

Ferrolì



AQUAOPTI



Everyday moments, made warmer – Heat pump water heater for domestic hot water

EASIER TO INSTALL. MORE ENJOYABLE TO USE.

AquaOpti is Ferrol's range of heat pump water heaters, designed to make comfort simpler. To install. To manage. To experience.

Ideal for renovation projects and perfect for new builds, AquaOpti provides cutting-edge solutions for domestic hot water production, with maximum flexibility in installation thanks to its wall-mounted and floor-standing versions.

By using the natural refrigerant R290 and with its high energy efficiency, featuring a COP that is among the best in its class, AquaOpti combines low energy consumption, high performance and long-term reliability. A solution designed to ensure efficient, long-lasting comfort, with the guarantee of reliable performance and simplified management.

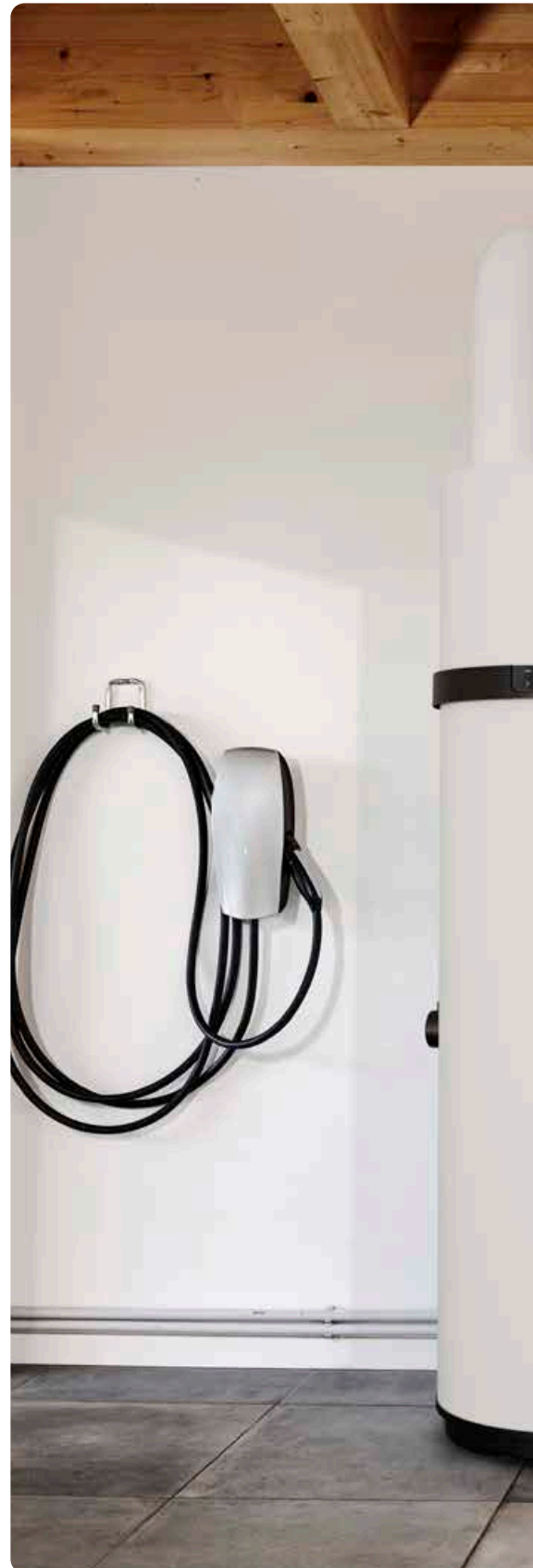
Low-noise operation, versatile integration options, and efficient performance in every application.

AquaOpti has been designed to adapt to different needs, spaces and applications.

Its quiet operation delivers exceptional acoustic comfort, while both the wall-mounted and floor-standing versions provide the flexibility to integrate seamlessly into any home environment. This versatility extends to a wide range of applications: from the independent production of domestic hot water to integration with solar systems and photovoltaic installations, as well as the ability to operate multiple units in cascade.

By fitting seamlessly into the home and adapting effectively to different installation settings, AquaOpti helps to make every space more welcoming and pleasant to live in.

A solution you can rely on, with every installation. Easy to choose. Simple to install. Designed to last.





EFFICIENCY AND RELIABILITY.
LIVING COMFORT, DAY AFTER DAY.





AquaOptic redefines the domestic hot water experience, combining state-of-the-art technology, high performance and energy efficiency.

With its rotary compressor, modulating ventilation and smart electronics, the system dynamically adapts to real usage requirements, optimising performance and energy consumption whilst always ensuring the right balance between efficiency and comfort. Technology designed to deliver value every day, simplifying management and maximising performance.

Efficient performance.

AquaOpti combines efficiency and performance through the use of the natural refrigerant R290, which has a GWP of less than 1, achieving best-in-class results, with a COP consistently above 3.41 and an energy efficiency rating of A+.

The ability to produce hot water up to 62°C using only a heat pump, combined with a wide operating range of between -10°C and +43°C, also ensures performance and uninterrupted service year-round, even in the most challenging weather conditions.

Long-term reliability.

Designed to ensure long-lasting performance and quality, AquaOpti incorporates advanced solutions to guarantee consistent operation and complete peace of mind.

Automatic sanitisation cycles up to 62°C (up to 70°C when using the electric heating element) help to ensure high standards of hygiene and safety.

The anti-corrosion system, which combines two technologies – a magnesium sacrificial anode and an electronic anode – protects the tank and helps to maintain its performance.

Lastly, high-density polyurethane insulation reduces heat loss and helps to ensure high energy efficiency over the years.

High performance today, delivering reliability you can count on every day.

**VERSATILITY THAT EXPANDS
YOUR DESIGN OPTIONS.**



The AquaOpti range is designed to adapt to all application requirements, with four models developed to meet different installation and domestic hot water production needs.

The range includes:

- **two compact and versatile wall-mounted models, with 100- and 150-litre capacities;**
- **two floor-standing models, designed for more intensive use, with 200- and 260-litre tanks.**

Floor-standing models can also be integrated with solar thermal systems, further expanding the design options.

Smart management. Advanced features.

