



ALFÉA EXTENSA +

- Six models: 5 to 16 kW single phase
- COP (coefficient of performance) up to 4.52
- Suitable for new build and renovation
- Possibility to manage 1 or 2 heating zones


more
thermal
comfort


less
energy
losses



Indoor hydraulic module



Outdoor inverter unit

Alféa Extensa +



LOW TEMPERATURE SOLUTION FOR TAILOR-MADE APPLICATIONS

COP to 4.52, Class A low consumption circulating pump, optional 1 or 2 zone(s) management, domestic hot water production, cooling option; Alféa Extensa + is the all-round low temperature solution in the Alféa range. Very easily adaptable and highly performant, its design and option range make it a benchmark in the heating sector!

WORKING
TEMPERATURE
RANGE DOWN TO
- 20 °C OUTDOOR

INVERTER HEAT
CONTROL
AND IMPROVED
HEAT EXCHANGER
FOR MORE ENERGY
SAVINGS

A SPLIT HEAT-PUMP FOR IMPROVED PERFORMANCES



Indoor hydraulic module



Outdoor inverter unit

CHARACTERISTICS

- Patented, coaxial heat exchanger and Class A low consumption circulating pump
- COP up to 4.52
- Working temperature down to - 20 °C
- Water curve control for 1 to 2 zone(s) management
- Easy to install: ergonomics of hydraulic module (fast access to all components)
- Complete programming functions included
- Possible to manage 1 hydraulic zone and 1 electric zone from the heat pump (option)

SUPPLIES

Inverter outdoor unit:

- Refrigerant circuit (R410A)
- Twin Rotary compressor (depending on model)
- Full Inverter control

Indoor module:

- Coaxial immersed exchanger in buffer tank
- Class A circulating pump
- Water curve control (ambient sensor as option)
- Outdoor sensor
- Expansion vessel, pressure meter, etc.
- Auxiliary electric back-up (optional)

INDOOR HYDRAULIC MODULE

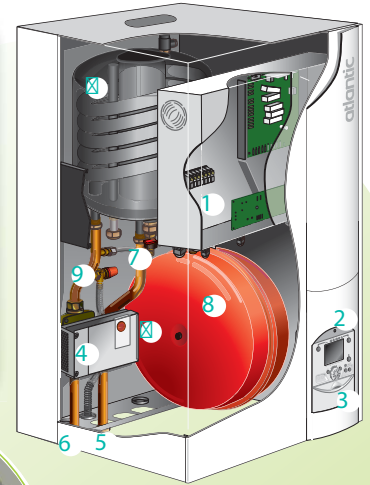
A dedicated hydraulic conception for improved performances

The Alféa range beneficiaries from a coaxial heat exchanger, a technology developed and patented by Atlantic to maximize the heat pump performance.

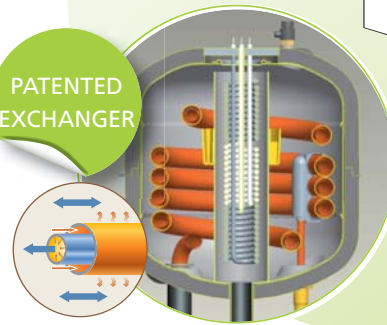
It provides the heat pump with the most advantages:

- Low heat losses
- Antifreeze is not necessary
- Not sensitive to loaded water
- Resistance to fouling
- Stainless steel buffer tank: no corrosion
- Built-in additional electrical backup (optional)
- Maintenance cover in the upper section of the buffer tank

- 1 Electrical cabinet
 - 2 User interface/controller
 - 3 Pressure gauge
 - 4 Class A circulating pump
 - 5 Heat circuit feeder
 - 6 Heat circuit return
 - 7 Refrigerant connections
 - 8 Expansion vessel
 - 9 Safety valve
- ☑ Condenser
 - ☑ Boiler connection kit (optional)



PATENTED EXCHANGER



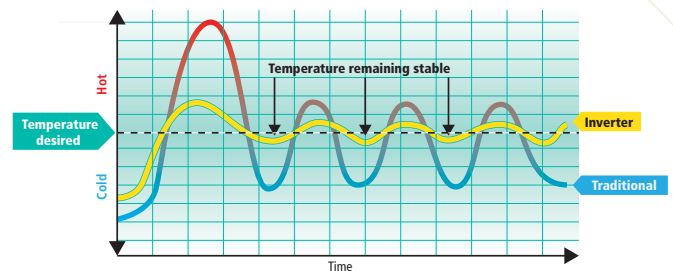
→ Refrigerant fluid
 ↔ Hot heating circuit

