

CATALOGUE 2026

MONOBLOC HEAT PUMP

R290 & R32



hotgreenpower.it

HOT
Green Power



**Hot Green Power leads innovation in
the world of climate.**

With a focus on new technologies and greener gases, Hot Green Power achieves every comfort and energy saving goal.



INDEX

HOT GREEN POWER	2
REFRIGERANT GASES	10
LINE UP	14
MONOBLOC R32 22-30 KW	18
MONOBLOC R32 50-140 KW	24
MONOBLOC R290 8-16 KW	28



HOT GREEN POWER, ENERGY EVOLVES

***Innovation, efficiency and sustainability
for the climate of the future***

*We design our systems for
a more efficient, sustainable
and technologically
advanced future.*

Hot Green Power is the Termal Group brand dedicated to **high-performance solutions for air-conditioning**, heating and domestic hot water production. Designed to meet the needs of **energy efficiency and sustainability**, the Hot Green Power range stands out for the use of ecological refrigerants R290 and

R32, thus reducing environmental impact without compromising performance.

With over 40 years of experience, **Termal Group** is a reference in the sector of Climate and Comfort, sustainable construction, efficient systems and electric mobility. Hot Green Power represents a strategic evolution: a selection of **excellent products** designed to scale the peaks of energy efficiency and guarantee 360° sustainability.

Technology and versatility for every environment

The Hot Green Power range has been developed to offer flexible and cutting-edge solutions, capable of meeting the needs of residential, commercial and industrial environments. The products are distinguished by:

- **advanced energy-saving technologies**, optimised to ensure high comfort with reduced consumption;
- **use of sustainable refrigerants** (R290 and R32), with low environmental impact and compliant with the latest European regulations;
- **compact design and flexible installation**, ideal for new build projects and retrofits;
- **reliability and high performance**, to guarantee air conditioning, heating and production of domestic hot water with maximum efficiency.

The Evolution of Sustainable Air Conditioning

Choosing Hot Green Power means investing in a more efficient, sustainable and technologically advanced future. The brand embodies the philosophy of Termal Group, which has always focused on innovative solutions to improve living comfort and reduce environmental impact.

With Hot Green Power, the transition to a greener and more responsible climate is already a reality.

A range developed to offer flexible and cutting-edge solutions.





EXPERIENCE THAT GUIDES THE FUTURE

These principles are the foundation of a history that has been developing for over 40 years, of a commitment that has evolved in the pursuit of excellence and continuous improvement.

Technological research, a love of challenge and the ability to interpret the future are our entrepreneurial heritage



TERMAL GROUP

Termal is a commercial group that was founded in the 1980s. A history that has developed over **more than 40 years** of dynamic activity, a commitment that has evolved in the pursuit of excellence and continuous improvement.

Termal is currently a group consisting of a network of companies and is a **leading player** in the Italian and European **climate** and **comfort** sector.

TERMAL QUALITY

- Direct logistics;
- Academy for continuous training;
- Extensive network of service centres;
- In-house technical office for product development;
- Pre- and post-sales service.



PRE-SALES AND AFTER-SALES SERVICE

Termal Assistance Portal, the reference point for assistance

The Termal Assistance Portal provides centralised and efficient technical assistance for products.

The platform can be accessed at **www.assistentzatermal.it**; customers and technical assistance centres can access it to submit their support requests through a clear interface, personalised access and linear operational flows.

Each request is automatically forwarded to the relevant department, ensuring effective management and optimised response times.

An environment where, through simple workflows, support requests can be submitted and the necessary documentation accessed.



CENTRALISED ACCESS

A single portal for all support needs.



SIMPLIFIED EXPERIENCE

Intuitive interface for all types of users, with guided paths.



EFFICIENCY AND SPEED

System that simplifies communication with the relevant departments and reduces response times.



INTEGRATED MANAGEMENT

Each flow generates a notification to the correct department and links to secondary portals (manuals, spare parts).



Advantages for installers, designers and wholesalers

The portal dedicated to **professional operators** offers a complete set of tools for every phase: from design to commissioning, right through to after-sales support.

Each profile - installer, designer or wholesaler - finds **technical resources, specific modules and support materials** that facilitate daily work, reduce response times and guarantee a high level of service to the end customer.



START-UP AND AFTER-SALES SERVICE

Just a few clicks to send us your request for product commissioning or after-sales assistance on already installed products.



SPARE PARTS MANAGEMENT AND AFTER-SALES SERVICE

Dedicated area for requesting original spare parts and support for products that have already been installed.



DOCUMENTATION REQUESTS

Quickly obtain manuals, diagrams, technical specifications and official support materials.



DESIGN SPECIFICATIONS

Tools for defining technical requirements, system diagrams and design configurations.

VAdvantages for CATs and self-service customers

The portal offers CATs and self-service customers a structured environment in which to operate efficiently and independently. The features are designed to meet the needs of those **who work with the product on a daily basis**, providing direct specialist technical support and access to the most up-to-date documentation.

To streamline the compilation of requests, these users can **log in**.



SPECIALISED TECHNICAL SUPPORT

Access to dedicated channels to request in-depth assistance on complex issues or technical interventions.



ACCESS TO TECHNICAL DOCUMENTATION

Manuals, certifications and technical specifications are always available and up to date.



SPARE PARTS MANAGEMENT

Reserved area for selecting and requesting original spare parts needed for field interventions.

www.assistentzatermal.it



TERMAL ACADEMY TRAINING

*Training that becomes operational expertise.
In Bologna, at the heart of the Termal Group*

The Termal Academy is the training department of the Termal Group: a team of engineers and specialised technicians who transfer practical know-how on air conditioning, heating and domestic hot water production systems from the brands distributed by the Group on a daily basis.

We are located in Bologna, where theory meets real-life systems in operation and training becomes performance in the field.

Termal Academy is not a classroom, it is a living environment. Real systems, teachers who "get their hands dirty", up-to-date content and measurable results. Because quality cannot be improvised: it must be designed, installed and maintained.



Termal Academy

WHO IT IS AIMED AT

Installers, designers, specialised technicians. Professionals who want to work to the highest standards, keep up to date with the latest developments and transform technical expertise into value for the customer and new business opportunities.

OUR METHOD

- **Theory + practice:** each course combines lectures, demonstrations and tests on working systems.
- **Operational approach:** focus on installation, assistance, maintenance and fault diagnosis.
- **Continuous updating:** programmes always aligned with new products, technological developments and regulatory changes.

THE HEADQUARTERS AND LABORATORIES

At our Bologna headquarters, you will find:

- **Theory classrooms** for structured in-depth study.
 - **Demonstration and practical classrooms** with real systems from the various product families (residential, commercial, VRF and hydronic systems) and related control instruments.
- This is where you really learn: by touching, measuring and configuring.





HVAC TRAINING CONTENT

- Refrigeration circuit and best installation practices.
- Fault diagnosis and service procedures.
- Design of **VRF systems or air-water heat pumps**.
- Use of **sizing software**.
- Regular updates on industry regulations.

THE PRINCIPLES THAT GUIDE US

Trust, technology, evolution, quality, continuous training. These are our five guiding principles: we believe in people and their development. Experienced professionals are at your side to tackle the challenges of everyday work and always stay one step ahead.

STRATEGIES FOR THE FUTURE

The TERMAL Academy **offers regular, highly specialised programmes** on innovative HVAC products and solutions. Not just technical skills: we also focus on marketing and sales techniques to improve customer relations and communication, so that we can truly meet their needs.

WHAT YOU TAKE HOME

- **Up-to-date and immediately** applicable operational skills.
- **Certificate of attendance** and complete technical handouts for each module.
- A network of specialists with whom you can continue to exchange ideas even after the course.



R290 AND R32 REFRIGERANT GASES

In recent years, there has been a significant increase in interest in more sustainable air conditioning and refrigeration solutions, prompting the industry to reduce the environmental impact of gases.

Two of the most popular and efficient alternatives are R290 (propane) and R32 (difluoromethane), both chosen for their **energy performance** and **lower impact** on global warming compared to older generation refrigerants such as R410A.

These two gases have distinct characteristics that make them more or less suitable for specific applications. **R290** is a **natural gas** with almost **zero environmental impact**, ideal for those looking for a highly sustainable solution. **R32** offers a good compromise between **efficiency, safety and reduced emissions** compared to traditional refrigerants, and is now widely used in air conditioning systems.

R32, THE STANDARD FOR AIR CONDITIONING

Nowadays, environmental protection is considered of primary importance by both users and professionals. Choosing an air conditioner with R32 refrigerant allows you to achieve excellent comfort in both cooling and heating while reducing pollutant emissions.

Thanks to its **excellent thermodynamic properties**, R32 allows for superior energy efficiency and a reduction in the amount of refrigerant required in systems, thus also lowering operating costs. Furthermore, it has an ODP of 0, meaning it does not damage the ozone layer.

From a safety perspective, **R32 is classified as A2L** (mildly flammable). This means that, although it is flammable, the risk is much lower than with R290, making it easier to handle and install in residential and commercial air conditioning systems.

