CATALOGUE 2025

MONOBLOC HEAT PUMP R290 & R32

HOT Green Power

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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.

INDICE

HOT GREEN POWER, ENERGY EVOLVES

Innovation, efficiency and sustainability for the climate of the 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.

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

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.

REFRIGERANT GASES R290 AND R32

In recent years, the focus on more sustainable air conditioning and refrigeration solutions has grown significantly, pushing the industry to reduce the environmental impact of refrigerant 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**, on the other hand, offers a good compromise between **efficiency**, **safety** and **emission reduction** compared to traditional refrigerants, and is now widely used in air conditioning systems.

R290, sustainability and efficiency at its best

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

From an energy point of view, R290 offers **excellent heat exchange capacity**, allowing air conditioning and refrigeration systems to work more efficiently and reducing energy consumption. Furthermore, having no impact on the ozone layer (ODP = 0), it fits perfectly into strategies for reducing polluting emissions.

The **A3 flammability class** requires specific precautions in the design and installation of systems. For this reason, the use of R290 is subject to very stringent charge limits and safety regulations, especially in residential air conditioning systems.

Strengths

- Almost zero environmental impact (GWP = 0.02, ODP = 0)
- High energy efficiency
- Excellent thermodynamic performance

Main applications: commercial and industrial refrigeration, small heat pumps, portable air conditioners.

R32, the standard for air conditioning

L'R32 is a **latest-generation refrigerant** that is gradually replacing R410A in air conditioning systems. Its GWP is 675, much lower than R410A (2,088), thus helping to reduce the environmental impact of modern air conditioners.

Thanks to its **excellent thermodynamic properties**, R32 allows for higher energy efficiency and a reduction in the amount of refrigerant needed in systems, thus also reducing operating costs. In addition, it has an ODP of 0, so it does not damage the ozone layer.

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

Strengths

- Reduced GWP compared to R410A (675 vs 2,088)
- Greater energy efficiency with less refrigerant
- Does not damage the ozone layer (ODP = 0)

Main applications: residential and commercial air conditioning, heat pumps.

Line-up

Monobloc single fan R290 8-16 kW

Monobloc double fan R290 26-40 kW

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

R290
propane refrigerant gas

A+++
Energy class in heating at 35°C

-25°C
heating operation

85°C
water temperature (for capacities 26-35 kW)

5.35
Maximum SCOP with flow 35°C (8 kW)

7.67
Maximum SEER with flow 18°C (10 kW)

WiFi
integrated as standard

ModBus
on all capacities

1-PHASE

8.00 kW
GPCWNMS 800 J

10.00 kW
GPCWNMS 1000 J

12.00 kW
GPCWNMS 1200 J

14.00 kW
GPCWNMS 1400 J

16.00 kW
GPCWNMS 1600 J

3-PHASE

8.00 kW
GPCWSMS 800 J

10.00 kW
GPCWSMS 1000 J

12,00 kW
GPCWSMS 1200 J

14.00 kW
GPCWSMS 1400 J

16.00 kW
GPCWSMS 1600 J

3-PHASE

26.00 kW
GPCWSMS 2600 J

30.00 kW
GPCWSMS 3000 J

35.00 kW
GPCWSMS 3500 J

40.00 kW
GPCWSMS 4000 J

Monobloc with vertical air supply R290 50-70 kW

Air-to-water heat pump monobloc for cooling and heating **for commercial and industrial applications**.

3-PHASE

50.00 kW
GPCWSMS 5000 J

60.00 kW
GPCWSMS 6000 J

70.00 kW
GPCWSMS 7000 J

R290
propane refrigerant gas

A+++
energy class in heating at 35°C

-25°C
heating operation

4.70
Maximum SCOP with flow 35°C (50 kW)

6.80
Maximum SEER with 18°C flow (50 kW)

85°C
water temperature

ModBus
on all capacities

-10°C
Power output at 100% up to -10°C

up to 8
combinable units for a total of 560 kW of power

R32 22-30 kW double-fan monobloc

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

3-PHASE

22.00 kW
GPCWSMS 2200 Z

26.00 kW
GPCWSMS 2600 Z

30.00 kW
GPCWSMS 3000 Z

R32
difluoromethane refrigerant gas

A+++
Energy class in heating at 35°C (22-26 kW)

-25°C
heating operation

4.53
Maximum SCOP with flow 35°C (22 kW)

4.70
Maximum SEER with 7°C flow (22 kW)

60°C
water temperature

WiFi
integrated as standard

ModBus
on all capacities


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MONOBLOC HEAT PUMP R290 8-40 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.

COMPRESSORS

Twin Rotary for 8-16 kW units

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.

Scroll with EVI technology for 26-40 kW models

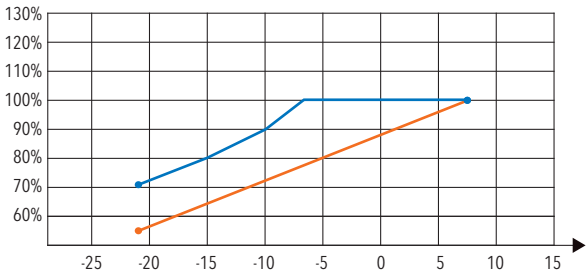
The 26-40 kW units are equipped with an R290 Inverter Scroll compressor with EVI (Enhanced Vapor Injection) technology, which allows medium pressure vapor injection into the compressor scroll.

This innovation guarantees:

- higher delivery temperatures, ideal for high efficiency applications;
- greater yield even in harsh weather conditions;
- higher efficiency at low temperatures, optimising energy consumption.

