic components are easily accessible for maintenance
- Safety valve and air vent valve
- Built-in auxiliary heater
- Built-in drip tray

technical specification

Model			KMK-60RY1	KMK-100RY1	KMK-160RY3
Names of the compatible models of outdoor units			**KHA-06RY1**	**KHA-08RY1 KHA-10RY1**	**KHA-12RY3 KHA-14RY3 KHA-16RY3**
Water-side heat exchanger			plate	plate	plate
water pump	type		adjustable DC inverter	adjustable DC inverter	adjustable DC inverter
	head	m H_2O	9	9	9
expansion vessel	volume	l	8	8	8
	initial pressure on the gas side	MPa	0.3	0.3	0.3
Safety valve		MPa	0.3	0.3	0.3
Flow switch		m_3/h	0.36	0.36	0.6
Internal volume of the system, total		l	5	5	5
Power supply	voltage / number of phases / frequency	V/Ph/Hz	220÷240/1/50	220÷240/1/50	380÷415/3/50
	maximum working current (MCA)	A	14.3	14.3	14
Auxiliary electric heater	electric power	kW	3	3	3+3+3
	capacity levels		1	1	3
Sound power level		dB(A)	38	42	43
Sound pressure level		dB(A)	28	30	32
Leaving water temperature (LWT)	cooling	°C	5÷25	5÷25	5÷25
	heating	°C	25÷65	25÷65	25÷65
	DHW	°C	30÷60	30÷60	30÷60
Room temperature range		°C	5÷35	5÷35	5÷35
Connection	water side (external thread)	inch	1	1	1
	refrigerant liquid	mm	6.35	9.52	9.52
	refrigerant gas	mm	15.88	15.88	15.88
Dimensions	of the unit (W / H / L)	mm	420 × 790 × 270	420 × 790 × 270	420 × 790 × 270
	of the packaging (W / H / L)	mm	525 × 1050 × 360	525 × 1050 × 360	525 × 1050 × 360
Weight	net / in packaging	kg	37 / 43	37 / 43	39 / 45
Cost of the unit		**EUR**	**3 450**	**3 600**	**3 950**

*) The technical data above is compliant with the guidelines specified in the following standards: EN16147/2017; EN14511/2018; EN14825/2018; EU No.: 811/2013
*) The sound power level in the heating mode was determined in accordance with EN 12102, under the conditions consistent with EN 14825;

DHW – domestic hot water
OWT – outlet water temperature

hydraulic module

with a Domestic Hot Water tank

- The most compact design in the Kaisai heat pump range: a hydraulic module + a domestic hot water tank in one
- A complete unit for central heating and domestic hot water operation.
- Footprint area is only 0,36 m^2
- A built-in 3-way valve and an auxiliary heater
- Two domestic hot water tank capacities to choose from. 190 l and 240 l
- A built-in controller

user interface

- Multilingual menu
- Newly designed controller with touch buttons
- Wireless WiFi operation
- Modbus RTU protocol – you can connect up to 16 devices and integrate it with BMS
- Cascade configuration support up to 6 units
- Simple and quick changing of the heat pump's operational parameters
- Real-time operation parameters monitoring
- Communication cable length up to 50 m
- A built-in temperature sensor
- Software can be updated via USB and heat pump settings saved on a flash drive.

