

Alfea Excellia Duo

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



BENEFITS

- Robust hydraulic conception due to patented coaxial heat exchanger
- Intuitive interface and simplified use
- Possibility of remote piloting via Cozytouch application due to NAVISTEM 400S control system
- DHW tank with high-performance regulation

DESCRIPTION

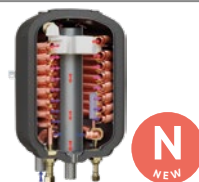
- Suitable for new build and renovation
- 8 models: 11 to 17 kW
- Single-phase or three-phase models
- Heating and DHW integrated
- Patented coaxial heat exchanger
- Inverter regulation
- Integrated buffer tank 16 L (24 L for HP models)

AVAILABLE OPTIONS

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

INNOVATION

Alfea Excellia HP Duo A.I. models are equipped with a new extended coaxial heat exchanger for higher performance.



Practical trainings

that will help you save time and be more efficient.



On-site trainings

- PAC 6-02: Install heat pumps air to water - 2 days
- PAC 6-04: Commissioning, maintenance and service of heat pumps air to water - 2 days

Alfea Excellia HP Duo A.I.

- PAC 6-03-2: Install a new product - 1 day
- PAC 6-05-2: Commissioning, maintenance and service - 1 day



Online trainings

- PAC 6-13-1: Split heat pump installation commissioning - 1 day
- PAC 6-15-2: Heat pump Services test & breakdowns - 1 day

Alfea Excellia HP Duo A.I.

- PAC 6-15-3: Heat pump service test & breakdowns - ½ day



35°C



55°C



Cozytouch

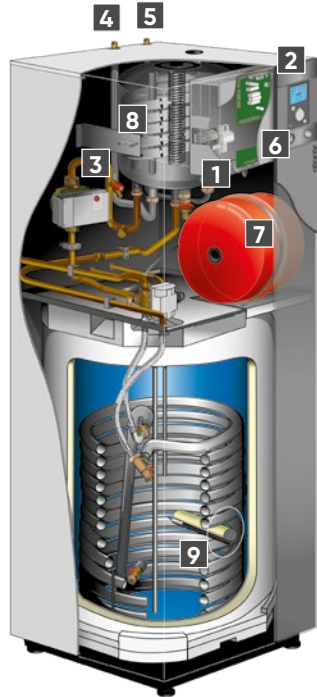


homecontrol®



PATENTED EXCHANGER

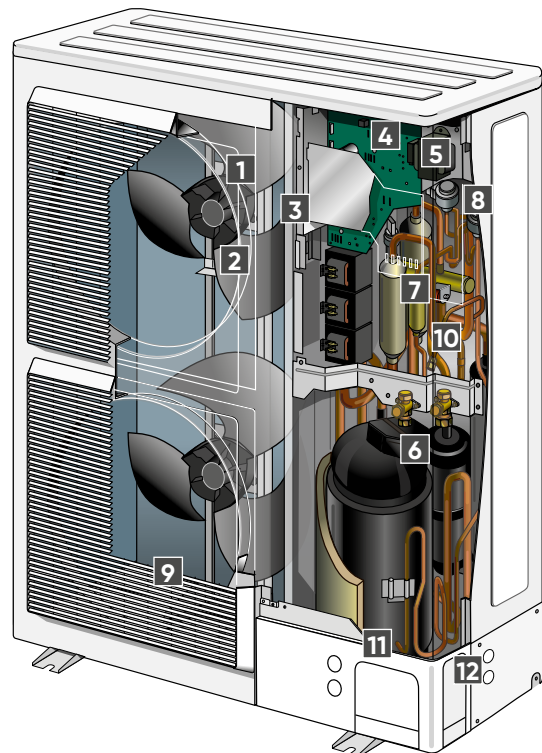
INDOOR HYDRAULIC MODULE



- 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-up

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



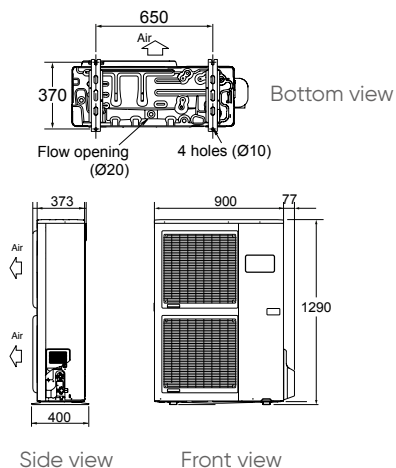
TECHNICAL CHARACTERISTICS AND PERFORMANCES