The entire range features advanced electronics, combining smart software with high-quality construction.

The system automatically optimises its operation based on usage conditions, whilst connectivity via the Ferroli FeelHome app allows the product to be controlled remotely and provides access to advanced energy monitoring features, designed to offer greater control over energy consumption and performance.

All the functions can be conveniently managed via a practical LED display with touch controls, which perfectly complements the elegant, modern design.

Maximum freedom of use.

Maximum freedom of installation.

The electronic control system offers a range of operating modes to suit every need: fully autonomous operation, weekly programming or manual settings, and dedicated functions to achieve maximum energy efficiency, including integration with renewable energy sources such as photovoltaic systems.

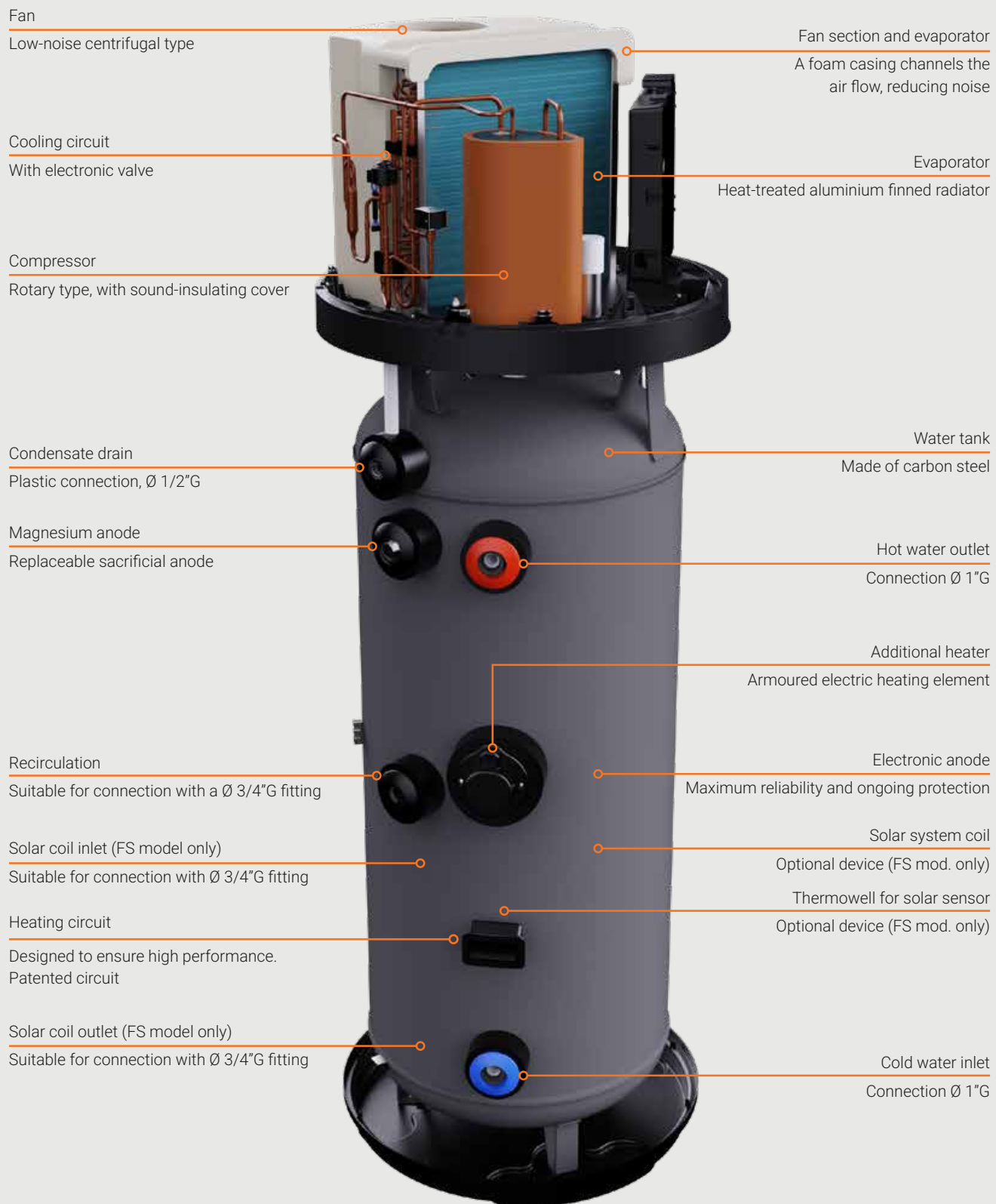
AquaOpti's flexibility also carries over to its installation. Its compact design means it can fit into small spaces or unused nooks, making the most of every area of the home. By drawing air directly from the room in which it is installed, AquaOpti also helps to reduce humidity and prevent the formation of mould, thus improving comfort and the quality of living spaces.

RANGE		Type gas	Capacity l	Load profile	Class ERP	Solar thermal integration	COP ¹	Max temperature domestic hot water ²	No. people
Wall-mounted	Aquaopti W 100	R290	100	M	A+	NO	3.41	62°	
	Aquaopti W 150	R290	150	L	A+	NO	3.46	62°	
Floor-standing	Aquaopti F 200	R290	200	L	A+	NO	3.69	62°	
	Aquaopti F 260	R290	260	XL	A+	NO	3.72	62°	
Floor-standing with solar integration	Aquaopti FS 200	R290	200	L	A+	YES	3.69	62°	
	Aquaopti FS 260	R290	260	XL	A+	YES	3.72	62°	

¹ Data according to EN 16147: 2017+A1 for AVERAGE climate (unit in ECO mode; inlet water temperature = 10°C; inlet air temperature = 7°C DB / 6°C WB)

² 62°C heat pump-only operation; 70°C with supplementary electric heating element

DESIGNED FOR COMFORT. IN EVERY DETAIL.



INTUITIVE CONTROL. EFFICIENT PERFORMANCE.



The AquaOpti solar sensor thermowell makes everyday comfort even easier thanks to advanced electronics designed to offer an intuitive and user-friendly experience.

The Energy Monitoring function allows users to monitor consumption and performance in real time, optimising domestic hot water production and helping to improve the system's efficiency.

