ROTENSO®
Live better

Catalogue

Heat pumps
2023 / 2024

For up-to-date catalogues always
see **rotenso.com**

WE ARE **SOLUTION**

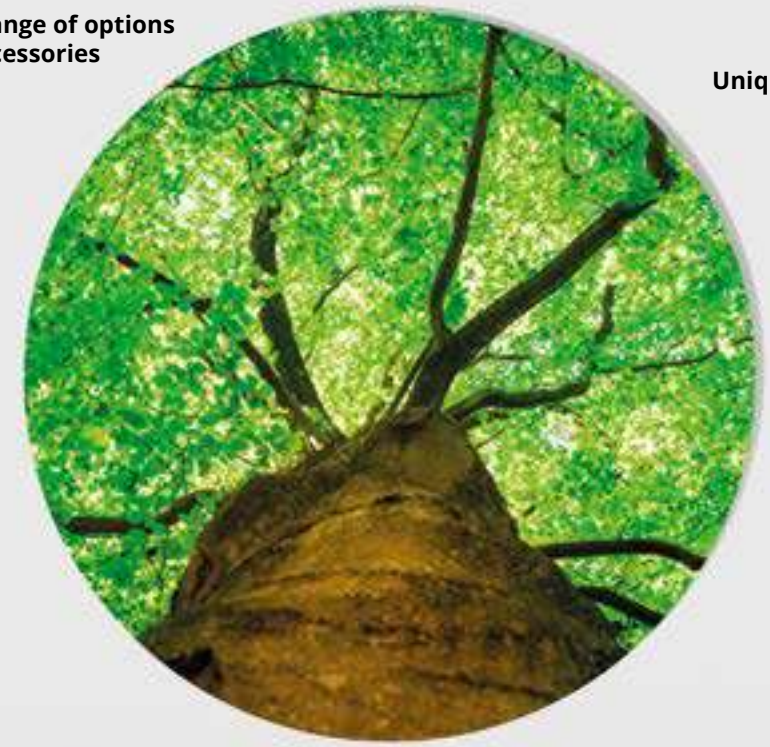
Welcome to the **Premium Class**

Advanced technology

Highest capacity

Wide range of options and accessories

Unique design



Ergonomic controllers

Durable and reliable

Excellent air filtration system

High energy efficiency class

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KP/RO/PC/EN/2024.09

About
Rotenso

Our mission is to provide state-of-the-art air conditioning, ventilation and heating solutions powered by highly efficient, energy-saving inverter technology. Thanks to years of investment in technology development, Rotenso devices are among the most innovative solutions for building temperature control and adjustment.

The Rotenso brand consistently works to strengthen its well-established position as a supplier of modern, reliable, and environmentally friendly air conditioning systems and air-to-water heat pumps. Every year, Rotenso's offer is expanded with new units that feature increasingly better technological properties and modern design.

Internal
service network in Poland

Free of charge
commissioning by
authorized service*

24 h service
response time*

5 year warranty*

* detailed conditions described in the warranty card

You are always at the heart of what we do

We use technological innovations for the sake of health and comfort offered by the systems we provide.

The ever-increasing capacity and energy efficiency of our products is a response to the growing need to rationalize the costs of energy and take care of the environment.

Reliable
products

Rotenso equipment combines top components with proven solutions covered by a 5-year warranty.

Professional
support

Choose the Rotenso solutions to receive full technical and service support at every stage of the investment.

Industry
leader

The general distributor of the ROTENSO brand is THERMOSILESIA – a reliable partner and HVAC industry leader.

Laboratory
and quality control

89	5	34	3000	6000+
laboratories	R&D centers	leading technologies	engineers	patents

3000 engineers and supervisors of:

- Quality system management
- Supplier's quality warranty
- Component quality control
- Process quality control
- Final quality check
- Customer service improvement

The company's business model is based upon three values:

1. Reliability **2. Quality** **3. Development**

whose defined goal is to implement the two projects:

Rotenso Business DESIGN

The primary goal of this project is to act in responsible manner according to the principles of partnership. Immediate assistance, direct contact and reliable transportation result in satisfactory business relations.

Rotenso Eco passport DESIGN

Ecology is Rotenso's top priority. Low energy consumption equipment of the lowest possible weight and recyclable packaging. This goal is achieved by optimizing the production process.

Transport Assistance Contact Partnership Energy Packaging Recycling Weight

Future proof **heating**

Heat pumps **- applications**

Heat pumps are modern and efficient way of space heating and domestic hot water preparation. Principles of heat pump operation are very simple. The heat pump absorbs the heat accumulated in the air and, through its refrigeration system, transfers it back to the water that circulates in the heating system. Heating with the air source heat pump is based on the absorption of energy from the environment (**up to 75%**) and combining it with electric energy in the amount (ca. 25%) required to cover the demand.

Over the past few years, air source heat pumps have become increasingly popular, displacing traditional solutions based on fossil fuels (coal, natural gas, fuel oil). They are used in both newly built and modernized facilities.

Certyfikat
Keymark

The Rotenso brand consistently aligns with the highest standards possible.
Our products prioritize energy efficiency, safety, and user comfort, ensuring that our heat pump users are fully satisfied over their product's lifetime.

A testament to our product quality is the European KEYMARK Quality Certificate, which demonstrates Rotenso products' compliance with even the most rigorous standards.

Apply for **subsidies**

For whom?

For owners or co-owners of single-family residential buildings, or apartments separated within the single-family residential buildings with a separate land and mortgage register number.

Clean Air Programme

The Clean Air Programme is a nationwide Polish programme to subsidize the replacement of inefficient solid fuel heat sources. It supports modern, environmentally friendly solutions, including the purchase and installation of heat pumps.

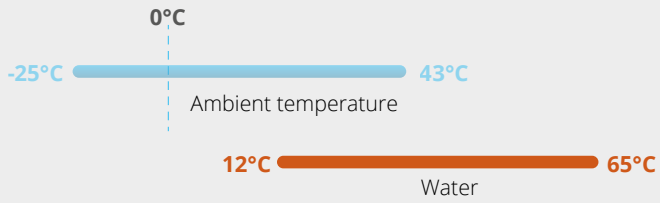
For detailed information see: www.czystepowietrze.gov.pl

WE ARE FUTURE

Source of energy all year round: for space heating and cooling, and constant access to domestic hot water.

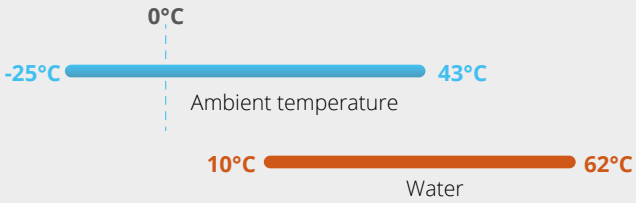
Discover features of your heat pump.

Space heating



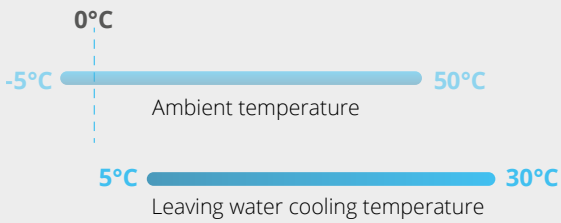
- At outdoor temperature as low as -25°C
- Leaving water temperature up to 65°C

Domestic hot water



- At outdoor temperature as low as -25°C
- Leaving water temperature up to 62°C

Space cooling



- At outdoor temperature as low as -5°C
- Leaving water temperature down to 5°C

HEAT PUMPS

Thermal comfort **offered by a heat pump**

Air-to-water heat pumps are currently the most environmentally friendly heat source available. At the same time they offer space cooling feature.

A central heating system combined with underfloor heating, wall heating or traditional radiators powered by a heat pump and additionally, for example, fan coil units, provides effective heating even at extremely low temperatures in winter and air conditioning in summer.

A maintenance-free system based on an air-to-water heat pump guarantees low operating costs, year-round thermal comfort and domestic hot water preparation.

Ait-to-water
heat pumps

Rotenso offers one of the most comprehensive ranges of air-to-water heat pumps on the market. A wide range of capacities, from 4 kW to 180 kW, allows to select optimum heat pump power and thus reduce operating costs in the future.
Completely maintenance-free, year-round heat pump guarantees thermal comfort regardless of the season.

Core
features

65°C

Maximum supply water temperature up to 65°C

Integrated Wi-Fi module for heat pump remote control

A+++

High capacity efficient heating.
Energy efficiency: A+++

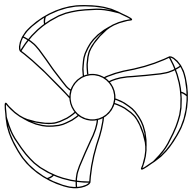
COP 5,25

Maximum
COP 5,25

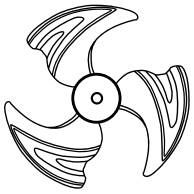
Unique fan design provides high efficiency with lower noise levels (35dB(A))

-25°C

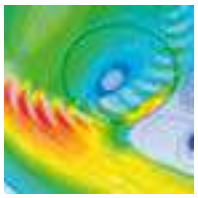
Operating range
down to -25°C



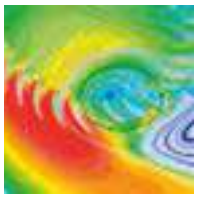
Typical
blade pattern



Rotenso unique
blade pattern



Standard
air duct



High-efficiency
air duct

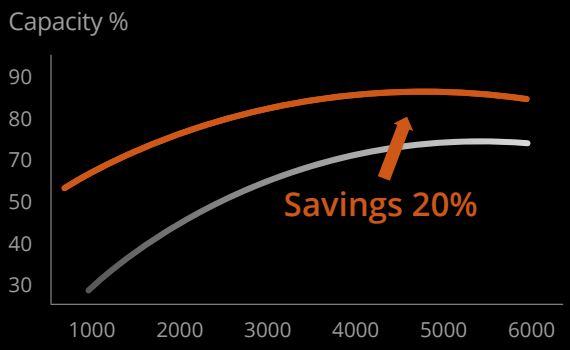
Advanced
SKY^{R} technology

Unique fan design and improved duct

Innovative design of the fan effectively reduces airflow resistance and noise levels. The optimized air duct ensures uniform air flow and 30% decrease in energy consumption

DC Inverter sine wave control

DC Inverter sine wave control enables high energy efficiency and lower noise levels.
Optimization technology has also reduced energy consumption.



Full control of the Inverter

DC INVERTER rotary compressors

Superior compressor capacity guarantees unprecedented levels of efficiency.
The unique design minimizes vibration during the operation of moving parts, thus effectively reducing noise levels.

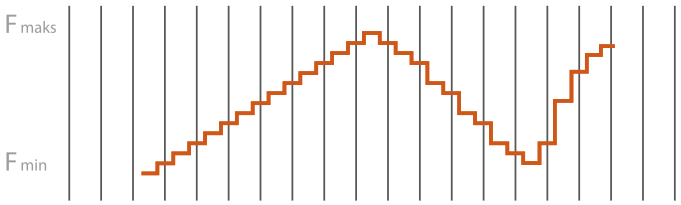
Internally grooved pipes

Dense grooves on the inside of copper pipes increase the heat transfer area. Increasing number of grooves from 45 to 54 resulted in significant capacity improvements.

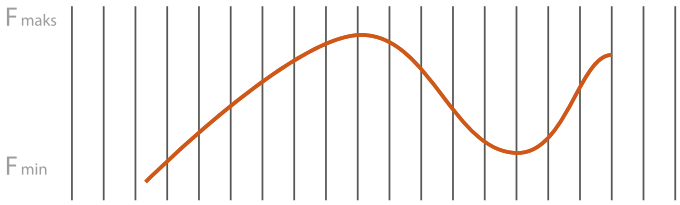
Digital Inverter SKY^{R}
DC Inverter Control

Depending on demand, the unit management system can select one of 30 compressor frequency ranges so as to combine maximum unit efficiency with minimum energy consumption.

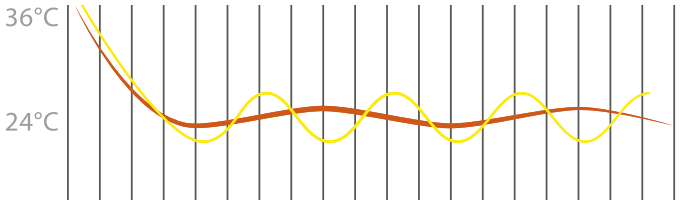
Standard inverter operation mode



Inverter operation based on precision control algorithm



Temperature chart



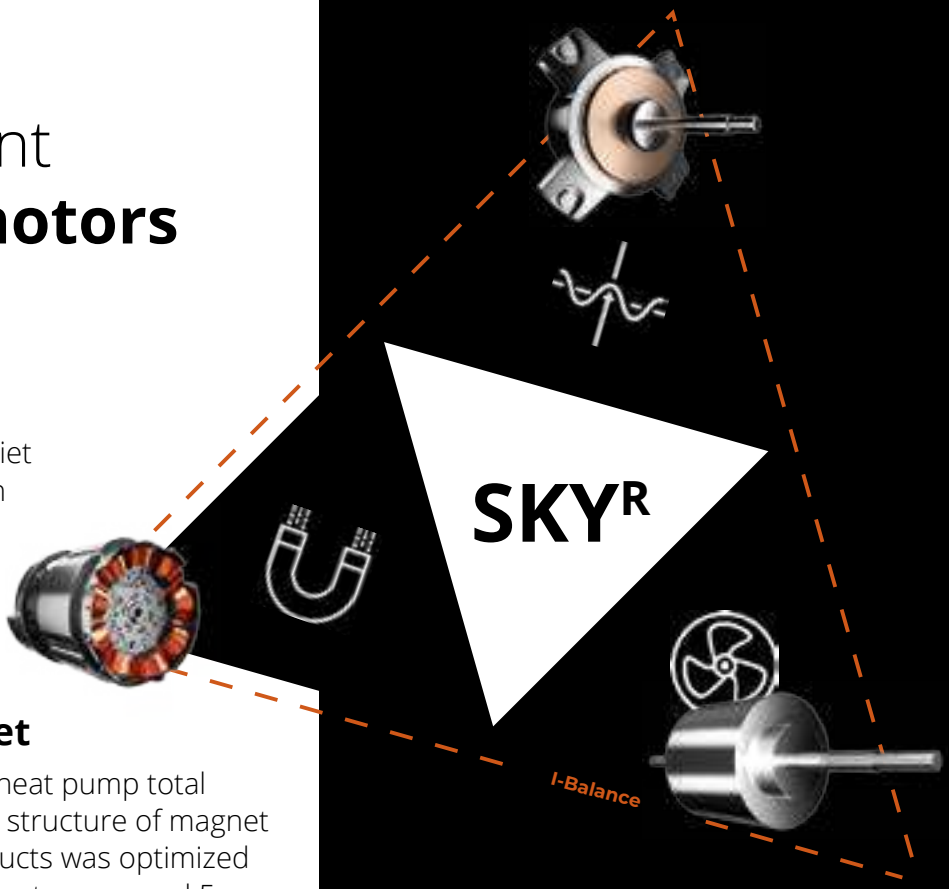
Inverter operation based on precision control algorithm

Standard inverter operation mode

Energy efficient
BLDC SKY^{R} motors

DC INVERTER sine wave control

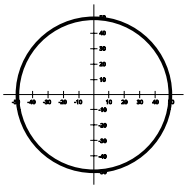
High energy efficiency and quiet operation is achieved through the DC Inverter sine wave control.



Motor with vector-shaped magnet

The motor generates 90% of heat pump total energy consumption. Internal structure of magnet motors used in Rotenso products was optimized to achieve 3x increase in magnet power and 5x increase in coercion.
It resulted in increased motor rotation speed at lower energy consumption. As a result, motor efficiency increased by 3% compared to conventional DC motors.

Vector-shaped motor



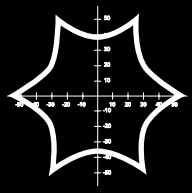
Precise motion, high efficiency

The energy-efficient BLDC motor allows indoor and outdoor units to use multiple fan speeds which lowers energy consumption and reduces the time required to reach the desired temperature. 12 speed levels of the Brushless DC motor / BLDC help to adjust its capacity to indoor conditions perfectly.
Modern components have been used to reduce noise levels while maintaining high efficiency and low energy consumption.

BLDC SKY^{R} motors

By optimizing the structure, fan's SKYR BLDC motor offers 10% higher efficiency with a 35% reduction in size.

Standard DC motor

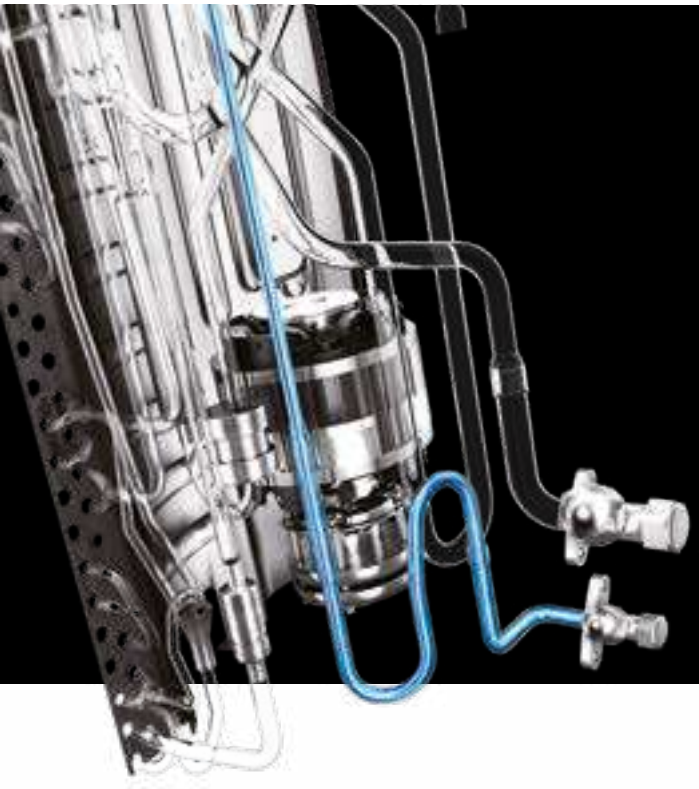


Less stable operation, lower efficiency

Twin rotary compressors
BLDC Inverter

Superior compressor capacity guarantees unprecedented level of efficiency. The unique design minimizes vibration during the operation of moving parts, thus effectively reducing noise levels. This state-of-the-art solution ensures many years of energy-efficient and trouble-free operation.

Modern design of refrigerant circuit uses improved radiative cooling technology to cool the PHE / plate heat exchanger. This solution significantly increases capacity of the outdoor unit and makes its operation more stable at higher ambient temperatures.



Benefits

- Highly efficient BLDC motor
- Better balance, lower vibration and consequently less noise
- Superior stability of moving parts

High heating **capacity at -15°C**

The heat pump ensures stable operation without engaging supplemental electric heater and performs well to keep warm even at ambient temperature as low as -15°C.

Copper pipes

Dense grooves on the inside of copper pipes increase the heat transfer area. Increasing number of grooves from 45 to 54 resulted in significant capacity improvements.

Ice forming eliminated

Integrated drip tray heater quickly melts and removes ice from the outdoor unit to ensure its stable operation and superior heating capacity.

Provides heating **at down to -25°C**

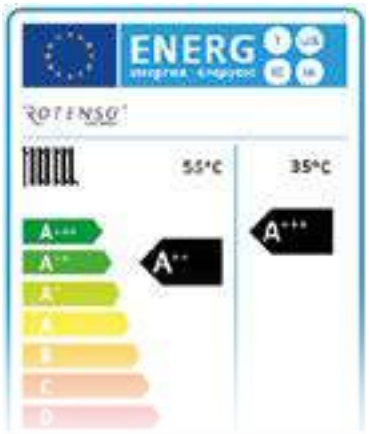
Perfect solutions for the harshest frosts.
The Rotenso heat pump provides high heating capacity at ambient temperatures down to -25°C.

Cold proof

The compressor heater prepares the compressor to operate in heating mode in trouble-free and efficient manner exactly when you need it.

R32 - refrigerant
environmentally friendly

- Higher heat transfer coefficient and better capacity.
- The system requires less refrigerant.
- Lower purchase and operating costs, better availability.
- Lower GWP (global warming potential).
- Lower carbon dioxide emission.



ERP directive

Seasonal space heating, energy efficiency.

A+++

- At supply temperature of **35°C**

A++

- At supply temperature of **55°C**

Silent **mode**

As quiet as hum of the forest

Two-step Silent mode provides greater comfort. Level 2 of the Silent mode provides minimum sound power of 35 dB(A).

Twin rotary DC compressor

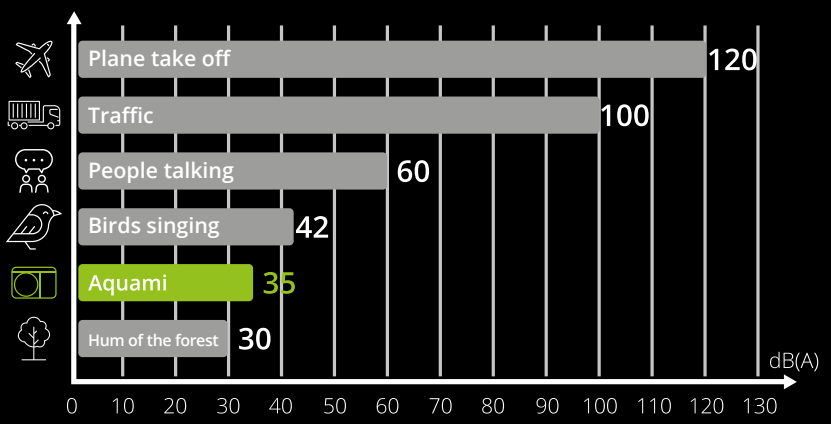
Triple noise reduction

Unique fan design

Optimized piping design

The unit generates only 35dB(A) of sound power as measured 3 meters away.

Aquami Monoblock AQM60X1



SMART control **systems**

Use the application to:

- Set up schedule and timer,
- Activate second temperature control zone,
- Monitor system status,
- Check heat pump status and operation mode,
- Set temperature and operation mode,
- Easily activate the Silent mode or Vacation mode.

Check heat pump status and operation mode

You can quickly view the heat pump current status and operation mode, e.g. on/off, heating/cooling, electric heater on, and in the case of a hybrid system (pump + additional heat source) you can check whether such heat source is on.

Download the right app for specific series:

AQUAMI SERIES

WINDMI SERIES HEATMI SERIES AIRMI SERIES

Comfort Home

TUYA SMART

Heat pump operation tracking

Monitor important parameters, including compliance with the selected heating curve and temperature of indoor air, as well as temperature of water in the system and hot water vessel.

Control the pump remotely

Discover money saving tips

Track energy consumption

Customized **schedule**

Enjoy thermal comfort returning home where temperature exactly matches your preferences. Set up economic operation mode when you are away from home or on vacation.

With customized scheduling, the system will automatically respond to your needs providing you with comfort and savings.

Eco mode

Following the preset heating curves the heat pump will reduce its output to minimize rated input and make its operation as economic as possible.

Two control zones

This functionality helps to easily set up temperature independently for two zones, for example, common spaces on the ground floor and bedrooms upstairs. Independent management and control of two zones will be helpful for combinations of underfloor heating and radiators.

Home Vacation mode

This useful temporary mode allows you to make changes to your programmed fixed schedules for specific period of time to cover any unforeseen modifications in your plans.

Vacation mode

Set the appropriate operating parameters to keep the building in a great shape and save money while you are away from home.

Heat
by nature

By choosing renewable energy sources you are taking care of the environment, your health and your immediate surroundings.
Energy from the air used by air-to-water heat pumps backed by the energy from the sun is your contribution to inhibiting climate change and saving money every day.

Smart Grid
functionality

Heat pump controller is designed to work with the „Smart Grid".

With this feature, the pump automatically turns on to store surplus energy from the photovoltaic (PV) system to make the most of the cheaper electricity tariff.

Domestic hot water (DHW) mode in on and water tank temperature is set to 70°C.
Normal operation
The Rotenso unit operates for a certain period of time and then shuts down.

Solar collectors

Solar collectors convert solar energy into heat, which can be used, for example, to heat domestic hot water off season.

Photovoltaic panels

Photovoltaic panels convert the sun rays into electricity, and thus supply the heat pump with energy, so you don't have to worry about the cost of heating your home and water.

Heat pump combined with fan coil unit

Add fan coil units to your heat pump based system to create an effective air conditioning system in your building without the cost of purchase, installation and maintenance of a separate system.

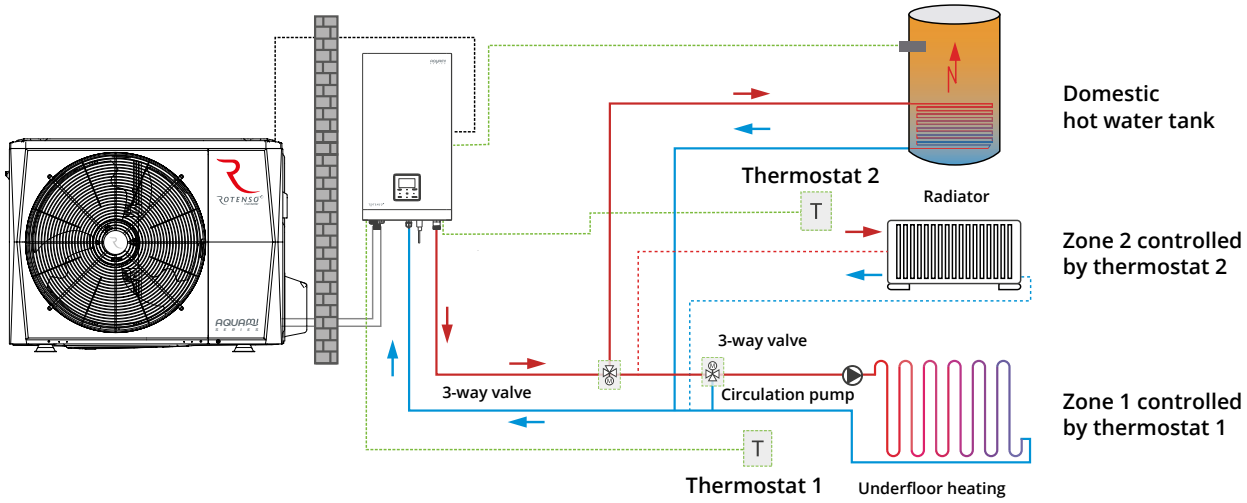
Heating in winter, cooling in summer

Eco-friendly, energy-efficient and maintenance-free heat pumps ensure thermal comfort in your building all year round, whether it means heating in the winter or air-conditioning in the summer.

Zone **management**

Two heating circuits provide more accurate temperature control of the low temperature zone.

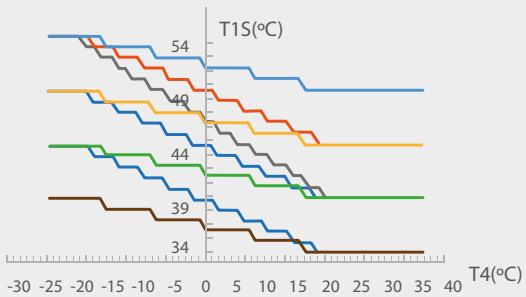
A DC water pump provides precision control of water flow, while adjustment by a three-way solenoid valve ensures stable temperature.



Climate curve **functionality**

The control system allows automatic or manual adjustment of the heating curve depending on climatic conditions.

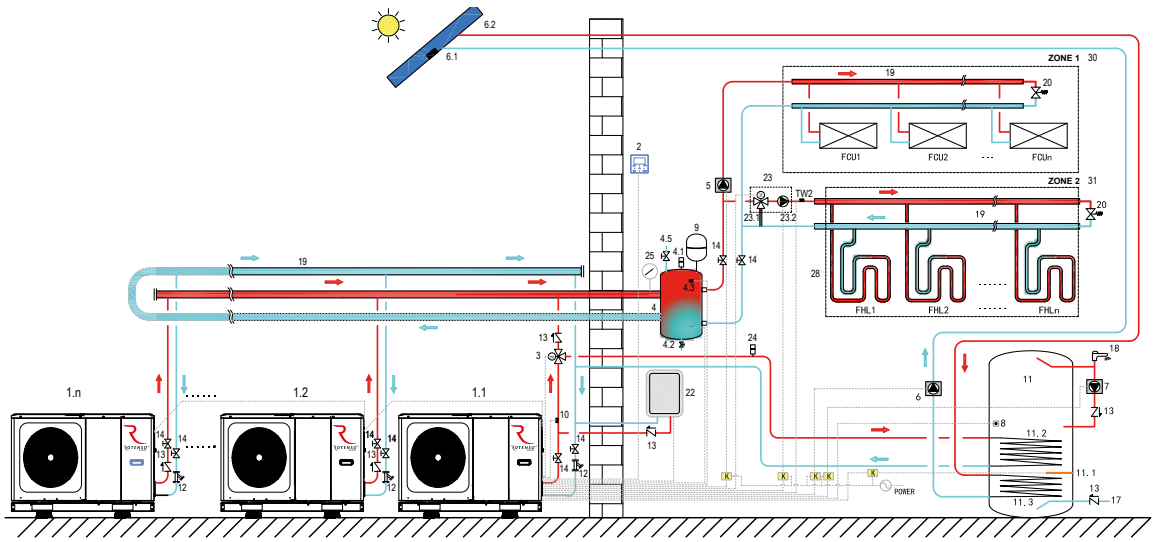
Heating mode



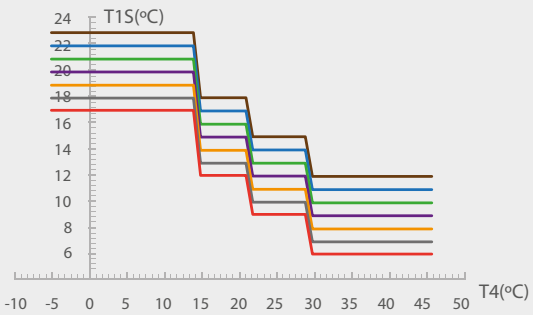
Cascade
unit arrangement

Cascade system design is a perfect solution if efficiency of the system must be increased due to changes in the heating/cooling demand of the building.

Up to 6 units in a group can be controlled with one controller.



Cooling mode



USB port of
easy service

Quick software update with a flash drive makes it easy to copy set parameters between heat pump controllers.

Heat pump characteristics

		AQUAMI	WINDMI	HEATMI	AIRMI
Standard equipment	Twin rotary inverter compressor	●	●	●	●
	Supplementary integrated electric heater [1]	●	●	●	●
	Year-round operation package (drip tray heater, crankcase heater)	●	●	●	●
	Outdoor unit drip tray heater	●	●	●	●
	Compressor crankcase heater	●	●	●	●
	Diaphragm vessel	●	●	●	●
	DHW temperature sensor	●	●	●	●
	Y mesh filter	●	●	●	●
	Indoor unit drip tray	●		●	●
Quality	Keymark certificate	● [10]	●	●	● [9]
	CE certificate	●	●	●	●
	Energy efficiency class at 35°C [2]	A+++	A+++	A+++	A+++
	Energy efficiency class at 55°C [3]	A++	A++	A++	A++
	Eligible for the Clean Air Polish regional subsidy programmes	●	●	●	●
	Eligible for the My Heat Polish regional subsidy programmes	●	●	●	●
	5-year warranty	●	●	●	●
	Maximum length of the cooling system [4]	30 m / 80 m	-	30 m	15 m
	SLIM housing – 270 mm [5]	●		●	●
Controller	Silent mode	35 dB(A)	- 3 dB(A)	35 dB(A)	- 6 dB(A)
	Silent function	●	●	●	●
	Wired controller	●	●	●	●
	Colour controller interface			●*	
	Wi-Fi module	●	●	●	●
	LCD display	●	●	●	●
	Configurable daily schedules	●	●	●	●
	Number of daily settings [6]	6	1	6	6
	Configurable weekly schedules	●	●	●	●
	Out-of-home Vacation mode	●	●	●	●
	Home Vacation mode	●	●	●	●
	Menu in English	●		●	●
	Screen lock	●	●	●	●
	Parental lock	●	●	●	
	Audible alarm	●	●	●	●
	Integrated temperature sensor [7]	●	●	●	●
	Adjustable water temperature	●	●	●	●
	Adjustable air temperature	●	●	●	●
	2 heating control zones	●		●	●
	Floor drying function	●		●	
	Floor protection function	●		●	
	Power limitation function	●		●	
	Number of power limitation function configurations to choose from	8		8	
	Climate curve	●	●	●	●
	Number of possible curves	16 + 16 + 1	11 + 2 + 2	8	16 + 16 + 2
Application	Dedicated application	●	●	●	●
	Application	Comfort Home / Smart Home *	Tuya	Tuya	Tuya
	2 heating control zones	●		●	●
	DHW priority mode	●	●	●	●
	Energy consumption tracking	●		●	
	Configurable daily schedules	●	●	●	●
	Configurable weekly schedules	●	●	●	●

		AQUAMI	WINDMI	HEATMI	AIRMI
DHW	Fast DHW heating function	●	●	●	●
	DHW circulation pump operation schedule	●		●	
	Number of circulation pump settings per day	12		12	
	Disinfection	●	●	●	●

Heat pump features

	Feature	AQUAMI	WINDMI	HEATMI	AIRMI
Feature	Fast DHW heating function	●	●	●	●
	DHW circulation pump operation schedule	●		●	
	Number of circulation pump settings per day	12		12	
	Disinfection	●	●	●	●
	Efficient heating	●	●	●	●
	Integrated USB port for updates	●			
	Energy meter	●			
	Dry contact		●		
	Forced defrost (manual)	●	●		●
	MODBUS protocol	●	●	●	●
	Number of units in MODBUS	16	32	18	16
	Heating	●	●	●	●
	Heating at low temperature down to -25°C	●	●	●	●
	Cooling	●	●	●	●
	DHW	●	●	●	●
	Maximum leaving water temperature in heating mode [°C]	65/60 [9]	62	65	65
	Maximum leaving water temperature in DHW mode [°C]	60/55 [9]	62	60	60
	Minimum leaving water temperature in cooling mode [°C]	5	5	5	7
	Eco mode	●	●	●	
	Smart Grid functionality	●		●	●
	Power limitation function	●			
	Environmentally friendly refrigerant R32	●	●	●	●
	Compact indoor split unit housing	270	-	270	273
	SLIM housing – 270 mm	●		●	
	Professional customer service	●	●	●	●
	Prepared to install thermostats	●	●	●	●
	Prepared to combine the system with photovoltaic panels	●	●	●	●
	Prepared to combine the system with solar panels	●	●	●	●
	Prepared to connect additional heat source (e.g. boiler)	●	●	●	●
	Prepared to create a cascade system	●		●	●
	Maximum number of units in a cascade system	6 (up to 180 kW)		8 (up to 80 kW)	8 (up to 128 kW)

1. Not available in Aquami Big Mono
2. Aquami Big Mono 30 kW and Aquami Multi Split A++.
3. Aquami Big Mono 30 kW and Aquami Multi Split A+.
4. 30 m for Aquami Split, All in Split, 80 m for Aquami Multi Split.
5. The depth of Airmi indoor unit is 273 mm.
6. For Windmi pumps more settings are available in the application.
7. This sensor cannot be used for control in the Multi system.
8. The second value applies to Aquami Big Mono and Aquami Multisplit.
9. Applies to Airmi Monoblock.
10. Does not apply to Aquami Big Mono and Aquami Multi Split.

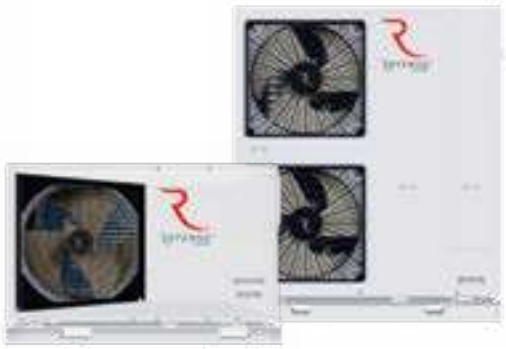
* Smart Home – only for Aquami Multi.

The widest range of **Rotenso heat pumps on the market**

AQUAMI SERIES

Type: air-to-water heat pump
Solutions: **SPLIT, MONOBLOCK,**
ALL IN SPLIT, BIG MONO, MULTI SPLIT

WINDMI SERIES



Type: air-to-water heat pump
Solutions: **MONOBLOCK**

HEATMI SERIES

Type: air-to-water heat pump
Solutions: **SPLIT**

AIRMI SERIES

Type: air-to-water heat pump
Solutions: **SPLIT, MONOBLOCK**

How to choose the right **Rotenso heat pump?**

1

Is there a room or enough space to install the hydronic module inside the building?

YES!

Choose the SPLIT Type heat pump

NO!

Choose the MONOBLOCK Type heat pump

2

What are you going to use your heat pump for?