| | 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 | ALFEA EXCELLIA HP DUO A.I. 16 | ALFEA EXCELLIA HP DUO A.I. TRI 15 | ALFEA EXCELLIA HP DUO A.I. TRI 17 |
|--|--------|----------------------------|----------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|-----------------------------------|-----------------------------------|
| REFRIGERANT | | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A |
| ENERGY EFFICIENCY & ACOUSTIC CHARACTERISTICS | | | | | | | | | |
| Energy class - Heating (35°C/55°C) | - | A++ / A+ | A++ / A+ | A++ / A+ | 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 | 16 / 14 | 17 / 14 | 18 / 17 |
| Annual energy consumption - Heating (35°C/55°C) | kWh | 6062 / 6623 | 6824 / 8041 | 5930 / 6669 | 6738 / 7803 | 7408 / 9062 | 8014 / 8757 | 8606 / 9915 | 9059 / 10232 |
| Seasonal energy efficiency - Heating (35°C/55°C) | % | 151 / 112 | 148 / 113 | 154 / 112 | 150 / 117 | 149 / 117 | 163 / 125 | 164 / 130 | 161 / 130 |
| Seasonal energy efficiency - Heating (35°C/55°C) with outdoor sensor | % | 153 / 114 | 150 / 115 | 156 / 114 | 152 / 119 | 151 / 119 | 165 / 127 | 166 / 132 | 163 / 132 |
| Sound power level (indoor/outdoor) ⁽¹⁾ | dB(A) | 46 / 69 | 46 / 69 | 46 / 68 | 46 / 69 | 46 / 69 | 45 / 67 | 45 / 67 | 45 / 67 |
| Declared load profile - DHW | - | L | L | L | L | L | L | L | L |
| Energy class - DHW | - | A | A | A | A | A | A | A | A |
| Annual water heating energy consumption | kWh | 1166 | 1166 | 1166 | 1166 | 1166 | 941 | 941 | 941 |
| Seasonal water heating energy efficiency (%) | % | 88 | 88 | 88 | 88 | 88 | 109 | 109 | 109 |
| MAIN CHARACTERISTICS | | | | | | | | | |
| SCOP 35 °C / 55 °C | - | 3.85 / 2.87 | 3.77 / 2.90 | 3.92 / 2.17 | 3.82 / 3.00 | 3.80 / 3.00 | 4.25 / 3.21 | 4.18 / 3.33 | 4.12 / 3.33 |
| Heating capacity +7°C/+35°C – Underfloor Heating | kW | 10.80 | 13.50 | 10.80 | 13.00 | 15.17 | 16.00 | 15.00 | 17.00 |
| COP +7°C/+35°C – Underfloor Heating | | 4.25 | 4.18 | 4.30 | 4.18 | 4.10 | 4.15 | 4.33 | 4.15 |
| Heating capacity -7°C/+35°C – Underfloor Heating | kW | 10.38 | 11.54 | 10.38 | 12.20 | 12.98 | 14.50 | 13.20 | 15 |
| COP -7°C/+35°C – Underfloor Heating | | 2.40 | 2.27 | 2.43 | 2.38 | 2.40 | 2.75 | 2.90 | 2.82 |
| Heating capacity +7°C/+55°C – Radiators | kW | 7.59 | 9.48 | 9.29 | 10.60 | 12.24 | 14.5 | 13.20 | 15 |
| COP +7°C/+55°C – Radiators | | 2.47 | 2.40 | 2.64 | 2.41 | 2.48 | 2.6 | 2.77 | 2.73 |
| Heating capacity -7°C/+55°C – Radiators | kW | 7.57 | 9.20 | 9.27 | 10.10 | 12.00 | 10.9 | 13.2 | 14.2 |
| COP -7°C/+55°C – Radiators | | 1.66 | 1.81 | 1.82 | 1.79 | 1.74 | 1.85 | 1.95 | 1.92 |
| Heating capacity -7°C / +60°C – Radiators | kW | 6.71 | 8.42 | 8.48 | 10.10 | 10.9 | 10.8 | 11.2 | 11.7 |
| Additional electric back-up heater | kW | 6 | 6 | 9 | 9 | 9 | 6 | 9 | 9 |
| INDOOR HYDRAULIC MODULE | | | | | | | | | |
| Noise level ⁽²⁾ | dB(A) | 39 | 39 | 39 | 39 | 39 | 37 | 37 | 37 |
| Net weight/filled weight ⁽³⁾ | kg | 155 / 373 | 155 / 373 | 155 / 373 | 155 / 373 | 155 / 373 | 166 / 390 | 166 / 390 | 166 / 390 |
| Power supply | V / Hz | 230 / 50 | 230 / 50 | 400 / 50 | 400 / 50 | 400 / 50 | 230 / 50 | 400 / 50 | 400 / 50 |
| OUTDOOR UNIT | | | | | | | | | |
| Noise level ⁽⁴⁾ | dB(A) | 47 | 47 | 46 | 47 | 47 | 45 | 45 | 45 |
| Operating weight | kg | 92 | 92 | 99 | 99 | 99 | 137 | 138 | 138 |
| REFRIGERANT CHARACTERISTICS | | | | | | | | | |
| Min./max. length | m | 5 / 20 | 5 / 20 | 5 / 20 | 5 / 20 | 5 / 20 | 5 / 30 | 5 / 30 | 5 / 30 |
| Max. difference in height | m | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| R410A factory load | g | 2500 | 2500 | 2500 | 2500 | 2500 | 3800 | 3800 | 3800 |
| Quantity of refrigerant in tons of CO ₂ equivalent | t | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 8 |

