

# Alfea Hybrid Duo Oil

Split air-to-water heat pump with built-in oil burner (heating + DHW)  
Hybrid heat pump solution for renovation projects



## BENEFITS

- Multi-energy solution for an optimum comfort even in conditions of very cold weather
- Possibility of remote piloting via Cozytouch application due to NAVISTEM 400S control system
- Energy savings due to new controls with energy input option
- 2 burners integrated: 23 kW and 29 kW

## DESCRIPTION

- Solution for renovation projects
- Flow temperature of up to 80°C
- 6 models from 6 to 14 kW with 23 kW burner
- 4 models from 11 to 14 kW with 29 kW burner
- Single-phase or three-phase models

## AVAILABLE OPTIONS

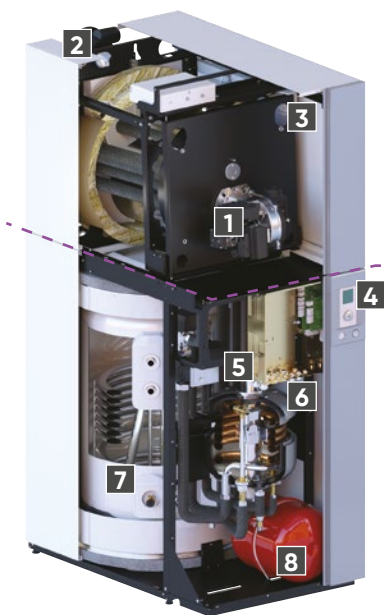
- 2 zones kit
- Room controller
- Boiler connection kit (optional)
- Cooling kit (optional)

**Practical trainings**  
that will help you save time and be more efficient.

**Tailor-Made Training Programs**



## INDOOR HYDRAULIC MODULE



### Condensing oil burner

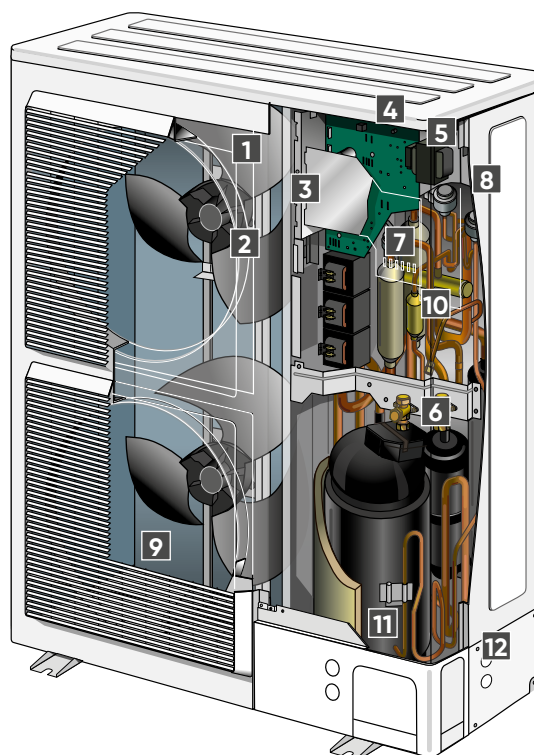
- 1 Oil burner
- 2 Chimney and room sealed models
- 3 Easy access to lifting bars

### Alfea heat pump

- 4 Navistem 400S regulator
- 5 Low consumption circulation pump
- 6 Patented coaxial heat exchanger
- 7 190 L storage tank with ACI anti-corrosive protection
- 8 Expansion vessel

