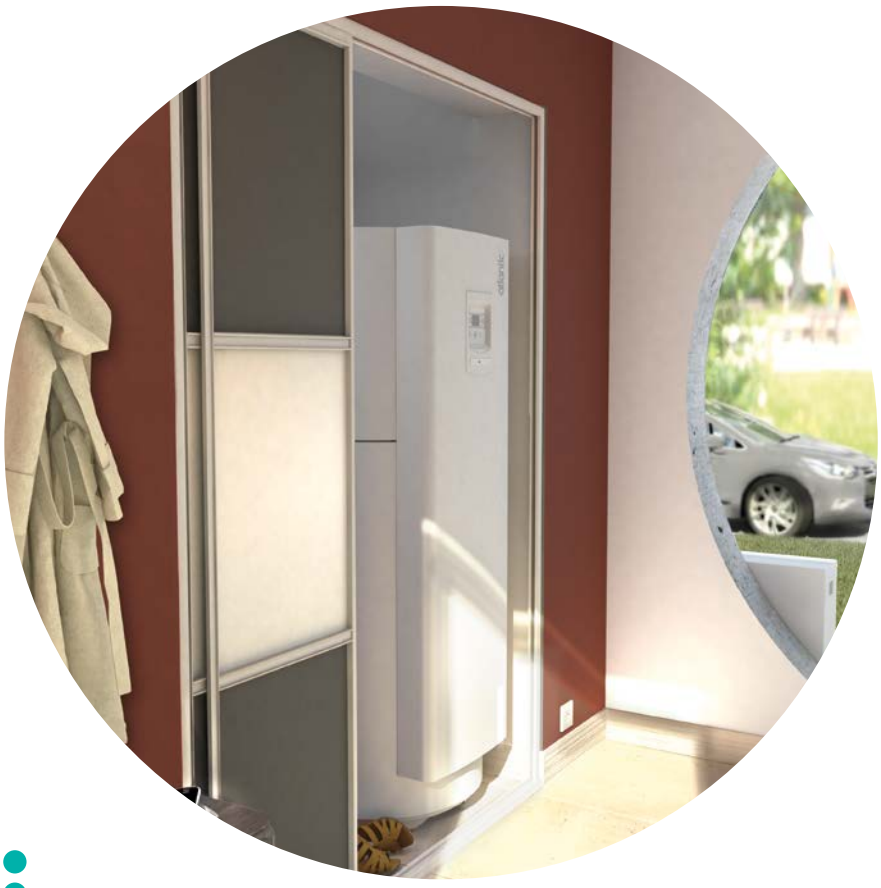
LORIA DUO

Split energy-efficient air-to-water heat pump (heating + DHW)
Low temperature solution for new build projects



Indoor hydraulic module

Outdoor Inverter unit

Product

- Integrated DHW storage tank (190L) with coil and electric back-up
- COP up to 4.96 (+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 due to plate heat exchanger
- Electric back-up integrated
- Integrated magnetic mud
- Inverter regulation
- One or two heating zones 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

- 2 zones kit (plug-and-play kit)
- Cooling kit
- Room control unit

SUPPLIES

Indoor hydraulic module

- Plate heat exchanger
- Magnetic mud filter with a screen filter, decanting effect and magnetic effect
- Low consumption circulation pump
- DHW storage tank integrated (190L)
- Outdoor sensor
- Expansion vessel, pressure meter

