



2X1 GALLETTI: THE EVOLUTION IN AIR CONDITIONING SYSTEMS

Only who is designing and manufacturing indoor air terminals for air conditioning and heating since 45 years could conceive a product which is able to overcome the limitation of the existing technologies.

2X1 IS AN INDOOR AIR TERMINAL FOR HEATING AND COOLING HYDRONIC SYSTEMS WHICH COMBINE IN ONE SOLUTION TWO DIFFERENT OPERATING PHYLOSOPHY

GALLETTI 2X1: THE HEATING AS YOU ALWAYS DESIRED!

Heating system with radiators? 2x1 Galletti

- > Faster air warming up, thanks to the ventilated heating with "superminimum" speed.
- > In the same unit you have air conditioning and dehumidification.
- > High efficiency even with low water temperature: reduced running costs.

Heating and cooling system with fan coils? 2x1 Galletti

- > No ventilation = no sound emission in heating mode.
- > Heating with all the benefit of the natural convection.
- > Compact dimensions (17 cm width) and high level design.
- > Compatibility with 4 pipes systems.

Floor heating systems? 2x1 Galletti

- > It allow the summer dehumidification.
- > It is reaching the comfort conditions in a shorter time.
- > Independent air temperature control in each rooms.
- > It is filtering the air even in heating operation with superminimum speed.
- > Easier installation and one unique solution.

Heating system with radiating units? 2x1 Galletti

- > No risk of burning: low temperature of the cabinet due to natural convection.
- > The centrifugal fans allow the comfort conditions in any area of the rooms with a better air distribution.

THE EXCLUSIVE PATENTED SOLUTION

2x1 Galletti: the benefits of static heating with natural convection

- > Thanks to the exclusive patented system, based on the presence of 2 heating exchangers, with only one move from an air conditioning fan coil, 2x1 become a thermoconvector for the static heating.
- > 2x1 is heating with natural convection by simply opening the frontal deflector.

With 2x1 in winter time it is possible to have the following benefits:

- > High air quality
With the use of Bioxygen system (optional), it is possible to deionise the air with the consequent reduction of air dust, air microbic content like bacteria, germs, bad smelling
- > Comfort and reduced running costs
The high efficiency even with low water temperatures, allow to use as heating sources air condensed water heat pumps, geothermal heat pumps and condensation boilers. The reduced air supply temperature, avoid also the wall blackening.
- > Short time to reach the comfort conditions
Thanks to the use of the superminimum fans speed, the room reach the comfort conditions in a shorter time.
- > Safe and easy installation
Reduced weight and reduced cabinet temperature compared with standard radiator, allow an easier installation.



HEATING MODE

3 operations levels, 5 heating capacity levels:

- > 1° level - thermoconvector mode, fans off, deflector open.
The thermostat, control the room temperature acting on water valve (option) which stop the water flow. The heating capacity can be adjusted, by changing the position of the air supply FLAP. The heating operation will stop as soon as the FLAP is closed.
- > 2° level - thermoconvector mode, fans ON with superminimum speed", deflector open. The thermostat, control the room temperature acting on fans and on the water valve (option) which stop the water flow. The heating operation will stop as soon as the FLAP is closed or moving the control selector to OFF position.
- > 3°/4°/5° levels - thermoconvector mode, fans ON with min/med/max speed", deflector closed. The thermostat, control the room temperature acting on fans and on the water valve (option) which stop the water flow. The heating operation will stop as soon as the FLAP is closed or moving the control selector to OFF position

COOLING MODE

1 operation level, 4 heating capacity levels:

- > 1° level - fan coil mode, fans with superminimum speed, deflector closed.
The thermostat, control the room temperature acting on fans and on the water valve (option) which stop the water flow
The cooling operation will stop as soon as the FLAP is closed or moving the control selector to OFF position.
- > 2°/3°/4° levels - fan coil mode, fans with min/med/max speed", deflector closed.
The thermostat, control the room temperature acting on fans and on the water valve (option) which stop the water flow.
The cooling operation will stop as soon as the FLAP is closed or moving the control selector to OFF position.

THE HEATING AS YOU PREFER!

Thanks to the exclusive patented solution, 2x1 maintain the comfort conditions even without ventilation but with natural convection.

THE COOLING AS YOU PREFER!

In the summer season, 2x1 is giving all the benefit of the best fan coils: ventilated air conditioning, silent operations, air filtration, sanifications and dehumidification.

