

RESIDENTIAL INVERTER HEAT PUMPS

The best solution for heating, cooling, and hot water supply



CONTENT

Discover the new generation of heat pumps. With a new design, high performance, and best-in-class control, they will be the perfect solution for all your projects!

- 01 Air-water heat pumps
- 02 Alpenta Applications
- 03 Dimensions
- 04 Control and Connection Elements
- 05 Capabilities
- 06 Technical Specifications

AIR-WATER HEAT PUMP

Renewable energy solutions

Using a renewable energy source like air, heat pumps provide high electricity savings and have a minimal impact on the environment.

An air-water heat pump is one of the best heating systems. It can collect a significant amount of thermal energy while using only a small amount of electricity.

ENERGY SAVING:

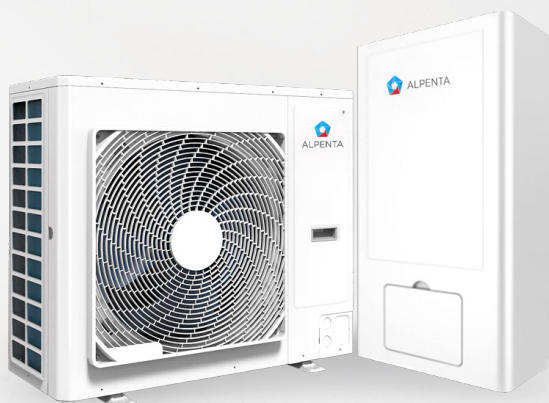
Heat pumps convert energy from the outside air, providing ideal comfort at home and reducing electricity consumption.



NEW ALPENTA LINEUP



- SACI-20CHS-ON
 - SACI-20CHSW-IN
-  power 20 kW



- SACI-14CHS-ON
 - SACI-14CHSW-IN
-  power 14 kW
- SACI-16CHS-ON
 - SACI-16CHSW-IN
-  power 16 kW

ALPENTA APPLICATION

An ideal solution for a new house or the reconstruction of an existing one.



VERSATILITY AND HIGH EFFICIENCY

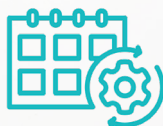
Heat pumps will meet all your needs for heating, cooling, or hot water.

They can work with various heating devices. A combination with other systems is also possible, such as: a boiler, solar panels, or a pool.

THE BEST EFFICIENCY FOR A HIGH LEVEL OF COMFORT



Optimal performance
for a high level
of comfort



A wide range
of efficiency throughout
the year, regardless
of the function



Easy and fast
equipment installation

- Seasonal efficiency up to A+++

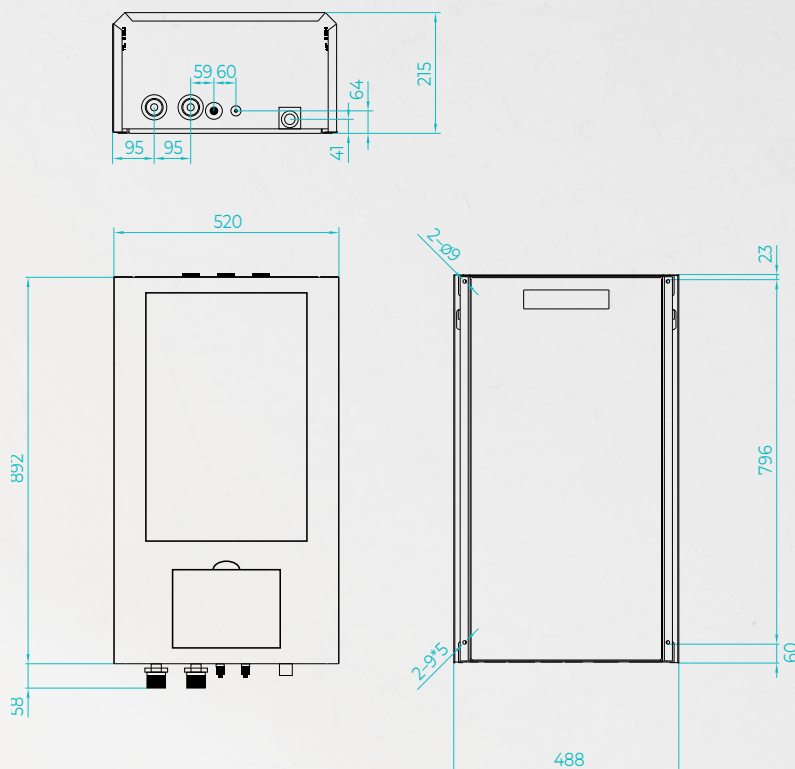
- Efficiency: COP (from 3.66 to 4.14)
EER (from 2.61 to 3.21)