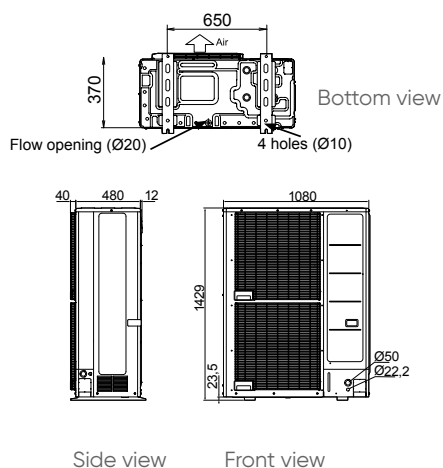
(1) Sound power level is a laboratory measurement of the sound power emitted by the product, but it does not correspond to the sound perceived. Used by acoustics specialists, it allows to measure the sound pressure level of the product in its working environment. - (2) Acoustic pressure at 1m from HP, 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.

INSTALLATION DIMENSIONS (mm)

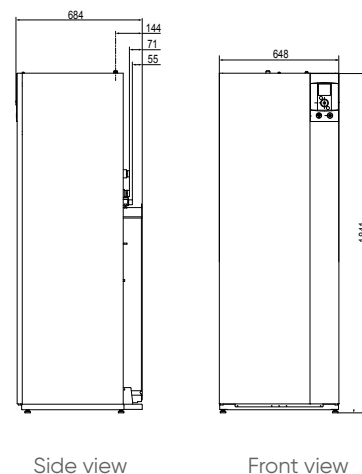
Outdoor Inverter unit Alfea Excellia Duo A.I. 11 and 14 single-phase, 11, 14 and 16 three-phase



Outdoor Inverter unit Alfea Excellia HP Duo A.I. 16 single-phase, 15 and 17 three-phase