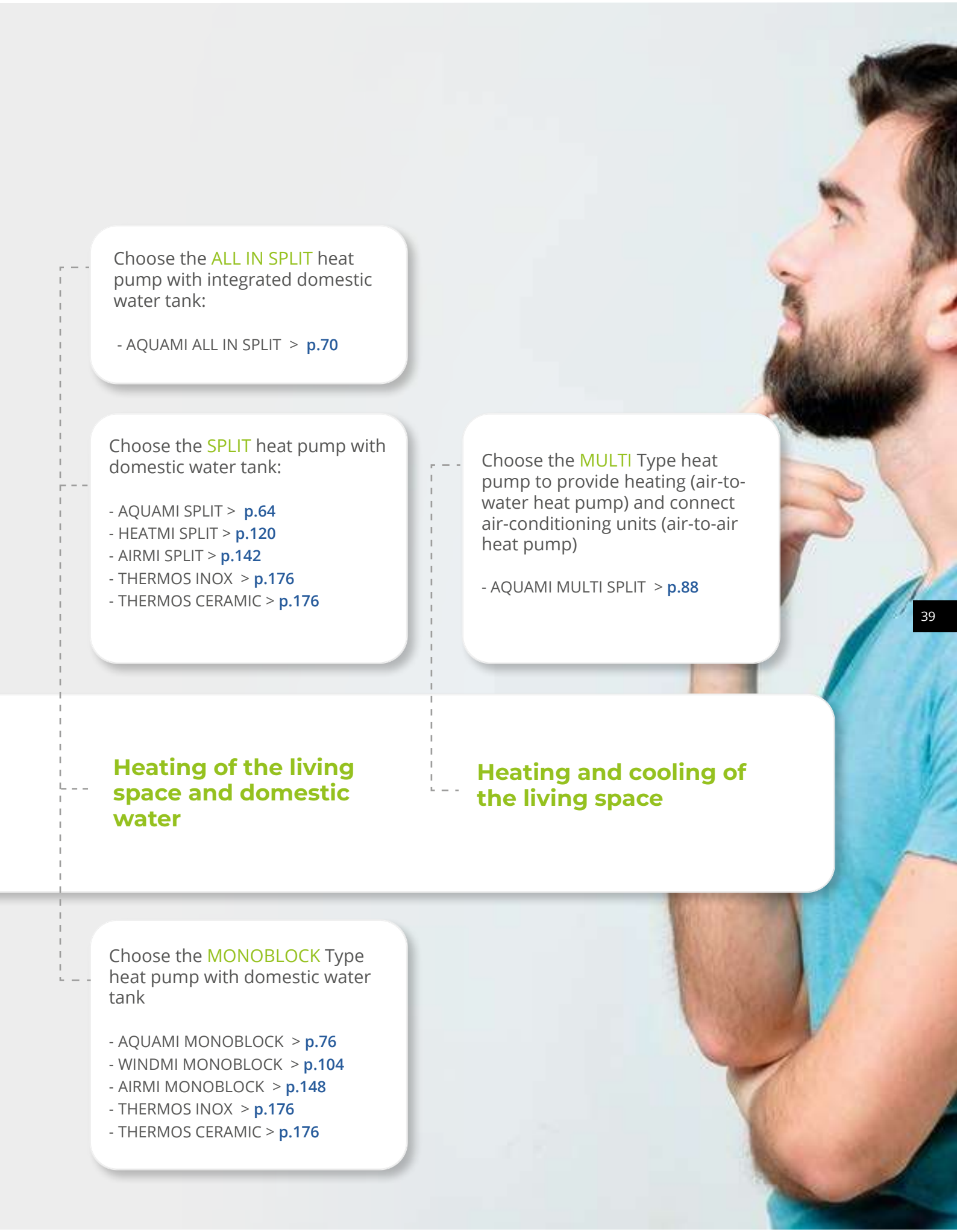
Heating of the living space only

Choose the SPLIT Type heat pump

- AQUAMI SPLIT > **p.64**
- HEATMI SPLIT > **p.120**
- AIRMI SPLIT > **p.142**

Choose the MONOBLOCK Type heat pump

- AQUAMI MONOBLOCK > **p.76**
- WINDMI MONOBLOCK > **p.104**
- AIRMI MONOBLOCK > **p.148**



Choose the ALL IN SPLIT heat pump with integrated domestic water tank:

- AQUAMI ALL IN SPLIT > **p.70**

Choose the SPLIT heat pump with domestic water tank:

- AQUAMI SPLIT > **p.64**
- HEATMI SPLIT > **p.120**
- AIRMI SPLIT > **p.142**
- THERMOS INOX > **p.176**
- THERMOS CERAMIC > **p.176**

Choose the MULTI Type heat pump to provide heating (air-to-water heat pump) and connect air-conditioning units (air-to-air heat pump)

- AQUAMI MULTI SPLIT > **p.88**

Heating of the living space and domestic water

Heating and cooling of the living space

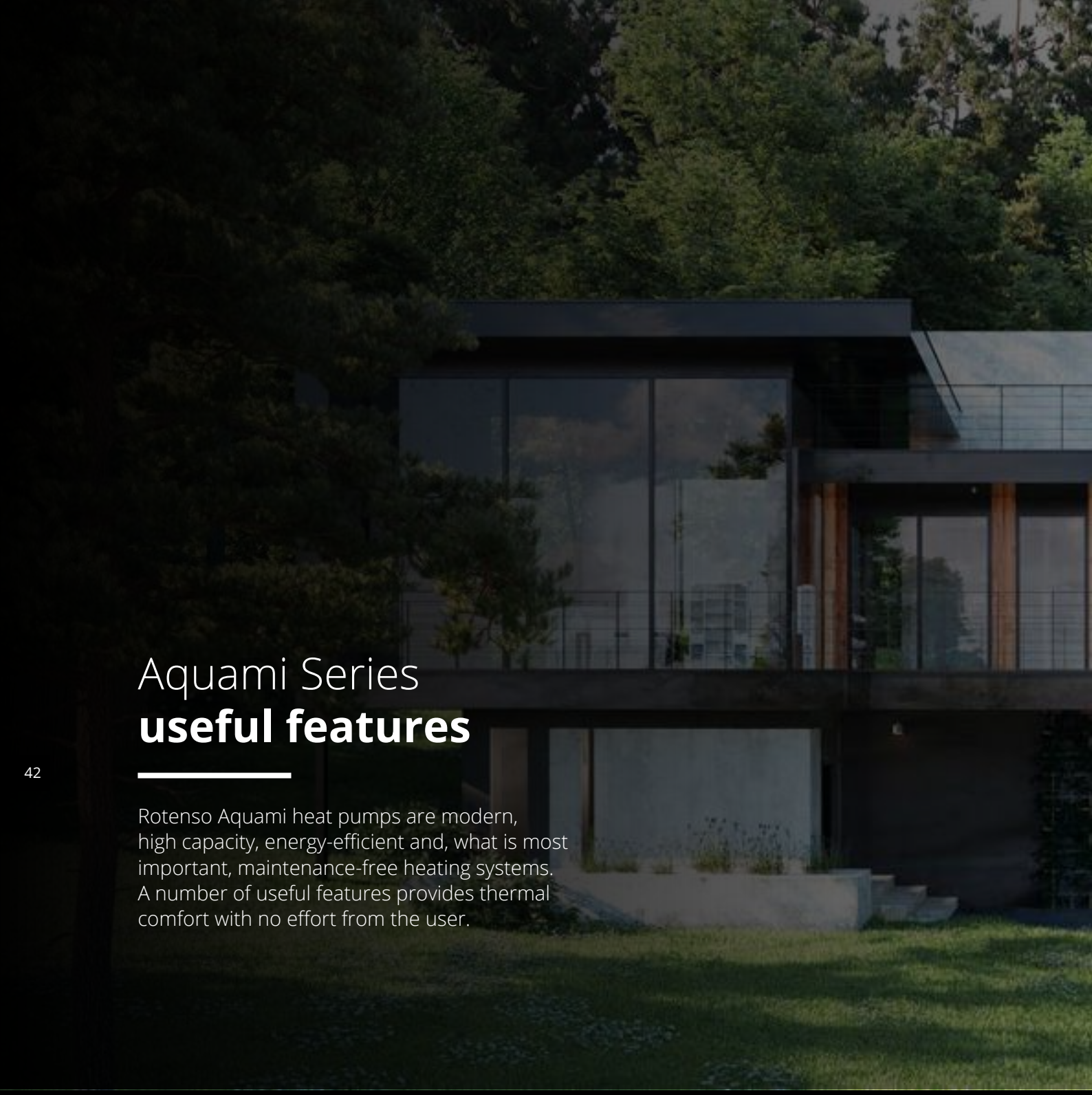
Choose the MONOBLOCK Type heat pump with domestic water tank

- AQUAMI MONOBLOCK > **p.76**
- WINDMI MONOBLOCK > **p.104**
- AIRMI MONOBLOCK > **p.148**
- THERMOS INOX > **p.176**
- THERMOS CERAMIC > **p.176**

WE ARE FUTURE

AQUAMI SERIES

Split, All in Split, Monoblock,
Big Mono, Multi Split.
Rotenso Aquami Series.



Aquami Series
useful features

Rotenso Aquami heat pumps are modern, high capacity, energy-efficient and, what is most important, maintenance-free heating systems. A number of useful features provides thermal comfort with no effort from the user.

Combination of operating mode

To meet the user requirements 4 basic operation modes (cooling, heating, DHW, auto) and 3 combined operation modes are available.

Heat pump power limitation

Users can choose from 8 configurations, depending on the maximum acceptable power.

Disinfection

Heating water in the system to 70°C contributes to the effective elimination of Legionella bacteria.

Floor protection

Gradual removal of residue moisture from the concrete floor.

Fast DHW heating mode

Forces the system into DHW mode for immediate hot water preparation.

DHW circulation pump control

Keeps hot water circulating in the system according to a preset timer.

Perfectly compact **housing**

Rotenso heat pump design is a response to the individual needs of investors, owners of large and small buildings, as well as changing standards in residential construction industry.

The smallest indoor unit on the market with a depth of just 270 mm.

Depth reduced by 37%*

*as compared to competing units available on the market.

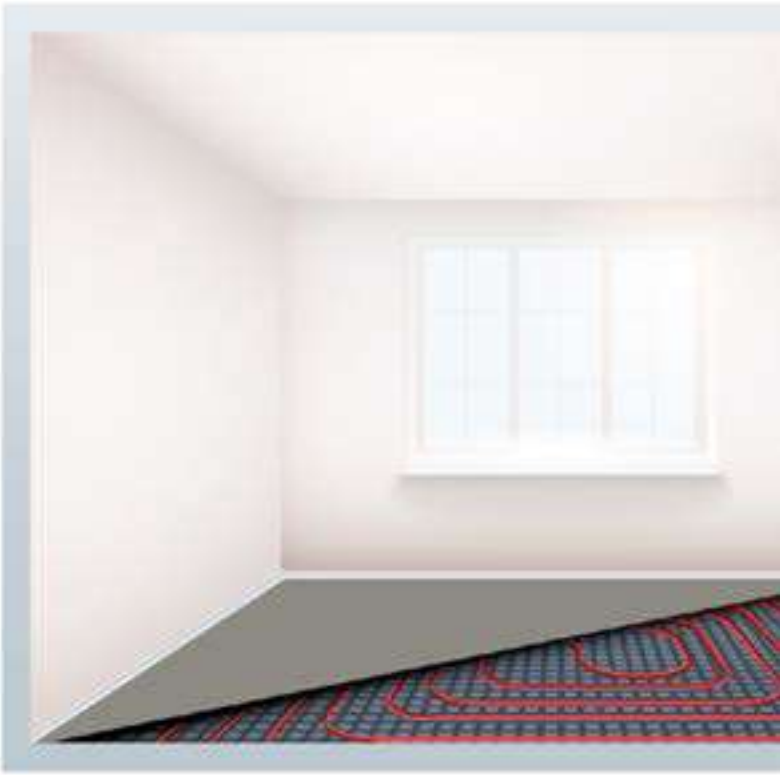
Ergonomic **products**

The compact housing of the indoor unit allows for discreet installation and neat arrangement of the hydronic module in the living space.

This solution is preferred by owners of buildings with no boiler room or separate utility room.

Floor **drying**

Gradual removal of residue moisture from the concrete floor. This feature, useful for newly constructed residential and commercial buildings, heats the floor using safe temperature, as specified by standards and manufacturers' guidelines, in order to prevent floor cracks and edge deflections.



You control
It performs

With Rotenso Aquami you can control the system using both a wired controller and a mobile app, whether you are at home or away.

RENI heat pump controller
in Split and Monoblock
Rotenso Aquami systems

Wired controller in a single unit mode

You can use the controller to:
- Check the heat pump operation status and operation mode
- Set temperature and operation mode
- Easily activate: Silent mode, Vacation mode, home Vacation mode, eco mode
- Set up schedule and timer
- Activate second temperature control zone
- Monitor system status
- Track energy consumption
- Discover energy-saving tips
- Control the device remotely
- Set the heating curve
- Display error codes
- Set language for messages
- Enable parental lock
- Check operating parameters
- Set audible alarm

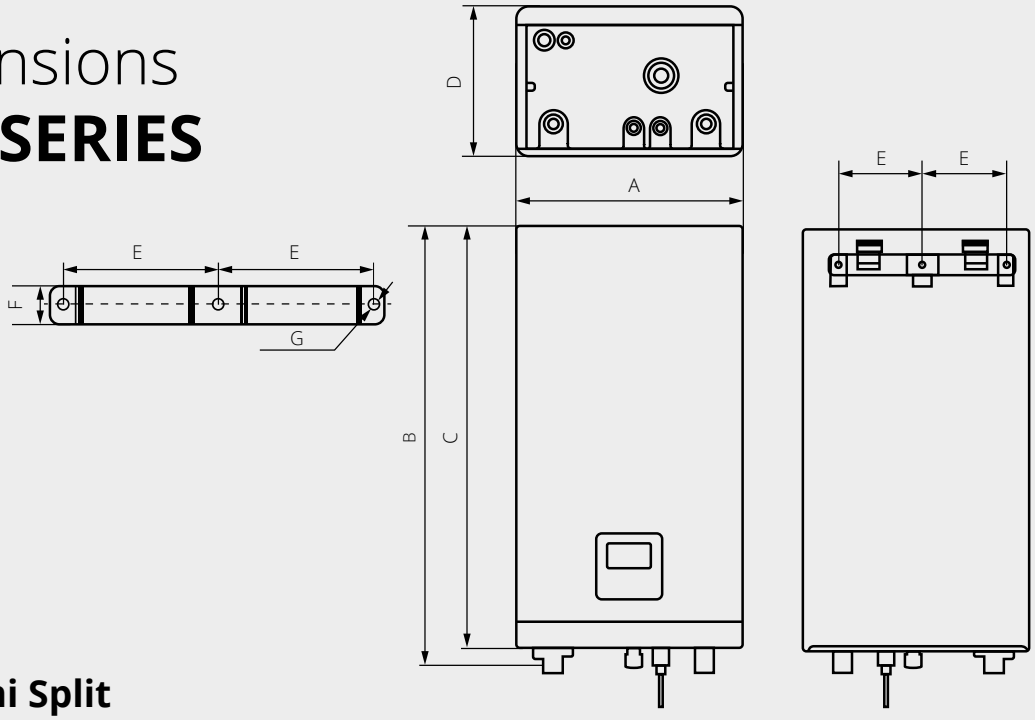
The controller with an integrated temperature sensor can act as an indoor thermostat. If placed in a room, it can be connected in parallel to the second controller to manage device operation modes or set up the temperature of the heating water.

Wired controller in MULTI mode

You can use the controller to:
- Set temperature and operation mode
- Easily activate: Vacation mode, eco mode
- Set up schedule and weekly timer
- Control the device remotely
- Display error codes
- Set language for messages
- Enable parental lock
- Check operating parameters
- Set audible alarm

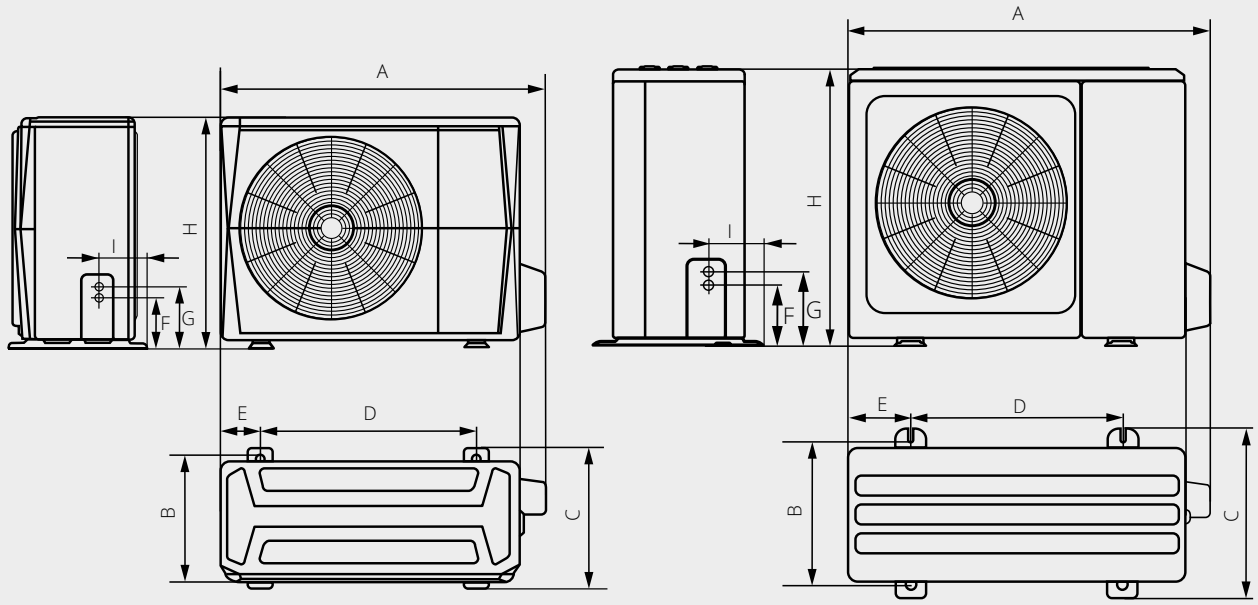
NOKA heat pump controller
in MULTI Rotenso Aquami system

Unit dimensions
AQUAMI SERIES



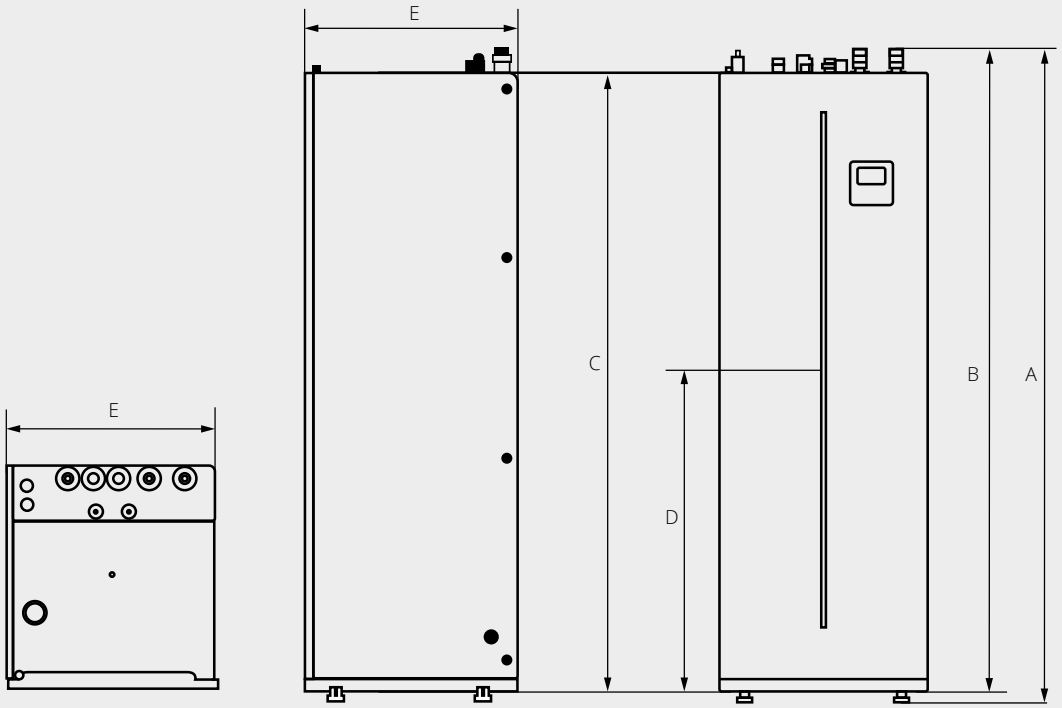
Rotenso Aquami Split indoor unit 6/10/16 kW

Model	Power	Net dimensions (W×D×H) [mm]	A	B	C	D	E	F	G	Net weight [kg]
AQS60X13i	**6 kW**	420 × 270 × 790	420	824	790	270	158	40	3 x Ø12	37
AQS100X13i	**10 kW**	420 × 270 × 790	420	824	790	270	158	40	3 x Ø12	37
AQS160X13i	**16 kW**	420 × 270 × 790	420	824	790	270	158	40	3 x Ø12	39



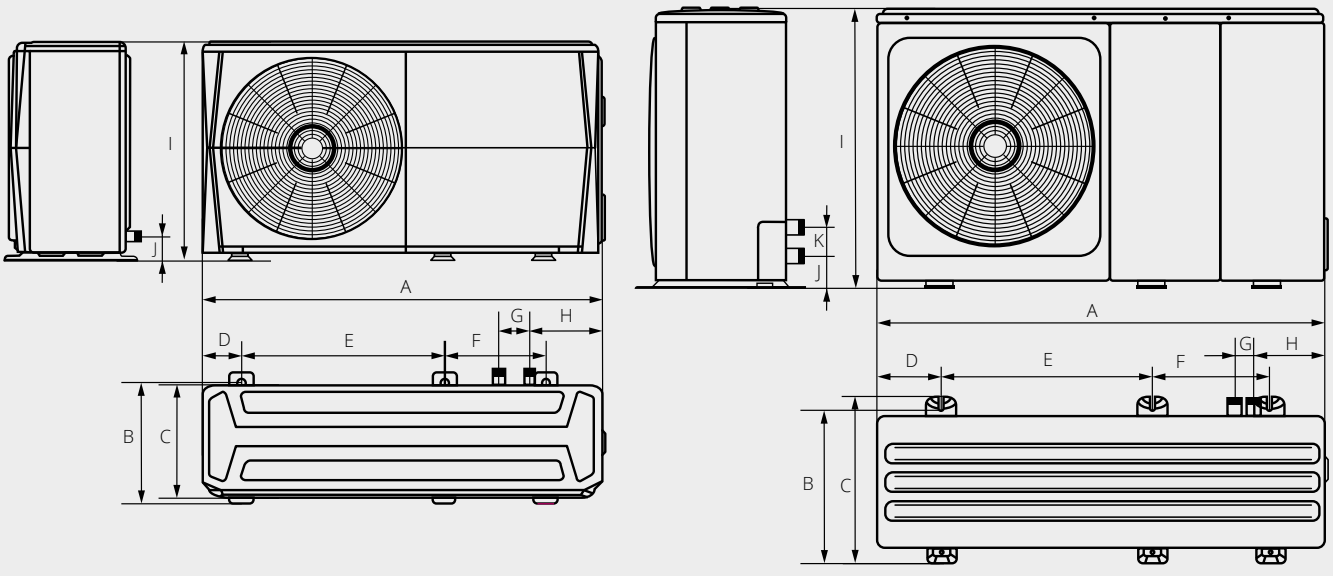
Rotenso Aquami Split outdoor unit 4/6/8/10/12/14/16 kW

Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (W×D) [mm]	A	B	C	D	E	F	G	H	I	Net weight [kg]
AQS40X1o	**4 kW**	1008 × 426 × 712	663 × 375	1008	375	426	663	134	110	170	712	160	58
AQS60X1o	**6 kW**	1008 × 426 × 712	663 × 375	1008	375	426	663	134	110	170	712	160	58
AQS80X1o	**8 kW**	1118 × 523 × 865	656 × 456	1118	456	523	656	191	110	170	865	230	75
AQS100X1o	**10 kW**	1118 × 523 × 865	656 × 456	1118	456	523	656	191	110	170	865	230	75
AQS120X3o	**12 kW**	1118 × 523 × 865	656 × 456	1118	456	523	656	191	110	170	865	230	112
AQS140X3o	**14 kW**	1118 × 523 × 865	656 × 456	1118	456	523	656	191	110	170	865	230	112
AQS160X3o	**16 kW**	1118 × 523 × 865	656 × 456	1118	456	523	656	191	110	170	865	230	112



Rotenso Aquami All in Split indoor unit 10/16 kW

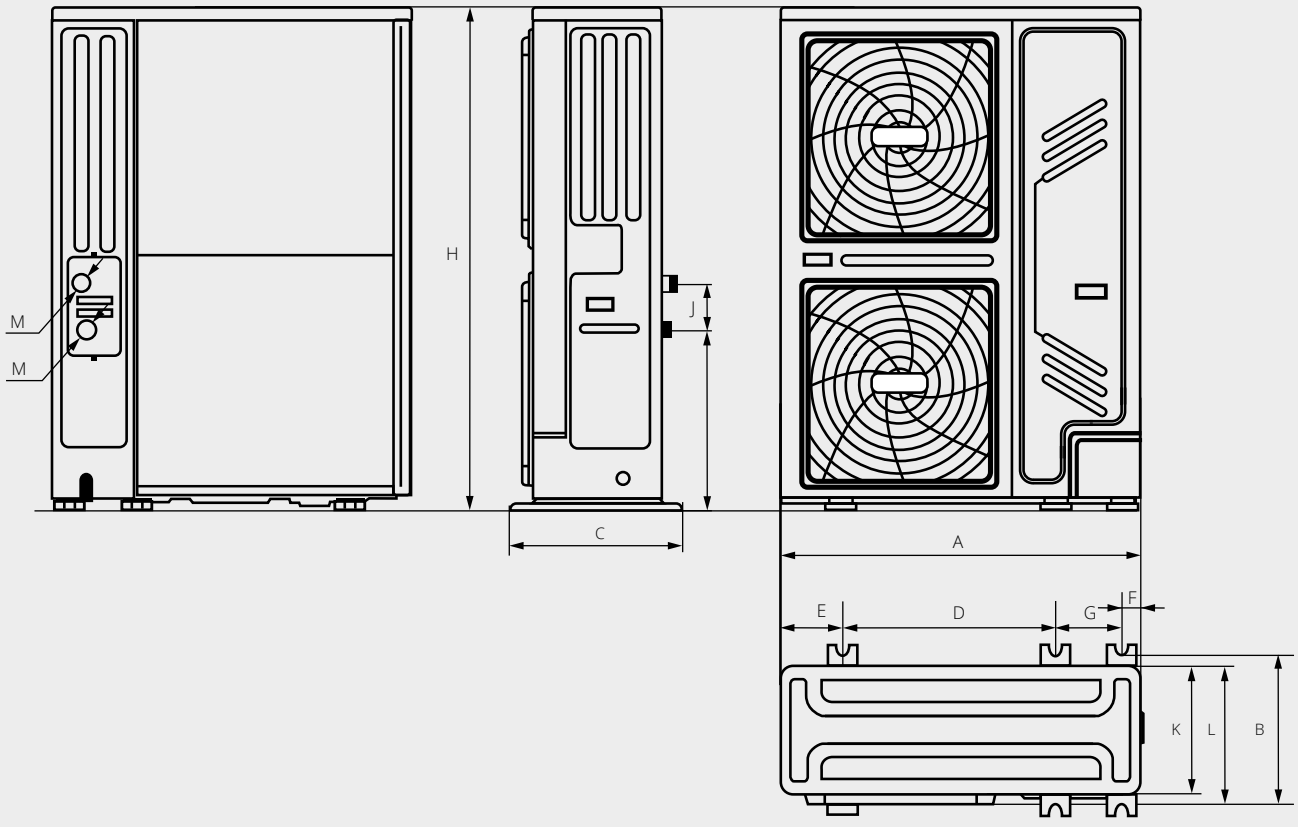
Model	Power	Net dimensions (W×D×H) [mm]	A	B	C	D	E	Net weight [kg]
AQS100T190X1i	**10 kW**	600 × 600 × 1683	1775	1748	1682	915	600	139
AQS100T240X13i	**10 kW**	600 × 600 × 1943	2034	2007	1942	1045	600	156
AQS160T240X13i	**16 kW**	600 × 600 × 1943	2034	2007	1942	1045	600	158



Rotenso Aquami Monoblock outdoor unit 4/6/8/10/12/14/16 kW

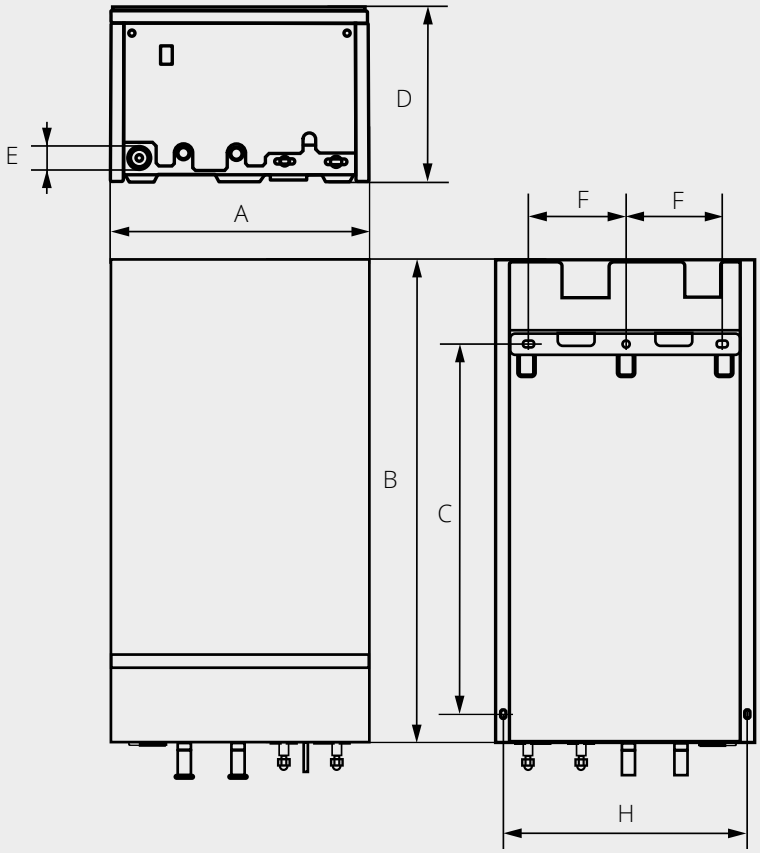
Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (S1×S2xG) [mm]	A	B	C	D	E	F	G	H	I	J	K	Net weight [kg]
AQM40X1o	**4 kW**	1295 × 429 × 718	656 x 363 x 488	1295	401	429	115	638	379	105	225	718	161	-	91
AQM60X1o	**6 kW**	1295 × 429 × 718	656 x 363 x 488	1295	401	429	115	638	379	105	225	718	161	-	91
AQM80X1o	**8 kW**	1385 × 526 × 865	656 x 363 x 488	1385	488	526	192	656	363	60	221	865	182	81	110
AQM100X1o	**10 kW**	1385 × 526 × 865	656 x 363 x 488	1385	488	526	192	656	363	60	221	865	182	81	110
AQM120X3o	**12 kW**	1385 × 526 × 865	656 x 363 x 488	1385	488	526	192	656	363	60	221	865	182	81	149
AQM140X3o	**14 kW**	1385 × 526 × 865	656 x 363 x 488	1385	488	526	192	656	363	60	221	865	182	81	149
AQM160X3o	**16 kW**	1385 × 526 × 865	656 x 363 x 488	1385	488	526	192	656	363	60	221	865	182	81	149

Unit dimensions
AQUAMI SERIES



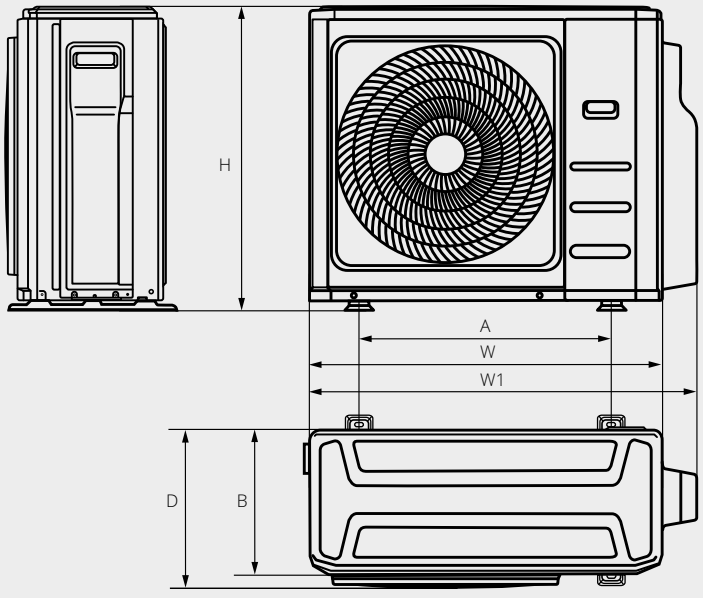
Rotenso Aquami Big Mono outdoor unit 22/30 kW

Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (W1×W2×D) [mm]	A	B	C	D	E	F	G	H	I	J	K	L	M	Net weight [kg]
AQM220X3	**22 kW**	1129 × 528 × 1558	668 x 206 x 494	1129	494	528	668	192	98	206	1558	558	143	400	440	Ø 1-1,4"	177
AQM300X3	**30 kW**	1129 × 528 × 1558	668 x 206 x 494	1129	494	528	668	192	98	206	1558	558	143	400	440	Ø 1-1,4"	177



Rotenso Aquami Multi Split indoor unit 8 kW

Model	Net dimensions (W×D×H) [mm]	Gross dimensions (W×D×H) [mm]	A	B	C	D	E	F	H	Net weight [kg]
AQMS80X1i	490 x 918 × 325	570 × 1055 × 415	490	918	702,5	325	44	183,7	462,2	56/64



Rotenso Aquami Multi Split outdoor unit 10 kW

Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (W×D) [mm]	W	W1	A	B	D	H	Net weight [kg]
H100Xm4	**10 kW**	946 × 410 × 810	673 × 403	946	1034	673	403	410	810	68,8

Solutions
AQUAMI SERIES

SPLIT

Rotenso Aquami Split
consists of an outdoor unit (condenser) and a hydronic module for indoor installation.

ALL IN SPLIT

Rotenso Aquami All in Split
consists of an outdoor unit (condenser) and a hydronic module integrated with domestic hot water tank made of stainless steel for indoor installation.

MONO

Rotenso Aquami Monoblock
is a heat pump in which the refrigeration module and the hydronic module are contained in a single, compact unit housing designed for outdoor installation.

BIG MONO

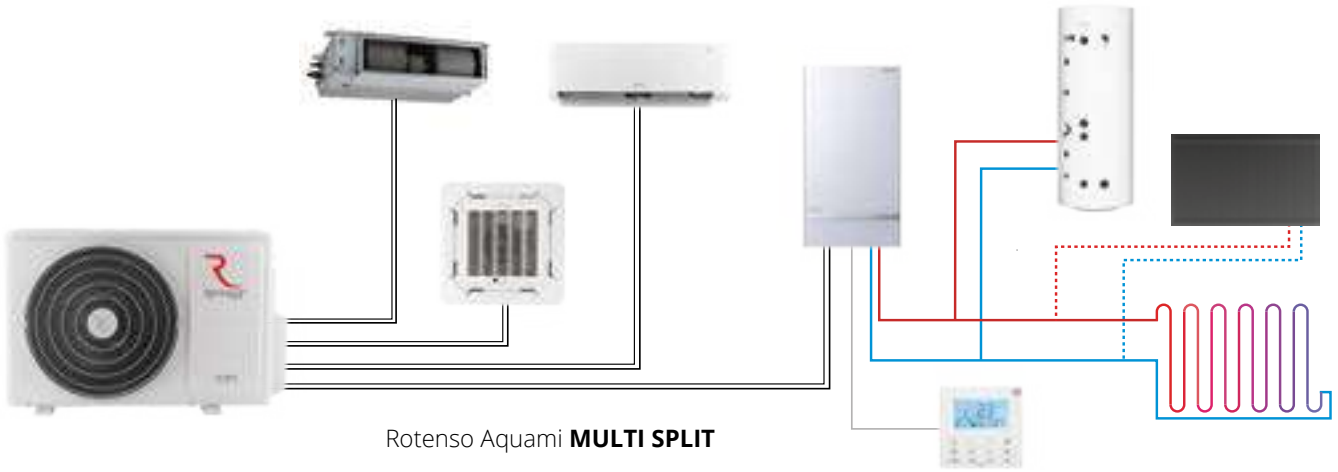
Rotenso Aquami Big Mono
is a heat pump with large capacity (22 kW and 30 kW) in which the refrigeration module and the hydronic module are contained in a single, compact unit housing designed for outdoor installation.

MULTI
SPLIT

MULTI SPLIT
Multiple features combined in a single system

Aquami Multi Split is a combination of air-to-water and air-to-air heat pump systems for residential and commercial applications with the capacity of 10 kW (air-to-air) and 8 kW (air-to-water).

4 indoor units can be connected to the system. In addition to the Multi Aquami unit operating in the air-to-water mode, you can connect up to 3 Multi Series air-conditioners operating in the air-to-air mode. Aquami heat pumps can be used in both new and retrofit buildings.



Rotenso Aquami **MULTI SPLIT**

Solution
AQUAMI SPLIT

SPLIT

Rotenso Aquami Split heat pump consists of an outdoor unit (condenser) and a hydronic module (for indoor installation). Such solution allows easy access to the hydronic module. Connection of outdoor and indoor units' refrigeration circuits is resistant to freezing, even during prolonged power outages.

Modern design and high efficiency at low temperatures make Rotenso Aquami heat pumps a perfect choice for heating homes, stores, commercial premises and offices.

Standard equipment:

1. Indoor unit
2. Outdoor unit
3. Wired controller
4. DHW tank sensor
5. Plate PHE / plate heat exchanger
6. Flow meter
7. Diaphragm vessel
8. Pressure gauge
9. Circulation pump
10. Pressure relief valve
11. Purge valve
12. Y water filter

Indoor unit
Hydrobox

AQS60X13i, AQS100X13i,
AQS160X13i

4-6 kW

8-16 kW

Model	Rotenso Aquami Split						
Capacity (kW)	4	6	8	10	12	14	16
220-240~50, 1f	•	•	•	•			
380-420~50, 3f					•	•	•

Solutions
AQUAMI ALL IN SPLIT

Similar to split-Type heat pump, Rotenso All in Split solution consists of an outdoor unit and an indoor unit (hydronic module). The difference is that in the All in Split heat pump the hydronic module has been integrated with the domestic hot water (DHW) tank. As a whole, the hydrobox and DHW tank are enclosed in a single housing to form a compact indoor unit which can be integrated in the hallway furniture, placed in a laundry room or in the kitchen along with other household appliances. Connection of outdoor and indoor units' refrigeration circuits is resistant to freezing, even during prolonged power outages.

The quality of components and solutions, e.g. corrosion-resistant stainless steel DHW tank, ensures many years of trouble-free operation.

Standard equipment:

1. Indoor unit
2. Outdoor unit
3. Wired controller
4. DHW tank sensor
5. Plate PHE / plate heat exchanger
6. Flow meter
7. Diaphragm vessel
8. Pressure gauge
9. Circulation pump
10. Pressure relief valve
11. Purge valve
12. Y water filter
13. 3-way switching valve with actuator

Indoor unit Hydrobox

AQS100T190X1i, AQS100T240X13i,
AQS160T240X13i

4-6 kW

8-16 kW

Model	Rotenso Aquami All in Split						
Capacity (kW)	4	6	8	10	12	14	16
220-240~50, 1f	•	•	•	•			
380-420~50, 3f					•	•	•

Solution
AQUAMI MONOBLOCK

Rotenso Aquami Monoblock is a heat pump in which the refrigeration module and the hydronic module are contained in a single, compact unit housing. This Type of solution makes heat pump installation faster and easier, and requires no additional space for the hydronic module inside the building.