STRENGTHS

- It is environmentally friendly thanks to its reduced GWP compared to R410A (675 vs 2,088)
- It is non-toxic
- Greater energy efficiency with lower quantities of refrigerant
- Does not damage the ozone layer (ODP = 0)

R290, HIGH TEMPERATURE HEATING

R290 air-to-water heat pumps produce high-temperature DHW, making them the most environmentally friendly and efficient choice for retrofitting existing radiator systems.

70°C

With R290, the DHW delivery temperature reaches 70°C.

Thanks to their ability to produce DHW up to 70°C, R290 heat pumps are the perfect solution for both **new installations** and **retrofitting** existing systems in residential and commercial applications.

R290 is a **natural refrigerant gas** belonging to the hydrocarbon family. Its most distinctive feature is its very low GWP (Global Warming Potential) of 0.02, making it one of the most environmentally friendly options available on the market.

0.02

Very low Global Warming Potential.

From an energy perspective, R290 offers **excellent heat exchange capacity**, allowing air conditioning and refrigeration systems to operate more efficiently and reducing energy consumption. Furthermore, as it has no impact on the ozone layer (ODP = 0), it fits perfectly into strategies for reducing pollutant emissions.

Its **A3 flammability** rating requires specific precautions in the design and installation of systems. For this reason, the use of R290 is subject to very strict charging limits and safety regulations, especially in residential air

conditioning systems. Although it is a flammable gas, **propane** is considered **safe** when used correctly, thanks to strict safety regulations and its low toxicity.

STRENGTHS

- Flow temperature up to 80°C
- Low compressor stress
- Almost zero environmental impact (GWP = 0.02, ODP = 0)
- High energy efficiency
- Excellent thermodynamic performance
- Class (ISO 817) = A3 "high flammability"
- LFL = 0.038 kg/m³
- Properties and appearance: colourless, odourless, exists in vapour form at normal atmospheric pressure, denser than air.

HIGH TEMPERATURE HEATING



High water flow temperatures, ideal for **radiator heating**.

NEW INSTALLATIONS AND RETROFITS



Perfect for **new installations** and **retrofits**.

APPLICATIONS

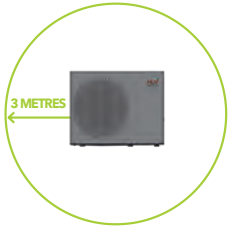


Suitable for **residential** and **commercial** use.

R290 SAFETY PROVISIONS



This page provides basic guidance on key points to consider when resolving potential issues arising from the use of R290.



SAFE WORKING AREA

The technician must ensure a safe working area with a radius of three metres from the unit in case of possible refrigerant leaks.

This is an area where special rules apply because a flammable atmosphere could form in the event of a leak:

- **inform those present** in advance of the type of work to be carried out;
- **cord off and mark the area** as a temporary flammable risk zone using signs and barriers;
- **use only tools and equipment suitable** for flammable refrigerants; if electrically powered, connect them only to sockets located outside the area;
- **keep a fire extinguisher available**;
- before starting work, the area must be cleared of all sources of ignition, including: open flames, switches and lamps, non-ATEX electrical devices, telephones, smartwatches, tools with brush motors, and cigarettes. It is also necessary to **ensure ventilation**, especially in the floor area, and to **cord off the area** to prevent unauthorised persons from entering. **Use a compliant electronic detector to check for the presence of R290 before, during and after the work.**

PERSONNEL AND SKILLS

All personnel involved in installation activities must have the appropriate skills for the tasks to be performed. Work must only be carried out by trained personnel in a well-ventilated environment, in compliance with EN 378, IEC/EN 60335-2-40 and Legislative Decree 81/08.



Compliance with national regulations and standards



Understanding risks and hazards



Safe working area



Safe working practices

PROTECTIVE CLOTHING, EQUIPMENT AND TOOLS

Operators handling pre-charged R290 units must wear appropriate personal protective equipment, such as protective gloves, antistatic clothing and tools suitable for flammable refrigerants:

- antistatic protective gloves;
- antistatic safety footwear (S1P/S3 with antistatic soles);
- antistatic work clothing made of natural fabric (cotton);
- protective goggles or visor when connecting/disconnecting pipes and equipment;
- approved powder fire extinguisher (class B≥6 kg) or CO2 always available near the work site;
- no possible sources of ignition within a 3 m radius of the machine (welding machines, flexible hoses, cigarettes, etc.);
- personal detector (explosimeter) with 4 sensors, tested for a 7-metre drop and IP66/68 protection rating, ATEX II certified, 1st Alarm 2000 ppm;
- electronic leak detector 1st Alarm 10 ppm certified IP67 with 2 metre drop test;
- brushless screwdriver.

REQUIREMENTS AND RECOMMENDATIONS

Depending on the type of work performed (e.g., installation, PCB replacement, or refrigerant recovery), minimum requirements and recommendations may differ. The table below indicates what is classified as "mandatory," "not necessary," and "recommended."

	Installation and routine maintenance	Electrical repair	Handling of refrigerants
Example of activities	Installation and inspection	Card replacement	Refrigerant recovery
Knowledge of R290 regulations and safety	Mandatory	Mandatory	Mandatory
Personal protective equipment	Mandatory	Mandatory	Mandatory
Use of leak detector	Mandatory	Mandatory	Mandatory
Tools for handling Refrigeration circuit	Not required	Not required	In addition to safety devices: ATEX vacuum pump, manifold, A3-certified pressure gauge, recovery cylinders specifically for A3 refrigerants, A3-certified extractor, ATEX fan, non-sparking tools



LINEUP

Monobloc double fan R32 22-30 kW

Monobloc unit in air-to-water heat pump for cooling, heating and domestic hot water production **for residential and commercial applications.**
Circulation pump included.






	kW	22	26	30
GPCWSMS 2200 Z 3-phase 		✓		
GPCWSMS 2600 Z 3-phase 			✓	
GPCWSMS 3000 Z 3-phase 				✓

LINEUP

Monobloc with vertical air supply R32 50-140 kW

NEW

Monobloc unit in air-to-water heat pump for cooling, heating and domestic hot water production
for commercial and industrial applications.
Circulation pump included.

	kW	50	65	75	110	140
GPCWSMS 5000 Z 3-phase		✓				
GPCWSMS 6500 Z 3-phase			✓			
GPCWSMS 7500 Z 3-phase				✓		
GPCWSMS 11000 Z 3-phase					✓	
GPCWSMS 14000 Z 3-phase						✓

LINEUP











Monobloc single fan R290 8-16 kW



Monobloc unit in air-to-water heat pump for cooling, heating and domestic hot water production **for residential and commercial applications.**

10 models in both single-phase and three-phase versions.

Circulation pump included.

		kW	8	10	12	14	16
GPCWNMS 800 J 1-phase			✓				
GPCWSMS 800 J 3-phase			✓				
GPCWNMS 1000 J 1-phase				✓			
GPCWSMS 1000 J 3-phase				✓			
GPCWNMS 1200 J 1-phase					✓		
GPCWSMS 1200 J 3-phase					✓		
GPCWNMS 1400 J 1-phase						✓	
GPCWSMS 1400 J 3-phase						✓	
GPCWNMS 1600 J 1-phase							✓
GPCWSMS 1600 J 3-phase							✓

Models available from September 2026.





HEAT PUMP MONOBLOC R32 22-30 KW

Monobloc double-fan unit in air-to-water heat pump for cooling, heating and production of domestic hot water, for residential and commercial applications.

Available in capacities of 22, 26 and 30 kW.

The system can be installed by integrating it with additional heat sources. The monoblocs are already equipped with:

- internal pump
- 8-liter expansion vessel
- flow switch
- safety valve
- automatic air vent valve

Smart grid

All units are SG Ready. Reading of the electrical network trend, energy saving guaranteed.

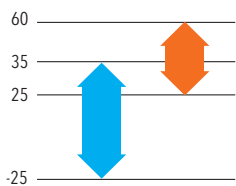


Wide operation in every mode 22-30 kW

Maximum values of water flow temperature in relation to the external temperature.

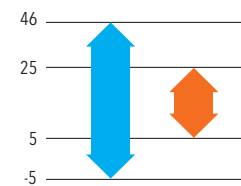
HEATING MODE

Operation from -25°C to 35°C.
Delivery temp. from 25°C to 60°C.



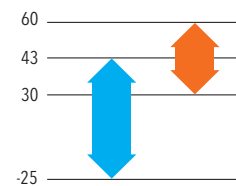
COOLING MODE

Operation from -5°C to 46°C.
Delivery temp. from 5°C to 25°C.

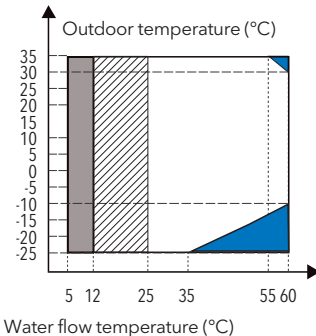


DHW PRODUCTION

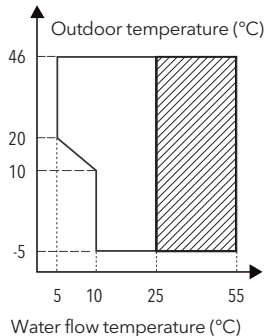
Operation from -25°C to 43°C.
Delivery temp. for DHW from 30°C to 60°C.