Outdoor Inverter unit

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

ErP best

Energy class

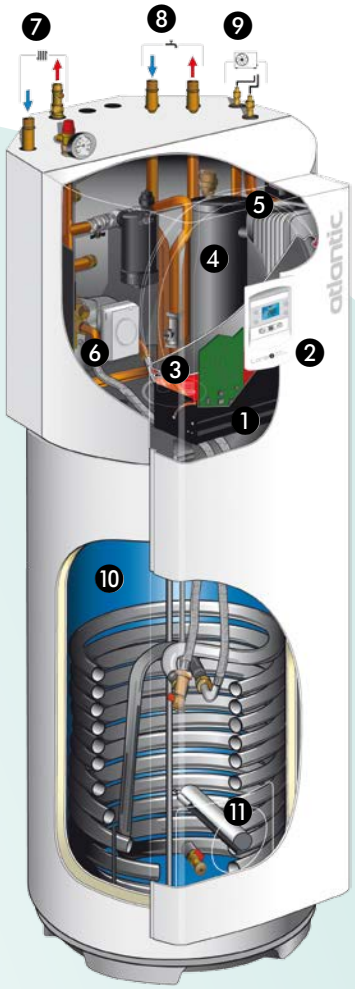
35 °C A+++*

55 °C A++

A+

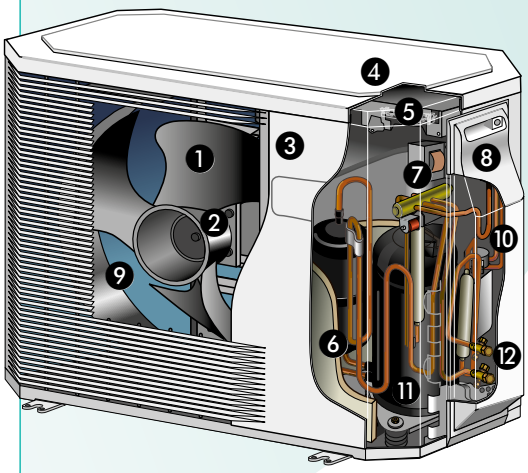
INDOOR HYDRAULIC MODULE

1. Electric board
2. User interface/regulator
3. Expansion vessel
4. Electric back-up
5. Plate heat exchanger
6. Low consumption circulation pump
7. Heating connections
8. DHW connections
9. Refrigerant connections
10. DHW tank
11. DHW electric back-ups



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



*Depending on models

TECHNICAL CHARACTERISTICS AND PERFORMANCES

	UNIT	LORIA DUO 6004	LORIA DUO 6006	LORIA DUO 6008	LORIA DUO 6010
REFRIGERANT		**R410A**	**R410A**	**R410A**	**R410A**
MAIN CHARACTERISTICS					
Heating capacity +7°C/+35°C – Underfloor Heating	kW	4.07	6.02	7.47	10.42
COP +7°C/+35°C - Underfloor Heating		4.96	4.70	4.22	4.40
Heating capacity -7°C/+35°C – Underfloor Heating	kW	4.42	5.20	5.96	7.94
Power consumption -7°C/+35°C - Underfloor Heating	kW	1.42	1.77	2.33	3.11
COP -7°C/+35°C - Underfloor Heating		3.11	2.94	2.56	2.55
Heating capacity +7°C/+45°C – Low T°radiators	kW	4.09	4.98	6.40	8.51
COP +7°C/+45°C – Low T°radiators		3.62	3.51	3.37	3.54
Heating capacity -7°C/+45°C – Low T°radiators	kW	4.24	4.62	5.74	7.38
COP -7°C/+45°C – Low T°radiator		2.48	2.38	2.21	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 / 62	44 / 62	44 / 69	44 / 68
Declared load profile - DHW		L	L	L	L
Energy class - DHW		A+	A+	A+	A+
Annual water heating energy consumption	kWh	966	966	966	966
Seasonal water heating energy efficiency (%)	%	130	130	130	130
INDOOR HYDRAULIC MODULE	**KW**				
Noise level**	dB(A)	36	36	36	36
Net weight/filled weight	kg	138/ 332	138 / 332	138 /332	138 /332
Power supply		230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz
OUTDOOR UNIT					
Noise level***	dB(A)	40	40	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
HFC R410A factory load	g	1100	1100	1400	1800
Amount of fluid expressed in CO_2 equivalent	t	2	2	3	4

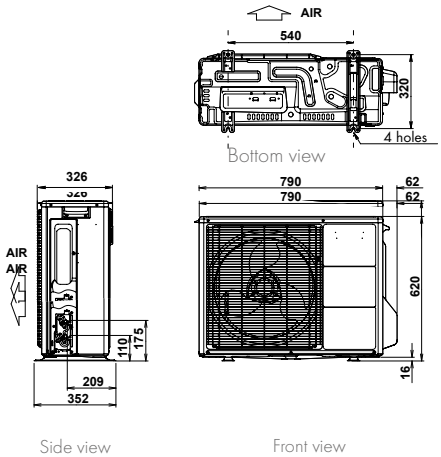
*Sound power level is a laboratory measurement of the sound power emitted by the product, but it does not correspond to the sound perceived. Used by acoustics specialists, it allows to measure the sound pressure level of the product in its working environment.