Smart technology designed to offer daily comfort, control and value.

 Operating mode selection Confirmation of new set-point value Access to menus and submenus Confirmation of modified parameter	 BOOST mode (operation with heat pump and electrical heating element)	 Photovoltaic mode (optional) (a steady symbol indicates that the function is enabled; a flashing symbol indicates that the function is active)
 Confirmation of new set-point value Return to main menu or previous screen. Exit the parameter editing screen without saving	 ELECTRIC mode (operation with heating element only)	 Fault or protection device triggered Technical or maintenance intervention requested
 Increase in set-point or parameter value Navigating the menu	 Anti-Legionella cycle	 Wi-Fi connection Flashing icon: no connection
 Decrease in set-point or parameter value Navigating the menu	 Operation in cascade (optional)	 Hot water availability indicator (High - Medium - Low) 'Low availability' icon: restricted domestic hot water supply
 Timer schedule operation	 Smart Grid / EVU operation (optional)	 Indication of current temperature, set-point, alarm codes, menus
 AUTO mode (operation with heat pump and, if necessary, with electric heating element)	 Solar thermal mode (optional) Steady icon on: function enabled Flashing icon: function active	 Function status indicator Orange: product heating Red: fault

FOUR OPERATING MODES. ONE COMFORT GOAL.

Every home has different requirements. Which is why AquaOpti offers four operating modes, designed to adapt to your usage habits and optimise comfort, efficiency and energy consumption whatever the situation.

All versions are also fitted as standard with a supplementary electric heating element that automatically switches on when required, ensuring uninterrupted service and a constant supply of domestic hot water.

A flexible, smart solution, designed to always offer the right level of comfort with maximum ease of use.

ECO MODE

Maximum energy efficiency

Operates exclusively in heat pump mode. The additional heater is only switched on as a backup only if the outdoor temperature is outside the operating range.
(Tmax 62°C)

AUTO MODE

Smart comfort management

Heat pump operation is prioritised. The additional heater is only switched on as a backup if the tank temperature increases too slowly (>4°C/30 min) or the outdoor temperature is outside the operating range (Tmax 62°C).

BOOST MODE

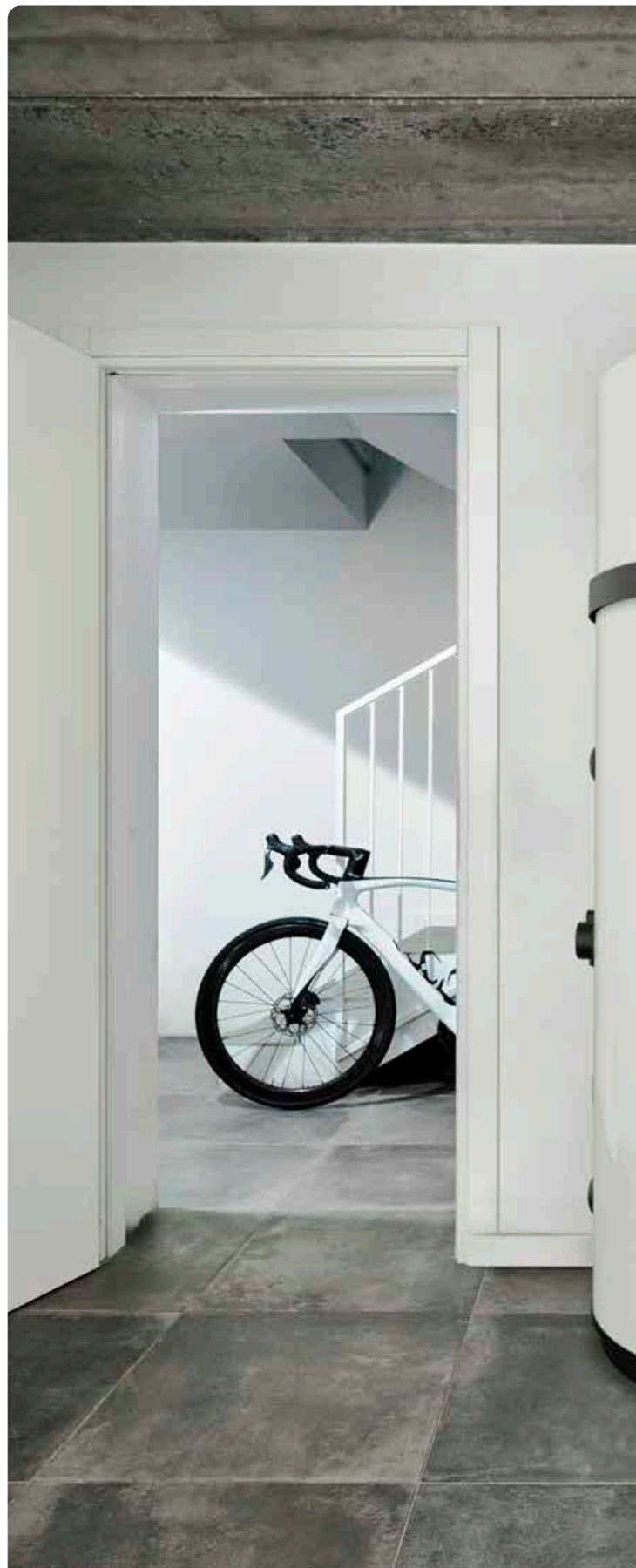
Maximum availability of domestic hot water

Simultaneous operation of the heat pump and the additional heater Set-point available up to 70°C.

ELECTRIC MODE

Uninterrupted service in whatever the situation

Operation with the additional heater only. Set-point available up to 70°C.



RENEWABLE ENERGY: ALL THE SOURCES OF COMFORT.



AquaOpti is designed for smart communication with various energy sources, maximising their potential to optimise energy consumption and transforming them into everyday comfort.

With its set-up for integration with photovoltaic systems, the system uses surplus energy to increase the production of domestic hot water, boosting self-consumption and reducing the amount of electricity drawn from the grid.

The FS versions provide even greater system flexibility thanks to the coil integrated into the tank, enabling connection to solar thermal systems.