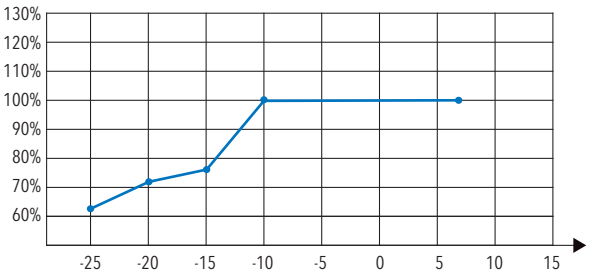
Maintaining power output

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



- -7°C -> 100% power guaranteed
- -15°C -> 80% power guaranteed
- -22°C -> 70% power guaranteed

Models from 26 to 40 kW
Water delivery temperature 55°C



- -10°C -> 100% power guaranteed
- -15°C -> 75% power guaranteed
- -20°C -> 70% power guaranteed

Legend

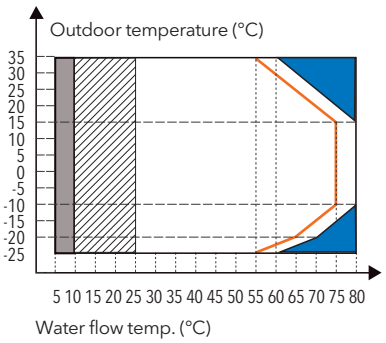
Hot Green Power — Other products

Wide operation in every mode 8-16 kW

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

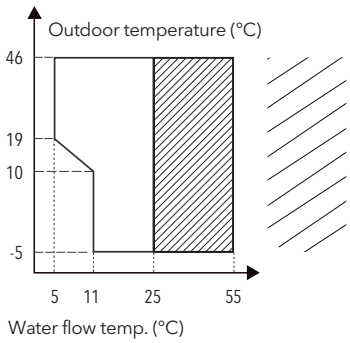
HEATING MODE

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



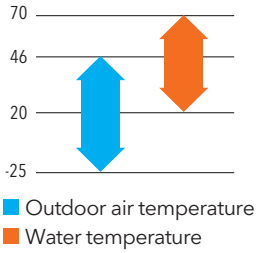
COOLING MODE

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

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

Maximum return temperature

MAX. GUARANTEED TEMPERATURE VALUES

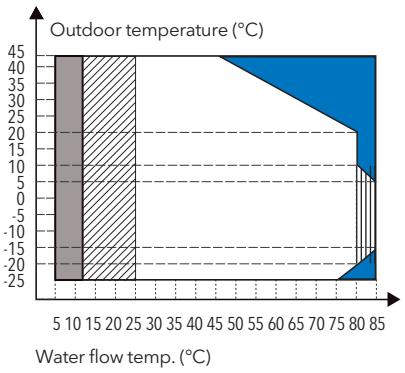
- -25/+35 -> max guaranteed flow temp. 60°C
- -20/+25 -> max guaranteed flow temp. 70°C
- -10/+15 -> max guaranteed flow temp. 80°C

Wide operation in every mode 26-40 kW

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

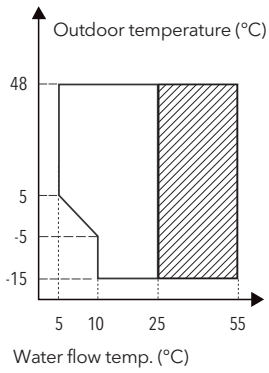
HEATING MODE

Operation from -25°C to 43°C.
Delivery temp. from 25°C to 85°C.



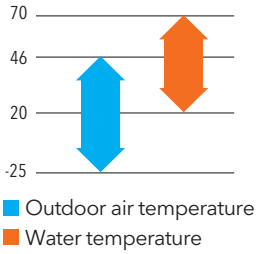
COOLING MODE

Operation from -15°C to 48°C.
Delivery temp. from 5°C to 25°C.



DHW PRODUCTION

Operation from -25°C to 43°C.
Flow temp. for DHW from 20°C to 75°C.



The heat pump turns off, only the resistors turn 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

A flow rate of 1.2 m3/h is required to operate under these conditions.

MAX. GUARANTEED TEMPERATURE VALUES

- -25/+25 -> max guaranteed flow temp. 75°C
- -20/+10 -> max guaranteed flow temp. 80°C
- -15/+5 -> max guaranteed flow temp. 85°C

HYDRAULIC ELEMENTS

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.

The 26-40 kW units are equipped with an integrated expansion vessel: 5 L volume and 8 bar pre-charge.

Controls

Control panel with large color display.