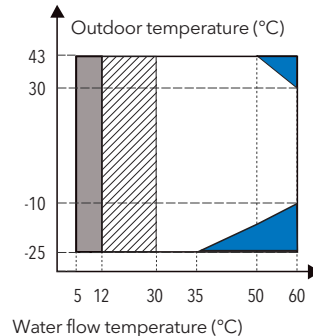
HEATING MODE



COOLING MODE



DHW PR



- The heat pump switches off, only the resistors switch on
- The heat pump works with possible limitations and protections
- If present, only the resistors are turned on, otherwise only the heat pump works but with limitations and protections

Easy installation to ensure optimal efficiency

The compactness of the units ensures simple installation while respecting minimum spaces.

Frost protection and floor protection

All units are equipped with frost protection and floor protection.

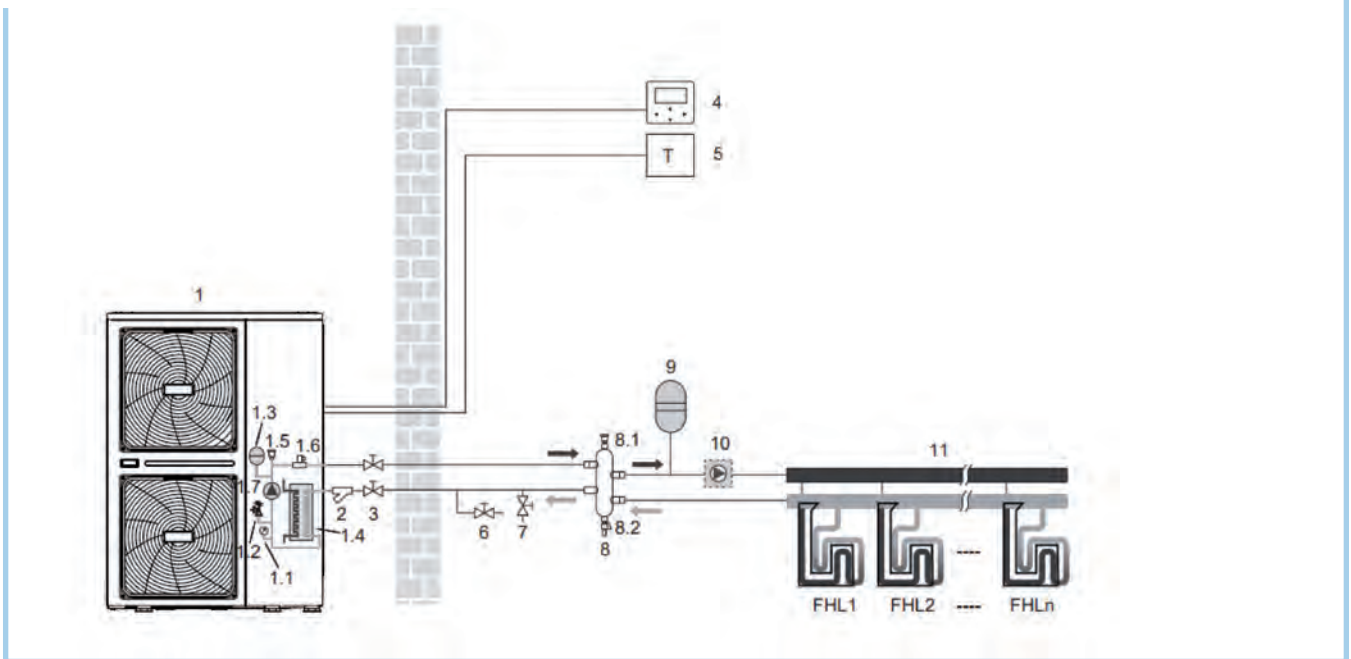
Frost protection

The heat pump activates the heating for low temperature or for domestic hot water, in order to protect the hydraulic system.

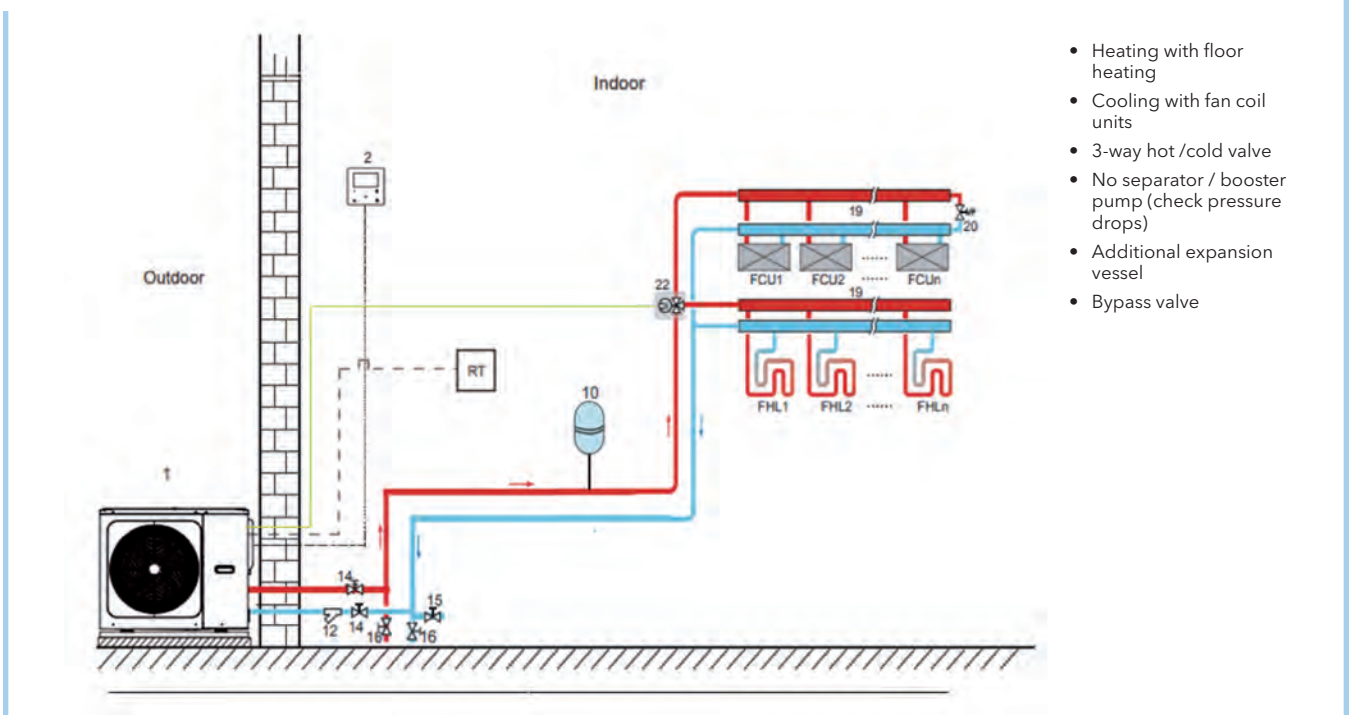
Floor protection

The floor drying mode and the preheating mode protect the floor from deformations and breakages.