Double door heat pump housing provides easy access to all its components. Heat pump operating parameters can be quickly modified and monitored in real time from the user interface. Modern design of Rotenso Aquami Monoblock heat pump and its high efficiency even at extremely low temperatures makes it a perfect choice for heating homes, stores, commercial premises and offices.

Standard equipment:

1. Outdoor unit
2. Wired controller
3. DHW tank sensor
4. Plate PHE / plate heat exchanger
5. Flow meter
6. Diaphragm vessel
7. Circulation pump
8. Pressure relief valve
9. Purge valve
10. Y water filter

4-6 kW

8-16 kW

Model	Rotenso Aquami Monoblock						
Capacity (kW)	4	6	8	10	12	14	16
220-240~50, 1f	•	•	•	•			
380-420~50, 3f					•	•	•

Solution
AQUAMI BIG MONO

Rotenso Aquami Big Mono is characterized by larger heating capacity (up to 30 kW) designed for buildings with higher heating power demand. In this double-fan Rotenso Aquami Big Mono pump, the refrigerating and hydronic modules are enclosed in a single, compact unit housing.

This eliminates cascade connection of several units with lower capacities. Another benefit is quick and easy installation. The Rotenso Aquami Big Mono heat pump also requires no additional space for the hydronic module inside the building. Heat pump housing is designed to provide an easy access to all its components, while operating parameters can be quickly modified and monitored in real time from the user interface.
Modern double-fan design of the Rotenso heat pump and its high efficiency even at low temperatures make it a perfect choice for heating homes, stores, commercial premises, offices and other facilities with high heating power demand.

Standard equipment:

1. Outdoor unit
2. Wired controller
3. DHW tank sensor
4. Plate PHE / plate heat exchanger
5. Flow meter
6. Diaphragm vessel
7. Circulation pump
8. Pressure relief valve
9. Purge valve
10. Y water filter

22-30 kW

Model	Rotenso Aquami Big Mono	
Capacity (kW)	22	30
220-240~50, 1f		
380-420~50, 3f	•	•

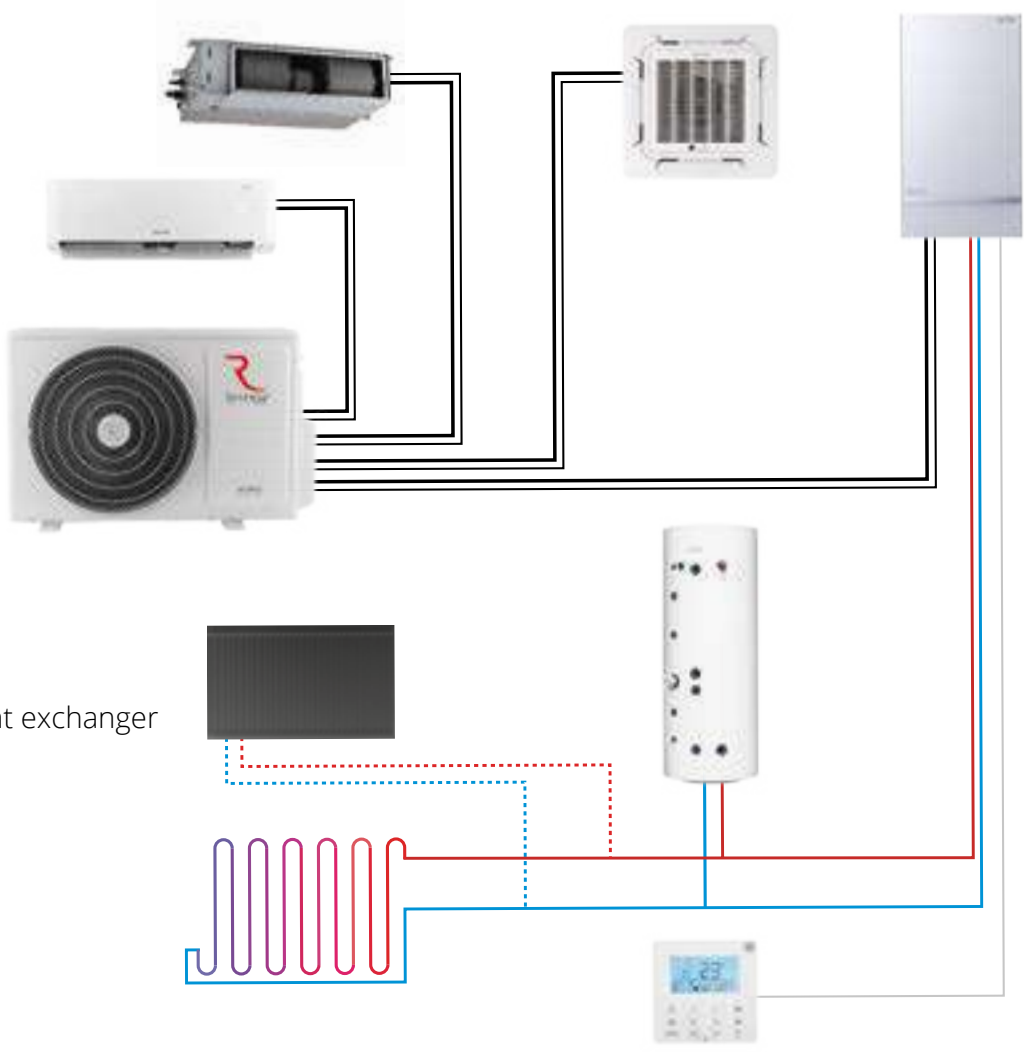
Solution
AQUAMI MULTI SPLIT

MULTI
SPLIT

Multi Split Aquami is a combination of air-to-water and air-to-air heat pump systems with a capacity of 8 kW for residential and commercial applications. 4 indoor units can be connected to the system. In addition to the Multi Split Aquami hydronic module operating in the air-to-water mode, you can connect up to 3 Multi Split Series air-conditioners operating in the air-to-air mode.

By combining the Hiro H100Xm4 Multi Split outdoor unit and the Aquami heat pump indoor unit in a hybrid system, you can:

- Heat or cool spaces using air systems (air conditioners)
- Heat spaces using water systems (underfloor heating, radiators, fan coils)
- Heat domestic hot water.



Standard equipment:

1. Indoor unit
2. Outdoor unit
3. Wired controller
4. Plate PHE / plate heat exchanger
5. Flow meter
6. Diaphragm vessel
7. Pressure gauge
8. Circulation pump
9. Pressure relief valve
10. Purge valve
11. Y water filter

Indoor unit
Hydrobox

AQMS80X1i

8 kW

Model	Rotenso Aquami Multi Split (R32)						
Capacity (kW)	4	6	8	10	12	14	16
220-240~50, 1f			•				
380-420~50, 3f							

Aquami Series
Split

Rotenso Aquami Split heat pump consists of an outdoor unit and a hydronic module, so called hydrobox, for indoor installation. Rotenso Aquami Split heat pump features the highest energy efficiency class A+++. The excellent capacity of the Aquami Split series contributes to low electricity consumption.

Due to its freeze-resistance and capacity at extremely low outdoor temperatures down to -25°C, the amount of heating energy produced by the heat pump can be five times the amount of the consumed electric energy.

The series has the advantage of easy access to the hydronic module and its connection between the refrigeration circuits of outdoor and indoor units is resistant to freezing even during prolonged power outages.

Rotenso Aquami heat pump can heat water up to 65°C which allows it to supply central heating systems with traditional radiators. Heat pump's single-fan design, bionic fan blade pattern as well as twin rotary DC compressor ensure the Rotenso Aquami's high efficiency with minimal noise – only 35 dB (A) (in Silent mode).

The heat pump can be controlled by a wired controller or a COMFORT HOME mobile app to make its daily use even more convenient.

AQUAMI SPLIT

-25°C

Operating range down to -25°C

65°C

Supply water temperature of 65°C

Smart Grid functionality

Controller equipped with a temperature sensor

Integrated Wi-Fi module

Control via mobile app

SPLIT

Controller **equipped with a temperature sensor**

If the sensor detects a difference between the set temperature and the actual temperature in the room, the heat pump will operate to reach the desired temperature inside the building.

Supply water temperature of 65°C

If the heat pump is used to heat spaces where radiators are installed, temperature of the supply water in the system must be higher.
Rotenso Aquami heat pumps can heat water up to 65°C.

Integrated Wi-Fi module

The Rotenso Aquami Split heat pump can be controlled both by the wired controller and the COMFORT HOME mobile app, whether you are staying at home or not.

Smart Grid **functionality**

The heat pump controller is designed to work with the „Smart Grid". With this feature, the pump automatically turns on to store surplus energy from the photovoltaic (PV) system to make the most of the cheaper electricity tariff.

Operating range down to -25°C

Heat pumps are prepared for efficient operation even at extreme outdoor temperatures as low as -25°C. During the cold winter, they guarantee that supply water for central heating and domestic hot water are heated sufficiently.

Control via mobile app

You can use your tablet or smartphone to control the Rotenso Aquami Split unit no matter where you are.

Aquami Split

4-16 kW

HEAT PUMP KEYMARK www.heatpump.keymark.eu

Device features

- Environmentally friendly refrigerant R32
- Efficient heating
- Energy efficiency class at 35°C A+++
- Energy efficiency class at 55°C A++
- Maximum COP 5,20[1]
- Operating range down to -25°C
- Supply water temperature of 65°C
- Integrated USB port for updates
- Energy meter
- Smart Grid functionality
- Twin rotary compressor
- Integrated electric heater
- Outdoor unit drip tray heater
- Compressor crankcase heater
- Indoor unit drip tray
- Easy installation and maintenance
- Compact indoor split unit housing
- Maximum installation length up to 30m
- Silent mode
- Built-in Wi-Fi module
- Daily operation schedule
- Configurable weekly schedules
- Vacation mode
- Menu in English
- Multilanguage menu
- Integrated temperature sensor
- Weather operating modes (climate curve)
- 2 heating control zones
- Dedicated application
- Disinfection
- DHW circulation pump operation schedules
- Maximum leaving water temperature of 60°C (in DHW mode)
- Prepared to create a cascade system
- Modbus Protocol

1. Refers to units AQS40X1o and AQS80X1o

Technical specification

Indoor unit model				**AQS60X13i**	**AQS100X13i**	**AQS160X13i**
EAN product code				5905567602115	5905567602122	5905567602139
Compatible outdoor unit model				AQS40/60X1o	AQS80/100X1o	AQS120/140/160X3o
Operation modes				Heating and cooling	Heating and cooling	Heating and cooling
Leaving water temperature	Space cooling		°C	5~25	5~25	5~25
	Space heating		°C	25~65	25~65	25~65
	DHW (tank)			30~60	30~60	30~60
Power supply			V-Hz, Ø	220-240~50, 1f / 380-420~50, 3f	220-240~50, 1f / 380-420~50, 3f	220-240~50, 1f / 380-420~50, 3f
Rated input / Operating current			W / A	9095 / 13,5	9095 / 13,5	9095 / 13,5
Sound power level			dB(A)	38	42	43
Electric heater	Power supply		V-Hz, Ø	220-240~50, 1f / 380-420~50, 3f	220-240~50, 1f / 380-420~50, 3f	220-240~50, 1f / 380-420~50, 3f
	Number of heating stages / Power		pcs. / kW	3 / 9	3 / 9 (3 + 3 + 3)	3 / 9 (3 + 3 + 3)
	Maximum running current		A	13,3	13,3	13,3
Net dimensions	W × D × H		mm	420 × 270 × 790	42 0× 270 × 790	420 × 270 × 790
Gross dimensions			mm	525 × 360 × 1050	525 × 360 × 1050	525 × 360 × 1050
Net weight / Gross weight			kg	37/43	37/43	39/45
Water circuit	Water connections		mm (inch)	R1" external	R1" external	R1" external
	Pressure relief valve		MPa	0,3	0,3	0,3
	Condensate drain			Φ25	Φ25	Φ25
	Expansion tank	Total volume / Actual volume	l	8 / 4,8	8 / 4,8	8 / 4,8
		Maximum pressure / Initial pressure	MPa	0,3 / 0,1	0,3 / 0,1	0,3 / 0,1
	PHE / plate heat exchanger	Type		PHE / plate heat exchanger	PHE / plate heat exchanger	PHE / plate heat exchanger
		Minimum flow	l/min	6	10	10
	Water pump head		m	9	9	9
	Water pump type			DC	DC	DC
Refrigerant circuit	Liquid / Gas		mm	Φ6,35 (1/4") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")
Minimal wire pcs and dimension of cords*			pcs × mm²	5 × 2,5	5 × 2,5	5 × 2,5
Control cables: indoor unit to outdoor unit			pcs × mm²	2 × 0,75 (shielded cable)	2 × 0,75 (shielded cable)	2 × 0,75 (shielded cable)

Outdoor unit model			**AQS40X1o**	**AQS60X1o**	**AQS80X1o**	**AQS100X1o**	**AQS120X3o**	**AQS140X3o**	**AQS160X3o**
EAN product code			5905567601071	5905567602054	5905567602061	5905567602078	5905567602085	5905567602092	5905567602108
Compatible indoor unit model			AQS40X13i	AQS60X13i	AQS100X13i	AQS100X13i	AQS160X13i	AQS160X13i	AQS160X13i
Power supply			220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	380-420~50, 3f	380-420~50, 3f	380-420~50, 3f
Heating (A7/W35)	Capacity	kW	4,25	6,20	8,30	10,00	12,10	14,50	16,00
	Rated input	kW	0,82	1,24	1,60	2,00	2,44	3,09	3,56
	COP		5,20	5,00	5,20	5,00	4,95	4,70	4,50
Heating (A7/W45)	Capacity	kW	4,35	6,35	8,20	10,00	12,30	14,20	16,00
	Rated input	kW	1,14	1,69	2,08	2,63	3,24	3,89	4,44
	COP		3,80	3,75	3,95	3,80	3,80	3,65	3,60
Heating (A7/W55)	Capacity	kW	4,40	6,00	7,50	9,50	12,00	13,80	16,00
	Rated input	kW	1,49	2,00	2,36	3,06	3,87	4,60	5,52
	COP		2,95	3,00	3,18	3,10	3,10	3,00	2,90
Cooling (A35/W18)	Capacity	kW	4,50	6,55	8,40	10,00	12,00	13,50	14,90
	Rated input	kW	0,81	1,34	1,66	2,08	3,00	3,75	4,38
	EER		5,55	4,90	5,05	4,80	4,00	3,60	3,40
Cooling (A35/W7)	Capacity	kW	4,70	7,00	7,40	8,20	11,60	12,70	14,00
	Rated input	kW	1,36	2,33	2,19	2,48	4,22	4,98	5,71
	EER		3,45	3,00	3,38	3,30	2,75	2,55	2,45
Seasonal energy efficiency LWT 35ºC	SCOP[1]		4,85	4,95	5,21	5,19	4,81	4,72	4,62
	Rated heat output	kW	5,5	6,8	8,1	9,2	12	13,7	15,2
	Seasonal energy efficiency ratio (ηS)	%	191	195	205,6	204,8	189,4	185,7	181,7
	Annual energy consumption	kWh	2351	2845	3218	3644	5152	6012	6804
	Seasonal space heating energy efficiency class[1]		A+++	A+++	A+++	A+++	A+++	A+++	A+++
Seasonal energy efficiency LWT 55ºC	SCOP[1]		3,31	3,52	3,36	3,49	3,45	3,47	3,41
	Rated heat output	kW	4,4	5,7	6,6	7,7	11,6	12,1	13
	Seasonal energy efficiency ratio (ηS)	%	129,5	137,9	131,6	135,7	135,1	135,6	133,2
	Annual energy consumption	kWh	2742	3343	4054	4567	6927	7202	7896
	Seasonal space heating energy efficiency class[1]		A++	A++	A++	A++	A++	A++	A++
SEER	LWT at 7ºC		4,99	5,34	5,83	5,98	4,86	4,83	4,67
	LWT at 8ºC		7,77	8,21	8,95	8,78	7,04	6,85	6,71
Minimum rated current of the overcurrent circuit breaker with breaker type		A	B16	B16	B20	B20	B16	B16	B16
Compressor	Type		Twin rotary inverter compressor DC						
Fan	Type		Brushless DC motor / BLDC						
	Quantity		1	1	1	1	1	1	1
Refrigerant	Type/ GWP		R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675
	Charged (<15m)	kg	1,5	1,5	1,65	1,65	1,84	1,84	1,84
		TCO_2eq	1,02	1,02	1,11	1,11	1,24	1,24	1,24
Pipe connections	Liquid / Gas	mm	Φ6,35 (1/4") / Φ15,9 (5/8")	Φ6,35 (1/4") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")
	Minimum installation length	m	2	2	2	2	2	2	2
	Maximum installation length	m	30	30	30	30	30	30	30
	Additional amount of refrigerant for over 15 linear meters	g/m	20	20	38	38	38	38	38
Maximum height difference	Outdoor unit above the indoor unit	m	20	20	20	20	20	20	20
	Outdoor unit below the indoor unit	m	20	20	20	20	20	20	20
Minimal wire pcs and dimension of cords*		pcs × mm²	3 × 2,5	3 × 2,5	3 × 4	3 × 4	5 × 2,5	5 × 2,5	5 × 2,5
Control cables: indoor unit to outdoor unit		pcs × mm²	2 × 0,75 (shielded cable)						
Bracket spacing		W × D	663 × 375	663 × 375	656 × 456	656 × 456	656 × 456	656×456	656 × 456
Sound pressure level		dB(A)	44	45	46	49	50	51	55
Sound power level			56	58	59	60	64	65	68
Net dimensions	(W×D×H)	mm	1008 × 426 × 712	1008 × 426 × 712	1118 × 523 × 865	1118 × 523 × 865	1118 × 523 × 865	1118 × 523 × 865	1118 × 523 × 865
Gross dimensions	(W×D×H)	mm	1065 × 485 × 800	1065 × 485 × 800	1180 × 560 × 890	1180 × 560 × 890	1180 × 560 × 890	1180 × 560 × 890	1180 × 560 × 890
Net weight/Gross weight		kg	58 / 63,5	58 / 63,5	75 / 89	75 / 86	112 / 125,5	112/125,5	112 / 125,5
Operating outdoor temperature	Cooling	ºC	-5~43	-5~43	-5~43	-5~43	-5~43	-5~43	-5~43
	Heating	ºC	-25~35	-25~35	-25~35	-25~35	-25~35	-25~35	-25~35
	DHW	ºC	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43

1. Seasonal energy efficiency class measured under average climate conditions.

Notes:
DHW – Domestic hot water
LWT – Leaving water temperature
The sound pressure level is measured 1m in front of the unit and (1+H)/2m (where H is the height of the unit) above the floor in semi-anechoic room. During on-site operation sound pressure levels can be higher as a result of ambient noise. Sound pressure level and sound power level reflect the maximum value tested under three conditions specified respectively in notes A7W35, ΔT=5; A7W45, ΔT=5; A7W55 ΔT=8; relative humidity 85%. The figures specified above refer to the following standards: EN14511; EN14825; EN50564; EN12102; (EU) Np. 811/2013; (EU) No. 813/2013; Journal of Laws 2014 / C 207/02: 2014.

The residual current circuit breaker used to protect the electrical circuit of the appliance shall be selected in view of the electrical regulations in force, assuming that the rated residual current is not greater than IΔn: 30mA
*The above values apply to supply cables with a maximum length of 20mb. If this value is exceeded, an electrical designer should be consulted.

Aquami Series
All in Split

Similar to split-Type heat pump, Rotenso All in Split solution consists of an outdoor unit and an indoor unit (hydronic module). The difference is that in the All in Split heat pump the hydronic module has been integrated with the domestic hot water (DHW) tank.

As a whole, the hydrobox and DHW tank form a compact indoor unit which can be integrated in the hallway furniture, placed in a laundry room or in the kitchen along with other household appliances. Connection of outdoor and indoor units' refrigeration circuits is resistant to freezing, even during prolonged power outages.

The quality of components and solutions, e.g. corrosion-resistant stainless steel DHW tank, ensures many years of trouble-free operation

All-in-one air-to-water heat pumps have been developed in response to market demand for compact units that can be arranged within living spaces. The Rotenso Aquami All in Split heat pump is an excellent solution for small residential buildings without a separate boiler room.

AQUAMI ALL IN SPLIT

-25°C

Operating range down to -25°C

65°C

Supply water temperature of 65°C

Integrated DHW tank

316L STEEL

Tank of stainless steel

Integrated Wi-Fi module

Control via mobile app

ALL IN **SPLIT**

Integrated **DHW tank**

Specific design of the indoor unit is to integrate the hydronic module with the domestic hot water (DHW) tank. As a whole, the hydrobox and DHW tank are enclosed in a single housing to form sleek and compact indoor module suitable for small residential buildings with no separate boiler room.

Operating range down to -25°C

Heat pumps are prepared for efficient operation even at extreme outdoor temperatures as low as -25°C. During the cold winter, they guarantee that supply water for central heating and domestic hot water are heated sufficiently.

Integrated Wi-Fi module

The Rotenso Aquami Split heat pump can be controlled both by the wired controller and the COMFORT HOME mobile app, whether you are staying at home or not.

Tank of **stainless steel**

JThe quality of components and solutions, e.g. stainless steel DHW tank, ensures many years of trouble-free operation. This corrosion-resistant tank made of high-quality material has no magnetic or titanium anodes that have to be replaced on a regular basis, which translates into greater comfort.

Supply water temperature of 65°C

If the heat pump is used to heat spaces where radiators are installed the temperature of the supply water in the system must be higher. Rotenso Aquami heat pumps can heat water up to 65°C.

Control via mobile app

You can use your tablet or smartphone to control the Rotenso Aquami ALL IN Split unit no matter where you are.

Aquami All in Split

4-16 kW

HEAT PUMP KEYMARK
www.heatpump.keymark.eu

Device features

- Environmentally friendly refrigerant R32
- Efficient heating
- Energy efficiency class at 35°C A+++
- Energy efficiency class at 55°C A++
- Maximum COP 5,20[1]
- Operating range down to -25°C
- Supply water temperature of 65°C
- Integrated USB port for updates
- Energy meter
- Smart Grid functionality
- Twin rotary compressor
- Integrated electric heater
- Outdoor unit drip tray heater
- Compressor crankcase heater
- Indoor unit drip tray
- Easy installation and maintenance
- Compact indoor split unit housing
- Maximum installation length up to 30m
- Silent mode
- Built-in Wi-Fi module
- Daily operation schedule
- Configurable weekly schedules
- Vacation mode
- Menu in English
- Multilanguage menu
- Integrated temperature sensor
- Weather operating modes (climate curve)
- 2 heating control zones
- Dedicated application
- Disinfection
- DHW circulation pump operation schedules
- Maximum leaving water temperature of 60°C (in DHW mode)
- Integrated DHW tank
- Tank of stainless steel
- Built-in switching valve

1. Refers to units AQS40X1o and AQS80X1o

Technical specification

Indoor unit model				**AQS100T190X1i**	**AQS100T240X13i**	**AQS160T240X13i**
EAN product code				5905567602146	5905567602153	5905567602160
Compatible outdoor unit model				AQS40/60/80/100X1o	AQS40/60/80/100X1o	AQS120/140/160X3o
Operation modes				Heating and cooling	Heating and cooling	Heating and cooling
Leaving water temperature	Space cooling		ºC	5~25	5~25	5~25
	Space heating		ºC	25~65	25~65	25~65
	DHW (tank)			30~60	30~60	30~60
Power supply			V-Hz, Ø	220-240~50, 1f	220-240~50, 1f / 380-420~50, 3f	220-240~50, 1f / 380-420~50, 3f
Rated input / Operating current			W / A	9095 / 13,5	9095 / 13,5	9095 / 13,5
Sound power level			dB(A)	38 (1) / 40 (2)	38 (1) / 40 (2)	42 (3) / 44 (4)
Electric heater	Power supply			220-240~50, 1f	220-240~50, 1f / 380-420~50, 3f	220-240~50, 1f / 380-420~50, 3f
	Number of heating stages / Power		pcs. / kW	1 / 3	3 / 9 (3 + 3 + 3)	3 / 9 (3 + 3 + 3)
	Maximum operating current		A	13,3	13,3	13,3
Net dimensions		W × D × H	mm	600 × 600 × 1683	600 × 600 × 1943	600 × 600 × 1943
Gross dimensions			mm	653 × 653 × 1900	653 × 653 × 2160	653 × 653 × 2160
Net weight / Gross weight			kg	139 / 154	156 / 171	158 / 173
Water circuit	Water connections		mm (inch)	R1" external	R1" external	R1" external
	Pressure relief valve		MPa	0,3	0,3	0,3
	Condensate drain			Φ25	Φ25	Φ25
	Expansion tank	Total volume / Actual volume	l	8 / 4,8	8 / 4,8	8 / 4,8
		Maximum pressure / Initial pressure	MPa	0,3 / 0,1	0,3 / 0,1	0,3 / 0,1
	PHE / plate heat exchanger	Type		PHE / plate heat exchanger	PHE / plate heat exchanger	PHE / plate heat exchanger
		Minimum flow	l/min	6	6	10
	Water pump head		m	9	9	9
	Water pump head			DC	DC	DC
	DHW tank	Tank material		Stainless steel 316L	Stainless steel 316L	Stainless steel 316L
		Housing material/colour		Polyurethane foam, steel / white	Polyurethane foam, steel / white	Polyurethane foam, steel / white
		Tank capacity	l	190	240	240
		Maximum water temperature (disinfection mode)	ºC	70	70	70
		Insulation thickness	mm	45	45	45
		Maximum pressure	bar	10	10	10
Refrigerant circuit	Liquid / Gas		mm	Φ9,52 (3/8") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")
Minimal wire pcs and dimension of cords*			pcs × mm²	5 × 2,5	5 × 2,5	5 × 2,5
Control cables: indoor unit to outdoor unit			pcs × mm²	2 × 0,75 (shielded cable)	2 × 0,75 (shielded cable)	2 × 0,75 (shielded cable)

Outdoor unit model			**AQS40X1o**	**AQS60X1o**	**AQS80X1o**	**AQS100X1o**	**AQS120X3o**	**AQS140X3o**	**AQS160X3o**
EAN product code			5905567601071	5905567602054	5905567602061	5905567602078	5905567602085	5905567602092	5905567602108
Compatible indoor unit model			AQS100T190X1i / AQS100T240X13i				AQS160T240X13i		
Power supply			220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	380-420~50, 3f	380-420~50, 3f	380-420~50, 3f
Heating (A7/W35)	Capacity	kW	4,25	6,20	8,30	10,00	12,10	14,50	16,00
	Rated input	kW	0,82	1,24	1,60	2,00	2,44	3,09	3,56
	COP		5,20	5,00	5,20	5,00	4,95	4,70	4,50
Heating (A7/W45)	Capacity	kW	4,35	6,35	8,20	10,00	12,30	14,20	16,00
	Rated input	kW	1,14	1,69	2,08	2,63	3,24	3,89	4,44
	COP		3,80	3,75	3,95	3,80	3,80	3,65	3,60
Heating (A7/W55)	Capacity	kW	4,40	6,00	7,50	9,50	12,00	13,80	16,00
	Rated input	kW	1,49	2,00	2,36	3,06	3,87	4,60	5,52
	COP		2,95	3,00	3,18	3,10	3,10	3,00	2,90
Cooling (A35/W18)	Capacity	kW	4,50	6,55	8,40	10,00	12,00	13,50	14,90
	Rated input	kW	0,81	1,34	1,66	2,08	3,00	3,75	4,38
	EER		5,55	4,90	5,05	4,80	4,00	3,60	3,40
Cooling (A35/W7)	Capacity	kW	4,70	7,00	7,40	8,20	11,60	12,70	14,00
	Rated input	kW	1,36	2,33	2,19	2,48	4,22	4,98	5,71
	EER		3,45	3,00	3,38	3,30	2,75	2,55	2,45
Seasonal energy efficiency LWT 35ºC	SCOP (1)		4,85	4,95	5,21	5,19	4,81	4,72	4,62
	Rated heat output	kW	5,5	6,8	8,1	9,2	12	13,7	15,2
	Seasonal energy efficiency ratio (ηS)	%	191	195	205,6	204,8	189,4	185,7	181,7
	Annual energy consumption	kWh	2351	2845	3218	3644	5152	6012	6804
	Seasonal space heating energy efficiency class(1)		A+++	A+++	A+++	A+++	A+++	A+++	A+++
Seasonal energy efficiency LWT 55ºC	SCOP (1)		3,31	3,52	3,36	3,49	3,45	3,47	3,41
	Rated heat output	kW	4,4	5,7	6,6	7,7	11,6	12,1	13
	Seasonal energy efficiency ratio (ηS)	%	129,5	137,9	131,6	135,7	135,1	135,6	133,2
	Annual energy consumption	kWh	2742	3343	4054	4567	6927	7202	7896
	Seasonal space heating energy efficiency class (1)		A++	A++	A++	A++	A++	A++	A++
SEER	LWT at 7ºC		4,99	5,34	5,83	5,98	4,86	4,83	4,67
	LWT at 8ºC		7,77	8,21	8,95	8,78	7,04	6,85	6,71
Minimum rated current of the overcurrent circuit breaker with breaker type		A	B16	B16	B20	B20	B16	B16	B16
Compressor	Type		Twin rotary inverter compressor DC						
Fan	Type		Brushless DC motor / BLDC						
	Quantity		1	1	1	1	1	1	1
Refrigerant	Type/ GWP		R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675
	Charged (<15m)	kg	1,5	1,5	1,65	1,65	1,84	1,84	1,84
		TCO_2eq	1,02	1,02	1,11	1,11	1,24	1,24	1,24
Pipe connections	Liquid / Gas	mm	Φ6,35 (1/4") / Φ15,9 (5/8")	Φ6,35 (1/4") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")	Φ9,52 (3/8") / Φ15,9 (5/8")
	Minimum installation length	m	2	2	2	2	2	2	2
	Maximum installation length	m	30	30	30	30	30	30	30
	Additional amount of refrigerant for over 15 linear meters	g/m	20	20	38	38	38	38	38
Maximum height difference	Outdoor unit above the indoor unit	m	20	20	20	20	20	20	20
	Outdoor unit below the indoor unit	m	20	20	20	20	20	20	20
Minimal wire pcs and dimension of cords*		pcs × mm²	3 × 2,5	3 × 2,5	3 × 4	3 × 4	5 × 2,5	5 × 2,5	5 × 2,5
Control cables: indoor unit to outdoor unit		pcs × mm²	2 × 0,75 (shielded cable)						
Bracket spacing		W × D	663 × 375	663 × 375	656 × 456	656 × 456	656 × 456	656×456	656 × 456
Sound pressure level		dB(A)	44	45	46	49	50	51	55
Sound power level			56	58	59	60	64	65	68
Net dimensions	W × D × H	mm	1008 × 426 × 712	1008 × 426 × 712	1118 × 523 × 865	1118 × 523 × 865	1118 × 523 × 865	1118 × 523 × 865	1118 × 523 × 865
Gross dimensions	W × D × H	mm	1065 × 485 × 800	1065 × 485 × 800	1180 × 560 × 890	1180 × 560 × 890	1180 × 560 × 890	1180 × 560 × 890	1180 × 560 × 890
Net weight/Gross weight		kg	58 / 63,5	58 / 63,5	75 / 89	75 / 86	112 / 125,5	112/125,5	112 / 125,5
Operating outdoor temperature	Cooling	ºC	-5~43	-5~43	-5~43	-5~43	-5~43	-5~43	-5~43
	Heating	ºC	-25~35	-25~35	-25~35	-25~35	-25~35	-25~35	-25~35
	DHW	ºC	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43

(1) Applies to systems with outdoor unit models AQS40X1o and AQS60X1o. (2) Applies to systems with outdoor unit models AQS80X1o and AQS100X1o.
(3) Applies to systems with outdoor unit model AQS120X1o. (4) Applies to systems with outdoor unit models AQS140X1o and AQS160X1o.
Notes: DHW – Domestic hot water, LWT – Leaving water temperature
The sound pressure level is measured 1m in front of the unit and (1+H)/2m (where H is the height of the unit) above the floor in semi-anechoic room. During on-site operation sound pressure levels can be higher as a result of ambient noise. Sound pressure level and sound power level reflect the maximum value tested under three conditions specified respectively in notes A7W35, ΔT=5; A7W45, ΔT=5; A7W55 ΔT=8; relative humidity 85%. The figures specified above refer to the following standards: EN14511; EN14825; EN50564; EN12102; (EU) Np. 811/2013; (EU) No. 813/2013; Journal of Laws 2014 / C 207/02: 2014.
The residual current circuit breaker used to protect the electrical circuit of the appliance shall be selected in view of the electrical regulations in force, assuming that the rated residual current is not greater than IΔn: 30mA
*The above values apply to supply cables with a maximum length of 20mb. If this value is exceeded, an electrical designer should be consulted.

Aquami Series
Monoblock

Rotenso Aquami Monoblock is a heat pump in which the refrigeration module and the hydronic module are contained in a single, compact unit housing designed for outdoor installation to make the installation works easier and faster.

Rotenso Aquami Monoblock pump is the best solution for building owners who either have no space or do not want to install additional hydronic module inside the building.
Rotenso Aquami Monoblock heat pump features the highest energy efficiency class A+++.

COP coefficient, which is a ratio of useful heating power to the consumed electric energy, is **5.15*** in monoblock pumps, which means that the amount of heating energy that the Rotenso Aquami Monoblock heat pump can produce is more than five times higher than the amount of consumed electric energy.

Heat pump double door housing is designed to provide an easy access to all its components, while operating parameters can be quickly modified and monitored in real time from the user interface.
Rotenso Aquami Monoblock heat pump is equipped with an anti-freeze system.

**** Maximum COP for AQM80X1***

AQUAMI MONO BLOCK

-25°C

Operating range down to -25°C

65°C

Supply water temperature of 65°C

Smart Grid functionality

Controller equipped with a temperature sensor

Integrated Wi-Fi module

Control via mobile app

MONO

Controller **equipped with a temperature sensor**

If the sensor detects a difference between the set temperature and the actual temperature in the room, the heat pump will automatically operate to reach the desired temperature inside the building.

Supply water temperature of max. 65°C

If the heat pump is used to heat spaces where radiators are installed, temperature of the supply water in the system must be higher. Rotenso Aquami heat pump can heat water up to 65°C.

Integrated Wi-Fi module

The Rotenso Aquami Monoblock pump can be controlled both by the wired controller and the COMFORT HOME mobile app, whether you are staying at home or not.

Smart Grid **functionality**

The heat pump controller is designed to work with the „Smart Grid". With this feature, the pump automatically turns on to store surplus energy from the photovoltaic (PV) system to make the most of the cheaper electricity tariff.

Operating range down to -25°C

The pump is prepared to operate efficiently even at extreme outdoor temperatures down to -25°C. During the cold winter, it guarantees that supply water for central heating and domestic hot water is heated sufficiently.

Control via mobile app

You can use your tablet or smartphone to control the Rotenso Aquami Monoblock unit no matter where you are.