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

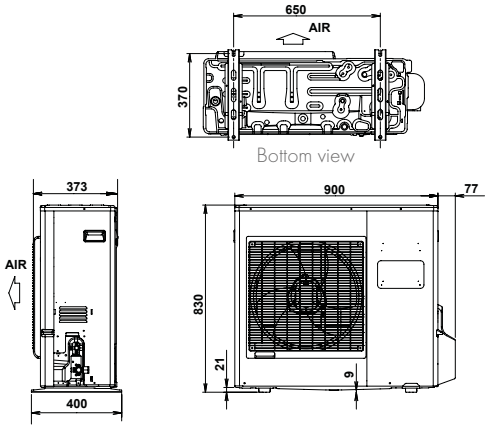
***Acoustic pressure at 5m from HP, 1.5 m height, open field, directivity 2.

DIMENSIONS (MM)

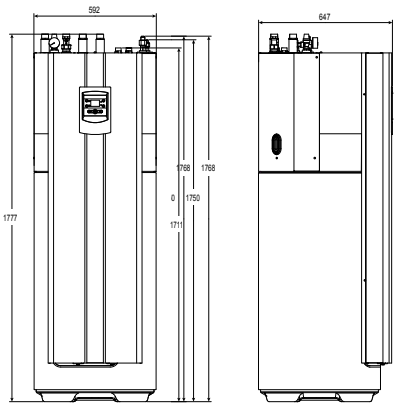
Loria Duo 4, 6 and 8kW Ourdoor Inverter unit



Loria Duo 10kW Ourdoor Inverter unit



Indoor hydraulic module

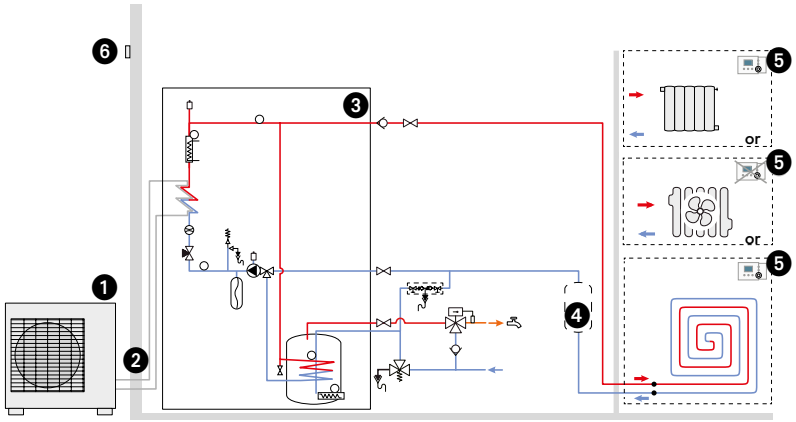


LORIA DUO

Installation schematics

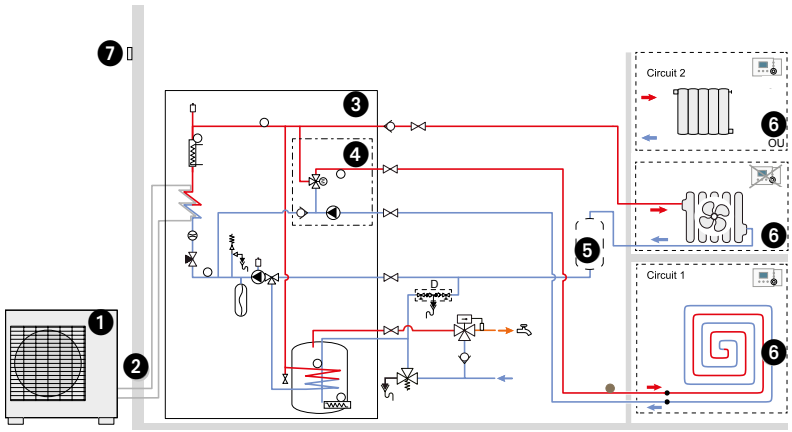
LORIA DUO 6000: 1 HEATING ZONE

1. Outdoor unit and ground support*
2. Refrigerant connections*
3. Hydraulic module with integrated DHW
4. Buffer tank**
5. Room control unit (optional, except for fan coil)
6. Outdoor sensor



LORIA DUO 6000: 2 HEATING ZONES (UNDERFLOOR HEATING + RADIATORS)

1. Outdoor unit and ground support*
2. Refrigerant connections*
3. Hydraulic module with integrated DHW
4. 2 zones kit*
5. Buffer tank**
6. Room control unit (optional, except for fan coil)
7. Outdoor sensor



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