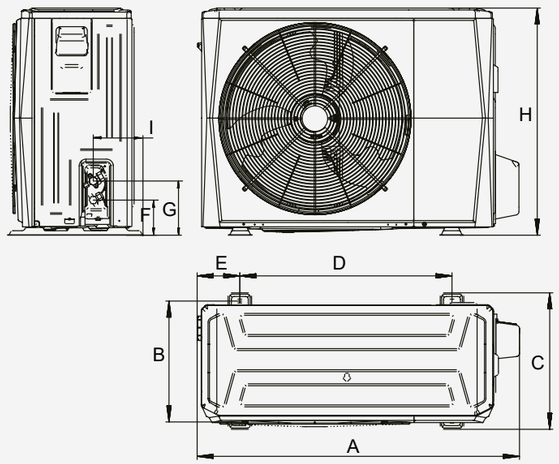
technical specification

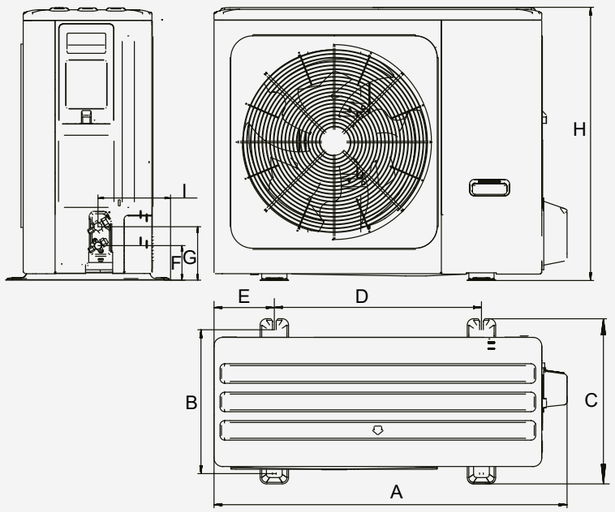
Model				KMK-190L-100RY1		KMK-240L-100RY1		KMK-240L-160RY3
Names of the compatible outdoor unit models				**KHA-06RY1**	**KHA-08RY1 KHA-10RY1**	**KHA-06RY1**	**KHA-08RY1 KHA-10RY1**	**KHA-12RY3 KHA-14RY3 KHA-16RY3**
Heat Exchanger				plate	plate	plate	plate	plate
Water pump	type			DC Inverter	DC Inverter	DC Inverter	DC Inverter	DC Inverter
	head		$m H_2O$	9	9	9	9	9
expansion vessel		volume	l	8	8	8	8	8
Water consumption profile acc. to EN16147				L	L	XL	XL	XL
Domestic Hot Water *1	Energy efficiency class for DHW heating	temperate climate	class	A+	A+	A+	A+	A+
			COP	3.10	3.02	3.34	3.36	3.00
		warm climate	class	A+	A+	A+	A+	A+
			COP	3.80	3.66	4.24	4.18	3.73
		cold climate	class	A	A	A	A	A
			COP	2.50	2.61	2.63	2.72	2.24
DHW tank	type			Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
	material			SUS 316L	SUS 316L	SUS 316L	SUS 316L	SUS 316L
	water capacity		L	190	190	240	240	240
	maximum water temperature		°C	70	70	70	70	70
	insulation (material)			Polyurethane (Cyclopentane)				
Electric power supply	voltage / number of phases / frequency		V/Ph/Hz	220÷240/1/50	220÷240/1/50	220÷240/1/50	220÷240/1/50	380÷415/3/50
	maximum working current (MCA)		A	14.3	14.3	26.5	26.5	14
Auxiliary electric heater	electric power		kW	3	3	2+2+2	2+2+2	3+3+3
	capacity levels			1	1	3	3	3
	power supply		V/Ph/Hz	220÷240/1/50	220÷240/1/50	220÷240/1/50	220÷240/1/50	380÷415/3/50
Sound power level *2			dB	38	40	38	40	44
Temperature range	indoor		°C	5÷35	5÷35	5÷35	5÷35	5÷35
	heating		°C	25÷65	25÷65	25÷65	25÷65	25÷65
	cooling		°C	5÷25	5÷25	5÷25	5÷25	5÷25
	Domestic Hot Water (DHW)		°C	30÷60	30÷60	30÷60	30÷60	30÷60
Water connection	heating system (external thread)	supply/return	inch	1	1	1	1	1
	DHW (external thread)	cold water circulation hot water	inch	3/4	3/4	3/4	3/4	3/4
Dimensions	of the unit (W / H / L)		mm	600 x 1683 x 600	600 x 1683 x 600	600 x 1943 x 600	600 x 1943 x 600	600 x 1943 x 600
	of the packaging (W / H / L)		mm	653 x 1900 x 653	653 x 1900 x 653	653 x 2160 x 653	653 x 2160 x 653	653 x 2160 x 653
Weight	net / in packaging		kg	138.6 / 153.8	138.6 / 153.8	155.3 / 170.2	155.3 / 170.2	157.3 / 172.2
Cost of the unit			**EUR**	**6 700**		**7 210**		**7 390**