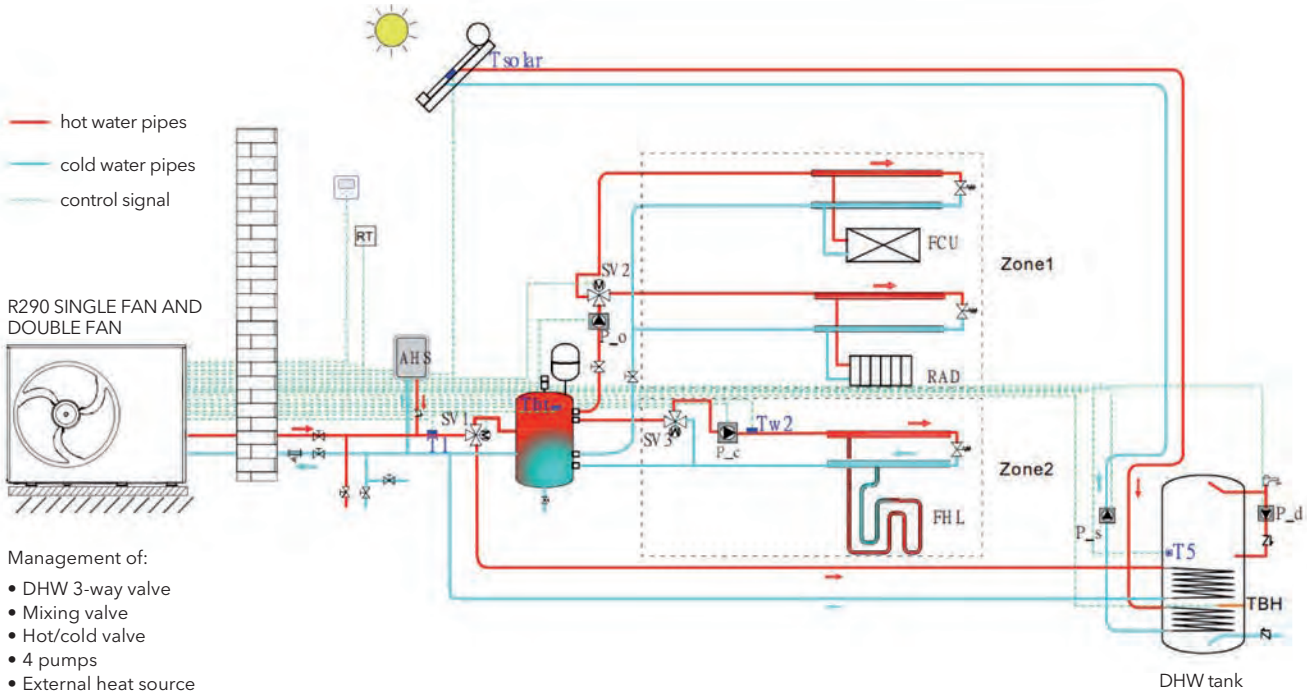
It is characterized by:

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

Compatible with Modbus protocol.

Control for both single and double fans.

System diagrams



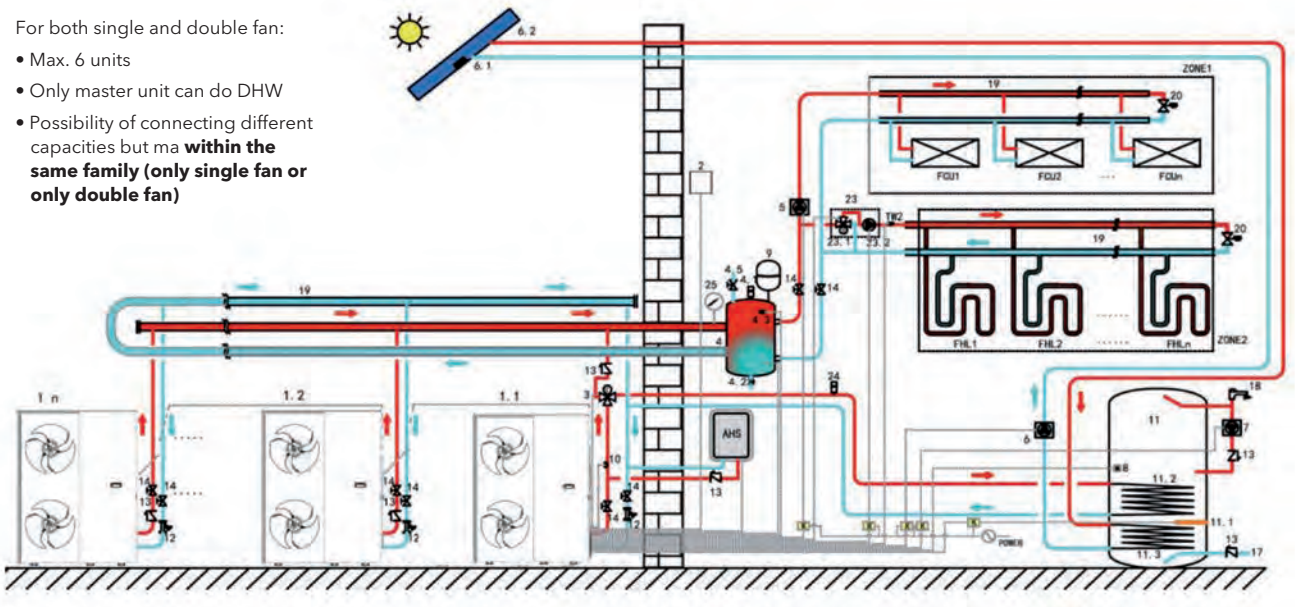
Management of:

- DHW 3-way valve
- Mixing valve
- Hot/cold valve
- 4 pumps
- External heat source
- Electric resistance
- Double zone management

Cascade systems

For both single and double fan:

- Max. 6 units
- Only master unit can do DHW
- Possibility of connecting different capacities but ma **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** of water temperature in delivery.

A+++
In heating mode with **55° C** of water temperature in delivery.

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				1.52	1.92	2.44	2.98	3.44	1.52	1.92	2.44	2.98	3.44
	Coefficient of performance			COP	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				2.03	2.44	3.15	3.76	4.25	2.03	2.44	3.15	3.76	4.25
	Coefficient of performance			COP	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				1.58	2.17	2.61	3.18	3.53	1.58	2.17	2.61	3.18	3.53
	Energy efficiency			EER	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				2.22	2.61	3.77	4.13	5.19	2.22	2.61	3.77	4.13	5.19
	Energy efficiency			EER	3.35	3.10	3.05	3.00	2.70	3.35	3.10	3.05	3.00	2.70
Seasonal heating data	Theoretical load (Pdesignh) @ -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 energy efficiency(ηs)			%	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/y	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			-5~46									
		DHW			-25~46									
	Delivery water temperature	Heating		°C	25~80									
		Cooling			5~25									
		DHW			20~70									
Refrigerant circuit data	Refrigerant[1]			Type / kg	R290 / 1.1		R290 / 1.5			R290 / 1.1		R290 / 1.5		
	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									
	Water pipe connections	Type			Threaded									
		Dimension		inches	G1-1/4" BSP									
	Max working pressure			bar	3									
	Expansion vessel				Not included									
Electrical data	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		q.ty	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 WiFi 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.