OUTDOOR INVERTER UNIT

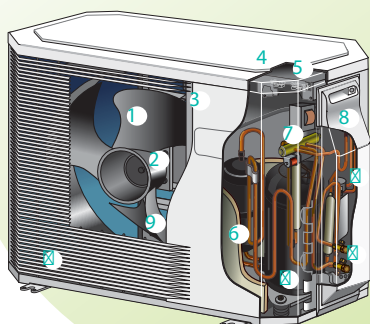
An optimized control to maximize savings

The inverter control adapts its power supply according to outside temperature in order to provide the exact amount of energy for a constant and economical heat. The inverter control allows savings up to 30% compared to a conventional regulation system.

Comparison between inverter and traditional heat control



Control: VPAM inverter



10 kW model

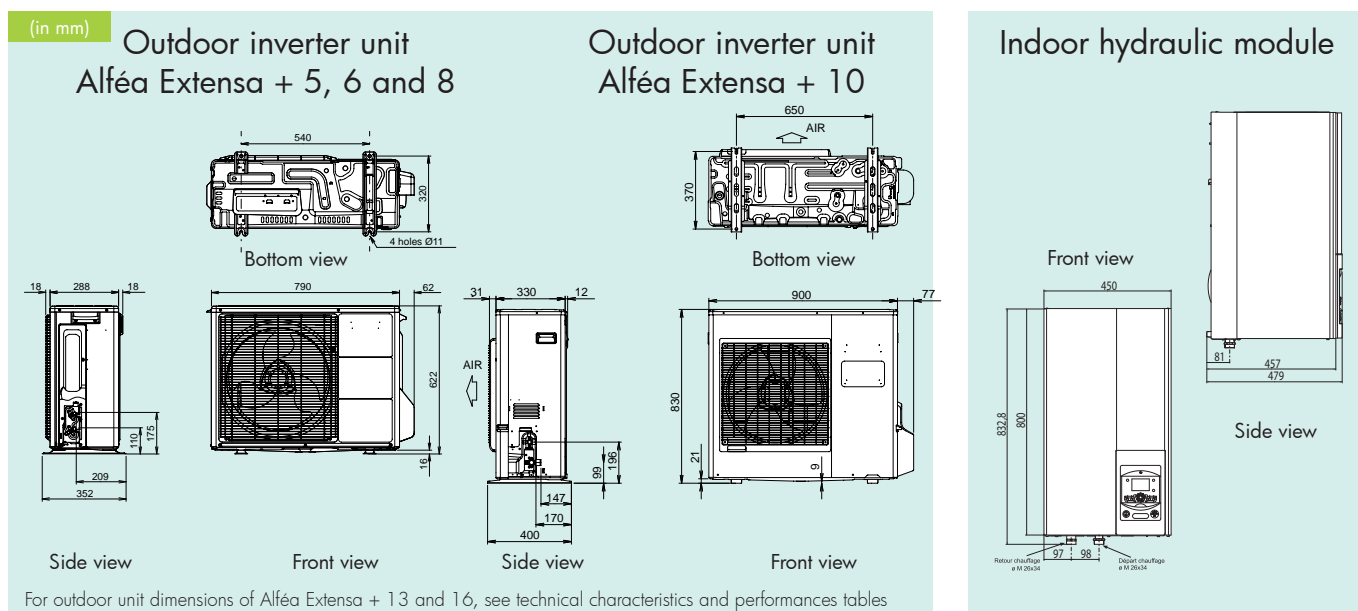
- 1 High-performance/low noise propeller
 - 2 "Inverter" variable speed electric motor
 - 3 "Inverter" control module
 - 4 Pump down button and control diode
 - 5 Connector terminals (power supply and interconnection)
 - 6 Refrigerant storage cylinder
 - 7 Cycle inversion valve
 - 8 Anti-corrosion treated metal cover
 - 9 High performance evaporator with optimized heat exchange surface; anti-corrosion hydrophilic aluminium vanes, grooved copper tubes
- ☑ Electronic expansion valve
 - ☑ Phonically and thermally insulated inverter scroll compressor
 - ☑ Refrigerating connection valves (flare connection) with protective cover
 - ☑ Condensate basin with drain

