

LORIA

Split energy-efficient air-to-water heat pump Low temperature solution for new build projects



Indoor hydraulic module



Outdoor Inverter unit



Product

- COP up to 4.80 (+7°/+35°)
- Compatible with all kinds of low temperature heating devices (underfloor heating/cooling, radiators, fan coils)
- **NAVISTEM 100H** regulator
- Space-saving indoor hydraulic module
- Integrated electric back-up heater
- Inverter regulation
- One or two heating zone(s) management

DESCRIPTION

- Simple solution for new build projects
- 4 models; 4 to 10 kW – single-phase
- Performing heat pump working with outside temperature from -20°C to +35°C
- Heating departure temperature max. 55°C

AVAILABLE OPTIONS

- **Magnetic mud filter:** accessory to capture impurities in the heating circuit, with a:
 - Screen filter
 - Decanting effect
 - Magnetic effect
- 2 zones kit (plug-and-play kit)
- Cooling kit
- Separated hot water tank
- Room control unit

SUPPLIES

Indoor hydraulic module

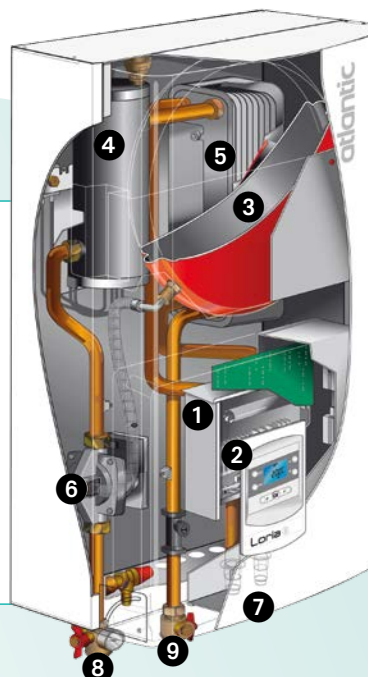
- Plate heat exchanger
- Low consumption circulation pump
- Outdoor sensor
- Expansion vessel, pressure meter
- Filter valve
- Electric back-up

Outdoor Inverter unit

- Refrigerant circuit (R410A)
- Twin Rotary compressor
- Full Inverter control

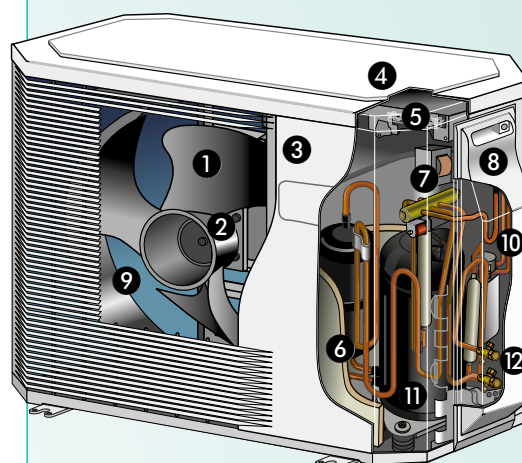
INDOOR HYDRAULIC MODULE

- 1 Electric board
- 2 User interface/regulator
- 3 Expansion vessel
- 4 Electric back-up
- 5 Plate heat exchanger
- 6 Low consumption circulation pump
- 7 Refrigerant connections
- 8 Heating flow
- 9 Heating return



OUTDOOR INVERTER UNIT

- 1 Low-noise, high-output ventilator
- 2 Electric variable speed motor
- 3 "Inverter" control module
- 4 Control lights and buttons
- 5 Connector terminal blocks (power supply and interconnection)
- 6 Refrigerant accumulator bottle
- 7 Cycle reversing valve
- 8 Anti-corrosion treated metal cover
- 9 High performance exchange surface evaporator; anti-corrosion treated hydrophilic aluminium fins and grooved copper tubes
- 10 Electronic expansion valve
- 11 Noise and temperature insulated "Inverter" compressor
- 12 Refrigerating connection valves (flared connectors) with protective cover