Technical specifications double-fan monobloc

ENERGY CLASS

A+++ (26-30-35 kW)
In heating mode with **35° C** of water temperature in delivery.

A++ (39 kW)
In heating mode with **35° C** of water temperature in delivery.

A+++ (26 kW)
In heating mode with **55° C** of water temperature in delivery.

A++ (30-35-39 kW)
In heating mode with **55° C** of water temperature in delivery.

Model				GPCWSMS 2600 J	GPCWSMS 3000 J	GPCWSMS 3500 J	GPCWSMS 4000 J
Heating	Rated power	A7//W35	kW	26.00	30.00	35.00	39.00
	Electrical consumption		kW	5.45	6.67	8.40	9.75
	Coefficient of performance		COP	4.77	4.50	4.17	4.00
	Rated power	A7/W45	kW	26.00	30.00	35.00	39.00
	Electrical consumption		kW	6.82	8.26	10.05	11.90
	Coefficient of performance		COP	3.81	3.63	3.48	3.28
Cooling	Rated power	A35//W18	kW	26.00	30.00	35.00	39.00
	Electrical consumption		kW	5.60	6.80	8.50	9.85
	Energy efficiency		EER	4.64	4.41	4.12	3.96
	Rated power	A35//W7	kW	26.00	30.00	32.00	32.00
	Electrical consumption		kW	8.40	10.70	11.98	11.98
	Energy efficiency		EER	3.10	2.80	2.67	2.67
Seasonal heating data	Theoretical load (Pdesignh) @ -10°C	35/55	kW	26/26	30/30	35/35	39/39
	Seasonal energy efficiency (ηs)		%	194.9/150.7	193.8/148.7	176.3/142.4	169.7/135.6
	Energy efficiency class		-	A+++/A+++	A+++/A++	A+++/A++	A++/A++
	Annual energy consumption		kWh/y	10856/13984	12600/16346	16131/19899	18665/23246
Operation range	Outdoor air temperature	Heating	°C	-25~43			
		Cooling		-15~48			
		DHW		-25~43			
	Delivery water temperature	Heating	°C	25~85			
		Cooling		5~25			
		DHW		20~75			
Refrigerant circuit data	Refrigerant[1]		Type / kg	R290 / 2.9			
	Control system			Electronic expansion valve			
	Compressor		Type	DC Inverter EVI Scroll			
Hydraulic data	Heat exchanger	Type		Stainless steel with brazed plates			
		Flow rate	m³/h	1.2-5.4	1.2-6.2	1.2~7.2	1.2~8.1
	Circulation pump			Included			
	Water pipe connections	Type		Threaded			
		Dimension	inches	G1" 1/4 M (DN32)			
	Working pressure	Max	bar	3			
	Expansion vessel	Volume	L	5			
Electrical data	Power supply		Ph/V/Hz	3ph+N / 380~415V / 50Hz			
	Maximum current		A	35.00			
	Power cable	Recommended	Type	5x10 mm²			
Product specifications	Fan	Type	q.ty	DC Inverter x 2			
		Air flow	m³/h	10500			
	Sound power level	ERP test	dB(A)	69	74	75	76
	Sound pressure level at 1 m	Max	dB(A)	61	61	63	63
	Dimensions	WxDxH	mm	1384x523x1861			
	Weight	Net	kg	260			
	Control (supplied)			Wired remote control with integrated WiFi 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.

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HEAT PUMP MONOBLOC R290 50-70 KW

The new range of R290 modular heat pumps is ideal for cooling and heating in commercial and industrial buildings.

Available in capacities from 50 to 70 kW of thermal capacity, modularity is one of its most important advantages; in fact, it is possible to combine the three models up to 8 units, for a maximum of 560 kW of capacity.

Usable in single or cascade mode, it reaches up to 85°C of water flow temperature.

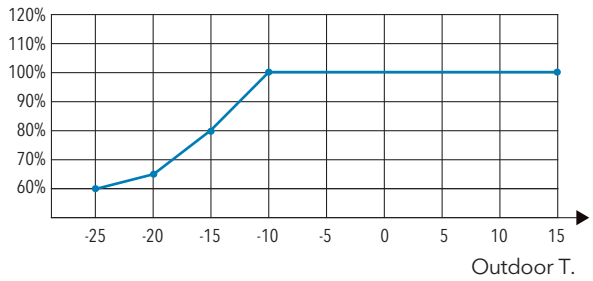
A+++

Energy Class in heating at 35°C

Maintaining power output

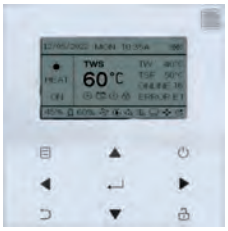
The unit is able to guarantee 100% of the power output in the presence of external temperatures down to -10°C.

Water delivery temperature 35°C



Controls

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



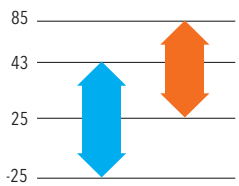
Operation range in Cooling and Heating

The wide operating range allows to satisfy all system requirements:

- hydronic terminals;
- floor heating.
- radiators;

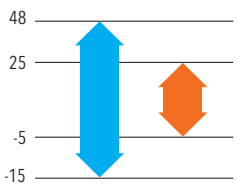
HEATING MODE

Operation from -25°C to 43°C.
Delivery temp. from 25°C to 85°C.