- Outdoor operating temperature
range from -25°C to +55°C

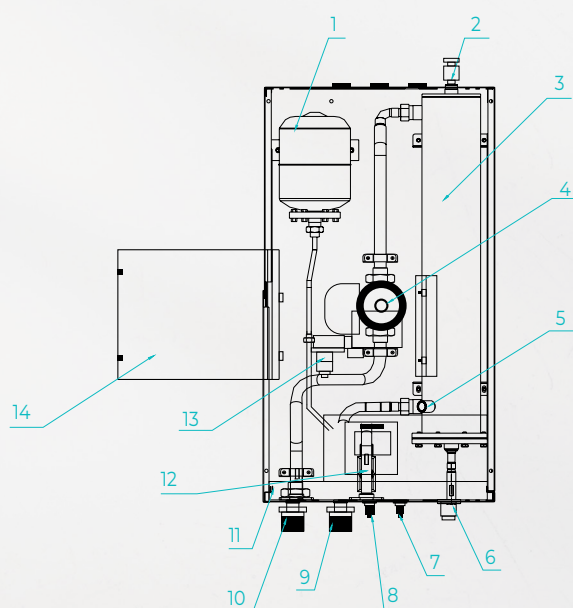
DIMENSIONS

Indoor wall-mounted units:

SAC1-14CHSW-IN/ SAC1-16CHSW-IN



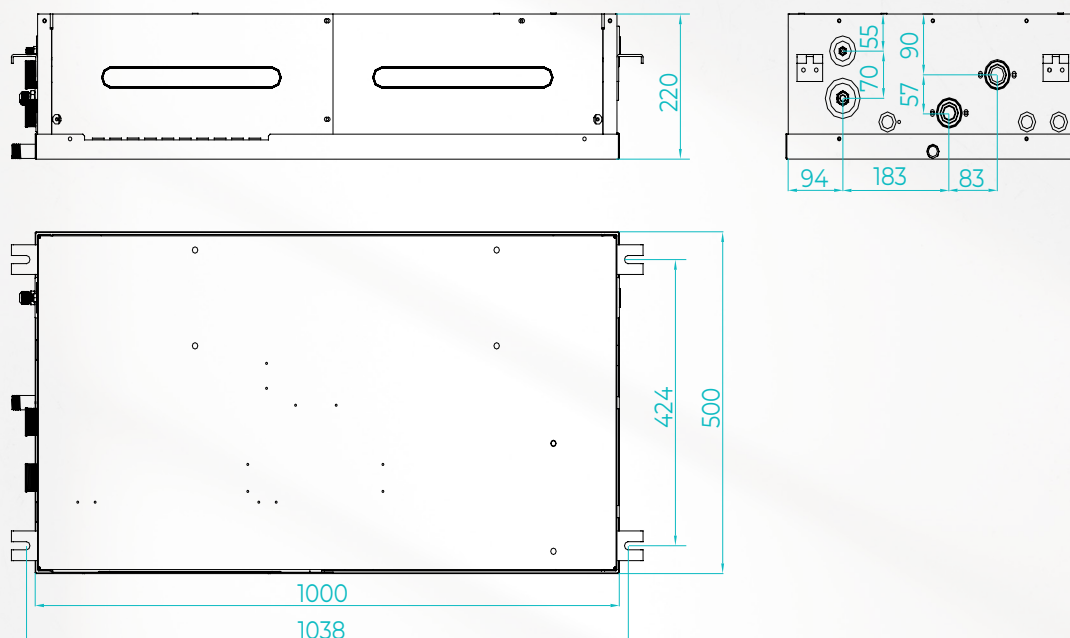
FEATURES



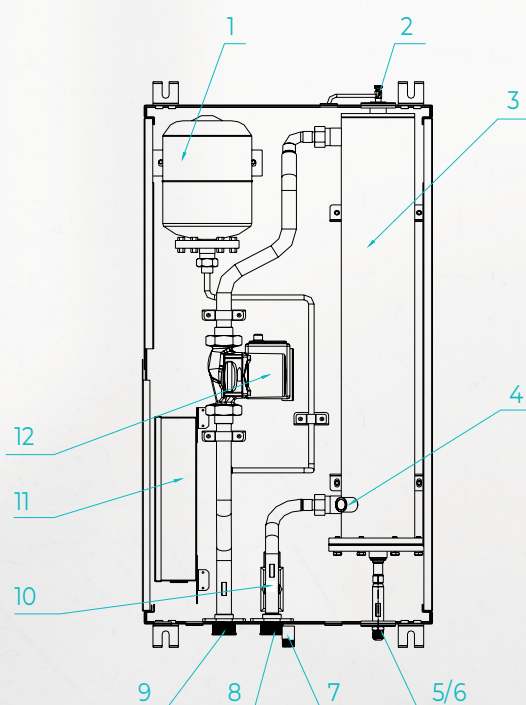
*The manufacturer reserves the right to change specifications. For current data, please contact your manager.