The system also features a dedicated input for managing subsidised electricity tariffs (Smart Grid/EVU), automatically adjusting its operation in line with energy availability to optimise consumption and efficiency.

SOLAR PANEL SYSTEM

Smart solar energy management

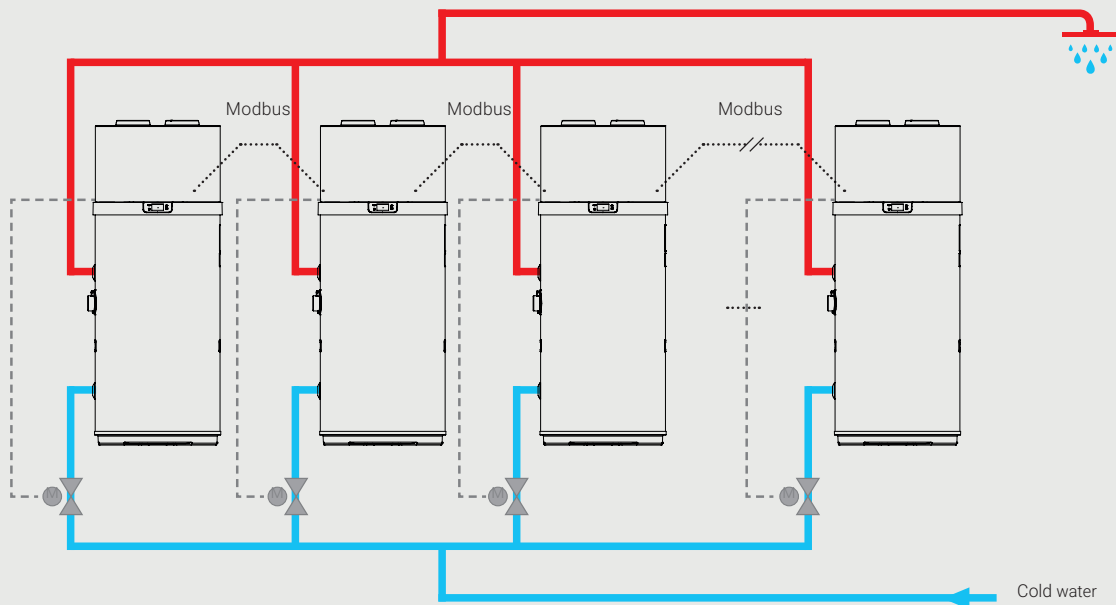
With its built-in electronics, AquaOpti directly controls all the components of the solar circuit, adjusting the heat pump's operation to match the availability of solar energy.

PHOTOVOLTAIC SYSTEM

From photovoltaic energy to heat storage

AquaOpti optimises the use of surplus photovoltaic energy by utilising the inverter's dry contact. The system automatically increases the domestic hot water temperature to a user-definable set-point (higher than in ECO and AUTO modes), and storing any available free energy.

CASCADE MANAGEMENT: MORE AVAILABILITY, MORE CONTINUITY.



When the demand for hot water increases, being able to rely on a system capable of scaling up in line with the system's requirements is important. AquaOpti meets this need with an smart management system that combines performance, reliability and user-friendly controls.

The option to connect up to 8 floor-standing units in cascade guarantees continuous comfort and a constant supply of domestic hot water, even in the most demanding applications.

The system is easy and intuitive to manage. Thanks to the integrated electronics, the units communicate with one another via an optional board (Cascade controller kit) and are automatically configured according to a master/slave configuration.

The entire system can be monitored, managed and controlled at any time, either directly from the Master unit or via the Ferrolí FeelHome app.

Optimised performance

The automatic rotation of the units distributes operating hours evenly, helping to improve the system's reliability and service life.

Constant supply of hot water

The system automatically adapts DHW production to actual demand, ensuring optimum comfort while maximising energy efficiency.

Uninterrupted service

Even if one unit shuts down, the other units operating in cascade continue to keep the system running and ensure a continuous supply of DHW.

Simple, centralised control

All the parameters can be monitored and managed from a single access point, for convenient, user-friendly control.



MORE CONTROL IN USE.
MORE VALUE IN SERVICE.



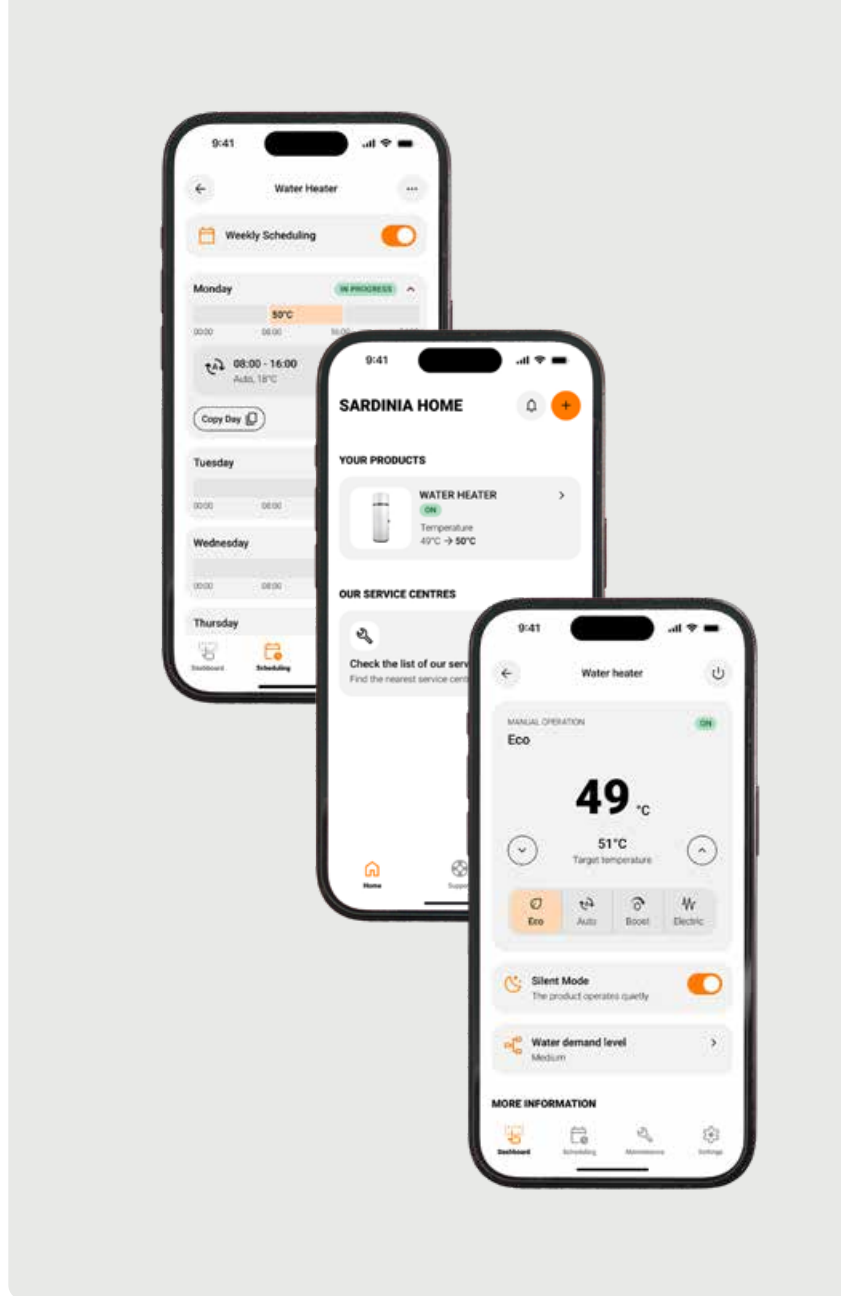
The highest level of comfort is one that naturally adapts to the needs of those who experience it. That is why AquaOpti features advanced, connected electronics that enable user-friendly comfort control via the **Ferroli FeelHome app**.

