

THERMODYNAMIC MONOBLOCK BOILER

High efficiency thermodynamic boiler with heat pump to produce domestic hot water and heating for small and medium residential users



COMPRESSOR
DC INVERTER



ENERGY
RENEWABLE



ECO-FRIENDLY
GAS



CIRCULATOR
INVERTER



COMPACT
SIZE



ENERGY
SAVING



COMBINATION
PHOTOVOLTAIC



ACS WITHOUT
LEGIONELLA



HEATING
UP TO 65°C



INSTALLATION
PLUG AND PLAY

Technical and construction features

THERMODYNAMIC MONOBLOCK BOILER is the Accorroni Full Inverter heat pump with R32 refrigerant gas with low environmental impact for the production of heating and domestic hot water, designed for applications in small and medium-sized residential units.

Each of its components has been designed with the energy efficiency of existing heating systems in mind, ensuring maximum thermal comfort through an efficient, compact and environmentally friendly solution.

All units meet the most extreme winter air conditioning needs, in fact they can produce hot water up to 65 °C, which makes them suitable for practically most heating systems.

SINGLE-BLOCK THERMODYNAMIC BOILER is composed of an external unit with the following characteristics: compressor with double DC rotary inverter, axial fan with brushless DC motor, source exchanger with circuitry optimised by a finned battery with copper pipes and aluminium fins, user exchanger with brazed plates in AISI 304 stainless steel with reduced pressure drop on the water side.

The refrigeration circuit is made of copper pipe that includes the condensation control, the electronic thermostatic valve, the reversing valve, the high and low pressure switches, liquid separator and receiver, the valves for maintenance and control, high and low pressure transducers. The internal unit is instead made up of: 105-liter inertial accumulation of technical water with a rapid ACS exchanger inside that allows you to avoid anti-legionella cycles, high-efficiency electronic inverter circulator to power the hydronic heating circuit, microprocessor control and command panel for managing the system with integrated Wi-Fi, 2.0 kW back-up electric resistance, 8-liter expansion vessel, manual filling group, emptying tap, safety valve, automatic air vent jolly valve.

Model	Thermal Power kW	Code	€
THERMODYNAMIC MONOBLOCK BOILER 5	6,50	37960100	8.600,00
THERMODYNAMIC MONOBLOCK BOILER 7	8,40	37960101	9.400,00
THERMODYNAMIC MONOBLOCK BOILER 9	10,00	37960102	9.640,00
THERMODYNAMIC MONOBLOCK BOILER 12	12,20	37960103	12.700,00
THERMODYNAMIC MONOBLOCK BOILER 14	14,10	37960104	12.780,00
THERMODYNAMIC MONOBLOCK BOILER 16	16,00	37960105	13.100,00
THERMODYNAMIC MONOBLOCK BOILER 12T	12,20	37960106	13.000,00
THERMODYNAMIC MONOBLOCK BOILER 14T	14,10	37960107	13.100,00
THERMODYNAMIC MONOBLOCK BOILER 16T	16,00	37960108	13.380,00

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Accessories THERMODYNAMIC MONOBLOCK BOILER