Aquami Monoblock

4-16 kW

HEAT PUMP KEYMARK www.heatpump.keymark.eu

Device features

- Environmentally friendly refrigerant R32
- Efficient heating
- Energy efficiency class at 35°C A+++
- Energy efficiency class at 55°C A++
- Maximum COP 5,15 (1)
- Operating range down to -25°C
- Supply water temperature of 65°C
- Integrated USB port for updates
- Energy meter
- Smart Grid functionality
- Twin rotary compressor
- Integrated electric heater
- Outdoor unit drip tray heater
- Compressor crankcase heater
- Easy installation and maintenance
- Silent mode
- Wired controller Wi-Fi module
- Configurable daily schedules
- Configurable weekly schedules
- Vacation mode
- Menu in English
- Multilanguage menu
- Integrated temperature sensor
- Weather operating modes (climate curve)
- 2 heating control zones
- Dedicated application
- Disinfection
- DHW circulation pump operation schedules
- Maximum leaving water temperature of 60°C (in DHW mode)
- Prepared to create a cascade system

1. Refers to unit AQM80X1

Technical specification

Outdoor unit model				**AQM40X1**	**AQM60X1**	**AQM80X1**	**AQM100X1**	**AQM120X3**	**AQM140X3**	**AQM160X3**
EAN product code				5905567602177	5905567602184	5905567602191	5905567602207	5905567602214	5905567602221	5905567602238
Power supply			V-Hz, Ø	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	380-420~50, 3f	380-420~50, 3f	380-420~50, 3f
Heating (A7/W35)	Capacity		kW	4,20	6,35	8,40	10,00	12,10	14,50	15,90
	Rated input		kW	0,82	1,28	1,63	2,02	2,44	3,15	3,53
	COP			5,10	4,95	5,15	4,95	4,95	4,60	4,50
Heating (A7/W45)	Capacity		kW	4,30	6,30	8,10	10,00	12,30	14,10	16,00
	Rated input		kW	1,13	1,70	2,10	2,67	3,32	3,92	4,57
	COP			3,80	3,70	3,85	3,75	3,70	3,60	3,50
Heating (A7/W55)	Capacity		kW	4,40	6,00	7,50	9,50	11,90	13,80	16,00
	Rated input		kW	1,49	2,03	2,36	3,06	3,90	4,68	5,61
	COP			2,95	2,95	3,18	3,10	3,05	2,95	2,85
Cooling (A35/W18)	Capacity		kW	4,50	6,50	8,30	9,90	12,00	13,50	14,90
	Rated input		kW	0,82	1,35	1,64	2,18	3,04	3,75	4,38
	EER			5,50	4,80	5,05	4,55	3,95	3,60	3,40
Cooling (A35/W7)	Capacity		kW	4,70	7,00	7,45	8,20	11,50	12,40	14,00
	Rated input		kW	1,36	2,33	2,22	2,52	4,18	4,96	5,60
	EER			3,45	3,00	3,35	3,25	2,75	2,50	2,50
Seasonal energy efficiency LWT 35ºC	SCOP(1)			4,85	4,95	5,21	5,19	4,81	4,72	4,62
	Rated heat output		kW	5,5	6,8	8,1	9,2	12	13,7	15,2
	Seasonal energy efficiency ratio (ηS)		%	191	195	205,6	204,8	189,4	185,7	181,7
	Annual energy consumption		kWh	2351	2845	3218	3644	5153	6013	6805
	Seasonal space heating energy efficiency class (1)			A+++	A+++	A+++	A+++	A+++	A+++	A+++
Seasonal energy efficiency LWT at 55ºC	SCOP(1)			3,31	3,52	3,36	3,49	3,45	3,47	3,41
	Rated heat output		kW	4,40	5,70	6,60	7,70	11,60	12,10	13,00
	Seasonal energy efficiency ratio (ηS)		%	129,5	137,9	131,6	135,7	135,1	135,6	133,3
	Annual energy consumption		kWh	2742	3343	4054	4567	6927	7202	7896
	Seasonal space heating energy efficiency class (1)			A++	A++	A++	A++	A++	A++	A++
SEER	LWT at 7ºC			4,98	5,34	5,83	5,98	4,86	4,83	4,67
	LWT at 18ºC			7,76	8,21	8,95	8,78	7,04	6,85	6,71
Minimum rated current of the overcurrent circuit breaker with breaker type			A	B25	B32	B32	B32	B25	B25	B25
Compressor	Type			Twin rotary inverter compressor DC						
Fan	Type			Brushless DC motor / BLDC						
	Quantity			1	1	1	1	1	1	1
Refrigerant	Type / GWP			R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675
	Charged (<15m)		kg	1,4	1,4	1,4	1,4	1,75	1,75	1,75
			TCO_2eq	0,95	0,95	0,95	0,95	1,18	1,18	1,18
Minimal wire pcs and dimension of cords*			pcs × mm²	3 × 4	3 × 6	3 × 6	3 × 6	5 × 4	5 × 4	5 × 4
Bracket spacing	W1 × W2 × D		mm	638 x 379 x 401	638 x 379 x 401	656 x 363 x 488	656 x 363 x 488	656 x 363 x 488	656 x 363 x 488	656 x 363 x 488
Sound pressure level			dB(A)	45	47,5	48,5	50,5	53,0	53,5	57,5
Sound power level				55	58	59	60	65	65	68
Net dimensions	W × D × H		mm	1295 × 429 × 718	1295 × 429 × 718	1385 × 526 × 865	1385 × 526 × 865	1385 × 526 × 865	1385 × 526 × 865	1385 × 526 × 865
Gross dimensions	W × D × H		mm	1375 × 475 × 885	1375 × 475 × 885	1465 × 560 × 1035	1465 × 560 × 1035	1465 × 560 × 1035	1465 × 560 × 1035	1465 × 560 × 1035
Net weight / Gross weight			kg	91/112	91/112	110/137	110/137	149/177	149/177	149/177
Operating outdoor temperature	Cooling		ºC	-5~43	-5~43	-5~43	-5~43	-5~43	-5~43	-5~43
	Heating			-25~35	-25~35	-25~35	-25~35	-25~35	-25~35	-25~35
	DHW		ºC	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43
Operation modes				Heating and cooling						
Leaving water temperature	Space cooling		°C	5~25	5~25	5~25	5~25	5~25	5~25	5~25
	Space heating		°C	25~65	25~65	25~65	25~65	25~65	25~65	25~65
	DHW (tank)			30~60	30~60	30~60	30~60	30~60	30~60	30~60
Electric heater	Power supply		V-Hz, Ø	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	380-420~50, 3f	380-420~50, 3f	380-420~50, 3f
	Number of heating stages / Power			1 / 3	1 / 3	1 / 3	1 / 3	3 / 9 (3+3+3)	3 / 9 (3+3+3)	3 / 9 (3+3+3)
	Maximum operating current		A	13,5	13,5	13,5	13,5	13,3	13,3	13,3
Water circuit	Water connections		mm (inch)	33 mm (G1" BSP) external	33 mm (G1" BSP) external	41,91mm (G5/4" BSP) external	41,91mm (G5/4" BSP) external	41,91mm (G5/4" BSP) external	41,91mm (G5/4" BSP) external	41,91mm (G5/4" BSP) external
	Pressure relief valve		MPa	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	Condensate drain			16	16	16	16	16	16	16
	Expansion tank	Total volume / Actual volume	l	8 / 4,8	8 / 4,8	8 / 4,8	8 / 4,8	8 / 4,8	8 / 4,8	8 / 4,8
		Maximum pressure / Initial pressure	MPa	0,3 / 0,1	0,3 / 0,1	0,3 / 0,1	0,3 / 0,1	0,3 / 0,1	0,3 / 0,1	0,3 / 0,1
	Heat exchanger	Type		PHE / plate heat hanger						
		Minimum flow	l/min	6	6	6	6	10	10	10
	Water pump head		m	9	9	9	9	9	9	9
	Water pump type			DC	DC	DC	DC	DC	DC	DC
	Total water volume		l	3,2	3,2	3,2	3,2	2	2	2

(1) Seasonal energy efficiency class measured under average climate conditions.

Notes: DHW – Domestic hot water, LWT – Leaving water temperature

The sound pressure level is measured 1m in front of the unit and (1+H)/2m (where H is the height of the unit) above the floor in semi-anechoic room. During on-site operation sound pressure levels can be higher as a result of ambient noise. Sound pressure level and sound power level reflect the maximum value tested under three conditions specified respectively in notes A7W35, ΔT=5; A7W45, ΔT=5; A7W55 ΔT=8; relative humidity 85%. The figures specified above refer to the following standards: EN14511; EN14825; EN50564; EN12102; (EU) Np. 811/2013; (EU) No. 813/2013; Journal of Laws 2014 / C 207/02: 2014.

The residual current circuit breaker used to protect the electrical circuit of the appliance shall be selected in view of the electrical regulations in force, assuming that the rated residual current is not greater than IΔn: 30mA

*The above values apply to supply cables with a maximum length of 20mb. If this value is exceeded, an electrical designer should be consulted.

Aquami Series
Big Mono

Rotenso Aquami Big Mono is a monoblock Type heat pump with high heating capacities from 22 to 30 kW. In this double-fan Rotenso Aquami Big Mono pump, the refrigerating and hydronic modules are enclosed in a single, compact unit housing for outdoor installation.

This Type of solution makes heat pump installation faster and easier, and requires no additional space for the hydronic module inside the building.

Double-fan design allowed to create high-capacity units to provide building owners who demand high heating power with cost effective solution alternative to cascade arrangement of combined several smaller units. Heat pump housing is designed to provide an easy access to all its components, while operating parameters can be quickly modified and monitored in real time from the user interface.

Modern double-fan design of the Rotenso heat pump and its high efficiency even at low temperatures make it a perfect choice for heating homes, stores, commercial premises and offices with high heating power demand.

AQUAMI BIG MONO

-25°C

Operating range down to -25°C

60°C

Supply water temperature of 60°C

Smart Grid functionality

Controller equipped with a temperature sensor

Integrated Wi-Fi module

Control via mobile app

BIG MONO

Controller **equipped with a temperature sensor**

If the sensor detects a difference between the set temperature and the actual temperature in the room, the heat pump will automatically operate to reach the desired temperature inside the building.

Supply water temperature of max. 60°C

If the heat pump is used to heat spaces where radiators are installed the temperature of the supply water in the system must be higher. Rotenso Aquami heat pumps can heat water up to 60°C.

Integrated Wi-Fi module

The Rotenso Aquami Big Mono pump can be controlled both by the wired controller and the COMFORT HOME mobile app, whether you are staying at home or not.

Smart Grid **functionality**

The heat pump controller is designed to work with the „Smart Grid”. With this feature, he pump automatically turns on to store surplus energy from the photovoltaic (PV) system to make the most of the cheaper electricity tariff.

Operating range down to -25°C

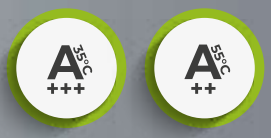
The pump is prepared to operate efficiently even at extreme outdoor temperatures down to -25°C. During the cold winter, it guarantees that supply water for central heating and domestic hot water is heated sufficiently.

Control via mobile app

You can use your tablet or smartphone to control the Rotenso Aquami Big Mono unit no matter where you are.

Aquami Big Mono

22-30 kW



Device features

- Environmentally friendly refrigerant R32
- Efficient heating
- Energy efficiency class at 35°C A+++ (1)
- Energy efficiency class at 55°C A++ (1)
- Maximum COP 4,40 (1)
- Operating range down to -25°C
- Supply water temperature of 60°C
- Integrated USB port for updates
- Energy meter
- Smart Grid functionality
- Twin rotary compressor
- Outdoor unit drip tray heater
- Compressor crankcase heater
- Easy installation and maintenance
- Silent mode
- Wired controller Wi-Fi module
- Daily operation schedule
- Configurable weekly schedules
- Vacation mode
- Menu in English
- Multilanguage menu
- Integrated temperature sensor
- Weather operating modes (climate curve)
- 2 heating control zones
- Dedicated application
- Disinfection
- DHW circulation pump operation schedules
- Maximum leaving water temperature of 60°C (in DHW mode)
- Prepared to create a cascade system
- Modbus Protocol

1. Refers to unit AQM220X3

Technical specification

Outdoor unit model				**AQM220X3**	**AQM300X3**
EAN product code				5905567602245	5905567602252
Power supply			V-Hz, Ø	380-420~50, 3f	380-420~50, 3f
Heating (A7/W35)	Capacity		kW	22,00	30,10
	Rated input		kW	5,00	7,70
	COP			4,40	3,91
Heating (A7/W45)	Capacity		kW	22,00	30,00
	Rated input		kW	6,47	10,35
	COP			3,40	2,90
Heating (A7/W55)	Capacity		kW	22,00	30,00
	Rated input		kW	8,30	13,04
	COP			2,65	2,30
Cooling (A35/W18)	Capacity		kW	23,00	31,00
	Rated input		kW	5,00	7,75
	EER			4,60	4,00
Cooling (A35/W7)	Capacity		kW	21,00	29,50
	Rated input		kW	7,12	11,57
	EER			2,95	2,55
Seasonal energy efficiency LWT at 35ºC	SCOP[1]			4,53	4,20
	Rated heat output		kW	22	29
	Seasonal energy efficiency ratio (ηS)		%	178	165
	Annual energy consumption		kWh	10108	14165
	Seasonal space heating energy efficiency class[1]			A+++	A++
Seasonal energy efficiency LWT at 55ºC	SCOP[1]			3,23	3,15
	Rated heat output		kW	22	30
	Seasonal energy efficiency ratio (ηS)		%	126	123
	Annual energy consumption		kWh	14390	19316
	Seasonal space heating energy efficiency class[1]			A++	A+
SEER	LWT at 7ºC			4,70	4,49
	LWT at 18ºC			5,67	5,71
Minimum rated current of the overcurrent circuit breaker with breaker type			A	B20	B25
Compressor	Type			Twin rotary inverter compressor DC	Twin rotary inverter compressor DC
Fan	Type			Brushless DC motor / BLDC	Brushless DC motor / BLDC
	Quantity			2	2
Refrigerant	Type / GWP			R32 / 675	R32 / 675
	Quantity		kg	5	5
			TCO_2eq	3,375	3,375
Minimal wire pcs and dimension of cords*			pcs × mm²	5 × 4	5 × 4
Bracket spacing	W1 × W2 × D		mm	668 x 206 x 494	668 x 206 x 494
Sound pressure level			dB(A)	59,8	63,5
Sound power level			dB(A)	73	77
Net dimensions	W × D × H		mm	1129 × 528 × 1558	1129 × 528 × 1558
Gross dimensions	W × D × H		mm	1220 × 565 × 1735	1220 × 565 × 1735
Net weight / Gross weight			kg	177/206	177/206
Operating outdoor temperature	Cooling		ºC	-5~46	-5~46
	Heating		ºC	-25~35	-25~35
	CWU		ºC	-25~43	-25~43
Operation modes				Heating and cooling	Heating and cooling
Leaving water temperature	Space cooling		°C	5~25	5~25
	Space heating		°C	25~60	25~60
	DHW (tank)		°C	30~60	30~60
Electric heater	Power supply		V-Hz, Ø	none	none
	Number of heating stages / Power		pcs / kW	none / none	none / none
	Maximum operating current		A	none	none
Water circuit	Water connections		mm (inch)	41,91 mm (G5/4" BSP) external	41,91 mm (G5/4" BSP) external
	Pressure relief valve		MPa	0.3	0.3
	Condensate drain		mm	16	16
	Expansion tank	Total volume / Actual volume	l	8 / 4,8	8 / 4,8
		Maximum pressure / Initial pressure	MPa	1 / 0,1	1 / 0,1
	Heat exchanger	Type		PHE / plate heat exchanger	PHE / plate heat exchanger
		Minimum flow	l/min	27	27
	Water pump head		m	12	12
	Water pump type			DC	DC
	Total water volume		l	3,5	3,5

(1) Seasonal energy efficiency class measured under average climate conditions.

Notes: DHW – Domestic hot water, LWT – Leaving water temperature
The sound pressure level is measured 1m in front of the unit and (1+H)/2m (where H is the height of the unit) above the floor in semi-anechoic room. During on-site operation sound pressure levels can be higher as a result of ambient noise. Sound pressure level and sound power level reflect the maximum value tested under three conditions specified respectively in notes A7W35, ΔT=5; A7W45, ΔT=5; A7W55 ΔT=8; relative humidity 85%. The figures specified above refer to the following standards: EN14511; EN14825; EN50564; EN12102; (EU) Np. 811/2013; (EU) No. 813/2013; Journal of Laws 2014 / C 207/02: 2014.
The residual current circuit breaker used to protect the electrical circuit of the appliance shall be selected in view of the electrical regulations in force, assuming that the rated residual current is not greater than IΔn: 30mA
*The above values apply to supply cables with a maximum length of 20mb. If this value is exceeded, an electrical designer should be consulted.

Aquami Series
Multi Split

Rotenso Aquami Multi Split intended for residential and commercial facilities is a combination air-to-water and air-to-air heat pump system with a capacity of 8 kW. Property owners pay their attention not only to economic aspects but also to stylish design of the solution, therefore, they prefer a single outdoor unit by the building instead of two.

The outdoor unit of the Multi Split HIRO H100Xm4 system and indoor unit of the Aquami Multi Split heat pump with a heating capacity of 8 kW were combined in a single system to offer space heating or cooling with air using air conditioners, space heating with water using underfloor heating, radiators or fan coil units, as well as domestic hot water heating.

Up to 4 indoor units, e.g. up to 3 Multi Series wall, cassette, console or duct type air conditioners based on the air-to-air system with a total capacity of up to 12 kW, can be connected to the Aquami Multi Split system.

The advantage of the hybrid solution is the savings resulting from the purchase, installation and maintenance of a single system, instead of a separate air conditioning and heating systems, which meets the requirements of efficient heating and cooling at the same time.

AQUAMI MULTI SPLIT

- Operating range down to -20°C (air-to-water)
- Supply water temperature of 60°C
- Efficient heating
- Water (DHW) temperature of 55°C
- Integrated Wi-Fi module
- Control via mobile app

Water supply (DHW) **temperature 55°C**

Heat pump is an independent source of heating and hot water for your home. During the cold winter, it guarantees that supply water for central heating and domestic hot water are heated to 55°C.

Supply water temperature of 60°C

If the heat pump is used to heat spaces where radiators are installed, temperature of the supply water in the system must be higher. Rotenso Aquami heat pumps can heat water up to 60°C.

Integrated Wi-Fi module

The Rotenso Aquami Multi Split heat pump can be controlled both by the wired controller and the NET HOME PLUS mobile app, whether you are staying at home or not.

Wydajne ogrzewanie **COP 4,40***

The COP coefficient is the ratio of the useful heating power to the electricity consumed. It indicates heating efficiency of the heat pump. The amount of heating energy produced by the Aquami Multi Split heat pump can be five times the amount of the consumed electric energy.

** maximum COP*

Operating range down to -20°C (air-to-water)

PThe pump is prepared to operate efficiently even at extreme outdoor temperatures down to -20°C. During the cold winter, they guarantee that supply water for central heating and domestic hot water are heated sufficiently.

Control via mobile app

UYou can use your tablet or smartphone to control the Rotenso Aquami unit in Multisplit mode no matter where you are.

Aquami Multi Split

8 kW

Device features

- Environmentally friendly refrigerant R32
- Efficient heating
- Energy efficiency class at 35°C A++
- Energy efficiency class at 55°C A+
- Maximum COP 4,40
- Operating range down to -20°C
- Supply water temperature of 60°C
- Integrated USB port for updates
- Energy meter
- Twin rotary compressor
- Integrated electric heater
- Outdoor unit drip tray heater
- Compressor crankcase heater
- Indoor unit drip tray
- Easy installation and maintenance
- Silent mode
- Compact indoor split unit housing
- Maximum installation length up to 80m
- Built-in Wi-Fi module
- Daily operation schedule
- Configurable weekly schedules
- Vacation mode
- Menu in English
- Multilanguage menu
- Dedicated application
- Disinfection
- DHW circulation pump operation schedules
- Maximum leaving water temperature of 55°C (in DHW mode)
- Prepared to create a cascade system
- Modbus Protocol

Technical specification indoor unit

Indoor unit model			**AQMS80X1i R13**
EAN product code			5905567602269
Compatible outdoor unit model			H100Xm4
Operating mode			Heating and cooling
Power supply		V-Hz, Ø	220-240~50, 1f
Nett dimention	(W×D×H)	mm	490 × 918 × 325
Gross dimention	(W×D×H)	mm	570 × 1055 × 415
Net weight / Gross weight		kg	56 / 64
Electric heater	Power	kW	3,1
	Power consumption	A	13,5
Sound pressure level		dB(A)	32
Sound power level		dB(A)	44
Leaving water temperature	Space heating	°C	25~60
	DHW (tank)	°C	35~55
Control cables: indoor unit to outdoor unit		pcs. × mm²	4 × 1,5 (shielded cable)

Technical specification outdoor unit

Outdoor unit model				**H100Xm4 R15**
EAN product code				5905567601675
Power supply			V-Hz, Ø	220-240~50, 1f
Air-air	Cooling	Capacity	kW	10,89
		Rated input	kW	3,60
		EER	W/W	3,01
	Heating	Capacity	kW	12,03
		Rated input	kW	3,00
		COP	W/W	3,71
	Seasonal cooling	Energy efficiency class		A++
		Annual energy consumption	kWh	608,00
		Design load in cooling mode		10,60
		SEER		6,10
	Seasonal heating	Energy efficiency class		A+
		Annual energy consumption	kWh/a	3150
		Design load in heating mode (Tbiv -7°C)	kW	9,00
		SCOP(1)		4,00
Air-water	Heating (A7/W35)	Capacity	kW	8,00
		Rated input	kW	1,80
		COP		4,40
	Heating (A7/W45)	Capacity	kW	8,00
		Rated input	kW	2,50
		COP		3,20
	Heating (A7/W55)	Capacity	kW	8,00
		Rated input	kW	2,60
		COP		3,10
	Seasonal energy efficiency LWT 35ºC	SCOP(1)		4,45
		Rated heat output	kW	8,0
		Seasonal energy efficiency ratio (ηS))	%	175,12
		Annual energy consumption	kWh	3712,00
		Seasonal space heating energy efficiency class(1)		A++
	Seasonal energy efficiency LWT 55ºC	SCOP(1)		2,99
		Rated heat output	kW	8.0
		Seasonal energy efficiency ratio (ηS)	%	156,6
		Annual energy consumption	kWh	5524
		Seasonal space heating energy efficiency class(1)		A+
Minimum rated current of the overcurrent circuit breaker with breaker type			A	B16
Minimal wire pcs and dimension of cords*			il. × mm²	3 × 4,0
Control cables: indoor unit to outdoor unit			pcs. × mm²	4 × 1,5 (shielded cable)
Compressor		Type		Rotary DC
Fan		Type		DC
		Quantity		1
Refrigerant		Typ		R32
		GWP		675
		Charged (up to 30 mb)	kg	2,1
			TCO2eq	1,42
Pipe connections	Liquid		mm	4 × Φ6,35 / (4×1/4")
	Gas		mm	3 × Φ9,52 + 1 × Φ12,7 (3 × 3/8" + 1× 1/2")
	Minimum installation length		m	3
	Maximum installation length		m	80
	Additional amount of refrigerant for over 30 m		g/m	12
Maximum height difference	Outdoor unit above the indoor unit		m	10
	Outdoor unit below the indoor unit		m	15
Power cables: outdoor unit			pcs. × mm²	3 × 4,0
Spacing brackets	(W×D)		(mm)	673 × 403
Sound pressure level			dB(A)	63
Sound power level			dB(A)	68
Nett weight	(W×D×H)		mm	946 × 410 × 810
Gross weight	(W×D×H)		mm	1090 × 500 × 865
Net weight / Gross weight			kg	68,8 / 75,6
Operating outdoor temperature	Air-to-air	Cooling	ºC	-15~50
		Heating	ºC	-20~24
	Air-to-water	Heating	ºC	-20~24
		Domestic hot water	ºC	-20~43

(1) Seasonal energy efficiency class measured under average climate conditions.

Notes: DHW – Domestic hot water, LWT – Leaving water temperature

The sound pressure level is measured 1m in front of the unit and (1+H)/2m (where H is the height of the unit) above the floor in semi-anechoic room. During on-site operation sound pressure levels can be higher as a result of ambient noise. Sound pressure level and sound power level reflect the maximum value tested under three conditions specified respectively in notes A7W35, ΔT=5; A7W45, ΔT=5; A7W55 ΔT=8; relative humidity 85%. The figures specified above refer to the following standards: EN14511; EN14825; EN50564; EN12102; (EU) Np. 811/2013; (EU) No. 813/2013; Journal of Laws 2014 / C 207/02: 2014.

The residual current circuit breaker used to protect the electrical circuit of the appliance shall be selected in view of the electrical regulations in force, assuming that the rated residual current is not greater than IΔn: 30mA

*The above values apply to supply cables with a maximum length of 20 mb. If this value is exceeded, an electrical designer should be consulted.

WE ARE FUTURE

WINDMI SERIES

Monoblock
Rotenso Windmi Series

Windmi Series
useful features

New Rotenso Windmil Monoblock heat pumps are comfortable in daily use due to an intuitive icon-based controller and 4 programmable dry contacts.

Parental lock

Function blocking the controller in order to secure against unwanted interference of the third parties.

Vacation mode & Eco mode

Vacation mode and eco mode for improved user experience

Disinfection

Heating water in the system to 70°C contributes to the effective elimination of Legionella bacteria.

Programmable Dry Contact

You can program up to four buttons to perform certain actions such as pump start or forced switch to fast DHW heating mode.

Fast DHW heating mode

Forces the system into DHW mode for immediate hot water preparation.

Connects to PV systems

In response to excessive electricity generation signal the heat pump can be set to store electric energy in the form of hot water.

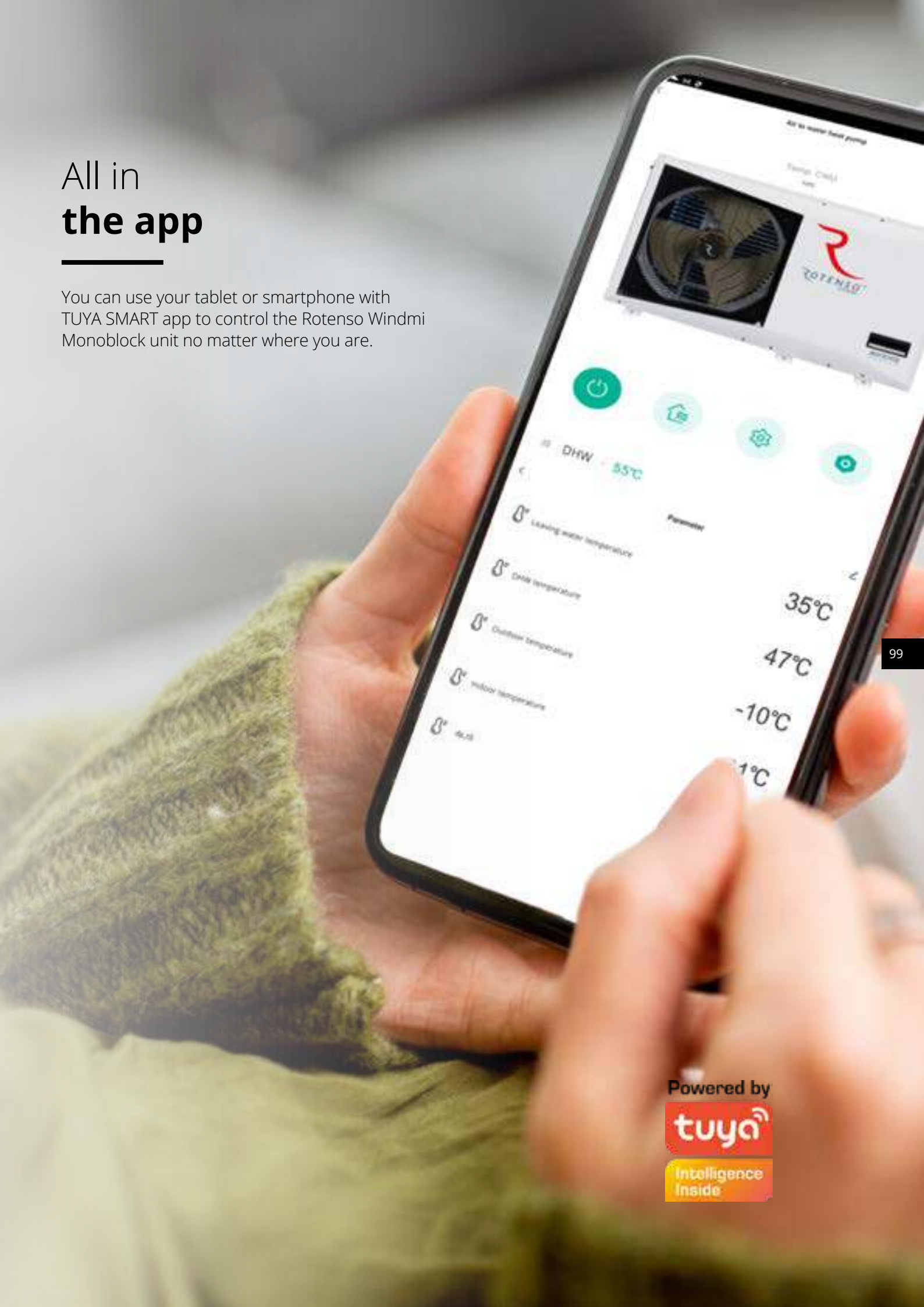
Dedicated **controller**

Controller features:
- Touchscreen controller
- Integrated Wi-Fi module
- LCD display
- Configurable daily schedules
- Configurable weekly schedules
- Out-of-home vacation mode
- Eco mode
- Screen lock
- Parental lock
- Audible alarm
- Integrated temperature sensor
- Adjustable water temperature
- Adjustable air temperature
- Climate curves.

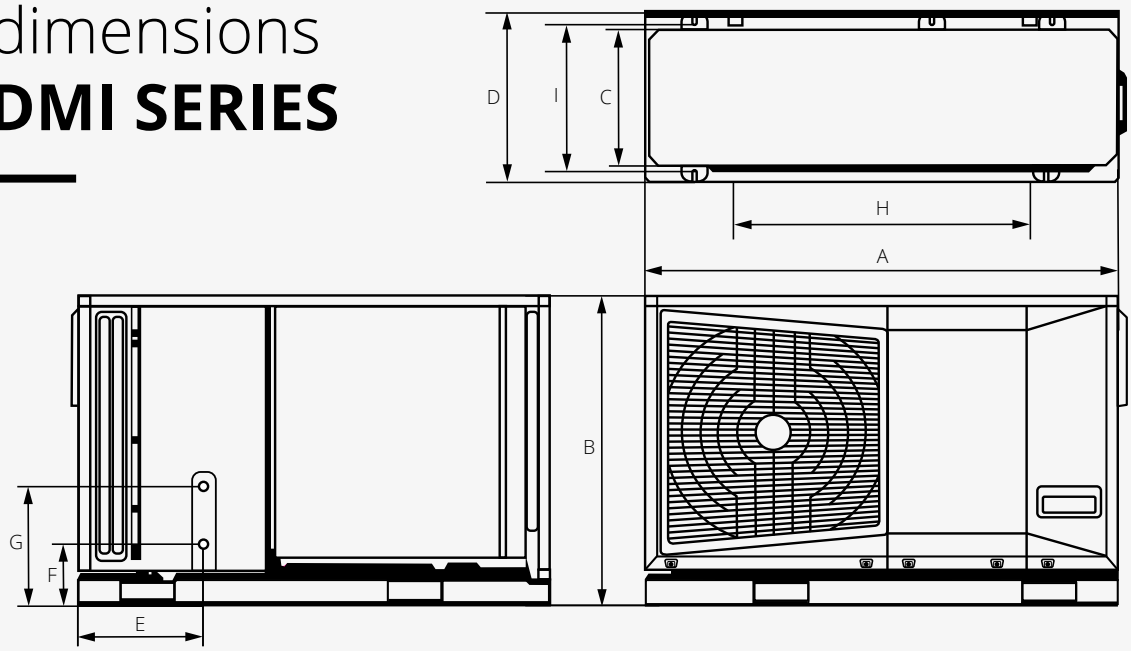
ORIS heat pump controller
for Rotenso Windmi system

All in **the app**

You can use your tablet or smartphone with TUYA SMART app to control the Rotenso Windmi Monoblock unit no matter where you are.

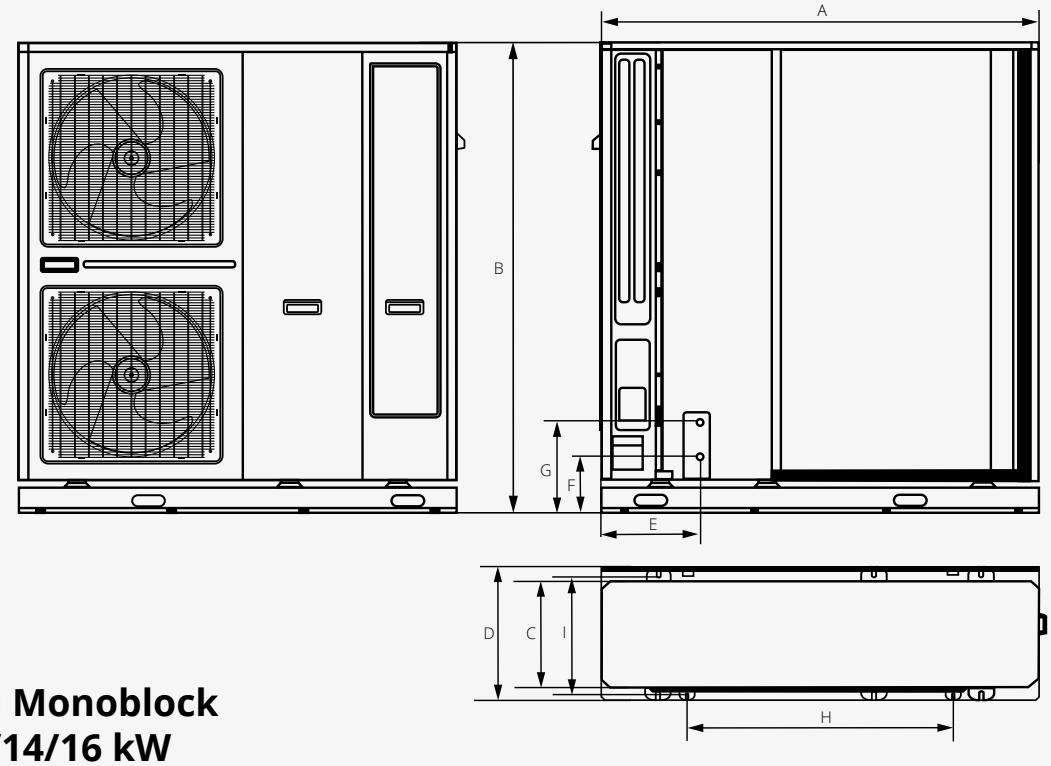


Unit dimensions
WINDMI SERIES



Rotenso Windmi Monoblock outdoor unit 6/8/10 kW

Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (W1xD) [mm]	A	B	C	D	E	F	G	H	I	Net weight [kg]
WIM60X1	**6 kW**	1335 × 475 × 875	836 x 445	1335	875	410	475	353	170	334	836	445	109
WIM80X1	**8 kW**	1335 × 475 × 875	836 x 445	1335	875	410	475	353	170	334	836	445	120
WIM100X1	**10 kW**	1335 × 475 × 875	836 x 445	1335	875	410	475	353	170	334	836	445	126



Rotenso Windmi Monoblock outdoor unit 12/14/16 kW

Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (W1xD) [mm]	A	B	C	D	E	F	G	H	I	Net weight [kg]
WIM120X3	**12 kW**	1302 × 465 × 1517	784 x 428	1302	1517	370	465	289	201	332	784	428	180,9
WIM140X3	**14 kW**	1302 × 465 × 1517	784 x 428	1302	1517	370	465	289	201	332	784	428	182,9
WIM160X3	**16 kW**	1302 × 465 × 1517	784 x 428	1302	1517	370	465	289	201	332	784	428	182,9

Solutions

WINDMI SERIES

MONO

Rotenso Windmi is a brand new series of energy-efficient single- and double-fan monoblock heat pumps with capacities ranging from 6 to 16 kW.

Solutions
WINDMI MONOBLOCK

MONO

Rotenso Windmi Monoblock is a heat pump in which the refrigeration module and the hydronic module are contained in a single, compact unit housing. This type of solution makes it easier and faster to install the heat pump, and requires no additional space for the hydronic module inside the building.

Heat pump double door housing is designed to provide an easy access to all its components, while operating parameters can be quickly modified and monitored in real time from the user interface. The state-of-the-art design and technology used in the Rotenso Windmi Series solutions ensures high efficiency at low temperatures. Modern architecture enthusiasts will love the simple design of these single- and double-fan units suitable for buildings with both high and low demand for heating power.

6-10 kW

12-16 kW

Model	Rotenso Windmi Monoblock					
Capacity (kW)	6	8	10	12	14	16
220-240~50, 1f	•	•	•			
380-420~50, 3f				•	•	•

Windmi Series
Monoblock

Rotenso Windmi is a brand new series of energy-efficient single- and double-fan monoblock heat pumps with capacities ranging from 6 to 16 kW.

Both refrigeration and hydronic modules are enclosed in a single, compact heat pump housing designed for outdoor installation.

This type of solution is recommended for small buildings with no separate room to install an indoor unit.

TUYA SMART, a popular app for smart home asset management which allows to control the heat pump remotely, contributes to a major user experience improvement.

There are also 4 programmable dry contacts to customize controls according to personal preferences to further facilitate the daily use of the unit.

Intuitive, icon-based controller and 4 programmable dry contact buttons to customize controls according to user preferences make the solution even more convenient. Simple, geometric design of the devices will please the modern architecture enthusiasts.

WINDMI MONO BLOCK

-25°C

Operating range down to -25°C

62°C

Supply water temperature of 62°C

Programmable Dry Contact

Temperature sensor integrated with touchscreen controller

Integrated Wi-Fi module

Control via mobile app

MONO

Supply water **temperature of 62°C**

If the heat pump is used to heat spaces where radiators are installed, temperature of the supply water in the system must be higher. Rotenso Windmi heat pump can heat water up to 62°C.

Temperature sensor integrated with touchscreen controller

A temperature sensor with a touchscreen controller allows for real-time, precise control of the temperature inside the room.

Integrated Wi-Fi module

The Rotenso Windmi Monoblock pump can be controlled both by the wired controller and the TUYA SMART mobile app, whether you are staying at home or not.

Programmable **Dry Contact**

Customize up to four buttons.
Create independent contacts to start the heat pump, force it into quick DHW heating mode or perform other actions, as needed.

Operating range down to -25°C

Heat pumps are prepared for efficient operation even at extreme outdoor temperatures as low as -25°C. During the cold winter, they guarantee that supply water for central heating and domestic hot water are heated sufficiently.

Control via mobile app

You can use your tablet or smartphone to control the Rotenso Windmi Monoblock unit no matter where you are.

