

ALFEA EXCELLIA DUO

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



Indoor hydraulic module



Outdoor Inverter unit

Product

- Integrated DHW storage tank (190L)
- COP up to 4.3 (+7°C / +35°C)
- Compatible with all kinds of heating devices (underfloor heating/cooling, radiators, fan coils)
- Intuitive interface and simplified use
- **NAVISTEM 400S** regulator
- Perfect solution for high heating demand
- Integrated 16L buffer tank
- Patented coaxial heat exchanger
- Inverter regulation
- Possibility to manage an electric radiator heating zone from the heat pump control panel (option)
- Possibility of remote piloting through a smartphone or a tablet, thanks to the Cozytouch compatibility

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, down to -20°C outside temperature

AVAILABLE OPTIONS

- 2 zones kit (plug-and-play)
- Cooling kit
- Boiler connection kit
- Room sensor

SUPPLIES

Indoor hydraulic module

- DHW storage tank integrated (190L)
- Coaxial exchanger immersed in buffer tank
- Low consumption circulation pump
- Expansion vessel, pressure meter, etc.
- Outdoor sensor
- Electric back-up heater*

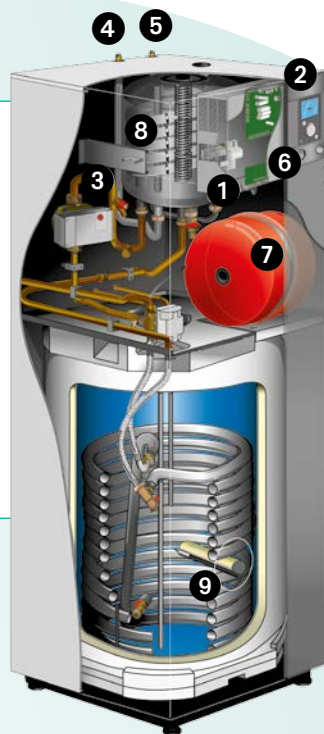
Outdoor Inverter unit

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

*Models without electric back-up available

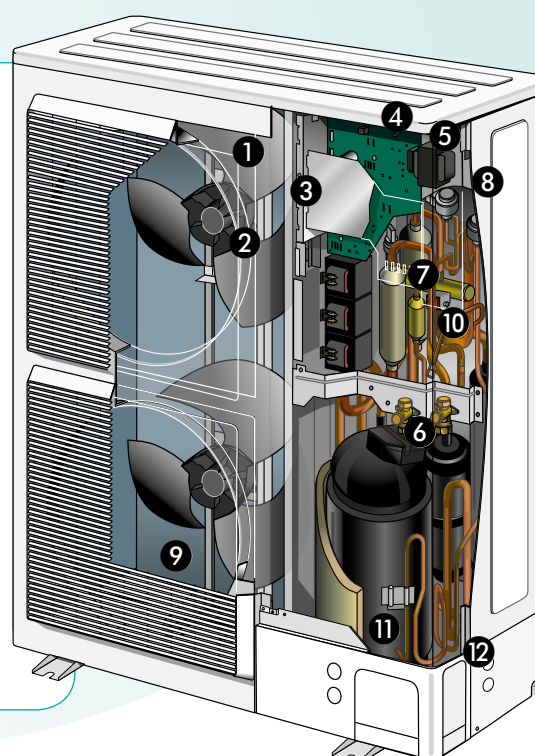
INDOOR HYDRAULIC MODULE

- 1 Electric board
- 2 User interface/regulator
- 3 Low consumption circulation pump
- 4 "Gas" refrigeration connection
- 5 "Liquid" refrigeration connection
- 6 Manometer
- 7 Expansion vessel
- 8 Coaxial heat exchanger
- 9 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 Connection 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



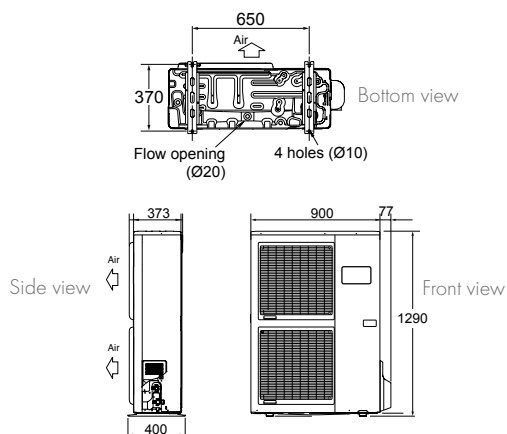
TECHNICAL CHARACTERISTICS AND PERFORMANCES