## 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

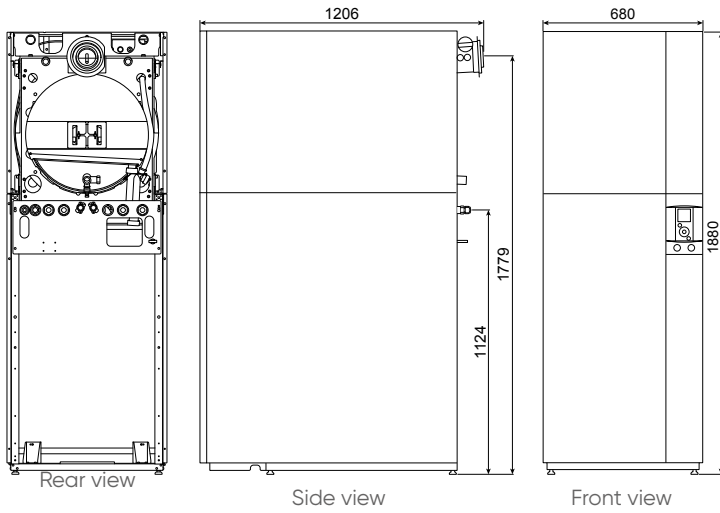
	UNIT	ALFEA HYBRID DUO OIL A.I. 6 – 23 KW	ALFEA HYBRID DUO OIL A.I. 8 – 23 KW	ALFEA HYBRID DUO OIL A.I. 11 – 23 KW	ALFEA HYBRID DUO OIL A.I. 14 – 23 KW
<b>REFRIGERANT</b>		R410A	R410A	R410A	R410A
<b>ENERGY EFFICIENCY CHARACTERISTICS – HEATING – AVERAGE CLIMAT</b>					
<b>Energy class - Heating (35°C / 55°C)</b>	-	<b>A++ / A+</b>	<b>A++ / A+</b>	<b>A++ / A+</b>	<b>A+ / A+</b>
Thermal power - heat pump (55°C)	kW	5 / 5	7 / 6	11 / 9	11 / 9
<b>Annual energy consumption - Heating (55°C)</b>	<b>kWh</b>	<b>2505 / 3180</b>	<b>3375 / 3886</b>	<b>6062 / 6623</b>	<b>6824 / 8041</b>
Seasonal energy efficiency - Heating (55°C)	%	169 / 115	156 / 118	151 / 112	148 / 113
Seasonal energy efficiency - Heating (55°C) with outdoor sensor	%	171 / 117	158 / 120	153 / 114	150 / 115
Sound power level (indoor/outdoor) <sup>(1)</sup>	dB(A)	48 / 63	48 / 69	48 / 69	48 / 69
<b>ENERGY EFFICIENCY CHARACTERISTICS – DHW – AVERAGE CLIMAT</b>					
Declared load profile	-	L	L	L	L
<b>Energy class - DHW</b>	-	<b>A+</b>	<b>A+</b>	<b>A</b>	<b>A</b>
Annual energy consumption - DHW	kWh	880	880	1166	1166
<b>Seasonal energy efficiency (%) - DHW</b>	<b>%</b>	<b>120</b>	<b>120</b>	<b>88</b>	<b>88</b>
<b>MAIN CHARACTERISTICS</b>					
<b>SCOP 35 °C / 55 °C</b>	<b>-</b>	<b>4.3 / 2.95</b>	<b>3.97 / 3,02</b>	<b>3.85 / 2.87</b>	<b>3.77 / 2.90</b>
Heating capacity +7°C/+35°C - Underfloor Heating	kW	6.00	7.50	10.80	13.50
COP +7°C/+35°C	-	4.26	4.08	4.25	4.18
Heating capacity -7°C/+35°C - Underfloor Heating	kW	4.60	5.70	10.38	11.54
COP -7°C /+35°C	-	2.64	2.56	2.40	2.27
Heating capacity +7°C/+45°C - Low T° radiators	kW	5.10	6.20	9.05	11.32
COP +7°C/+55°C	-	2.18	3.32	3.21	3.07
Heating capacity -7°C/+45°C - Low T° radiators	kW	4.45	5.05	9.16	11.41
COP -7°C/+45°C	-	2.18	2.04	2.00	1.93
Nominal thermal power of oil back-up	kW	23.00	23.00	23.00	23.00
<b>INDOOR HYDRAULIC MODULE</b>					
Noise level on Thermodynamic mode <sup>(2)</sup>	dB(A)	40	40	40	40
Dim. chimney version h x w x d	mm	1880x680x1206			
Dim. room sealed system version h x w x d	mm	1200x1710x1206			
Net weight/filled weight	kg	299/586	299/586	299/586	299/586
<b>HYDRAULIC CHARACTERISTICS</b>					
Combustion chamber capacity	L	63	63	63	63
Max working pressure	bar	3	3	3	3
Expansion vessel capacity	L	18	18	18	18
DHW tank capacity	L	190	190	190	190
<b>ELECTRICAL CONNECTIONS</b>					
Power supply	V/Hz	230 / 50	230 / 50	230 / 50	230 / 50
Standby mode consumption	W	0.15	0.15	0.15	0.15
<b>HYDRAULIC CONNECTIONS</b>					
Ø Heating circ. inlet and outlet	"/mm	1" / 26x34	1" / 26x34	1" / 26x34	1" / 26x34
Ø DHW circ. inlet and outlet (male thread)	"/mm	3/4" / 20x27	3/4" / 20x27	3/4" / 20x27	3/4" / 20x27
<b>CHIMNEY CONNECTION DEPENDING ON MODEL</b>					
Ø Chimney inlet and outlet	mm	80	80	80	80
Burner optimum depression	Pa	15	15	15	15
<b>ROOM SEALED SYSTEM CONNECTION DEPENDING ON MODEL</b>					
Ø Pipe	mm	80 / 125	80 / 125	80 / 125	80 / 125
<b>OPERATING RANGE</b>					
Min./max. hot/cold outdoor temperature (heat pump)	°C	-25/35	-25/35	-25/35	-25/35
Heating flow water max T°	°C	80	80	80	80
Max water T°(heat pump)	°C	60	60	60	60
<b>OUTDOOR UNIT</b>					
Noise level <sup>(2)</sup>	dB(A)	41	47	47	47
Operating weight	kg	41	42	92	92
<b>REFRIGERANT CHARACTERISTICS</b>					
R410A factory load	g	1100	1400	2500	2500
Quantity of refrigerant in tons of CO <sub>2</sub> equivalent	-	2.2957	2.9218	5.2175	5.2175
Min./max. length	m	5 / 30	5 / 30	5 / 20	5 / 20
Max. difference in height	m	20	20	15	15