DIMENSIONS

SAC1-20CHSC-IN



FEATURES

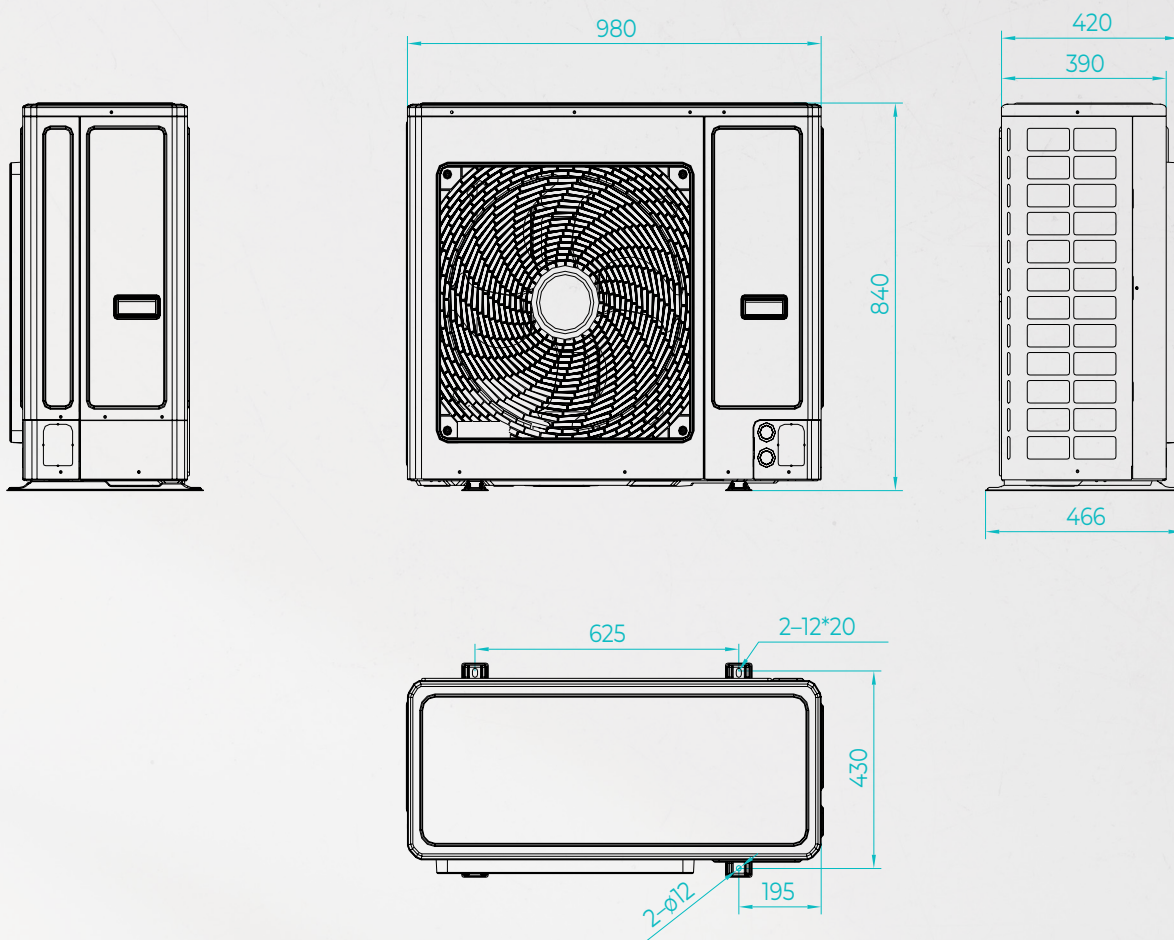


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DIMENSIONS

Outdoor units:

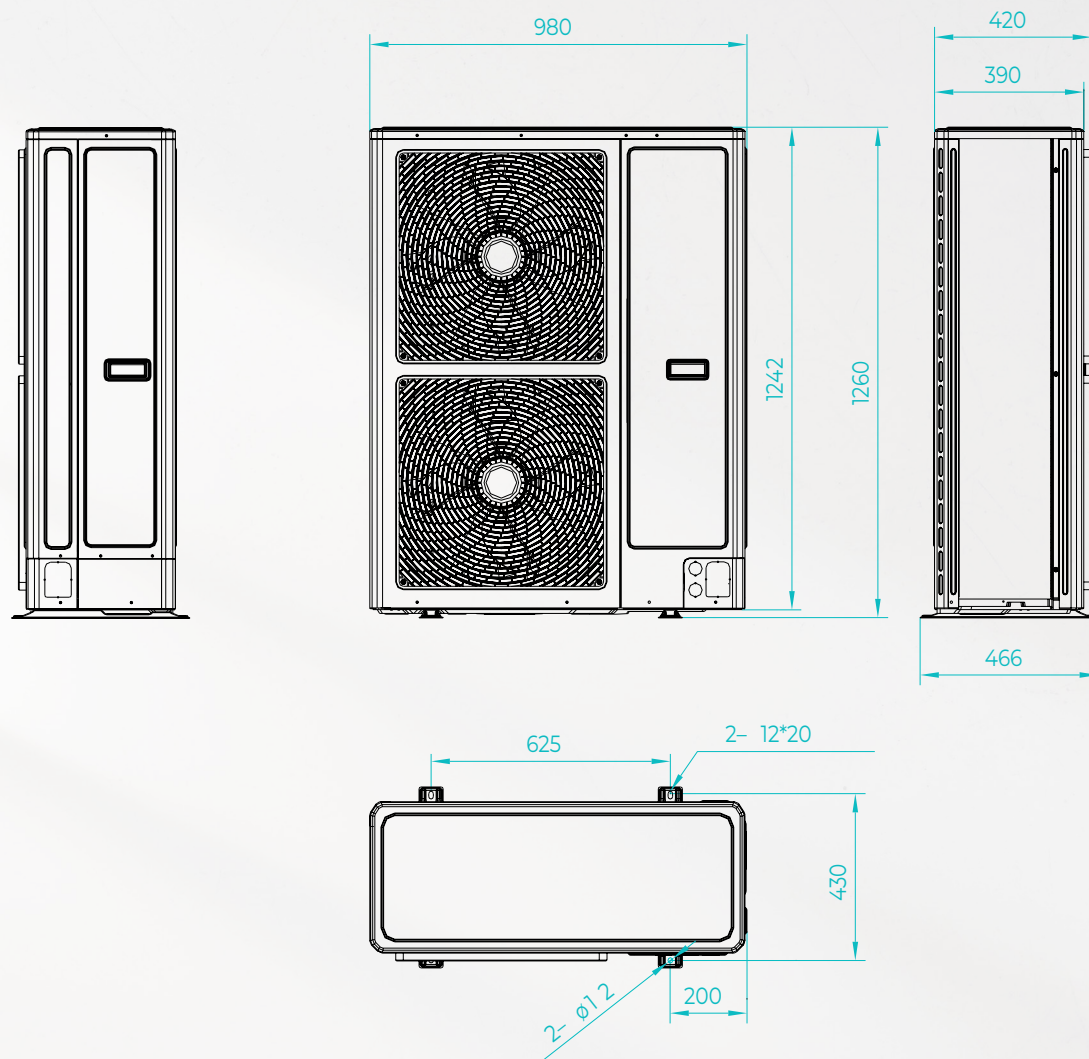
SAC1-14CHSW-ON/ SAC1-16CHSW-ON



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DIMENSIONS

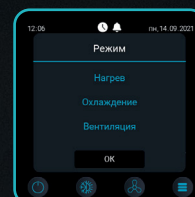
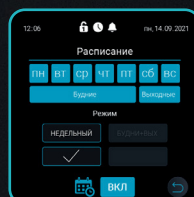
Outdoor units: SAC1-20CHS-ON



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CONTROL AND CONNECTION ELEMENTS

An intuitive and visually clear interface with exclusive functionality



EQUIPMENT CONTROL FROM A SMARTPHONE

Allows you anytime, anywhere to:

- ✓ control equipment operating parameters
- ✓ get instant emergency notifications
- ✓ contact the service team
- ✓ adjust settings