APPLICATION 1: heating only mode with floor heating

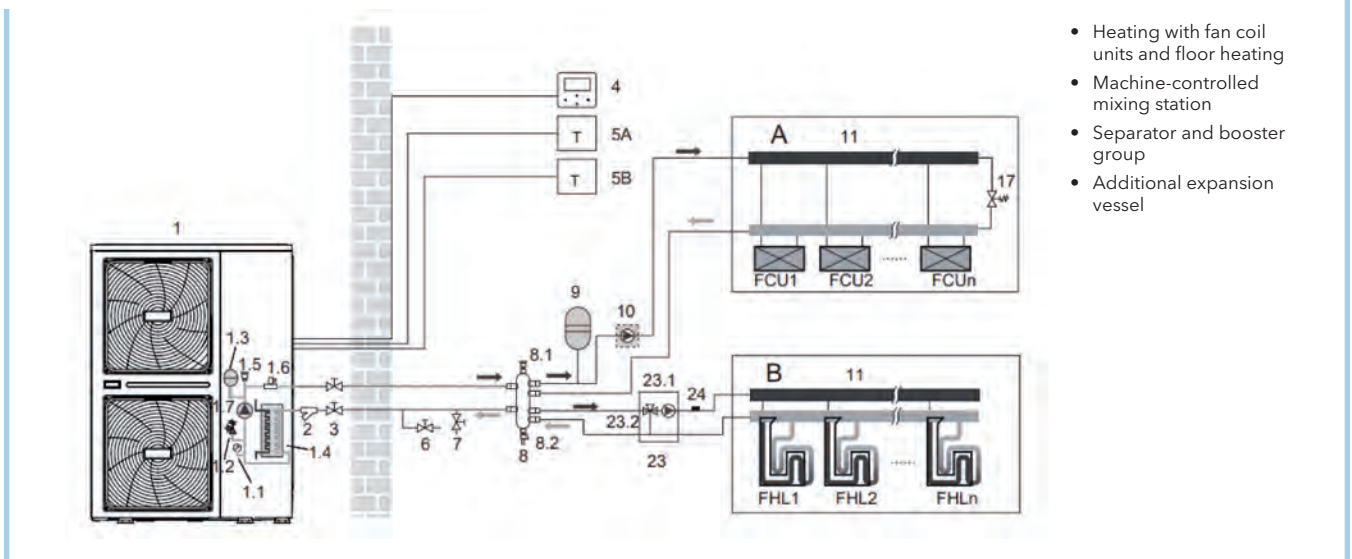


APPLICATION 2: separate heating and cooling mode



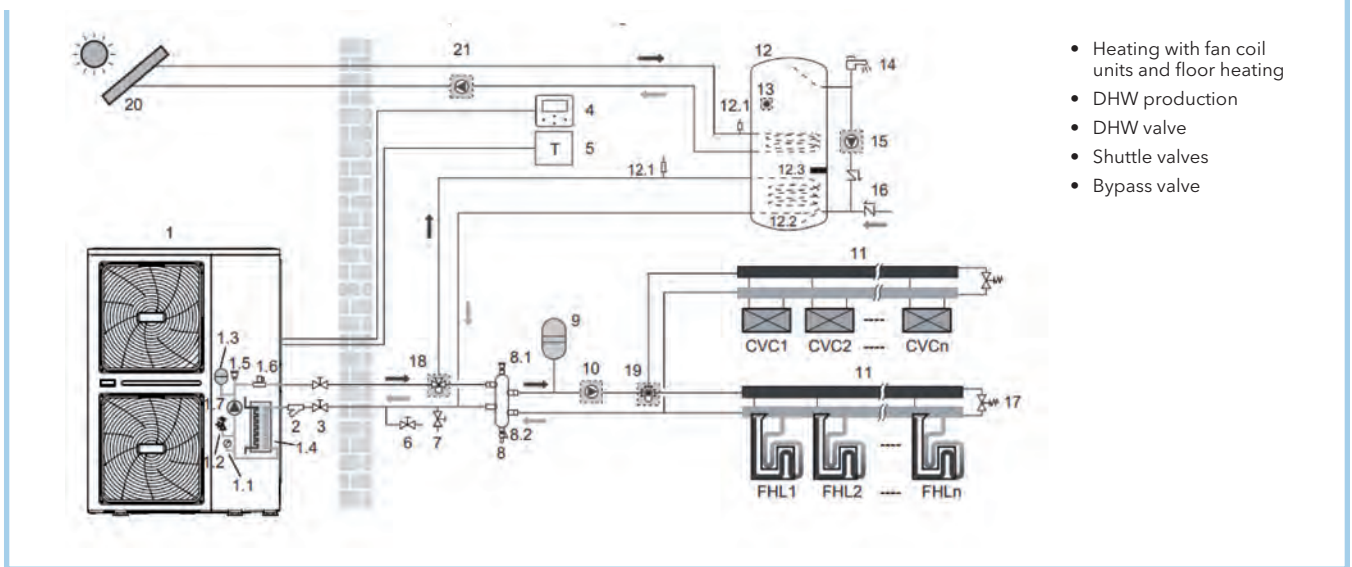
- Heating with floor heating
- Cooling with fan coil units
- 3-way hot /cold valve
- No separator / booster pump (check pressure drops)
- Additional expansion vessel
- Bypass valve

APPLICATION 3: heating mode - double temperature



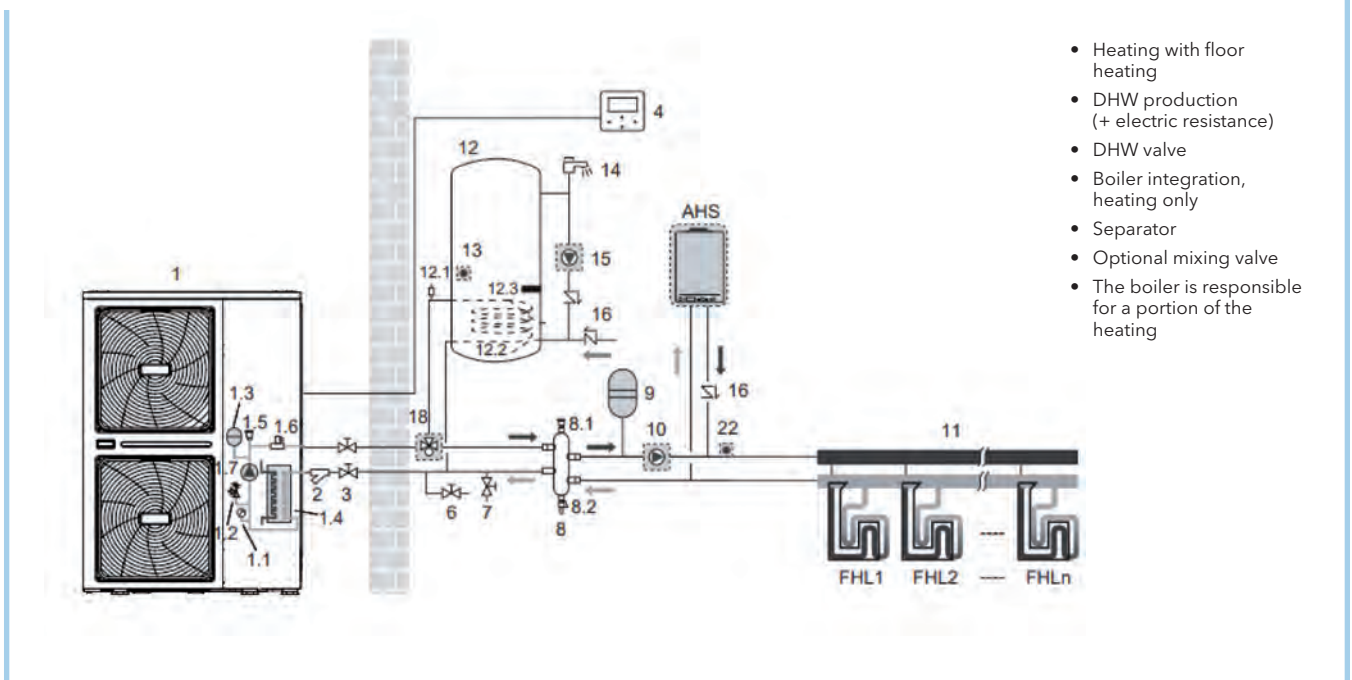
- Heating with fan coil units and floor heating
- Machine-controlled mixing station
- Separator and booster group
- Additional expansion vessel

APPLICATION 4: Heating mode + Cooling mode + DHW production



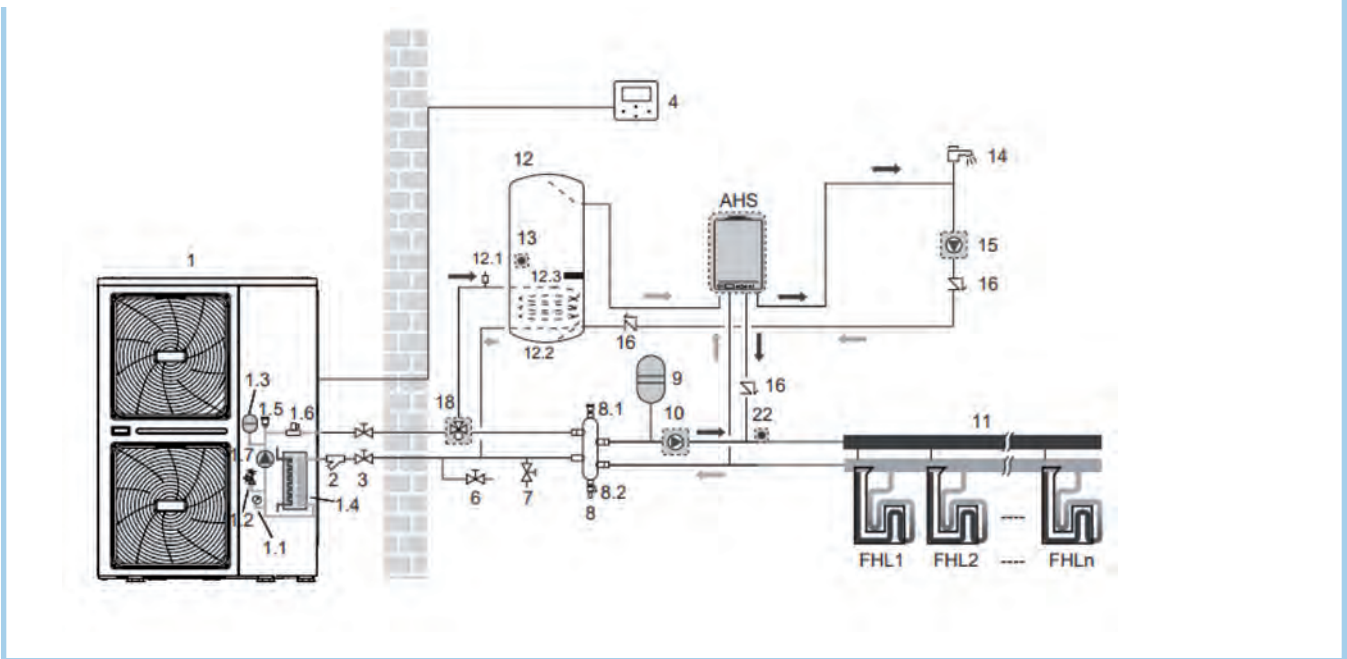
- Heating with fan coil units and floor heating
- DHW production
- DHW valve
- Shuttle valves
- Bypass valve