Wi-Fi connectivity allows users to monitor the product's operation, adjust the settings and programme the system remotely. A simple and intuitive experience that allows users to manage their comfort with greater independence and freedom.

Ferroli FeelHome also adds value in terms of service quality. Advanced connectivity features enable continuous performance monitoring and allow the service network to access key operating parameters, making diagnostics more effective and ensuring more efficient, long-term product management.

Ongoing support that helps to improve the end-user experience and enhance the reliability, service continuity and value of the installation.

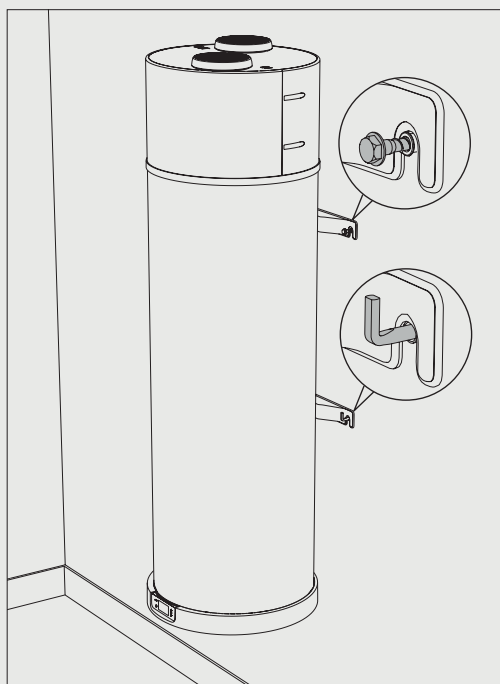
A better customer experience.
Added support for professionals.



ONE APP, MULTIPLE FUNCTIONS.

- Remote management of the product's settings and temperature.
- Management and monitoring of multiple homes from a single interface.
- Real-time monitoring of product status and operation.
- Weekly schedule that can be customised to suit your lifestyle.
- Simple and intuitive multi-user management.
- Access to dashboards, statistics and maintenance information.
- Real-time notifications on operational status, FAQs and guided support

EASIER INSTALLATION. MORE VALUE IN EVERY PROJECT.



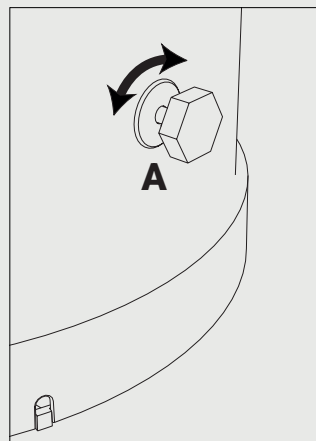
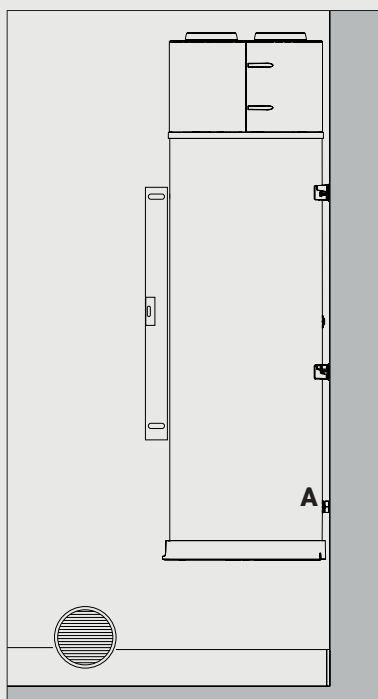
Easy installation

AquaOpti is the result of a first-hand understanding of installation requirements. To this end, it is designed to simplify every stage of the work, from installation to maintenance, ensuring maximum accessibility to components and easy servicing.