Windmi Monoblock

6-16 kW

HEAT PUMP KEYMARK www.heatpump.keymark.eu

Device features

- Environmentally friendly refrigerant R32
- Efficient heating
- Energy efficiency class at 35°C A+++
- Energy efficiency class at 55°C A++
- Maximum COP 4,75 (1)
- Operating range down to -25°C
- Supply water temperature of 62°C
- Programmable Dry Contact
- Twin rotary compressor
- Integrated electric heater
- Outdoor unit drip tray heater
- Compressor crankcase heater
- Easy installation and maintenance
- WiFi module in wired controller
- Daily operation schedule
- Configurable weekly schedules
- Vacation mode
- Integrated temperature sensor
- Weather operating modes (climate curve)
- Dedicated application
- Disinfection
- Maximum leaving water temperature of 62°C (in DHW mode)
- Modbus Protocol

1. Refers to units WIM40X1 and WIM120X3

Technical specification

Outdoor model				**WIM60X1**	**WIM80X1**	**WIM100X1**	**WIM120X3**	**WIM140X3**	**WIM160X3**
EAN product code				5905567602276	5905567602283	5905567602290	5905567602306	5905567602313	5905567602320
Power supply			V-Hz, Ø	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	380-420~50, 3f	380-420~50, 3f	380-420~50, 3f
Heating (A7/W35)	Capacity		kW	6,00	8,00	10,00	12,00	14,00	16,00
	Rated input		kW	1,35	1,70	2,25	2,53	3,01	3,48
	COP			4,45	4,70	4,45	4,75	4,65	4,60
Heating (A7/W45)	Capacity		kW	6,00	8,00	10,00	12,00	14,00	16,00
	Rated input		kW	1,74	2,22	2,86	3,38	3,94	4,57
	COP			3,45	3,60	3,50	3,55	3,55	3,50
Heating (A7/W55)	Capacity		kW	5,80	7,70	9,50	11,50	12,00	13,50
	Rated input		kW	2,15	2,70	3,54	4,04	4,36	5,00
	COP			2,70	2,85	2,68	2,85	2,75	2,70
Cooling (A35/W18)	Capacity		kW	5,50	7,00	9,00	11,00	13,50	14,50
	Rated input		kW	1,38	1,75	2,25	2,75	3,46	3,82
	EER			4,00	4,00	4,00	4,00	3,90	3,80
Cooling (A35/W7)	Capacity		kW	5,00	6,50	8,00	10,50	12,00	14,00
	Rated input		kW	1,82	2,24	2,67	3,82	4,44	5,28
	EER			2,75	2,90	3,00	2,75	2,7	2,65
Seasonal energy efficiency LWT at 35ºC	SCOP [1]			4,75	4,90	4,98	4,91	4,94	4,78
	Rated heat output		kW	6,05	8,09	9,73	11,94	14,03	14,79
	Seasonal energy efficiency ratio (ηS)		%	187	193	196	193	195	188
	Annual energy consumption		kWh	2583	3335	3980	4983	5789	6392
	Seasonal space heating energy efficiency class [1]			A+++	A+++	A+++	A+++	A+++	A+++
Seasonal energy efficiency LWT at 55ºC	SCOP [1]			3,25	3,36	3,41	3,39	3,42	3,36
	Rated heat output		kW	5,59	7,61	9,09	11,96	11,99	13,06
	Seasonal energy efficiency ratio (ηS)		%	127	131	134	133	134	131
	Annual energy consumption		kWh	3480	4590	5378	7222	7204	7948
	Seasonal space heating energy efficiency class [1]			A++	A++	A++	A++	A++	A++
SEER	LWT at 7ºC			4,51	4,79	4,89	5,04	5,05	5,06
	LWT at 18ºC			6,39	6,80	6,25	6,60	6,37	6,14
Minimum rated current of the overcurrent circuit breaker with breaker type			A	B32	B40	B40	B25	B25	B32
Compressor		Type		Twin rotary inverter compressor DC					
Fan		Type		Brushless DC motor / BLDC					
		Quantity		1	1	1	2	2	2
Refrigerant		Type		R32	R32	R32	R32	R32	R32
		GWP		675	675	675	675	675	675
		Quantity	kg	1,1	1,6	1,8	2,2	2,6	2,6
			TCO_2eq	0,74	1,08	1,22	1,49	1,76	1,76
Minimal wire pcs and dimension of cords*			pcs × mm²	3 × 6	3 × 10	3 × 10	5 × 4	5 × 4	5 × 6
Bracket spacing		W1 × D	mm	836 × 445	836 × 445	836 × 445	784 × 428	784 × 428	784 × 428
Sound pressure level			dB(A)	53	54	55	56	56	58
Sound power level			dB(A)	64	65	66	69	69	70
Net dimensions		W × D × H	mm	1335 × 475 × 875	1335 × 475 × 875	1335 × 475 × 875	1302 × 465 × 1517	1302 × 465 × 1517	1302 × 465 × 1517
Gross dimensions		W × D × H	mm	1420 × 535 × 1045	1420 × 535 × 1045	1420 × 535 × 1045	1364 × 518 × 1690	1364 × 518 × 1690	1364 × 518 × 1690
Net weight / Gross weight			kg	109 / 125	120 / 135,5	126 / 142,1	180,9 / 200,9	182,9 / 202,9	182,9 / 202,9
Operating outdoor temperature	Cooling / Heating		ºC	-5~50 / -25~43	-5~50 / -25~43	-5~50 / -25~43	-5~50 / -25~43	-5~50 / -25~43	-5~50 / -25~43
	DHW		ºC	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43
Operation modes				Heating and cooling					
Leaving water temperature	Space cooling		ºC	5~25	5~25	5~25	5~25	5~25	5~25
	Space heating		ºC	25~62	25~62	25~62	25~62	25~62	25~62
	DHW (tank)		ºC	40~62	40~62	40~62	40~62	40~62	40~62
Electric heater	Power supply		V-Hz, Ø	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	380-420~50, 3f	380-420~50, 3f	380-420~50, 3f
	Number of heating stages		pcs	1	1	1	3	3	3
	Power		kW	3	3	3	9	9	9
	Maximum operating current		A	13,6	13,6	13,6	13,6	13,6	13,6
Water circuit	Water connections		mm(inch)	Φ25,4 (1")	Φ25,4 (1")	Φ25,4 (1")	Φ31,75 (1,25")	Φ31,75 (1,25")	Φ31,75 (1,25")
	Pressure relief valve		MPa	0,6	0,6	0,6	0,6	0,6	0,6
	Condensate drain		mm	20	20	20	20	20	20
	Expansion tank	Total volume	l	5	5	5	5	5	5
		Actual volume	l	5	5	5	5	5	5
		Maximum pressure	MPa	1	1	1	1	1	1
		Initial pressure	MPa	0,15	0,15	0,15	0,15	0,15	0,15
	Heat exchanger	Type		PHE / plate heat exchanger					
		Minimum flow	l/min	6	6	6	12	12	12
	Water pump head		m	9	9	9	9	9	9
	Water pump type			DC	DC	DC	DC	DC	DC
	Total water volume		l	0,62	1,08	1,08	1,45	1,45	1,45

(1) Seasonal energy efficiency class measured under average climate conditions.

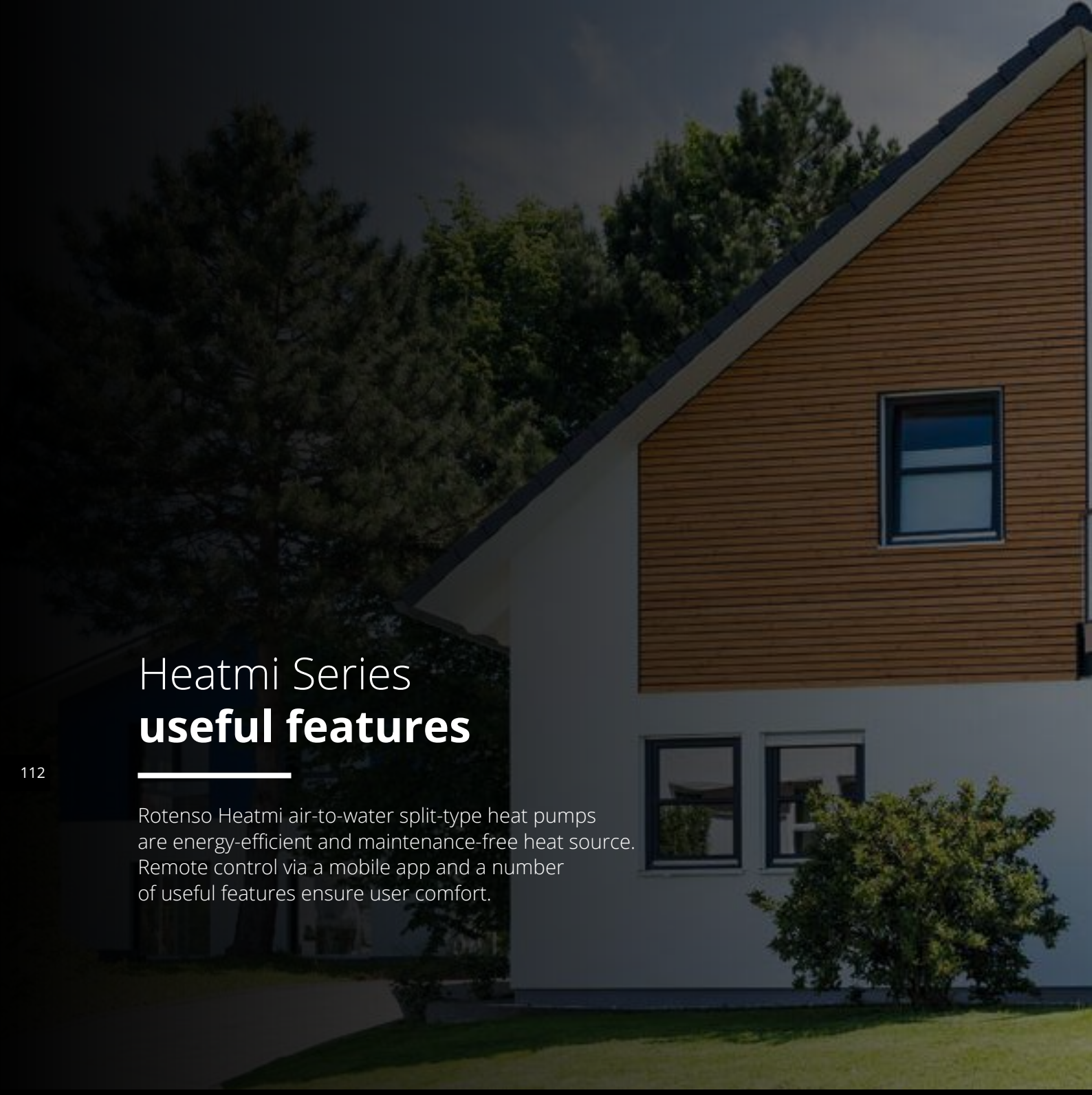
Notes: DHW – Domestic hot water, LWT – Leaving water temperature
The sound pressure level is measured 1m in front of the unit and (1+H)/2m (where H is the height of the unit) above the floor in semi-anechoic room. During on-site operation sound pressure levels can be higher as a result of ambient noise. Sound pressure level and sound power level reflect the maximum value tested under three conditions specified respectively in notes A7W35, ΔT=5; A7W45, ΔT=5; A7W55 ΔT=8; relative humidity 85%. The figures specified above refer to the following standards: EN14511; EN14825; EN50564; EN12102; (EU) Np. 811/2013; (EU) No. 813/2013; Journal of Laws 2014 / C 207/02: 2014.
The residual current circuit breaker used to protect the electrical circuit of the appliance shall be selected in view of the electrical regulations in force, assuming that the rated residual current is not greater than IΔn: 30mA
*The above values apply to supply cables with a maximum length of 20mb. If this value is exceeded, an electrical designer should be consulted.

WE ARE FUTURE

HEATMI SERIES

Split

Rotenso Heatmi Series



Heatmi Series **useful features**

Rotenso Heatmi air-to-water split-type heat pumps are energy-efficient and maintenance-free heat source. Remote control via a mobile app and a number of useful features ensure user comfort.

Combination of operation modes

4 basic operation modes (cooling, heating, DHW, auto) and additional 3 combined operation modes to meet different user requirements.

Disinfection

Heating water in the system to 70°C contributes to the effective elimination of Legionella bacteria.

ECO mode

Mode to reduce consumption of electric energy.

Fast DHW heating mode

Forces the system into DHW mode for immediate hot water preparation.

DHW circulation pump control

Keeps hot water circulating in the system according to a preset timer.

Smart Grid functionality

The heat pump controller is designed to work with the „Smart Grid".

ATEA heat pump controller
in the Rotenso Heatmi 4-10 kW

Controller and sensor **with colour display for Heatmi 4-10 kW**

You can use the controller to:

- Check the heat pump operation status and mode
- Set temperature and operation mode
- Easily activate: vacation mode, home vacation mode, eco mode
- Set up schedule and timer
- Activate second temperature control zone
- Monitor system status
- Set the heating curve
- Display error codes
- Set language for messages
- Check operating parameters
- Set audible alarm

The controller with an integrated temperature sensor can act as an indoor thermostat.

High supply temperature zone, e.g. radiator heating.

Low supply temperature zone, e.g. underfloor heating.

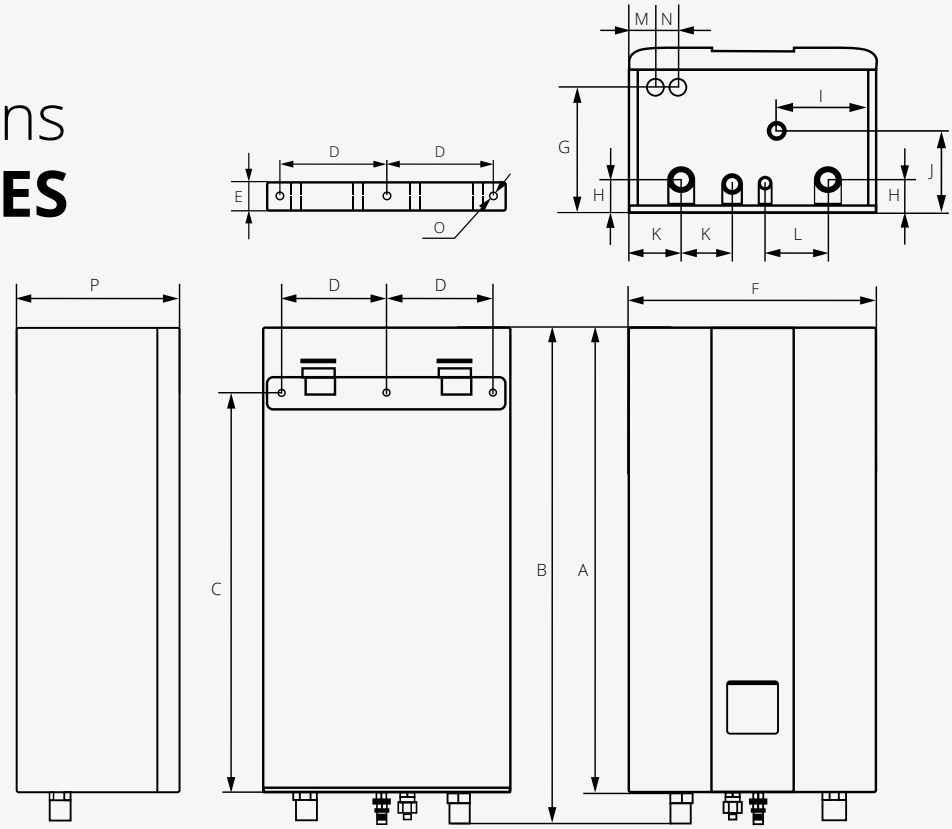
Domestic hot water heating mode

App **controlled**

Use the application to:

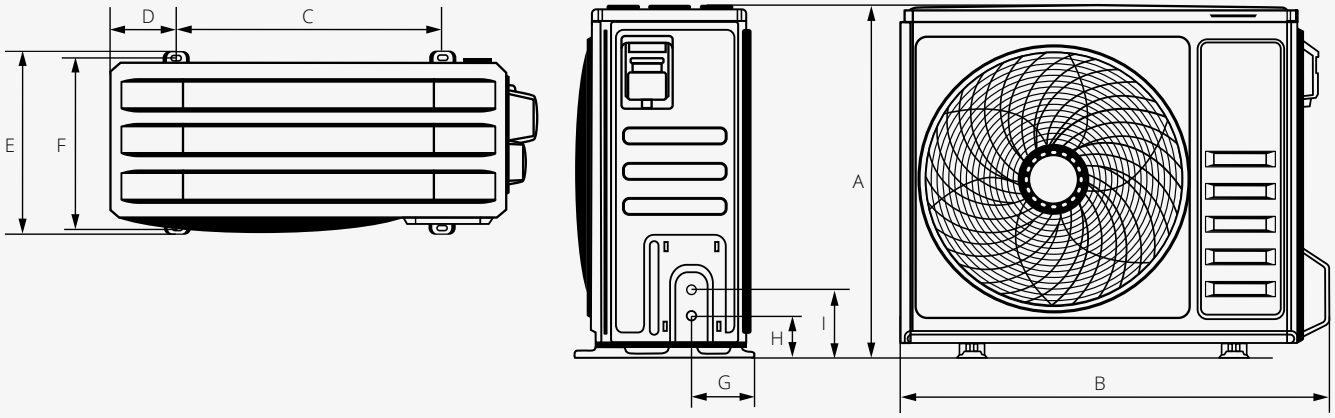
- Set up operation schedule
- Monitor system status
- Check heat pump status and operation mode
- Activate second temperature control zone
- Set temperature and operation mode

Unit dimensions
HEATMI SERIES



Rotenso Heatmi Split indoor unit 6/8/10/12/14/16 kW

Model	Power	Net dimensions (W×D×H) [mm]	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Net weight [kg]
HES60X1i	**6 kW**	420 × 270 × 790	790	844	694,4	180	50	420	211	54	170	136	88	109	45	38	3 x Ø12	270	38,5
HES80X13i	**8 kW**	420 × 270 × 790	790	844	694,4	180	50	420	211	54	170	136	88	109	45	38	3 x Ø12	270	39,5
HES100X13i	**10 kW**	420 × 270 × 790	790	844	694,4	180	50	420	211	54	170	136	88	109	45	38	3 x Ø12	270	39,5
HES120X13i	**12 kW**	420 × 270 × 790	790	844	694,4	180	50	420	211	54	170	136	88	109	45	38	3 x Ø12	270	43
HES140X13i	**14 kW**	420 × 270 × 790	790	844	694,4	180	50	420	211	54	170	136	88	109	45	38	3 x Ø12	270	43
HES160X13i	**16 kW**	420 × 270 × 790	790	844	694,4	180	50	420	211	54	170	136	88	109	45	38	3 x Ø12	270	43



Rotenso Heatmi Split outdoor unit 4/6/8/10/12/14/16 kW

Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (W1xD) [mm]	A	B	C	D	E	F	G	H	I	Net weight [kg]
HES40X1o	**4 kW**	993 × 421 × 804	607 x 390	804	977	607	154	421	390	155	95	156	59,5
HES60X1o	**6 kW**	993 × 421 × 804	607 x 390	804	977	607	154	421	390	155	95	156	59,5
HES80X1o	**8 kW**	993 × 421 × 804	607 x 390	804	977	607	154	421	390	155	95	156	59,5
HES100X1o	**10 kW**	993 × 421 × 804	607 x 390	804	977	607	154	421	390	155	95	156	59,5
HES120X1o	**12 kW**	1010 × 410 × 850	660 x 462	850	1079	660	176	494	410	192	94	155	90
HES140X1o	**14 kW**	1010 × 410 × 850	660 x 462	850	1079	660	176	494	410	192	94	155	90
HES160X1o	**16 kW**	1010 × 410 × 850	660 x 462	850	1079	660	176	494	410	192	94	155	90

Solutions
HEATMI SERIES

SPLIT

Rotenso Heatmi Split
consists of an outdoor unit (condenser) and a hydronic module (for indoor installation).

Solution
HEATMI SPLIT

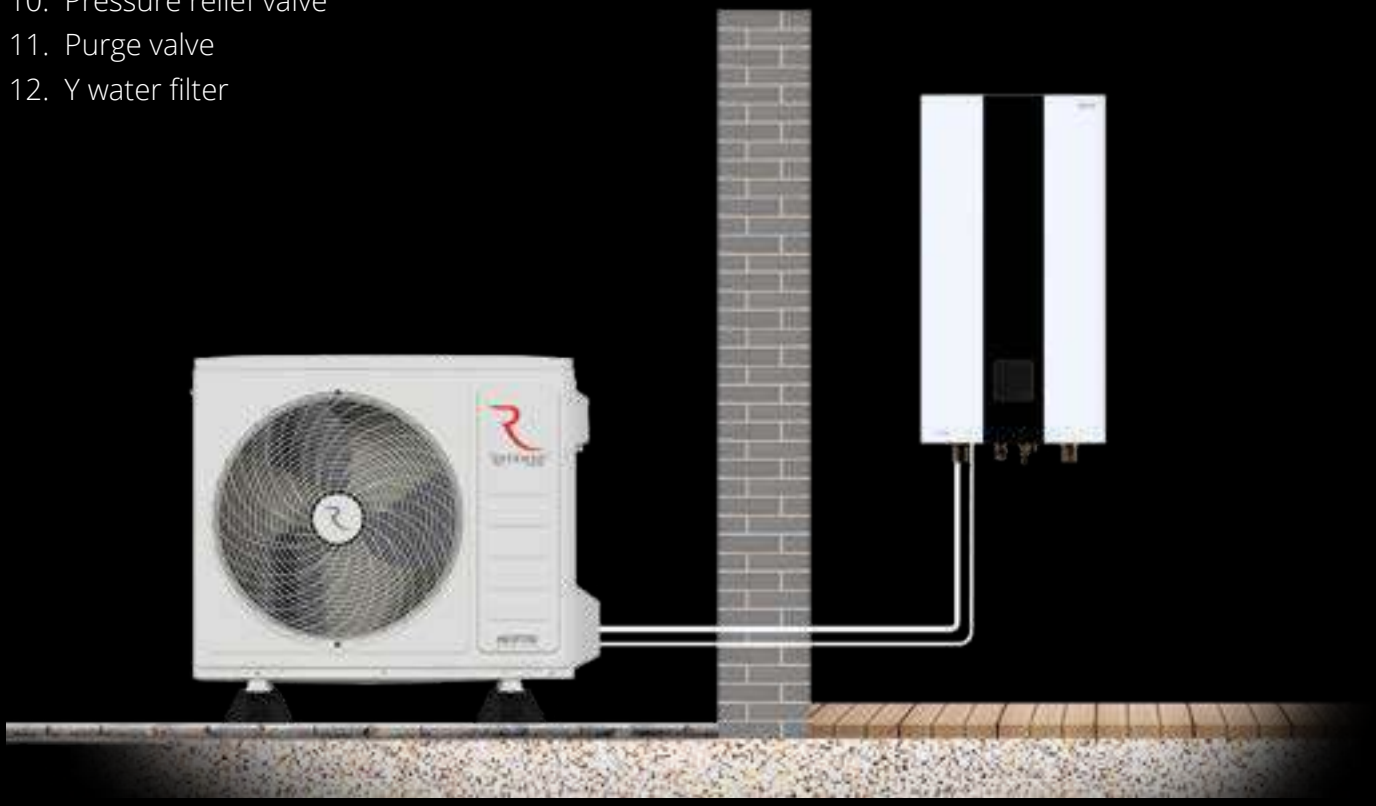
SPLIT

Rotenso HEATMI air-to-water split-type heat pump consists of a hydronic module, i.e. a hydrobox for indoor installation, and an outdoor unit, i.e. a condenser. The advantage of such a solution is that the indoor hydrobox can be easily accessed.

Moreover, in split heat pumps, the refrigeration connection between the hydrobox and the outdoor unit, is extremely resistant to freezing, even during prolonged power outages. High quality components and advanced technology guarantee many years of cost-efficient and trouble-free operation.

Standard equipment:

1. Indoor unit
2. Outdoor unit
3. Wired controller
4. DHW tank sensor
5. Plate heat exchanger
6. Flow meter
7. Diaphragm vessel
8. Pressure gauge
9. Circulation pump
10. Pressure relief valve
11. Purge valve
12. Y water filter



Indoor unit Hydrobox

HES60X1i, HES80X13i, HES100X13i,

4-10 kW

Model	Rotenso Heatmi Split			
Capacity (kW)	4	6	8	10
220-240~50, 1f	•	•	•	•

Heatmi Series
Split

Rotenso Heatmi Split heat pump consists of an outdoor unit and a sleek, compact hydronic module (hydrobox) for indoor installation. The highest energy efficiency class A+++ combined with excellent capacity at extremely low outdoor temperatures ensure cost-effective and reliable operation of this ecological heat source.

Prepared for operation at extremely low outdoor temperatures of down to -25°C, Rotenso Heatmi heat pumps supply central heating systems (including conventional radiators) with water up to 65°C.

The **COP** of **5.20*** means that the amount of heating energy produced by the Rotenso Heatmi heat pumps is more than five times the amount of the consumed electric energy.

Increased energy efficiency combined with unique fan blade design and twin rotary DC compressor ensure the Rotenso Heatmi's high efficiency with minimal noise – only 35 dB(A) (in silent mode).

The heat pump can be controlled by a wired controller or a TUYA SMART mobile app to make its daily use even more comfortable.

HEATMI SPLIT

-25°C

Operating range down to -25°C

65°C

Supply water temperature of 65°C

Compact SLIM housing

Controller with colour display and integrated temperature sensor

Integrated Wi-Fi module

Control via mobile app

SPLIT

Compact and stylish, the two-colour indoor unit with a black controller and a vivid display will appeal to those looking for solutions suitable for modern interiors.

* ***COP 5.20 for HES40X1o***

Integrated **temperature sensor**

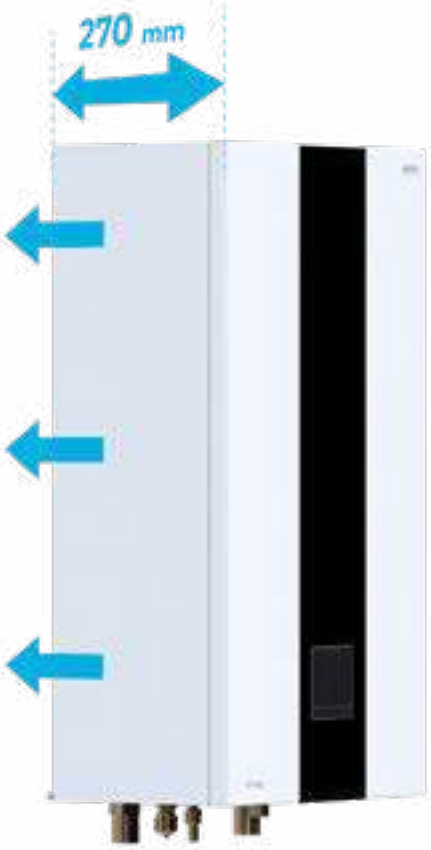
Elegant controller with a colour display will make your daily use of the heat pump easier.

Supply water temperature of max. 65°C

If the heat pump is used to heat spaces where radiators are installed the temperature of the supply water in the system must be higher. Rotenso Heatmi heat pumps can heat water up to 65°C.

Integrated Wi-Fi module

The Rotenso Heatmi Split heat pump can be controlled both by the wired controller and the TUYA SMART mobile app, whether you are staying at home or not.



Compact
SLIM housing

Rotenso heat pump design is a response to the individual needs of investors, owners of large and small buildings, as well as changing standards in residential construction industry.

The smallest indoor unit on the market with a depth of just 270 mm.

Operating range down to -25°C

The pump is prepared to operate efficiently even at extreme outdoor temperatures down to -25°C. During the cold winter, it guarantees that supply water for central heating and domestic hot water is heated sufficiently

Control via mobile app

You can use your tablet or smartphone to control the Rotenso Heatmi Split unit no matter where you are.

Heatmi Split

4-10 kW

Device features

- Environmentally friendly refrigerant R32
- Efficient heating
- Energy efficiency class at 35°C A+++
- Energy efficiency class at 55°C A++
- Maximum COP 5,20 (1)
- Operating range down to -25°C
- Supply water temperature of 65°C
- Smart Grid functionality
- Twin rotary compressor
- Integrated electric heater
- Outdoor unit drip tray heater
- Compressor crankcase heater
- Indoor unit drip tray
- Easy installation and maintenance
- Compact indoor split unit housing
- Maximum installation length up to 30m
- Silent mode
- Integrated Wi-Fi module
- Daily operation schedule
- Configurable weekly schedules
- Vacation mode
- Menu in English
- Multilanguage menu
- Integrated temperature sensor
- Weather operating modes (climate curve)
- 2 heating control zones
- Dedicated application
- Disinfection
- DHW circulation pump operation schedules
- Maximum leaving water temperature of 60°C (in DHW mode)
- Prepared to create a cascade system
- Modbus Protocol

1. Refers to unit HES40X1o.

Technical specification

Indoor unit model				**HES60X1i**	**HES80X13i**	**HES100X13i**
SKU			EAN	5905567602375	5905567602382	5905567602399
Compatible outdoor unit model				HES40X1o / HES60X1o	HES80X1o	HES100X1o
Operation modes				Heating and cooling	Heating and cooling	Heating and cooling
Leaving water temperature	Space cooling		°C	5~25	5~25	5~25
	Space heating		°C	25~65	25~65	25~65
	DHW (tank)		°C	30~60	30~60	30~60
Power supply			V-Hz, Ø	220-240~50, 1f	220-240 - 50, 1f 380-420 - 50, 3f	220-240 - 50, 1f 380-420 - 50, 3f
Rated input			W	3100	9100	9100
Operating current			A	13,1	13,1	13,1
Sound power level			dB(A)	42	42	42
Electric heater	Power supply		V-Hz, Ø	220-240~50, 1f	380-420~50, 3f	380-420~50, 3f
	Number of heating stages		pcs	1	3	3
	Power		kW	3	9	9
	Maximum operating current		A	13,4	13,3	13,3
Net dimensions		W × D × H	mm	420 × 270 × 790	420 × 270 × 790	420 × 270 × 790
Gross dimensions		W × D × H	mm	530 × 355 × 1035	530 × 355 × 1035	530 × 355 × 1035
Net weight / Gross weight			kg	38,5 / 43,5	39,5 / 44,5	39,5 / 44,5
Water circuit	Water connections		inch	R1"	R1"	R1"
	Pressure relief valve		MPa	0,3	0,3	0,3
	Condensate drain		mm	Φ25	Φ25	Φ25
	Expansion tank	Total volume	l	8	8	8
		Actual volume	l	2,4	2,4	2,4
		Maximum pressure	MPa	0,3	0,3	0,3
		Initial pressure	MPa	0,1	0,1	0,1
	Heat exchanger	Type		PHE / plate heat exchanger		
		Minimum flow	l/min	14,2	14,2	14,2
	Water pump head		m	9	9	9
	Water pump type			DC inverter	DC inverter	DC inverter
Refrigerant circuit	Liquid / Gas		mm	Φ9,52 / Φ15,9	Φ9,52 / Φ15,9	Φ9,52 / Φ15,9
Minimal wire pcs and dimension of cords*			pcs × mm²	3 × 2,5	5 × 2,5	5 × 2,5
Control cables: indoor unit to outdoor unit			pcs × mm²	2 × 0,75 (shielded cable)		

Outdoor unit model				**HES40X1o**	**HES60X1o**	**HES80X1o**	**HES100X1o**
Power supply			EAN	5905567602337	5905567602344	5905567602351	5905567602368
Compatible indoor unit model				HES60X1i	HES60X1i	HES80X13i	HES100X13i
Power supply			V-Hz, Ø	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f
Heating (A7/W35)	Capacity		kW	4,31	6,27	8,00	9,50
	Rated input		kW	0,82	1,24	1,60	1,98
	COP			5,20	5,01	5,00	4,80
Heating (A7/W45)	Capacity		kW	4,35	6,35	8,00	9,50
	Rated input		kW	1,14	1,65	2,11	2,60
	COP			3,80	3,75	3,80	3,65
Heating (A7/W55)	Capacity		kW	4,47	6,15	7,40	9,00
	Rated input		kW	1,49	2,00	2,38	3,00
	COP			2,95	3,00	3,11	3,00
Cooling (A35/W18)	Capacity		kW	4,53	6,71	8,00	9,50
	Rated input		kW	0,81	1,34	1,67	2,07
	EER			5,55	4,90	4,80	4,60
Cooling (A35/W7)	Capacity		kW	4,68	7,13	7,00	8,00
	Rated input		kW	1,36	2,33	2,14	2,53
	EER			3,45	3,00	3,27	3,16
Seasonal energy efficiency LWT at 35ºC	SCOP [1]			4,85	4,95	4,90	4,87
	Rated heat output		kW	5,5	6,8	8,0	9,0
	Seasonal energy efficiency ratio (ηS)		%	189	194,8	192,7	191,7
	Annual energy consumption		kWh	2368	2841	3404	3791
	Seasonal space heating energy efficiency class [1]			A+++	A+++	A+++	A+++
Seasonal energy efficiency LWT at 55ºC	SCOP [1]			3,31	3,52	3,44	3,41
	Rated heat output		kW	4,30	5,60	7,00	8,00
	Seasonal energy efficiency ratio (ηS)		%	129,4	138,5	135,6	133,4
	Annual energy consumption		kWh	2684	3270	4205	4895
	Seasonal space heating energy efficiency class [1]			A++	A++	A++	A++
SEER	LWT at 7ºC			4,74	5,07	5,54	5,68
	LWT at 18ºC			7,38	7,80	8,50	8,34
Minimum rated current of the overcurrent circuit breaker with breaker type			A	B16	B16	B20	B20
Compressor		Type		Twin rotary inverter compressor DC			
Fan		Type		Brushless DC motor / BLDC			
		Quantity		1	1	1	1
Refrigerant		Type		R32	R32	R32	R32
		GWP		675	675	675	675
		Quantity	kg	1,65	1,65	1,65	1,65
			TCO_2eq	1,11	1,11	1,11	1,11
Pipe connections	Liquid / Gas		mm	Φ9,52 / Φ15,9	Φ9,52 / Φ15,9	Φ9,52 / Φ15,9	Φ9,52 / Φ15,9
	Minimum installation length		m	2	2	2	2
	Maximum installation length		m	30	30	30	30
	Additional amount of refrigerant for over 15 linear meters		g/m	38 (L-15)	38 (L-15)	38 (L-15)	38 (L-15)
Maximum height diifference	Outdoor unit above the indoor unit		m	20	20	20	20
	Outdoor unit below the indoor unit		m	20	20	20	20
Minimal wire pcs and dimension of cords*			pcs × mm²	3 × 2,5	3 × 2,5	3 × 4	3 × 4
Control cables: indoor unit to outdoor unit			pcs × mm²	2 × 0,75 (shielded cable)			
Bracket spacing		W1 × D	mm	607 × 390	607 × 390	607 × 390	607 × 390
Sound pressure level			dB(A)	44	45	47	50
Sound power level			dB(A)	56	58	60	61
Net dimensions		W x D x H	mm	993 × 421 × 804	993 × 421 × 804	993 × 421 × 804	993 × 421 × 804
Gross dimensions		W x D x H	mm	1022 × 480 × 835	1022 × 480 × 835	1022 × 480 × 835	1022 × 480 × 835
Net weight / Gross weight			kg	59,5 / 63	59,5 / 63	59,5 / 63	59,5 / 63
Operating outdoor temperature	Cooling / Heating		°C	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35
	CWU		°C	-25~43	-25~43	-25~43	-25~43

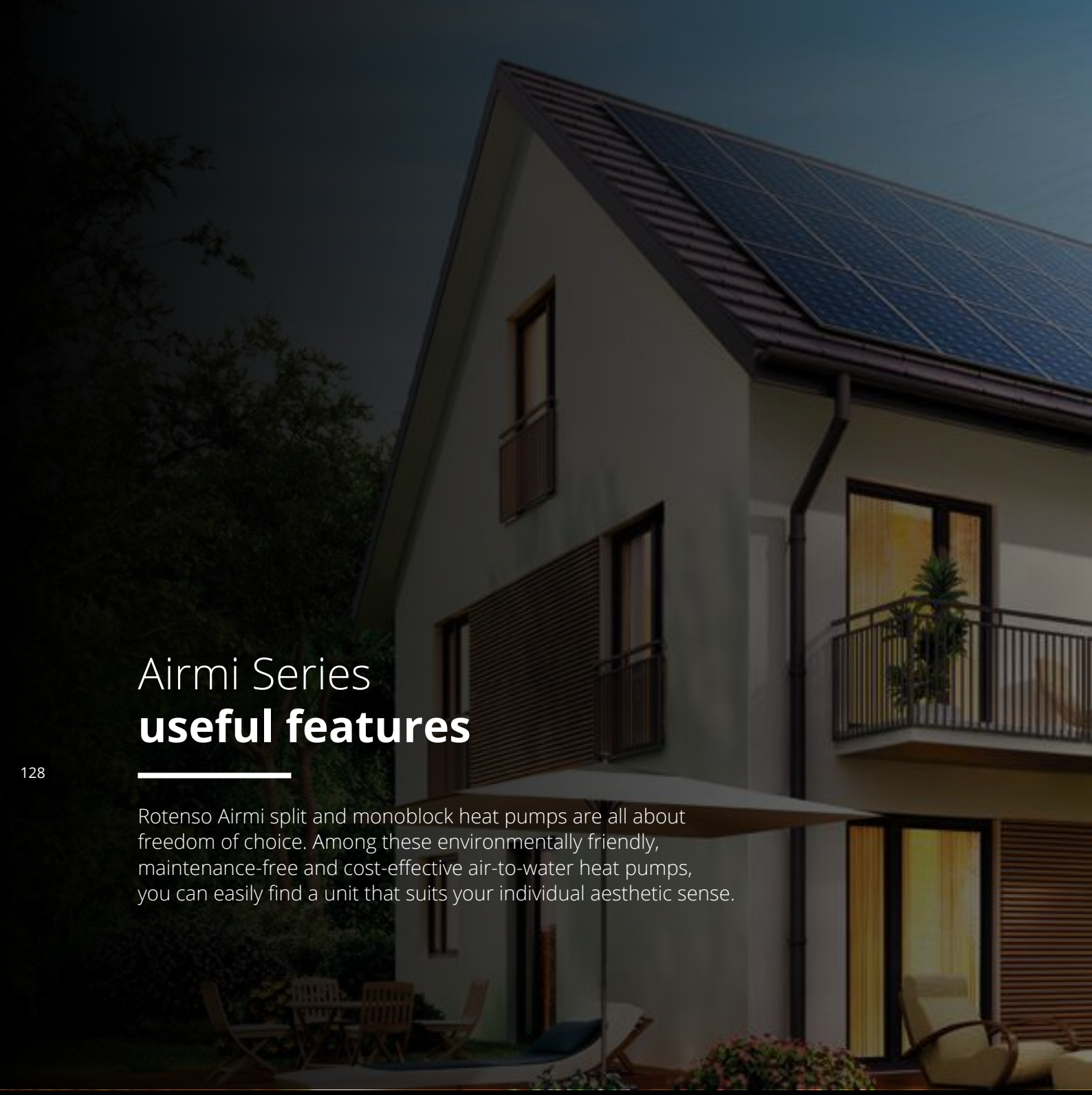
(1) Seasonal energy efficiency class measured under average climate conditions.

Notes: DHW – Domestic hot water, LWT – Leaving water temperature
The sound pressure level is measured 1m in front of the unit and (1+H)/2m (where H is the height of the unit) above the floor in semi-anechoic room. During on-site operation sound pressure levels can be higher as a result of ambient noise. Sound pressure level and sound power level reflect the maximum value tested under three conditions specified respectively in notes A7W35, ΔT=5; A7W45, ΔT=5; A7W55 ΔT=8; relative humidity 85%. The figures specified above refer to the following standards: EN14511; EN14825; EN50564; EN12102; (EU) Np. 811/2013; (EU) No. 813/2013; Journal of Laws 2014 / C 207/02: 2014.
The residual current circuit breaker used to protect the electrical circuit of the appliance shall be selected in view of the electrical regulations in force, assuming that the rated residual current is not greater than IΔn: 30mA
*The above values apply to supply cables with a maximum length of 20mb. If this value is exceeded, an electrical designer should be consulted.

WE ARE FUTURE

AIRMI SERIES

Split, Monoblock
Rotenso Airmi Series



Airmi Series
useful features

Rotenso Airmi split and monoblock heat pumps are all about freedom of choice. Among these environmentally friendly, maintenance-free and cost-effective air-to-water heat pumps, you can easily find a unit that suits your individual aesthetic sense.

Modern design

The simple design perfectly fits into modern architectural designs.

Outdoor unit in 3 colours

Choose from 3 colours of outdoor units: grey, graphite and white.

Intuitive controller

Compact controller typically integrated with temperature sensor and Wi-Fi module is a powerful tool to control the heat pump operation.

32 climate curves

Weather compensation for smooth and almost instant adjustment of heat pump operation to changing outdoor conditions.

Dual controll

Use the controller to define and control two separate heating zones.

Disinfection

Heating water in the system to 70°C contributes to the effective elimination of Legionella bacteria.

Matching
housing colour

Opt for Rotenso heat pumps to enjoy environmentally friendly and energy-efficient heat source. Choose Airmi Series to select the most appropriate condenser colour to match your facade. Powder-coated in white, grey and graphite, the condenser housings feature a modern, simple design.

Match heat pump colour to your facade at the stage of designing

We know how important the style of the house and landscaping are to our customers, so we made sure to offer you a range of colours to choose from.

Off-white, grey, graphite – these colours match the current trends in construction industry dominated by simple forms combined with natural materials, such as facade wood, stone stoneware or clinker bricks in natural shades.