COOLING MODE

Operation from -15°C to 48°C.
Delivery temp. from -5°C to 25°C.

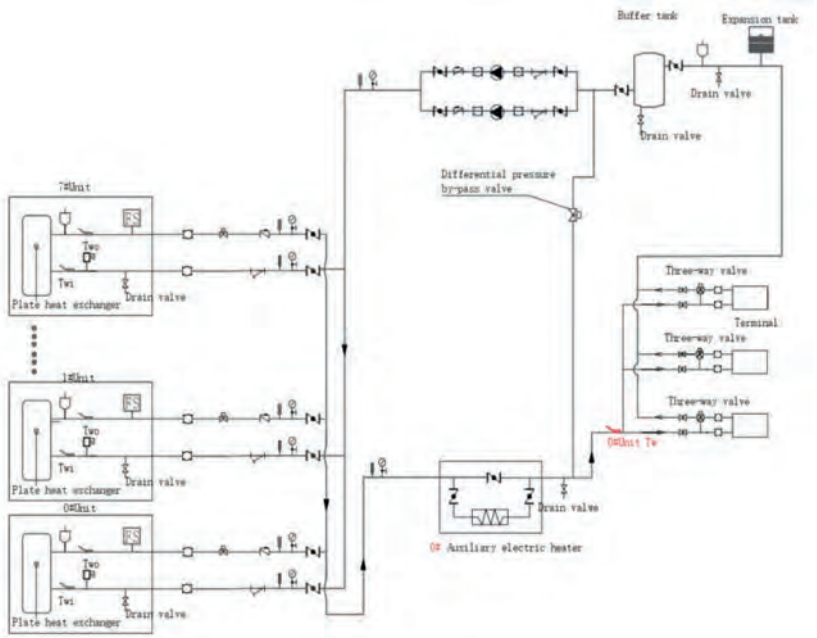


Outdoor air temperature
Water temperature

Cascade systems

The monoblocs can be connected in parallel for a maximum of 8 units and a total power of 560 kW. This makes the system ideal for commercial and industrial applications.

Example of cascade installation



Certifications

Quality Assurance ISO 9001

Environmental Management ISO 14001

Occupational Health and Safety Management ISO 45001

Technical specifications modular monobloc

ENERGY CLASS

A+++
In heating mode with **35° C** of water temperature in delivery.

A+++ (50-60 kW)
In heating mode with **55° C** of water temperature in delivery.

A++ (70 kW)
In heating mode with **55° C** of water temperature in delivery.

Model				GPCWSMS 5000 J	GPCWSMS 6000 J	GPCWSMS 7000 J
Heating	Rated power	A7//W35	kW	50.00	60.00	70,00
	Electrical consumption			10.64	13.95	17,50
	Coefficient of performance		COP	4.70	4.30	4,00
	Rated power	A7/W45	kW	50.00	60.00	70,00
	Electrical consumption			13.16	17.05	20,90
	Coefficient of performance		COP	3.80	3.52	3,35
Cooling	Rated power	A35//W18	kW	50.00	60.00	70,00
	Electrical consumption			10.42	13.33	16,87
	Energy efficiency		EER	4.80	4.50	4,15
	Rated power	A35//W7	kW	50.00	60.00	65,00
	Electrical consumption			15.15	20.00	23,21
	Energy efficiency		EER	3.00	3.00	2,80
Seasonal heating data	Theoretical load (Pdesignh) @ -10°C	35/55	kW	50.00/50.000	60.00/60.00	65,00/65,00
	Seasonal energy efficiency (ηs)		%	185/153	181/151	177/147,4
	Energy efficiency class		-	A+++/A+++	A+++/A+++	A+++/A++
	Annual energy consumption		kWh/y	21978/26324	26948/32176	29842/35694
Operation range	Outdoor air temperature	Heating	°C	-25~43		
		Cooling		-15~48		
	Delivery water temperature	Heating	°C	25~70 (25~85)1		
		Cooling		5~25		
Refrigerant circuit data	Refrigerant2		Type / kg	R290 / 2.8 x 2		
	Control system			Electronic expansion valve		
	Compressor		Type	DC Inverter EVI Scroll		
Hydraulic data	Heat exchanger	Type		Stainless steel with brazed plates		
		Flow rate	m^3/h	9.6~14.4		
	Circulation pump			NOT included		
	Water pipe connections	Type		Victaulic type grooved		
		Dimension	inches	2" (DN50)		
	Working pressure	Max	bar	6		
	Expansion vessel	Volume	L	Not included		
Electrical data	Power supply		Ph/V/Hz	3ph+N / 380~415V / 50Hz		
	Maximum current		A	70.00		
	Power cable	Recommended	Type	5x16 mm^2		
Product specifications	Fan	Type	q.ty	DC Inverter x 2		
		Air flow	m^3/h	28670		
	Sound power level	Max	dB(A)	80	84	87
	Sound pressure level at 1 m	Max	dB(A)	63	68	70
	Dimensions	WxDxH	mm	2000x960x1880		
	Weight	Net	kg	560		
	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. In "High temperature" operating mode.
2. 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 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.


HOT
Green Power

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 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

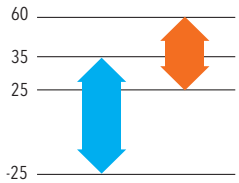
All units are SG Ready. Reading of the electrical network trend, energy saving guaranteed.