RATED TECHNICAL DATA												
MODEL	Ventilation	COOLING water 7/12°C, air dry bulb 27°C humid bulb 19°C)						HEATING water 75/65°C, air 20°C)			Electrical input watt	Sound power dB A
		Air flow rate m3/h	Total capacity kW	Sensible capacity kW	Dehum. Capacity l/h	Water flow rate l/h	Pressure drop kPa	Capacity kW	water flow rate l/h	Pressure drop kPa		
124	convection	-	-	-	-	-	-	0,93	80	0,5	-	-
	extra-low	80	0,56	0,39	0,24	95	1,5	1,74	80	0,5	11	27
	minimum	110	0,74	0,52	0,32	125	2,0	1,86	165	2,5	12	29
	medium	135	0,90	0,64	0,37	155	3,0	2,24	195	3,0	17	34
	maximum	170	1,17	0,95	0,32	200	5,0	2,89	255	3,5	23	40
224	convection	-	-	-	-	-	-	1,30	115	1,1	-	-
	extra-low	100	0,70	0,49	0,30	120	1,2	1,95	115	1,1	12	31
	minimum	135	0,87	0,64	0,34	150	1,9	2,30	205	3,0	14	33
	medium	170	1,14	0,80	0,49	190	2,6	2,85	250	4,5	20	37
	maximum	225	1,62	1,34	0,40	275	4,5	3,54	310	6,5	27	43
324	convection	-	-	-	-	-	-	1,49	130	1,1	-	-
	extra-low	140	1,04	0,70	0,48	175	2,7	2,74	130	1,1	22	32
	minimum	200	1,48	1,00	0,68	250	5,0	3,38	295	6,0	23	34
	medium	250	1,82	1,24	0,84	305	7,0	4,13	365	9,0	28	39
	maximum	340	2,38	1,82	0,80	410	13,5	5,10	450	13,0	37	46
424	convection	-	-	-	-	-	-	1,49	130	1,1	-	-
	extra-low	175	1,28	0,89	0,56	225	4,0	3,34	130	1,1	22	33
	minimum	250	1,82	1,17	0,94	305	7,0	4,13	365	9,0	25	34
	medium	310	2,17	1,50	0,97	375	10,0	5,00	440	13,0	31	40
	maximum	420	3,13	2,32	1,17	540	20,0	5,89	520	18,0	42	47

Heating capacity referred to the following conditions:
 - water inlet temperature 75°C
 - water outlet temperature 65°C
 - air inlet temperature 20°C

Cooling capacity referred to the following conditions:
 - water inlet temperature 7°C
 - water outlet temperature 12°C
 - Dry bulb air inlet temperature 27°C
 - Wet bulb air inlet temperature 19°C

OPTIONALS

- > Microprocessor terminal control, for the fans speed automatic control and the connectivity to the Ergo supervision systems.
- > Supporting feet to cover the piping coming from the floor.
- > On/off water valve.
- > Air deionising and sanification BIOXIGEN system.
- > Auxiliary drain pan
- > Painted back panel
- > 4 speed selector switch

> CABINET WITH A REFINED DESIGN

- Front panel made of sheet steel, colour RAL9010. The front panel incorporates an exclusive air flap which activates the convection heating mode. The flap is opened and closed manually.
- Side panels manufactured from UV-stabilised ABS to maintain the colour intact over time.
- Upper grill made of ABS (UV stabilised), adjustable louvers and flap. The flap features a microswitch that automatically shuts down the unit when the flap itself is closed. The side doors provide access to the control panel and compartment housing the plumbing connections. The doors may be secured by screws to prevent opening.

> FAN ASSEMBLY

- Including centrifugal fans with staggered airfoil-shaped blades, manufactured from anti-static ABS. The fans are housed in a low-noise ABS volute distinguished by a compact, high-efficiency profile. Four-speed electrical motor, mounted on vibration damping couplings, directly connected to the fans, with permanently activated capacitor and winding thermal protection .



> HEAT EXCHANGERS

- 2X1 incorporates 2 heat exchangers for 2 distinct operating modes.
- 4-row convector exchanger made up of copper tubing and aluminium fins secured to the tubing by mechanical expansion, complete with brass manifolds and air vent valve. The wide spacing between fins optimises the draught effect during natural convection.
 - Fan coil exchanger, made up of copper tubing and high-efficiency aluminium fins submitted to a hydrophilic surface treatment, secured to the tubing by mechanical expansion. The exchanger comes complete with air vent valves.
 - The heat exchangers are normally connected in series, so that the 2x1 unit will be ready for installation in 2-pipe systems. By removing the connecting pipe, 2x1 can be immediately converted for installation in a 4-pipe system, where the convector exchanger will be connected to the heating circuit and the fan coil exchanger to the cooling circuit.
 - The plumbing connections are normally provided on the left side but may be switched over to the other side (180°) during unit installation.