ROTENSO
ROTENSO
ROTENSO

TERO heat pump controller
for the Rotenso Airmi system

Dedicated
TERO controller

You can use the controller to:

- Check the heat pump operation status and operation mode
- Set temperature and operation mode
- Easily activate: silent mode, vacation mode, home vacation mode, eco mode
- Set up schedule and timer
- Activate second temperature control zone
- Monitor system status
- Control the device remotely
- Set the heating curve
- Display error codes
- Set language for messages
- Check operating parameters
- Set audible alarm

The controller with an integrated temperature sensor can act as an indoor thermostat.

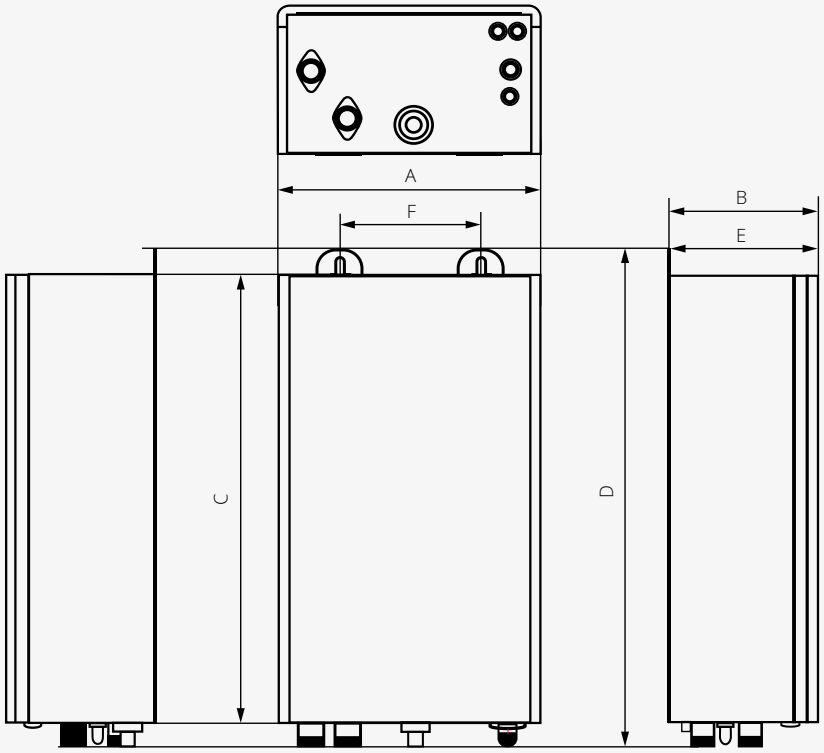
Additional app **control**

You can use your tablet or smartphone with TUYA SMART app to control the Rotenso Airmi Split and Monoblock unit no matter where you are.

Use the application to:
- Set up unit operation mode
- Set up operating temperature for specific heating zone
- Activate silent mode
- Set up operation schedule
- Track system state
- View heat pump operation key parameters
- Display possible unit errors.

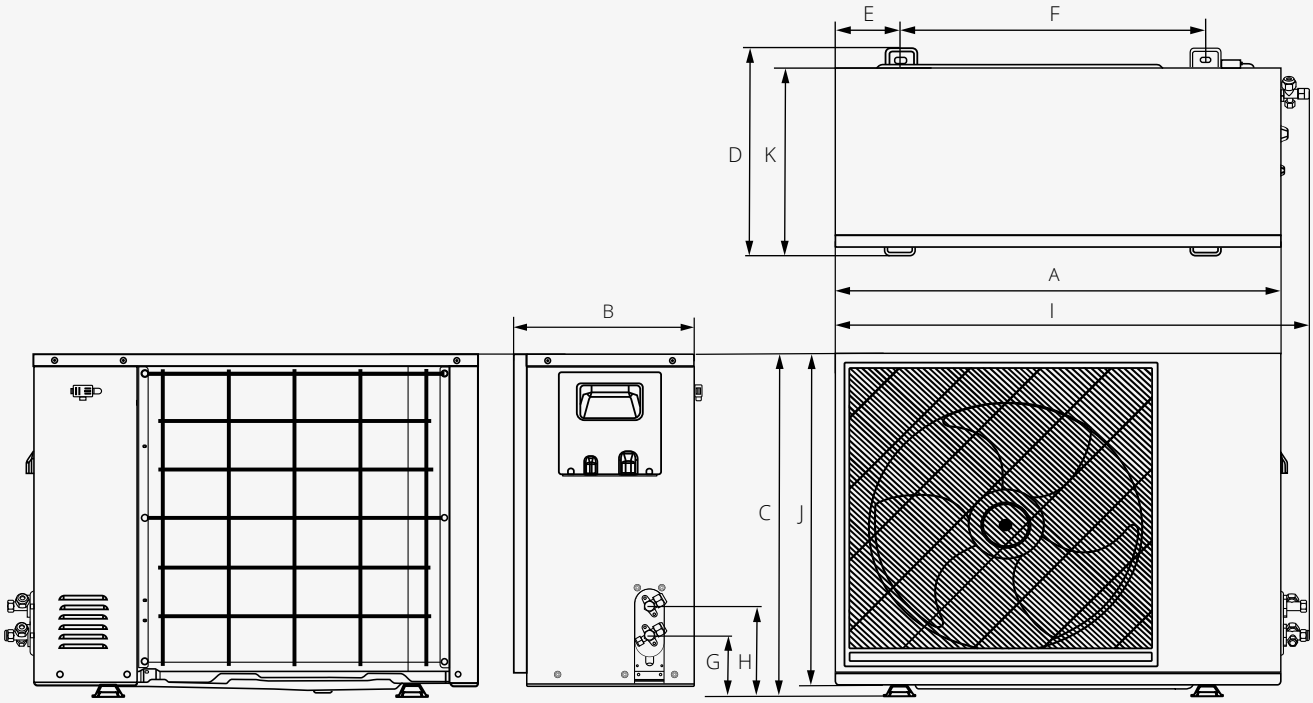
Powered by tuya Intelligence Inside

Unit dimensions
AIRMI SERIES



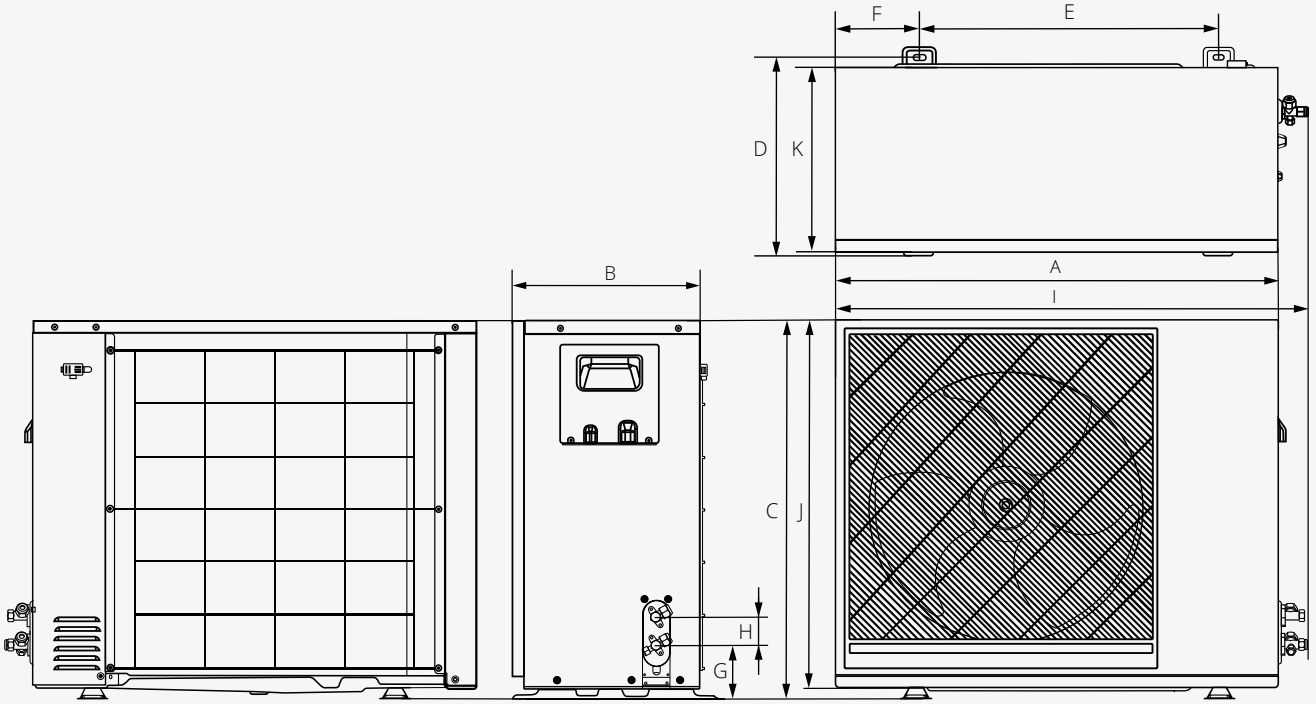
Rotenso Airmi Split indoor unit 4/6/8/10/12/14/16 kW

Model	Power	Net dimensions (W×D×H) [mm]	A	B	C	D	E	F	Net weight [kg]
AIS40X1i	**4 kW**	909 × 465 × 273	465	273	820	909	271	255	34 kg
AIS60X1i	**6 kW**	909 × 465 × 273	465	273	820	909	271	255	34 kg
AIS80X13i	**8 kW**	909 × 465 × 273	465	273	820	909	271	255	37 kg
AIS100X13i	**10 kW**	909 × 465 × 273	465	273	820	909	271	255	37 kg
AIS120X13i	**12 kW**	909 × 465 × 273	465	273	820	909	271	255	38 kg
AIS140X13i	**14 kW**	909 × 465 × 273	465	273	820	909	271	255	44 kg
AIS160X13i	**16 kW**	909 × 465 × 273	465	273	820	909	271	255	44 kg



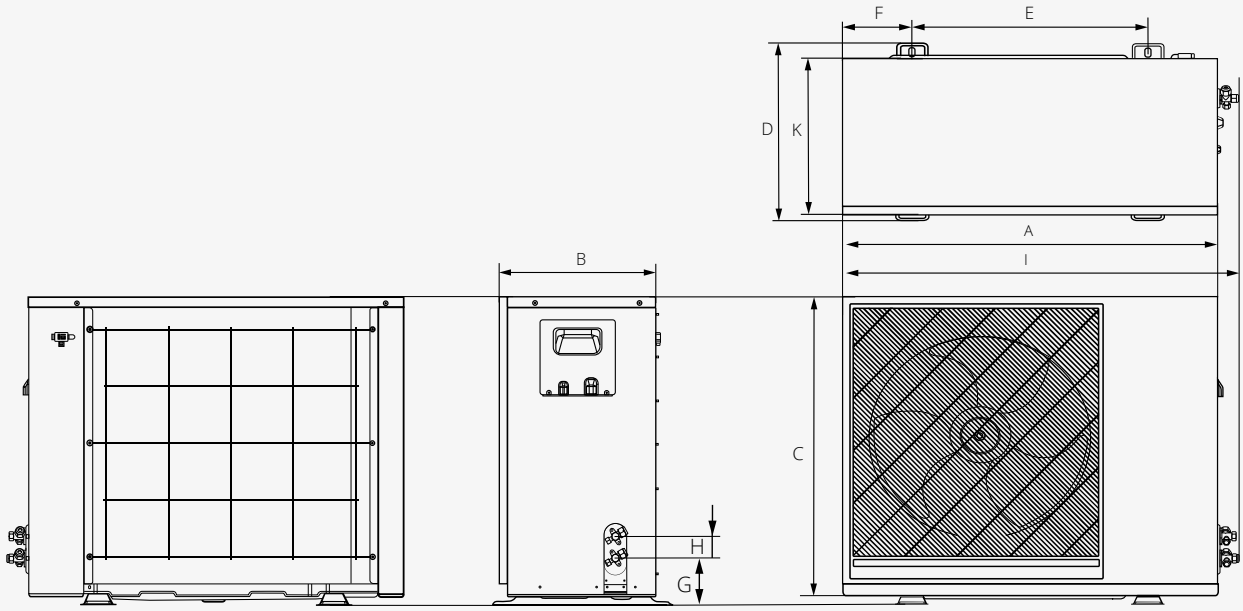
Rotenso Airmi Split outdoor unit 4/6/8 kW

Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (S1×S2×G) [mm]	A	B	C	D	E	F	G	H	I	J	K	Net weight [kg]
AIS/W/B/G/40X1o	**4 kW**	971 × 425 × 703	624 × 425	913	370	703	425	135	624	126	60	971	681	375	56,0
AIS/W/B/G/60X1o	**6 kW**	971 × 425 × 703	624 × 425	913	370	703	425	135	624	126	60	971	681	375	56,0
AIS/W/B/G/80X1o	**8 kW**	971 × 425 × 703	624 × 425	913	370	703	425	135	624	126	60	971	681	375	56,0



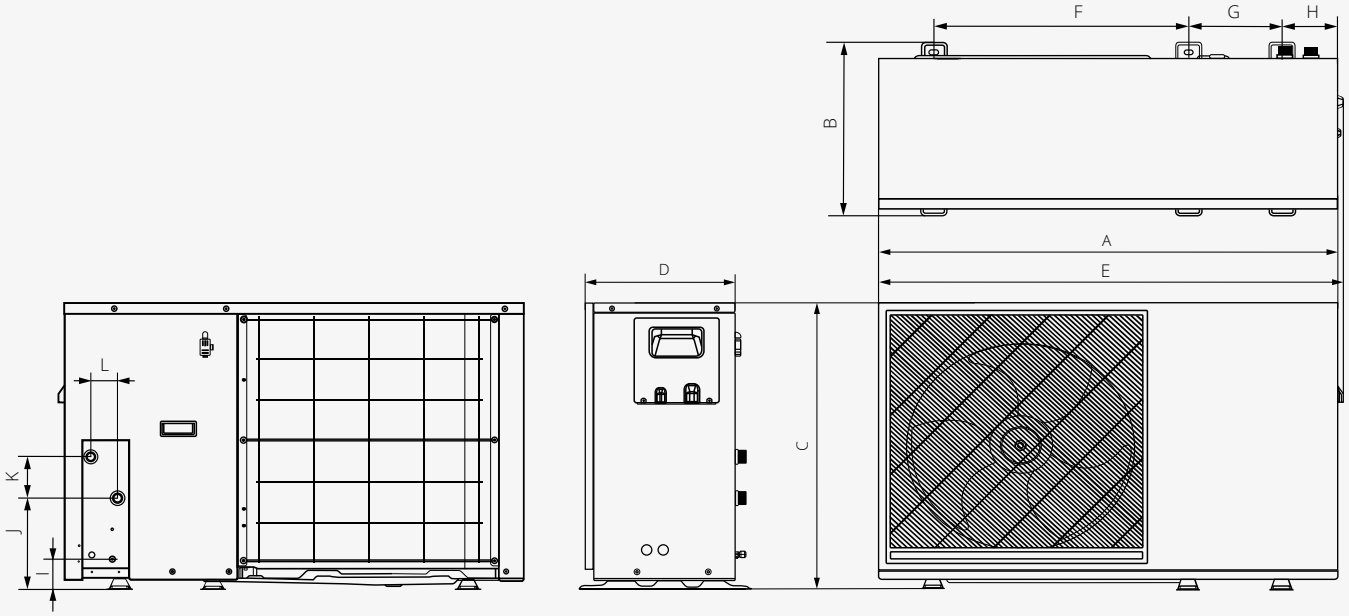
Rotenso Airmi Split outdoor unit 10/12 kW

Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (W1×W2×D) [mm]	A	B	C	D	E	F	G	H	I	J	K	Net weight [kg]
AIS/W/B/G/100X1o	10 kW	999 × 448 × 803	643 × 448	940	396	803	448	643	171	116	60	999	778	405	72,0
AIS/W/B/G/120X3o	12 kW	999 × 448 × 803	643 × 448	940	396	803	448	643	171	116	60	999	778	405	83,0



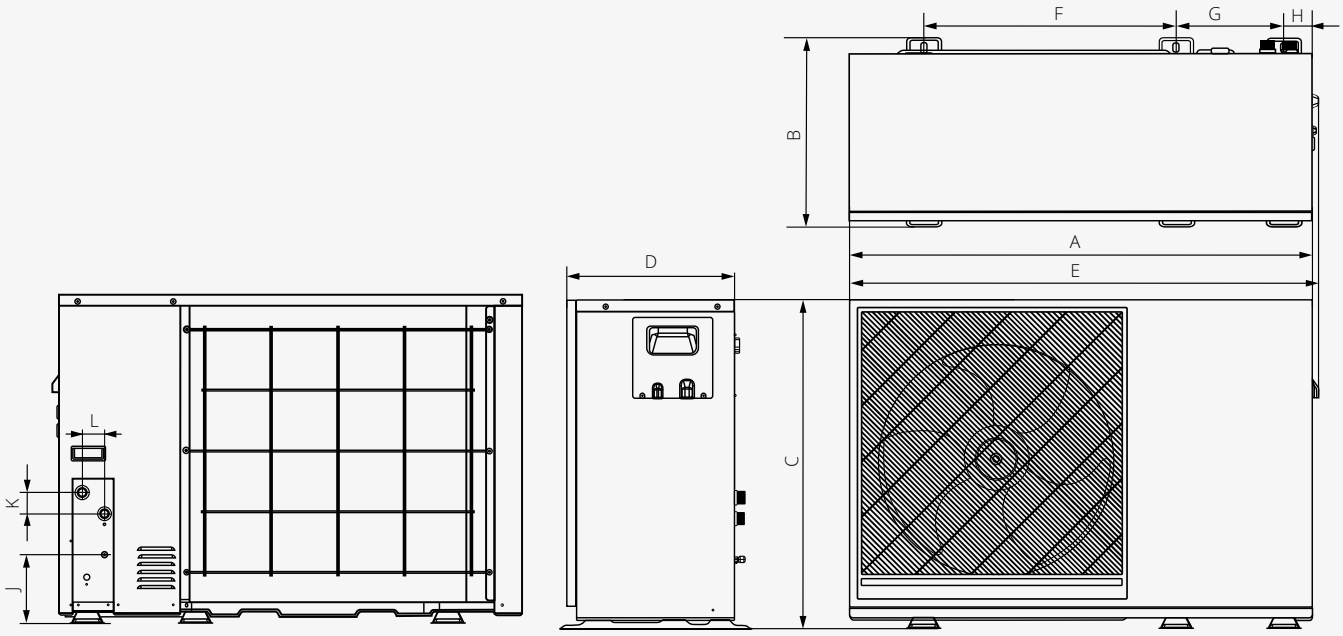
Jednostka zewnętrzna 14/16 kW Rotenso Airmi Split

Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (W1×W2×D) [mm]	A	B	C	D	E	F	G	H	I	K	Net weight [kg]
AIS/W/B/G/140X3o	14 kW	1099 × 436 × 854	654 × 493	1040	436	832	429	654	193	128	60	1099	454	108,0
AIS/W/B/G/160X3o	16 kW	1099 × 436 × 854	654 × 493	1040	436	832	429	654	193	128	60	1099	454	108,0



Rotenso Airmi Monoblock outdoor unit 4/6/8 kW

Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (W1×W2×D) [mm]	A	B	C	D	E	F	G	H	I	J	K	L	Net weight [kg]
AIM/W/B/G/40X1	4 kW	1125 × 425 × 703	624 × 229 × 425	1125	425	703	397	1137	640	239	86	73	317	65	57	78,5
AIM/W/B/G/60X1	6 kW	1125 × 425 × 703	624 × 229 × 425	1125	425	703	397	1137	640	239	86	73	317	65	57	80,5
AIM/W/B/G/80X1	8 kW	1125 × 425 × 703	624 × 229 × 425	1125	425	703	397	1137	640	239	86	73	317	65	57	82,5



Rotenso Airmi Monoblock outdoor unit 10/12/14/16 kW

Model	Power	Net dimensions (W×D×H) [mm]	Bracket spacing (W1×W2×D) [mm]	A	B	C	D	E	F	G	H	J	K	L	Net weight [kg]
AIM/W/B/G/100X1	10 kW	1135 × 488 × 803	640 × 239 × 448	1135	488	803	422	1149	640	239	86	252	65	57	99,0
AIM/W/B/G/120X3	12 kW	1135 × 488 × 803	640 × 239 × 448	1135	488	803	422	1149	640	239	86	252	65	57	115,0
AIM/W/B/G/140X3	14 kW	1203 × 493 × 860	654 × 280 × 493	1203	493	860	461	1217	654	280	75	179	55	58	140,0
AIM/W/B/G/160X3	16 kW	1203 × 493 × 860	654 × 280 × 493	1203	493	860	461	1217	654	280	75	179	55	58	140,0

Solutions
AIRMI SERIES

SPLIT

Rotenso Airmi Split
is a brand new series of energy-efficient split heat pumps with capacities ranging from 4 to 16 kW.

MONO

Rotenso Airmi Monoblock
is a brand new series of monoblock heat pumps with capacities ranging from 4 to 16kW.

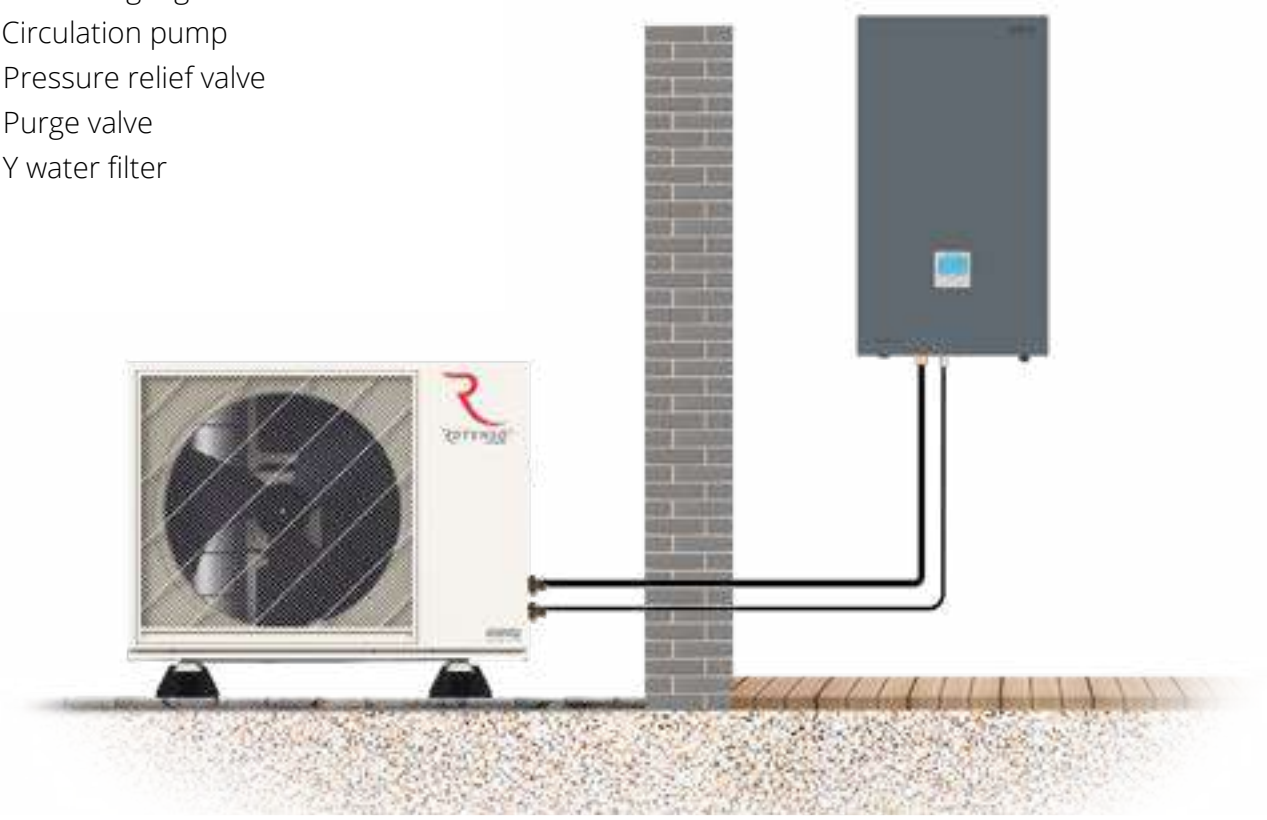
Solution
AIRMI SPLIT

Rotenso Airmi Split heat pump consists of an outdoor unit (condenser) and a hydronic module (so called hydrobox) for indoor installation. This solution is characterized by high resistance to freezing of the connection between the refrigeration circuits of outdoor and indoor units, even during prolonged power outages.

Another advantage of the Airmi Series is compact hydrobox that can be easily integrated in furniture or building structures, and sleek design of the outdoor unit available in three colours: off-white, grey and graphite. Modern design and high efficiency at low temperatures make Rotenso Airmi Split heat pumps a perfect choice for heating homes, stores, commercial premises and offices.

Standard equipment:

1. Indoor unit
2. Outdoor unit
3. Wired controller
4. DHW tank sensor
5. Plate heat exchanger
6. Flow meter
7. Diaphragm vessel
8. Pressure gauge
9. Circulation pump
10. Pressure relief valve
11. Purge valve
12. Y water filter



Indoor unit
Hydrobox

AIS40X1i, AIS60X1i, AIS80X13i, AIS100X13i,
AIS120X13i, AIS140X13i, AIS160X13i

4-16 kW

Model	Rotenso Airmi Split						
Capacity (kW)	4	6	8	10	12	14	16
220-240~50, 1f	•	•	•	•			
380-420~50, 3f					•	•	•

Solution
AIRMI MONOBLOCK

MONO

Rotenso Airmi Monoblock is a heat pump in which the refrigeration module and the hydronic module are contained in a single, compact unit housing. The monoblock heat pump is a perfect solution for owners who have no space or wish to install the hydrobox inside the building.

Heat pump housing is designed to provide an easy access to all its components, while operating parameters can be quickly modified and monitored in real time from the user interface. The state-of-the-art technology used in the Rotenso Airmi Series monoblock solutions ensures high efficiency at low temperatures. Simple design of these units, which come in three colour variants (off-white, grey and graphite), will please the enthusiasts of modern architecture.
Another benefit of monoblock is quick and easy installation.

Standard equipment:

1. Outdoor unit
2. Wired controller
3. DHW tank sensor
4. Plate heat exchanger
5. Flow meter
6. Diaphragm vessel
7. Circulation pump
8. Pressure relief valve
9. Purge valve
10. Y water filter

4-16 kW

Model	Rotenso Airmi Monoblock						
Capacity (kW)	4	6	8	10	12	14	16
220-240~50, 1f	•	•	•	•			
380-420~50, 3f					•	•	•

Airmi Series
Split

Rotenso Airmi Split heat pump consists of an outdoor unit and a sleek, compact hydronic module (so called hydrobox) for indoor installation. The highest energy efficiency class A+++ combined with excellent capacity at extremely low outdoor temperatures ensure cost-effective and reliable operation of this ecological heat source.

Prepared for operation at extremely low outdoor temperatures of down to -25°C, Rotenso Airmi pumps can heat the heating water up to 65°C to supply central heating systems with conventional radiators as well.

The **COP** of **4.89*** means that the amount of heating energy produced by the Rotenso Airmi heat pumps is nearly five times the amount of the consumed electric energy.

Enhanced energy efficiency, unique fan blade design, and twin rotary DC compressor, ensure high overall efficiency of the Rotenso Airmi units.

The heat pump can be controlled by a wired controller or a TUYA SMART mobile app to make its daily use even more comfortable.

AIRMI SPLIT

-25°C

Operating range down to -25°C

65°C

Supply water temperature of 65°C

Smart Grid functionality

Controller equipped with a temperature sensor

Integrated Wi-Fi module

Control via mobile app

SPLIT

Modern, minimalist body and stylish colour scheme to match the appropriate outdoor unit colour to building facade.

**** COP 4,89 for AISW/B/G40X1 and AISW/B/G60X1***

Controller **equipped with a temperature sensor**

The Rotenso Airmi Split heat pump can be controlled both by the wired controller and the TUYA SMART mobile app, whether you are staying at home or not.

Operating range down to -25°C

The pump is prepared to operate efficiently even at extreme outdoor temperatures down to -25°C. During the cold winter, it guarantees that supply water for central heating and domestic hot water is heated sufficiently.

Integrated Wi-Fi module

The Rotenso Airmi Split heat pump can be controlled both by the wired controller and the TUYA SMART mobile app, whether you are staying at home or not.

Smart Grid **functionality**

The heat pump is designed to work with the „Smart Grid". With this feature, the pump automatically turns on to store surplus energy from the photovoltaic (PV) system to make the most of the cheaper electricity tariff.

Control via mobile app

You can use your tablet or smartphone to control the Rotenso Airmi Split unit no matter where you are.

Water supply temperature of 65°C

If the heat pump is used to heat spaces where radiators are installed the temperature of the supply water in the system must be higher. Rotenso Airmi heat pumps can heat water up to 65°C.

Airmi Split

4-16 kW

Device features

- Environmentally friendly refrigerant R32
- Efficient heating
- Energy efficiency class at 35°C A+++
- Energy efficiency class at 55°C A++
- Maximum COP 4,89 (1)
- Operating range down to -25°C
- Supply water temperature of 65°C
- Smart Grid functionality
- Twin rotary compressor
- Integrated electric heater
- Outdoor unit drip tray heater
- Compressor crankcase heater
- Indoor unit drip tray
- Easy installation and maintenance
- Compact indoor split unit housing
- Maximum installation length up to 15m
- Silent mode
- Integrated Wi-Fi module
- Daily operation schedule
- Configurable weekly schedules
- Vacation mode
- Menu in English
- Multilanguage menu
- Integrated temperature sensor
- Weather operating modes (climate curve)
- 2 heating control zones
- Dedicated application
- Disinfection
- Maximum leaving water temperature of 60°C (in DHW mode)
- Prepared to create a cascade system
- Modbus Protocol

1. Refers to units AIS/W/B/G/40X1o and AIS/W/B/G/60X1o

Technical specification

Indoor unit model				**AIS40X1i**	**AIS60X1i**	**AIS80X13i**	**AIS100X13i**	**AIS120X13i**	**AIS140X13i**	**AIS160X13i**
EAN product code				5905567602825	5905567602832	5905567602849	5905567602856	5905567602863	5905567602870	5905567602887
Compatible outdoor unit model				AIS/W/B/G/40X1o	AIS/W/B/G/60X1o	AIS/W/B/G/80X1o	AIS/W/B/G/100X1o	AIS/W/B/G/120X3o	AIS/W/B/G/140X3o	AIS/W/B/G/160X3o
Operation modes				Heating and cooling						
Leaving water temperature	Space cooling		℃	7~25	7~25	7~25	7~25	7~25	7~25	7~25
	Space heating		℃	25~65	25~65	25~65	25~65	25~65	25~65	25~65
	DHW (tank)		℃	25~60	25~60	25~60	25~60	25~60	25~60	25~60
Power supply			V-Hz, Ø	220-240~50, 1f	220-240~50, 1f	380-415~50, 3f	380-415~50, 3f	380-415~50, 3f	380-415~50, 3f	380-415~50, 3f
Rated input			W	3090	3090	9090	9090	9090	9090	9090
Operating current			A	13,9	13,9	13,9	13,9	13,9	13,9	13,9
Sound power level			dB	42	42	42	42	42	42	42
Electric heater	Power supply		V-Hz, Ø	220-240~50, 1f	220-240~50, 1f	380-415~50, 3f	380-415~50, 3f	380-415~50, 3f	380-415~50, 3f	380-415~50, 3f
	Number of heating stages		pcs	1	1	3	3	3	3	3
	Power		kW	3	3	9	9	9	9	9
	Maximum operating current		A	13,6	13,6	13,6	13,6	13,6	13,6	13,6
Net dimensions		W x D x H	mm	909 × 465 × 273	909 × 465 × 273	909 × 465 × 273	909 × 465 × 273	909 × 465 × 273	909 × 465 × 273	909 × 465 × 273
Gross dimensions		W x D x H	mm	960 × 525 × 345	960 × 525 × 345	960 × 525 × 345	960 × 525 × 345	960 × 525 × 345	960 × 525 × 345	960 × 525 × 345
Net weight / Gross weight			kg	34 / 38	34 / 38	37 / 41	37 / 41	38 / 43	44 / 49	44 / 49
Water circuit	Water connections		inch	Φ33	Φ33	Φ33	Φ33	Φ33	Φ33	Φ33
	Pressure relief valve		MPa	0,5	0,5	0,5	0,5	0,5	0,5	0,5
	Condensate drain		mm	Φ12,7	Φ12,7	Φ12,7	Φ12,7	Φ12,7	Φ12,7	Φ12,7
	Expansion tank	Total volume	l	5	5	5	5	5	5	5
		Actual volume	l	2	2	2	2	2	2	2
		Maximum pressure	MPa	0,5	0,5	0,5	0,5	0,5	0,5	0,5
		Initial pressure	MPa	0,15	0,15	0,15	0,15	0,15	0,15	0,15
	Heat exchanger	Type		PHE / plate heat exchanger						
		Minimum flow	l/min	10	10	10	10	10	10	10
	Water pump head		m	9	9	9	9	9	9	9
	Water pump type			DC inverter	DC inverter	DC inverter	DC inverter	DC inverter	DC inverter	DC inverter
Refrigerant circuit	Liquid / Gas		mm	Φ6,35 / Φ15,88	Φ6,35 / Φ15,88	Φ9,52 / Φ15,88	Φ9,52 / Φ15,88	Φ9,52 / Φ15,88	Φ9,52 / Φ15,88	Φ9,52 / Φ15,88
Minimal wire pcs and dimension of cords*			pcs × mm²	3 × 2,5	3 × 2,5	5 × 2,5	5 × 2,5	5 × 2,5	5 × 2,5	5 × 2,5
Control cables: indoor unit to outdoor unit			pcs × mm²	2 × 0,75 (shielded cable)						

Outdoor unit model				**AIS/W/B/G/40X1o**	**AIS/W/B/G/60X1o**	**AIS/W/B/G/80X1o**	**AIS/W/B/G/100X1o**	**AIS/W/B/G/120X3o**	**AIS/W/B/G/140X3o**	**AIS/W/B/G/160X3o**
EAN product code		White (W)		5905567602757	5905567602764	5905567602771	5905567602788	5905567602795	5905567602801	5905567602818
EAN product code		Graphite (B)		5905567602610	5905567602627	5905567602634	5905567602641	5905567602658	5905567602665	5905567602672
EAN product code		Grey (G)		5905567602689	5905567602696	5905567602702	5905567602719	5905567602726	5905567602733	5905567602740
Compatible indoor unit model				AIS40X1i	AIS60X1i	AIS80X13i	AIS100X13i	AIS120X13i	AIS140X13i	AIS160X13i
Power supply			V-Hz, Ø	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	380-420~50, 3f	380-420~50, 3f	380-420~50, 3f
Heating (A7/W35)	Capacity		kW	4,20	6,00	7,90	9,70	12,10	14,30	16,20
	Rated input		kW	0,86	1,23	1,75	2,10	2,68	3,10	3,67
	COP			4,89	4,89	4,52	4,61	4,52	4,61	4,41
Heating (A7/W45)	Capacity		kW	4,10	6,10	8,30	9,90	11,60	14,50	16,20
	Rated input		kW	1,18	1,70	2,41	2,83	3,66	3,89	4,48
	COP			3,47	3,58	3,45	3,48	3,17	3,72	3,62
Heating (A7/W55)	Capacity		kW	4,00	6,20	8,00	9,90	11,70	14,10	16,20
	Rated input		kW	1,65	2,18	2,96	3,58	4,30	4,52	5,59
	COP			2,42	2,84	2,70	2,77	2,72	3,12	2,90
Cooling (A35/W18)	Capacity		kW	4,20	6,20	8,10	10,30	12,10	13,50	14,90
	Rated input		kW	0,78	1,29	1,76	2,25	2,99	3,75	4,38
	EER			5,41	4,81	4,59	4,58	4,04	3,65	3,41
Cooling (A35/W7)	Capacity		kW	4,20	6,00	7,70	9,60	10,90	12,70	14,00
	Rated input		kW	1,35	2,04	2,77	3,26	4,09	4,98	5,71
	EER			3,12	2,94	2,78	2,94	2,66	2,55	2,45
Seasonal energy efficiency LWT at 35ºC	SCOP(1)			4,88	4,90	4,61	4,82	4,73	4,98	4,87
	Rated heat output		kW	4,0	5,9	7,1	8,9	11,3	13,2	14,4
	Seasonal energy efficiency ratio (ηS)		%	192	193	177	190	186	196	192
	Annual energy consumption		kWh	1693	2488	3249	3814	4949	5470	6095
	Seasonal space heating energy efficiency class(1)			A+++	A+++	A+++	A+++	A+++	A+++	A+++
Seasonal energy efficiency LWT at 55ºC	SCOP (1)			3,40	3,36	3,20	3,21	3,47	3,49	3,69
	Rated heat output		kW	5,0	5,6	7,3	7,8	10,7	13,0	13,0
	Seasonal energy efficiency ratio (ηS)		%	133	131	126	126	136	136	144
	Annual energy consumption		kWh	3038	3443	4667	4992	6353	7687	7302
	Seasonal space heating energy efficiency class (1)			A++	A++	A++	A++	A++	A++	A++
SEER	LWT at 7ºC			5,33	5,27	5,23	5,12	5,65	5,39	5,23
	LWT at 18ºC			8,29	8,34	8,19	8,23	9,01	7,71	7,78
Minimum rated current of the overcurrent circuit breaker with breaker type			A	B16	B16	B20	B20	B16	B16	B16
Compressor		Type		Twin rotary inverter compressor DC						
Fan		Type		Brushless DC motor / BLDC						
		Quantity		1,40	1,40	1,50	1,60	1,75	1,84	1,84
Refrigerant		Type		R32	R32	R32	R32	R32	R32	R32
		GWP		675	675	675	675	675	675	675
		Quantity	kg	1,40	1,40	1,50	1,60	1,75	1,84	1,84
			TCO_2eq	0,945	0,945	1,013	1,080	1,181	1,242	1,242
Pipe connections	Liquid / Gas		mm	Φ6,35 / Φ15,88	Φ6,35 / Φ15,88	Φ9,52 / Φ15,88	Φ9,52 / Φ15,88	Φ9,52 / Φ15,88	Φ9,52 / Φ15,88	Φ9,52 / Φ15,88
	Minimum installation length		m	3	3	3	3	3	3	3
	Maximum installation length		m	15	15	15	15	15	15	15
	Additional amount of refrigerant for over 7,5 linear meters		g/m	20	20	38	38	38	38	38
Maximum height difference	Outdoor unit above the indoor unit		m	8	8	8	8	8	8	8
	Outdoor unit below the indoor unit		m	8	8	8	8	8	8	8
Minimal wire pcs and dimension of cords*			pcs × mm²	3 × 2,5	3 × 2,5	3 × 4	3 × 4	5 × 2,5	5 × 2,5	5 × 2,5
Control cables: indoor unit to outdoor unit			pcs × mm²	2 × 0,75 (shielded cable)						
Bracket spacing		W1 × D	mm	624 × 425	624 × 425	624 × 425	643 × 448	643 × 448	654 × 493	654 × 493
Sound pressure level			dB(A)	44	45	46	46	46	50	54
Sound power level			dB(A)	56	58	59	60	64	65	68
Net dimensions		W x D x H	mm	971 × 425 × 703	971 × 425 × 703	971 × 425 × 703	999 × 448 × 803	999 × 448 × 803	1099 × 436 × 854	1099 × 436 × 854
Gross dimensions		W x D x H	mm	1025 × 425 × 865	1025 × 425 × 865	1025 × 425 × 865	1045 × 458 × 970	1045 × 458 × 970	1165 × 495 × 1040	1165 × 495 × 1040
Net weight / Gross weight			kg	56 / 67	56 / 67	58 / 69	72 / 83	83 / 92	108 / 123	108 / 123
Operating outdoor temperature	Cooling/ Heating		℃	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35
	DHW		℃	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43

(1) Seasonal energy efficiency class measured under average climate conditions.

