



RANGE MONOBLOCCO

The refrigerant circuit is hermetically closed in the outdoor unit.
Only water enters the interior of the home



H2O EVO MONOBLOCCO

High efficiency thermodynamic floor-standing boiler with monobloc external unit to produce heating and domestic hot water for medium and large users

CALDAIA  TERMODINAMICA®



Technical and construction characteristics

The Termodinamica® H2O EVO MONOBLOCCO boiler is a monobloc heat pump winter air conditioning system with integrated production of domestic hot water.

The system is composed of:

- Monobloc outdoor unit with air/water heat pump (mod. available from 5÷16 kW) with double DC rotary inverter compressors, axial fans with brushless DC motors, source exchanger with circuitry optimized by a finned coil with copper tubes and aluminum fins, user exchanger with brazed plates in AISI 304 stainless steel with reduced pressure drop on the water side;
- Inertial accumulation of 315 liters of technical water, with inside a 4.54 m² finned copper rapid DHW exchanger;
- DHW thermostatic mixing valve;
- High efficiency inverter electronic circulator to power the hydronic heating circuit;
- Microprocessor command and control panel for the system management with integrated Wi-Fi;
- 2.0 kW back-up electrical resistance, which can be activated in mode emergency or in integration mode;
- No. 2 expansion vessels (puffers) of 8 liters each;
- Manual filling group consisting of pressure gauge, tap and non-return valve;
- Safety valve calibrated at 3 bar;
- Automatic air vent jolly valve;
- Wheel kit to facilitate movement of the internal unit.

The internal unit presents a perfect balance between compact dimensions, energy efficiency and innovative design.

The Termodinamica® H2O EVO MONOBLOCK boiler, thanks to the use of a puffer equipped with a rapid DHW exchanger in finned copper, is able to deliver large quantities of domestic hot water (up to 290 liters in a single withdrawal) without the need to carry out anti-legionella cycles, in fact, this innovative system uses the first in - first out method which guarantees maximum hygiene of the sanitary circuit.

In order to facilitate the installation of the Termodinamica® H2O EVO MONOBLOCK boiler, A2B Accorroni has equipped the internal storage unit with all the hydraulic components necessary for the correct functioning of the system, all installed and tested in the factory, such as the thermostatic mixing valve and a direct circulator for the heating system (max set-point 65 °C adjustable). Possible electronic mixing valve for the radiant heating system to be chosen as an optional.



Internal technical inertial storage unit model (puffer) U.I.

Indoor unit H2O EVO MONOBLOCCO 315 LT

Code	€
37308045	3.700,00






Model of monobloc HP outdoor units U.E.

	Thermal Power kW	Code	€
HPE EVO 5	6,50	37960000	4.900,00
HPE EVO 7	8,40	37960001	5.716,00
HPE EVO 9	10,00	37960002	5.936,00
HPE EVO 12	12,20	37960003	9.018,00
HPE EVO 14	14,10	37960004	9.076,00
HPE EVO 16	16,00	37960005	9.408,00
HPE EVO 12T Three-phase	12,20	37960006	9.316,00
HPE EVO 14T Three-phase	14,10	37960007	9.402,00
HPE EVO 16T Three-phase	16,00	37960008	9.680,00

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Accessories H2O EVO MONOBLOCCO

		Code	€	
	Anti-vibration floor base in vulcanized rubber (height from the ground 95 mm, length 600 mm) with screws (package of 2 pieces)	75100042	120,00	
	Domestic hot water recirculation inverter electronic circulator with brass body max flow rate 0.4 m ³ /h max head 1.0 m	35006004	260,00	
	Motorized mixing valve kit with built-in electronic delivery probe for radiant systems (factory mounted)	75101033	660,00	
	Automatic antifreeze valve, brass body, opening temperature 3 °C	mod. 1" mod. 1" 1/4	30403144 30403145	184,00 196,00
	Adjustable semi-automatic self-cleaning magnetic dirt separator for vertical and horizontal installations	mod. 1" mod. 1" 1/4	30403085 30403137	424,00 480,00