Wide operation in every mode 22-30 kW

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

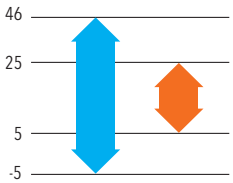
HEATING MODE

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



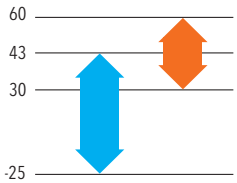
COOLING MODE

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

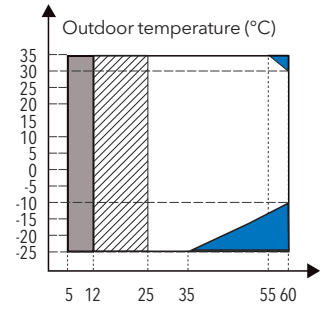


DHW PRODUCTION

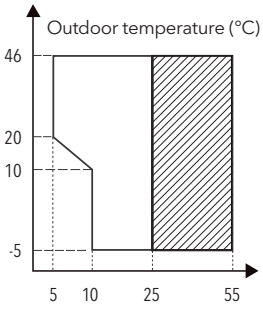
Operation from -25°C to 43°C.
Delivery temp. for DHW from 30°C to 60°C.



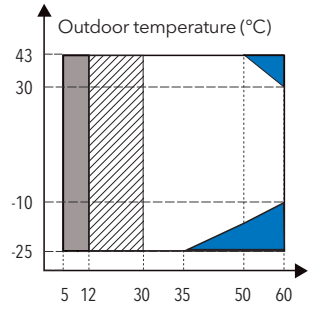
HEATING MODE



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.