TECHNICAL CHARACTERISTICS AND PERFORMANCES

	UNIT	LORIA 6004	LORIA 6006	LORIA 6008	LORIA 6010
REFRIGERANT		R410A	R410A	R410A	R410A
MAIN CHARACTERISTICS					
Heating capacity +7°C/+35°C – Underfloor Heating	kW	4.00	6.00	7.50	10.42
COP +7°C/+35°C – Underfloor Heating		4.80	4.45	4.15	4.40
Heating capacity -7°C/+35°C – Underfloor Heating	kW	4.10	5.00	5.90	7.94
Power consumption -7°C/+35°C – Underfloor Heating	kW	1.46	1.79	2.46	3.11
COP -7°C/+35°C – Underfloor Heating		2.80	2.80	2.40	2.55
Heating capacity +7°C/+45°C – Low T° radiators	kW	4.00	5.10	6.20	8.51
COP +7°C/+45°C – Low T° radiators		3.50	3.50	3.35	3.54
Heating capacity -7°C/+45°C – Low T° radiators	kW	4.10	4.50	5.15	7.38
COP -7°C/+45°C – Low T° radiator		2.30	2.26	2.10	2.11
Heating capacity +7°C/+55°C – Low T° radiators	kW	3.68	4.27	5.53	6.98
COP +7°C/+55°C – Low T° radiators		2.65	2.67	2.68	2.65
Heating capacity -7°C/+55°C – Low T° radiators	kW	3.72	3.88	5.03	6.47
COP -7°C/+55°C – Low T° radiators		1.90	1.92	1.70	1.78
Electric back-up heater	kW	3	3	3	3
ENERGY EFFICIENCY					
Energy class - Heating (35°C/55°C)		A+++ / A++	A+++ / A++	A++ / A++	A++ / A++
Rated heat output (35°C/55°C)*	kW	4 / 4	6 / 5	7 / 6	9 / 7
Seasonal energy efficiency - Heating (35°C/55°C)	%	183 / 129	188 / 130	168 / 127	156 / 118
Annual energy consumption - Heating (35°C/55°C)	kWh	1884 / 2708	2588 / 2933	3226 / 4197	4481 / 5256
Sound power level (indoor/outdoor)**	dB(A)	44 / 64	44 / 64	44 / 69	44/68
INDOOR HYDRAULIC MODULE		KW			
Noise level**	dB(A)	36	36	36	36
Net weight/filled weight	kg	37.5 / 41.5	37.5 / 41.5	37.5 / 41.5	37.5 / 41.5
Min./Max. outdoor temperature for heating	°C	-20 / +35	-20 / +35	-20 / +35	-20/+35
Power supply		230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz
OUTDOOR UNIT					
Noise level***	dB(A)	42	42	47	47
Operating weight	kg	41	41	42	60
REFRIGERANT CHARACTERISTICS					
Min./max. length	m	5 / 30	5 / 30	5 / 30	5 / 30
Max. diff. in height	m	20	20	20	20
R410A factory load	g	1100	1100	1400	1800
Amount of fluid expressed in CO ₂ equivalent	t	2	2	3	4

*Sound power level is a laboratory measurement of the sound power emitted by the product, but it does not correspond to the sound perceived.

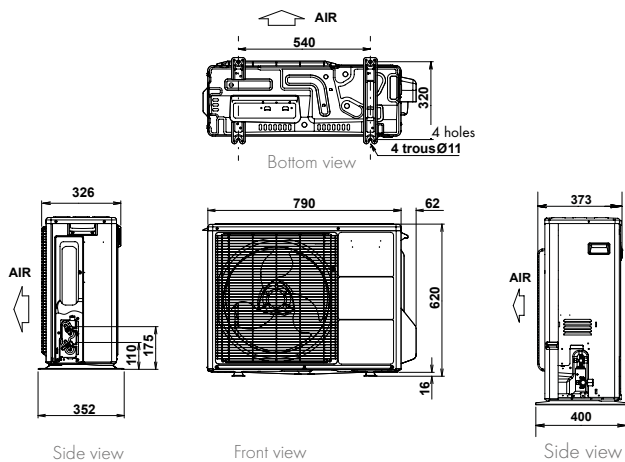
Used by acoustics specialists, it allows to measure the sound pressure level of the product in its working environment.

**Acoustic pressure at 1m from HP, 1.5 m height, open field, directivity 2.

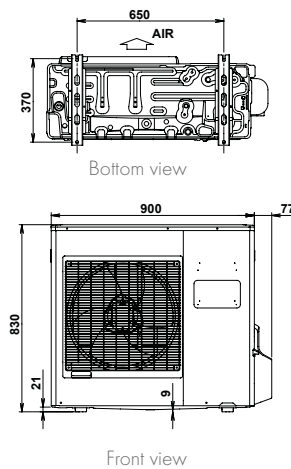
***Acoustic pressure at 5m from HP, 1.5 m height, open field, directivity 2.

DIMENSIONS (MM)

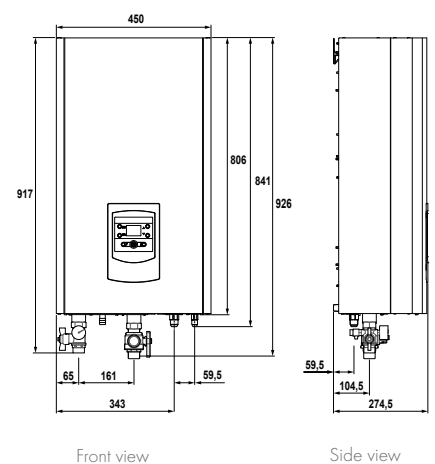
**Loria 4,6 and 8kW
Outdoor Inverter unit**