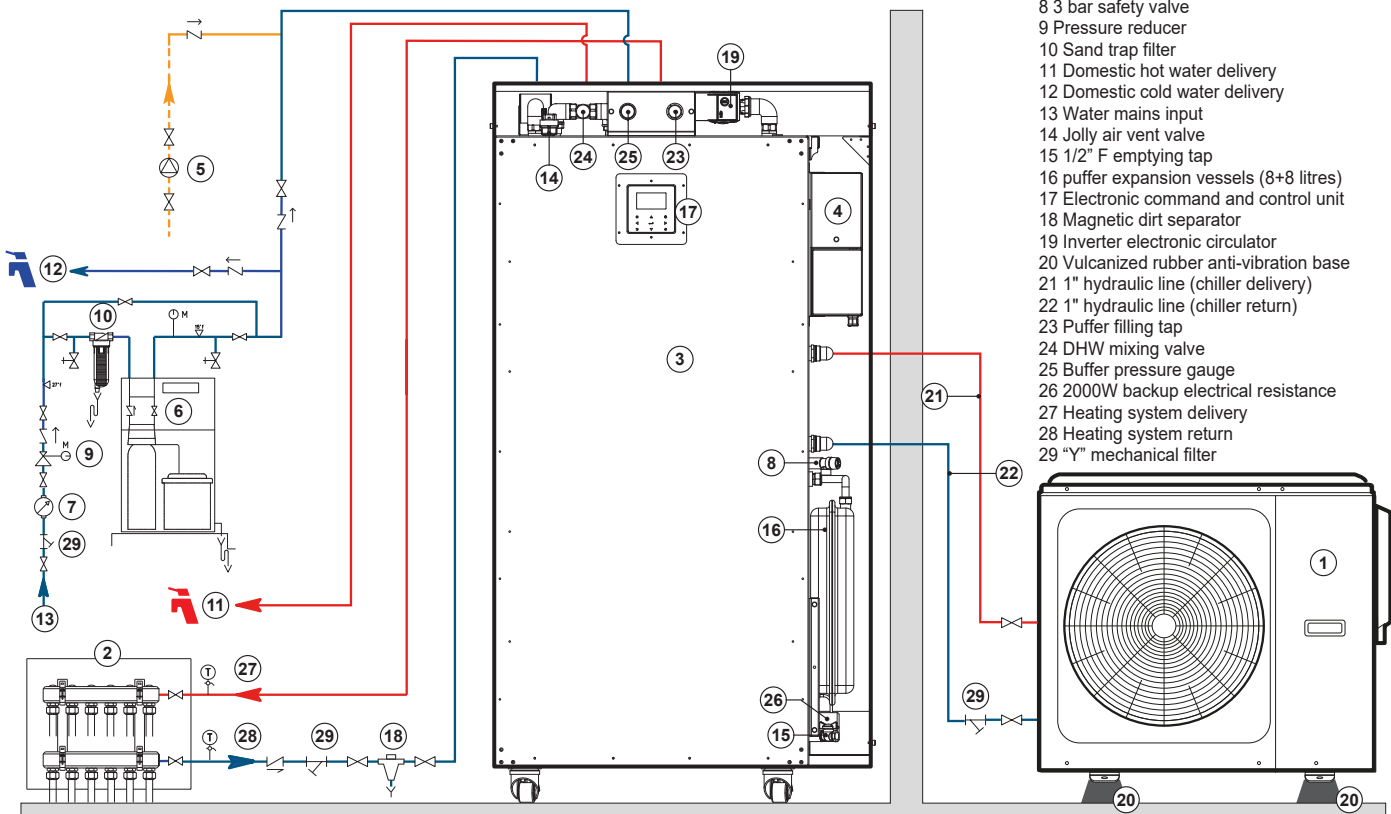
Application example H2O EVO MONOBLOCCO

- 1 Heat pump HPE EVO 9
2 Collector

- 3 Tank 315 l (puffer)
with finned copper DHW exchanger 4,54 m²

- 4 Electrical command and control panel
5 Sanitary recirculation pump

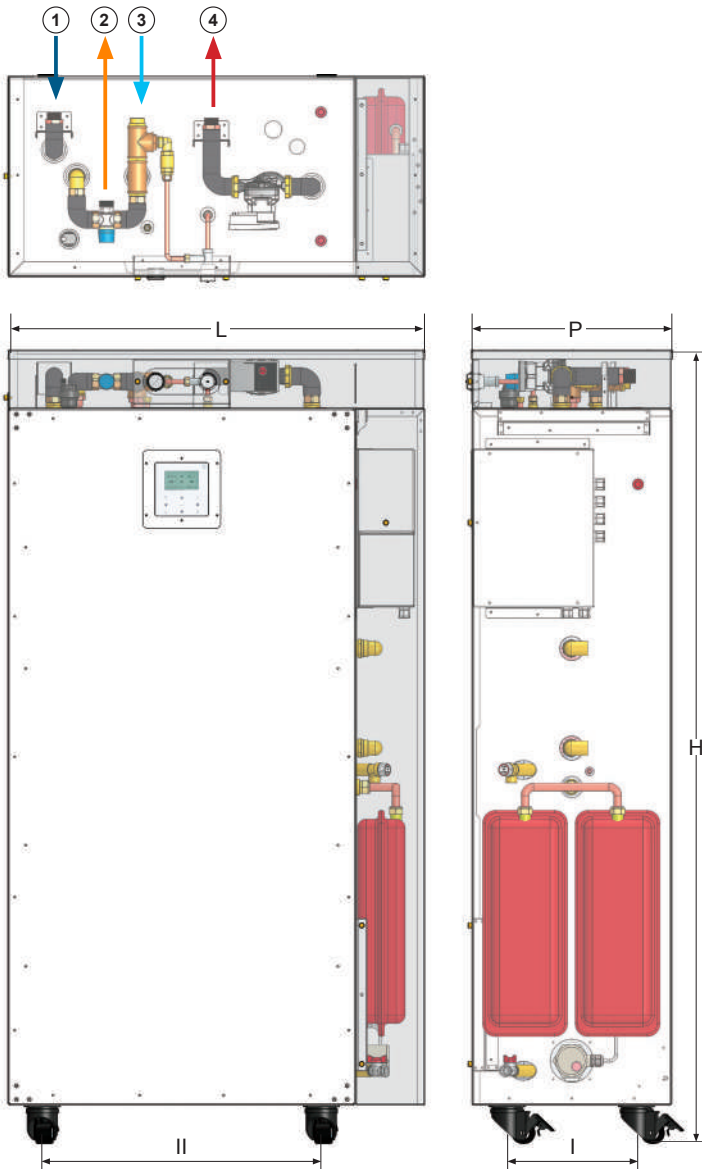
- 6 Volumetric softener
7 Aqueduct meter
8 3 bar safety valve
9 Pressure reducer
10 Sand trap filter
11 Domestic hot water delivery
12 Domestic cold water delivery
13 Water mains input
14 Jolly air vent valve
15 1/2" F emptying tap
16 puffer expansion vessels (8+8 litres)
17 Electronic command and control unit
18 Magnetic dirt separator
19 Inverter electronic circulator
20 Vulcanized rubber anti-vibration base
21 1" hydraulic line (chiller delivery)
22 1" hydraulic line (chiller return)
23 Puffer filling tap
24 DHW mixing valve
25 Buffer pressure gauge
26 2000W backup electrical resistance
27 Heating system delivery
28 Heating system return
29 "Y" mechanical filter