*) The technical data above is compliant with the guidelines specified in the following standards: EN16147:2017; EN14511/2018; EN14825/2018; EU No.: 811/2013
*) The sound power level in the heating mode was determined in accordance with EN 12102, under the conditions consistent with EN 14825;

dimensions

outdoor unit

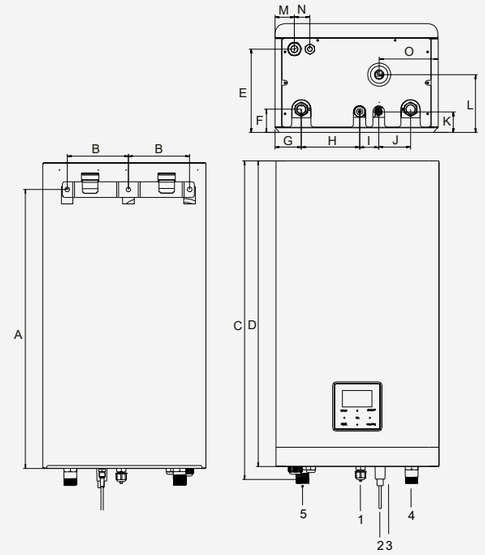




MODEL	A	B	C	D	E	F	G	H	I
KHA-06RY1	1008	375	426	663	134	110	170	712	160
KHA-08/10RY1	1118	456	523	656	191	110	170	865	230
KHA-12/14/16RY3	1118	456	523	656	191	110	170	865	230

hydraulic module

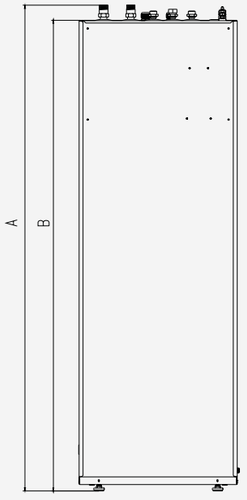
1	Refrigerating connection – gas 5/8"
2	Refrigerating connection – liquid 1/4" (model 60), 3/8" (models 100/160)
3	Condensate outlet ø25
4	Water inlet from the central heating system R1" (GZ)
5	Water outlet to the central heating system R1" (GZ)

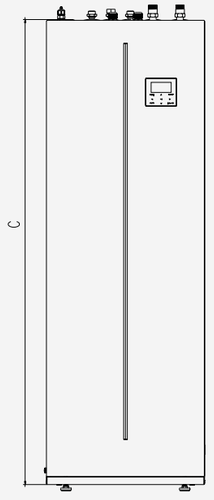


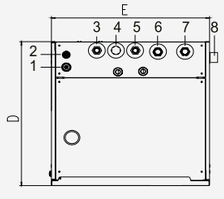
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
721	158	824	790	216	60	68	151	49	82	53	149	50	40	152

hydraulic module
with a Domestic Hot Water tank

1	Refrigerating connection – gas 5/8"
2	Refrigerating connection – liquid 3/8"
3	Domestic Hot Water Outlet R3/4"
4	Circulation outlet for Domestic Hot Water (plugged) R3/4"
5	Domestic Hot Water Inlet R3/4"
6	Water inlet from the central heating system R1" (GZ)
7	Water outlet to the central heating system R1" (GZ)
8	Condensate outlet ø25





