

ALFEA EXCELLIA

Split air-to-water heat pump for improved performances
High performance solution for big houses and/or cold climate



Outdoor Inverter unit



Indoor hydraulic module

Product

- COP : up to 4.3 (+7°C / +35°C)
- Compatible with all kinds of low temperature transmitters (underfloor heating/cooling, fan coil)
- Intuitive control and simplified use
- **NAVISTEM 200S** regulator
- Perfect solution for high heating demand
- 16L buffer tank integrated
- Patented coaxial heat exchanger
- Inverter regulation
- Class A low energy consumption circulation pump
- Possibility to manage an electric radiator heating zone from the heat pump control panel (optional)

DESCRIPTION

- Suitable for new build and renovation
- 2 models: 11 and 14 kW - single-phase
- 3 models: 11, 14 and 16kW - three-phase
- Heating only
- Performing heat pump working with outside temperature from -25°C to +35°C
- Working temperature of 60°C, up to -20°C outside temperature

AVAILABLE OPTIONS

- 2nd circuit kit (plug-and-play kit)
- Cooling kit
- Separated hot water tank
- Electric back-up heater
- Boiler connection kit
- Control unit

SUPPLIES

Outdoor Inverter unit

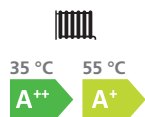
- Refrigerant circuit uses liquid reinjection technology during compression phase (R410A)
- Twin Rotary compressor
- Double fan

Indoor hydraulic module

- Coaxial exchanger immersed in buffer tank
- Class A low consumption circulation pump
- Expansion vessel, valve, etc.
- Electric panel and terminal blocks

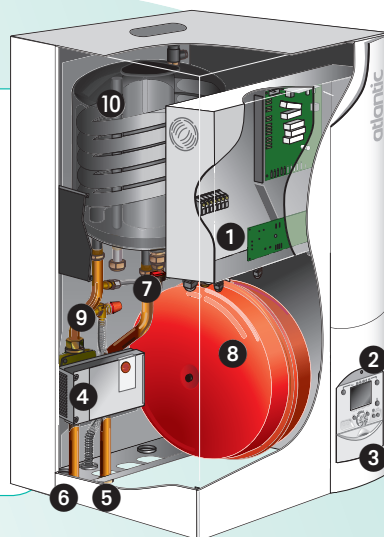


Energy class



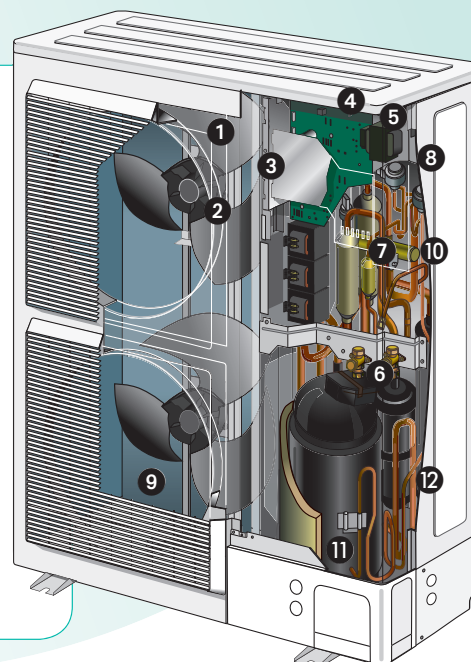
INDOOR HYDRAULIC MODULE

- 1 Electric board
- 2 User interface/regulator
- 3 Manometer
- 4 Class A low consumption circulation pump
- 5 Heating flow
- 6 Heating return
- 7 Refrigerant connections
- 8 Expansion vessel
- 9 Safety valve
- 10 Condenser



OUTDOOR INVERTER UNIT

- 1 Low-noise, high-output coil
- 2 Electric variable speed "Inverter" 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



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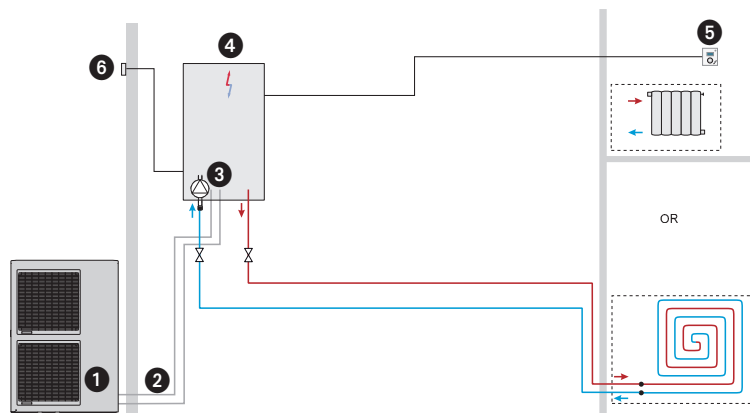
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ALFEA EXCELLIA

