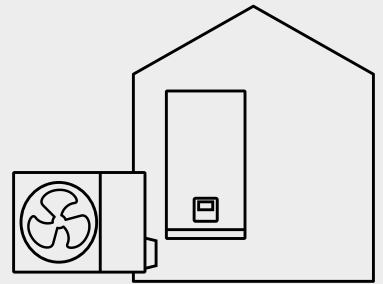


SPLIT

heat pumps



- KMK-60 RY1**
- KMK-100 | 160RY3**
- KMK-190L | 240L -100RY1(3)**
- KMK-240L-160RY3**
- KHA-06RY1-B**
- KHA-08 | 10 RY1-B**
- KHA-12 | 14 | 16 RY3-B**





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 cooling 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 cooling lines exceeds 15 m.

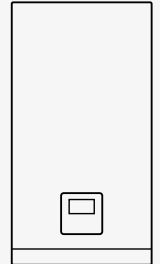
Hydraulic module



- All hydraulic components in the outdoor unit, i.e. circulating pump, expansion vessel, safety and air vent valve, flow sensor, pressure gauge and water flow heater, are fitted as standard.
- Built-in controller, possibility to move the wired controller to another location
- Easy installation and simple maintenance

KMK-60RY1, KMK-100 | 160RY3

TECHNICAL SPECIFICATION



Model			KMK-60RY1	KMK-100RY3	KMK-160RY3
Names of compatible outdoor unit models			KHA-06RY1-B	KHA-08RY1-B KHA-10RY1-B	KHA-12RY3-B KHA-14RY3-B KHA-16RY3-B
Water-side heat exchanger			plate	plate	plate
Water pump	type		adjustable DC inverter	adjustable DC inverter	adjustable DC inverter
	head	m H ₂ O	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	0,60
Internal volume of the system, total		l	5	5	5
Power supply	voltage / number of phases / frequency	V/Ph/Hz	220÷240/1/50	380÷415/3/50	380÷415/3/50
	maximum operating current (MCA)	A	14,3	14,0	14,0
Auxiliary electric heater	electric power	kW	3	3/6/9	3/6/9
	capacity levels		1	3	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 ET)	cal	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

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;

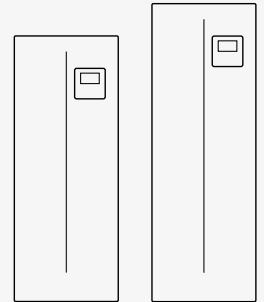
DHW – domestic hot water LWT - leaving water temperature

Hydraulic module with DHW tank



- The most compact design in the Kaisai heat pump range: hydraulic module + DHW tank in one
- A complete unit for central heating and DHW operation
- The footprint area is only 0.36 m²
- Built-in three way valve and an auxiliary heater
- DHW tank available in two sizes: 190 L and 240 L
- Built-in controller

KMK-190L-100RY1, KMK-240L-100/160RY3

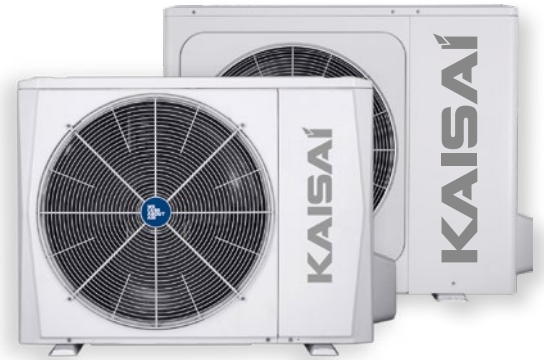


TECHNICAL SPECIFICATION

Model	KMK-190L-100RY1		KMK-240L-100RY3		KMK-240L-160RY3			
Names of compatible outdoor unit models	KHA-06RY1-B	KHA-08RY1-B KHA-10RY1-B	KHA-06RY1-B	KHA-08RY1-B KHA-10RY1-B	KHA-12RY3-B KHA-14RY3-B KHA-16RY3-B			
Heat exchanger					plate			
Water pump	type				DC Inverter			
	head	m H2O	9	9	9	9		
Expansion vessel	volume	l	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+	
			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			
	material				SUS 316L			
	water capacity	L	190	190	240	240	240	
	maximum water temperature	°C	70	70	70	70	70	
	insulation (material)				poliuretan (cyklopentan)			
Electric power supply	voltage / number of phases / frequency	V/Ph/Hz	220÷240/1/50		380÷415/3/50		380÷415/3/50	
	maximum operating current (MCA)	A	14,3	14,3	14,3	14,3	14,3	
Auxiliary electric heater	electric power	kW	3	3	3/6/9	3/6/9	3/6/9	
	capacity levels		1	1	3	3	3	
	power supply	V/Ph/Hz	220÷240/1/50		380÷415/3/50		380÷415/3/50	
Sound power level		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 ET)	supply/return	cal	1	1	1	1	
	DHW (external thread ET)	cold water circulation hot water	cal	3/4	3/4	3/4	3/4	
Dimensions	of the unit (W×H×L)	mm	600x1683x600		600x1943x600			
	of the packaging (W×H×L)	mm	653x1900x653		653x2160x653			
Weight	net / in packaging	kg	138,6 / 153,8		155,3 / 170,2		157,3 / 172,2	

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;

Outdoor units



- Compact design, independent hydraulic module, and flexible installation
- The cooling 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 cooling lines exceeds 15 m.
- Built-in drip tray with heater

KHA-06 | 08 | 10RY1-B, KHA-12 | 14 | 16RY3-B

TECHNICAL SPECIFICATION

Model			KHA-06RY1-B	KHA-08RY1-B	KHA-10RY1-B	KHA-12RY3-B	KHA-14RY3-B	KHA-16RY3-B
Heating A7W35 ΔT=5, R.H. 85%	nominal heat capacity (range)	kW	6,20 (2,73÷7,41)	8,30 (3,36÷9,11)	10,00 (3,81÷10,30)	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%	nominal heat 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%	nominal heat 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	nominal 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	nominal 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	LWT at 35°C (temperate climate zone)	klasa	A+++	A+++	A+++	A+++	A+++	A+++
	LWT at 55°C (temperate climate zone)	klasa	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 operating 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 (1m)	dB	45	46	49	50	51	55
Outside 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
	CWU	°C	-25÷43	-25÷43	-25÷43	-25÷43	-25÷43	-25÷43
Compressor type	twin rotary	DC	DC	DC	DC	DC	DC	
Cooling system	liquid / gas line 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
		cal	1/4 / 5/8	3/8 / 5/8	3/8 / 5/8	3/8 / 5/8	3/8 / 5/8	3/8 / 5/8
	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) / refrigerant amount	kg	R32 (675) / 1,5	R32 (675) / 1,65	R32 (675) / 1,65	R32 (675) / 1,84	R32 (675) / 1,84	R32 (675) / 1,84
	of the unit (W×H×L)	mm	1008×712×426			1118×865×523		
Dimensions	of the packaging (W×H×L)	mm	1065×800×485			1180×890×560		
Weight	net / in packaging		58 / 64	75 / 89	75 / 89	112 / 125	112 / 125	112 / 125

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;