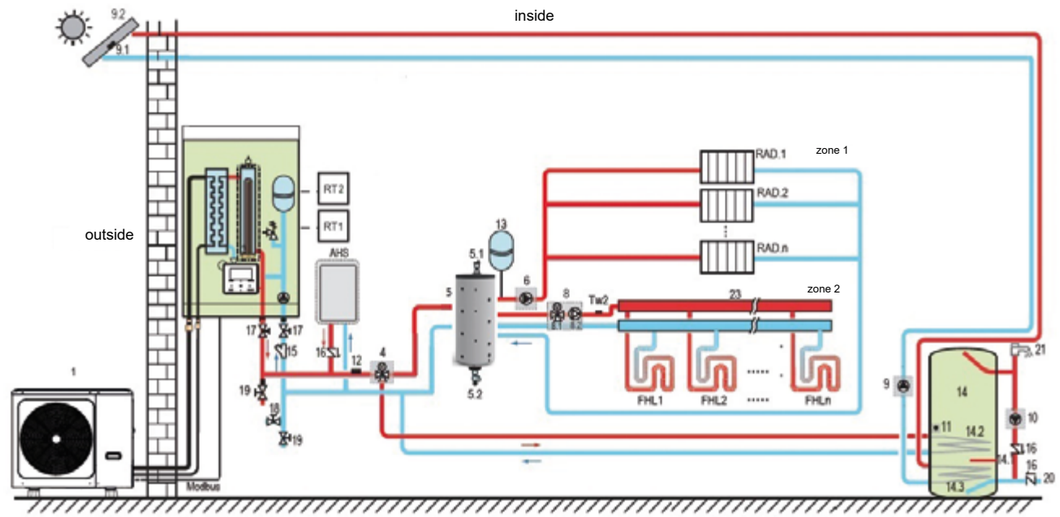


MODEL	A	B	C	D	E
KMK-190L-100RY1	1774	1711	1683	600	600
KMK-240L-100RY1	2034	1971	1943	600	600
KMK-240L-160RY3	2034	1971	1943	600	600

heating circuits

Two heating circuits [as standard]

- Higher flexibility thanks to the two control zones
- Independent control of the underfloor heating and radiator heating temperatures
- No need to purchase an extension module for a second heating system



1	Outdoor unit
2	Hydraulic module
3	Built-in controller
4*	SV1: 3-way valve
5*	Hydraulic coupling / buffer
5.1*	Automatic vent valve
5.2*	Draining valve
5.3	Tbt1: upper temperature sensor (optional)
5.4	Tbt2: lower temperature sensor (optional)
6*	P_o: Circulating pump for zone A
8*	Mixing module
8.1*	SV3: Mixing valve
8.2*	P_c: circulating pump for zone 2
9*	P_s: solar collector pump
9.1	Tsolar: Collector temp sensor (optional)
9.2*	Solar collector
10*	P_d: Domestic hot water pump
11	T5: DHW temperature sensor (optional)
12	T1: Circulating water temperature sensor (optional)
13*	Expansion vessel
14*	Domestic hot water tank
14.1*	TBH: Auxiliary heater for DHW tank
14.2*	Coil 1, DHW coil for heat pump
14.3*	Coil 2, DHW coil for solar system
15*	Filter
16*	Non-return / anti-contamination valve
17*	Shut-off valve
18*	Prefill valve
19*	Draining valve
20*	Water pipe connection - cold water
21*	Spout
23*	Distributor
24*	Clip
25*	NN thermostat relay
FHL 1...n*	Underfloor heating loop
AHS*	Additional heat source
RT 1*	Room thermostat
RT 2*	Room thermostat
Tw2	Water flow sensor for zone 2 (optional)
RAD 1...n*	Heater