Installation schematics

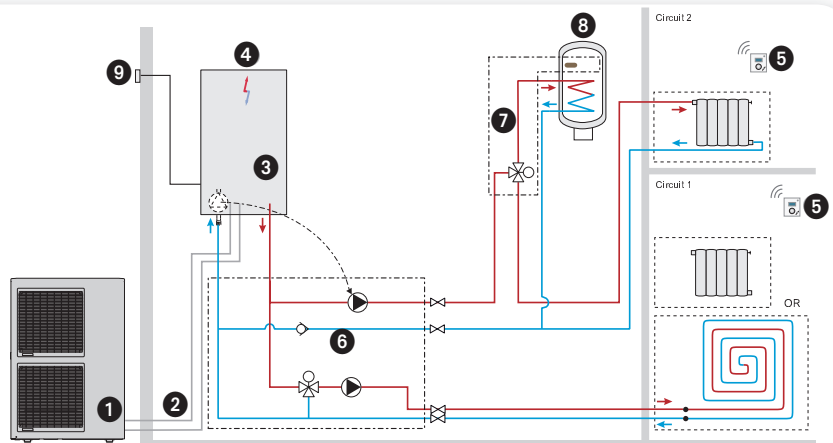
ALFEA EXCELLIA: 1 HEATING ZONE

- ❶ Outdoor unit and ground support*
- ❷ Refrigerant connections*
- ❸ Hydraulic module
- ❹ Back-up heater*
- ❺ Room control unit*
- ❻ Outdoor sensor



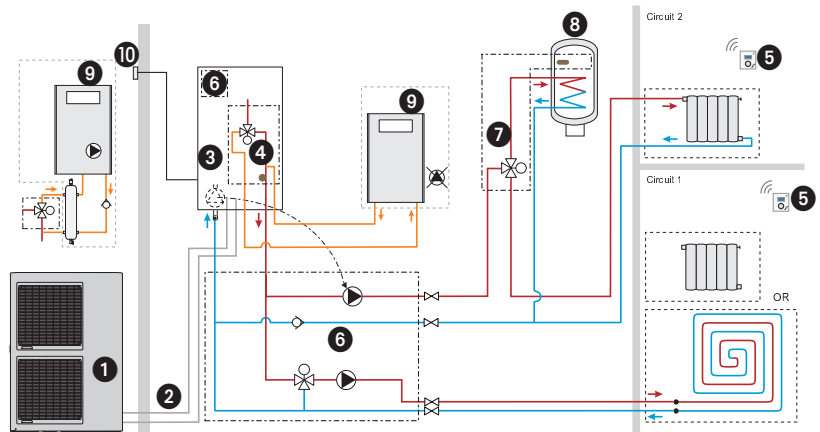
ALFEA EXCELLIA: 2 HEATING ZONES AND DHW PRODUCTION

- ❶ Outdoor unit and ground support*
- ❷ Refrigerant connections*
- ❸ Hydraulic module
- ❹ Back-up heater*
- ❺ Room radio control unit*
- ❻ 2nd zone kit*
- ❼ DHW kit*
- ❽ DHW tank*
- ❾ Outdoor sensor



ALFEA EXCELLIA CONNECTED TO BOILER: 2 HEATING ZONES + DHW PRODUCTION

- ❶ Outdoor unit and ground support*
- ❷ Refrigerant connections*
- ❸ Hydraulic module
- ❹ Boiler connection kit*
- ❺ Room radio control unit*
- ❻ 2nd zone kit*
- ❼ DHW kit*
- ❽ DHW tank*
- ❾ Boiler
- ❿ Outdoor sensor



* Option

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ALFEA EXCELLIA DUO

Split air-to-water heat pump for improved performances (heating + DHW)
High performance solution for big houses and/or cold climate



Outdoor Inverter unit



Indoor hydraulic module

Product

- DHW storage tank included (190L)
- COP : up to 4.3 (+7°C / +35°C)
- Compatible with all kinds of low temperature transmitters (underfloor heating/cooling, fan coil)
- Intuitive control and simplified use
- **NAVISTEM 200S** regulator
- Perfect solution for high heating demand
- 16L buffer tank integrated
- Patented coaxial heat exchanger
- Inverter regulation
- Class A low energy consumption circulation pump
- Possibility to manage an electric radiator heating zone from the heat pump control panel (optional)