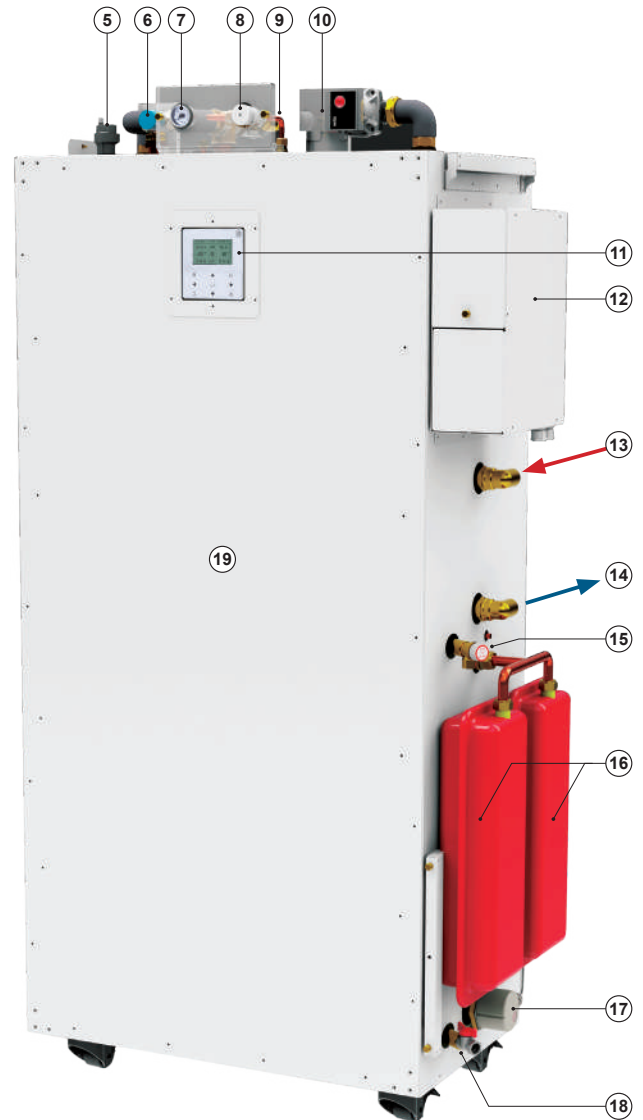
H2O EVO MONOBLOCCO

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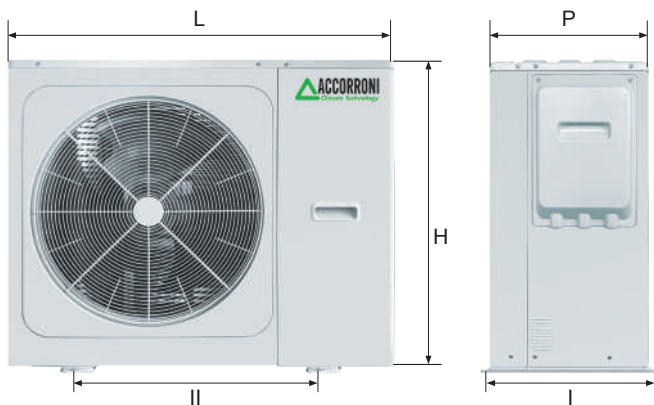
Dimensions U.I. H2O EVO MONOBLOCCO



Axonometry U.I. H2O EVO MONOBLOCCO



Dimensions U.E. H2O EVO MONOBLOCCO



- 1 Heating circuit return 1" M
- 2 Mixed domestic hot water delivery 1" M
- 3 Domestic cold water inlet 1" M
- 4 Heating circuit flow 1" M
- 5 Automatic air vent jolly valve in polymer material
- 6 Manually adjustable thermostatic mixing valve
- 7 Puffer technical water pressure gauge
- 8 Manual puffer filling group tap
- 9 Non-return valve for manual puffer filling unit
- 10 Direct inverter electronic circulator for feeding the heating system
- 11 Electronic command and control unit with Wi-Fi integrated
- 12 Electrical panel with connection terminal block for the unit HPE EVO monobloc external
- 13 Input connection for HPE monobloc outdoor unit EVO (1" M for mod. 5-7-9 and 1 1/4" M for mod. 12-14-16)
- 14 Output connection for HPE monobloc external unit EVO (1" M for mod. 5-7-9 and 1 1/4" M for mod. 12-14-16)
- 15 Puffer technical water safety valve with calibration at 3 bar
- 16 Puffer technical water expansion tanks for 8 liters each
- 17 2.0 kW single-phase electric resistance
- 18 1/2" F puffer emptying tap
- 19 Inertial storage of technical water (puffer) of 315 liters equipped of 4.54 m² finned copper DHW exchanger