*- not included as standard equipment. To be installed on one's own

Price list for units 2020/21

The price list is valid **as of 01.02.2021**

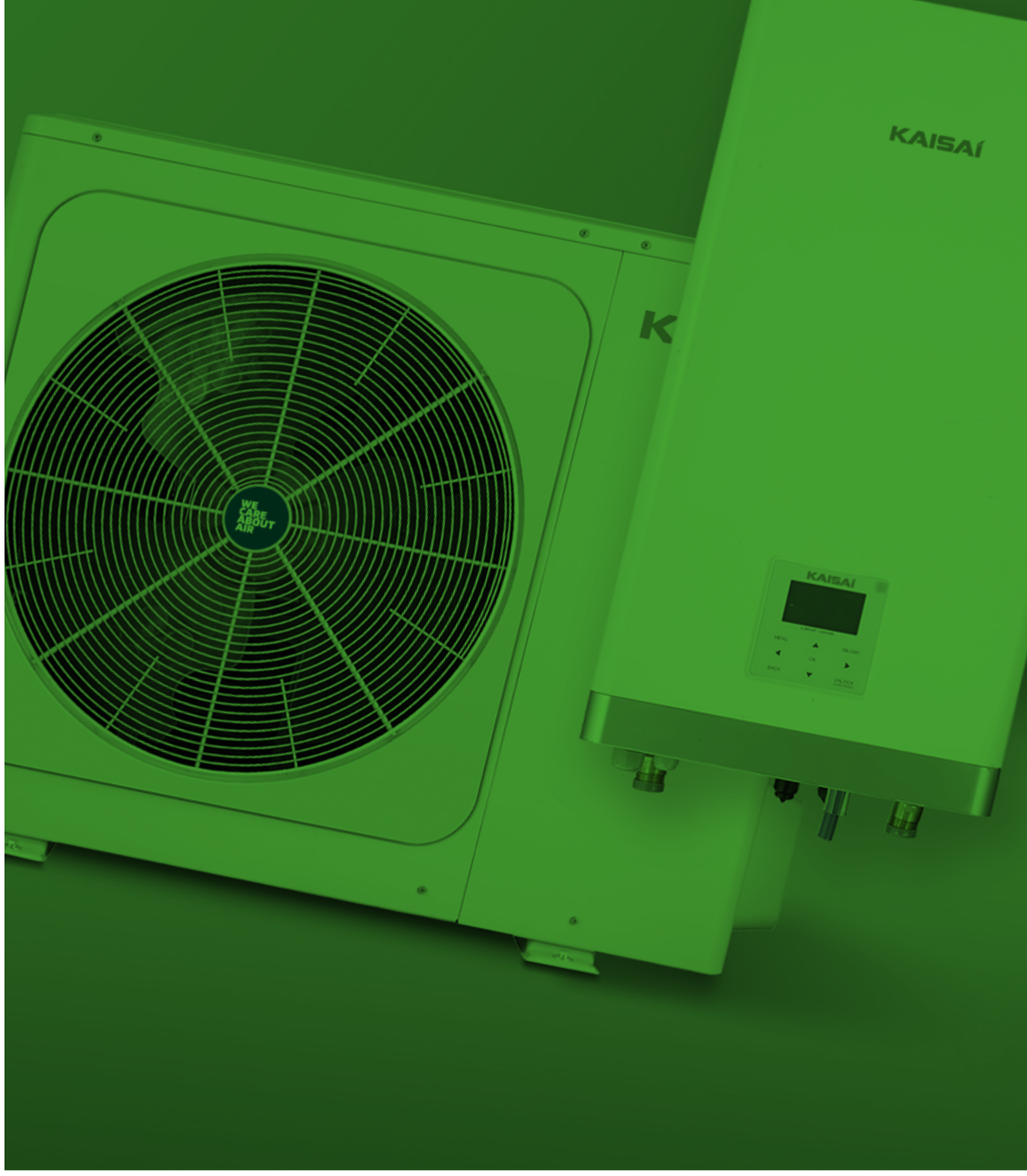
MODEL		PRICE [EUR]
Monoblocks		
KHC-06RY1	KHC-06RY1 heat pump – monoblock	5 875
KHC-08RY1	KHC-08RY1 heat pump – monoblock	6 050
KHC-10RY1	KHC-10RY1 heat pump – monoblock	6 400
KHC-12RY3	KHC-12RY3 heat pump – monoblock	8 750
KHC-14RY3	KHC-14RY3 heat pump – monoblock	9 150
KHC-16RY3	KHC-16RY3 heat pump – monoblock	9 350
KHC-22RX3	KHC-22RX3 heat pump – monoblock	11 300
KHC-30RX3	KHC-30RX3 heat pump – monoblock	12 250
Splits Outdoor units		
KHA-06RY1	KHA-06RY1 heat pump – split – outdoor unit	3 160
KHA-08RY1	KHA-08RY1 heat pump – split – outdoor unit	3 230
KHA-10RY1	KHA-10RY1 heat pump – split – outdoor unit	3 780
KHA-12RY3	KHA-12RY3 heat pump – split – outdoor unit	4 600
KHA-14RY3	KHA-14RY3 heat pump – split – outdoor unit	4 800
KHA-16RY3	KHA-16RY3 heat pump – split – outdoor unit	4 950
Splits Indoor units		
KMK-60RY1	KMK-60RY1 hydraulic module – split – indoor unit	3 450
KMK-100RY1	KMK-100RY1 hydraulic module – split – indoor unit	3 600
KMK-160RY3	KMK-160RY3 hydraulic module – split – indoor unit	3 950
KMK-190L-100RY1	KMK-190L-100RY1 hydraulic module – split – indoor unit	6 700
KMK-240L-100RY1	KMK-240L-100RY1 hydraulic module – split – indoor unit	7 210
KMK-240L-160RY3	KMK-240L-160RY3 hydraulic module – split – indoor unit	7 390