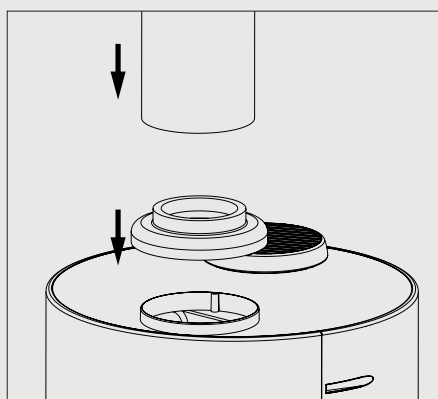
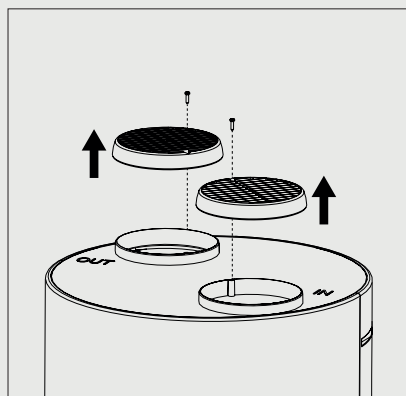
In the wall-mounted versions, the model with the largest capacity is fitted with a dual-bracket mounting system that improves weight distribution and allows installation even on thin walls, whilst maintaining high safety standards.

Precision and safety.

In the wall-mounted versions, a special centring device ensures the product is perfectly aligned vertically during assembly, speeding up the installation process and making it safer and more accurate.



EASIER INSTALLATION. MORE VALUE IN EVERY PROJECT.

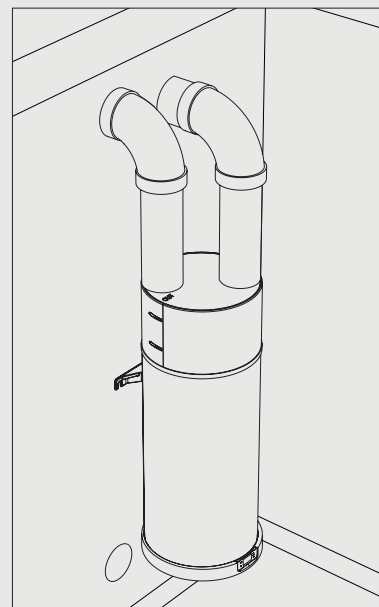
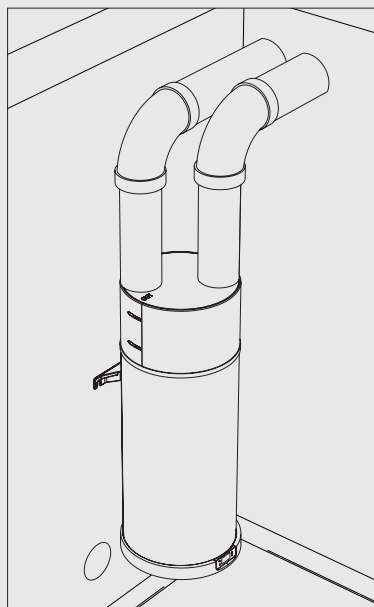


Application flexibility

For maximum application flexibility, the 100- and 150-litre models can be fitted with Ø125 mm pipes instead of the standard Ø160 mm ducts, using the adaptors supplied as standard.

Freedom of configuration

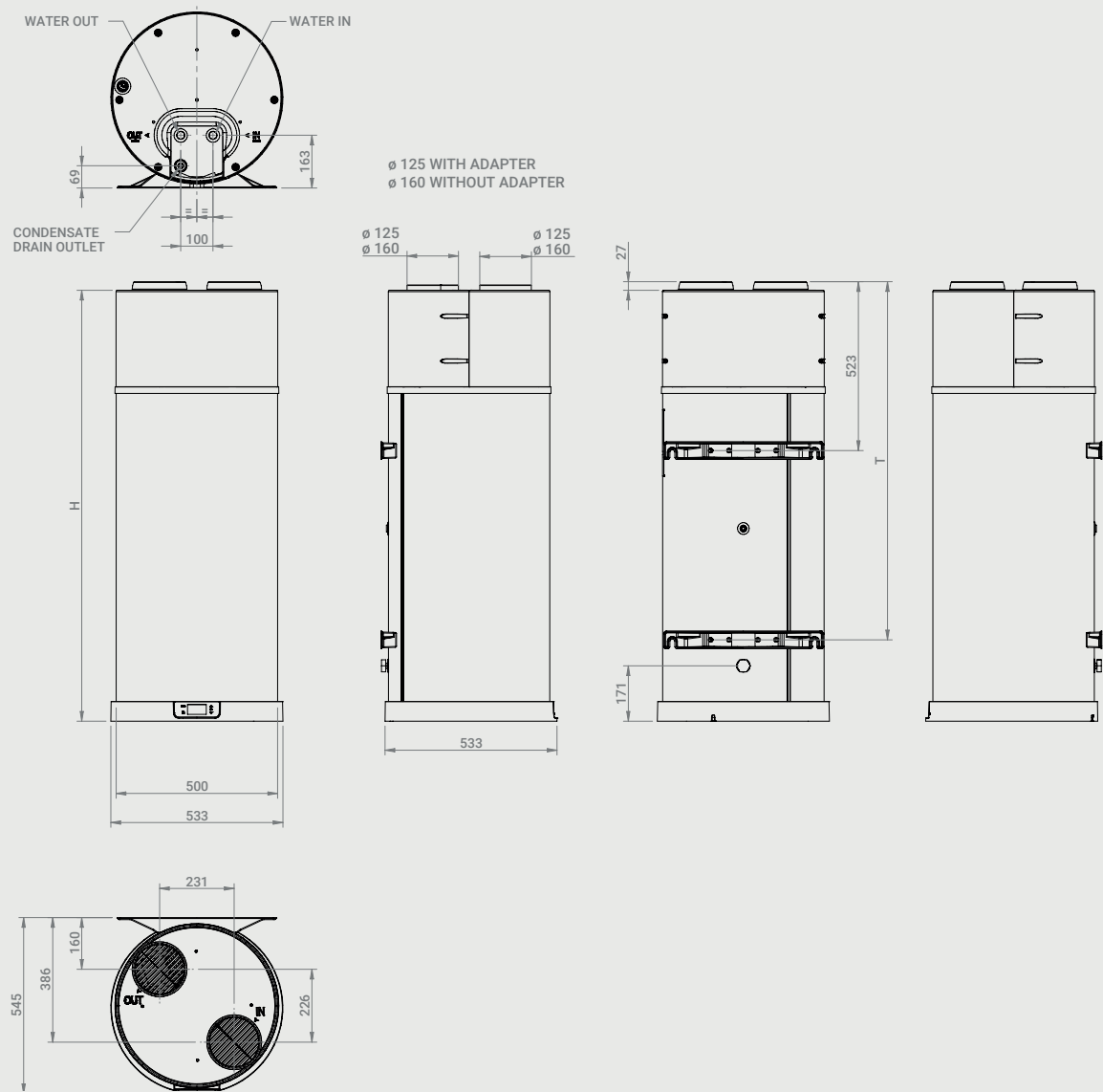
The entire range offers maximum installation flexibility thanks to ducts that can be adjusted up to 180°, meaning the product can be easily adapted to any system configuration.