> BEARING STRUCTURE

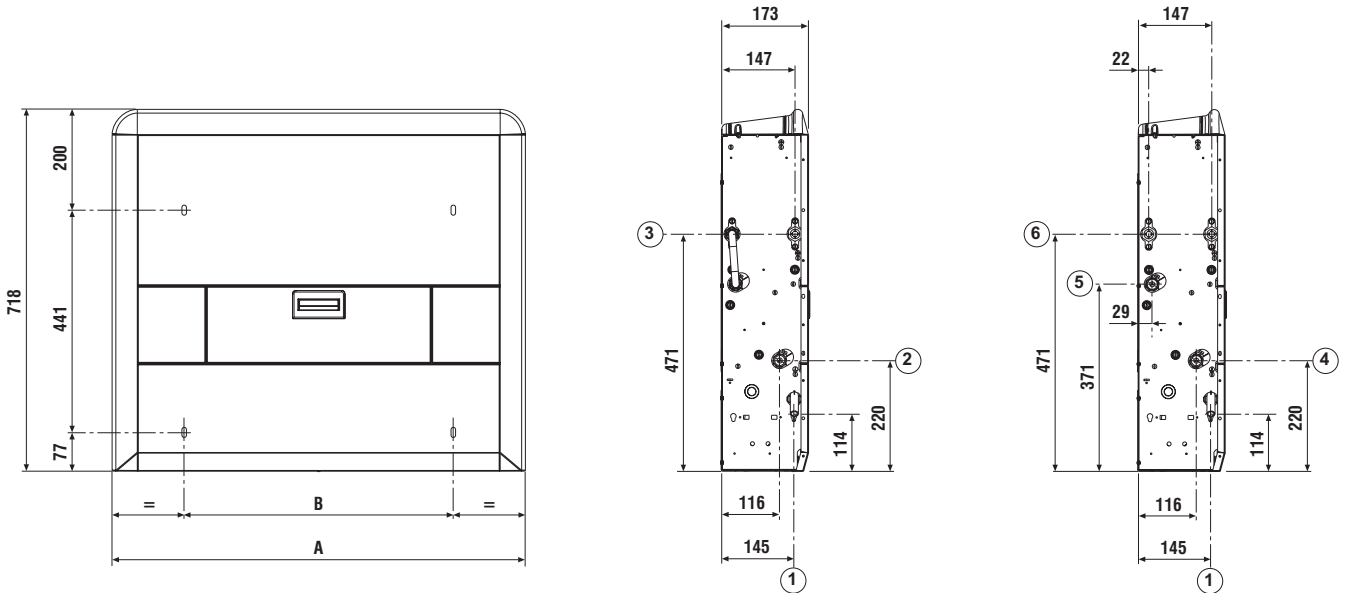
- Bearing structure built from galvanised sheet steel of adequate thickness, insulated by means of Class 1 self-extinguishing panels, supplied with an installation kit (wall screws). A support terminal board for electrical connections is located on the bearing structure, on the opposite side of the plumbing connections.

> AIR FILTER

- Honey-comb polypropylene washable air filter, mounted on a galvanised sheet frame protected by a net, easily removable for maintenance operations. The filter may be secured to the unit by means of screws.

DIMENSIONS

- 1 Drain pipe diameter Φ 17 mm
- 2 Water inlet, 2 pipe system, Φ 1/2" gas female
- 3 Water outlet, 2 pipe system, Φ 1/2" gas female
- 4 Chilled water inlet, 4 pipe system, Φ 1/2" gas female
- 5 Chilled water outlet, 4 pipe system, Φ 1/2" gas female
- 6 Hot water circuit connections, Φ 1/2" gas female



Galletti 2x1	A	B	Weight	Lenght	Height	Width	H ₂ O content		
							cooling coil	heating coil	Total
	mm	mm	kg	mm	mm	mm	dm ³	dm ³	dm ³
124	820	534	21	820	712	172	0,49	0,73	1,22
224	990	704	25	990	712	172	0,65	0,97	1,62
324	1160	874	29	1160	712	172	0,81	1,20	2,01
424	1160	874	29	1160	712	172	0,81	1,20	2,01