	UNIT	ALFEA EXCELLIA DUO A.I. 11	ALFEA EXCELLIA DUO A.I. 14	ALFEA EXCELLIA DUO A.I. TRI 11	ALFEA EXCELLIA DUO A.I. TRI 14	ALFEA EXCELLIA DUO A.I. TRI 16
REFRIGERANT		R410A	R410A	R410A	R410A	R410A
MAIN CHARACTERISTICS						
Heating capacity +7°C/+35°C – Underfloor Heating	kW	10.80	13.50	10.80	13.00	15.17
COP +7°C/+35°C - Underfloor Heating		4.25	4.18	4.30	4.18	4.10
Heating capacity -7°C/+35°C – Underfloor Heating	kW	10.38	11.54	10.38	12.20	12.98
COP -7°C/+35°C - Underfloor 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	12.24
COP +7°C/+55°C – Radiators		2.47	2.40	2.64	2.41	2.48
Heating capacity -7°C/+55°C – Radiators	kW	7.57	9.20	9.27	10.10	12.00
COP -7°C/+55°C – Radiators		1.66	1.81	1.82	1.79	1.74
Additional electric back-up heater	kW	6	6	9	9	9
ENERGY EFFICIENCY & ACOUSTIC CHARACTERISTICS						
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) with outdoor sensor	%	153 / 114	150 / 115	156 / 114	152 / 119	151 / 119
Seasonal energy efficiency - Heating (35°C/55°C)	%	151 / 112	148 / 113	154 / 112	150 / 117	149 / 117
Annual energy consumption - Heating (35°C/55°C)	kWh	6062 / 6623	6824 / 8041	5930 / 6669	6738 / 7803	7408 / 9062
Sound power level (indoor/outdoor) ⁽¹⁾	dB(A)	46 / 69	46 / 69	46 / 68	46 / 69	46 / 69
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 ⁽²⁾	dB(A)	39	39	39	39	39
Net weight/filled weight ⁽³⁾	kg	155 / 373	155 / 373	155 / 373	155 / 373	155 / 373
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 ⁽⁴⁾	dB(A)	47	47	46	47	47
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. difference in height	m	15	15	15	15	15
R410A factory load	g	2500	2500	2500	2500	2500
Quantity of refrigerant in tons of CO ₂ equivalent	t	5	5	5	5	5

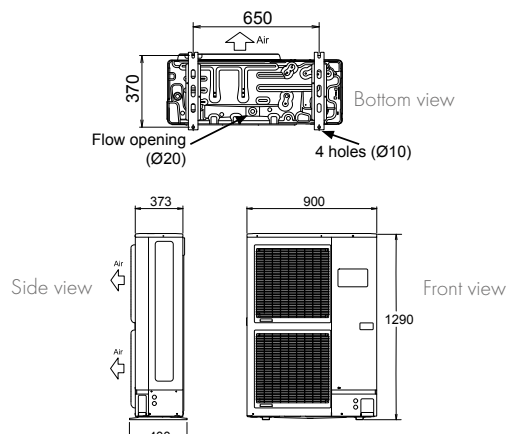
(1) Sound power level is a laboratory measurement of the sound power emitted by the product, but it does not correspond to the sound perceived. Used by acoustics specialists, it allows to measure the sound pressure level of the product in its working environment. - (2) Acoustic pressure at 1m from HP, 1,5 m height, open field, directivity 2. - (3) Models with electric back-up. - (4) Acoustic pressure at 5m from HP, 1,5 m height, open field, directivity 2.