DESCRIPTION

- Suitable for new build and renovation
- 2 models: 11 and 14 kW - single-phase
- 3 models: 11, 14 and 16 kW - three-phase
- Heating and DHW integrated
- Performing heat pump working with outside temperature from -25°C to +35°C
- Working temperature of 60°C, up to -20°C outside temperature

AVAILABLE OPTIONS

- 2nd circuit kit (plug-and-play)
- Cooling kit
- Electric back-up heater
- Boiler connection kit
- Control unit

SUPPLIES

Outdoor Inverter unit

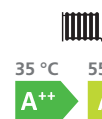
- Refrigerant circuit with liquid reinjection technology during compression phase (R410A)
- Double fan
- Full Inverter control

Indoor hydraulic module

- DHW storage tank integrated (190L) with ACI protection
- Coaxial exchanger immersed in buffer tank
- Class A low consumption circulation pump
- Expansion vessel, pressure meter, etc.
- Outdoor sensor



Energy class

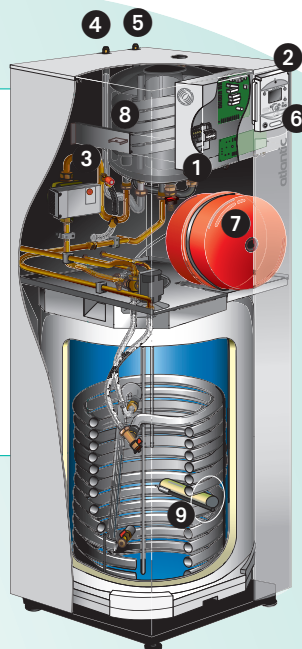


55 °C



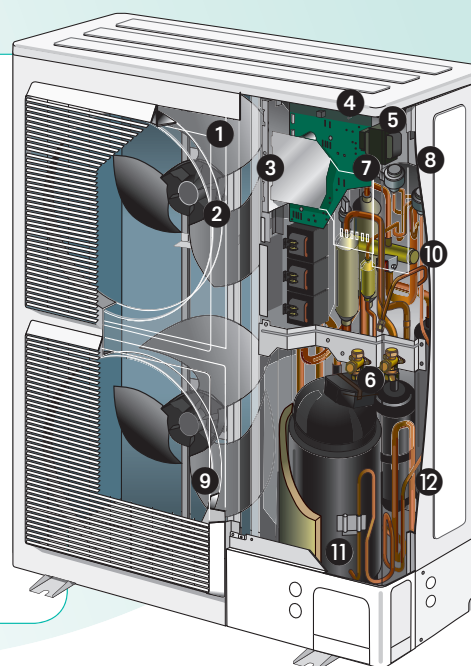
INDOOR HYDRAULIC MODULE

- 1 Electric board
- 2 User interface/regulator
- 3 Class A low consumption circulation pump
- 4 "Gas" refrigeration connection
- 5 "Liquid" refrigeration connection
- 6 Manometer
- 7 Expansion vessel
- 8 Condenser
- 9 DHW electric back-ups



OUTDOOR INVERTER UNIT

- 1 Low-noise, high-output coil
- 2 Electric variable speed "Inverter" 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



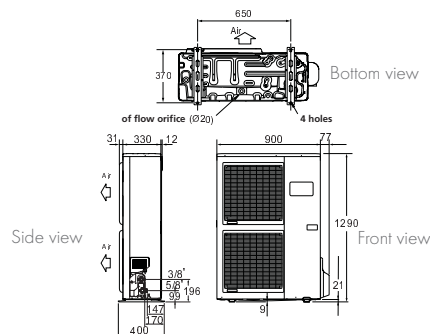
TECHNICAL CHARACTERISTICS AND PERFORMANCES