Notes: DHW – Domestic hot water, LWT – Leaving water temperature
The sound pressure level is measured 1m in front of the unit and (1+H)/2m (where H is the height of the unit) above the floor in semi-anechoic room. During on-site operation sound pressure levels can be higher as a result of ambient noise. Sound pressure level and sound power level reflect the maximum value tested under three conditions specified respectively in notes A7W35, ΔT=5; A7W45, ΔT=5; A7W55 ΔT=8; relative humidity 85%. The figures specified above refer to the following standards: EN14511; EN14825; EN50564; EN12102; (EU) Np. 811/2013; (EU) No. 813/2013; Journal of Laws 2014 / C 207/02: 2014.
The residual current circuit breaker used to protect the electrical circuit of the appliance shall be selected in view of the electrical regulations in force, assuming that the rated residual current is not greater than IΔn: 30mA
*The above values apply to supply cables with a maximum length of 20mb. If this value is exceeded, an electrical designer should be consulted.

Airmi Series
Monoblock

Rotenso Airmi Monoblock is a heat pump in which the refrigeration module and the hydronic module are contained in a single, compact unit housing designed for outdoor installation to make the installation works easier and faster.

Rotenso Airmi Monoblock pump is the best solution for building owners who either have no space or do not want to install additional hydronic module inside the building.

Rotenso Airmi Monoblock heat pump features the highest energy efficiency class A+++.
COP coefficient, which is a ratio of useful heating power to the consumed electric energy, is **5.25*** in monoblock pumps, which means that the amount of heating energy that the Rotenso Airmi Monoblock produces is more than five times the amount of the consumed electric energy.

Heat pump housing is designed to provide an easy access to all its components, while operating parameters can be quickly modified and monitored in real time from the user interface.

Rotenso Airmi Monoblock heat pump is equipped with an anti-freeze system. Modern design and high efficiency at low temperatures make Rotenso Airmi pumps a perfect choice for heating homes, stores, commercial premises and offices.

**** COP 5,25 for model AIMW/B/G40X1***

AIRMI MONO BLOCK

-25°C

Operating range down to -25°C

65°C

Supply water temperature of 65°C

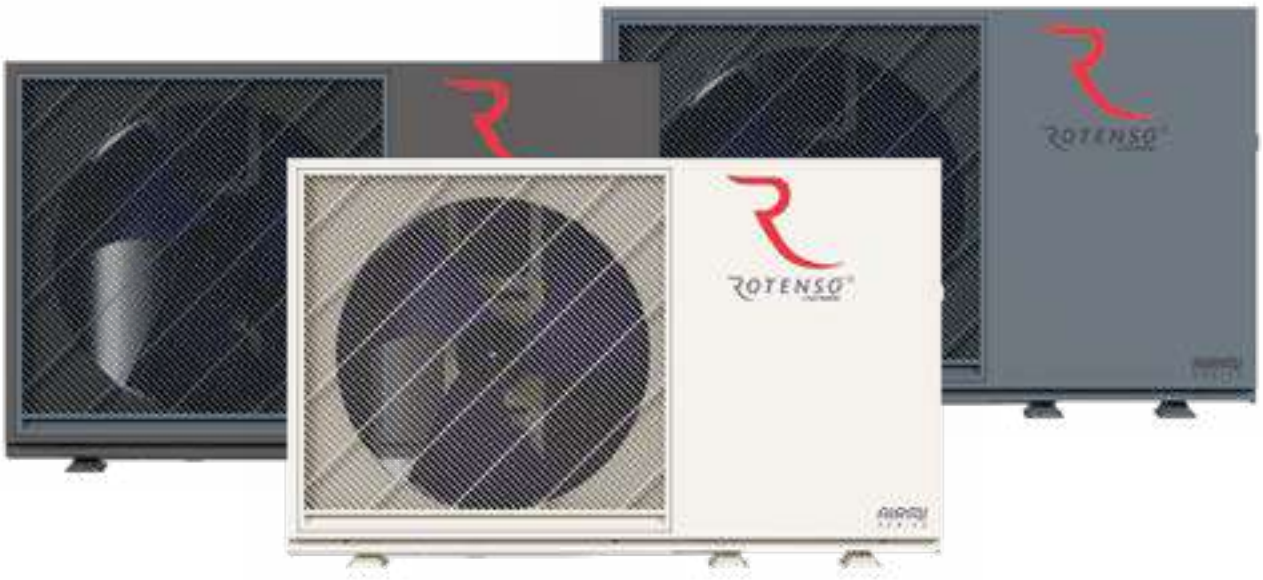
Smart Grid functionality

Controller equipped with a temperature sensor

Integrated Wi-Fi module

Control via mobile app

MONO



Controller **equipped with a temperature sensor**

If the sensor detects a difference between the set temperature and the actual temperature in the room, the heat pump will automatically operate to reach the desired temperature inside the building

Supply water temperature of 65°C

If the heat pump is used to heat spaces where radiators are installed, temperature of the supply water in the system must be higher.
Rotenso Airmi heat pumps can heat water up to 65°C.

Integrated Wi-Fi module

The Rotenso Airmi Monoblock pump can be controlled both by the wired controller and the TUYA SMART mobile whether you are staying at home or not

Smart Grid **functionality**

Rotenso Airmi heat pump is designed to work with the „Smart Grid". With this feature, the pump automatically turns on to store surplus energy from the photovoltaic (PV) system to make the most of the cheaper electricity tariff.

Operating range down to -25°C

Heat pumps are prepared for efficient operation even at extreme outdoor temperatures as low as -25°C. During the cold winter, they guarantee that supply water for central heating and domestic hot water are heated sufficiently.

Control via mobile app

You can use your tablet or smartphone to control the Rotenso Airmi Monoblock no matter where you are.

Airmi Monoblock

4-15 kW

HEAT PUMP KEYMARK www.heatpump.keymark.eu

Device features

- Environmentally friendly refrigerant R32
- Efficient heating
- Energy efficiency class at 35°C A+++
- Energy efficiency class at 55°C A++
- Maximum COP 5,25 (1)
- Operating range down to -25°C
- Supply water temperature of 65°C
- Smart Grid functionality
- Twin rotary compressor
- Integrated electric heater
- Outdoor unit drip tray heater
- Compressor crankcase heater
- Easy installation and maintenance
- Silent mode
- WiFi module in wired controller
- Daily operation schedule
- Configurable weekly schedules
- Vacation mode
- Menu in English
- Multilanguage menu
- Integrated temperature sensor
- Weather operating modes (climate curve)
- 2 heating control zones
- Dedicated application
- Disinfection
- Maximum leaving water temperature of 60°C (in DHW mode)
- Prepared to create a cascade system
- Modbus Protocol

1. Refers to units AIM/W/B/G/40X1

Technical specification

Outdoor unit model				**AIM/W/B/G/40X1**	**AIM/W/B/G/60X1**	**AIM/W/B/G/80X1**	**AIM/W/B/G/100X1**	**AIM/W/B/G/120X3**	**AIM/W/B/G/140X3**	**AIM/W/B/G/160X3**
EAN product code		White (W)		5905567602542	5905567602559	5905567602566	5905567602573	5905567602580	5905567602597	5905567602603
EAN product code		Graphite (B)		5905567602405	5905567602412	5905567602429	5905567602436	5905567602443	5905567602450	5905567602467
EAN product code		Grey (G)		5905567602474	5905567602481	5905567602498	5905567602504	5905567602511	5905567602528	5905567602535
Power supply			V-Hz, Ø	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	380-420~50, 3f	380-420~50, 3f	380-420~50, 3f
Heating (A7/W35)	Capacity		kW	4,00	6,00	7,90	10,20	12,10	14,50	15,90
	Rated input		kW	0,75	1,17	1,76	2,04	2,57	2,99	3,42
	COP			5,25	5,13	4,50	5,01	4,70	4,84	4,65
Heating (A7/W45)	Capacity		kW	4,20	6,00	8,30	10,20	12,10	14,50	15,90
	Rated input		kW	1,11	1,63	2,61	2,79	3,36	3,89	4,63
	COP			3,77	3,70	3,18	3,65	3,60	3,72	3,43
Heating (A7/W55)	Capacity		kW	4,10	6,10	7,70	9,60	12,30	13,80	15,80
	Rated input		kW	1,46	2,13	2,98	3,22	4,44	4,52	6,12
	COP			2,84	2,86	2,58	2,98	2,77	3,12	2,58
Cooling (A35/W18)	Capacity		kW	4,00	6,20	8,20	10,10	11,90	14,10	15,70
	Rated input		kW	0,77	1,26	1,75	2,42	2,72	3,10	4,03
	EER			5,19	4,91	4,65	4,14	4,36	4,56	3,90
Cooling (A35/W7)	Capacity		kW	4,30	6,30	7,60	8,80	11,60	14,30	16,00
	Rated input		kW	1,32	1,99	2,55	2,97	4,14	5,11	6,12
	EER			3,24	3,14	2,97	2,96	2,80	2,80	2,61
Seasonal energy efficiency LWT at 35ºC	SCOP [1]			4,96	5,05	4,62	4,86	4,77	4,67	4,87
	Rated heat output		kW	4,0	6,0	7,5	9,2	11,3	13,2	14,9
	Seasonal energy efficiency ratio (ηS)		%	201	199	183	206	188	184	192
	Annual energy consumption		kWh	1617	2455	3529	3617	4872	5821	6326
	Seasonal space heating energy efficiency class [1]			A+++	A+++	A+++	A+++	A+++	A+++	A+++
Seasonal energy efficiency LWT at 55ºC	SCOP [1]			3,47	3,52	3,32	3,51	3,65	3,62	3,60
	Rated heat output		kW	5,00	5,80	6,70	7,70	11,00	12,40	12,80
	Seasonal energy efficiency ratio (ηS)		%	136	138	131	139	141	142	143
	Annual energy consumption		kWh	2375	3521	4162	4453	6319	7054	7238
	Seasonal space heating energy efficiency class [1]			A++	A++	A++	A++	A++	A++	A++
SEER	LWT at 7ºC			5,15	5,27	5,17	4,66	5,45	5,59	5,38
	LWT at 18ºC			8,56	8,77	8,31	8,23	8,29	8,33	8,26
Minimum rated current of the overcurrent circuit breaker with breaker type			A	B32	B32	B32	B32	B25	B25	B25
Compressor		Type		Twin rotary inverter compressor DC						
Fan		Type		Brushless DC motor / BLDC						
		Quantity		1	1	1	1	1	1	1
Refrigerant		Type		R32	R32	R32	R32	R32	R32	R32
		GWP		675	675	675	675	675	675	675
		Quantity	kg	1,03	1,03	1,3	1,5	1,75	2,1	2,1
			TCO_2eq	0,695	0,695	0,878	1,013	1,181	1,417	1,417
Minimal wire pcs and dimension of cords*			pcs × mm²	3 × 6	3 × 6	3 × 6	3 × 6	5 × 4	5 × 4	5 × 4
Bracket spacing		W1 × W2 × D	mm	624 × 229 × 425	624 × 229 × 425	624 × 229 × 425	640 × 239 × 448	640 × 239 × 448	654 × 280 × 493	654 × 280 × 493
Sound pressure level			dB(A)	44	45	46	46	46	50	54
Sound power level			dB(A)	56	58	59	60	64	65	68
Net dimensions		W x D x H	mm	1125 × 425 × 703	1125 × 425 × 703	1125 × 425 × 703	1135 × 488 × 803	1135 × 488 × 803	1203 × 493 × 860	1203 × 493 × 860
Gross dimensions		W x D x H	mm	1200 × 425 × 865	1200 × 425 × 865	1200 × 425 × 865	1260 × 488 × 982	1260 × 488 × 982	1285 × 495 × 1040	1285 × 495 × 1040
Net weight / Gross weight			kg	78,5 / 93,5	80,5 / 95,5	82,5 / 96	99 / 114	115 / 132	140 / 159	140 / 159
Operating outdoor temperature	Cooling / Heating		ºC	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35	-5~43 / -25~35
	DHW		ºC	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43
Operation modes				Heating and cooling						
Leaving water temperature	Space cooling		ºC	7~25	7~25	7~25	7~25	7~25	7~25	7~25
	Space heating		ºC	25~65	25~65	25~65	25~65	25~65	25~65	25~65
	DHW (tank)		ºC	25~60	25~60	25~60	25~60	25~60	25~60	25~60
Electric heater	Power supply		V-Hz, Ø	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	220-240~50, 1f	380-420~50, 3f	380-420~50, 3f	380-420~50, 3f
	Number of heating stages		pcs	1	1	1	1	3	3	3
	Power		kW	3	3	3	3	9	9	9
	Maximum operating current			13,6	13,6	13,6	13,6	13,6	13,6	13,6
Water circuit	Water connections		mm (inch)	Φ33	Φ33	Φ33	Φ33	Φ33	Φ33	Φ33
	Pressure relief valve		MPa	0,5	0,5	0,5	0,5	0,5	0,5	0,5
	Condensate drain		mm	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
	Expansion tank	Total volume	l	5	5	5	5	5	5	5
		Actual volume	l	2	2	2	2	2	2	2
		Maximum pressure	MPa	0,5	0,5	0,5	0,5	0,5	0,5	0,5
		Initial pressure	MPa	0,15	0,15	0,15	0,15	0,15	0,15	0,15
	Heat exchanger	Type		PHE / plate heat exchanger						
		Minimum flow	l/min	10	10	10	10	10	10	10
	Water pump head		m	9	9	9	9	9	9	9
	Water pump type			DC inverter						
	Total water volume		l	0,72	0,72	0,86	1,01	1,25	1,53	1,53

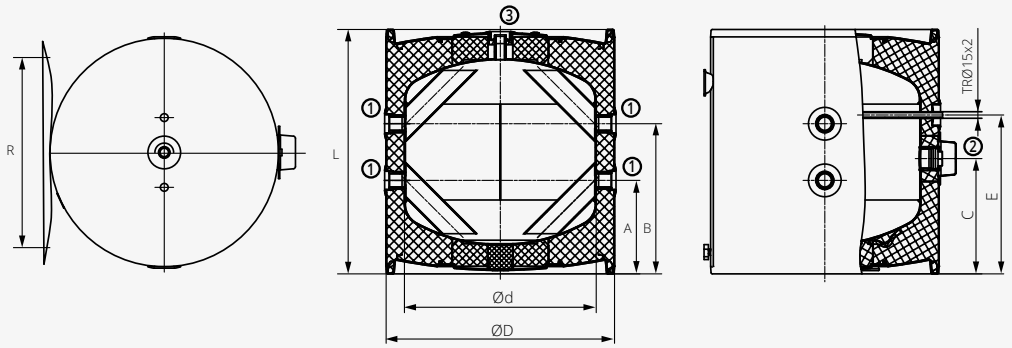
(1) Seasonal energy efficiency class measured under average climate conditions.

Notes: DHW – Domestic hot water, LWT – Leaving water temperature
The sound pressure level is measured 1m in front of the unit and (1+H)/2m (where H is the height of the unit) above the floor in semi-anechoic room. During on-site operation sound pressure levels can be higher as a result of ambient noise. Sound pressure level and sound power level reflect the maximum value tested under three conditions specified respectively in notes A7W35, ΔT=5; A7W45, ΔT=5; A7W55 ΔT=8; relative humidity 85%. The figures specified above refer to the following standards: EN14511; EN14825; EN50564; EN12102; (EU) Np. 811/2013; (EU) No. 813/2013; Journal of Laws 2014 / C 207/02: 2014.
The residual current circuit breaker used to protect the electrical circuit of the appliance shall be selected in view of the electrical regulations in force, assuming that the rated residual current is not greater than IΔn: 30mA
*The above values apply to supply cables with a maximum length of 20mb. If this value is exceeded, an electrical designer should be consulted.

WE ARE
FUTURE

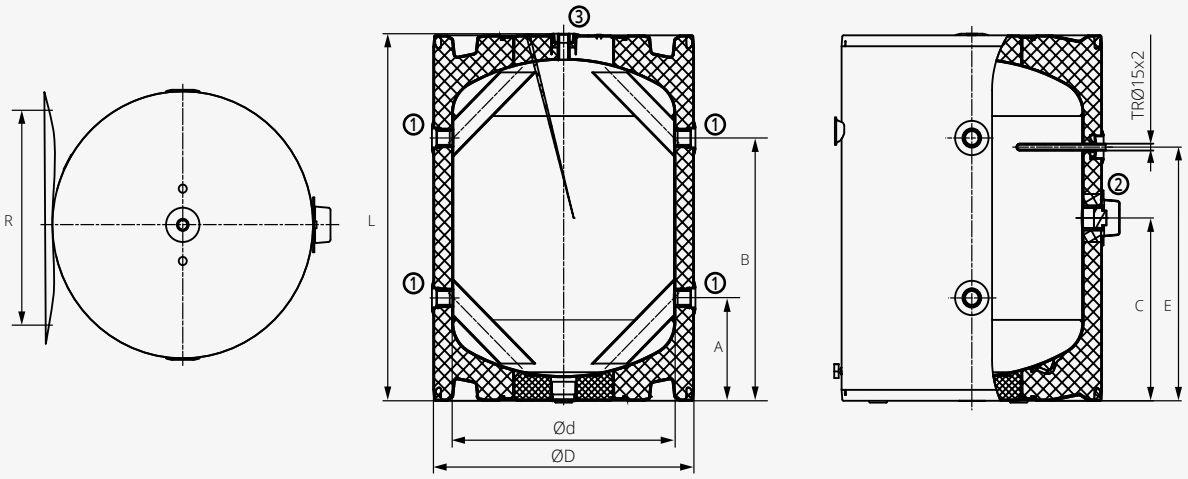
DHW tanks
Buffer tanks
Rotenso

Tank dimensions
THERMOS STORE / STORE PLUS



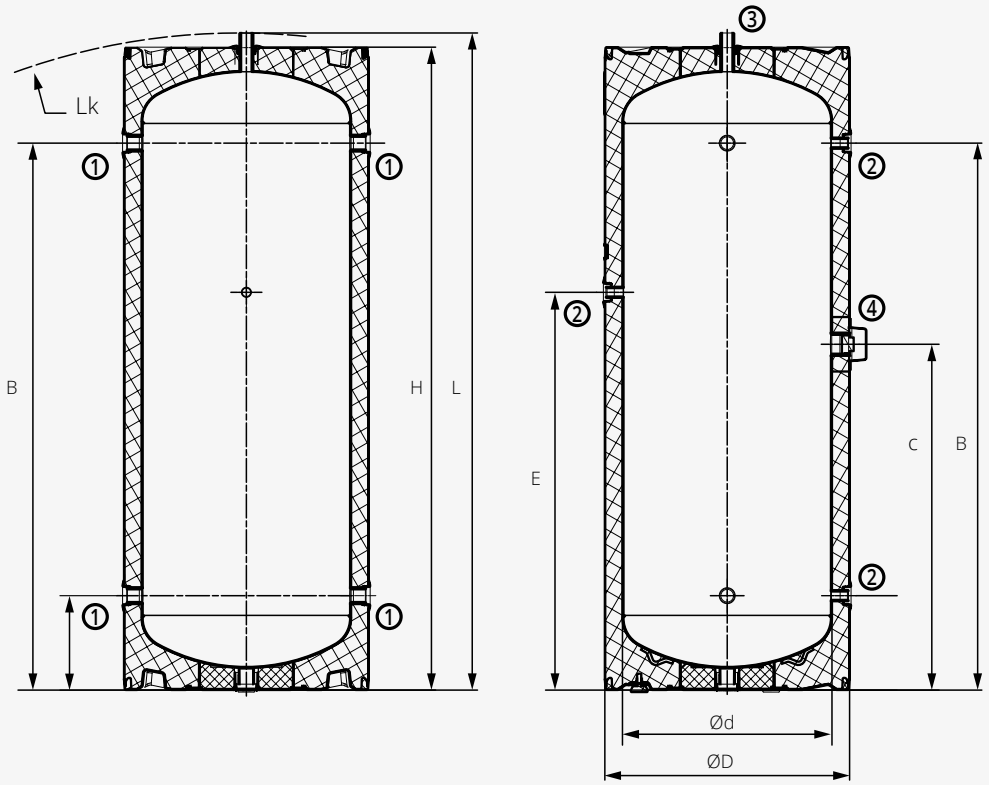
Rotenso Thermos Store buffer tanks 50l

Model	Volume / Actual volume [l]	Heigh [mm]	External diameter [mm]	A	B	C	d	D	E	L	R	1	2	3	Net weight [kg]
AQT50SBHA	50 / 50	561	524	215	345	265	440	524	365	561	300 - 310 350 - 372 432 - 468	G 1" inner	G 1 1/2" inner	G 1/2" inner	25



Rotenso Thermos Store buffer tanks 100l

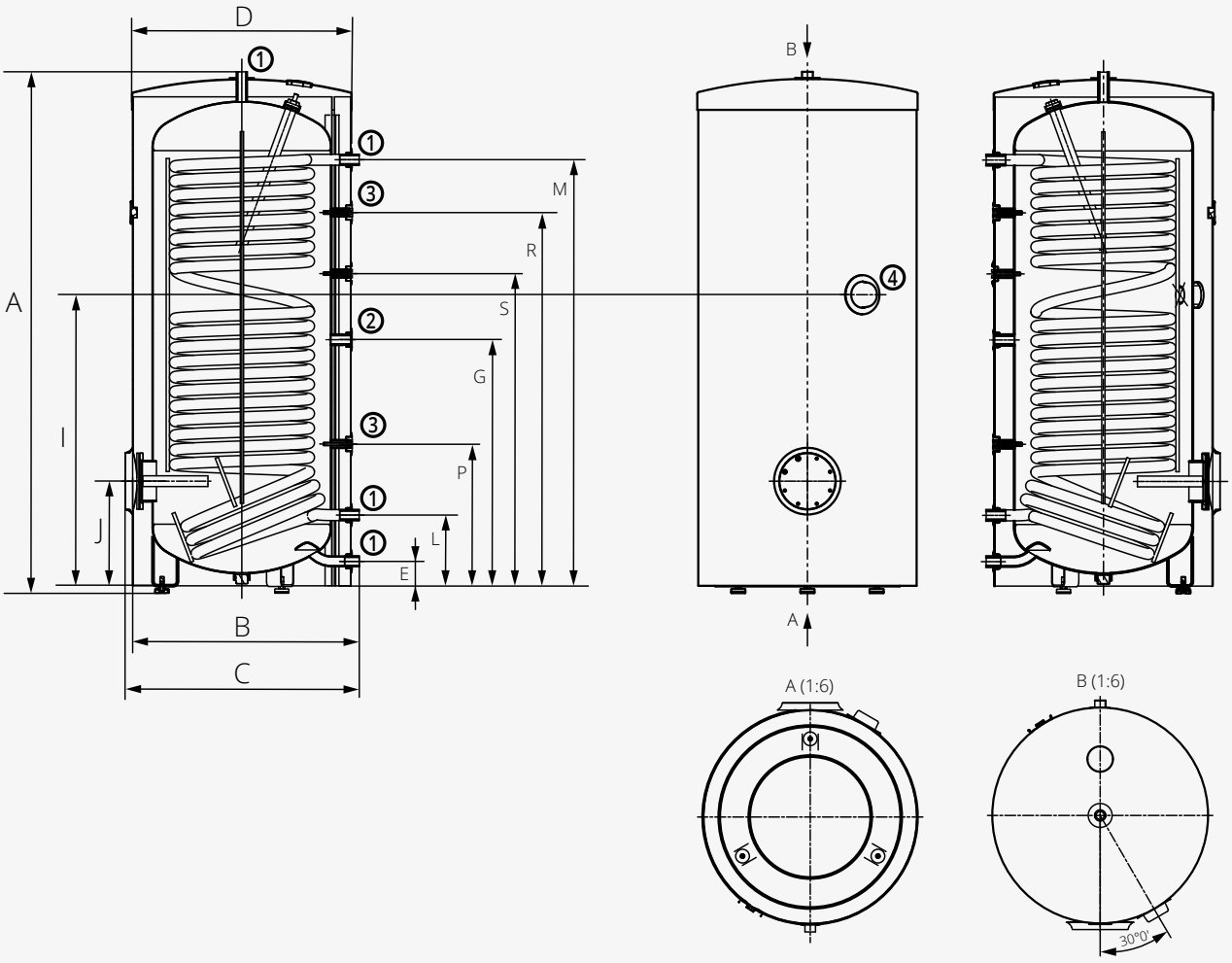
Model	Volume / Actual volume [l]	Heigh [mm]	External diameter [mm]	A	B	C	d	D	E	L	R	1	2	3	Net weight [kg]
AQT100SBHA	120 / 100	803	584	225	575	400	500	584	555	803	300 - 310 350 - 372 432 - 468	G 1" inner	G 1 1/2" inner	G 1/2" inner	41



Rotenso Thermos Store Plus
DHW tanks 250l

Model	Volume / Actual volume [l]	Heigh [mm]	External diameter [mm]	A	B	C	d	D	E	L	H	R	Lk	1	2	3	4	Net weight [kg]
AQT250SBHA	250 / 256	1568	584	228	1308	828	500	584	952	1570	1541	300 - 310 350 - 372 432 - 468	1605	G 1" inner	G 1/2" inner	G 1" external	G 1 1/2" inner	63

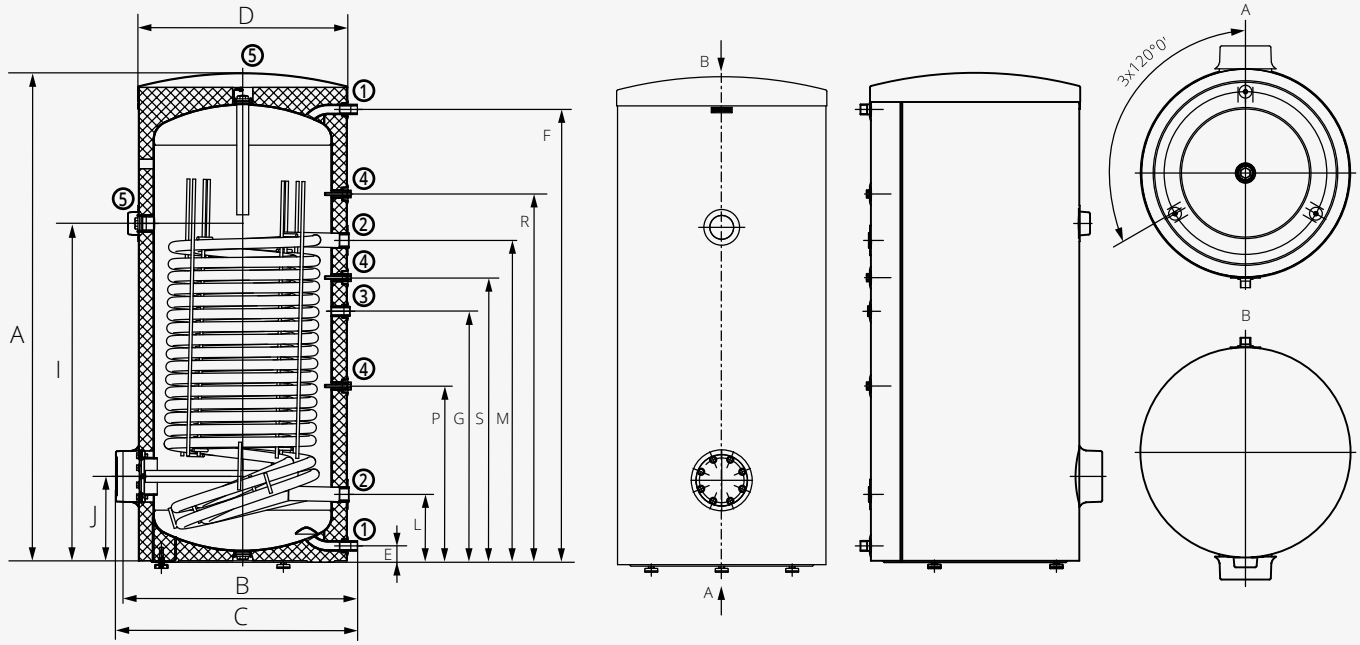
Tank dimensions
THERMOS CERAMIC



Rotenso Thermos Ceramic DHW tanks 200-300l

1	2	3	4
3/4" external	1" external	3/4" inner	6/4" inner

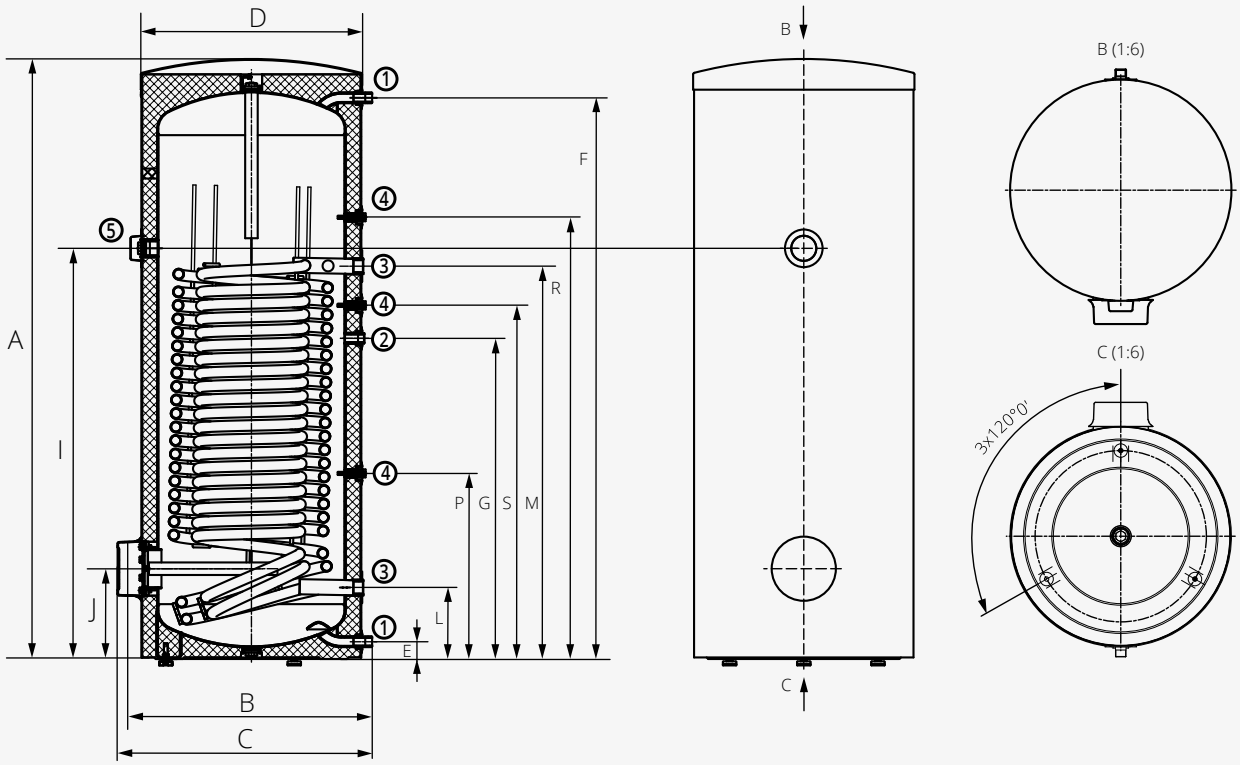
Model	Volume / Actual volume [l]	Heigh [mm]	External diameter [mm]	A	B	C	D	E	F	G	I	J	L	M	P	R	S	Net weight [kg]
AQT200EC1A	200 / 208	1355	584	1355	660	710	584	75	1275	855	805	255	205	1145	350	915	645	102
AQT300EC1A	286 / 300	1558	670	1558	750	775	670	77	1579	760	895	325	219	1309	438	1148	937	133



Rotenso Thermos Ceramic DHW tanks 400l

1	2	3	4	5
1" external	3/4" inner	5/4" inner	1/2" inner	6/4" inner

Model	Volume / Actual volume [l]	Heigh [mm]	External diameter [mm]	A	B	C	D	E	F	G	I	J	L	M	P	R	S	Net weight [kg]
AQT400EC1A	400 / 352	1644	700	1644	812	852	700	55	1521	843	1138	288	228	1081	592	1237	956	190

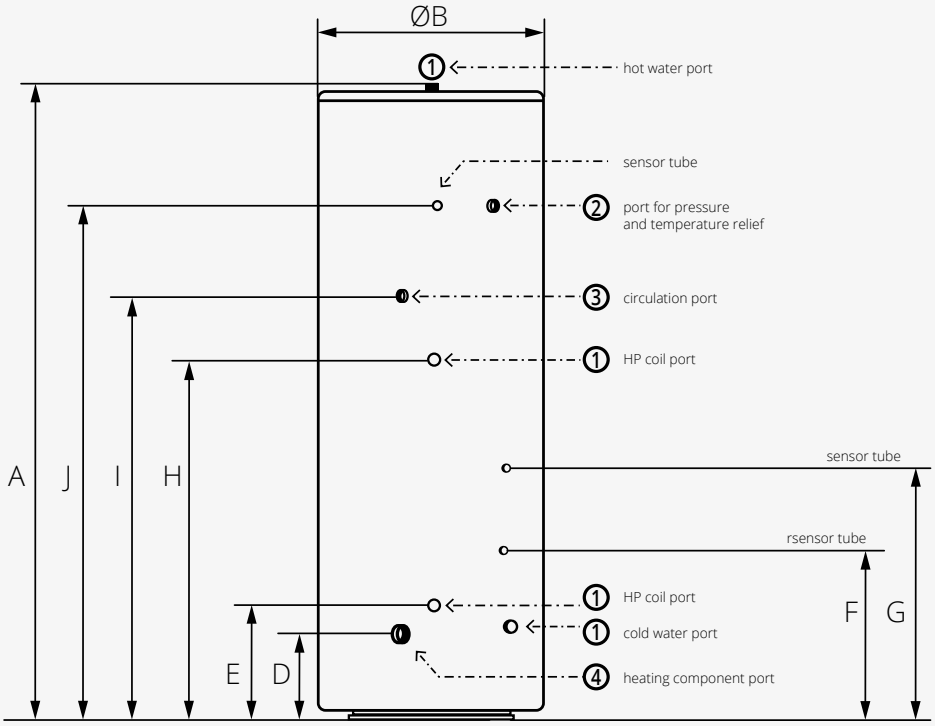


Rotenso Thermos Ceramic DHW tanks 500l

1	2	3	4	5
1" external	3/4" inner	5/4" inner	1/2" inner	6/4" inner

Model	Volume / Actual volume [l]	Heigh [mm]	External diameter [mm]	A	B	C	D	E	F	G	I	J	L	M	P	R	S	Net weight [kg]
AQT500EC1A	500 / 469	1914	700	1914	812	852	700	55	1790	1023	1310	288	228	1253	592	1409	1128	223

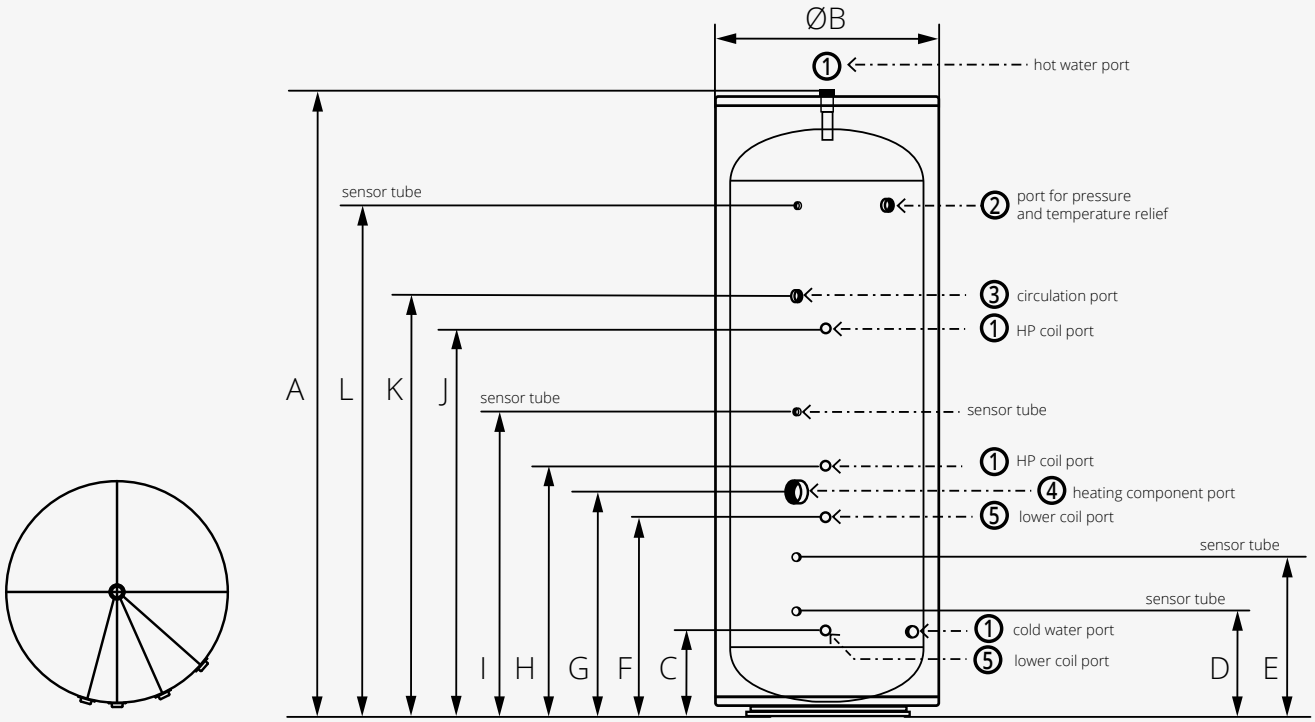
Tank dimensions
THERMOS INOX
THERMOS TWIN INOX
THERMOS DUAL INOX



Rotenso Thermos Inox
DHW tanks 200-500l

1	2	3	4
1"	1/2"	3/4" 1/2"	1 3/4"

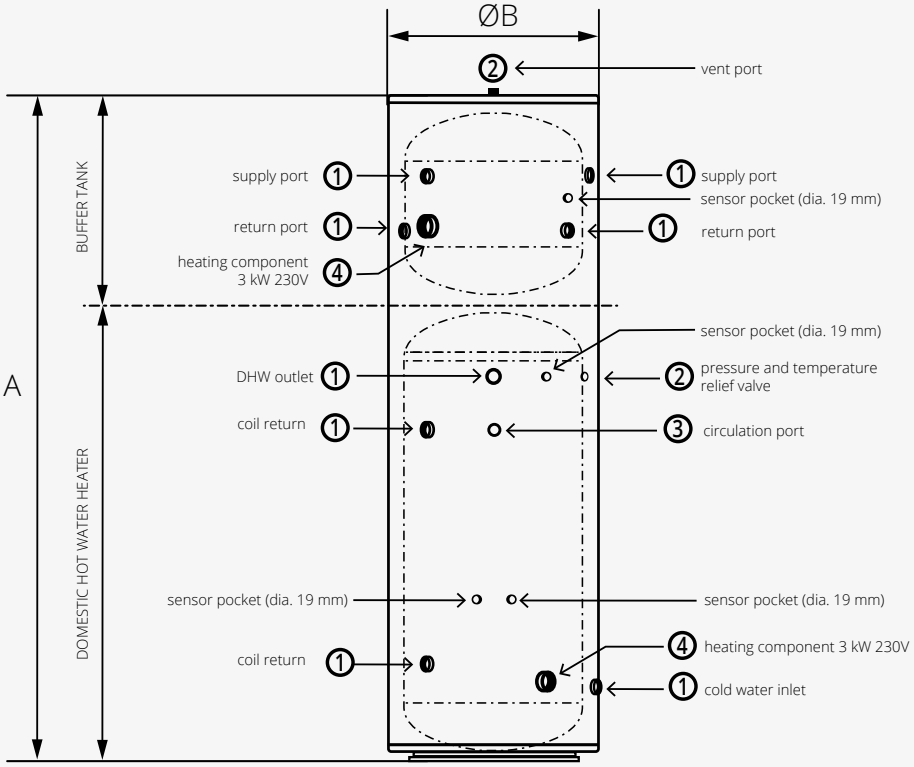
Model	Volume / Actual volume [l]	Heigh [mm]	External diameter [mm]	A	B	C	D	E	F	G	H	I	J	Net weight [kg]
AQT200iX1	200 / 189	1450	540	1450	540	196	211	261	451	701	911	981	1211	58
AQT300iX1	300 / 279	1600	600	1600	600	218	233	283	508	773	983	1153	1333	74
AQT400iX1	400 / 380	1570	710	1570	710	225	240	290	540	805	1190	1190	1290	81
AQT500iX1	500 / 481	1930	710	1930	710	225	240	290	540	910	1190	1190	1290	107



Rotenso Thermos Dual Inox DHW tanks 200-500l

1	2	3	4	5
1"	1/2"	3/4" 1/2"	1 3/4"	3/4"

Model	Volume / Actual volume [l]	Heigh [mm]	External diameter [mm]	A	B	C	D	E	F	G	H	I	J	K	L	Net weight [kg]
AQT200iX2	200 / 186	1450	540	1450	540	196	246	386	486	536	586	791	1130	1136	1211	61
AQT300iX2	300 / 277	1600	600	1600	600	218	268	438	538	578	628	813	1300	1328	1333	77
AQT400iX2	400 / 378	1570	710	1570	710	255	275	375	415	465	590	950	1260	1285	1290	84
AQT500iX2	500 / 478	1930	710	1930	710	255	275	430	615	675	735	950	1630	1635	1640	110



Rotenso Thermos Twin Inox DHW tanks 200-300l

Model	Volume / Actual volume [l]	Heigh [mm]	External diameter [mm]	A	B	Net weight [kg]
AQT200 + 90iX1	200 + 90 / 189 + 88	1700	600	1700	600	61
AQT300 + 90iX1	300 + 90 / 279 + 88	2150	600	2150	600	77

1	2	3	4
1"	1/2"	3/4" 1/2"	1 3/4"

Solutions
Tanks

STORE TANK

Rotenso Thermos Store / Plus
tanks to store heating water and refill the hydraulic system

CERAMIC TANK

Rotenso Thermos Ceramic
domestic hot water tank made of steel with ceramic enamel coating integrated with a single spiral coil.