Price list for units 2020/21

The price list is valid **as of 01.02.2021**

MODEL		PRICE [EUR]
Sets: outdoor and indoor units		
KHA-06RY1 + KMK-60RY1	Heat pump – split – set KHA-06RY1+KMK-60RY1	6 610
KHA-08RY1 + KMK-100RY1	Heat pump – split – set KHA-08RY1+KMK-100RY1	6 830
KHA-10RY1 + KMK-100RY1	Heat pump – split – set KHA-10RY1+KMK-100RY1	7 380
KHA-12RY3 + KMK-160RY3	Heat pump – split – set KHA-12RY3+KMK-160RY3	8 550
KHA-14RY3 + KMK-160RY3	Heat pump – split – set KHA-14RY3+KMK-160RY3	8 750
KHA-16RY3 + KMK-160RY3	Heat pump – split – set KHA-16RY3+KMK-160RY3	8 900
KHA-06RY1 + KMK-190L-100RY1	Heat pump – split – set KHA-06RY1 + KMK-190L-100RY1	9 860
KHA-08RY1 + KMK-190L-100RY1	Heat pump – split – set KHA-08RY1 + KMK-190L-100RY1	9 930
KHA-10RY1 + KMK-190L-100RY1	Heat pump – split – set KHA-10RY1 + KMK-190L-100RY1	10 480
KHA-06RY1 + KMK-240L-100RY1	Heat pump – split – set KHA-06RY1 + KMK-240L-100RY1	10 370
KHA-08RY1 + KMK-240L-100RY1	Heat pump – split – set KHA-08RY1 + KMK-240L-100RY1	10 440
KHA-10RY1 + KMK-240L-100RY1	Heat pump – split – set KHA-10RY1 + KMK-240L-100RY1	10 990
KHA-12RY3 + KMK-240L-160RY3	Heat pump – split – set KHA-12RY3 + KMK-240L-160RY3	11 990
KHA-14RY3 + KMK-240L-160RY3	Heat pump – split – set KHA-14RY3 + KMK-240L-160RY3	12 190
KHA-16RY3 + KMK-240L-160RY3	Heat pump – split – set KHA-16RY3 + KMK-240L-160RY3	12 340

Accessories	
HP MXS mixing group (includes a temperature sensor and a temperature sensor adapter)	1 200
HP PUMP pump group	780
HP CON distributor	520
HP 3WV 3-way switching valve for central heating / DHW HP 3WV	340
HP T1/T5/Tw2 temperature sensor	35
HP temperature sensor adapter	10



The purchase prices listed in the price list are all net prices in PLN. | The price-list does not constitute an offer within the meaning of Art. 66 of the Commercial Code, while all photos of the products are only examples and are provided for the purpose of presenting the selected models. | The actual products may differ from the ones demonstrated in the pictures. | The products are subject to continuous improvement. Therefore, Kaisai reserves the right to change their prices and technical parameters without prior notice. | The current price list is no longer valid.

The purpose of this document is to provide information and present heat pumps of the Kaisai brand. |Since the technologically advanced production process necessitates its continuous control and improvement, the information contained in this publication may be subject to change. |The net prices provided are catalogue prices for the products and do not include any discounts or costs of installation. The technical data and prices included in the folder are subject to change. Up-to-date information is always available on **www.kaisai.com**

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