Technical characteristics and performances

	UNIT	ALFÉA	ALFÉA	ALFÉA	ALFÉA	ALFÉA	ALFÉA
		EXTENSA+5	EXTENSA+6	EXTENSA+8	EXTENSA+10	EXTENSA+13	EXTENSA+16
		R410A	R410A	R410A	R410A	R410A	R410A
MAIN CHARACTERISTICS							
Heating capacity +7°C/+35°C – Floor Heating	kW	4.500	6.000	7.500	10.000	12.860	16.060
Input power +7°C/+35°C – Floor Heating	kW	0.996	1.410	1.840	2.490	3.215	4.376
COP +7°C/+35°C – Floor Heating		4.52	4.26	4.08	4.02	4.00	3.67
Heating capacity -7°C/+35°C – Floor Heating	kW	4.100	4.600	5.700	7.400	9.450	12.930
Input power -7°C/+35°C – Floor Heating	kW	1.470	1.740	2.230	2.970	3.920	5.321
COP -7°C/+35°C – Floor Heating		2.79	2.64	2.56	2.49	2.41	2.43
Heating capacity +7°C/+45°C – Low T° radiators	kW	4.500	5.100	6.200	8.270	10.430	13.600
Input power +7°C/+45°C – Low T° radiators	kW	1.315	1.500	1.870	2.530	3.190	4.387
COP +7°C/+45°C – Low T° radiators		3.42	3.40	3.31	3.27	3.27	3.10
Heating capacity -7°C/+45°C – Low T° radiators	kW	4.100	4.450	5.050	7.400	9.250	11.200
Input power -7°C/+45°C – Low T° radiators	kW	1.860	2.040	2.470	3.700	4.380	5.220
COP -7°C/+45°C – Low T° radiator		2.20	2.18	2.04	2.00	2.11	2.15
Heating capacity +7°C/+55°C – Low T° radiators	kW	4.500	4.500	5.000	7.000	7.840	10.030
Input power +7°C/+55°C – Low T° radiators	kW	1.790	1.790	1.940	2.860	3.250	4.012
COP +7°C/+55°C – Low T° radiator		2.51	2.51	2.58	2.45	2.41	2.50
Heating capacity -7°C/+55°C – Low T° radiators	kW	3.700	3.850	5.200	7.000	7.290	8.650
Input power -7°C/+55°C – Low T° radiators	kW	2.200	2.330	3.340	4.150	4.450	5.200
COP -7°C/+55°C – Low T° radiator		1.68	1.65	1.56	1.69	1.64	1.66
Additional electric backup in option	kW	adjustable 3 or 6	adjustable 3 or 6	adjustable 3 or 6	adjustable 3 or 6	adjustable 3 or 6	adjustable 3 or 6
INDOOR HYDRAULIC MODULE							
Noise level*	dB(A)	39	39	39	39	39	39
Sound pressure according to EN 12102	dB(A)	46	46	46	46	46	46
Dimensions h x w x d	mm	800 x 450 x 480	800 x 450 x 480	800 x 450 x 480	800 x 450 x 480	800 x 450 x 480	800 x 450 x 480
Net weight/filled weight	kg	42 / 58	42 / 58	42 / 58	42 / 58	42 / 58	42 / 58
HYDRAULIC CHARACTERISTICS							
Buffer tank capacity	l	16	16	16	16	16	16
Expansion vessel capacity	l	8	8	8	8	8	8
Max T° departure PAC heating / DHW	°C	55	55	55	55	55	55
ELECTRICAL CONNECTIONS							
Power supply capacity		230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz
Standby power consumption	W	5	5	5	5	5	5
Fuse rating for electric backup (curve C)	A	16 if 3 kW 32 if 6 kW	16 if 3 kW 32 if 6 kW	16 if 3 kW 32 if 6 kW	16 if 3 kW 32 if 6 kW	16 if 3 kW 32 if 6 kW	16 if 3 kW 32 if 6 kW
Cable size power supply	mm ²	3G6	3G6	3G6	3G6	3G6	3G6
HYDRAULIC CONNECTIONS							
Ø Heating circ. inlet and outlet (male thread)	inch	1	1	1	1	1	1
OPERATING RANGE							
Min./Max. outdoor temperature for heating	°C	-20 / 35	-20 / 35	-20 / 35	-20 / 35	-20 / +35	-20 / +35
OUTDOOR UNIT							
Noise level**	dB(A)	38	38	41	42	42	43
Sound pressure according to EN 12102	dB(A)	63	63	69	69	69	70
Dimensions h x w x d	mm	622 x 790 x 290	622 x 790 x 290	622 x 790 x 290	830 x 900 x 330	1 290 x 970 x 400	1 290 x 970 x 400
Operating weight	kg	41	41	42	60	92	92
REFRIGERANT CHARACTERISTICS							
Gas pipe diameter	inch	1/2	1/2	5/8	5/8	5/8	5/8
Liquid pipe diameter	inch	1/4	1/4	1/4	3/8	3/8	3/8
Factory charge of HFC R410 A refrigerant	g	1 100	1 100	1 400	1 800	2 500	2 500
Min./max. length	m	5 / 20	5 / 20	5 / 20	5 / 20	5 / 20	5 / 20
Max. diff. in height	m	15	15	15	15	20	20
Max. length of connection piping	m	15	15	15	15	15	15
mass of gas by adding additional m	g	20	20	20	40	50	50
ELECTRICAL CONNECTIONS							
Power supply		230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz
Standby power consumption	W	5	5	5.5	6	7.5	7.5
Rated current	A	4.5	6.3	8.1	10.9	11.4	14.2
Maxi current	A	11.0	12.5	17.5	18.5	22	25
Circuit breaker rating curve D	A	16	16	25	25	32	32
Outside unit power supply cable	mm ²	3G1.5	3G1.5	3G2.5	3G2.5	3G6	3G6
Outside unit-Indoor module interconnection cables	mm ²	4G1.5	4G1.5	4G1.5	4G1.5	4G1.5	4G1.5