Code

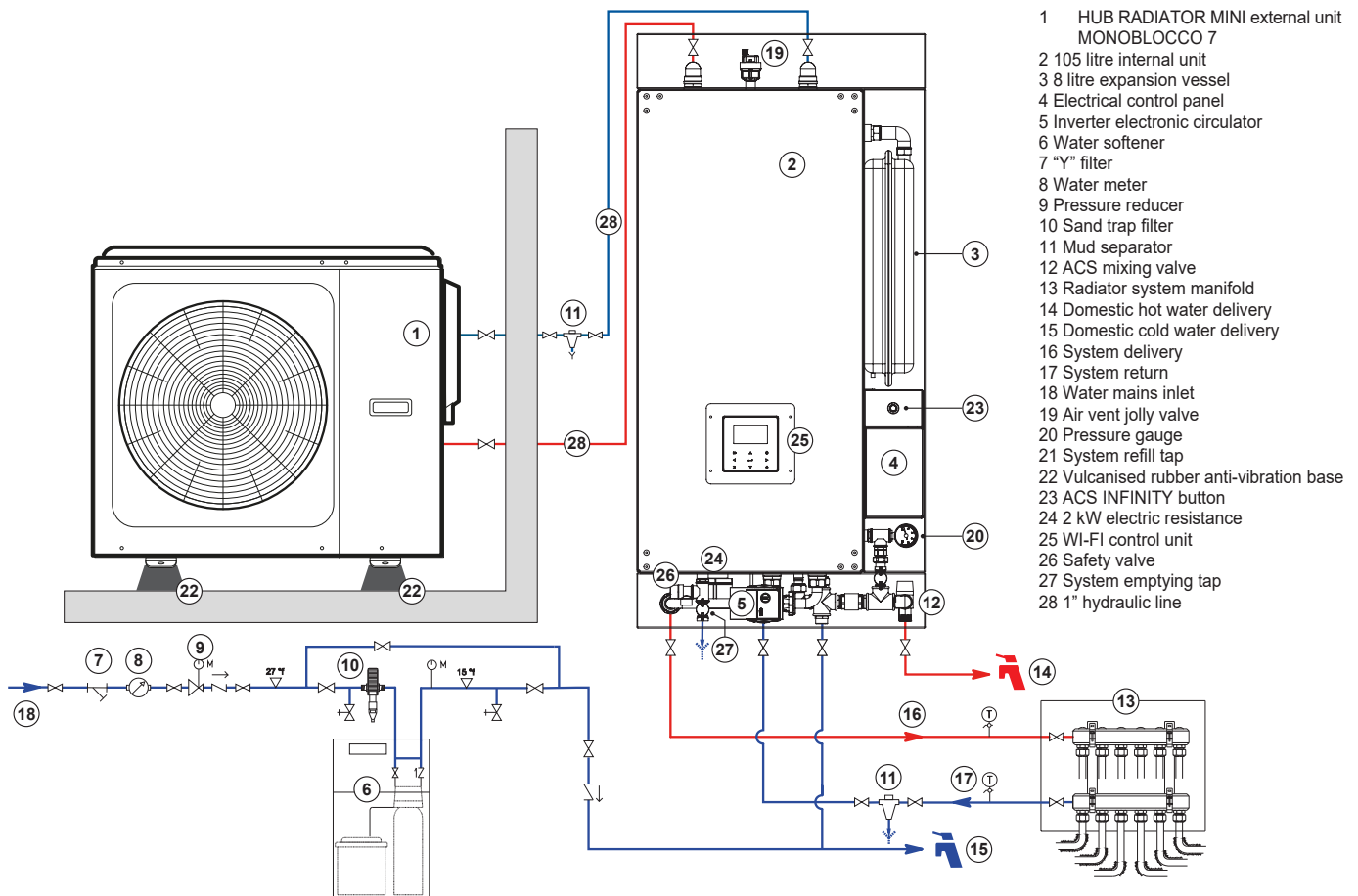
€

	Mechanical "Y" filter in brass with removable metal mesh		INCLUDED	
	Mixing valve for radiant systems	mod. fixed mechanical adjustment mod. motorized adjustment	75101032 75101033	120,00 600,00
	Anti-vibration floor base in vulcanized rubber (height from the ground 95 mm) with level and screws for Booster HR 2.5 - 7.0 (pack of 2 pieces)		75100018	102,00
	Automatic antifreeze valve, brass body, opening temperature 3 °C	mod. 1" mod. 1" 1/4	30403144 30403145	184,00 196,00
	Adjustable differential by-pass valve with graduated scale, 1" 1/4 threaded connections	mod. 1 - 6 m mod. 5 - 25 m	30403140 30403141	360,00 360,00
	Brass balancing valve with graduated scale flow meter	mod. 1" mod. 1" 1/4	30403142 30403143	200,00 226,00
	Self-cleaning semi-automatic magnetic mud remover, adjustable for vertical and horizontal installations	mod. 1" mod. 1" 1/4	30403085 30403137	424,00 480,00
	Thermal and anti-condensation insulation for 1" and 1" 1/4 self-cleaning magnetic mud separator		30403132	48,00
	Mandatory cover box for the installation of the internal unit outside the building SINGLE-BLOCK THERMODYNAMIC BOILER made of insulated white pre-painted galvanized steel Height 140 cm - Width 70 cm - Depth 40 cm		75100119	360,00
	External recessed template for internal unit MONOBLOC THERMODYNAMIC BOILER made of galvanized sheet metal (Height 160 cm - Width 70 cm - Depth 40 cm)		75101119	420,00