DIMENSIONS (MM)

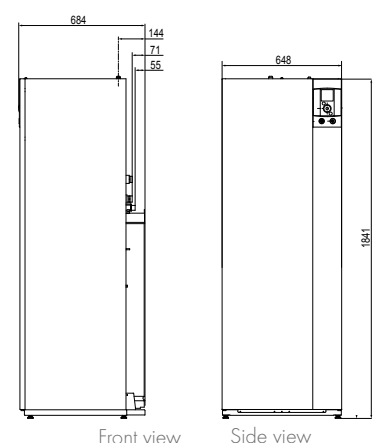
Outdoor Inverter unit Alfea Excellia Duo A.I. 11 and 14 single-phase



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



Indoor hydraulic module

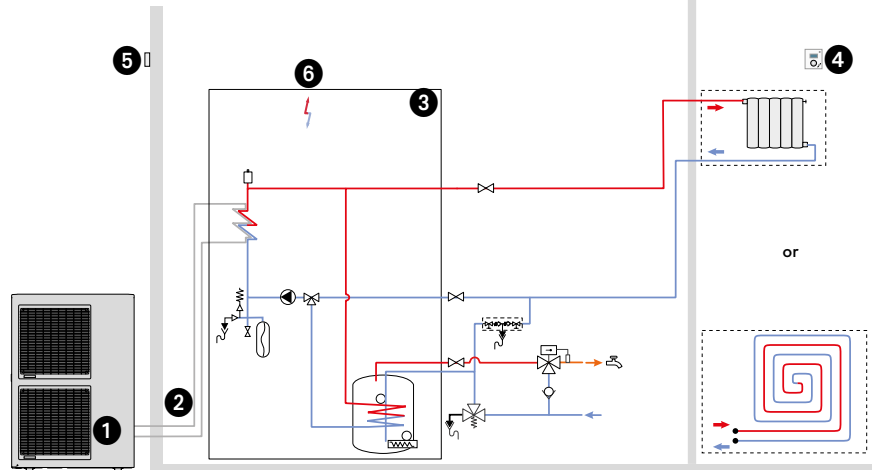


ALFEA EXCELLIA DUO

Installation schematics

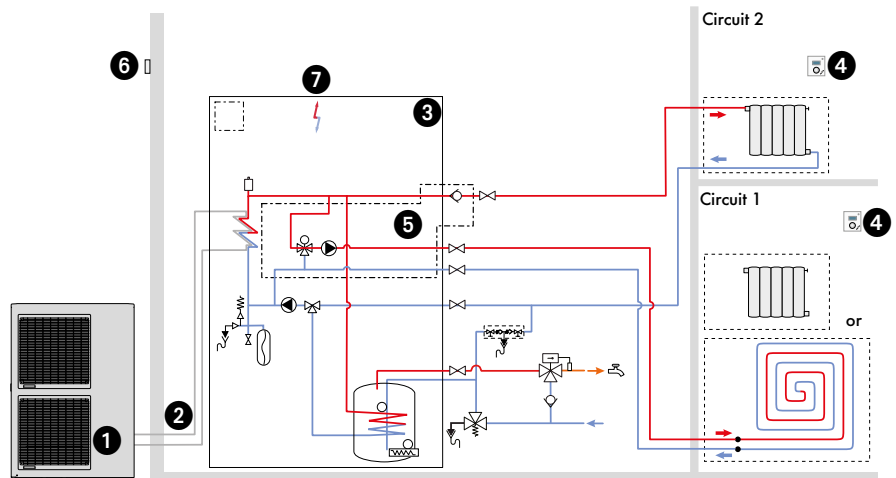
ALFEA EXCELLIA DUO A.I.: 1 HEATING ZONE

- ❶ Outdoor unit and ground support*
- ❷ Refrigerant connections*
- ❸ Hydraulic module with integrated DHW
- ❹ Room sensor*
- ❺ Outdoor sensor
- ❻ Electric back-up heater



ALFEA EXCELLIA DUO A.I.: 2 HEATING ZONES

- ❶ Outdoor unit and ground support*
- ❷ Refrigerant connections*
- ❸ Hydraulic module with integrated DHW
- ❹ Room sensor*
- ❺ 2 zones kit*
(integrated in the hydraulic module)
- ❻ Outdoor sensor
- ❼ Electric back-up heater



ALFEA EXCELLIA DUO A.I. 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 sensor*
- ❺ 2 zones kit*
(integrated in the hydraulic module)
- ❻ Boiler connection kit*
- ❼ Boiler
- ❽ Outdoor sensor