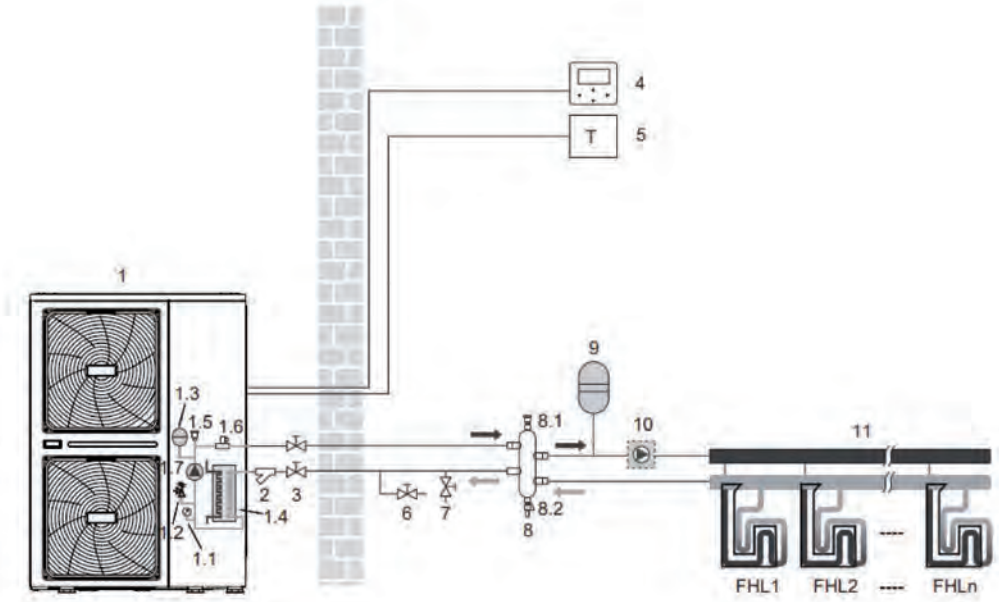
Frost protection

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

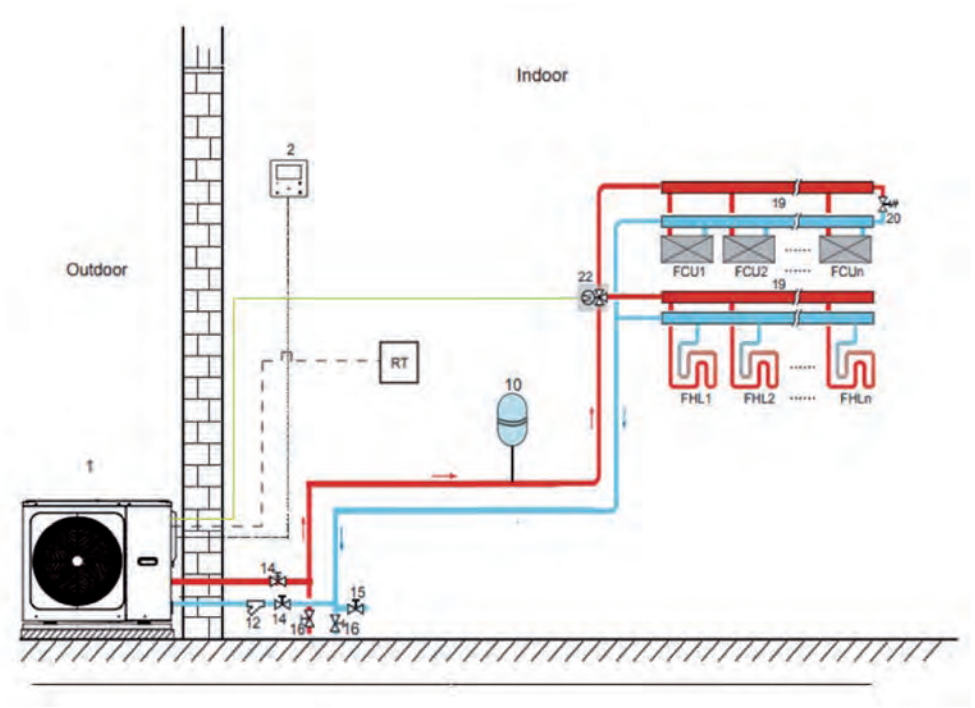
Floor protection

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

APPLICATION 1: heating only mode with floor heating

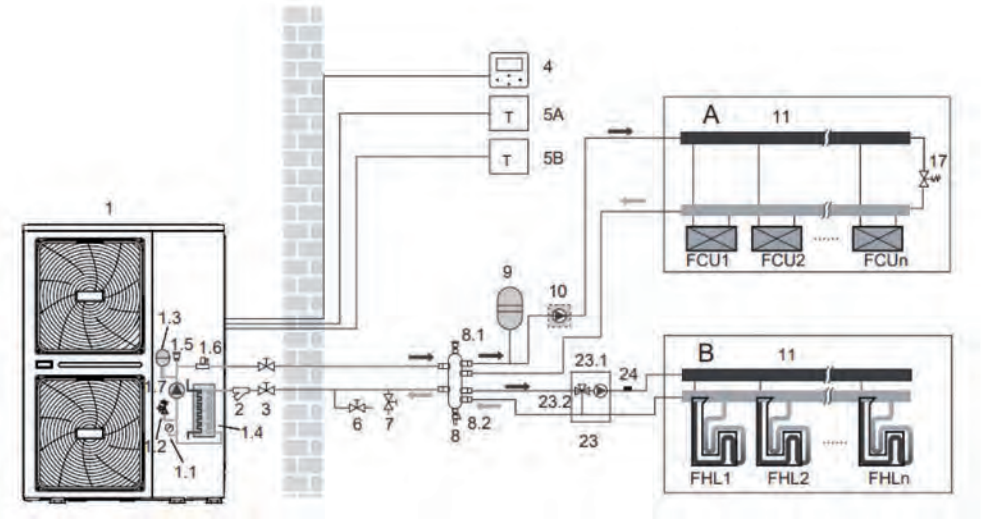


APPLICATION 2: separate heating and cooling mode



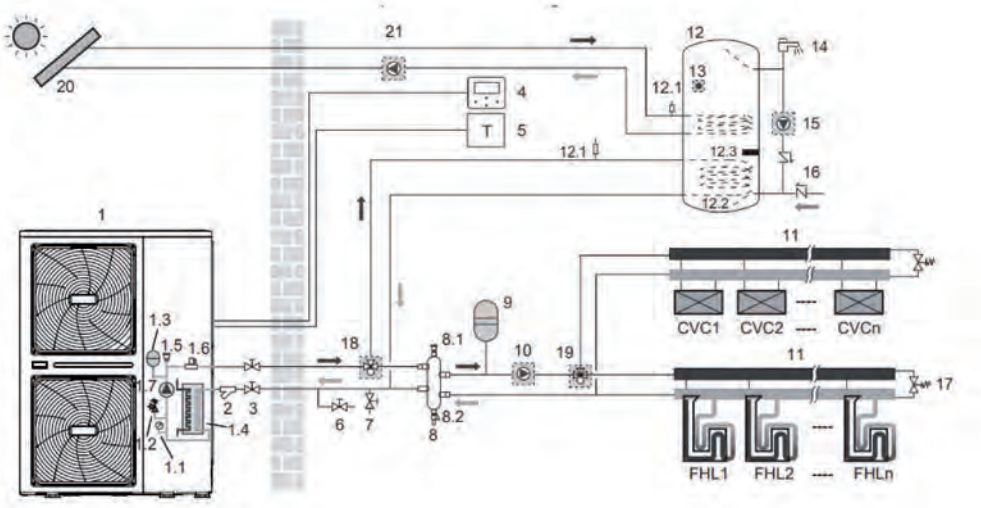
- Heating with floor heating
- Cooling with fan coil units
- 3-way hot /cold valve
- No separator / booster pump (check pressure drops)
- Additional expansion vessel
- Bypass valve

APPLICATION 3: heating mode – double temperature



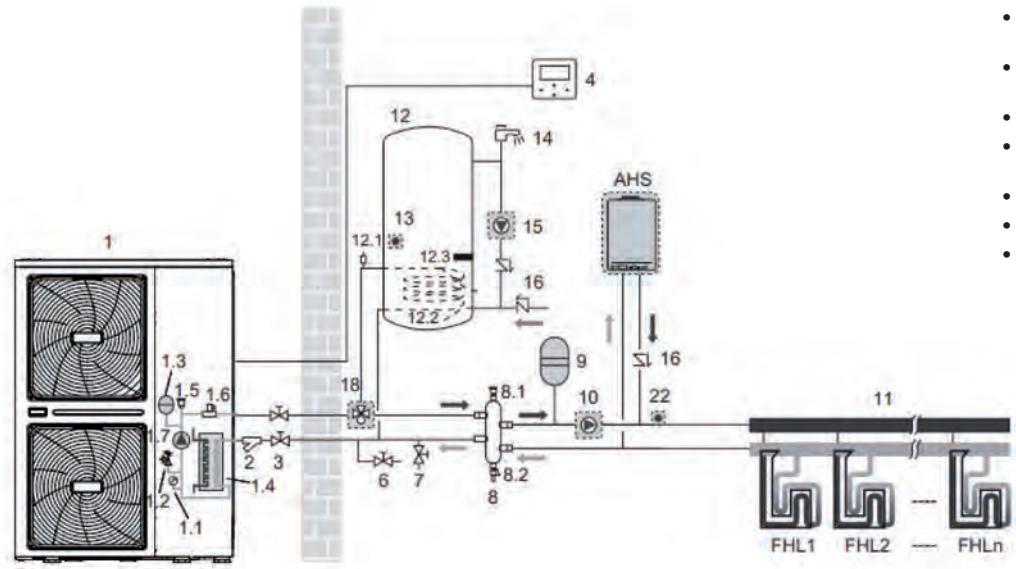
- Heating with fan coil units and floor heating
- Machine-controlled mixing station
- Separator and booster group
- Additional expansion vessel