WEIGHT AND OVERALL SIZE.

DIMENSIONS AND TECHNICAL DRAWINGS.

Wall-mounted versions - mod. W 100/150



ITEMS	H	T
AQUAOPTI W 100	1334	-
AQUAOPTI W 150	1694	1109

Floor-standing versions - mod. F/FS 200/260



PERFORMANCE.

TECHNICAL DATA AND PERFORMANCE.

AQUAOPTI		W 100	W 150
Power supply	V/ph/Hz	230/1/50	
Stored water volume	l	100	150
Thermostat temperature settings	°C	55	55
Maximum hot water temperature with heat pump	°C	62	62
Maximum hot water temperature with additional electric heating element	°C	70	70
Cathodic protection of the storage tank	-	Magnesium + electronic (ICCP)	
Nominal power of the DHW electric heating element	W	1200	1200
Heat dispersion (according to EN 12897:2016)	W	47	68
Solar heat exchanger surface area	m²	-	-
Maximum water pressure at the tank inlet	MPa	0.6	0.6
IP protection rating	-	IPX4	IPX4
Performance - Data according to EN 16147 (unit in ECO mode)			
Load profile (declared withdrawal profile)	-	M	L
Energy efficiency class for water heating ^{1 4} (Average climate; rating from F to A+)	-	A+	A+
Maximum volume of mixed water at 40°C - V40	l	130	189
Average climate	Energy efficiency for water heating ¹	hwh	146
	COP for DHW production	W/W	3.41
	Annual electricity consumption - AEC ¹	kWh	352
	Heating time (th)	h:m:s	6:22
Hot climate	Energy efficiency for water heating ¹	hwh	155
	COP for DHW production ¹	W/W	3.65
	Annual electricity consumption - AEC ¹	kWh	331
	Heating time (th)	h:m:s	5:09
Power consumption			
Average consumption of single heat pump	W	270	270
Maximum consumption of the heat pump alone	W	380	380
Power consumed in standby (Pes)	W	20	25
Air circuit			
Minimum temperature of external air (heat pump operation only)	°C	-10	-10
Maximum temperature of external air (heat pump operation only)	°C	43	43
Nominal air flow rate	m³/h	170	170
Duct diameter	mm	125-160	125-160
Noise emission ⁵			
Noise level inside the unit	dB(A)	46	46
Noise level outside the unit	dB(A)	37	37
Cooling circuit			
Type of refrigerant	-	R290	
Refrigerant load	g	130	130
Unit weight and dimensions			
Net weight	kg	52.5	62
Width	mm	533	533
Height	mm	1334	1696
Depth	mm	544	544

¹ Data according to EN 16147:2017+A1 standard for AVERAGE climate (unit in ECO mode; inlet water temperature = 10 °C; inlet air temperature = 7 °C dry bulb / 6 °C wet bulb)

² Data according to EN 16147:2017+A1 standard for COLD climate (unit in ECO mode; inlet water temperature = 10 °C; inlet air temperature = 2 °C dry-bulb / 1 °C wet-bulb)

³ Data in according to EN 16147:2017+A1 standard for HOT climate (unit in ECO mode; inlet water temperature = 10 °C; inlet air temperature = 14 °C dry bulb / 13 °C wet bulb)

⁴ Data according to Regulation EU 812/2013

⁵ Data according to EN 12102-2:2019 standard, ECO mode, with inlet air temperature = 7 °C dry bulb / 6 °C wet bulb

⁶ Energy consumption is based on the results of standard tests. Actual energy consumption depends on how the appliance is used and where it is installed.

PERFORMANCE.

TECHNICAL DATA AND PERFORMANCE.

AQUAOPTI		F 200	F 260	FS 200	FS 260
Power supply	V/ph/Hz	230/1/50			
Stored water volume	l	192	252	189	249
Thermostat temperature settings	°C	55	53	55	53
Maximum hot water temperature with heat pump	°C	62	62	62	62
Maximum hot water temperature with additional electric heating element	°C	70	70	70	70
Cathodic protection of the storage tank	-	Magnesium + electronic (ICCP)			
Nominal power of the DHW electric heating element	W	1500	1500	1500	1500
Heat dispersion (according to EN 12897:2016)	W	60	70	60	70
Solar heat exchanger surface area	m²	-	-	0.72	0.72
Maximum water pressure at the tank inlet	MPa	0.6	0.6	0.6	0.6
IP protection rating	-	IPX4	IPX4	IPX4	IPX4
Performance - Data according to EN 16147 (unit in ECO mode)					
Load profile (declared withdrawal profile)	-	L	XL	L	XL
Energy efficiency class for water heating ^{1 4} (Average climate; rating from F to A+)	-	A+	A+	A+	A+
Maximum volume of mixed water at 40°C - V40	l	258	331	258	331
Average climate	Energy efficiency for water heating ¹	hwh	156	154	156
	COP for DHW production	W/W	3.69	3.72	3.69
	Annual electricity consumption - AEC ¹	kWh	656	1089	656
	Heating time (th)	h:m:s	7:37	9:55	7:37
Hot climate	Energy efficiency for water heating ²	hwh	173	165	173
	COP for DHW production ²	W/W	4.1	4.01	4.1
	Annual electricity consumption - AEC ²	kWh	593	1014	593
	Heating time (th)	h:m:s	6:25	8:15	6:25
Power consumption					
Average consumption of single heat pump	W	430	430	430	430
Maximum consumption of the heat pump alone	W	530	530	530	530
Power consumed in standby (Pes)	W	31	30	31	30
Air circuit					
Minimum temperature of external air (heat pump operation only)	°C	-10	-10	-10	-10
Maximum temperature of external air (heat pump operation only)	°C	43	43	43	43
Nominal air flow rate	m³/h	250	290	250	290
Duct diameter	mm	160	160	160	160
Noise emission ⁵					
Noise level inside the unit	dB(A)	50	51	50	51
Noise level outside the unit	dB(A)	45	47	45	47
Cooling circuit					
Type of refrigerant	-	R290			
Refrigerant load	g	150	150	150	150
Unit weight and dimensions					
Net weight	kg	80	91	89	100
Width	mm	668	668	668	668
Height	mm	1587	1872	1587	1872
Depth	mm	642	642	642	642