	UNIT	ALFEA EXCELLIA DUO 11	ALFEA EXCELLIA DUO 14	ALFEA EXCELLIA DUO TRI 11	ALFEA EXCELLIA DUO TRI 14	ALFEA EXCELLIA DUO TRI 16
REFRIGERANT		R410A	R410A	R410A	R410A	R410A
MAIN CHARACTERISTICS						
Heating capacity +7°C/+35°C – Floor Heating	kW	10.80	13.50	10.80	13.00	15.17
Heating capacity +7°C/+35°C – Floor Heating		4.25	4.18	4.30	4.18	4.10
Heating capacity -7°C/+35°C – Floor Heating	kW	10.38	11.54	10.38	12.20	12.98
COP -7°C/+35°C - Floor Heating		2.40	2.27	2.43	2.38	2.40
Heating capacity +7°C/+45°C – Low T°radiators	kW	9.05	11.32	9.90	12.10	12.75
COP +7°C/+45°C – Low T°radiators		3.21	3.07	3.32	3.20	3.21
Heating capacity -7°C/+45°C – Low T°radiators	kW	9.16	11.41	9.98	10.70	12.95
COP -7°C/+45°C – Low T°radiator		2.00	1.93	2.16	2.08	2.03
Heating capacity +7°C/+55°C – Radiators	kW	7.59	9.48	9.29	10.60	12.71
COP +7°C/+55°C – Radiators		2.47	2.40	2.64	2.41	2.52
Heating capacity -7°C/+55°C – Radiators	kW	7.57	9.20	9.27	10.10	12.00
COP -7°C/+55°C – Radiators	kW	1.66	1.81	1.82	1.79	1.74
Heating capacity +7°C / +60°C - Radiators	kW	7.05	8.81	9.25	11.50	12.49
Input power -7°C / +60°C - radiators		6.71	8.42	8.48	10.10	10.90
Additional electric back-up in option	kW	adjustable 3 ou 6	adjustable 3 ou 6	9	9	9
ErP ENERGY EFFICIENCY & ACOUSTIC CHARACTERISTICS WITH OUTDOOR SENSOR						
Energy class - Heating (35°C/55°C)	-	A++ / A+	A++ / A+	A++ / A+	A++ / A+	A++ / A+
Rated heat output (35°C/55°C)	kW	11 / 9	13 / 11	11 / 9	13 / 11	14 / 13
Seasonal energy efficiency - Heating (35°C/55°C)	%	153 / 111	150 / 115	156 / 114	152 / 119	151 / 119
Annual energy consumption - Heating (35°C/55°C)	kWh	6062 / 6842	6824 / 8041	5930 / 6669	6738 / 7803	7408 / 9062
Sound power level (indoor/outdoor)	dB(A)	46 / 69	46 / 70	46 / 68	46 / 69	46 / 70
Declared load profile - DHW	-	L	L	L	L	L
Energy class - DHW	-	A	A	A	A	A
Annual water heating energy consumption	kWh	1166	1166	1166	1166	1166
Seasonal water heating energy efficiency (%)	%	88	88	88	88	88
INDOOR HYDRAULIC MODULE						
Noise level*	dB(A)	39	39	39	39	39
Dimensions h x w x d	mm	1850x650x698	1850x650x698	1850x650x698	1850x650x698	1850x650x698
Net weight/filled weight	kg	152 / 366	152 / 366	152 / 366	152 / 366	152 / 366
Power supply		230 V / 50 Hz	230 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz
OUTDOOR UNIT						
Noise level**	dB(A)	47	48	46	47	48
Dimensions h x w x d	mm	1290x970x400	1290x970x400	1290x900x400	1290x900x400	1290x900x400
Operating weight	kg	92	92	99	99	99
REFRIGERANT CHARACTERISTICS						
Min./max. length	m	5 / 20	5 / 20	5 / 20	5 / 20	5 / 20
Max. diff. in height	m	15	15	15	15	15

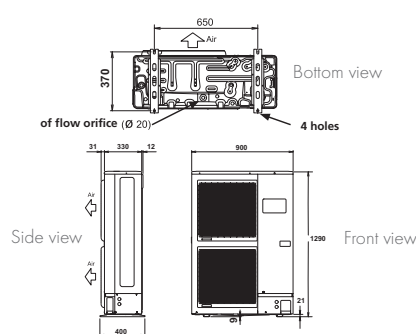
* Acoustic pressure at 1 m from HP, 1,5 m high, open field, directivity 2. - ** Acoustic pressure at 5m from HP, 1,5 m high, open field, directivity 2.