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CAPABILITIES

OPERATING MODES



Cooling



Heating



Floor heating



Maintaining room temperature

FUNCTIONALITY



Outdoor temperature display



Date, time, and week display



Room temperature setting



Scheduled on/off operation



Silent mode



Powerful defrost

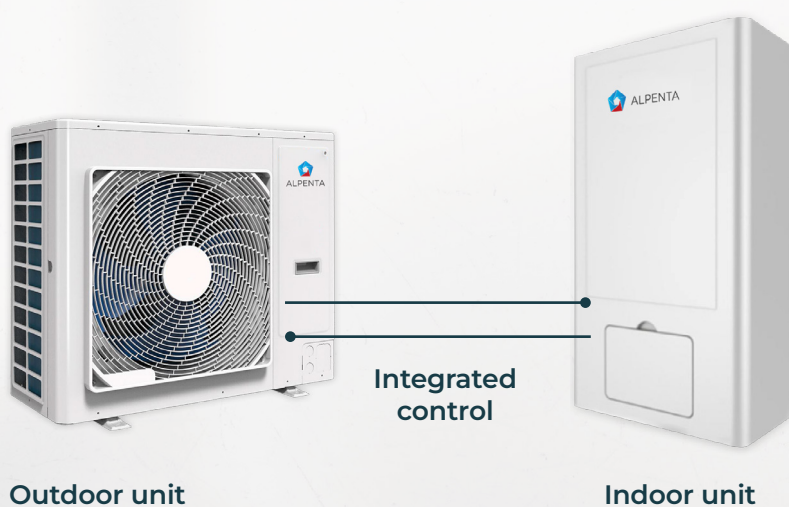


Error check / self-diagnosis



Password setting

MODERN DESIGN AND CLEAR INTERFACE



Outdoor unit

Indoor unit



Water pump



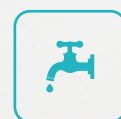
Expansion tank



Safety valve



Automatic air vent valve

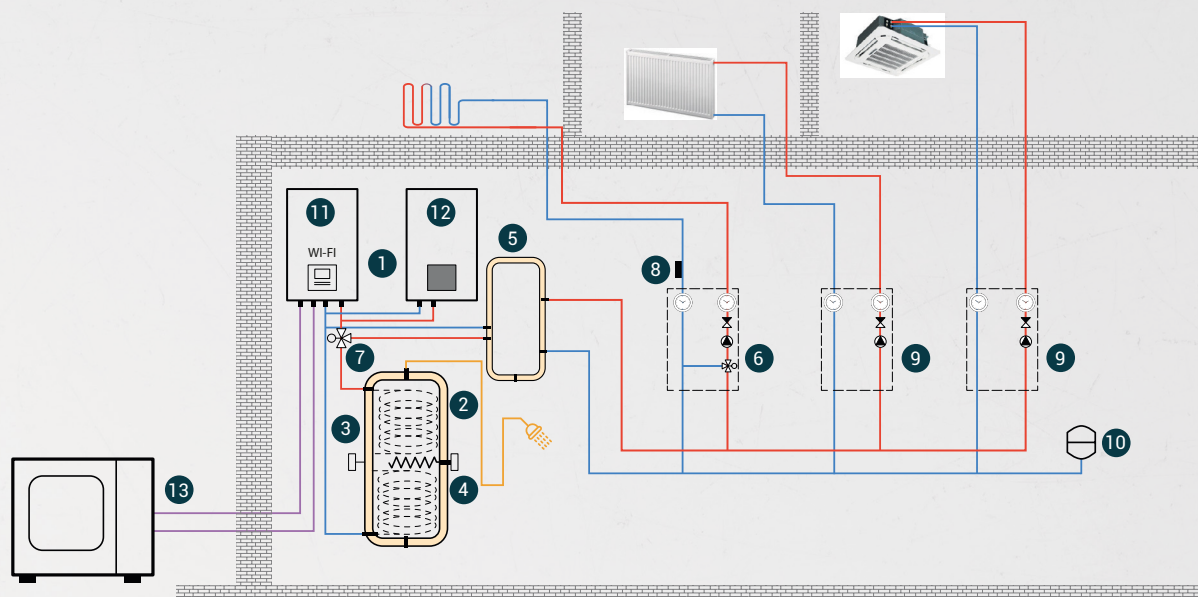


Valve



Manometer

OPERATING DIAGRAM OF THE HEAT PUMP WITH ACCESSORIES



- 1 - Automation kit (built-in): controller, Wi-Fi gateway (smartphone control), DHW tank water temperature sensor
- 2 - DHW tank 200/300 L
- 3 - DHW tank water temperature sensor (included in 1)
- 4 - 3 kW electric heater (included in 2)
- 5 - Buffer tank 100/200 L
- 6 - Pump group PG-48L: pressure gauges, mixing unit, circulation pump, 3-way valve with actuator, return water temperature sensor
- 7 - 3-way valve for DHW with actuator
- 8 - Return water temperature sensor (included in 6)
- 9 - Pump group PG-47: pressure gauges, circulation pump
- 10 - Expansion tank – for 5.5 and 11 kW models (not available as an option)
- 11 - Indoor unit
- 12 - Additional heater (optional: gas/electric boiler or cascade with heat pumps)
- 13 - Outdoor unit

TECHNICAL SPECIFICATIONS

Indoor unit type		Wall-mounted		Ceiling-mounted
Model (outdoor unit/indoor unit)		SACI-14CHS-ON/ SACI-14CHSW-IN	SACI-16CHS-ON/ SACI-16CHSW-IN	SACI-20CHS-ON/ SACI-20CHSW-IN
Heating capacity	Nominal thermal capacity, kW (1)	14,0	16,0	21,0
	Nominal thermal capacity, kW (2)	13,8	15,7	20,0
	Nominal thermal capacity, kW (3)	13,5	15,4	17,0
	COP *, kW/kW	3,80	3,76	4,14
Cooling capacity	Nominal cooling capacity, kW (4)	13,5	14,5	19,5
	EER, kW/kW	2,69	2,61	2,67
SCOP	LWT at 35°C/55°C	4,6/3,4	4,52/2,61	4,66/3,53
Built-in electric heater		-		
Water temperature range for heating, °C		+25°C...+55°C		
Maximum water temperature at an outdoor air temperature of -12°C inlet/outlet, °C		50/55		
