# ALFEA EXTENSA DUO +

**Split air-to-water heat pump for improved performances (heating + DHW)**

**Low temperature solution for all projects**

## PRODUCT

- **DHW storage tank included (190L)**
- **COP: up to 4.52 (+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

## AVAILABLE OPTIONS

- **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)**

## SUPPLIES

**Outdoor Inverter unit**
- Refrigerant circuit (R410A)
- Twin Rotary compressor

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

## DESCRIPTION

- Suitable for new build and renovation
- 4 models: 5 to 10 kW - single-phase
- Heating and DHW integrated
- Performing heat pump working with outside temperature from -20°C to +35°C
- Low temperature heating (max. 55°C)

## AVAILABLE OPTIONS

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

10 kW model
### TECHNICAL CHARACTERISTICS AND PERFORMANCES

<table>
<thead>
<tr>
<th>REFRIGERANT CHARACTERISTICS</th>
<th>UNIT</th>
<th>ALFEA EXTENSA DUO + 5</th>
<th>ALFEA EXTENSA DUO + 6</th>
<th>ALFEA EXTENSA DUO + 8</th>
<th>ALFEA EXTENSA DUO + 10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN CHARACTERISTICS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heating capacity +7°C/+35°C – Floor Heating kW</td>
<td>4.50</td>
<td>6.00</td>
<td>7.50</td>
<td>10.00</td>
<td></td>
</tr>
<tr>
<td>COP +7°C/+35°C - Floor Heating</td>
<td>4.52</td>
<td>4.26</td>
<td>4.08</td>
<td>4.02</td>
<td></td>
</tr>
<tr>
<td>Heating capacity -7°C/+35°C – Floor Heating kW</td>
<td>4.10</td>
<td>4.60</td>
<td>5.70</td>
<td>7.40</td>
<td></td>
</tr>
<tr>
<td>COP -7°C/+35°C - Floor Heating</td>
<td>2.79</td>
<td>2.64</td>
<td>2.56</td>
<td>2.49</td>
<td></td>
</tr>
<tr>
<td>Heating capacity +7°C/+45°C – Low T’radiators kW</td>
<td>4.50</td>
<td>5.10</td>
<td>6.20</td>
<td>8.27</td>
<td></td>
</tr>
<tr>
<td>COP +7°C/+45°C – Low T’radiators</td>
<td>3.44</td>
<td>3.40</td>
<td>3.32</td>
<td>3.27</td>
<td></td>
</tr>
<tr>
<td>Heating capacity -7°C/+45°C – Low T’radiator kW</td>
<td>4.10</td>
<td>4.45</td>
<td>5.05</td>
<td>7.40</td>
<td></td>
</tr>
<tr>
<td>COP -7°C/+45°C – Low T’radiator</td>
<td>2.20</td>
<td>2.18</td>
<td>2.04</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Heating capacity +7°C/+55°C - Radiators kW</td>
<td>4.50</td>
<td>4.50</td>
<td>5.00</td>
<td>7.00</td>
<td></td>
</tr>
<tr>
<td>COP +7°C/+55°C - Radiators</td>
<td>2.51</td>
<td>2.51</td>
<td>2.58</td>
<td>2.45</td>
<td></td>
</tr>
<tr>
<td>Heating capacity -7°C/+55°C - Radiators kW</td>
<td>3.70</td>
<td>3.85</td>
<td>5.20</td>
<td>7.00</td>
<td></td>
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<tr>
<td>COP -7°C/+55°C - Radiators</td>
<td>1.68</td>
<td>1.65</td>
<td>1.56</td>
<td>1.69</td>
<td></td>
</tr>
<tr>
<td>Additional electric back-up in option kW</td>
<td>adjustable 3 or 6</td>
<td>adjustable 3 or 6</td>
<td>adjustable 3 or 6</td>
<td>adjustable 3 or 6</td>
<td></td>
</tr>
</tbody>
</table>

### ENERGY EFFICIENCY & ACOUSTIC CHARACTERISTICS WITH OUTDOOR SENSOR

<table>
<thead>
<tr>
<th><strong>Refrigerant Characteristics</strong></th>
<th><strong>Energy Efficiency</strong></th>
<th><strong>Acoustic Pressure</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy class - Heating (35°C/55°C)</td>
<td>A++ / A+</td>
<td>A++ / A+</td>
</tr>
<tr>
<td>Thermal power (35°C/55°C) kW</td>
<td>4 / 4</td>
<td>5 / 3</td>
</tr>
<tr>
<td>Seasonal energy efficiency - Heating (35°C/55°C) %</td>
<td>171 / 117</td>
<td>171 / 117</td>
</tr>
<tr>
<td>Annual energy consumption - Heating (35°C/55°C) kWh</td>
<td>2160 / 3027</td>
<td>2510 / 3183</td>
</tr>
<tr>
<td>Sound power level (indoor/outdoor) dB(A)</td>
<td>46 / 63</td>
<td>46 / 63</td>
</tr>
<tr>
<td>Declared load profile - DHW</td>
<td>-</td>
<td>L</td>
</tr>
<tr>
<td>Energy class - DHW</td>
<td>-</td>
<td>A+</td>
</tr>
<tr>
<td>Annual energy consumption - DHW kWh</td>
<td>880</td>
<td>880</td>
</tr>
<tr>
<td>Seasonal energy efficiency (%) - DHW</td>
<td>120</td>
<td>120</td>
</tr>
</tbody>
</table>

### INDOOR HYDRAULIC MODULE

<table>
<thead>
<tr>
<th><strong>Dimensions</strong></th>
<th><strong>Net Weight/Filled Weight</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise level*</td>
<td>dB(A)</td>
</tr>
<tr>
<td>Dimensions h x w x d mm</td>
<td>1850×650×698</td>
</tr>
<tr>
<td>Net weight/filled weight kg</td>
<td>152 / 366</td>
</tr>
</tbody>
</table>

### OUTDOOR UNIT

<table>
<thead>
<tr>
<th><strong>Dimensions</strong></th>
<th><strong>Weight</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise level**</td>
<td>dB(A)</td>
</tr>
<tr>
<td>Dimensions h x w x d mm</td>
<td>620×790×290</td>
</tr>
<tr>
<td>Operating weight kg</td>
<td>41</td>
</tr>
</tbody>
</table>

### REFRIGERANT CHARACTERISTICS

<table>
<thead>
<tr>
<th><strong>Min./max. length</strong></th>
<th><strong>Max. diff. in height</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>m</td>
<td>5 / 20</td>
</tr>
<tr>
<td>m</td>
<td>15</td>
</tr>
</tbody>
</table>

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**ErP**

**Outdoor Inverter unit**

**Alfea Extensa Duo + 5, 6 and 8**

**Outdoor Inverter unit**

**Alfea Extensa Duo + 10**

**Indoor hydraulic module**

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*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.

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**DIMENSIONS (MM)**

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ALFEEA EXTENSA DUO +

Installation schematics

ALFEEA EXTENSA 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

ALFEEA EXTENSA 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

ALFEEA EXTENSA DUO +: 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

* OR