**Loria 10kW
Outdoor Inverter unit**



Indoor hydraulic module

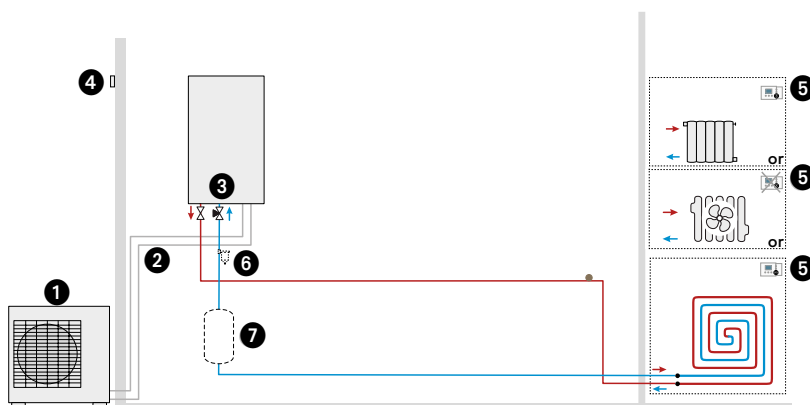


LORIA

Installation schematics

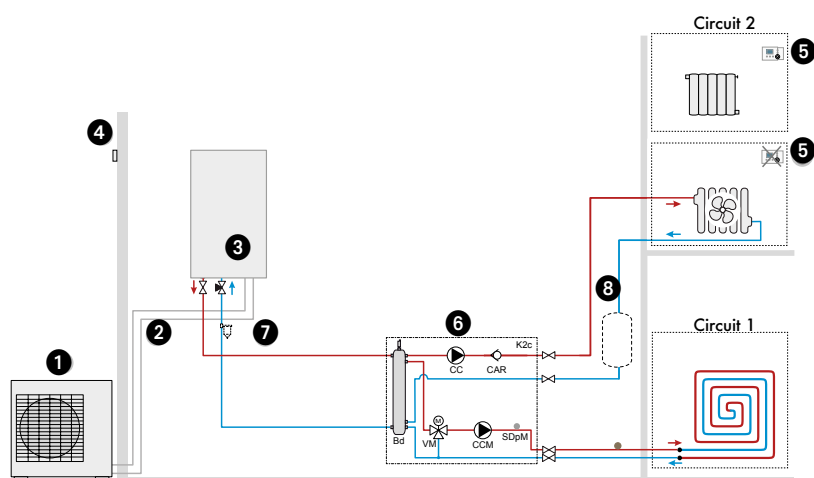
LORIA 6000: 1 HEATING ZONE

- ❶ Outdoor unit and ground support*
- ❷ Refrigerant connections*
- ❸ Hydraulic module
- ❹ Outdoor sensor
- ❺ Room control unit*
- ❻ Magnetic mud filter*
- ❼ Buffer tank**



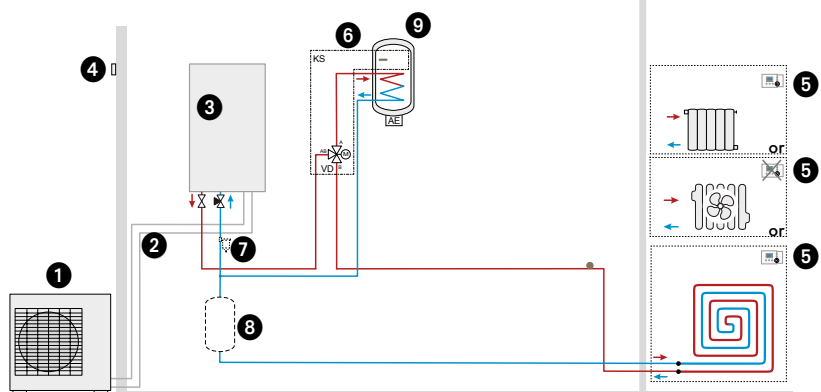
LORIA 6000: 2 HEATING ZONES

- ❶ Outdoor unit and ground support*
- ❷ Refrigerant connections*
- ❸ Hydraulic module
- ❹ Outdoor sensor
- ❺ Room control unit*
- ❻ 2 zones kit*
- ❼ Magnetic mud filter*
- ❽ Buffer tank**



LORIA 6000: 1 HEATING ZONE + DHW PRODUCTION

- ❶ Outdoor unit and ground support*
- ❷ Refrigerant connections*
- ❸ Hydraulic module
- ❹ Outdoor sensor
- ❺ Room control unit*
- ❻ DHW kit*
- ❼ Magnetic mud filter*
- ❽ Buffer tank**
- ❾ DHW tank*



*Option - **Depending on type of collectors and volume of water in heating circuit, it may be necessary to install a buffer tank