Calculated heating area, m² (5)		180	205	225
Outdoor operating temperature range, °C	cooling	-15...+55		
	heating	-25...+48		
Water flow rate (m³/h)		2,41	2,75	3,44
Water lift height, m		8	6,5	4
Minimum water volume in the system, l		120	140	180
Expansion tank, l		6	6	-
Type of circulation pump		Inverter (power regulation 5 - 100%)		
Connection, phase, frequency	Outdoor unit	220-240V / 1-ph / 50Hz	220-240V / 1-ph / 50Hz	380-400V / 3-ph / 50Hz
	Indoor unit	220-240V / 1-ph / 50Hz	220-240V / 1-ph / 50Hz	220-240V / 3-ph / 50Hz
Max. total power consumption, kW/ Max. operating current, A	Outdoor unit	7 / 35	7 / 35	8 / 15
	Indoor unit	0,3 / 1,36	0,3 / 1,36	0,3 / 1,36
Cable cross-section, number of cores x mm²	Outdoor unit	3 x 6	3 x 6	5 x 2,5
	Indoor unit	3 x 1	3 x 1	3 x 1
Compressor		EVI DC-invertor		
Refrigerant / Factory charge amount, kg		R410A/3,05	R410A/3,05	R410A/4,4
Maximum height difference between outdoor and indoor unit, m		6		
Piping length without additional charge, m		5		
Maximum piping length, m		25		
Additional refrigerant charge, g/m		54		
Refrigerant piping connection	Pipe diameter liquid/gas (mm)	9,52/19,05		
	Connection type	Brazing joint		
Water piping connection	Inlet/outlet pipe diameter	DN32		
	Connection type	External thread (R1-1/4")		
Sound pressure level, dB(A)	Outdoor unit	56	56	59
	Indoor unit	37	37	37
Net weight (kg)	Outdoor unit	96	96	115
	Indoor unit	53	53	53
Dimensions WxDxH	Outdoor unit	980x840x420	980x840x420	980x1260x466
	Indoor unit	520x892x245	520x892x245	1038x500x220

- (1) Nominal heating capacity at an outlet water temperature from the indoor unit of 35°C and an outdoor air temperature of +7°C.
- (2) Nominal heating capacity at an outlet water temperature from the indoor unit of 45°C and an outdoor air temperature of +7°C.
- (3) Nominal heating capacity at an outlet water temperature from the indoor unit of 45°C and an outdoor air temperature of -5°C.
- (4) Nominal cooling capacity at an outlet water temperature from the indoor unit of 7°C and an outdoor air temperature of +35°C.
- (5) The calculation was performed at an outdoor air temperature of -5°C, a heating water temperature of 40/45°C, and a calculated heat loss of 75 W/m².