*sound pressure level at 1 m from the appliance, 1.5 m from the ground, free field, directivity 2. **sound pressure level at 5 m from the appliance, 1.5 m from the ground, free field, directivity 2.

Dimensions

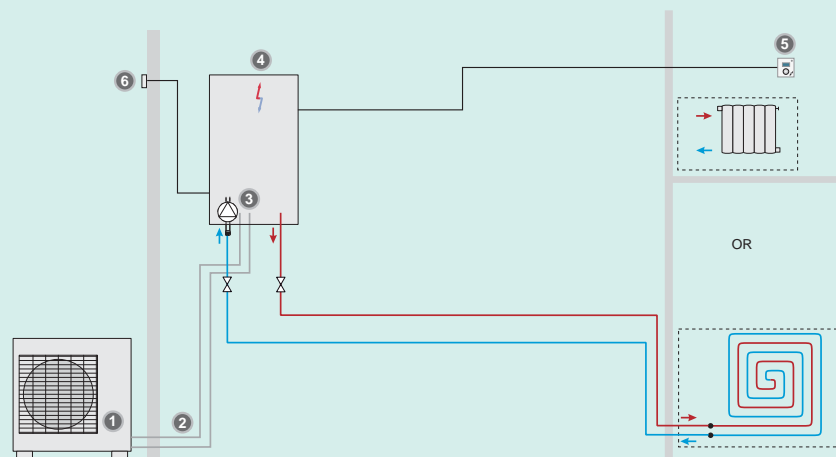


Alféa Extensa +

INSTALLATION SCHEMES

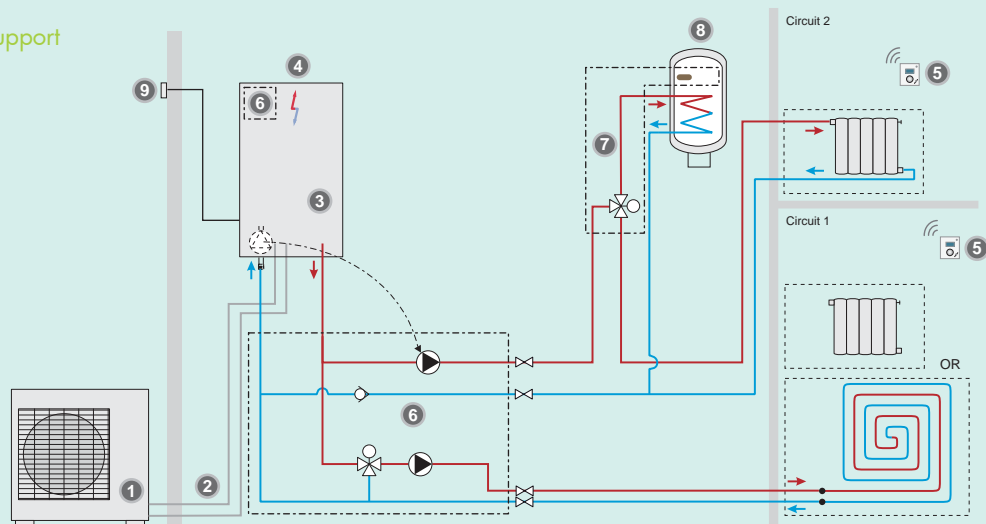
A - Alféa Extensa +: 1 heating zone

- ① Outdoor unit and ground support
- ② Refrigerant connections
- ③ Hydraulic module
- ④ Back up heater
- ⑤ Room control unit
- ⑥ Outdoor sensor