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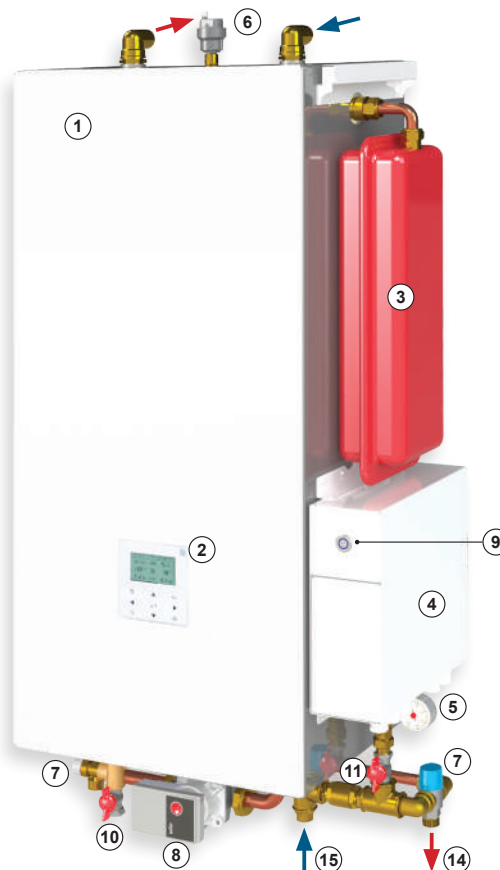
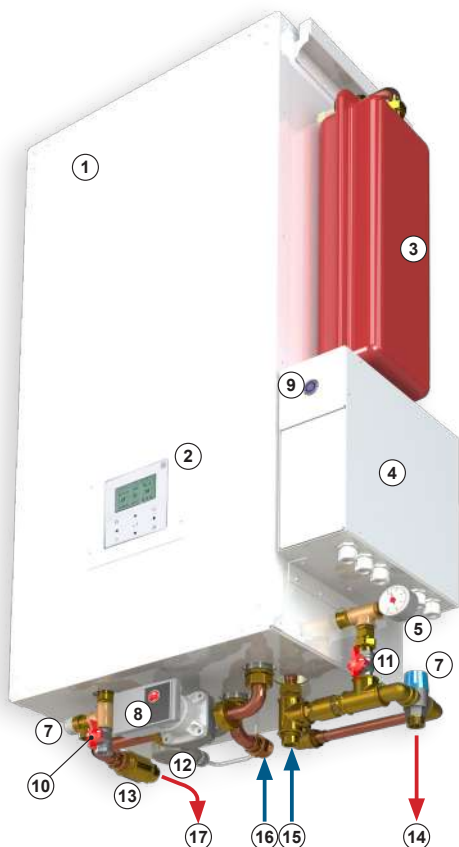
Application example THERMODYNAMIC MONOBLOCK BOILER 7