(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

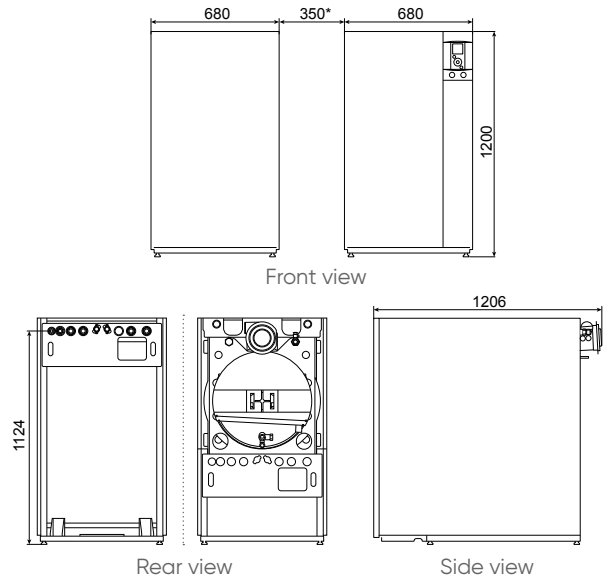
ALFEA HYBRID DUO OIL A.I. TRI 11 – 23 KW	ALFEA HYBRID DUO OIL A.I. TRI 14 – 23 KW	ALFEA HYBRID DUO OIL A.I. T1 – 29 KW	ALFEA HYBRID DUO OIL A.I. 14 – 29 KW	ALFEA HYBRID DUO OIL A.I. TRI 11 – 29 KW	ALFEA HYBRID DUO OIL A.I. TRI 14 – 29 KW
R410A	R410A	R410A	R410A	R410A	R410A
<b>A++ / A+</b>	<b>A++ / A+</b>	<b>A++ / A+</b>	<b>A+ / A+</b>	<b>A++ / A+</b>	<b>A++ / A+</b>
13 / 11	13 / 11	11 / 9	11 / 9	13 / 11	13 / 11
<b>5930 / 6669</b>	<b>6738 / 7803</b>	<b>6062 / 6623</b>	<b>6824 / 8041</b>	<b>5930 / 6669</b>	<b>6738 / 7803</b>
154 / 112	150 / 117	151 / 112	148 / 113	154 / 112	150 / 117
156 / 114	152 / 119	153 / 114	150 / 115	156 / 114	152 / 119
48 / 69	48 / 69	48 / 69	48 / 69	48 / 69	48 / 69
L	L	L	L	L	L
<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
1166	1166	1166	1166	1166	1166
<b>88</b>	<b>88</b>	<b>88</b>	<b>88</b>	<b>88</b>	<b>88</b>
<b>3,92 / 2,87</b>	<b>3,82 / 3,00</b>	<b>3,85 / 2,87</b>	<b>3,77 / 2,90</b>	<b>3,92 / 2,87</b>	<b>3,82 / 3,00</b>
10,80	13,00	10,80	13,50	10,80	13,00
4,30	4,18	4,25	4,18	4,30	4,18
10,38	12,20	10,38	11,54	10,38	12,20
2,43	2,38	2,40	2,27	2,43	2,38
9,90	12,10	9,05	11,32	9,90	12,10
3,32	3,20	3,21	3,07	3,32	3,20
9,98	10,70	9,16	11,41	9,98	10,70
2,16	2,08	2,00	1,93	2,16	2,08
23,00	23,00	29,00	29,00	29,00	29,00
40	40	40	40	40	40
1880x680x1206					
1200x1710x1206					
299/586	299/586	303/590	303/590	303/590	303/590
63	63	59	59	59	59
3	3	3	3	3	3
18	18	18	18	18	18
190	190	190	190	190	190
400 / 50	400 / 50	230 / 50	230 / 50	400 / 50	400 / 50
0,15	0,15	0,15	0,15	0,15	0,15
1" / 26x34	1" / 26x34	1" / 26x34	1" / 26x34	1" / 26x34	1" / 26x34
3/4" / 20x27	3/4" / 20x27	3/4" / 20x27	3/4" / 20x27	3/4" / 20x27	3/4" / 20x27
80	80	80	80	80	80
15	15	15	15	15	15
80 / 125	80 / 125	80 / 125	80 / 125	80 / 125	80 / 125
-25/35	-25/35	-25/35	-25/35	-25/35	-25/35
80	80	80	80	80	80
60	60	60	60	60	60
46	47	47	47	46	47
99	99	92	92	99	99
2500	2500	2500	2500	2500	2500
5,2175	5,2175	5,2175	5,2175	5,2175	5,2175
5 / 20	5 / 20	5 / 20	5 / 20	5 / 20	5 / 20
15	15	15	15	15	15