Model	L	H	P	I	II	Weight
	mm	mm	mm	mm	mm	kg
H2O EVO MON. 315 LT (U.I.)	964	1834	462	300	645	182
HPE EVO 5÷16T (U.E.)	1068	865	450	458	656	87

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Domestic Hot Water sampling table H2O EVO 5 MONOBLOCCO

DESCRIPTION	DHW available in a single withdrawal (l.)	Recovery time (minutes)
Water inlet 15 °C - external temperature -7 °C	286,6	59
Water inlet 15 °C - external temperature 0 °C	290,1	54
Water inlet 15 °C - external temperature +7 °C	292,6	51
Water inlet 15 °C - external temperature +15 °C	297,9	46

Tabella prelievi Acqua Calda Sanitaria H2O EVO 7 MONOBLOCCO

DESCRIPTION	DHW available in a single withdrawal (l.)	Recovery time (minutes)
Water inlet 15 °C - external temperature -7 °C	297,3	45
Water inlet 15 °C - external temperature 0 °C	301,8	41
Water inlet 15 °C - external temperature +7 °C	304,3	39
Water inlet 15 °C - external temperature +15 °C	310,8	35

Tabella prelievi Acqua Calda Sanitaria H2O EVO 9 MONOBLOCCO

DESCRIPTION	DHW available in a single withdrawal (l.)	Recovery time (minutes)
Water inlet 15 °C - external temperature -7 °C	306,2	38
Water inlet 15 °C - external temperature 0 °C	311,6	35
Water inlet 15 °C - external temperature +7 °C	314,7	33
Water inlet 15 °C - external temperature +15 °C	322,4	30

Tabella prelievi Acqua Calda Sanitaria H2O EVO 12/12T MONOBLOCCO

DESCRIPTION	DHW available in a single withdrawal (l.)	Recovery time (minutes)
Water inlet 15 °C - external temperature -7 °C	318,6	31
Water inlet 15 °C - external temperature 0 °C	325,1	29
Water inlet 15 °C - external temperature +7 °C	328,8	27
Water inlet 15 °C - external temperature +15 °C	338,3	24

Tabella prelievi Acqua Calda Sanitaria H2O EVO 14/14T MONOBLOCCO

DESCRIPTION	DHW available in a single withdrawal (l.)	Recovery time (minutes)
Water inlet 15 °C - external temperature -7 °C	329,2	30
Water inlet 15 °C - external temperature 0 °C	336,8	25
Water inlet 15 °C - external temperature +7 °C	341,1	23
Water inlet 15 °C - external temperature +15 °C	352,0	21

Tabella prelievi Acqua Calda Sanitaria H2O EVO 16/16T MONOBLOCCO

DESCRIPTION	DHW available in a single withdrawal (l.)	Recovery time (minutes)
Water inlet 15 °C - external temperature -7 °C	339,9	24
Water inlet 15 °C - external temperature 0 °C	348,4	22
Water inlet 15 °C - external temperature +7 °C	353,3	21
Water inlet 15 °C - external temperature +15 °C	365,7	19

TRIAL CONDITIONS

- Technical water set-point temperature 55 °C
- Domestic hot water outlet temperature 40 °C
- Domestic hot water withdrawal flow rate 8 l/m
- Electrical resistance in OFF mode
- Technical room temperature 20 °C
- Heating function disabled

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Heat pump technical data table H2O EVO MONOBLOCCO