Axonometry of the internal unit of the THERMODYNAMIC MONOBLOCK BOILER

View A

View B

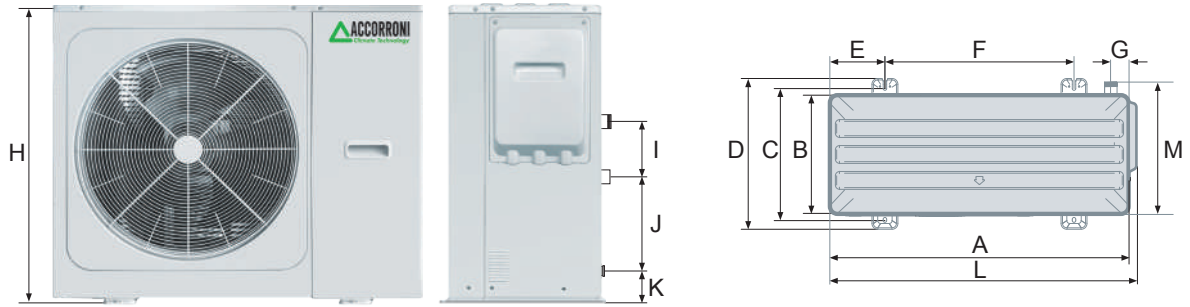


- 1 105 litre indoor unit
 2 Wi-Fi control and command unit
 3 3 litre expansion vessel
 4 Control and command electrical panel
 5 Pressure gauge
 6 Air vent valve
 7 ACS mixing valve
 8 Inverter electronic circulator
 9 ACS INFINITY button
 10 System draining tap
 11 System refill tap
 12 2 kW electric resistance
 13 System non-return valve
 14 Domestic hot water delivery
 15 Water network inlet
 16 System delivery
 17 System return

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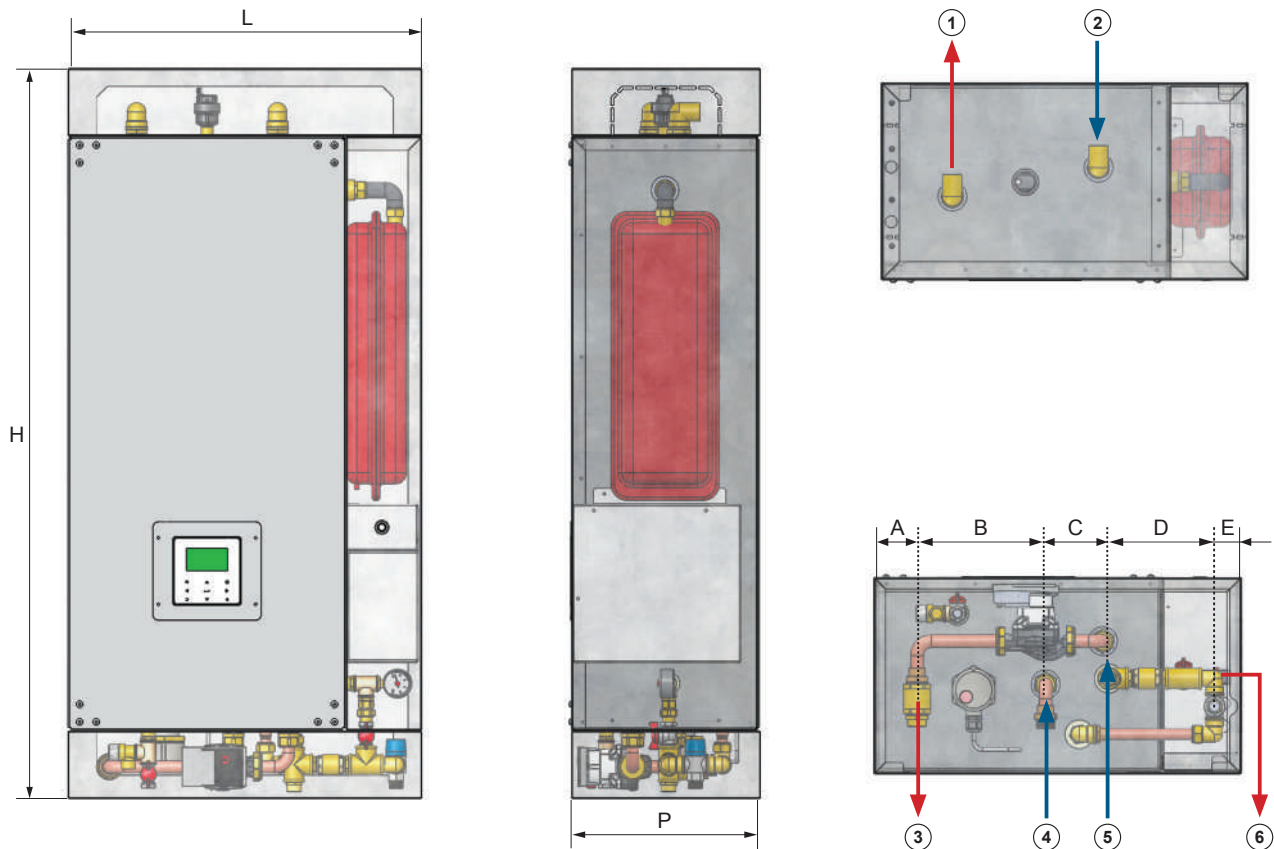
External unit dimensions THERMODYNAMIC MONOBLOCK BOILER



