ALFEA EXCELLIA DUO

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

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
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

<table>
<thead>
<tr>
<th>REFRAIGERANT</th>
<th>UNIT</th>
<th>ALFEA EXCELLIA DUO 11</th>
<th>ALFEA EXCELLIA DUO 14</th>
<th>ALFEA EXCELLIA DUO TRI 11</th>
<th>ALFEA EXCELLIA DUO TRI 14</th>
<th>ALFEA EXCELLIA DUO TRI 16</th>
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<tbody>
<tr>
<td><strong>MAIN CHARACTERISTICS</strong></td>
<td></td>
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<tr>
<td>Heating capacity +7°C/+35°C - Floor Heating kW</td>
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<td>10.80</td>
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<td>11.32</td>
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<td>Additional electric back-up in option kW</td>
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<td>adjustable 3 ou 6</td>
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### ENERGY EFFICIENCY & ACOUSTIC CHARACTERISTICS WITH OUTDOOR SENSOR

<table>
<thead>
<tr>
<th></th>
<th>Energy class - Heating (35°C/55°C)</th>
<th>Rated heat output (35°C/55°C) kW</th>
<th>Seasonal energy efficiency - Heating (35°C/55°C) %</th>
<th>Annual energy consumption - Heating (35°C/55°C) kWh</th>
<th>Sound power level (indoor/outdoor) dB(A)</th>
<th>Declared load profile - DHW</th>
<th>Energy class - DHW</th>
<th>Annual water heating energy consumption kWh</th>
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<td>ErP</td>
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<td>13 / 11</td>
<td>11 / 9</td>
<td>13 / 11</td>
<td>14 / 13</td>
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<td>1166</td>
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<td>A++ / A+</td>
<td>153 / 111</td>
<td>150 / 115</td>
<td>156 / 114</td>
<td>152 / 119</td>
<td>151 / 119</td>
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<tr>
<td></td>
<td>A++ / A+</td>
<td>6062 / 6842</td>
<td>6824 / 8041</td>
<td>5930 / 6669</td>
<td>6738 / 7803</td>
<td>7408 / 9062</td>
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<tr>
<td></td>
<td>A++ / A+</td>
<td>46 / 69</td>
<td>46 / 70</td>
<td>46 / 68</td>
<td>46 / 69</td>
<td>46 / 70</td>
<td>A</td>
<td>1166</td>
</tr>
</tbody>
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### 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 1m from HP, 1,5 m hight, open held, directivity 2. **Acoustic pressure at 5m from HP, 1,5 m hight, open held, 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

1. Outdoor unit and ground support*
2. Refrigerant connections*
3. Hydraulic module with integrated DHW
4. Room control unit*
5. Outdoor sensor

ALFEA EXCELLIA DUO: 2 HEATING ZONES

1. Outdoor unit and ground support*
2. Refrigerant connections*
3. Hydraulic module with integrated DHW
4. Room radio control unit*
5. 2nd zone kit* (integrated in the hydraulic module)
6. Outdoor sensor

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

1. Outdoor unit and ground support*
2. Refrigerant connections*
3. Hydraulic module with integrated DHW
4. Room radio control unit*
5. 2nd zone kit* (integrated in the hydraulic module)
6. Boiler connection kit*
7. Boiler
8. Outdoor sensor

* Option