# INSTALLATION DIMENSIONS (mm)

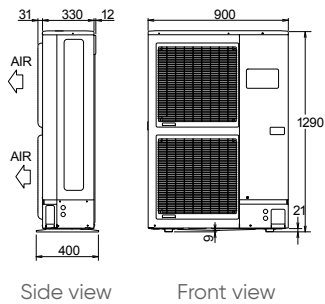
On-top indoor hydraulic module



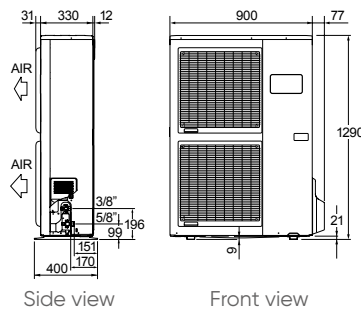
Side-by-side indoor hydraulic module



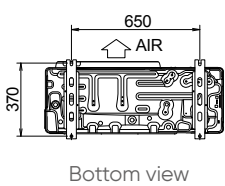
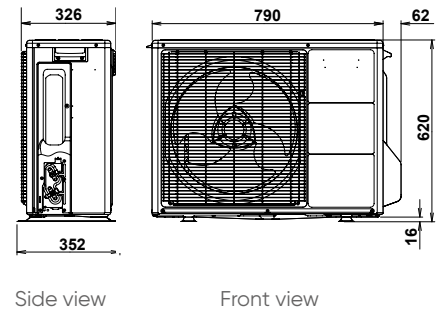
Outdoor Inverter unit Alfea Hybrid Duo Oil A.I. 11 and 14 single-phase



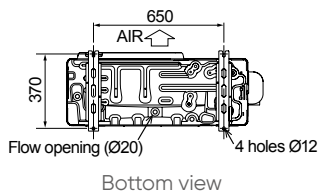
Outdoor Inverter unit Alfea Hybrid Duo Oil A.I. 11 and 14 three-phase



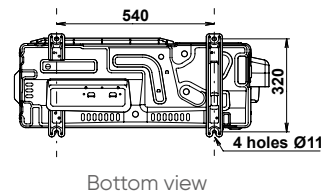
Outdoor Inverter unit Alfea Hybrid Duo Oil A.I. 6 and 8 single-phase