INOX TANK

Rotenso Thermos Inox
Stainless steel tank to store domestic hot water.

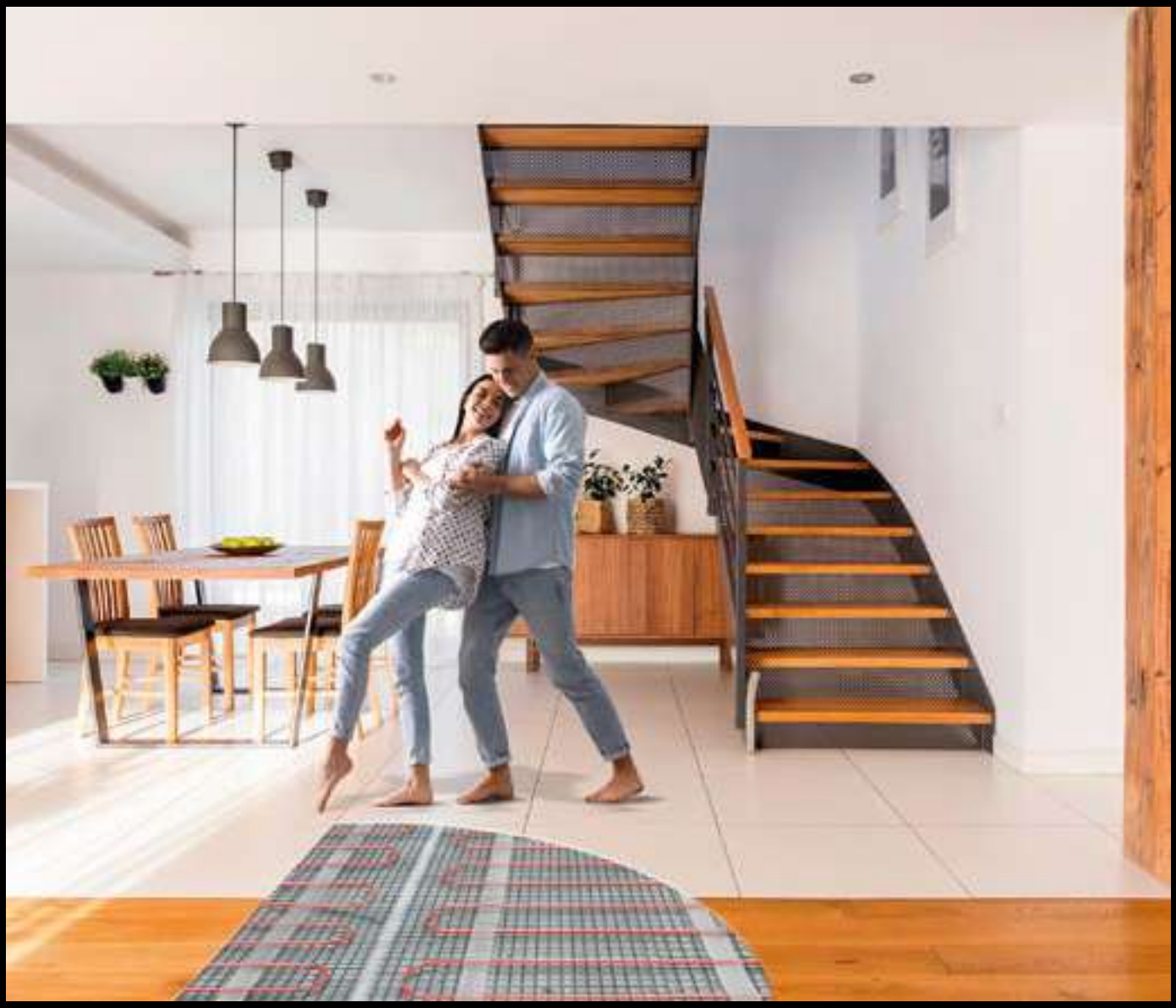
INOX TANK

Rotenso Twin Inox / Dual Inox
Rotenso Twin Inox is a DHW tank combined with a 90-liter buffer tank in a single housing. Rotenso Thermos Dual Inox is a DHW tank designed to work with the heat pump combined with an additional heat source.

Solution
THERMOS STORE

STORE
TANK

The primary function of the buffer tank is to store heating water and to refill the hydraulic system. Buffer tank can work as a hydraulic coupling in the system if connected properly.
50 L and 250 L Rotenso Thermos Store buffer tanks are made of black steel and insulated with hard Polyurethane foam of excellent insulation properties.All of the components are enclosed in a powder-coated steel housing.



50 l 100 l 250 l

Model	Rotenso Thermos STORE		
Capacity / Useable capacity (l)	50 / 50	100 / 120	250 / 265
Housing material	Polyurethane foam / black steel		
Tank material	steel		

Solution
THERMOS CERAMIC

CERAMIC TANK

ERotenso's enameled DHW tanks are designed for long-term and cost-efficient operation. Intended for the preparation and storage of domestic hot water, they are designed to work with each series of the Rotenso heat pumps and more. Coils ensure a large heat exchange surface to quickly heat domestic water with minimal energy consumption. Polyurethane foam insulation provides high energy efficiency. The excellent insulation characteristics of these tanks help to reduce the energy losses during hot water storage.

Rotenso DHW tanks are made of hydraulic pressure-resistant steel with increased thickness and additional hygienic and anti-corrosion enamel coating on the inside. The high quality of nickel-free enamel combined with a magnesium anode guarantees the long life of the tanks. Tanks are equipped with inspection holes to provide easy access to remove sediment and sinches, quickly inspect the tank and perform maintenance works, which reduces overall operating costs.

200 - 500 l

Model	Rotenso Thermos CERAMIC			
Capacity / Usable capacity (l)	200 / 208	300 / 286	400 / 352	500 / 469
Housing material	Polyurethane foam, artificial leather			
Tank material	Steel with ceramic enamel coating			

Solution
THERMOS INOX

INOX
TANK

Tank designed to store domestic hot water. Tank body, ports and coils are made of 316 L stainless steel. As a result, they are durable and ensure long life of a tank.

There are three types of tanks available:
- Tanks with a single coil characterized by a large heat exchange surface designed for use with heat pumps;
- Tanks with a double coil, where the first coil is characterized by a large heat exchange surface designed for use with heat pumps and the other coil is designed to support alternative heat source (e.g. solar collectors, gas boiler);
- Tanks with a single coil characterized by a large heat exchange surface combined with a 90-liter buffer tank in a single housing.

Thermos INOX 200 - 500 l

Model	Rotenso Thermos INOX			
Capacity / Usable capacity (l)	200 / 189	300 / 279	400 / 380	500 / 481
Housing material	Steel			
Tank material	Stainless steel			

Solution
THERMOS TWIN INOX / DUAL INOX

INOX TANK

Rotenso Thermos Twin Inox is a domestic hot water tank equipped with a large surface coil and a 90-liter buffer tank combined in a single housing. It has a 3 kW electric heater and a pressure relief valve. The housing is made of stainless steel.

Rotenso Thermos Dual Inox is a domestic hot water tank equipped with a large surface coil designed to work with heat pumps and additional heat source. It is provided with the second coil to connect additional heat source, e.g. solar collectors or solid fuel boiler. It also has a 3 kW electric heater and a pressure relief valve. Tank body is made of stainless steel and insulated with hard and dense Polyurethane foam.

TWIN INOX 200+90 l / 300+90 l

DUAL INOX 200-500 l

Model	Rotenso Thermos TWIN INOX		Rotenso Thermos DUAL INOX			
Capacity (l)	200 + 90	300 + 90	200	300	400	500
Usable capacity (l)	189 + 88	279 + 88	186	277	378	479
Housing material	Steel					
Tank material	Stainless steel					

Buffer **tanks**

50 L and 250 L Rotenso Thermos Store buffer tanks are made of black steel and insulated with hard Polyurethane foam (42 mm thick) of excellent insulation properties. All of the components are enclosed in a powder-coated steel housing.

Designed for use in heating and cooling systems as a hydraulic coupling, Thermos Store buffer tanks are used to store excess energy generated by the associated heat source.

Heat accumulation feature of the buffer tanks integrated into the heating system increases the efficiency, and at the same time, the life of the associated heat source, such as air-to-water heat pump, by increasing the water system's charge accordingly.

By ensuring the right amount of water in the system the heat buffer in heat pump systems also contributes to smooth operation of the heat pump, because heat accumulation reduces pump cycling to minimum to protect the heart of the entire cooling system – the compressor.

BUFFER TANKS

5 YEAR WARRANTY

5-year warranty

Energy efficiency class B/C

Stable and efficient heat pump operation

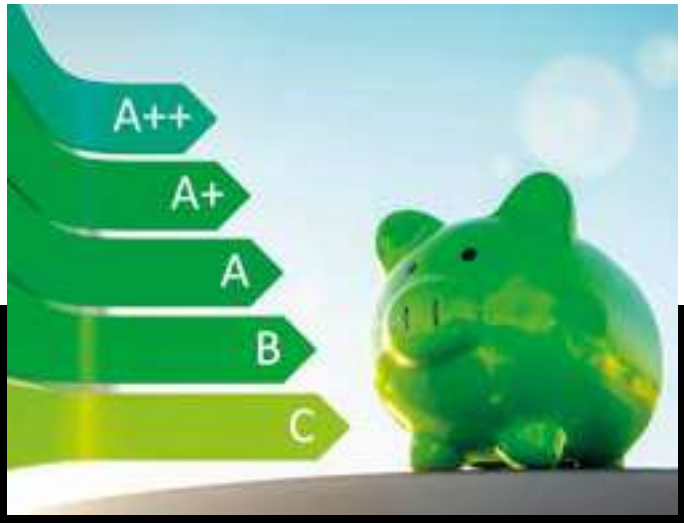
STORE
TANK

Stable and efficient **heat pump operation**

Buffer tank contributes in efficient and stable operation of the heat pump. It also ensures that stored heating water is used at the right time.

5-year warranty

Choose proven and reliable solutions.
The tank is made of black steel insulated with Polyurethane foam and comes with a 5-year warranty.



Energy efficiency class B/C

The excellent insulating properties of 42 mm thick polyurethane hard foam layer guarantee high energy efficiency.

Thermos Store

50 - 250 l

ENERGY EFFICIENCY CLASS B/C

CE

5-YEAR WARRANTY

Technical specification

Model			**AQT50SBHA**	**AQT100SBHA**	**AQT250SBSA**
EAN product code			5905567602894	5905567602900	5905567602917
Tank	Capacity (class)	l	50	100	250
	Colour		White	White	White
	Tank material		Polyurethane foam / black steel	Polyurethane foam / black steel	Polyurethane foam / black steel
	Housing material		Steel	Steel	Steel
	Maximum pressure	bar	3	3	3
	Insulation thickness	mm	42	42	42
	Maximum temperature	°C	90	90	90
	Height	mm	561	803	1568
	External diameter	mm	524	584	584
	Net weight / Gross weight	kg	25 / 31,62	41 / 55,3	63 / 85,3
Hydraulic connections	Heat pump input	thread inches	1" x 2	1" x 2	1" x 4
	Heat pump output	thread inches	1" x 2	1" x 2	1" x 3
	Heater connection	thread inches	1 1/2"	1 1/2"	1 1/2"
	Upper connector - bleeding	thread inches	1"	1"	1"
	Sensor connection	thread inches	Φ15	Φ15	Φ15
	Water drain	thread inches	-	-	-
Warranty	Tank	years	5	5	5
Energy efficiency class			B	B	C
Maintenance			Not required	Not required	Not required
Static heat loss		W	31	41	88

Optional accessories / model		**AGGE013**
EAN product code		5905567603266
Product name		Electric heater
Power	kW	3
Dimmension	mm / inches / screw	6 / 4" / -

Domestic hot water **tanks**

Rotenso's enameled DHW tanks are designed for long-term and cost-efficient operation. Intended for preparation and storage of domestic hot water, they are designed to work with each series of the Rotenso heat pumps.

Coils ensure a large heat exchange surface to quickly heat domestic water with minimal energy consumption. Polyurethane foam insulation provides high energy efficiency.

The excellent insulation characteristics of these tanks help to reduce losses during hot water storage. Rotenso DHW tanks are made of hydraulic pressure-resistant steel with increased thickness and additional hygienic and anti-corrosion enamel coating on the inside.

The high quality of nickel-free enamel combined with a magnesium anode guarantees long life of the tanks.

Tanks are equipped with inspection holes to provide easy access to remove sediment and sinches, quickly inspect the tank and perform maintenance works, which reduces overall operating costs.

DHW TANKS

Crystal Enamel coating

5-YEAR WARRANTY

Steel with ceramic enamel coating, 5-year warranty

INOX

Stainless steel

12-YEAR WARRANTY

Stainless steel, 12-year warranty

Coating
Crystal Enamel or Stainless steel

The inner surface of the Thermos Ceramic tank is made of a steel with anti-corrosion and hygienic enamel coating to ensure tank durability and high water quality.

The body of the Thermos Inox tank is made of stainless steel, while ports and coils are made of 316L stainless steel. Hard, dense Polyurethane foam is used as tank insulation.

5-year / 12-year warranty

The highest quality components and solutions guarantee many years of trouble-free operation. Rotenso Thermos Ceramic tanks come with a five-year warranty.
Rotenso Thermos Inox / Twin Inox and Dual Inox tanks come with twelve-year warranty.

Thermos Ceramic
200 - 300 l

ENERGY EFFICIENCY CLASS C

CE

5-YEAR WARRANTY

Technical specification

Model			AQT200EC1A	AQT300EC1A
EAN product code			5905567607097	5905567602931
Tank	Capacity (class)	l	200	300
	Colour		White	White
	Tank material		Ceramic enamel steel	Ceramic enamel steel
	Housing material		Polyurethane foam, plastic material	Polyurethane foam, plastic material
	Maximum pressure	bar	10	10
	Insulation thickness	mm	42	60
	Maximum temperature	°C	80	80
	Height	mm	1355	1558
	Outer diameter	mm	584	670
	Net weight / gross weight	kg	102 / 116,3	133 / 153
Integrated electric heater	Power	kW	-	-
	Power supply	V-Hz, Ø	-	-
Magnesium anode	Upper / Bottom	inches/screw	5/4" / - x1	5/4" / M8 x2
Heat exchanger	Type		Single coil	Single coil
	Material		Ceramic enamel steel	Ceramic enamel steel
	Maximum pressure	bar	10	10
	Maximum temperature	°C	110	110
	Heat pump tank coil surface	m²	2	2,9
	Power (50/10/45°C)	kW	17	25
	Power (60/10/45°C)	kW	-	-
	Solar coil surface	m²	-	-
	Power (80/10/45°C)	kW	-	-
	Capacity	l/h	822	1260
Hydraulic connections	Heat pump input	thread inches	1"	1"
	Heat pump output	thread inches	1"	1"
	DHW output	thread inches	3/4"	1"
	Cold water input	thread inches	3/4"	1"
	Temp.-pressure valve	thread inches	-	-
	Circulation / return	thread inches	3/4"	3/4"
	Heater connection	thread inches	6/4"	6/4"
	Solar system input	thread inches	-	-
	Solar system output	thread inches	-	-
Warranty	Tank	years	5	5
	Heater and safety valve		2	2
Energy efficiency class			C	C
Maintenance			Service and anode exchange obligatory every 2 years.	
Static heat loss		W	82	72

Optional accessories / model		AGGE013	AGAMG	AGAMD
EAN product code		5905567603266	-	-
Product name		Electric heater	Magnesium anode - upper	Magnesium anode - bottom
Power	kW	3	-	-
Dimmensions	mm / inches / screw	6 / 4" / -	38 × 400 / 1" / -	38 × 200 / - / M8

Thermos Inox
200 - 500 l

ENERGY EFFICIENCY CLASS C

CE

12-YEAR WARRANTY

Technical specification

Model			AQT200IX1	AQT300IX1	AQT400IX1	AQT500IX1
EAN product code			5905567602948	5905567602955	5905567602962	5905567602979
Tank	Capacity (class)	l	200	300	400	500
	Colour		White	White	White	White
	Tank material		Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Housing material		Steel	Steel	Steel	Steel
	Maximum pressure	bar	6	6	6	6
	Insulation thickness	mm	40	40	50	50
	Maximum temperature	°C	85	85	85	85
	Height	mm	1450	1600	1570	1930
	External diameter	mm	540	600	710	710
	Net weight / Gross weight	kg	58 / 65,5	74 / 84,4	81 / 97	107 / 123
Integrated electric heater	Power	kW	3	3	3	3
	Power supply	V-Hz, Ø	220-240 ~50, 1f	220-240 ~50, 1f	220-240 ~50, 1f	220-240 ~50, 1f
Magnesium anode	Upper / Bottom	inches/screw	-	-	-	-
Heat exchanger	Type		Single coil	Single coil	Single coil	Single coil
	Material		Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Maximum pressure	bar	10	10	10	10
	Maximum temperature	°C	95	95	95	95
	Heat pump tank coil surface	m²	2,5	3,2	3,2	4
	Power (50/10/45°C)	kW	-	-	-	-
	Power (60/10/45°C)	kW	37,5	48,1	48,1	60,1
	Solar coil surface	m²	-	-	-	-
	Power (80/10/45°C)	kW	-	-	-	-
	Capacity	l/h	922,6	1180,9	1180,9	1476,1
Hydraulic connections	Heat pump input	thread inches	1"	1"	1"	1"
	Heat pump output	thread inches	1"	1"	1"	1"
	DHW output	thread inches	1"	1"	1"	1"
	Cold water input	thread inches	1"	1"	1"	1"
	Temp.-pressure valve	thread inches	1/2"	1/2"	1/2"	1/2"
	Circulation / return	thread inches	3/4"	3/4"	3/4"	3/4"
	Heater connection	thread inches	1 3/4"	1 3/4"	1 3/4"	1 3/4"
	Solar system input	thread inches	-	-	-	-
	Solar system output	thread inches	-	-	-	-
Warranty	Tank	years	12	12	12	12
	Heater and safety valve		1	1	1	1
Energy efficiency class			C	C	C	C
Maintenance			Obligatory service after 12 months			
Static heat loss		W	81	92	102	115

Thermos Dual Inox / Twin Inox

200 - 500 l

ENERGY EFFICIENCY CLASS C

CE

12-YEAR WARRANTY

Technical specification

Model			AQT200IX2	AQT300IX2	AQT400IX2	AQT500IX2	AQT200+90IX1	AQT300+90IX1
EAN product code			5905567602986	5905567602993	5905567603006	5905567603013	5905567603020	5905567603037
Tank	Capacity (class)	l	200	300	400	500	200 + 90	300 + 90
	Colour		White	White	White	White	White	White
	Tank material		Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Housing material		Steel	Steel	Steel	Steel	Steel	Steel
	Maximum pressure	bar	6	6	6	6	6	6
	Insulation thickness	mm	40	40	50	50	40	40
	Maximum temperature	°C	85	85	85	85	85	85
	Height	mm	1450	1600	1570	1930	1700	2150
	External diameter	mm	540	600	710	710	600	600
	Net weight / Gross weight	kg	61 / 68,5	77 / 87,4	84 / 100	109 / 125	85 / 95,4	102 / 112,4
Integrated electric heater	Power	kW	3	3	3	3	2 × 3	2 × 3
	Power supply	V-Hz, Ø	220-240 ~50, 1f	220-240 ~50, 1f	220-240 ~50, 1f	220-240 ~50, 1f	220-240 ~50, 1f	220-240 ~50, 1f
Magnesium anode	Upper / Bottom	inches/screw	-	-	-	-	-	-
Heat exchanger	Type		Double coil	Double coil	Double coil	Double coil	Single coil	Single coil
	Material		Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Maximum pressure	bar	10	10	10	10	10	10
	Maximum temperature	°C	95	95	95	95	95	95
	Heat pump tank coil surface	m²	2,5	3,2	3,2	4	2,5	3
	Power (50/10/45°C)	kW	-	-	-	-	-	-
	Power (60/10/45°C)	kW	37,5	48,1	48,1	60,1	37,5	47,6
	Solar coil surface	m²	0,7	1,1	1,1	1,2	-	-
	Power (80/10/45°C)	kW	17,9	29	29	30,6	-	-
	Capacity	l/h	922,6	1180,9	1180,9	1476,1	923	1140
Hydraulic connections	Heat pump input	thread inches	1"	1"	1"	1"	1"	1"
	Heat pump output	thread inches	1"	1"	1"	1"	1"	1"
	DHW output	thread inches	1"	1"	1"	1"	1"	1"
	Cold water input	thread inches	1"	1"	1"	1"	1"	1"
	Temp.-pressure valve	thread inches	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
	Circulation / return	thread inches	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
	Heater connection	thread inches	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"
	Solar system input	thread inches	3/4"	3/4"	3/4	3/4	-	-
	Solar system output	thread inches	3/4"	3/4"	3/4"	3/4"	-	-
Warranty	Tank	years	12	12	12	12	12	12
	Heater and safety valve		1	1	1	1	1	1
Energy efficiency class			C	C	C	C	C	C
Maintenance			Obligatory service after 12 months				Obligatory service after 12 months	
Static heat loss		W	81	92	102	115	77	94

WE ARE FUTURE

Heat pumps equipment
and accessories
Rotenso


ROTENSO
AQUAMI
SERIES

Wired controllers

Symbol	RENI S	RENI M	NOKA
EAN code	5905567603372	5905567603365	5905567603358
Series	AQUAMI (Split)	AQUAMI (Monoblock)	AQUAMI (Multi Split)
- Touchscreen controller			
- LCD display	●	●	●
- Checking the heat pump operational status	●	●	●
- Checking the operation mode	●	●	●
- Adjustable temperature and operation mode	●	●	●
- Adjustable water temperature	●	●	●
- Adjustable air temperature	●	●	●
- Silent mode	●	●	
- Vacation mode	●	●	
- Home vacation mode	●	●	
- Eco mode	●	●	●
- Configurable daily schedules	●	●	●
- Configurable weekly schedules	●	●	●
- Timer	●	●	●
- Climate curves	●	●	
- Second temperature control zone to enable	●	●	
- System status tracking	●	●	●
- Energy consumption tracking	●	●	
- Energy-saving tips	●	●	
- Remote control	●	●	●
- Error codes display	●	●	●
- Checking the operating parameters	●	●	●
- Parental lock	●	●	●
- Screen lock			
- Test feature	●	●	
- Audible alarm	●	●	
- Multiple user interface languages including Polish	●	●	
- Integrated temperature sensor	●	●	●
- Integrated Wi-Fi module to support app control	●	●	
- Support for Modbus and control via network	●	●	●
- Max. number of indoor units (BMS control system)	16	16	16
- Max. number of units per controller in a cascade system	6	6	6

ORIS	ATEA	TERO S	TERO M
brak	5905567613074	5905567613081	5905567613098
WINDMI	HEATMI	AIRMI (Split)	AIRMI (Monoblock)
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32	18	16	16
	6	6	6

Expansion modules

This feature allows for the addition of extra thermostats or temperature sensors to the Aquami Split/Monoblock unit, enabling precise room temperature control. The unit enters standby mode once the set temperature is achieved by all connected thermostats or sensors. Thermostats and sensors not included.

Symbol	**RAEST6**
EAN Code	5905567603273
Number of additional thermostats to connect	6

Temperature sensors

- Top of the Tbt1 expansion tank,
- Bottom of the Tbt2 expansion tank,
- Tsolar system,
- Supply water for Tw2 zone 2,
- Leaving water temperature T1,
- DHW tank sensor.

	Symbol	**RASN-MTF1A**	**RASN-MTF2A**	**RASN-MTF1H0**	**RASN-MTF2HAI0**	**RASN-MSDHW**
GENERAL	EAN code	5905567603211	5905567603228	5905567613104	5905567613111	5905567603303
	Compatible series	AQUAMI	AQUAMI	HEATMI	HEATMI AIRMI	AQUAMI MULTI SPLIT
	Sensor cable length	10 mb	10 mb	10 mb	10 mb	10 mb
	Sheath colour	random	random	random	random	random
APPLICATION	Buffer tank top temperature sensor	●			●	
	Buffer tank bottom temperature sensor	●			●	
	DHW tank temperature sensor	●		●		●
	Solar system temperature sensor		●		● (HEATMI)	
	Leaving water temperature sensor					
	Second zone supply water temperature sensor		●	●	● (AIRMI)	

Pump stations

Pump station is a pre-assembled unit of equipment and fittings designed to connect the heat pump to the heating system.

	Symbol	RASPG-MVA	RASPG-DCA
COMPONENTS	Name	Pump station with mixing valve	Direct flow pump station
	Supply shut-off valve	●	●
	Return shut-off valve	●	●
	Supply temperature gauge	●	●
	Return temperature gauge	●	●
	Integrated in shut-off valve knob	●	●
	Non-return valve integrated in the return shut-off valve (blue temperature gauge)	●	●
	Circulation pump	●	●
	Shut-off valve upstream the pump	●	●
	RAS3W-MV mixing control valve	●	
SPECIFICATION	Connections on the heat pump side	G1 1/2"	G1 1/2"
	Connections on the system side	GW G1"	GW G1"
	Kvs	12 m^3/h	6,2 m^3/h
	Power supply	230V AC	230V AC
	Maximum pressure	10 bar	10 bar
	Maximum medium temperature	110°C	110°C

Manifolds

Our manifolds facilitate quick and easy connection of two or three RASPG pump stations to the heat pump. Its sleek housing ensures thermal insulation.

Symbol	RAVS-SV2	RAVS-SV2HW	RAVS-SV3	RAVS-SV3HW
Name	Manifold for two pump circuits	Manifold for two pump circuits with a hydraulic coupling	Manifold for three pump circuits	Manifold for three pump circuits with a hydraulic coupling
EAN Code	5905567603310	5905567603327	5905567603334	5905567603341
Connections on the heat pump side	G1 1/2"	G1 1/2"	G1 1/2"	G1 1/2"
Connections on the pump station side	GW 1"	GW 1"	GW 1"	GW 1"
Spacing of the connections on the pump station side	125 mm	125 mm	125 mm	125 mm
Flow rate	max. 3 m^3/h	max. 3 m^3/h	max. 3 m^3/h	max. 3 m^3/h
Maximum pressure	6 bar	6 bar	6 bar	6 bar
Maximum medium temperature	110°C	110°C	110°C	110°C

Zone, anti-freeze valves





Symbol	RAS3W-ZV	RAS3W-ZV20	RAS3W-MV	RASAV-AV10	RASAV-AV20
Name	3-way zone valve with actuator	3-way zone valve with actuator	3-way control valve with actuator	Anti-freeze valve	Anti-freeze valve
EAN Code	5905567603297	5905567603167	5905567603280	5905567603105	5905567603112
Size	DN 20 G1 (male)	DN 25 G1 1/4" (male)	DN 25 RP1" (female)	2 x G1"	2 x G1 1/4"
Maximum medium temperature	-	-	-	70°C	70°C
Kvs	8m^3/h	13m^3/h	12m^3/h	55m^3/h	70m^3/h
Switchover time	8s	8s	120s	-	-
System discharge opening temperature	-	-	-	3°C	3°C

Dirt separators

The magnetic dirt separator, suitable for both heating and cooling systems, is installed before the heat pump in the system's return. It employs a dual mechanical and magnetic filtration system to shield the installation from impurities and includes a drain valve for the effortless removal of contaminants.

Symbol	RASMDS-DS10	RASMDS-DS20
Name	Magnetic dirt separator	Magnetic dirt separator
Connection size	2x GW G1"	2x GW G1 ¼"
Maximum medium temperature	90°C	90°C
Recommended maximum flow rate	2,1 m³/h	7,3 m³/h
Kvs	6,9 m³/h	17,9 m³/h

Circulation pumps

The circulation pump, designed for use in heating systems, is installed after components such as the buffer tank, plate heat exchanger, hydraulic coupling, and manifolds. It features 9 programmable characteristics, encompassing 3 constant speed settings, 3 proportional settings, and 3 constant pressure settings. The pump is equipped with LED indicators to display the currently selected operating characteristic.

Symbol	RASHSP-PH10	RASHSP-PH20
Name	Circulation pump	Circulation pump
Cable length	1,6 m	1,6m
Connection size	2x GW G1"	2x GW G1 ½"
Max. glycol concentration	50%	50%
Max. pump head	7 m	7m
Effective length	130 mm	180 mm

Rubber supports

Anti-vibration support for heat pump outdoor unit installation. It is made of black rubber with a core of high-quality cushioning element.



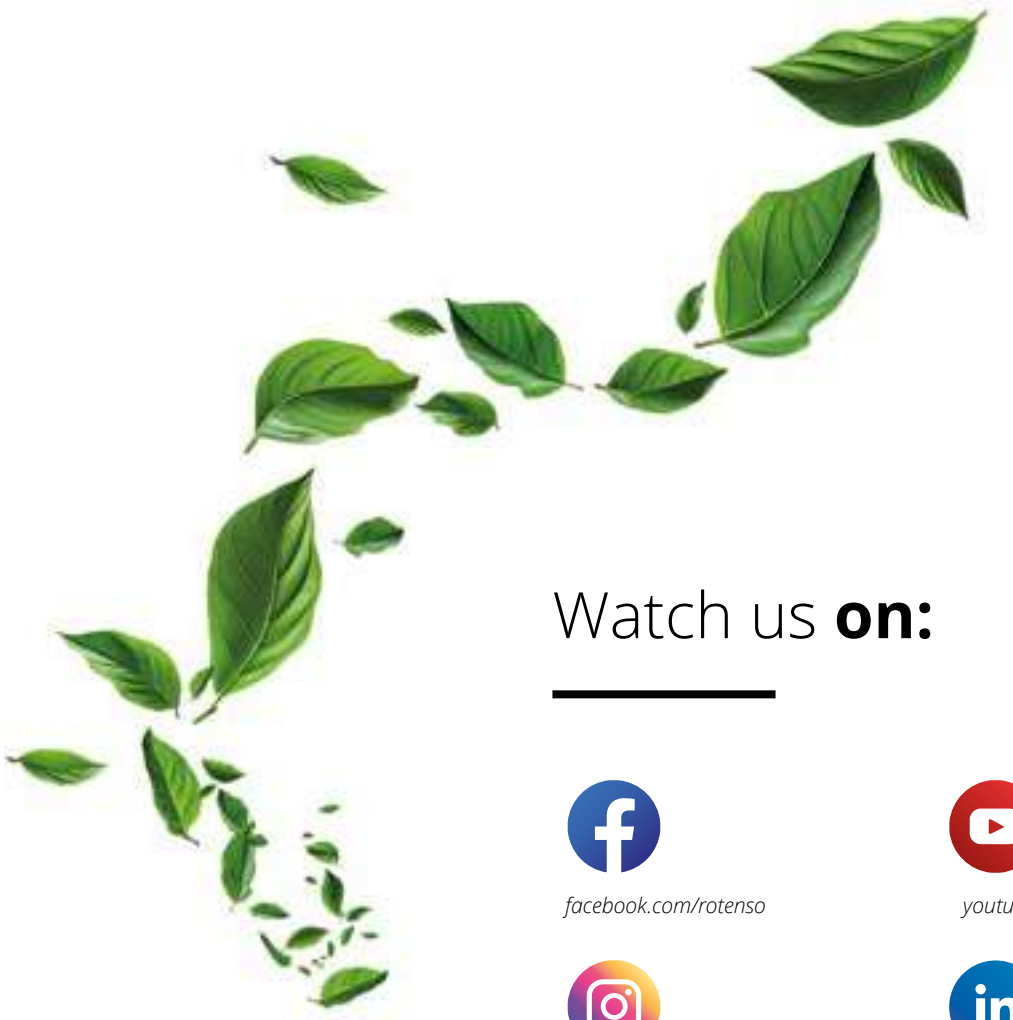

Symbol		**IMS08**	**IPR400**	**IPR600**	**IPR1000**
EAN Code		5905567604010	5905567604065	5905567604072	5905567604058
Colour		black	black	black	black
Material		rubber	rubber	rubber	rubber
Number of units in the set		4 pcs.	2 pcs.	2 pcs.	2 pcs.
Dimensions	Total height	80 mm	100 mm	100 mm	100 mm
	Cushioning element height	60 mm	-	-	-
	Depth	38 - 47 mm	400 mm	600 mm	1000 mm
	Foot height	15 mm	-	-	-
	Width	107 mm	180 mm	180 mm	180 mm
Bolt diameter		M8	M10	M10	M10
Max load per set		300 kg	400 kg	600 kg	1000 kg

Steel brackets

The bracket's design accommodates the installation of Rotenso outdoor heat pump units by allowing adjustment of the connector spacing (lengthening or shortening). Made from corrosion-resistant, double-protected steel through galvanization and powder coating, the bracket also includes adjustable feet with mounting holes for secure ground attachment.




Symbol		**IHG520M**	**IHG520S**	**IHG520MG**	**IHG520SG**
EAN code		5905567604720	5905567604744	5905567604737	5905567604751
Colour		white	white	graphite	graphite
Material		galvanised and powder-coated steel	galvanised and powder-coated steel	galvanised and powder-coated steel	galvanised and powder-coated steel
Wymiary	Total height	416 mm	416 mm	416 mm	416 mm
	Height	406 mm	406 mm	406 mm	406 mm
	Depth - top	593 mm	593 mm	593 mm	593 mm
	Depth - bottom	695 mm	695 mm	695 mm	695 mm
	Width (adjustable)	520 - 1019 mm	520 - 850 mm	520 - 1019 mm	520 - 850 mm
	Mounting hole spacing (adjustable)	132 - 520 mm	132 - 520 mm	132 - 520 mm	132 - 520 mm
Max. load		250 kg	200 kg	250 kg	200 kg



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