APPLICATION 5: Heating mode and DHW production with boiler integration

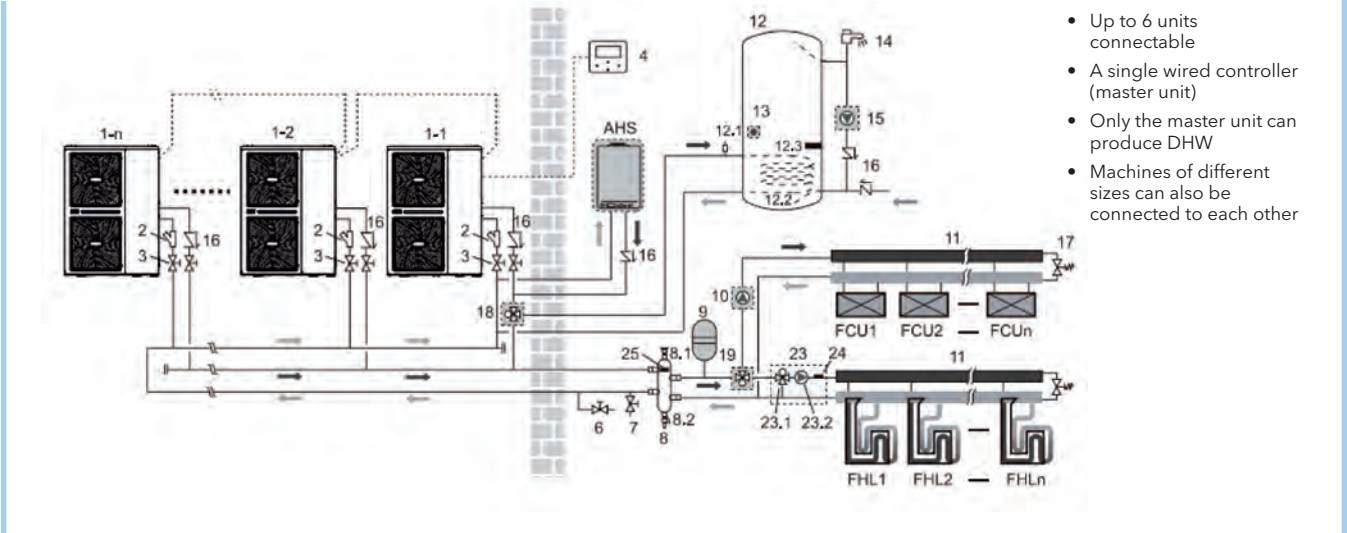


- Heating with floor heating
- DHW production (+ electric resistance)
- DHW valve
- Boiler integration, heating only
- Separator
- Optional mixing valve
- The boiler is responsible for a portion of the heating

APPLICATION 5a: heating mode and DHW production with boiler integration



APPLICATION 6: cascade configuration for heating, cooling, DHW production, with boiler/solar thermal integration



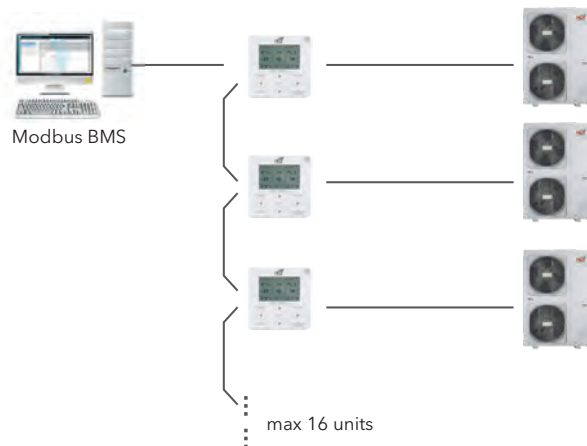
- Up to 6 units connectable
- A single wired controller (master unit)
- Only the master unit can produce DHW
- Machines of different sizes can also be connected to each other

Control

All units are R32 and are equipped with wired remote control and integrated Wi-Fi module.

Modbus control

- Up to 16 controllers managed on the same line.
- Maximum line length 150 m.
- Allows construction of large centralized/ decentralized systems depending on needs.



Technical specifications

R32 heat pump

ENERGY CLASS

INTEGRATED
Wi-Fi



A+++ (22-26kW)

In heating mode with **35°C** flow water temperature.

A++ (30.1 kW)

In heating mode with **35°C** flow water temperature.

A++ (22 kW)

In heating mode with **55°C** flow water temperature.

A+ (26-30.1 kW)

In heating mode with **55°C** flow water temperature.

Model				GPCWSMS 2200 Z	GPCWSMS 2600 Z	GPCWSMS 3000 Z
Heating	Rated power	A7//W35	kW	22.00	26.00	30.10
	Electrical consumption		5.00	6.37	7.70	
	Coefficient of performance		COP	4.40	4.08	3.91
	Rated power	A7//W45	kW	22.00	26.00	30.00
	Electrical consumption		6.47	8.39	10.35	
	Coefficient of performance		COP	3.40	3.10	2.90
Cooling	Rated power	A35//W18	kW	23.00	27.00	31.00
	Electrical consumption		5.00	6.28	7.75	
	Energy efficiency		EER	4.60	4.30	4.00
	Rated power	A35//W7	kW	21.00	26.00	29.50
	Electrical consumption		7.12	9.63	11.57	
	Energy efficiency		EER	2.95	2.70	2.55
Seasonal heating data	Theoretical load (Pdesignh) @ -10°C	35/55	kW	22.00/22.00	25.00/26.00	29.00/30.00
	Seasonal performance coefficient		SCOP	4.53/3.23	4.50/3.15	4.20/3.15
	Seasonal energy efficiency (ηs)		%	178/126	177/123	165/123
	Energy efficiency class		-	A+++/A++	A+++/A+	A++/A+
	Annual energy consumption		kWh/a	10180/14390	11489/17204	14165/19316
Operation range	Outdoor air temperature	Heating	°C	-25~35		
		Cooling		-5~46		
		DHW		-25~43		
	Delivery water temperature	Heating	°C	25~60		
		Cooling		5~25		
		DHW		30~60		
Refrigerant circuit data	Refrigerant ¹	Type (GWP)	R32 (675)			
	Quantity (tons CO2)	kg (t)	5.0 (3.375)			
	Control system	Electronic expansion valve				
	Compressor	Type	Twin Rotary - DC Inverter			
Hydraulic data	Heat exchanger	Type	Stainless steel with brazed plates			
		Flow rate	m³/h	3.8	4.5	5.2
	Circulation pump	Included				
	Water pipe connections	Type	Threaded			
		Dimension	inches	1-1/4" BSP		
	Max working pressure	bar				
Expansion vessel	Volume	L	8			
	Precharge	bar	1.0			
Electrical data	Power supply	Ph/V/Hz	3ph+N / 380~415V / 50Hz			
	Maximum current	A	28.00			
	Power cable (recommended)	Type	5x6 mm²	5x6 mm²	5x6 mm²	
Product specifications	Fan	Type	q.ty	DC Inverter x 2	DC Inverter x 2	DC Inverter x 2
		Air flow	m³/h	11000	11300	11300
	Sound power level	dB(A)		73	75	77
	Sound pressure level at 1 m	dB(A)		59.8	61.5	63.5
	Dimensions	WxDxH	mm	1129x440x1558	1129x440x1558	1129x440x1558
	Weight	Net	kg	177	177	177
	Control (supplied)	Wired controller DHWZ CEM-Z				

GENERAL NOTE:

The above data refers to the following standards: EN 14511:2018; EN 14825:2019; EN50564:2011; EN12102-1:2018; EN12102-2:2019; (EU)No:811:2013; (EU)No:813:2013; OJ 2014/C 207/02:2014.

1. Refrigerant leakage contributes to climate change. Refrigerants with a lower global warming potential (GWP) contribute less to global warming when released into the atmosphere than those with a higher GWP. This appliance contains a refrigerant with a GWP of 675. Therefore, if 1 kg of this refrigerant were released into the atmosphere, the impact on global warming would be 675 times greater than 1 kg of CO2, over a period of 100 years. Under no circumstances should the user attempt to intervene on the refrigeration circuit or disassemble the product. If necessary, always contact qualified personnel.



