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.

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

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.

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.

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.

Operating modes and applications

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

Flow temperature control

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

Low environmental impact

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

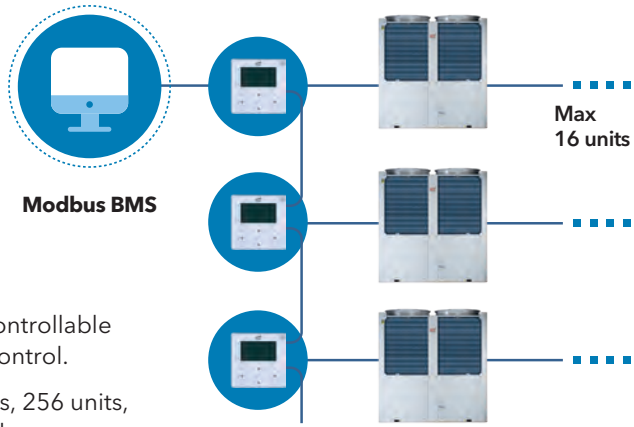
Quiet

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.

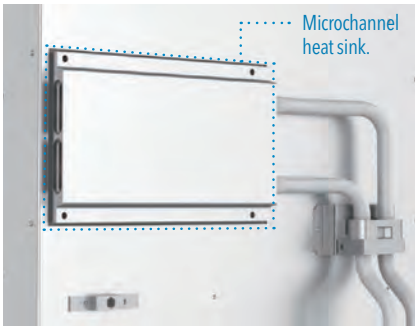


Smart control

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

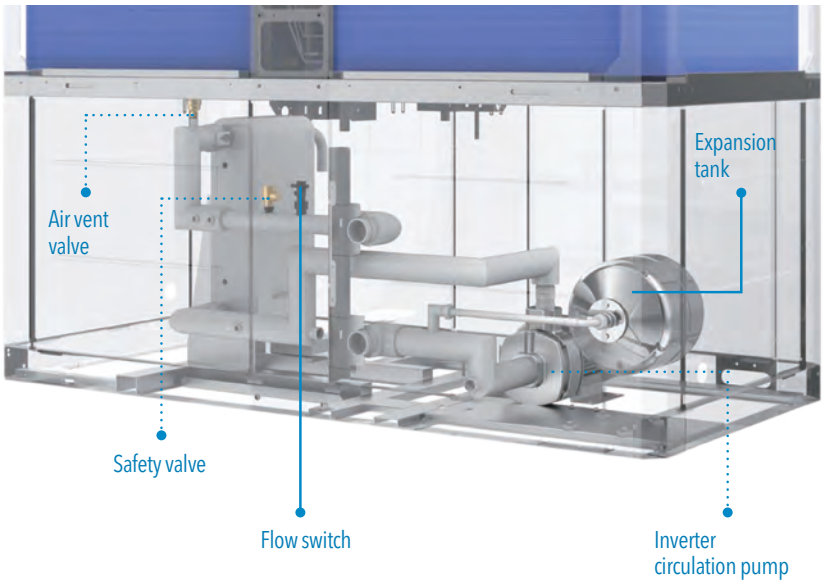
Heat dissipation via refrigerant

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	Rated power	A7/W35	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
	Rated power	A7/W45	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	Rated power	A35/W18	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
	Rated power	A35/W7	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 riscaldamento	Prated @ -10°C	35/55	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		-15~48				
		DHW		-20~43				
	Delivery water temperature	Heating	°C	25~65				
		Cooling		0~20				
		DHW		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			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	m³/h	3.0~14			5.0~26	
	Circulation pump			Included				
	Water pipe connections	Type		Victaulic type grooved				
		Dimension	inches	2" (DN50)			2-1/2" (DN65)	
	Working pressure	Max	bar	10				
	Expansion vessel	Volume	L	12			22	
Electrical data	Power supply		Ph/V/Hz	3ph+N / 380~415V / 50Hz				
	Maximum current		A	46.00			90.00	
	Power cable	Recommended	Type	5x16 mm2			5x50 mm2	
Product specifications	Fan	Type	q.ty	DC Inverter x 2				
		Air flow	m³/h	22000	22000	28500	32500	50000
	Sound power level		dB(A)	83	83	89	83	93
	Sound pressure level at 1 m		dB(A)	64	64	69	64	73
	Dimensions	WxDxH	mm	2000x960x1770			2220x1135x2300	
	Weight	Net	kg	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.