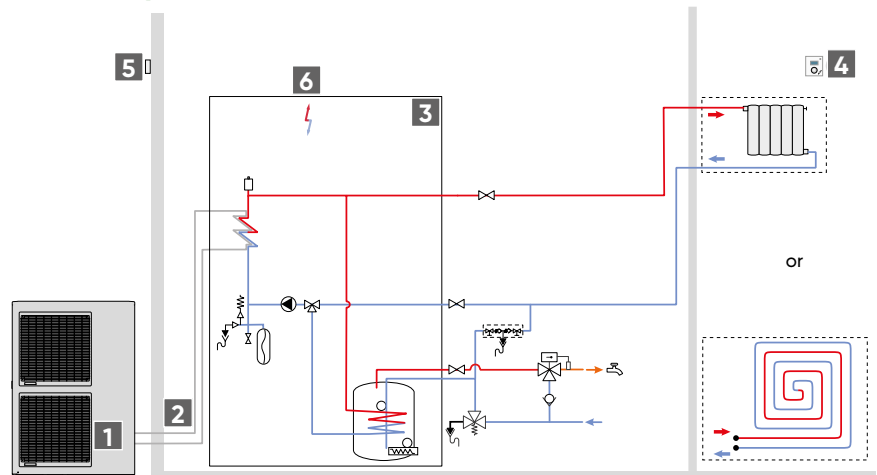
Indoor hydraulic module



INSTALLATION SCHEMATICS

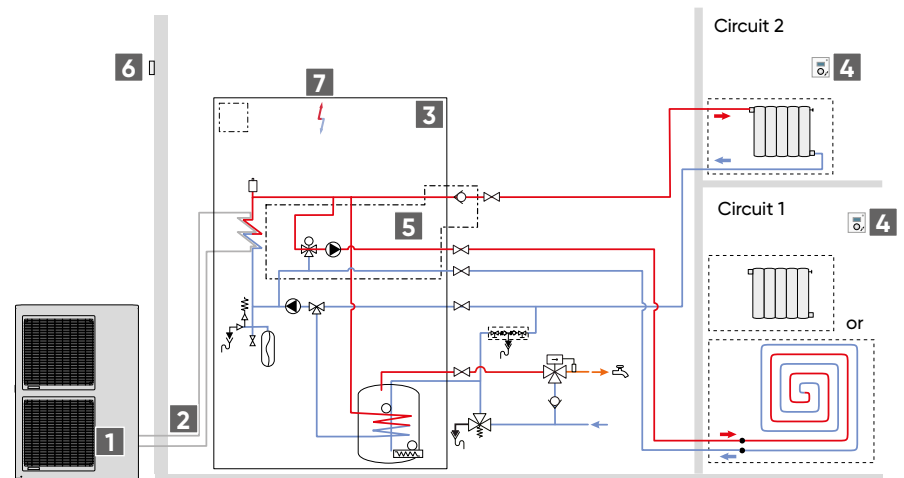
ALFEA EXCELLIA DUO A.I. (+ HP MODELS): 1 HEATING ZONE

- 1 Outdoor unit and ground support*
- 2 Refrigerant connections*
- 3 Hydraulic module with integrated DHW
- 4 Room controller*
- 5 Outdoor sensor
- 6 Electric back-up heater



ALFEA EXCELLIA DUO A.I. (+ HP MODELS): 2 HEATING ZONES

- 1 Outdoor unit and ground support*
- 2 Refrigerant connections*
- 3 Hydraulic module with integrated DHW
- 4 Room controller*
- 5 2 zones kit* (integrated in the hydraulic module)
- 6 Outdoor sensor
- 7 Electric back-up heater



ALFEA EXCELLIA DUO A.I. CONNECTED TO BOILER BACK-UP + 2 HEATING ZONES

- 1 Outdoor unit and ground support*
- 2 Refrigerant connections*
- 3 Hydraulic module with integrated DHW
- 4 Room controller*
- 5 2 zones kit* (integrated in the hydraulic module)
- 6 Boiler connection kit*
- 7 Boiler
- 8 Outdoor sensor
- 9 Boiler with pump