Model	U.M.	5	7	9	12-12T	14-14T	16-16T	
HEATING (1)	Thermal power	kW	6,50	8,40	10,00	12,20	14,10	16,00
	Absorbed power	kW	1,22	1,66	2,12	2,49	3,00	3,55
	COP	W/W	5,30	5,05	4,70	4,90	4,70	4,50
HEATING (2)	Thermal power	kW	6,30	8,20	9,40	12,00	14,00	16,00
	Absorbed power	kW	1,96	2,60	3,03	4,00	4,74	5,61
	COP	W/W	3,20	3,15	3,10	3,00	2,95	2,85
Seasonal thermal efficiency class in heating (5)	LWT 35 °C		A+++	A+++	A+++	A+++	A+++	A+++
	LWT 55 °C		A++	A++	A++	A++	A++	A++
SCOP (5)	LWT 35 °C		5,12	5,17	5,12	5,08	4,89	4,84
	LWT 55 °C		3,59	3,67	3,71	3,61	3,62	3,59
Sound power level (6)	dB(A)		60	63	65	70	72	72
External fan air flow	m ³ /h		3900	4500	4500	5200	5200	5200
Power supply			230V/50/Hz			230V/50/Hz - 400V/3+N/50Hz mod. T (Three-phase)		
Water pipe connections			1"	1"	1"	1"1/4	1"1/4	1"1/4
Pressure set in the safety valve	MPa		0,3					
Total volume of water	l		5					
Nominal head circulator	m.c.a.		5	5	5	9	9	9
Operation limits	°C		-25 / +35					
LWT range	°C		+12 / +65					
Refrigerant type (GWP)			R32 (675)					
Refrigerant quantity	Kg		1,25	1,25	1,25	1,80	1,80	1,80
Expansion valve			Electronic					
Net dimensions (LxHxD)	mm		1040 x 865 x 410					
Dimensions with packaging (LxHxD)	mm		1190 x 970 x 560					
Net / gross weight	Kg		87/103	87/103	87/103	120/136	120/136	120/136

EU standards and legislation:

EN14511: 2016; EN14825: 2016; EN50564: 2011; EN12102: 2017; (EU) N° 811/2013;

(EU) N° 813/2013; OJ 2014/C 207/02; OJ 2017/C 229/01.

1) Outside air temperature 7 °C DB, 85% R.H.; EWT 30 °C, LWT 35 °C.

2) Outside air temperature 7 °C DB, 85% R.H.; EWT 47 °C, LWT 55 °C.

3) Outside air temperature 35 °C DB; EWT 23 °C, LWT 18 °C.

4) Outside air temperature 35 °C DB; EWT 12 °C, LWT 7 °C.

5) Seasonal energy efficiency class for heating in average climate conditions.

6) Maximum sound power level tested in conditions of:

a) Heating with external air temperature 7 °C DB, 6 °C WB; EWT 30 °C, LWT 35 °C;

b) Heating with external air temperature 7 °C DB, 6 °C WB; EWT 47 °C, LWT 55 °C;

c) Cooling with external air temperature 35 °C DB, 24 °C WB; EWT 12 °C, LWT 7 °C.

Internal Unit technical data table H2O EVO MONOBLOCCO

DESCRIPTION	U.M.	H2O 315 LT (U.I.)
Internal unit technical water content	l	315
Max flow rate of inverter electronic circulator	m ³ /h	3,3
Max inverter electronic circulator head	m	6,2
Electrical absorption of inverter electronic circulator	W	3 - 45
Expansion vessel volume	l	8 + 8
Preload expansion tank	bar	1
Safety valve calibration	bar	3
Back-up electrical resistance absorption	W	2000
Power supply		230V/1/50Hz
Cold water inlet and DHW outlet hydraulic connections		1" M
System delivery and return hydraulic connections		1" M (mod. 5-7-9) 1"1/4 (mod. 12-14-16)
Internal unit accumulation heat dispersion	kWh/24h	1,82
Transport / operating weight	kg	182 / 497