Model	A	B	C	D	E	F	G	H	I	J	K	L	M
5÷16T	1040	410	458	523	191	656	64	865	165	279	89	1068	450

Values expressed in mm

Dimensions of the internal wall-hung unit THERMODYNAMIC MONOBLOCK BOILER



H	L	P	A	B	C	D
1320	640	340	72	224	110	46

- 1 Return of the external monobloc inverter unit
- 2 Inverter monoblock external unit delivery
- 3 System delivery
- 4 System return
- 5 Domestic cold water inlet
- 6 Domestic cold water outlet

Values expressed in mm

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Technical data table THERMODYNAMIC MONOBLOCK BOILER

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
	Power absorbed	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
	Power absorbed	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 ⁽³⁾	LWT at 35 °C	kW	A+++	A+++	A+++	A+++	A+++	A+++
	LWT at 55 °C		A++	A++	A++	A++	A++	A++
SCOP ⁽³⁾	LWT at 35 °C		5,12	5,17	5,12	5,08	4,89	4,84
	LWT at 55 °C		3,59	3,67	3,71	3,61	3,62	3,59
Sound power level ⁽⁴⁾		dB(A)	60	63	65	70	72	72
External fan air flow		m³/h	3900	4500	4500	5200	5200	5200
Electrical supply			230V/1/50Hz			230V/1/50Hz - 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	Heating	°C	-25 / +35					
	DHW	°C	-25 / +43					
LWT range	Heating	°C	+12 / +65					
	DHW	°C	+10 / +60					
Refrigerant	Type (GWP)		R32(675)					
	Volume charge	Kg	1,25			1,80		
Expansion valve			Electronic					
Technical water content of internal unit		l	105					
Max flow rate of electronic inverter circulator		m³/h	3,3					
Max prevalence of electronic inverter circulator		m	6,2					
Electrical absorption of electronic inverter circulator		W	3 - 45					
Expansion vessel volume		l	8					
Expansion vessel pre-charge		bar	1					
Safety valve calibration		bar	3					
Backup electrical resistance		W	2000					
Hydraulic connections cold water inlet DHW outlet			1/2" M					
Hydraulic connections for system flow and return			1" 1/4 M					
Heat loss accumulates internal unit		kWh/24h	1,82					
Weight of internal transport / operating unit		Kg	79 / 134					
Net/Gross Weight Outdoor Unit		Kg	87 / 103			120 / 136		

EU standards and legislation:

EN14511: 2016; EN14825: 2016; EN50564: 2011; EN12102: 2017; (EU) No. 811/2013; (EU) No. 813/2013; OJ 2014/C 207/02; OJ 2017/C 229/01.

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

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

3) Seasonal energy efficiency class for heating under average climate conditions.

4) Maximum sound power level tested under conditions of:

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

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

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