DIMENSIONS (MM)

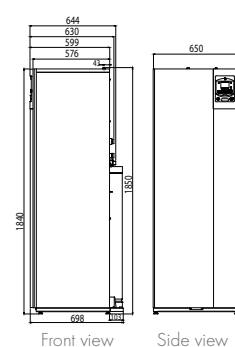
Outdoor Inverter unit Alfea Excellia Duo 11 and 14 single-phase



Outdoor Inverter unit Alfea Excellia Duo 11, 14 and 16 three-phases



Indoor hydraulic module

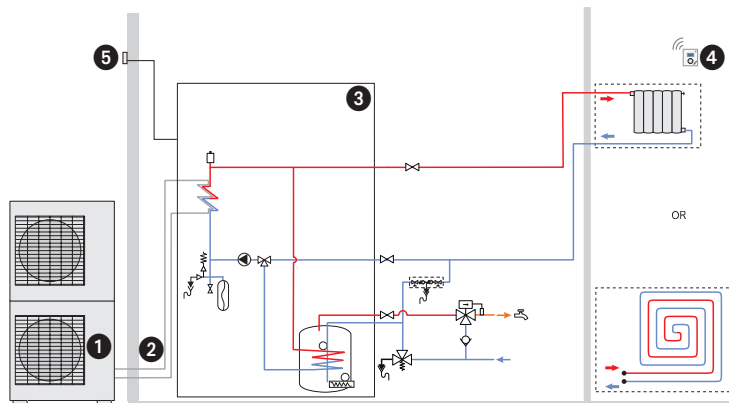


ALFEA EXCELLIA DUO

Installation schematics

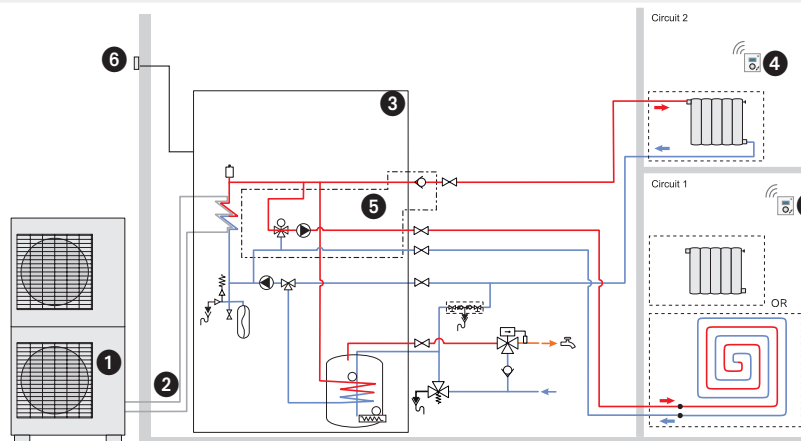
ALFEA EXCELLIA DUO: 1 HEATING ZONE

- ❶ Outdoor unit and ground support*
- ❷ Refrigerant connections*
- ❸ Hydraulic module with integrated DHW
- ❹ Room control unit*
- ❺ Outdoor sensor



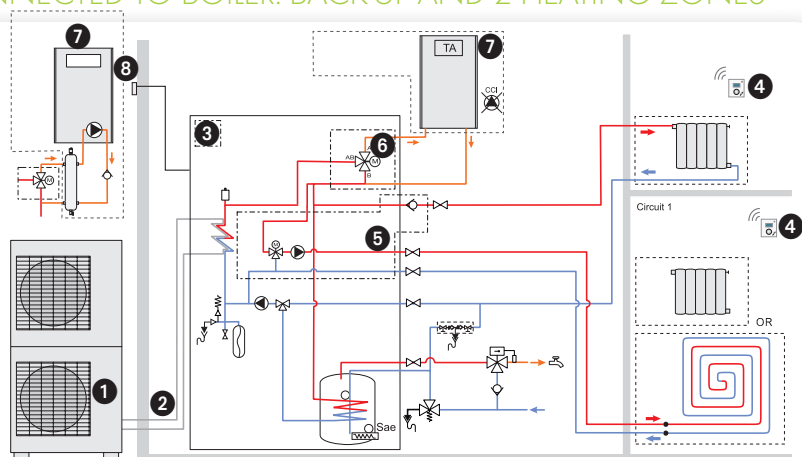
ALFEA EXCELLIA DUO: 2 HEATING ZONES

- ❶ Outdoor unit and ground support*
- ❷ Refrigerant connections*
- ❸ Hydraulic module with integrated DHW
- ❹ Room radio control unit*
- ❺ 2nd zone kit* (integrated in the hydraulic module)
- ❻ Outdoor sensor



ALFEA EXCELLIA DUO CONNECTED TO BOILER: BACK-UP AND 2 HEATING ZONES

- ❶ Outdoor unit and ground support*
- ❷ Refrigerant connections*
- ❸ Hydraulic module with integrated DHW
- ❹ Room radio control unit*
- ❺ 2nd zone kit* (integrated in the hydraulic module)
- ❻ Boiler connection kit*
- ❼ Boiler
- ❽ Outdoor sensor



* Option

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