APPLICATION 4: Heating mode + Cooling mode + DHW production



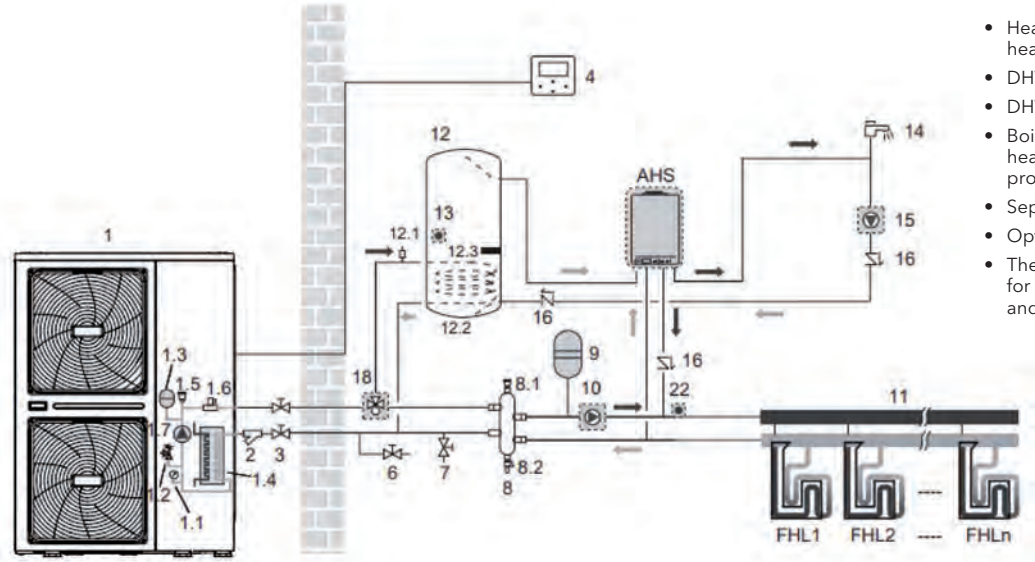
- Heating with fan coil units and floor heating
- DHW production
- DHW valve
- Shuttle valves
- Bypass valve

APPLICATION 5: Heating mode and DHW production with boiler integration



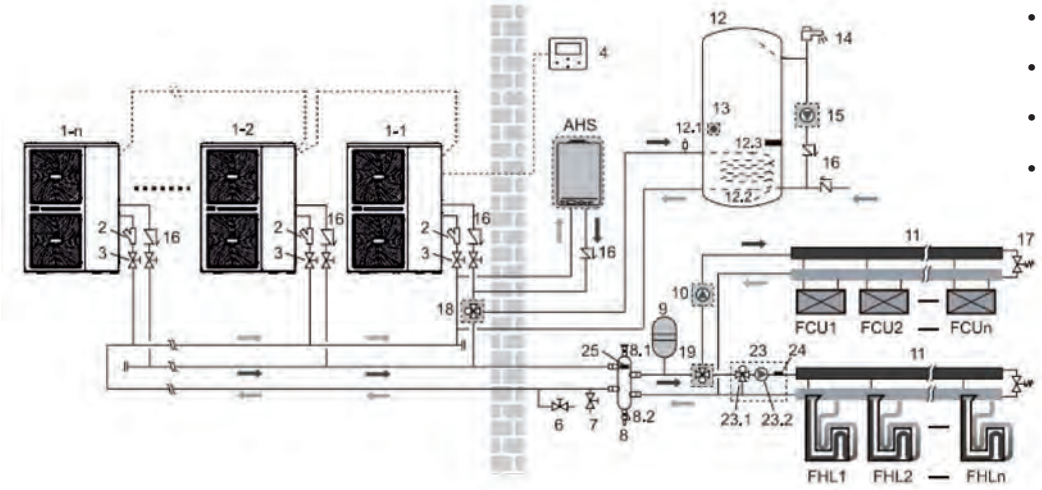
- Heating with floor heating
- DHW production (+ electric resistance)
- DHW valve
- Boiler integration, heating only
- Separator
- Optional mixing valve
- The boiler is responsible for a portion of the heating

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



- Heating with floor heating
- DHW production
- DHW valve
- Boiler integration for heating and DHW production
- Separator
- Optional mixing valve
- The boiler is responsible for a share of the heating and DHW production

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



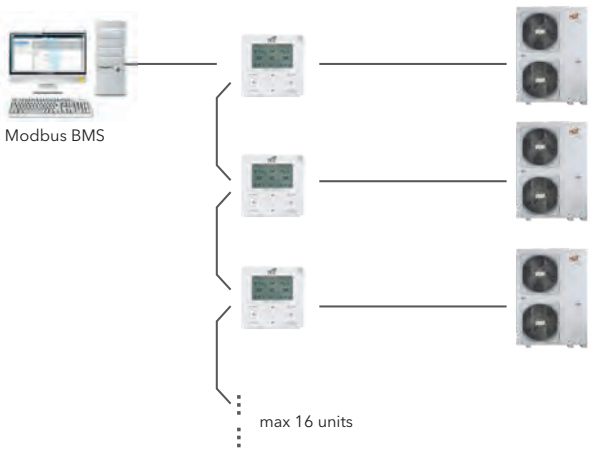
- Up to 6 units connectable
- A single wired controller (master unit)
- Only the master unit can produce DHW
- Machines of different sizes can also be connected to each other

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

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 energy efficiency(ηs)		%	178/126	177/123	165/123
	Energy efficiency class		-	A+++/A++	A+++/A+	A++/A+
	Annual energy consumption		kWh/y	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	Refrigerant1		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	3		
	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.

04-2025

HOT GREEN POWER PRODUCT CATALOGUE 2025

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