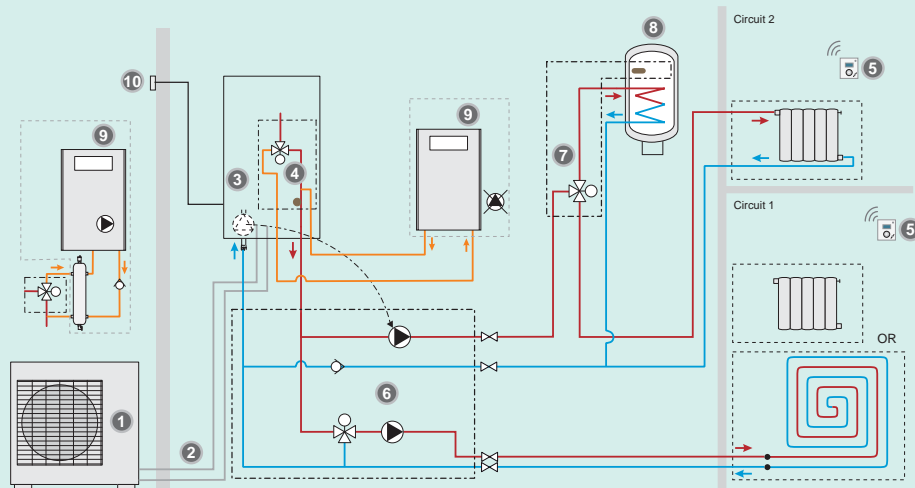
B - Alféa Extensa +: 2 heating zones + DHW production

- ① Outdoor unit and ground support
- ② Refrigerant connections
- ③ Hydraulic module
- ④ Back up heater
- ⑤ Room radio control unit
- ⑥ 2 zones kit
- ⑦ DHW kit
- ⑧ Water tank
- ⑨ Outdoor sensor



C - Alféa Extensa +: Boiler 2 heating zones + DHW production

- ① Outdoor unit and ground support
- ② Refrigerant connections
- ③ Hydraulic module
- ④ Boiler connection kit
- ⑤ Room radio control unit
- ⑥ 2 zones kit
- ⑦ DHW kit
- ⑧ Water tank
- ⑨ Boiler
- ⑩ Outdoor sensor

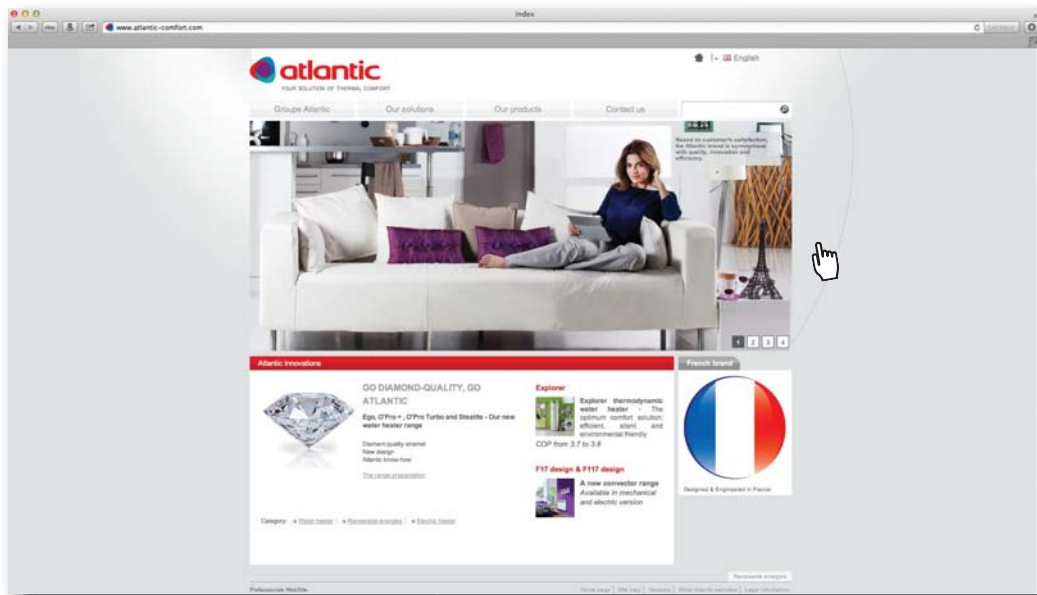


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