Bottom view



Bottom view

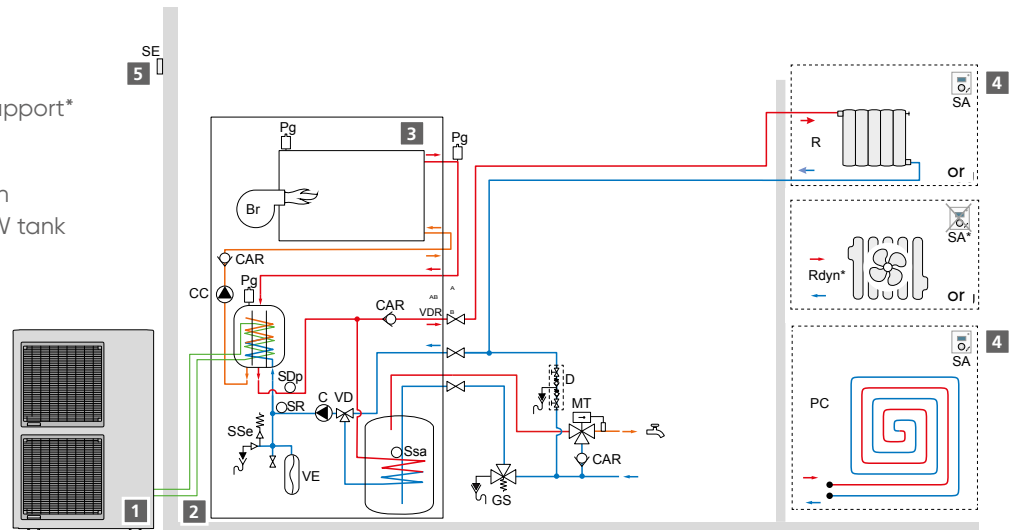


Bottom view

# INSTALLATION SCHEMATICS

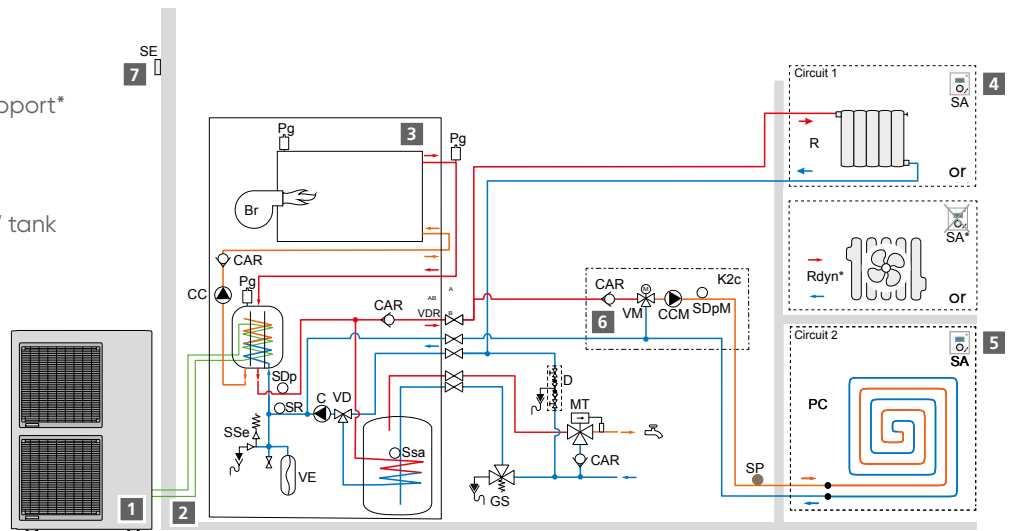
## ALFEA HYBRID DUO OIL A.I.: 1 HEATING ZONE

- 1 Outdoor Inverter unit with support\*
- 2 Refrigeration connections\*
- 3 Indoor hydraulic module with Low NOx oil burner and DHW tank
- 4 Room controller\*
- 5 Outdoor sensor



## ALFEA HYBRID DUO OIL A.I.: 2 HEATING ZONES

- 1 Outdoor Inverter unit with support\*
- 2 Refrigeration connections\*
- 3 Indoor hydraulic module with Low NOx oil burner and DHW tank
- 4 Room controller zone 1\*
- 5 Room controller zone 2\*
- 6 2 zones kit
- 7 Outdoor sensor



\*Optional