¹ Data according to EN 16147:2017+A1 standard for AVERAGE climate (unit in ECO mode; inlet water temperature = 10 °C; inlet air temperature = 7 °C dry bulb / 6 °C wet bulb)

² Data according to EN 16147:2017+A1 standard for COLD climate (unit in ECO mode; inlet water temperature = 10 °C; inlet air temperature = 2 °C dry-bulb / 1 °C wet-bulb)

³ Data in according to EN 16147:2017+A1 standard for HOT climate (unit in ECO mode; inlet water temperature = 10 °C; inlet air temperature = 14 °C dry bulb / 13 °C wet bulb)

⁴ Data according to Regulation EU 812/2013

⁵ Data according to EN 12102-2:2019 standard, ECO mode, with inlet air temperature = 7 °C dry bulb / 6 °C wet bulb

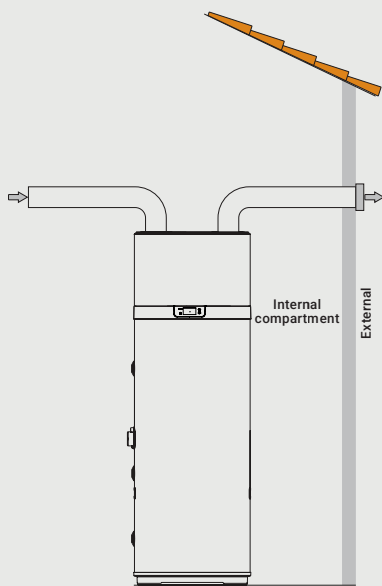
⁶ Energy consumption is based on the results of standard tests. Actual energy consumption depends on how the appliance is used and where it is installed.

ADAPTS TO ANY SETTING.

CONFIGURABLE FOR ALL SEASONS.

AquaOpti is designed to adapt easily to different installation settings, offering maximum integration flexibility and making it possible to identify the configuration best suited to the system's requirements.

To ensure optimum performance, the heat pump requires adequate ventilation in the room where it is installed. An example of a configuration with a dedicated duct is shown in Fig. 1. Alternatively, the solution shown in Fig. 2 can be implemented which includes a second duct for drawing air directly from outside.



◀ **Fig. 1**
Example of air exhaust connection (this type of installation can only be carried out with mod. 200 and 260)

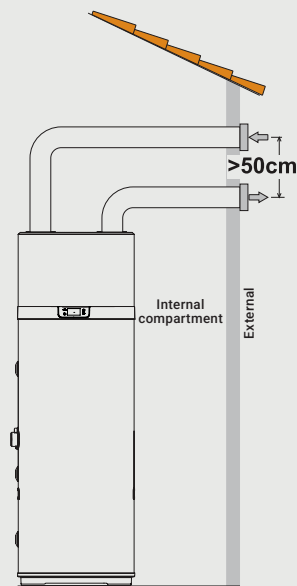
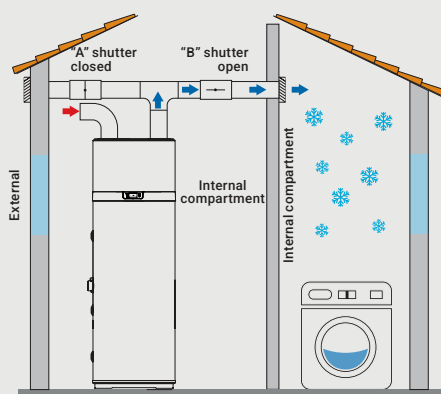


Fig. 2 ▶
Example of air exhaust connection (this type of installation can only be carried out with mod. 200 and 260)

Heat pump technology can also ensure comfort in the summer. The air expelled from the system is not only cooler than the ambient air, but is also completely dehumidified and can be recirculated into the home to help cool specific rooms. The installation involves splitting the extraction pipe into two sections with two dampers ("A" and "B"), which allow the air flow to be directed outside (Fig. 3) or inside the home (Fig. 4), depending on usage requirements.



◀ **Fig. 3**
Example of installation in the summer period (this type of installation can only be carried out with mod. 200 and 260).

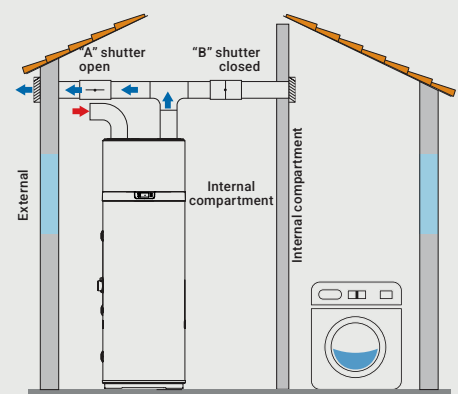


Fig. 4 ▶
Example of installation in the winter period (this type of installation can only be carried out with mod. 200 and 260).

NOTES.
SPACE FOR NOTES.

A large rectangular area filled with a grid of small squares, each defined by dotted lines. This grid is intended for taking notes or drawing.



NOTICE: With a view to constantly improve its production range and customer satisfaction levels, the Company hereby specifies that aesthetic and/or dimensional features, specifications and accessories may be subject to changes. Please place the utmost care to ensure all technical and/or sales documents (lists, catalogues, brochures, etc.) provided to the final Customer are updated according to the latest edition.

Ferroli S.p.A., Via Ritonda 78/A, 37047 San Bonifacio (VR) Italy
+39 045 6139411, presales.export@ferroli.com, www.ferroli.com