HEAT PUMP MONOBLOC R32 50-140 KW

The new range of R32 modular heat pumps is ideal for cooling, heating and domestic hot water production in commercial and industrial buildings.

Available in capacities from 50 to 142 kW of thermal capacity, modularity is one of its most important advantages; in fact, it is possible to combine the 5 models up to 16 units, for a maximum of 2240 kW of capacity.

High reliability

- Anti-corrosion treatment of the external coil.
- Automatic balancing of compressor operating hours in modular installations.
- Non-simultaneous defrosting in modular installation.
- Back-up function in modular installation.

Compressor with EVI (vapour injection) technology

- Increased operating range and improved performance.
- Flow water at 65°C up to an external temperature of -10°C (heating).
- Heating operation down to an outdoor temperature of -25°C.

Flow temperature control

The flow temperature can be managed automatically using a climate curve.

All DC Inverter components

- Maximum efficiency and low consumption.
- Rapid start-up and reduced ON/OFF cycles.
- Consumption in line with the actual requirements of the system, without wasting energy.

Operating modes and applications

- Heating.
- Cooling.
- Domestic hot water production.

Low environmental impact

- Low GWP R32 refrigerant.
- No impact on the ozone layer.
- Reduced CO2 emissions.

A+++

Energy Class in heating at 35°C (50-77 kW)

A++

Energy Class in heating at 35°C (113-142 kW)

65°C

Flow water temperature up to -10°C outside in heating mode

-25°C

Heating operation down to -25°C



Quiet

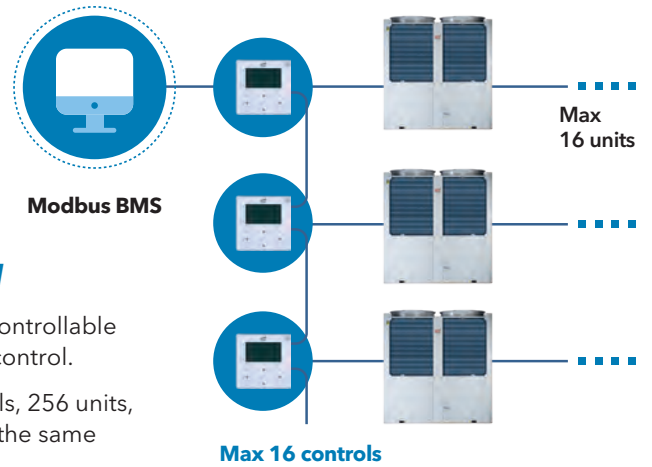
Different Silent Mode functions can be selected via remote control.

Technical features and controls



Controls

Control panel equipped with daily timer, weekly timer, compatible with Modbus protocol.

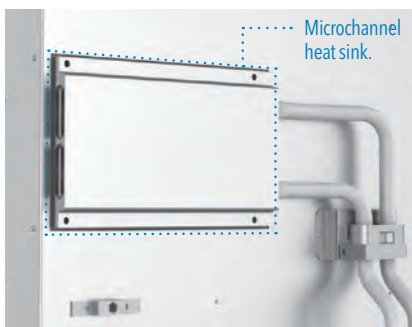


Smart control

- Up to 16 units controllable from the same control.
- Up to 16 controls, 256 units, connectable to the same BMS system.

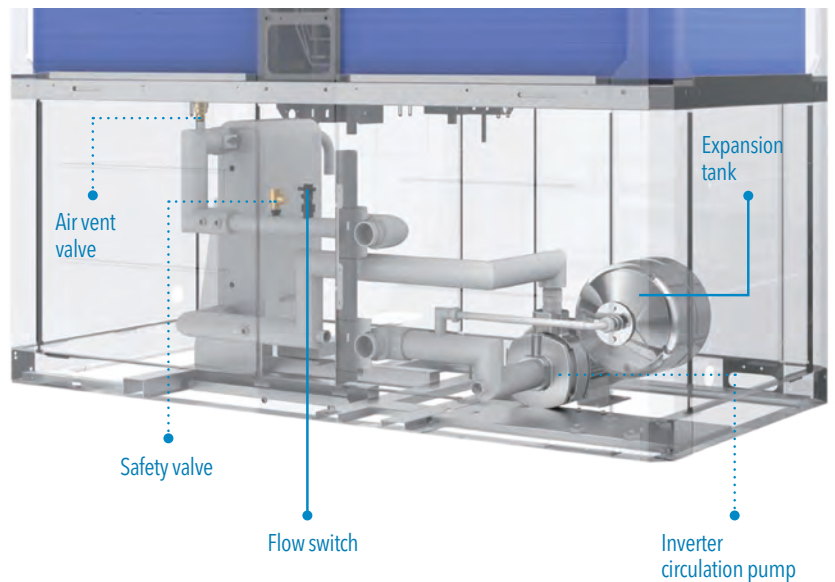
Heat dissipation via refrigerant

Significantly reduces the temperature of the electrical box even in extreme working conditions.



Main hydraulic elements already integrated into the unit for easy installation

- Air vent valve.
- Safety valve.
- Flow switch.
- Inverter circulation pump.
- Expansion tank.



Technical specifications for the monobloc with vertical expulsion

ENERGY CLASS

A+++ (50-77kW)
In heating mode with **35°C**
flow water temperature.

A++ (113-142 kW)
In heating mode with **35°C**
flow water temperature.

A++ In heating mode with **55°C** flow water temperature.

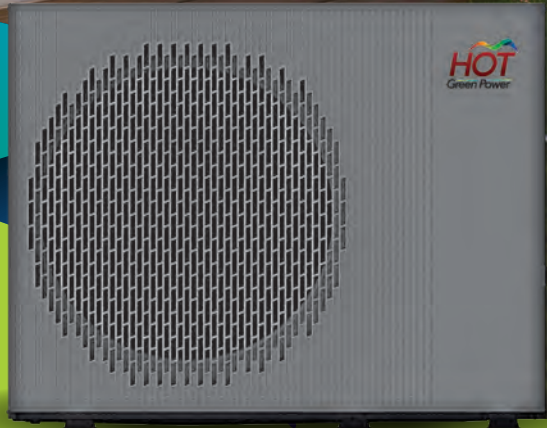


Model				GPCWSMS 5000 Z	GPCWSMS 6500 Z	GPCWSMS 7500 Z	GPCWSMS 11000 Z	GPCWSMS 14000 Z
Heating	A7/W35	Rated power	kW	50.00	64.65	77.70	113.14	142.94
		Electrical consumption		11.36	16.37	21.61	28.52	40.54
		Coefficient of performance	COP	4.40	3.95	3.59	3.97	3.53
	A7/W45	Rated power	kW	50.00	65.65	75.71	110.67	140.94
		Electrical consumption		13.16	19.43	23.51	31.21	47.10
		Coefficient of performance	COP	3.80	3.38	3.22	3.55	2.99
Cooling	A35/W18	Rated power	kW	50.00	75.30	85.07	127.26	137.06
		Electrical consumption		10.20	22.14	25.06	35.50	38.69
		Energy efficiency	EER	4.90	3.40	3.39	3.58	3.54
	A35/W7	Rated power	kW	50.00	56.68	69.29	99.33	129.29
		Electrical consumption		15.15	19.79	28.26	34.09	52.01
		Energy efficiency	EER	3.30	2.86	2.45	2.91	2.49
Dati stagionali riscaldamentoo	35/55	Prated @ -10°C	kW	48.00 / 40.00	48.00 / 40.00	48.00 / 40.00	95.00 / 80.00	95.00 / 80.00
		Seasonal performance coefficient	SCOP	4.47/3.36	4.47/3.36	4.47/3.36	4.23/3.23	4.23/3.23
		Seasonal energy efficiency(ηs)	%	175.80 / 131.40	175.80 / 131.40	175.80 / 131.40	166.20 / 126.20	166.20 / 126.20
		Energy efficiency class	-	A+++ / A++	A+++ / A++	A+++ / A++	A++ / A++	A++ / A++
Operation range	Outdoor air temperature	Heating	°C	-25~43				
		Cooling	°C	-15~48				
		DHW	°C	-20~43				
	Delivery water temperature	Heating	°C	25~65				
		Cooling	°C	0~20				
		DHW	°C	30~62				
Refrigerant circuit data	Refrigerant1 - Pre-charge		Type / kg	R32 / 9	R32 / 9	R32 / 9	R32 / 11.5	R32 / 11.5
	Refrigerant1 - Charge to be added on site		Type / kg	R32 / -	R32 / -	R32 / -	R32 / 4	R32 / 4
	Refrigerant		GWP	675				
	Tons of CO2 equivalent		t	6.075				10.462
	Compressor		Type	DC Inverter EVI Scroll				
Hydraulic data	Heat exchanger		Type	Plate heat exchanger				
			Flow rate	3.0~14				5.0~26
	Circulation pump			Included				
	Water pipe connections		Type	Victaulic type grooved				
			Dimension	2" (DN50)				2-1/2" (DN65)
	Working pressure		Max	10				
Electrical data	Expansion vessel		Volume	12			22	
	Power supply		Ph/V/Hz	3ph+N / 380~415V / 50Hz				
	Maximum current		A	46.00				90.00
	Power cable		Recommended Type	5x16 mm ²				5x50 mm ²
Product specifications	Fan		Type	DC Inverter x 2				
			Air flow	22000				50000
	Sound power level		dB(A)	83				93
	Sound pressure level at 1 m		dB(A)	64				73
	Dimensions		WxDxH	2000x960x1770				2220x1135x2300
	Weight		Net	475				765
Control (supplied)			Wired remote control with Modbus connectivity					

GENERAL NOTE:

The above data refers to the following standards: EN 14511:2018; EN 14825:2019; EN50564:2011; EN12102-1:2018; EN12102-2:2019; (EU)No:811:2013; (EU)No:813:2013; OJ 2014/C 207/02:2014.

1. Refrigerant leakage contributes to climate change. Refrigerants with a lower global warming potential (GWP) contribute less to global warming when released into the atmosphere than those with a higher GWP. This appliance contains a refrigerant with a GWP of 675. Therefore, if 1 kg of this refrigerant were released into the atmosphere, the impact on global warming would be 675 times greater than 1 kg of CO₂, over a period of 100 years. Under no circumstances should the user attempt to intervene on the refrigeration circuit or disassemble the product. If necessary, always contact qualified personnel.



MONOBLOC HEAT PUMP R290 8-16 KW

The reliable and cost-effective solution for residential and commercial applications.

The latest generation technology guarantees top-of-the-line performance and energy savings.

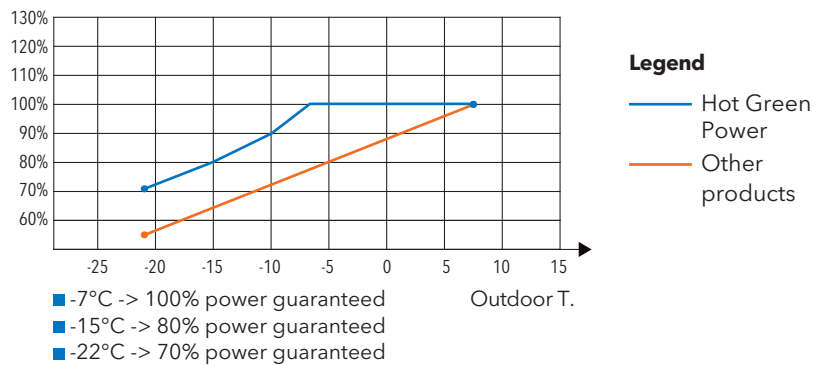
Twin Rotary compressor

It guarantees high efficiency, reliability and silence: thanks to the double rotation, it reduces vibrations and optimizes performance, ensuring precise power regulation.

It offers stable operation even at low temperatures, maximizing energy savings.

Maintaining power output

Models from 8 to 16 kW
Water delivery temperature 35°C

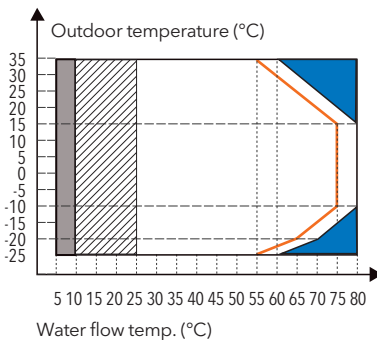


Wide operation in every mode 8-16 kW

Maximum values of water flow temperature in relation to the external temperature.

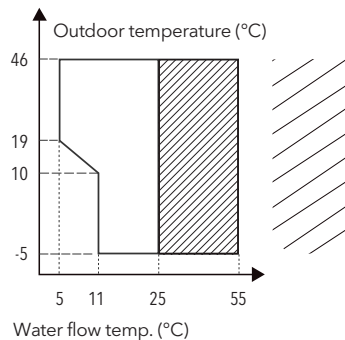
HEATING MODE

Operation from -25°C to 35°C.
Delivery temp. from 25°C to 80°C.



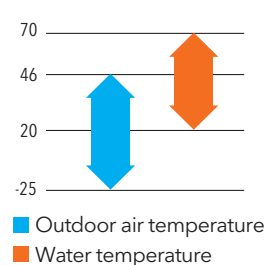
COOLING MODE

Operation from -5°C to 46°C.
Delivery temp. from 5°C to 25°C.



DHW PRODUCTION

Operation from -25°C to 46°C.
Flow temp. for DHW from 20°C to 70°C.



- The heat pump turns off, only the resistors turn on
- If present, only the resistors are turned on, otherwise only the heat pump works but with limitations and protections
- ▨ The heat pump works with possible limitations and protections
- Maximum return temperature

MAX. GUARANTEED TEMPERATURE VALUES

- -25/+35 -> max guaranteed flow temp. 60°C
- -20/+25 -> max guaranteed flow temp. 70°C
- -10/+15 -> max guaranteed flow temp. 80°C

Water circulation

All units are equipped with a circulator: max. **9 mca** and **12 mca** (meters of water column) respectively for single-fan and double-fan units.

They are also complete with:

- 3 bar safety valve;
- plate heat exchanger;
- threaded connections.

Controls

Control panel with large color display. It is characterized by:

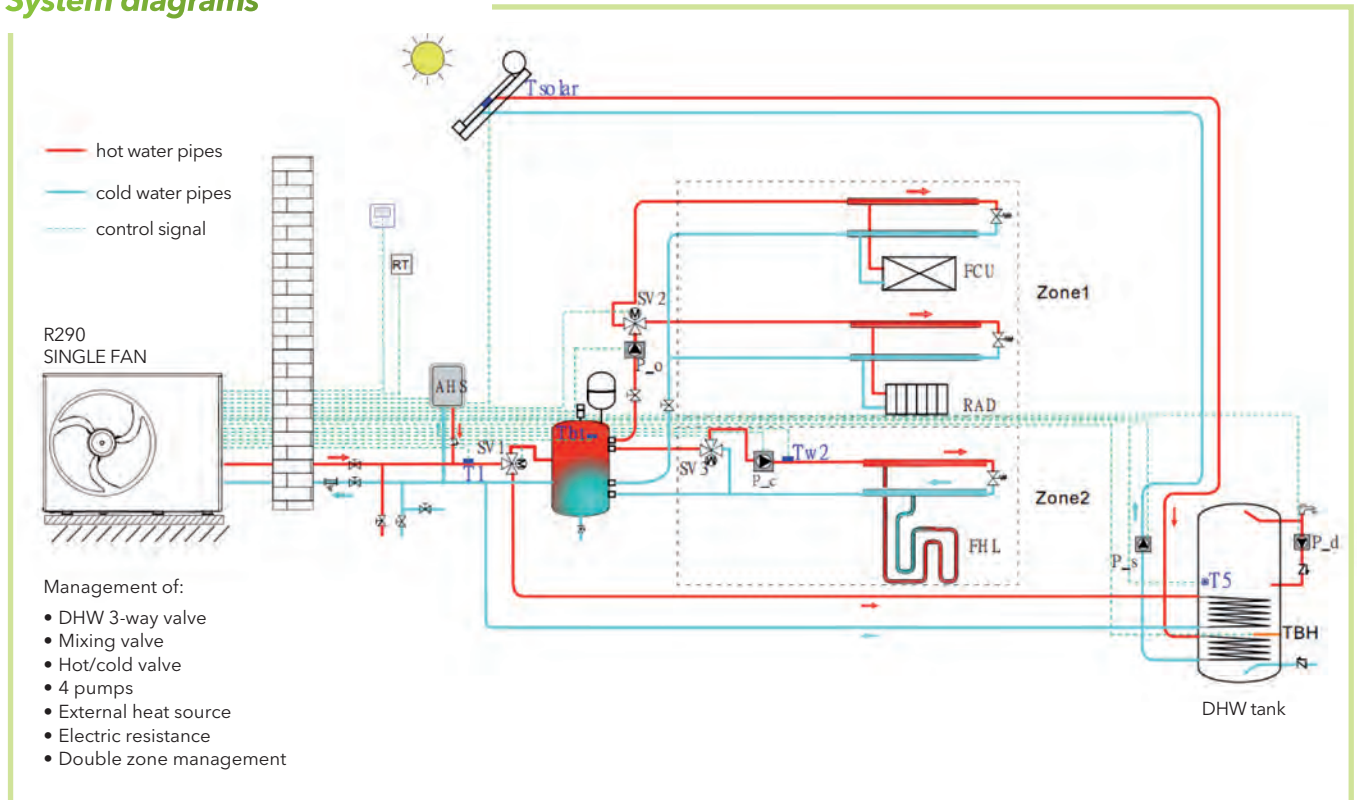
- liquid crystal display;
- touch keys;
- integrated Wi-Fi module as standard.

Compatible with Modbus protocol.

Control for both single and double fans.



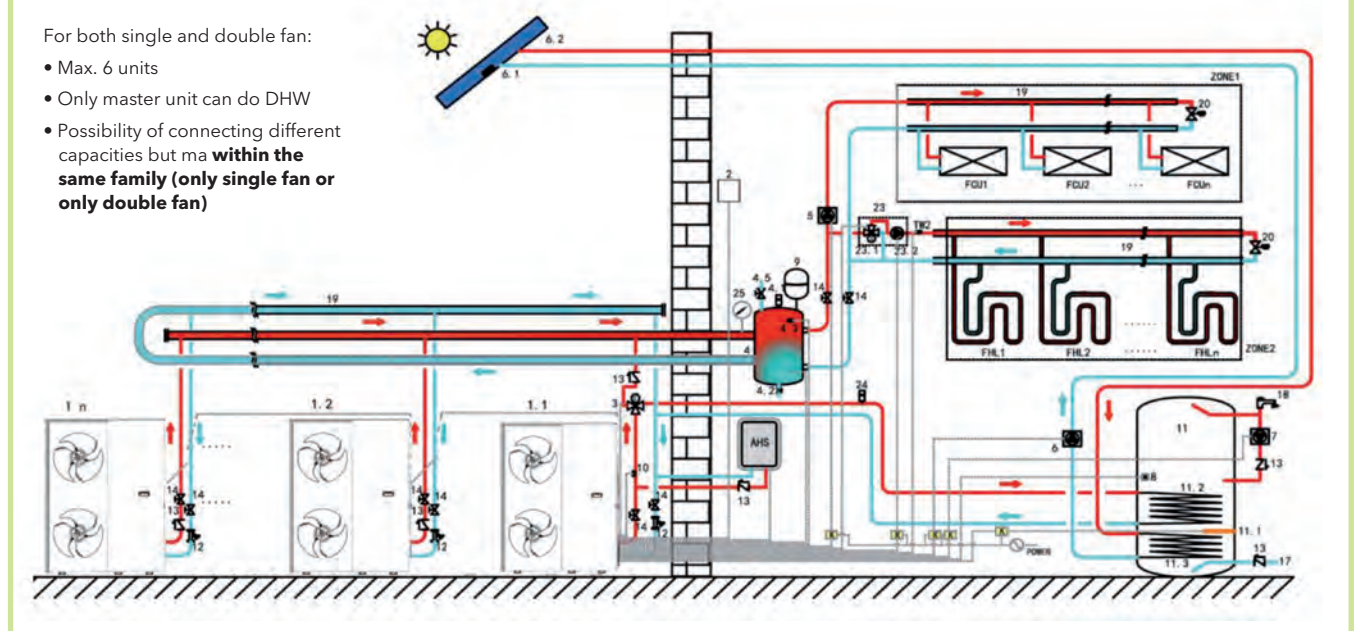
System diagrams



Cascade systems

For both single and double fan:

- Max. 6 units
- Only master unit can do DHW
- Possibility of connecting different capacities but **max within the same family (only single fan or only double fan)**



Technical specifications single fan monobloc

ENERGY CLASS

A+++

In heating mode with **35°C** flow water temperature.

A+++

In heating mode with **55°C** flow water temperature.

INTEGRATED
Wi-Fi



Model			GPCWNMS 800 J	GPCWNMS 1000 J	GPCWNMS 1200 J	GPCWNMS 1400 J	GPCWNMS 1600 J	GPCWSMS 800 J	GPCWSMS 1000 J	GPCWSMS 1200 J	GPCWSMS 1400 J	GPCWSMS 1600 J		
Heating	Rated power	A7//W35	kW		8.00	9.50	12.10	14.00	15.50	8.00	9.50	12.10	14.00	15.50
	Electrical consumption		COP		1.52	1.92	2.44	2.98	3.44	1.52	1.92	2.44	2.98	3.44
	Coefficient of performance				5.25	4.95	4.95	4.70	4.50	5.25	4.95	4.95	4.70	4.50
	Rated power	A7//W45	kW		8.10	9.50	12.30	14.10	15.50	8.10	9.50	12.30	14.10	15.50
	Electrical consumption		COP		2.03	2.44	3.15	3.76	4.25	2.03	2.44	3.15	3.76	4.25
	Coefficient of performance				4.00	3.90	3.90	3.75	3.65	4.00	3.90	3.90	3.75	3.65
Cooling	Rated power	A35//W18	kW		8.30	10.00	12.00	14.00	15.00	8.30	10.00	12.00	14.00	15.00
	Electrical consumption		EER		1.58	2.17	2.61	3.18	3.53	1.58	2.17	2.61	3.18	3.53
	Energy efficiency				5.25	4.60	4.60	4.40	4.25	5.25	4.60	4.60	4.40	4.25
	Rated power	A35//W7	kW		7.45	8.10	11.50	12.40	14.00	7.45	8.10	11.50	12.40	14.00
	Electrical consumption		EER		2.22	2.61	3.77	4.13	5.19	2.22	2.61	3.77	4.13	5.19
	Energy efficiency				3.35	3.10	3.05	3.00	2.70	3.35	3.10	3.05	3.00	2.70
Seasonal heating data	Prated @ -10°C	35/55	kW		7.90/8.20	9.80/10.00	12.10/12.10	14.10/13.80	15.90/14.70	7.90/8.20	9.80/10.00	12.10/12.10	14.10/13.80	15.90/14.70
	Seasonal performance coefficient		SCOP		5.35/4.07	5.33/4.01	4.94/3.96	4.76/3.85	4.72/3.86	5.35/4.07	5.33/4.01	4.94/3.96	4.76/3.85	4.72/3.86
	Seasonal energy efficiency (ns)		%		211/159.6	210/157.5	194.5/155.4	187.5/151	185.6/151.5	211/159.6	210/157.5	194.5/155.4	187.5/151	185.6/151.5
	Energy efficiency class		-		A+++/A+++					A+++/A+++				
	Annual energy consumption		kWh/a		3051/4168	3802/5148	5064/6312	6118/7405	6966/7862	3051/4168	3802/5148	5064/6312	6118/7405	6966/7862
Operation range	Outdoor air temperature	Heating	°C		-25~35									
		Cooling	°C		-5~46									
		DHW	°C		-25~46									
	Delivery water temperature	Heating	°C		25~80									
		Cooling	°C		5~25									
		DHW	°C		20~70									
Refrigerant circuit data	Refrigerant1	Type / kg GWP	R290 / 1.1		R290 / 1.5			R290 / 1.1		R290 / 1.5				
	Tons of CO2 equivalent	t	0.022		0.03			0.022		0.03				
	Control system	Electronic expansion valve												
	Compressor	Type	Twin Rotary - DC Inverter											
Hydraulic data	Heat exchanger	Type	Stainless steel with brazed plates											
		Flow rate	m³/h	0.4~1.65	0.4~2.1	0.7~2.5	0.7~2.75	0.7~3.0	0.4~1.65	0.4~2.1	0.7~2.5	0.7~2.75	0.7~3.0	
	Circulation pump	Included												
		Threaded												
	Water pipe connections	Type	G1-1/4" BSP											
		Dimension	inches	3										
Max working pressure	bar	Not included												
Electrical data	Expansion vessel	Not included												
	Power supply	Ph/V/Hz	1ph+N / 220~240V / 50Hz					3ph+N / 380~415V / 50Hz						
	Maximum current	A	19.50	21.00	31.00			8.00		11.00				
Power cable	Recommended	Type	3x6 mm²					5x2.5 mm²						
Product specifications	Fan	Type	DC Inverter x 1											
		Air flow	m³/h	4680	4680	4780	4780	4780	4680	4680	4780	4780	4780	
	Sound power level	ERP test	dB(A)	53	54	55	57	59	53	54	55	57	59	
	Sound pressure level at 1 m	Max	dB(A)	40	41	43	46	49	40	41	43	46	49	
	Dimensions	WxDxH	mm	1330x501x1051										
	Weight	Net	kg	156			176			161		176		
Control (supplied)	Wired remote control with integrated Wi-Fi and Modbus connectivity													

GENERAL NOTE:

The above data refers to the following standards: EN 14511:2018; EN 14825:2019; EN50564:2011; EN12102-1:2018; EN12102-2:2019; (EU)No:811:2013; (EU)No:813:2013; OJ 2014/C 207/02:2014.

1. Refrigerant loss contributes to climate change. Refrigerants with a lower global warming potential (GWP) contribute less to global warming than those with a higher GWP when released into the atmosphere. This appliance contains a refrigerant with a GWP of 0.02. Therefore, if 1 kg of this refrigerant were released into the atmosphere, the impact on global warming would be 50 times greater than 1 kg of CO2, over a period of 100 years. Under no circumstances should the user attempt to intervene on the refrigeration circuit or disassemble the product. If necessary, always contact qualified personnel.



For more information on products, services,
technical assistance and tax deductions, visit:

www.hotgreenpower.it

PRODUCT CATALOGUE 2026

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TERMAL SALES S.r.l.
Via della Salute 14
40132 Bologna - Italy
Tel. +39 051 41 33 111
Fax +39 051 41 33 112
www.termal.it